

work simply, quickly and safely.

Klauke cutting tools offer an impressively broad range of applications. No matter which material or cross sections you want to cut, Klauke tools ensure you



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# Cutting

Mechanical cutting tools	362	
Battery powered cutting tools	370	
Platform based on 10.8 V	371	
Platform based on 18 V	374	
Battery powered cutting tools	393	
Hand-operated hydraulic cutting tools	396	
Hydraulic cutting heads and cutting systems	399	
Hydraulic cutting heads	400	
Hydraulic cutting systems	404	
Safety cutting tools	406	
Special cutting tools	410	
DIN rail cutting tools	411	
Wiring duct cutter	412	
Cutting dies	412	

# PERFECT CUTTING - MECHANICAL CUTTING TOOLS

In use, every cut must sit straight away. Our mechanical cutting tools are prepared for your work. The ergonomic handle is there to assist you, because the first moment, the typical Klauke lever technology optimally transfers your force. Your cuts are precise, the tools are easy to use and durable thanks to high material quality. Good first impression.

#### In brief

- Cutting tools for aluminium and copper cables up to 100 mm diameter
- ▶ Simple working due to optimised force transmission
- ▶ Precise cuts with high-quality cutting blades
- ▶ Effortless operations thanks to ergonomic shape



### ▶ For everyday use

Klauke cutting tools are made from high-quality materials: "Made in Germany". Highly durable and are therefore best suited for daily use in workshops or on the construction site.

- Cutting tools for aluminium and copper cables up to 100 mm diameter
- Also available as fully-insulated tool to 1000 V to DIN EN 60900
- Re-adjustable cutters
- Effortless operations due to low weight
- Processing of high-quality materials



#### ▶ Powerful in every situation

- Compact and convenient size
- Practical single-handed operation with low effort
- Effective cutting performance up to Cu 12 mm dia.
- Reduced effort required due to different cutting profiles for large and small diameters

# ▶ Flexible in use

- Stepless telescopic handles permit optimum lever adjustment
- Cutting head can be replaced
- Well suited for fine-stranded conductors



# K 118 Hand-operated cutting tool for Al and Cu cables to 12 mm dia.



- Perfect in confined areas
- ► Handy shape with high cutting performance
- ▶ Exceptional cutting tool for solid, multi, fine and superfine stranded cables e.g. to DIN EN 60228, Class 1, 2, 5 and 6
- Increased user convenience thanks to two cutting profiles for small and large cable dimensions

#### Characteristics

One-hand operation

#### **Suitable for**

- For solid conductors, class 1, to 10 mm<sup>2</sup> (max. 4 mm dia.)
- Copper stranded conductors, class 2, to 16 mm<sup>2</sup> (max. 5 mm dia.)
- Aluminium stranded conductors, class 2, to 25 mm<sup>2</sup> (max. 10 mm dia.)
- Copper fine and superfine stranded conductors, class 5 and 6, to 50 mm<sup>2</sup> (max. 12 mm dia.)

Technical data		
Cutting range	max. 12 mm dia., e.g. 1 x 50 mm² H07VK	
Length	165 mm	
Weight	0.17 kg	
Item		Part No.
Hand-operated cutting tool for to	o 12 mm dia.	K118

# K 100 Hand-operated cutting tool for Al and Cu cables to 14 mm dia.



▶ Optimised cutting tool for fine and multi-stranded cables

#### **Characteristics**

- Compact design permits cutting in confined areas
- Two-hand operation

Technical data			
Cutting range	max. 14 mm dia., e.g. 1 x 50 mm <sup>2</sup>	max. 14 mm dia., e.g. 1 x 50 mm² H07VK	
Length	280 mm		
Weight	0.55 kg	0.55 kg	
Item		Part No.	
Hand-operated cutting	tool for Cu and Al cables to 14 mm dia.	K100	

#### K 102 Hand-operated cutting tool for to 25 mm dia.



- ▶ Optimised cutting tool for fine and superfine stranded Cu cables to DIN EN 60228, Cl. 5+6
- Adjustable pivot point

- Handle with slip guard and inscription panel
- With integrated opening spring
- Two-handed locking

Technical data			
Cutting range	max. 25 mm dia., e.g. 1 x 95 mm <sup>2</sup>	H07V-K	
Length	210 mm		
Weight	0.38 kg	0.38 kg	
Item		Part No.	
Hand-operated cutting tool	for to 25 mm dia.	K102	









# K 106/1 Hand-operated cutting tool for Al and Cu cables to 34 mm dia.





- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance
- ▶ For earth, plastic and rubber cables

#### **Characteristics**

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

Technical data		
Cutting range	max. 34 mm dia., e.g. 4 x 35 mm <sup>2</sup> NYY	
Length	260 mm	
Weight	0.6 kg	
Item		Part No.
Hand-operated cutting tool for	Cu and Al cables to 34 mm dia.	K1061

# K 106/2 Hand-operated cutting tool for Al and Cu cables to 62 mm dia.





- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance
- ► Cutting range to 62 mm
- ▶ For earth, plastic and rubber cables

#### **Characteristics**

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

Technical data			
Cutting range	e.g. 4 x 120 mm <sup>2</sup> NYY, max. 62 mr	e.g. 4 x 120 mm² NYY, max. 62 mm dia.	
Length	260 mm		
Weight	0.6 kg	0.6 kg	
Item		Part No.	
Hand-operated cutting tool for Cu and Al cables to 62 mm dia. <b>K1062</b>		K1062	

# K 103/1 Hand-operated cutting tool for Al and Cu cables to 60 mm dia.



- ▶ Energy-efficient 2-stage ratchet system
- ▶ For earth, plastic and rubber cables

#### **Characteristics**

Not suitable for cutting steel or steel wire

Technical data			
Cutting range	e.g. 4 x 240 mm² NAYY, max. 60 m	e.g. 4 x 240 mm² NAYY, max. 60 mm dia.	
Length	720 mm		
Weight	4.5 kg	4.5 kg	
Item		Part No.	
Hand-operated cutting	tool for Cu and Al cables to 60 mm dia.	K1031	
Hand-operated cutting	tool for Cu and Al cables to 60 mm dia.	K1031	

#### K 104/1 Hand-operated cutting tool for Al and Cu cables to 100 mm dia.



- ► Energy-efficient 2-stage ratchet system
- ► For earth, plastic and rubber cables
- Very wide cutting range up to 100 mm diameter

#### **Characteristics**

Not suitable for cutting steel or steel wire

Technical data		
Cutting range	e.g. 4 x 400 mm <sup>2</sup> NAYY, max. 100 mm dia.	
Length	870 mm	
Weight	5.7 kg	
Item		Part No.
Hand-operated cutting tool for (	Cu and Al cables to 100 mm dia.	K1041

### K 130 Hand-operated cutting tool for Al and Cu cables to 30 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- Large cutting range

#### **Characteristics**

- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

Technical data		
Cutting range	e.g. 4 x 35 mm <sup>2</sup> NYY, max. 30 mm dia.	
Length	570 mm	
Weight	1.7 kg	
Item		Part No.
Hand-operated cutting tool for	Cu and Al cables to 30 mm dia.	K130

#### K 230 Hand-operated cutting tool for Al and Cu cables to 30 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- Secure grip due to roughened handle
- ▶ 1000 V fully insulated to IEC 60900

#### **Characteristics**

Not suitable for cutting steel or steel wire

Technical data		
Cutting range	max. 30 mm dia., e.g. 4 x 35 mm <sup>2</sup> NYY	
Length	570 mm	
Weight	2.1 kg	
Item		Part No.
Hand-operated cutting tool for	Cu and Al cables to 30 mm dia.	K230

**₹** 1000 V









# K 250 Hand-operated cutting tool for Al and Cu cables to 50 mm dia.



 Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades

▶ 1000 V fully insulated to IEC 60900

#### **Characteristics**

- Two-hand operation
- Large cutting range
- Not suitable for cutting steel or steel wire

Technical data			
Cutting range	e.g. 4 x 120 mm² NYY, max. 50 m	e.g. 4 x 120 mm² NYY, max. 50 mm dia.	
Length	710 mm		
Weight	3.7 kg	3.7 kg	
Item		Part No.	
Hand-operated cutting tool for Cu and Al cables to 50 mm dia. <b>K250</b>		K250	

# € 1000V

# K 150 Hand-operated cutting tool for Al and Cu cables to 50 mm dia.



- Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Secure grip due to roughened handle

#### Characteristics

- Large cutting range
- Not suitable for cutting steel or steel wire

Technical data		
Cutting range	max. 50 mm dia., e.g. 4 x 120 mm <sup>2</sup> NYY	
Length	710 mm	
Weight	3 kg	
Item		Part No.
Hand-operated cutting tool for (	Cu and Al cables to 50 mm dia.	K150

# K 101/1 Hand-operated cutting tool for Al and Cu cables to 26 mm dia.



- ▶ Can be maintained on-site thanks to replaceable cutting heads
- ▶ Exceptional cutting performance even with fine-stranded conductors

- Two-hand operation
- Excellent leverage
- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

Technical data		
Cutting range	e.g. 4 x 25 mm² NYY, max. 26 mm dia	а.
Length	570 mm	
Weight	1.8 kg	
Item		Part No.
Hand-operated cutting to	ol for Cu and Al cables to 26 mm dia.	K1011
Accessories		Part No.
Replacement cutting hea	d	K1011E

#### K 105/1 Hand-operated cutting tool for Al and Cu cables to 26 mm with telescopic handles dia.



- ▶ Compact dimensions with extending telescopic handles for easier carrying
- ▶ High cutting performance
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5

#### **Characteristics**

- Two-hand operation
- Maintenance on-site due to replacement of cutting heads
- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

Technical data			
Cutting range	e.g. 4 x 25 mm² NYY, max. 26 mm o	dia.	
Length	Stepless 350 - 520 mm		
Weight	1.4 kg		
Item		Part No.	
Hand-operated cutting tool for Al length 350 - 520 mm continuous	•	K1051	
Accessories		Part No.	Page
Replacement cutting head		K1011E	

# K 201/1 Hand-operated cutting tool for Al and Cu cables to 26 mm dia., length 570 mm





- ▶ 1000 V fully insulated to IEC 60900
- ▶ High cutting performance
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5

- Two-hand operation
- Maintenance on-site due to replacement of cutting heads
- Not suitable for cutting steel or steel wire

Technical data				
Cutting range	max. 26 mm dia., e.g. 4 x 95 mm <sup>2</sup>	max. 26 mm dia., e.g. 4 x 95 mm <sup>2</sup> NYY		
Length	570 mm			
Weight	2 kg			
Item		Part No.		
Hand-operated cutting to length 570 mm	ol for Al and Cu cables to 26 mm dia.,	K2011		
Accessories		Part No.	Page	
Replacement cutting hea	d	K1011E		









# K 101/2 Hand-operated cutting tool for Al and Cu cables to 38 mm dia.



- Large cutting rangeTelescopic handles
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5
- ▶ Can be maintained on-site thanks to replaceable cutting heads

- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

Technical data			
Cutting range	max. 38 mm dia.		
Length	930 mm		
Weight	4.2 kg		
Item		Part No.	
Hand-operated cutting tool for C	u and Al cables to 38 mm dia.	K1012	
Accessories		Part No.	Page
Replacement cutting head		K1012E	

# THE LITTLE CUTTING EXPERT BATTERY-POWERED HYDRAULIC CUTTING TOOL (10.8 V)

The Klauke mini is lightweight yet powerful. The high-quality shears cut with an opening width of 32 mm, the bolt cutters with a 12 mm opening width. Its practical dimensions make it especially suitable for confined areas.



#### ▶ Pure performance without frills

The Klauke mini concentrates on its core task: reliable cutting. Even without pressure sensor and display, the little expert does its job well - no fuss or quibble.

#### ▶ Usage time at a glance

Read the charge level at any time directly from the powerful 10.8 V battery.

#### **▶** All-round cutting

Cutting in confined areas? No problem with these cutting heads, which rotate through 360°.





# EBS 8 ML / EBS 12 ML Battery powered hydraulic bolt cutter 8 mm dia. / 12 mm dia.





- ▶ For cutting cable channels, bolts and steel wire, medium-hard (e.g. ST 37)
- ▶ Slim cutting head ideal when space is critical
- ▶ Powerful 10.8 V Li-lon battery with charge status display

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data				
Cutting range	EBS8ML: max. 8 mm dia., EBS12ML: max. 12 mm dia.			
Cutting force	EBS8ML: 15 kN, EBS12ML: 45 kN	EBS8ML: 15 kN, EBS12ML: 45 kN		
Cutting time	EBS8ML: 2 s, EBS12ML: 4 s (depen	EBS8ML: 2 s, EBS12ML: 4 s (depending on material thickness)		
Number of cuts	ES8ML: 80 at silver steel 6 mm, EBS12ML: 105 at mild steel 10 mm	1		
Battery voltage	10.8 V			
Battery capacity	1.5 Ah, Li-lon			
Charging time	approx. 40 min.			
Weight incl. battery	EBS8ML: 1.2 kg, EBS12ML: 1.8 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No.		
Battery powered hydraulic bolt	cutting tool 8 mm dia.	EBS8ML		
Battery powered hydraulic bolt	cutting tool 12 mm dia.	EBS12ML		
Scope of supply		Part No.	Page	
Battery 10.8 V / 1.5 Ah, Li-lon (	16.2 Wh)	RAML1	493	
Charger for 10.8 V Li-lon batter	ies, 230 V	LGML1	495	
Plastic case		KKML		

# Cutting

# ES 20 ML Battery powered hydraulic cutting tool 20 mm dia.





- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- Extremely robust design and lightweight
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data				
Cutting range	Multi-stranded max. 20 mm dia. (de	epending on cable t	type)	
Cutting force	23 kN	23 kN		
Cutting time	4 s to 6 s (depending on material th	4 s to 6 s (depending on material thickness)		
Number of cuts	approx.160 for steel cable 8 mm			
Battery voltage	10.8 V			
Battery capacity	1.5 Ah, Li-lon			
Charging time	approx. 40 min.			
Weight incl. battery	1.6 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No.		
Battery powered hydraulic cuttir	ng tool 20 mm dia.	ES20ML		
Scope of supply		Part No.	Page	
Battery 10.8 V / 1.5 Ah, Li-lon (1	6.2 Wh)	RAML1	493	
Charger for 10.8 V Li-lon batterio	es, 230 V	LGML1	495	
Plastic case		KKML		









# ES 32 ML / ES 32 F ML Battery powered hydraulic cutting tools 32 mm dia.





- ▶ Cuts multi-stranded copper and aluminium cables (ES 32 ML)
- ▶ Cuts fine and superfine stranded copper cables (ES 32 F ML)
- ▶ Slim cutting head ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data			
Cutting range	max. 32 mm dia.		
Cutting force	15 kN		
Cutting time	8 s to 10 s (depending on material	thickness)	
Number of cuts	ES32ML: approx. 90 at 150 mm <sup>2</sup> N ES32FML: approx. 120 at H07V-K 1	,	
Battery voltage	10.8 V		
Battery capacity	1.5 Ah, Li-lon		
Charging time	approx. 40 min.		
Weight incl. battery	1.8 kg		
Ambient temperature	-10 °C up to +40 °C		
Item		Part No.	
Battery powered hydraulic cutti	ng tool 32 mm dia.	ES32ML	
Battery powered hydraulic cutti superfine-stranded	ng tool 32 mm dia.,	ES32FML	
Scope of supply		Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-lon (1	16.2 Wh)	RAML1	493
Charger for 10.8 V Li-lon batteri	es, 230 V	LGML1	495
Plastic case		KKML	

# THE NEW STANDARD KLAUKE NEXT GENERATION CUTTING TOOLS

Aspire to the new standard: Battery-powered hydraulic cutting tools from Klauke offer impressive power and durability. The tools effortlessly cut cross-sections up to 105mm, with open cutting head for better accessibility or closed cutting head for improved force transmission. Improved ergonomics with optimised centre of gravity makes work more convenient and faster. Also through the time-saving opening mechanism.



# In brief

- ► Freely-selectable battery platform: with Bosch or
- ▶ Proof of quality can be created via Bluetooth
- ► Ensure tool availability: Read the tool properties from the display or via the app
- Effortless operations thanks to modern, ergonomic design

Interested in Klauke Next Generation tools? Then take a look at our Multi universal tool on Page 472 >>



### ▶ Making work easier

Klauke cutting tools guarantee effortless operations: The "mini" impresses through its low weight and the pistol shape ensures a balanced centre of gravity

- Our compact "mini" is just perfect for confined areas
- The 2-stage hydraulic system allows you to work quickly thanks to fast feed and power stroke
- Save time with the innovative opening mechanism of the cutters. They open immediately after every cut.
- Extremely impressive and reliable: The one-button control concept for all tools





#### ▶ Latest developments for your everyday work

Mini design - Pure cutting force: The ESGM45 and the ESM50 impress all along the line and for every application

- Cutting made simple thanks to a new, improved cutter geometry
- Burr-free cutting of wire mesh cable trays without any rework whatsoever thanks to the new wire mesh cable tray cutter

#### ▶ i-press app

Use the i-press app to check and control your tool data on the go. Individual tool settings, such as the double-click function for increased user safety, help make your day-to-day work simpler and more reliable - just as you need it.

# The i-press app can be found at:

www.klauke.com/en/support/download/connectivity-werkzeugdaten-auslesen/





# EBS 6 L GKS Battery powered hydraulic cable tray cutter 6 mm dia.







- ▶ No follow-up work required thanks to burr-free cutting
- ▶ Fast and efficient operations: The cut is made in less than 1 second
- Maintenance required only after 20.000 cuts (renew hydraulic shock absorber system)
- ▶ Always cut ready due to autonomous replaceable blades

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Powerful 18 V Li-lon battery high capacity, short charging time
- High-performance motor for maximum operating speed
- Energy saving function with motor cut-out after successful operation
- Quick motor stop for high user safety
- Simple and safe: Automatic retraction when operation is complete
- Manual retract as required
- Multifunction LED for maintenance display and charge status display of the battery
- Environmentally-friendly hydraulic oil, quickly biodegradable

Technical data			
Cutting range	max. 6 mm (VA)		
Cutting force	24 kN		
Cutting time	<1s		
Number of cuts	approx. 300 at 6 mm VA, 360 at gri	d channel 5 mm	
Battery voltage	18 V		
Battery capacity	1.5 Ah		
Charging time	15 min.		
Weight incl. battery	1.9 kg		
Ambient temperature	-10 °C up to +40 °C		
Item		Part No.	
		i dit ivo.	
Battery powered hydraulic cable	e tray cutter 6 mm dia.	EBS6LGKS	
Battery powered hydraulic cable Scope of supply	e tray cutter 6 mm dia.		Page
3.	•	EBS6LGKS	Page 491
Scope of supply	lon	EBS6LGKS Part No.	Ū
Scope of supply Makita battery 18 V / 1.5 Ah, Li-	lon	EBS6LGKS Part No. RAL1	491
Scope of supply Makita battery 18 V / 1.5 Ah, Li- Makita quick-charger for 18 V L	lon	Part No. RAL1 LGL1	491
Scope of supply Makita battery 18 V / 1.5 Ah, Li- Makita quick-charger for 18 V L Plastic case	lon i-lon battery	Part No. RAL1 LGL1 KK50L	491 494
Scope of supply Makita battery 18 V / 1.5 Ah, Li- Makita quick-charger for 18 V L Plastic case Accessories	lon i-lon battery lon (54 Wh)	Part No. RAL1 LGL1 KK50L Part No.	491 494 Page









# EBS 8 Battery powered hydraulic bolt cutter 8 mm dia.







- ▶ For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Narrow crimping head Ideal in confined areas
- ▶ All tool data in view thanks to display and ipress app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Cable trays, bolts, medium-hard steel wire

max. 8 mm dia.
15 kN
1 s (depending on material thickness)
15 min.
1.65 kg
-10 °C up to +40 °C

7 motoric temperature 10 o up to 110 o			
Item	Part-No. <b>Bosch</b>	Part-No. Makita	
Battery powered hydraulic bolt cutting tool 8 mm dia.	EBS8CFB	EBS8CFM	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-lon		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491

# EBS 12 Battery powered hydraulic bolt cutter 12 mm dia.







- For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Slim cutting head ideal when space is critical
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

· Cable trays, bolts, medium-hard steel wire

Technical data				
Toomingar data	max. 12 mm dia.			
Cutting range	max. 12 mm dia.			
Cutting force	45 kN			
Cutting time	2 s (depending on cabl	e size)		
Charging time	15 min.			
Weight incl. battery	2.1 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic bolt of	cutting tool 12 mm dia.	EBS12CFB	EBS12CFM	
Scope of supply				Page
Bosch battery 18 V / 2.0 Ah, Li-lo	on	RALB1EU		492
Bosch quick-charger for 18 V Li-	lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-	lon		RAL1	491
Makita quick-charger for 18 V Li	-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mr	n	KK50NG	KK50NG	
Accessories				Page
Bosch battery 18 V / 5.0 Ah, Li-lo	on	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-	on (54 Wh)		RAL2	491









# ES 20 Battery powered hydraulic cutting tool 20 mm dia.









- ► For cutting AI/St conductors (ACSR) to DIN EN 50182, solid AI/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head ideal when space is critical
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Technical data

- Al/St wire (ACSR)

Cutting range	max. 18 mm dia. (depe	nding on cable ty	ype)	
Cutting force	23 kN			
Cutting time	2 s to 4 s (depending o	n cable type)		
Charging time	15 min.			
Weight incl. battery	2.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cuttir	ng tool 20 mm dia.	ES20CFB	ES20CFM	
Scope of supply				Page
Bosch battery 18 V / 2.0 Ah, Li-le	on	RALB1EU		492
Bosch quick-charger for 18 V Li-	lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-	lon		RAL1	491
Makita quick-charger for 18 V Li	-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mr	n	KK50NG	KK50NG	
Accessories				Page
Bosch battery 18 V / 5.0 Ah, Li-le	on	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-	lon (54 Wh)		RAL2	491

# ESG 25 Battery powered hydraulic cutting tool 25 mm dia.







- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and fine-stranded copper cables
- ▶ High-performance cutting characteristics for highly-flexible conductors and wire cables
- ▶ Extremely robust design and lightweight
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

- Al/St wire (ACSR), Cu, Al, St and armoured cables, construction steel, fine-stranded copper cable

o on an accordance				
Technical data				
Head type	Guillotine closed			
Cutting range	max. 25 mm dia.			
Cutting force	60 kN			
Cutting time	Depending on material			
Charging time	15 min.			
Weight incl. battery	2.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutti	ng tool 25 mm dia.	ESG25CFB	ESG25CFM	
Coope of supply				Dana

Battery powered hydraulic cutting tool 25 mm dia.	ESG25CFB	ESG25CFM	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-lon	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-lon		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491







# ES 32 Battery powered hydraulic cutting tool 32 mm dia.







- ▶ Slim cutting head ideal when space is critical
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Stranded Cu and Al cables

Technical data				
Head type	Cutter open			
Cutting range	max. 32 mm dia.			
Cutting force	15 kN			
Cutting time	8 s to 10 s (depending	on cable type)		
Charging time	15 min.			
Weight incl. battery	2.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutt	ing tool 32 mm dia.	ES32CFB	ES32CFM	
Scope of supply				Page

Item	Part No. Bosch	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 32 mm dia.	ES32CFB	ES32CFM	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-lon	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491



# ES 32 F Battery powered hydraulic cutting tool 32 mm dia. for fine and superfine stranded copper cable







**Characteristics** 

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity

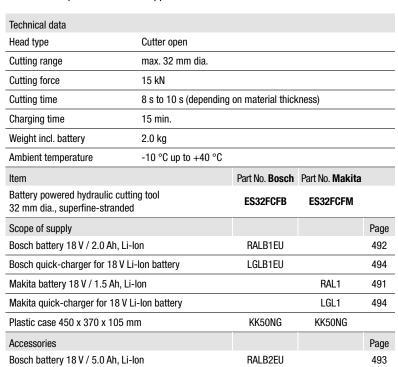
Cuts fine and superfine stranded copper cables ▶ Slim cutting head - ideal when space is critical

- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

· Fine and superfine stranded copper cables

Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)











RAL2

491



# ESGM 45 Battery powered hydraulic cutting tool 45 mm dia.







- ► For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and fine-stranded copper cables
- ▶ High-performance cutting characteristics for highly-flexible conductors and wire cables
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations

#### **Suitable for**

- Cu and Al cables, Al/St wires (ACSR)

Technical data				
Head type	Guillotine closed			
Cutting range	max. 45 mm dia.			
Cutting force	70 kN			
Cutting time	8 s to 10 s (depending	on material thick	ness)	
Charging time	15 min.			
Weight incl. battery	4.6 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cuttin	g tool 45 mm dia.	ESGM45CFB	ESGM45CFM	
Scope of supply				Page
Bosch battery 18 V / 2.0 Ah, Li-lo	on	RALB1EU		492
Bosch quick-charger for 18 V Li-	lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-I	on		RAL1	491
Makita quick-charger for 18 V Li	-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mr	n	KKESGM45NG	KKESGM45NG	
Accessories				Page
Bosch battery 18 V / 5.0 Ah, Li-lo	on	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-I	on (54 Wh)		RAL2	491

# ESG 45 Battery powered hydraulic cutting tool 45 mm dia.







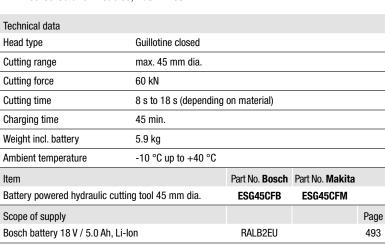
- Also suitable for round material made of Al, Cu and steel
- Extremely robust design and lightweight
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ Alle Werkzeugdaten im Blick dank Display und ipress App

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

Armoured Cu and Al cables, Al/St wires



Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492









# ESM 50 Battery powered hydraulic cutting tool 50 mm dia. for copper and aluminium cable





- ► For cutting copper and aluminium cables (fine-stranded also)
- ▶ Very high cutting capacity thanks to innovative cutting geometry
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

- Cu and Al cables (multi and fine stranded) even armoured cable

Technical data				
Head type	Cutter open			
Cutting range	max. 50 mm dia.			
Cutting force	38 kN			
Cutting time	8 s up to 10 s (dependi	ng on material th	nickness)	
Charging time	15 min.			
Weight incl. battery	3.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. <b>Makita</b>	
Battery powered hydraulic cuttin	g tool 50 mm dia.	ESM50CFB	ESM50CFM	
Scope of supply				Page
Bosch battery 18 V / 2.0 Ah, Li-lo	on	RALB1EU		492
Bosch quick-charger for 18 V Li-	lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-I	on		RAL1	491
Makita quick-charger for 18 V Li	-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mr	n	KK50NG	KK50NG	
Accessories				Page
Bosch battery 18 V / 5.0 Ah, Li-lo	on	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-I	on (54 Wh)		RAL2	491

# ESG 50 Battery powered hydraulic cutting tool 48 mm dia.







- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ► Low weight for effortless operations
- ▶ Saves time thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and ipress app

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

- lightly armoured Cu and Al cables

Technical data				
Head type	Guillotine closed			
Cutting range	max. 48 mm dia.			
Cutting force	60 kN			
Cutting time	8 s to 20 s (depending	on material thick	iness)	
Charging time	45 min.			
Weight incl. battery	4.9 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting	ng tool 48 mm dia.	ESG50CFB	ESG50CFM	
Battery powered hydraulic cutting Scope of supply	ng tool 48 mm dia.	ESG50CFB	ESG50CFM	Page
		ESG50CFB RALB1EU	ESG50CFM	Page 492
Scope of supply	on		ESG50CFM	
Scope of supply Bosch battery 18 V / 5.0 Ah, Li-I	on -lon battery	RALB1EU	ESG50CFM	492
Scope of supply Bosch battery 18 V / 5.0 Ah, Li-I Bosch quick-charger for 18 V Li	on -lon battery lon	RALB1EU		492 494
Scope of supply Bosch battery 18 V / 5.0 Ah, Li-I Bosch quick-charger for 18 V Li Makita battery 18 V / 4.0 Ah, Li-	on -lon battery lon i-lon battery	RALB1EU	RAL1	492 494 491
Scope of supply Bosch battery 18 V / 5.0 Ah, Li-I Bosch quick-charger for 18 V Li Makita battery 18 V / 4.0 Ah, Li-I Makita quick-charger for 18 V L	on -lon battery lon i-lon battery	RALB1EU LGLB1EU	RAL1 LGL1	492 494 491









# ESG 55 Battery powered hydraulic cutting tool 55 mm dia.







- High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Armoured Cu and Al cables. Al/St wires

- Almouleu cu anu Al Cables, Al/St Wiles				
Technical data				
Head type	Guillotine closed			
Cutting range	max. 55 mm dia.			
Cutting force	120 kN			
Cutting time	10 s to 19 s (dependin	g on material thic	kness)	
Charging time	45 min.			
Weight incl. battery	8.2 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic co	utting tool 55 mm dia.	ESG55CFB	ESG55CFM	
Scope of supply				Page
Decembed to W/FOAh	I : Inn	DALDOELL		400

Item Battery powered hydraulic cutting tool 55 mm dia.	Part No. Bosch ESG55CFB	Part No. Makita ESG55CFM	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492

# ES 65 Battery powered hydraulic cutting tool 65 mm dia.







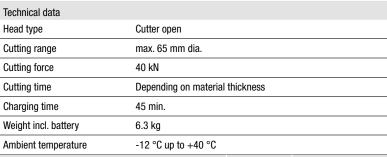
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- All data can be easily read via Bluetooth
- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Cu/Al cable



Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 65 mm dia.	ES65CFB	ES65CFM	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492









# ESG 85 Battery powered hydraulic cutting tool 85 mm dia.







- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- All tool data in view thanks to display and ipress app

#### **Characteristics**

- · Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Larger cutting area, optimum force transmission due to closed head shape
- Simple and safe: One-button operating concept for controlling all tool functions
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

Accessories

Bosch battery 18 V / 5.0 Ah, Li-lon

Makita battery 18 V / 4.0 Ah, Li-lon

lightly armoured Cu and Al cables

Technical data				
Head type	Guillotine closed			
Cutting range	max. 85 mm dia.			
Cutting force	60 kN			
Cutting time	Depending on material	thickness		
Charging time	45 min.			
Weight incl. battery	6.8 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic	cutting tool 85 mm dia.	ESG85CFB	ESG85CFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah	, Li-lon	RALB2EU		493
Bosch quick-charger for 18	V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah	ı, Li-lon		RAL40	492
Makita quick-charger for 18	3 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 10	05 mm	KK120NG	KK120NG	

RALB2EU



Page

493

492

RAL40

# ES 85 Battery powered hydraulic cutting tool 85 mm dia.







- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

- Cu and Al cable

Technical data				
Head type	Cutter open			
Cutting range	max. 85 mm dia.			
Cutting force	30 kN			
Cutting time	Depending on material	thickness		
Charging time	45 min.			
Weight incl. battery	7.2 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 85 mm dia.		ES85CFB	ES85CFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-	lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery		LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-lon			RAL40	492
Makita quick-charger for 18 V Li-lon battery			LGL1	494
Plastic case 450 x 370 x 105 mm		KK120NG	KK120NG	
Accessories				Page
7.0000001100				i ago
Bosch battery 18 V / 5.0 Ah, Li-	lon	RALB2EU		493







# ESG 105 Battery powered hydraulic cutting tool 105 mm dia.





- ▶ Cuts copper and aluminium cables with armouring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.
- ▶ Remarkably lightweight for tools in this performance class
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- · Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

lightly armoured Cu and Al cables

- lightly armoured od and Ar capies					
Technical data					
Head type	Guillotine closed				
Cutting range	max. 105 mm dia.				
Cutting force	120 kN				
Cutting time	Depending on cable ty	pe			
Charging time	45 min.				
Weight incl. battery	10.7 kg				
Ambient temperature	-10 °C up to +40 °C				
Item		Part No. Bosch	Part No. Makita		
Battery powered hydraulic cutting tool 105 mm dia.		ESG105CFB	ESG105CFM		
Scope of supply				Page	
Rosch hattery 18 V / 5 0 Ah   Li-lon		RAI ROFII		403	

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 105 mm dia.	ESG105CFB	ESG105CFM	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita quick-charger for 18 V Li-lon battery		RAL40	492
Plastic case 450 x 370 x 105 mm		LGL1	494
Makita battery 18 V / 4.0 Ah, Li-lon	MK105NG	MK105NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492



# ES 105 Battery powered hydraulic cutting tool 105 mm dia.







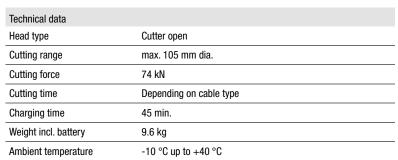
- ▶ Cuts copper and aluminium cables with lightweight steel armouring and fine-stranded conductors (depending on cable type)
- ▶ Extremely large cutting area to 105 mm dia.
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cable



Item	Part No. Bosch	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 105 mm dia.	ES105CFB	ES105CFM	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Plastic case 450 x 370 x 105 mm	MK105NG	MK105NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40	492









# EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>













- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app
- ▶ Small and slim, perfect for cramped conditions

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

on page 170					
Technical data					
Crimping force	60 kN				
Stroke	42 mm				
Crimping range	6 - 300 mm²				
Crimping cycle	7 s up to 9 s (depending	7 s up to 9 s (depending on cross-section)			
Cutting range	max. 40 mm dia.				
Punching capacity	up to 64 mm dia. round	up to 64 mm dia. round, up to 92 x 92 mm square			
Charging time	15 min.				
Weight	3.0 kg				
Ambient temperature	-10 °C up to +40 °C				
Item		Part No. Bosch	Part No. <b>Makita</b>		
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>		EKM60UNVCFB	EKM60UNVCFM		
Scope of supply			Page		
Bosch battery 18 V / 2.0 Ah	, Li-lon	RALB1EU	492		
Bosch quick charger for 19	VI i Ion hattory	I CI R1EII	404		

Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	EKM60UNVCFB	EKM60UNVCFM	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-lon	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-lon		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491



# EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

















- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ► Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	60 kN			
Stroke	42 mm			
Crimping range	6 - 300 mm²			
Crimping cycle	3 s to 5 s (depending o	n cross-section)		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 64 mm dia. round	t		
Charging time	45 min.			
Weight	4.8 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>		EK60UNVCFB	EK60UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-lon		RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery		LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-lon			RAL40	492
Makita quick-charger for 18 V Li-lon battery			LGL1	494
Plastic case 450 x 370 x 105 mm		UA22	UA22	478
Adapter for crimping dies of Ser	ies 22	KK120UNVNG	KK120UNVNG	









# EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>











- ▶ One head for crimping, cutting and punching one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app

#### **Characteristics**

- · Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	108 kN			
Stroke	42 mm			
Crimping range	10 - 400 mm²			
Crimping cycle	Depending on cable typ	ре		
Cutting range	max. 40 mm dia.	max. 40 mm dia.		
Punching capacity	up to 144 mm dia. rour	up to 144 mm dia. round, up to 138 x 138 mm square		
Charging time	45 min.	45 min.		
Weight	6.5 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>		EK120UNVCFB	EK120UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-lon		RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery		LGLB1EU		494
Plastic case 450 x 370 x 105 mm		KK120UNVNG	KK120UNVNG	
Adapter for crimping dies		UA12TKL	UA12TKL	478

### ALWAYS IN POSITION -2 STAGES FOR MORE POWER

We promise you: Our cutting tools are powerful. The 2-stage hydraulic system uses its power to the full, the automatic retraction returns the cutter to the original position once the cut is made. Made from aluminium, it feels light in the hand.

As we said: a powerful tool!



#### ▶ Comfortable all day long

Numerous cuts in succession are tiring. With the handoperated hydraulic cutting tools, the housing and pump lever are therefore made from aluminium. The pump lever is in exactly the correct position, and so the pump movement requires only a small space - compared to a mechanical tool. Work better with the convenience of Klauke.

- Effortless operations due to the ergonomic design and low weight
- Work faster with the innovative 2-stage hydraulic system for fast feed and power stroke with counter pressure

#### **▶** Adapts

All hand-operated hydraulic cutting tools have press heads that rotate through 360°. So you can work even in confined areas with flexible settings.

- Rotating heads for work in confined areas
- Extremely robust cutting heads

#### ▶ Save yourself the return stroke

Your force acts in just one direction: Forwards. When the cutting process is complete, the cutting blades retract into the home position via the automatic retraction function. You save on the return path.

- Automatic retraction returns the cutting blades to the home position after the cut is made
- More reliability and shorter intervals between cutting processes
- Can be used up to a diameter of 85 mm
- Cutting force up to 120 kN
- Bolt locking of cutting blade



#### HSG 45 Hand-operated hydraulic cutting tool 45 mm dia.



- ▶ Cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- **▶** Extremely sturdy design

#### **Characteristics**

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data			
Cutting range	max. 45 mm dia.		
Cutting force	60 kN		
Length	560 mm		
Weight	4.9 kg		
Ambient temperature	-20 °C up to +40 °C		
Item		Part No.	
Hand-operated hydraulic cutting	tool 45 mm dia.	HSG45	
Scope of supply		Part No.	Page
Steel carrying case for HSG 45 of	or HSG 50	MK50	

#### HSG 50 Hand-operated hydraulic cutting tool 48 mm dia.



- Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Effortless operations thanks to low weight

- Closed head, flip top style, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data			
Cutting range	max. 48 mm dia.		
Cutting force	60 kN		
Length	540 mm		
Weight	3.5 kg		
Ambient temperature	-20 °C up to +40 °C		
Item		Part No.	
Hand-operated hydraulic cutting	tool 48 mm dia.	HSG50	
Scope of supply		Part No.	Page
Steel carrying case for HSG 45 of	or HSG 50	MK50	

#### Cutting

#### HSG 55 Hand-operated hydraulic cutting tool 55 mm dia.



- Cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Maximum performance thanks to 120 kN cutting force

#### **Characteristics**

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data			
Cutting range	max. 55 mm dia.		
Cutting force	120 kN		
Length	approx. 605 mm		
Weight	7.3 kg		
Ambient temperature	-20 °C up to +40 °C		
Item		Part No.	
Hand-operated hydraulic cutting	tool 55 mm dia.	HSG55	
Scope of supply		Part No.	Page
Steel carrying case for HSG 55		MKHSG55	

#### HSG 85/2 Hand-operated hydraulic cutting tool 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- Large cutting range
- ▶ High user safety owed to cutting head with bolt interlock

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data			
Cutting range	max. 85 mm dia.		
Cutting force	60 kN		
Length	approx. 677 mm		
Weight	5.9 kg		
Ambient temperature	-20 °C up to +40 °C		
Item		Part No.	
Hand-operated hydraulic cu	tting tool 85 mm dia.	HSG852	
Scope of supply		Part No.	Page
Steel carrying case for HSG	85	MK852	









## **EXPAND YOUR APPLICATIONS**

The correct cutting head creates a host of potentials. Get your pump ready for every application. Klauke cutting heads can be flexibly combined with Klauke system pumps (see page 481) to offer you an individual solution for every challenge.



#### Improved cutting using the right cutting heads.

		D	esign				Applic	ation		
Tool		Open head	Closed head	Opening width	Cutting force kN	Cu / Al*	AI / St (ACSR)	Cu / Al, solid	Steel,	Feature
SDG 45	Q		•	45	60	~	~	•	~	Especially for Al/St wires to 45 mm dia. and St, solid.
SDG 50	Y		V	48	60	~				For multi-stranded Al and Cu cables.
SDG 55	9,		V	55	120	•	~	•	•	With 120 kN cutting force, for all cables and Al/St ropes up to 55 mm diameter.
SDK 65	(9)	~		65	42	~				Ideal for cutting earth cables up to 65 mm diameter.
SDG 85/2	Q,		~	85	60	~				For cutting copper and aluminium cables up to 85 mm diameter.
SDK 85	6	•		85	30	~				For cutting telecommunication and earth cables up to 85 mm diameter.
SDG 105	Q		~	105	120	~		•		Very wide cutting range up to 105 mm - also for armoured cables diameter.
SDK 105	V	~		105	74	~				Also for fine stranded cables up to 105 mm diameter.
SDK 120	()	~		120	55	~				Extremely broad cutting range up to 120 mm diameter.

<sup>\*</sup> This column also includes Cu / Al multi-stranded and Cu / Al with sheet metal and wire armouring.

<sup>\*\*</sup> The exact cutting performance depends on the type of cable or wire.



#### SDG 45 Hydraulic cutting head 45 mm dia.



- ▶ High cutting force cuts armoured copper and aluminium cables and AI/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel

#### **Characteristics**

- Closed head with bolt interlock, flip open jaws
- Head with quick coupling, 360° rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data			
Cutting range	max. 45 mm dia.		
Cutting force	60 kN		
Operating pressure	max. 700 bar		
Length	340 mm		
Weight	3.8 kg		
Item		Part No.	
Hydraulic cutting head 45 mm d	ia.	SDG45	
Scope of supply		Part No.	Page
Carrying bag		TT2	196

#### SDG 50 Hydraulic cutting head 48 mm dia.



▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)

- Closed crimping head, flip top style
- Head with quick coupling, 360° rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data			
Cutting range	max. 48 mm dia.		
Cutting force	60 kN		
Operating pressure	max. 700 bar		
Length	330 mm		
Weight	2.5 kg		
Item		Part No.	
Hydraulic cutting head 48 mm o	dia.	SDG50	
Scope of supply		Part No.	Page
Carrying bag		TT2	196









#### SDG 55 Hydraulic cutting head 55 mm dia.



- High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output

#### **Characteristics**

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Ergonomic handling through grip

Technical data			
Cutting range	max. 55 mm dia.		
Cutting force	120 kN		
Operating pressure	max. 700 bar		
Length	380 mm		
Weight	5.6 kg		
Item		Part No.	
Hydraulic cutting head 55 mm d	ia.	SDG55	
Scope of supply		Part No.	Page
Carrying bag		TT2	196

#### SDK 65 Hydraulic cutting head 65 mm dia.



- Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- ▶ Improved cutting characteristics due to new cutting geometry

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data			
Cutting range	max. 65 mm dia.		
Cutting force	42 kN		
Operating pressure	max. 700 bar		
Length	425 mm		
Weight	4.7 kg		
Item		Part No.	
Hydraulic cutting head 65 mm d	lia.	SDK65	
Scope of supply		Part No.	Page
Carrying bag		TT2	196

#### Cutting

#### SDG 85/2 Hydraulic cutting head 85 mm dia.



- ► High user safety owed to cutting head with bolt interlock
- Exceptionally light and compact design
- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)

#### **Characteristics**

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Simple handling

Technical data			
Cutting range	max. 85 mm dia.		
Cutting force	60 kN		
Operating pressure	max. 700 bar		
Length	445 mm		
Weight	4.3 kg		
Item		Part No.	
Hydraulic cutting head 85 mm d	ia.	SDG852	
Scope of supply		Part No.	Page
Carrying bag		TT2	196

#### SDK 85 Hydraulic cutting head 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- Improved cutting characteristics due to new cutting geometry

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Uniform cut by knife guide

Technical data			
Cutting range	max. 85 mm dia.		
Cutting force	30 kN		
Operating pressure	max. 700 bar		
Length	450 mm		
Weight	5.2 kg		
Item		Part No.	
Hydraulic cutting head 85 i	mm dia.	SDK85	
Scope of supply		Part No.	Page
Carrying bag		TT2	196









#### SDG 105 Hydraulic cutting head 105 mm dia.



- ▶ Cuts copper and aluminium cables with armouring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.

#### **Characteristics**

- Closed head with bolt interlock, 360° rotation when not pressurised
- Compact design permits cutting in confined areas
- Simple handling
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data			
Cutting range	max. 105 mm dia.		
Cutting force	120 kN		
Operating pressure	max. 700 bar		
Length	432 mm		
Weight	7.7 kg		
Item		Part No.	
Hydraulic cutting head 105 mm	dia.	SDG105	
Scope of supply		Part No.	Page
Carrying bag		TT2	196

#### SDK 105 Hydraulic cutting head 105 mm dia.



- Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ► Extremely wide cutting range up to 105 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- High stability due to double grip

Technical data			
Cutting range	max. 105 mm dia.		
Cutting force	74 kN		
Operating pressure	max. 700 bar		
Length	510 mm		
Weight	7.7 kg		
Item		Part No.	
Hydraulic cutting head 105 mm	dia.	SDK105	
Scope of supply		Part No.	Page
Carrying bag		TT4	196

#### SDK 120 Hydraulic cutting head 120 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Extremely wide cutting range up to 120 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Exceptionally light and compact design
- > Safe operations due to high ground stability by double handles

#### **Characteristics**

- Open head with quick coupling, 360° rotation when not pressurised
- High stability due to double grip
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data			
Cutting range	max. 120 mm dia.		
Cutting force	55 kN		
Operating pressure	max. 700 bar		
Length	538 mm		
Weight	8.7 kg		
Item		Part No.	
Hydraulic cutting head 120 mm	ı dia.	SDK120	
Scope of supply		Part No.	Page
Carrying bag		TT4	196

#### AS 65 FHP Hydraulic cutting tool with foot pump 65 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ► Also suitable for fine-stranded cable
- > Safe operations due to high ground stability by double handles
- ► Foot pump with two-stage hydraulics
- Improved cutting characteristics thanks to new cutting geometry

- Open head with quick coupling, 360° rotation when not pressurised
- Manual retract as required
- Hydraulic hose, 2 m

Technical data			
Cutting range	max. 65 mm dia.		
Operating pressure	max. 700 bar		
Weight	16.7 kg		
Item		Part No.	
Hydraulic cutting tool with	foot pump 65 mm dia.	AS65FHP	
Scope of supply		Part No.	Page
Hydraulic hose, 2 m		HS22	497
Steel carrying case		MKU	196
Accessories		Part No.	Page
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	497







#### AS 105 FHP / AS 120 FHP Hydraulic cutting tools for foot pump 105 and 120 mm dia.



- ► Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable
- ▶ Safe operations due to high ground stability by double handles
- ▶ Wide cutting range also for fine-stranded cables

- Foot pump with two-stage hydraulics
- Open head with quick coupling, 360° rotation when not pressurised
- Manual retract as required
- Hydraulic hose, 2 m

Technical data			
Cutting range	AS 105 FHP: max. 105 mm dia., AS	S120FHP: max. 120	mm dia.
Cutting force	AS105FHP: 74 kN, AS120FHP: 55 I	κN	
Operating pressure	max. 700 bar		
Weight	AS105FHP: 19.7 kg, AS120FHP: 20	).7 kg	
Item		Part No.	
Hydraulic cutting tool with foot	pump 105 mm dia.	AS105FHP	
Hydraulic cutting tool with foot	pump 120 mm dia.	AS120FHP	
Scope of supply		Part No.	Page
Hydraulic hose, 2 m		HS22	497
Steel carrying case		MKU	196
Accessories		Part No.	Page
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	497

## OUR COMMITMENT TO YOUR SAFETY -SAFETY CUTTERS

Klauke safety cutters cut reliably with BG-tested safety. 10 m hydraulic safety hose creates adequate distance to possible hazard sources. Non-conductive hydraulic oil ensures the highest level of safety. Our cutters protect you up to a rated voltage of 60 kV.



#### ▶ Safe in any application

Choose the device - foot pump, battery-powered hydraulics or portable pump unit - that suits your work. Safety in every situation.

- BG-tested safety up to 60 kV rated voltage for CU/AL cables without steel armouring
- The right safety cutters for application
- 10 m hydraulic hose for adequate distance to the hazard source

#### ▶ Free head selection

Klauke safety cutters are available with various open and closed heads. Choose the right head for your application.

- The right head for every application
- Opening width up to 120 mm
- All heads rotate through 360°



#### SSG Hydraulic safety cutter with foot pump to max. 104 mm dia.





- ▶ BG-approved safety cutter for safe cutting of live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ► Single-core lives cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz

- Head with quick coupling, 360° rotatable
- Two-stage hydraulics
- Manual retract as required
- Safety/hydraulic hose, 10 m

Technical data	SSG65	SSGG85	SSG105		SSGG105	
Head type	open (SSK65)	closed (SSKG85)	open (S	SK105)	closed (S	SGG105)
Cutting range	max. 65 mm dia. (depending on cable type)	max. 85 mm dia. (depending on cable type)	max. 10 (depend cable ty	ling on	lia. max.105 (dependir cable typ	ng on
Operating pressure	625 bar	625 bar	625 bar	•	625 bar	
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special S.B.H.1		ta Special o S.B.H.11	il Rivolta
Weight	16 kg	16 kg	19 kg		19 kg	
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C +40 °C	up to	-20 °C uր +40 °C	to to
Item					Part No.	
Hydraulic safety cutting	unit with foot pum	p max. 65 mm dia			SSG65	
Hydraulic safety cutting	unit with foot pum	p max. 85 mm dia			SSGG85	
Hydraulic safety cutting	unit with foot pum	p max. 104 mm di	a.		SSG105	
Hydraulic safety cutting	unit with foot pum	p max. 104 mm di	a.		SSGG105	
Scope of supply				Pa	art No.	Page
Safety/hydraulic hose,	10 m					
Earthing kit					EG1	
Steel carrying case				М	KSSG	
Accessories				Pa	art No.	Page
Heat protection cover 1	.8 m x 1.8 m			Н	ISD1	
Heat protection cover 1	.2 m x 0.9 m			Н	ISD2	
Heat protection cover 0	.45 m x 0.6 m			Н	ISD3	

#### ESSG Battery powered hydraulic safety cutter to max. 104 mm dia.







- ▶ BG-approved safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core lives cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Powerful 3.3 Ah Li-lon battery

- 2-stage hydraulic system with fast feed and power stroke
- Electronic control
- Multifunction LED for maintenance display and charge status display of the battery
- LED display for service interval after 250 cuts
- 10 m non-conducting hydraulic hose with a coupling to connect to pump ESSG-L

Technical data	ESSG65I	ESSGG85L	ESSG105L	
Head type	open (SSK65)	closed (SSKG85)	open (SSK1	05)
Cutting range	max. 65 mm dia. (depending on cable type)	max. 85 mm dia. (depending on cable type)	max. 105 m (depending cable type)	
Cutting force	35 kN	60 kN	80 kN	
Cutting time	approx. 21 s 40 s	approx. 21 - 40 s	approx. 21	- 40 s
Operating pressure	625 bar	625 bar	625 bar	
Battery voltage	18 V	18 V	18 V	
Battery capacity	3.3 Ah, Li-lon	3.3 Ah, Li-lon	3.3 Ah, Li-lo	on
Charging time	60 min.	60 min.	60 min.	
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special oil F S.B.H.11	Rivolta
Weight	10.12 kg	9.98 kg	13.13 kg	
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to	+40 °C
Item			Part No.	
Battery powered hydraulic safety	cutter, max. 65 mm	dia.	ESSG65I	
Battery powered hydraulic safety	cutter, max. 85 mm	dia.	ESSGG85L	
Battery powered hydraulic safety	y cutter, max. 104 mm	dia.	ESSG105L	
Scope of supply		i	Part No.	Page
Battery 18 V / 3.3 Ah, Li-lon (54	Wh)		RAL3	491
Charger for 18 V Li-lon batteries			LGL3	494
Plastic case for ESSG65L and ESSG105L			KESSGL	
Plastic case for ESSGG85L		KKE	SSGG85L	
Earthing kit			EG1	
Accessories		ı	Part No.	Page
Heat protection cover 1.8 m x 1.	8 m		HSD1	
Heat protection cover 1.2 m x 0.	9 m		HSD2	
Heat protection cover 0.45 m x 0	).6 m		HSD3	









#### ASSG Battery powered hydraulic safety cutter to max. 120 mm dia.





- DGUV-approved safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- Single-core lives cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Very wide opening width to 120 mm
- Safe and fast operations by using remote control and 10 m long safety hydraulic hose

#### **Characteristics**

- 2-stage hydraulic system with fast feed and power stroke
- Quick motor stop for high user safety
- Electronic control
- DGUV-tested
- 360° rotating connection as with the cutting head
- Battery-powered pump filled with non-conductive oil
- Remote control for increased comfort and safety
- Two powerful 5 Ah, 18 V Lithium-lon batteries (one battery is always there as a replacement)
- Sturdy housing from impact-resistant, fibreglass reinforced polyamide
- 10 m non-conducting hydraulic hose with a coupling to connect to pump ASSG
- Multi-function display for pressure testing, power consumption and service interval

#### **Additional information**

- Complete system, different variants available depending on cutting head



Technical data	ASSG65L	ASSGG85L	ASSG105L	ASSGG105L	А	SSG12	0SL
Head type	open	closed	open	closed	0	pen	
Cutting range	max. 65 mm dia.	max. 85 mm dia.	max. 105 mm dia.	max. 105 m dia.		nax. 1: lia.	20 mm
Operating pressure	max. 630 bar	max. 630 bar	max. 630 bar	max. 630 b	ar n	nax. 6	30 bar
Battery voltage	18 V	18 V	18 V	18 V	1	8 V	
Battery capacity	2 x 5 Ah Li-lon	2 x 5 Ah Li-lon	2 x 5 Ah Li-lon	2 x 5 Ah Li-	lon 2	2 x 5 A	h Li-lon
Charging time	45 min.	45 min.	45 min.	45 min.	4	5 min	
Max. oil volume	approx. 750 ml	approx. 750 ml	approx. 750 ml	approx. 750	0 ml a	pprox	. 750 ml
Hydraulic oil	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Natur HF-E 15		Shell N IF-E 1	
Weight incl. battery	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4	_	batte pprox	ries . 6.4 kg
Ambient tempe- rature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up t +40 °C		20 °C ⊦40 °C	
Dimension	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm		30 x 1 280 mi	
Item				F	Part No	<b>)</b> .	
Battery powered h	nydraulic safety o	cutter, max. 65 r	nm dia.	A	SSG65	5L	
Battery powered h	nydraulic safety o	cutter, max. 85 r	nm dia.	AS	SSGG8	5L	
Battery powered h	nydraulic safety o	cutter, max. 105	mm dia.	AS	SSG10	5L	
Battery powered h	nydraulic safety o	cutter, max. 105	mm dia.	AS	SGG10	05L	
Battery powered h	nydraulic safety o	cutter, max. 120	mm dia.	AS	SG120	OSL	
Scope of supply			F	Part No.	Quar	ntity	Page
Makita battery 18	V / 5.0 Ah, Li-lor	n (90 Wh)			2	2	492
Makita quick-charger for 18 V Li-lon battery			LGL1	1		494	
Earthing kit				EG1	1		
Carrying strap wit	h shoulder padd	ing		TG3	1		495
Remote control with 1.5 m cable			HTA4	1		499	
Plastic case					1		
Plastic case for AS	SSG105L and AS	SG120SL	KK	SSK120S	1		

# 5 PROFILES FOR SPECIAL CUTTING TOOLS

For challenging operations in plant construction and panel building, we use the Greenlee brand of tools. Built compact, the high-quality devices perform all the functions you need.



#### **▶ DIN** profile rails

So you retain the profile as you cut: DIN profile rail cutter from Greenlee.

- Burr-free cutting to length and punching of all common DIN profiles
- Hand lever with optimum force transmission
- High-quality cutting blades with hardly any wear
- Integrated locating holes simplifies mounting on the workbench
- Easily replaceable cutting plate cassette

#### **▶** Cutting values

Work precisely with our wiring conduit cutter.

- For halogen-free cable conduit up to 125 mm wide
- Maintenance-free mechanism
- Measuring rule enables precise cutting to length
- High level of operator safety while working due to fullycovered cutting blades

#### ▶ Always on the right track: Wiring conduit cutter

Everything fits well, from the very first setting. The measuring cutter simplifies precision cutting to length. The cutting blades are covered for safety. They cut halogen-free cable conduit up to 125 mm wide as accurately as you want. High-quality

materials and optimised processing ensure safety and reliability: The cutting blades are practically wear-free, the cutting mechanism is entirely maintenance-free. No worries about these tools. You concentrate fully on the task.



#### DIN profile conductor cutting and punching tool



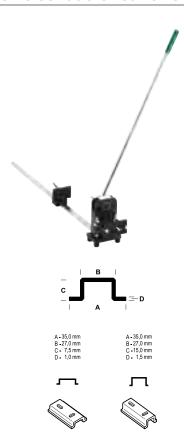
- ▶ For burr-free cutting and punching
- ▶ Less effort needed
- ▶ Includes die plate holder with 5 profiles

#### **Suitable for**

- Punches vertical and horizontal mounting holes 6.4 x 12.0 mm
- With holes for workbench assembly

Item	Part No.
DIN profile conductor cutting and punching tool	50115413

#### **Profile conductor cutter Compact**



- ▶ For burr-free cutting to length
- Less effort needed
- ▶ Includes die plank holder with 2 profiles

#### Suitable for

- With holes for workbench assembly
- Manual operation

Item	Length of rail guide mm	Length of hand lever mm	Part No.
Profile conductor cutter Compact	1000	850	52055684

#### Wiring conduit cutter





- ▶ Burr-free cutting even with halogen-free cable ducts
- ▶ 90° angle cutting
- ▶ Protects from injury when not in use

#### **Characteristics**

- Simple workbench mounting
- Maintenance free
- Cutting mechanism completely protected

 Standard and halogen-free plastic profile with 2.5 mm wall thickness and up to 125 mm width

125 mm		
1460 x 250 x 990 mm		
10.5 kg		
1000 mm		
600 mm		
2.5 mm		
	Part No.	
	50125700	
	Part No.	Page
	50115537	
	1460 x 250 x 990 mm 10.5 kg 1000 mm 600 mm	1460 x 250 x 990 mm  10.5 kg  1000 mm  600 mm  2.5 mm  Part No.  50125700  Part No.

#### **Cutting die**





Item	Cutting range	Part No.	
Cutting die, 18 mm	18 mm	S18	









## QUICK AND CLEAN.

Greenlee tools for punching - exactly the right solution for accurate operations. Extreme reliability quickly achieves a burr-free result.







## Punching

Round and special shape punches	416
Standard punch systems	418
Slug Buster® punch systems	420
Slug-Splitter® punch system for stainless steel	421
Speed-Punch <sup>™</sup> punch system	422
Special shape punches	425
Punching tools and sets	434
Speed Nut	436
Mechanical and hydraulic punching tools	436
Battery powered punching tool LS 60-L	438
Battery powered punching tool LS 50 Flex	439
Battery powered universal tools	440
Slug Buster® punch sets	447
Speed-Punch <sup>™</sup> punch sets	449
Slug-Splitter® punch sets	451
Slug Buster® punching tools and sets	452
Hole saws	456
HSS bi-metal hole saws	458
Bits and step bits	464

# PATENTED CLEAN SOLUTION ROUND AND SPECIAL SHAPE PUNCH

Speed and innovation set our Greenlee products apart. With Speed Punch and Slug Splitter, you can work quickly and precisely in any application.

Our commitment to your work.



#### In brief

- **▶** Long service life
- ▶ For aluminium and steel to 3.5 mm thick
- ▶ Threadless profile for quick replacement
- ▶ No jamming of the slug
- ▶ Threads require no maintenance



#### **▶** Quick punching with Speed Punch

We make you faster. Time-saving operations are really easy with the Speed Punch profile. The threadless stamp profile is quickly changed via clamp technology - no more screwing the counter nut off and on! Which also means: Threads are care and maintenance-free. Punching is up to three-times quicker than before.

- Quick punching system: Punching up to 3 x quicker
- For aluminium and steel up to 3.5 mm thick
- Innovative clamp technology
- No more screwing the counter nut off and on
- Threads are now care and maintenance-free

#### **Speed Punch video:**

youtube.com/watch?v=0LJ7mHEgeow



#### **▶** Slug Splitter: Automatic clean punching

We make it easy for you. The Slug Splitter separates punched slug remnants. You can fully concentrate on punching stainless steel, without delays due to time-consuming removal of punched slug remnants.

- Splits the punches into two parts for direct removal of punch slug remnants
- Longest service life due to high-quality stainless steel
- Suitable for use with all Greenlee punching hydraulics





#### ► Square punch: Special-shaped punches

Displays and panels require appropriate square-shaped punching. The special punching stamp from Greenlee punches stainless steel and mild steel without leaving burrs. High-quality tool steel meets your requirements - in proven Greenlee quality.

- For mild steel (St37), plastic and aluminium to 3.0 mm thick and V2A stainless steel up to 1.5 mm
- Burr-free punching of display panels
- High-quality tool steel



#### **Punching**

#### Standard punch systems



#### ▶ Ball bearing draw stud reduces operating force

#### **Suitable for**

Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual / hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

- Complete system including punch, die and draw stud for manual operation

#### **Additional information**

\*50042181 Draw stud without ball-bearing

		ze	Max. Material		Individual p	arts for manu	ial operation		Draw studs + Accessories for hydraulic units			Complete unit	
			thick- ness							Draw studs		Accessories	
True dimen- sion	Stand	ard size				Î	900						<b>P</b> ,
mm	Pg	ISO	mm (St37)	Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Hand hydraulic 7804E, 7904E	Battery powered punch LS 50 FLEX LS 60 L	Hydr. pump 50159062 50250973	Adapter sleeves 19,0 / 28,6	Part No.
12.7	PG 7		1.5	50069969	50042351	50042181							50024086
14.3			1.5	50042300	50042297	50042181							50024337
15.2	Pg 9		2.0	50213164	50320025	50000420							50211153
15.9			1.5	50042238	50042246	50042181						50339672	50024094
16.2		ISO 16	2.0	50351931	50351621	50000420			51300430		51300430	50339672	50351923
18.6			2.0	50177001	50320033	50000420			51300430		51300430	50339672	50188860
19.1			2.0	50039989	50039997	50000420			51300430		51300430	50339672	50206672
20.4	Pg 13	ISO 20	2.0	50176978	50320041	50000420			51300430		51300430	50339672	50188879
20.6			2.0	50042262	50042254	50000420			51300430		51300430	50339672	50206680
22.5	Pg 16		3.5	51040060	51147220	50000420			51300430		51300430	50339672	50225634
23.8			2.0	50042386	50042378	50000420			51300430		51300430	50339672	50253417
25.4		ISO 25	2.0	50039865	50351648	50000420			51300430		51300430	50339672	50206702
27.0			2.0	50042408	50042424	50000420			51300430		51300430	50339672	50253425
28.3	Pg 21		3.5	51040080	51069720	50040405			51300430		51300430	50339672	50225642
28.3	Pg 21		2.0	50368826	50320068	50000420			51300430		51300430	50339672	50369105
28.6			2.0	50039903	50039911	50000420			51300430		51300430	50339672	50206710
30.5			1.5	50362828	50362798	50000420			51300430		51300430	50339672	50365061
31.8			1.5	50040022	50040030	50000420			51300430		51300430		50206737
32.5	Pg 32		3.5	50244590	50351680	50040405			50318721		50318721		50244760
33.4			1.5	50065874	50065866	50000420			50318721		50318721		50253441
34.6			3.5	50040103	50040111	50040405			50318721		50318721		50225650
34.9			3.5	50047345	50047353	50040405			50318721		50318721		50254278
37.0	Pg 29		3.5	50183311	50320084	50040405			50318721		50318721		50188909
38.1			3.5	50047361	50070444	50040405			50318721		50381721		50254286
40.5		ISO 40	3.5	50244620	50351591	50040405			80318721		50381721		50244779







P	Punch size		Max. Material		Individual pa	ırts for manu	ıal operation		Draw stud	ls + Accesso	ries for hydr	aulic units	Complete unit
			thick- ness							Draw studs		Accessories	
True dimen- sion	Stand	ard size	mm	8		Î	100					Ú.	Đ,
mm	Pg	ISO	mm (St37)	Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Hand hydraulic 7804E, 7904E	Battery powered punch LS 50 FLEX LS 60 L	Hydr. pump 50159062 50250973	Adapter sleeves 19,0 / 28,6	Part No.
41.3			3.5	50042513	50042505	50040405			50318721		50381721		50253492
43.2			3.5	51069740	50040138	50040405			50318721		50318721		50225669
44.5			3.5	50042572	50042564	50040405			50318721		50318721		50253506
47.0			3.5	50176870	51320090	50040421			50318721		50318721		50188917
47.6			3.5	50042483	50042491	50040421			50318721		50318721		50253514
49.6			3.5	50069780	50040618	50040421			50318721		80318721		50225677
50.8		ISO 50	3.5	50042327	50351613	50040421			50318721		50318721		50206761
54.0	Pg 42		3.5	50042459	50361732	50040421			50318721		50318721		50206788
57.2			3.5	50040588	50040596	50040421			50318721		50318721		50253603
60.0	Pg 48		3.5	50176900	50320114	50040421			50318721		50318721		50188925
61.5			3.5	50040626	50040634	50040421			50318721		50318721		50225685
63.5		ISO 63	3.5	50042343	50042335	50041886			50318721		50318721		50206796
66.7			3.5	50042521	50069977	50041886	50041878			52045040	52045040		50212141
69.9			3.5	50042475	50042467	50041886	50041878			52045040	52045040		50253611
70.6			3.5	50024450	50024434	50040421	50041878			52045040	52045040		50253832
74.0			3.5	50041754	50041770	50041886	50041878			52045040	52045040		50199757
76.2			3.5	50042599	50042580	50041886	50041878			52045040	52045040		50253727
79.4			3.5	50063634	50063626	50041886	50041878			52045040	52045040		50254030
82.0			3.5	50189050	50189069	50041886	50041878			52045040	52045040		50186353
89.8			3.5	50041800	50041835	50041886	50041878			52045040	52045040		50199765
95.3			3.5	50052659	50052667	50041886	50041878			52045040	52045040		50212168
102.7			3.5	50046535	50046527	50046799	50046853	50046861		52045040	52045040	50031708	50199773
115.4			3.5	50046551	50046543	50046799	50046853	50046861		52045040	52045040	50031708	50199781
120.0			3.5	50214896	50214918	50046799	50046853	50046861		52045040	52045040	50031708	50215191
143.7			3.5	50054473	50054481	50046799	50046853	50046861		52045040	52045040	50031708	50199803

#### Slug Buster® punch system



- ▶ For quick, clean, effortless and burr-free holes
- > Split slugs fall free and can be removed easily

#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual / hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

#### **Scope of supply**

- Complete system including punch, die and draw stud for manual operation

#### **Additional information**

• 50042181 Draw stud without ball-bearing

Punch size		nch size Max. Individual parts for manual operation Material thickness				pperation		Accessories for lic units	Complete unit
True dimension Standard size		ard size		•		T			<b>.</b>
mm	Pg	IS0	mm (St37)	Punch	Draw n Die		Hand hydraulic 7804E 7904E	Battery powered punch LS 50 FLEX LS60 L	Part No.
12.5	Pg 7	ISO 12	1.5	50067281	50067290	50042181			50067273
15.2	Pg 9		2.0	50319698	50320025	50000420	51300430	51300430	50319892
16.2		ISO 16	2.0	50351630	50351621	50000420	51300430	51300430	50351770
18.6	Pg 11		2.0	50319701	50320033	50000420	51300430	51300430	50319906
20.4	Pg 13	ISO 20	2.0	50319710	50320041	50000420	51300430	51300430	50319914
22.5	Pg 16		2.0	50317563	51147220	50000420	51300430	51300430	50319620
25.4		ISO 25	2.0	50351656	50351648	50000420	51300430	51300430	50351788
28.3	Pg 21		3.0	50317571	50069721	50040405	50318721	52045040	50319639
28.3	Pg 21		2.0	50319736	50320068	50000420	51300430	51300430	50319930
30.5			2.0	50362844	50362798	50000420	51300430	51300430	50365088
30.5			3.5	50602373	50362780	50040405	50318721	52045040	50602462
32.5		ISO 32	3.5	50351699	50351680	50040405	50318721	52045040	50351796
34.6			3.5	50317580	50040111	50040405	50318721	52045040	50319647
37.0	Pg 29		3.5	50319752	50320084	50040405	50318721	52045040	50319957
40.5		ISO 40	3.5	50351583	50351591	50040405	50318721	52045040	50351800
43.2			3.5	50317598	50040138	50040405	50318721	52045040	50319655
47.0	Pg 36		3.5	50319760	51320090	50040421	50318721	52045040	50319965
49.6			3.5	50317601	50040618	50040421	50318721	52045040	50319663
50.8		ISO 50	3.5	50351605	50351613	50040421	50318721	52045040	50351818
54.0	Pg 42		3.5	50361724	50361732	50040421	50318721	52045040	50361716
60.0	Pg 48		3.5	50319787	50320114	50040421	50318721	52045040	50319981
61.5			3.5	50317610	50040634	50040421	50318721	52045040	50319671
64.0		ISO 63	3.5	50351672	50351664	50040421	50318721	52045040	50351826







#### SLUG SPLITTER® punch system (stainless steel)



- ▶ Special alloy for maximum service life
- > Split slugs fall free and can be disposed of easily

#### **Suitable for**

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

#### **Operation**

Hydraulic

#### **Predrilling**

 Draw stud 11.1 mm dia., pilot drill 12.7 mm diameter 50344102 draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

#### **Scope of supply**

- Complete system including punch and die

#### **Additional information**

\* = Slug Splitter SC® - self-centring

Punch size			Max. Material thickness	Individual parts for manual operation		Draw studs	Complete unit
True dimension	imension Standard size			e			R=
			mm			Pump, hand and	
mm	Pg	ISO	(V2A)	Punch	Die	battery powered	Part No.
15.2	Pg 9		2.5	50311174	50311263	50294512	50069519
16.2		ISO 16	2.5	50045997	50045989	50294512	50069527
18.6	Pg 11		2.5	50311190	50311280	50294512	50069535
20.4	Pg 13	ISO 20	2.5	50311204	50311298	50294512	50069543
22.5	Pg 16		3.5	50281542	50281550	50294512	50069551
25.4		ISO 25	3.5	50046020	50046012	50294512	50069560
28.3	Pg 21		3.5	50281569	50281577	50294520	50069578
30.5			3.5	50364901	50364898	50294520	50069586
32.5		ISO 32	3.5	50046055	50046039	50294520	50069594
34.6			3.5	50281585	50281593	59294520	
37.0	Pg 29		3.5	50311220	50311352	50294520	50069608
40.5		ISO 40	3.5	50046080	50046071	50294520	50069616
43.2			3.5	50281607	50281615	50294520	
47.0	Pg 36		3.5	50311239	50311310	50294520	50069624
49.6			3.5	50281623	50281631	50294520	
50.8		ISO 50	3.5	50046110	50046098	50294520	50069632
54.0	Pg 42		3.5	50311247	50311328	50294520	50069640
60.0	Pg 48		3.5	50311255	50311336	50294520	50069659
61.5			3.5	50281658	50281666	50294520	
64.0		ISO 63	3.5	50046144	50046136	50294520	50069667

#### Speed Punch™ punch system



- Innovative threadless punch profile
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required

#### **Suitable for**

Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia.; pilot drill 9.7 mm dia. draw stud 19.0 mm dia.; pilot drill 20.5 mm dia.

#### **Scope of supply**

- Complete system including punch and die

#### **Additional information**

- Counter nuts and draw studs must be ordered separately, they are not included in scope of supply

Punch size			Max. Material thickness	Individu	al parts	Draw studs	Speed lock	Complete unit (Punch and die)	
Two diagnosis Chandard size			<b>H</b>		1	嘅			
True dimension	dimension Standard size					•			
mm	PG	ISO	mm (St37)	Punch	Die	(not included)	(not included)	Part No.	
16.2		ISO 16	3.5	52066021	52066022	52066001	52066002	52055431	
20.4	PG 13	ISO 20	3.5	52066023	52066024	52066001	52066002	52055432	
22.5	PG 16		3.5	52065998	52065999	52066001	52066002	52055433	
25.4		ISO 25	3.5	52066025	52066026	52066001	52066002	52055434	
32.5		ISO 32	3.5	52066027	52066028	52047818	52047817	52055435	
40.5		ISO 40	3.5	52066029	52066030	52047818	52047817	52055436	
50.8		ISO 50	3.5	52066031	52066032	52047818	52047817	52055437	
64.0		ISO 63	3.5	52066033	52066034	52047818	52047817	52055438	

Accessories	Part No.	Page
Speed Lock und Draw studs 9.5 mm für ISO 16/20/25 und PG 16	52055439	
Speed Lock und Draw studs 19.0 mm für ISO 32/40/50/63	52055440	









#### Draw studs with manual drivers



#### **Punching**

#### Draw studs for hydraulic drivers

#### **Order info**

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Size	Part No.
28.6 x 76 mm	50031708



#### Adapter

Size	Part No.
19 x 48 mm (Innen 9.5 mm)	50339672
19 x 48 mm (Innen 6.3 mm)	50601148
19 x 48 mm (Innen 12.7 mm)	50601679



Size	Part No.
9.5 x 71 mm	51300430







Size	Part No.
19 x 140 mm for Slug Splitter®	50294520







Size	Part No.
9.5 mm to 19 mm, 122 mm	52042827









#### Rectangular punch



#### **Suitable for**

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

#### **Operation**

Manual / hydraulic

#### **Predrilling**

9.7 mm dia. pilot drill 50360183
 12.7 mm dia. pilot drill 50344102
 15.9 mm dia. pilot drill 50344030
 30.2 mm dia. 50364146

#### **Scope of supply**

Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

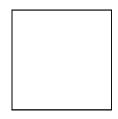
#### **Additional information**

- \* = only for use with hydraulic punch drivers 50159062, 50250973, LS60L and LS50FLEX
- \*\* = only for use with hydraulic punch drivers 50159062, 50250973 and LS50FLEX

Punch size Max. A x B Material thickness				Individual p	oarts f. manu	Adapter for hydr. punch driver	Mounting hole-dia.	Complete unit		
						90	66			of the
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
11.1 x 22.2	1.5	Hand/hydr.	50600265	50600273	50601156	50601202	50052446	50601148	9.7	50600257
17.0 x 19.0	2.0	Hand/hydr.	00000200	50600303	52020113	50347330	50046381	50339672	12.7	50610281
19.1 x 29.0	2.0	Hand/hydr.	50600320	50600338	50601172	50601652	50602586	50601679	15.9	50600311
19.1 x 33.3	2.0	Hand/hydr.	50600354	50600362	50601172	50601652	50602586	50601679	15.9	50600346
21.9 x 25.9	2.0	Hand/hydr.	50600389	50600397	50601172	50601652	50602586	50601679	15.9	50600370
22.0 x 30.0	2.0	Hand/hydr.	50600419	50600427	50601172	50601652	50602586	50601679	15.9	50600400
22.0 x 42.0	2.0	Hand/hydr.	50600413	50600427	50601172	50601652	50602586	50601679	15.9	50600435
25.1 x 29.0	2.0	Hand/hydr.	50600486	50600494	50601172	50601652	50602586	50601679	15.9	50600478
31.8 x 35.1	2.0	Hand/hydr.	50600516	50600524	50601172	50601652	50602586	50601679	15.9	50600508
29.0 x 71.0	3.0	Hydr.			52045298		52045300		28.6	52045296
30.0 x 90.0	3.0	Hydr.			52045298		52045300		28.6	52045297
33.3 x 66.7	3.0	Hydr.	50600540	50600559	50601180		50602357		30.2	50600532
35.0 x 52.0	3.0	Hydr.	50600575	50600583	50601180		50602357		30.2	50600567
35.0 x 65.0	3.0	Hydr.	50600605	50600613	50601180		50602357		30.2	50600591
35.0 x 82.0	2.0	Hydr.*	50600630	50600648	50601180		50602357		30.2	50600621
35.0 x 112.0	2.0	Hydr.*	50600664	50600672	50601180		50602357		30.2	50600656
46.0 x 92.0	3.0	Hydr.*	50600699	50600702	50601180		50602357		30.2	50600680
57.2 x 88.9	3.0	Hydr.*	50600729	50600737	50601180		50602357		30.2	50600710
68.0x138.0	2.0	Hydr.**	50600753	50600761	50601180		50602357		30.2	50600745
	2.0	riyur.	0000700	50000701	50001100		00002001		00.2	00000170

#### Square punch





#### **Suitable for**

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

#### **Operation**

Manual / hydraulic

#### **Predrilling**

9.7 mm dia. pilot drill 50360183 12.7 mm dia. pilot drill 50344102 15.9 mm dia. pilot drill 50344030 30.2 mm dia. 50364146

#### **Scope of supply**

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

#### **Additional information**

- \* = only for use with hydraulic punch drivers 50159062, 50250973, LS60L and LS50FLEX
- \*\* = only for use with hydraulic punch drivers 50159062 and 50250973

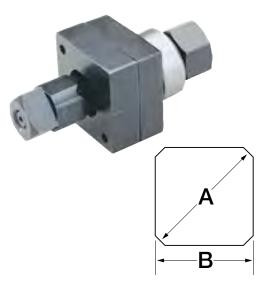
Punch size A x B	Max. Material thickness			Individual p	arts for manı	ual operation		Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			2			90	6			
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
12.7 x 12.7	1.5	Hand/hydr.	50600028	50600036	50601156	50601202	50052446	50601148	9.5	50600010
15.9 x 15.9	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610045
19.1 x 19.1	2.0	Hand/hydr.	50600087	50600095	52020113	50347330	50046381	50339672	12.7	50610076
22.4 x 22.4	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610106
24.0 x 24.0	2.0	Hand/hydr.	50600141	50600150	52020113	50347330	50046381	50339672	12.7	50610137
25.4 x 25.4	2.0	Hand/hydr.	50600176	50600184	50601172	50601652	50602586	50601679	15.9	50600168
45,0 x 45,0	3.0	Hydr.	50767640	50767657	52046100		52046101		30.2	50115723
46.0 x 46.0	3.0	Hydr.	50600206	50600214	50601180		50602357		30.2	50600192
50.8 x 50.8	3.0	Hydr.	50601695	50601709	50601180		50602357		30.2	50601687
68.0 x 68.0	3.0	Hydr.	52055423	50601733	50601180		50602357		30.2	50601717
92.0 x 92.0	3.0	Hydr.*		50601768	50601180		50602357		30.2	50601741
104.8 x 104.8	2.0	Hydr.*	50601784	50601792	50601180		50602357		30.2	50601776
138.0 x 138.0	2.0	Hydr.**	50600230	50600249	50601180		50602357		30.2	50602349







#### Special square punch with flattened corners



#### **Suitable for**

- Mild steel (St37), plastic and aluminium to 2.0 mm
- Punching of burr-free openings

#### **Operation**

Manual / hydraulic

#### **Predrilling**

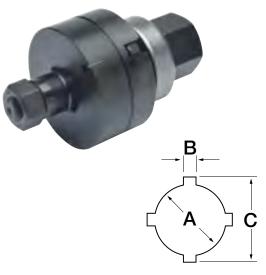
12.7 mm dia pilot drill 50344102

#### **Scope of supply**

• Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch s A x B				Individual p	arts for manu	ual operation		Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			2			100	6			
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
22.5 x 2	20.1 2.0	Hand/hydr.	50611264	50601271	52020113	50347330	50046381	50339672	12.7	50611257

#### Round punch with four anti-rotation tabs



#### **Suitable for**

• Mild steel (St37), plastic and aluminium to 3.0 mm

#### **Operation**

Manual / hydraulic

#### **Predrilling**

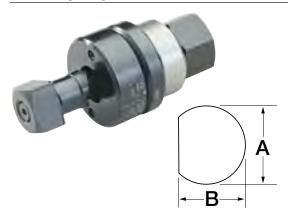
15.9 mm dia. pilot drill 50344030

#### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness			Individual p	arts for manı	Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit		
			<b>≅</b>							
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
22.5 x 3.2 x 25.4	2.0	Hand/hydr.	50602390	50602500	50601172	50601652	50602586	50601679	15.9	50602381
30.5 x 4.8 x 36.0	3.0	Hand/hydr.	50602438	50602497	50601172	50601652	50602586	50601679	15.9	50602420

#### "D" shaped punch



#### **Suitable for**

- Mild steel (St37), plastic and aluminium to 2.0 mm

Manual / hydraulic

#### **Predrilling**

- 12.7 dia. mm pilot drill 50344102

#### **Scope of supply**

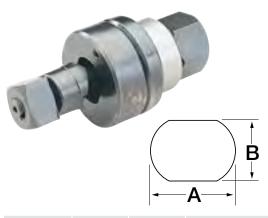
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

#### **Additional information**

\* 50610809 and 50610830 available only as punch unit

Punch size A x B	Max. Materia thickness			Individual p	arts for manı	Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit		
			=		-	-	6			
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
12.7 x 11.9	2.0	Hand/hydr.	50600788	51600790	50601156	50601202	50052446	50601148	9.5	50600770
15.9 x 15.1	2.0	Hand/hydr.			50344218	50347330	50046381	50339672	12.7	50610809
19.1 x 17.9	2.0	Hand/hydr.			50344218	50347330	50046381	50339672	12.7	50610830

#### Double "D" shaped punch



#### **Suitable for**

Mild steel (St37), plastic and aluminium to 2.0 mm

#### **Operation**

Manual / hydraulic

#### **Predrilling**

15.9 mm dia. pilot drill 50344030

#### **Scope of supply**

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

#### **Additional information**

All punches available only as punch unit

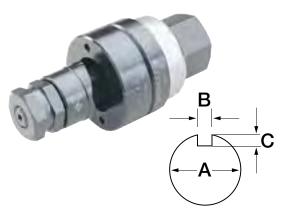
Punch size A x B	Max. Materia thickness			Individual p	arts for manı	Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit		
			=				6			
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
19.5 x 16.3	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610861
20.2 x 17.6	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610892
23.2 x 19.2	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610922
23.2 x 20.2	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	50610953
34.9 x 28.6	2.0	Hand/hydr.			50601660	50601652	50602586	50601679	23.8	50600982







#### Keyway punch



#### **Suitable for**

- Mild steel (St37), plastic and aluminium to 2.0 mm

#### **Operation**

Manual / hydraulic

#### **Predrilling**

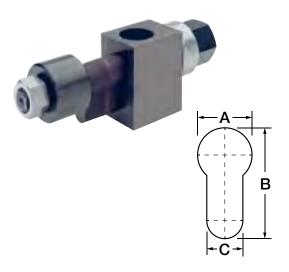
23.8 mm dia. pilot drill 50300083

#### **Scope of supply**

Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness			Individual p	arts for man	Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit		
						1	66			
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
12.2 x 1.4 x 0.8	1.5	Hand/hydr.	51601020	51601030	50601156	50601202	50052446	50601148	9.5	50601016
29.7 x 3.1x 2.5	2.0	Hand/hydr.	51601050	51601060	50601660	50601652	50602586	50601679	23.8	50601040
32.1 x 4.0 x 2.5	2.0	Hand/hydr.	51601080	51601090	50601660	50601652	50602586	50601679	23.8	50601075
33.7 x 2.6 x 2.5	2.0	Hand/hydr.	51601110	50601121	50601660	50601652	50602586	50601679	23.8	50601105

#### Profile cylinder punch



#### **Suitable for**

Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick

#### **Operation**

Manual / hydraulic

#### **Predrilling**

12.7 mm dia. pilot drill 50344102

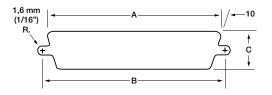
#### **Scope of supply**

Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness			Individual pa	arts for manı	ıal operation		Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit	
						80	9				MP
mm	mm (St37)	Operating mode	Punch	Die	Draw studs	Ball bearing nut	Counter nut	Spacer bushing	Part No.	mm	Part No.
17.0 x 33.3 x 10.5	2.0	Hand/hydr.	50053027	50053035	50053043	50347330	90500113	50053051	50339672	12.7	50053078

#### Sub-Min "D" punch





#### **Suitable for**

- Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick
- · Front or rear mounting

#### **Operation**

Manual / hydraulic

#### **Predrilling**

- 12.7 mm dia. pilot drill 50344102

#### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Standard	Number Pole		I	Dimensior	1	Individual	parts for manua	l operation	Adapter for hydr. punch driver	Complete unit
						98				
		Operating mode	A mm	B mm	C mm	Draw studs	Ball bearing nut	Counter nut	Part No.	Part No.
229	9	Hand/hydr.	20.0	24.9	11.9	52020113	50347330	50046381	50339672	50344366
231	15	Hand/hydr.	28.6	33.3	11.9	52020113	50347330	50046381	50339672	50344374
RS232	25	Hand/hydr.	42.0	47.1	11.9	52020113	50347330	50046381	50339672	50344200
234	37	Hand/hydr.	58.3	63.4	11.9	52020113	50347330	50046381	50339672	50344293
238	50	Hand/hydr.	55.9	61.0	14.7	52020113	50347330	50046381	50339672	50344447







#### Special shape punch for heavy duty connectors with 4 centre mark points



#### **Characteristics**

 Rectangular punches for heavy duty connectors feature a drilling jig built into the die, for drilling the 4 locating holes.

#### **Suitable for**

• Mild steel (St37) to 3.0 mm thick and aluminium to 3.5 mm

#### **Operation**

Hydraulic

#### **Predrilling**

30.2 mm dia. pilot drill 50364146

#### **Scope of supply**

- Punch unit including punch, die, draw stud and counter nut

	Punch size A x B	Max. Material thickness			rts for manual ration	Mounting hole-dia.	Complete unit
				İ	66		and is
Item	mm	mm	Operating mode	Draw studs	Counter nut	mm	Part No.
Special shaped punch for heavy duty connectors, 6-pin, 36 x 52 mm	36.0 x 52.0	3.0	Hydraulic	52046100	52046101	30.2	52033816
Special shaped punch for heavy duty connectors, 10-pin, 36 x 65 mm	36.0 x 65.0	3.0	Hydraulic	52046100	52046101	30.2	52033817
Special shaped punch for heavy duty connectors, 16-pin, 36 x 86 mm	36.0 x 86.0	3.0	Hydraulic	52046100	52046101	30.2	52033818
Special shaped punch for heavy duty connectors, 24-pin, 36 x 91 mm	36.0 x 91.0	3.0	Hydraulic	52046100	52046101	30.2	52033819
Special shaped punch for heavy duty connectors 36 x 112 mm	36.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	52033820
Special shaped punch for heavy duty connectors 46 x 86 mm	46.0 x 86.0	3.0	Hydraulic	52046100	52046101	30.2	52033831
Special shaped punch for heavy duty connectors 46 x 112 mm	46.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	52033832
Special shaped punch HAN Yellock® 30 with 4 centre mark points 47.2 x 56.4 mm	47.2 x 56.4	3.0 / 3.0 VA	Hydraulic	52046100	52046101	30.2	52058591
Special shaped punch HAN Yellock® 30 with 4 centre mark points 47.2 x 85.5 mm	47.2 x 85.5	3.0 / 3.0 VA	Hydraulic	52046100	52046101	30.2	52058592



# Draw studs for shaped punch

#### **Order info**

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations









# SAVE TIME AND MONEY - WITH EVERY PUNCH!

From the leaders in knockout technology comes the new SPEED PUNCH<sup>TM</sup> System. The patent pending "no-thread" design eliminates cross-threading, while the innovative SPEED LOCK mechanism quickly secures the punch in place. This means longer tool life and faster punches, saving you time and money on the job. SPEED PUNCH<sup>TM</sup> is available in ISO 16 to ISO 63 and PG 16 metric sizes and two kit configurations.









- SPEED LOCK mechanism quickly secures the entire system in place: Punch more holes in less time.
- "No-thread" punch design quickly and easily slides on/off draw stud.
- The fastest punch system on the market today.
- Matched die heights eliminate need for additional spacers.
- Fewer extra parts to lose on the job site.
- No more thread damage and costly down time.

#### **▶** Simplified punching processes

- Standard draw stud end
- Works with your existing hydraulic and battery-operated punch drivers.

# LS50 FLEX

In combination with the hydraulic punching tool LS 50 Flex it represents the state of the art in performance and speed.



# THE ADVANTAGE IN PUNCHING - PUNCHING TOOLS AND SETS

Greenlee punching tools are quick. No matter whether for straight punchings in steel (St37) and stainless steel or confined areas with swivelling head: Greenlee equips you with the right set for every situation. Combined with the Speed Punch, the quickest and most-efficient punching system in our range puts you in pole position. Take the lead in punching!

#### In brief

- ▶ Always ready for use due to short battery-charging times
- Heads rotatable through 360° for optimised work ergonomics
- ▶ No fatigue due to low weight
- ▶ 3x quicker punching with the Speed Punch system



#### ▶ The fast one: LS 50 FLEX

The LS 50 FLEX is not just fast. It is integrally designed and produced. It is fully re-charged and ready for use in just 22 minutes. Ergonomic design and a balanced centre of gravity support you when working over long periods of time. The head rotates through 360° and reliably punches in confined areas. Combine the LS 50 FLEX with the Speed Punch system for even faster operations. There's no faster punching than this.

- Can be used for steel (St37) and stainless steel
- Ergonomic design for effortless operations
- Automatic final switch-off for even longer service life of the hole punch
- 22 min. to recharge the battery
- Integrated LED illuminates the work position
- Head rotates through 360°
- Can be combined with Speed Punch punch system for maximum punch speed



**Speed Punch video:** youtube.com/watch?v=0LJ7mHEgeow





### **▶** Speed Punch set

Punching is up to three times quicker with the Speed Punch. The threadless stamp profile can be quickly replaced via a clamp technology - no more screwing the counter nut on and off. The set contains everything you need for the Speed Punch.

- Speed Punch set ISO 16 63, including accessories for hydraulic activation
- For all standard steel sheet
- High-quality plastic transport case for optimum product protection

#### ▶ Slug Buster® set ISO 16 - 40

The Slug Buster from Greenlee separates the punch remnants automatically so that they fall from the die by themselves. No jamming or time-consuming removal of the punch remnants. The set comprises all components of the punching system.

- Slug Buster system including accessories
- Including ratchet wrench for manual activation
- Pilot drill included
- High-quality plastic transport case for optimum product protection

### Speed Nut complete set



#### ▶ Up to 3-times faster than conventional punching tools

#### **Characteristics**

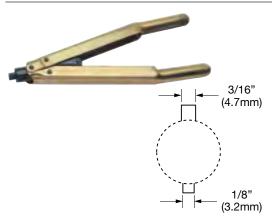
- Compatible with all Greenlee hand-operated and battery powered hydraulic punches
- Easy and quick handling as the screwing up and screwing down of the counter nut is not required

#### **Suitable for**

Square punches from 46 x 46 mm and rectangular punches from 33.3 x 66.7 mm

Item	Part No.		
Speed Nut complete set	SLSN34		
Scope of supply	Part No.	Page	
Speed Nut draw stud	SLSNDS34		
Quick-action bayonet coupling	SLSNN34		

# Keyway punch



- ▶ Time-saving punching of slots for anti-twist protected parts
- ▶ Long service life

#### **Suitable for**

- Mild steel (St37) to 3 mm thick
- Manual operation

Item	Part No.		
Keyway punch	50265342		
Accessories	Part No. Pag		
Spare punch for keyway punch	50265369		
Spare die for keyway punch	50265385		

# Hydraulic punch driver Quick Draw™ 7804E



- Ideal for fast, straight-on front panel punching
- ▶ Compact design
- Very robust

#### **Characteristics**

- Hand hydraulic punch driver with straight head

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

#### **Additional information**

Accompanying draw studs to 64 mm ST37 are suitable

Technical data			
Dimension	321 x 110 x 70 mm		
Punching force	80 kN		
Weight	2.5 kg		
Item		Part No.	
Quick Draw™ 7804E 503		50342910	3
Scope of supply		Part No.	Page
Hand hydraulic punch 78	04E	50342886	
Draw stud for punch with	Draw stud for punch with hydraulic operation 9.5 x 71 mm 51300430		
Draw stud for hydraulic o	pperation 19.0 x 105 mm	50318721	
Spacer, short		50032488	
Adapter 19.0 x 48 mm with internal thread 9.5 mm 50339672		426	
Plastic case		50352024	









# Hydraulic punch Quick Draw 90™ 7904E



- Ideal for fast, straight-on front panel punching
- ▶ Head rotates 180° for maximum flexibility
- Very robust

#### **Characteristics**

- Compact design
- Hand hydraulic punch driver with 90° head

#### Suitable for

- Special shape punches up to a maximum size of  $68 \times 68 \text{ mm}$  or  $35 \times 65 \text{ mm}$
- Round punches up to ISO 63 (64 mm dia.)

#### **Additional information**

Accompanying draw studs to 64 mm ST37 are suitable

Technical data			
Dimension	312 x 110 x 65 mm		
Punching force	80 kN		
Weight	3.4 kg		
Item		Part No.	
Quick Draw 90™ 7904E	50342991	l	
Scope of supply		Part No.	Page
Hand hydraulic punch 7904	łE	50337866	
Draw stud for punch with h	ydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic ope	eration 19.0 x 105 mm	50318721	426
Spacer, short		50032488	
Adapter 19.0 x 48 mm with internal thread 9.5 mm 50339672		426	
Plastic case		50352024	

# Manual hydraulic punch



#### ▶ Flexible head for multi-purpose use even in confined areas

#### **Characteristics**

Rotatable/Swivel

## Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

# **Additional information**

- Hand-operated hydraulic punch incl. draw stud, pilot drill and spacer in plastic case
- Without hole
- Accompanying draw studs to 64 mm ST37 are suitable

Technical data			
Dimension	340 x 150 x 85 mm		
Punching force	80 kN		
Weight	2.2 kg		
Revolving/rotatable	360°		
Item		Part No.	
Manual hydraulic punch		52033843	3
Scope of supply		Part No.	Page
Draw stud for hydraulic op	eration 9.5 mm to 19 mm, 122 mm	52042827	
HSS Co5 step bit		52049371	
Spacer, short		50032488	
-		00002.00	
Plastic case			

# LS 60-L Battery powered hydraulic punching tool



- ▶ High flexibility using rotating head
- Automatic stop makes the punching tools last longer
- Lithium-ion technology allows long operating times and short recharging times

#### **Characteristics**

- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Powerful 18 V Li-lon battery high capacity, short charging time
- Energy saving function with motor cut-out after successful operation
- Manual retract as required
- Multifunction LED for maintenance display and charge status display of the battery
- Environmentally-friendly hydraulic oil, quickly biodegradable

#### **Suitable for**

- A punch size from 104.8 x 104.8 mm
- Round punch up to 95.3 mm

Technical data				
Punching force	60 kN			
Weight	4.0 kg			
Battery capacity	RAL2 / BL1830: 3 Ah			
Charging time	RAL2 / BL1830: 22 min.			
Punching time	5 s at 22.5 mm dia., 3 mm mild ste 12 s at 61.5 mm dia., 3 mm mild st			
Ambient temperature	-15 °C up to +40 °C			
Head outside diameter	73 mm			
Dimensions	325 x 285 x 80 mm			
Punching capacity	90 punches/battery at 22.5 mm dia. and 3.5 mm mild steel 170 punches/battery at 2.,5 mm dia. and 3.5 mm mild steel 250 punches/battery at 22.5 mm dia. and 2.5 mm mild steel			
Item Part No.				
Itom		i ait ivo.		
LS 60-L Battery powered hydra	ulic punching tool	LS60L		
	ulic punching tool		Page	
LS 60-L Battery powered hydra	, ,	LS60L		
LS 60-L Battery powered hydra Scope of supply	ulic operation 9.5 x 71 mm	LS60L Part No.		
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra	ulic operation 9.5 x 71 mm	<b>LS60L</b> Part No. 51300430	Page	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation	ulic operation 9.5 x 71 mm on 19.0 x 105 mm	Part No. 51300430 50318721	Page	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short	ulic operation 9.5 x 71 mm on 19.0 x 105 mm	Part No. 51300430 50318721 50032488	Page 426	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short Adapter 19.0 x 48 mm with inte	ulic operation 9.5 x 71 mm on 19.0 x 105 mm	Part No. 51300430 50318721 50032488 50339672	Page 426	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short Adapter 19.0 x 48 mm with inter HSS Co5 step bit	ulic operation 9.5 x 71 mm on 19.0 x 105 mm ernal thread 9.5 mm	Part No. 51300430 50318721 50032488 50339672 52049371	Page 426	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short Adapter 19.0 x 48 mm with inter HSS Co5 step bit KKLS60LGL Plastic case	ulic operation 9.5 x 71 mm on 19.0 x 105 mm ernal thread 9.5 mm i-lon battery	Part No. 51300430 50318721 50032488 50339672 52049371 KKLS60LGL	Page 426 426	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short Adapter 19.0 x 48 mm with inter HSS Co5 step bit KKLS60LGL Plastic case Makita quick-charger for 18 V L	ulic operation 9.5 x 71 mm on 19.0 x 105 mm ernal thread 9.5 mm i-lon battery	Part No. 51300430 50318721 50032488 50339672 52049371 KKLS60LGL LGL1	Page 426 426 494	
LS 60-L Battery powered hydra Scope of supply Draw stud for punch with hydra Draw stud for hydraulic operation Spacer, short Adapter 19.0 x 48 mm with inter HSS Co5 step bit KKLS60LGL Plastic case Makita quick-charger for 18 V L Makita battery 18 V / 3.0 Ah, Li-	ulic operation 9.5 x 71 mm on 19.0 x 105 mm ernal thread 9.5 mm i-lon battery -lon (54 Wh)	Part No. 51300430 50318721 50032488 50339672 52049371 KKLS60LGL LGL1 RAL2	Page 426 426 494 491	









# LS 50 FLEX battery powered hydraulic punching tool









- ▶ High flexibility using 360° rotating head
- ▶ An integrated pressure sensor increases the service life of the hole punch
- ▶ Automatic stop makes the punching tools last longer

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Energy saving function with motor cut-out after successful operation
- Manual retract as required
- Always ready-to-use thanks to battery charge and service display

#### **Suitable for**

- A punch size from 104.8 x 104.8 mm
- Round punch up to 143.7 mm

Technical data				
Punching force	60 kN			
Weight	2.1 kg			
Charging time	15 min.			
Punching time	5 s at 22.5 mm dia., 3 mm 6 s at 63.5 mm dia., 3 mm			
Ambient temperature	-15 °C up to +40 °C			
Dimensions	340 x 115 x 80 mm			
Punching capacity	120 punch operations at 2 190 punch operations at 2 280 punch operations at 2	2.5 mm dia., 3 m	ım mild steel	
Item		Part No. <b>Bosch</b>	Part No. Makita	
LS 50 FLEX battery powered	hydraulic punching tool	LS50FLEXCFB	LS50FLEXCFM	
Lieferumfang				Page
Bosch battery 18 V / 2.0 Ah,	Li-lon	RALB1EU		492
Bosch quick-charger for 18 \	Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah,	Li-lon		RAL1	491
Makita quick-charger for 18	Makita quick-charger for 18 V Li-Ion battery LGL1 49			494
Draw stud for hydraulic operation 19.0 x 105 mm		50318721	50318721	426
Spacer 22 mm, short		50032488	50032488	
HSS Co5 step bit		52049371	52049371	
Adapter 19.0 x 48 mm with i	nternal thread 9.5 mm	50339672	50339672	426
Draw stud for punch with hydr	aulic operation 9.5 x 71 mm	51300430	51300430	
Plastic case		KK50LFLEX	KK50LFLEX	
Accessories				Page
Bosch battery 18 V / 5.0 Ah,	Li-lon	RALB2EU		495
Makita battery 18 V / 3.0 Ah,	Li-lon (54 Wh)		RAL2	491

# EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>













- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app
- ▶ Small and slim, perfect for cramped conditions

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

you will lind on page 4	78			
Technical data				
Crimping force	60 kN			
Stroke	42 mm			
Crimping range	6 - 300 mm²			
Crimping cycle	7 s up to 9 s (depending	on cross-section)		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 64 mm dia. round,	up to 92 x 92 mm s	square	
Charging time	15 min.			
Weight	3.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Ma	akita
Battery-powered hydraulic	universal tool 6 - 300 mm²	EKM60UNVCFB	EKM60UN\	/CFM
Scope of supply				Page
Bosch battery 18 V / 2.0 Ah	, Li-lon	RALB1EU		492

Battery-powered nydraulic universal tool 6 - 300 mm <sup>2</sup>	EKMGUUNVCFB	EKM60UN1	/CFIVI
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-lon	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-lon		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491









# EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

















- > One head for crimping, cutting and punching one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- All tool data on view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	60 kN			
Stroke	42 mm			
Crimping range	6 - 300 mm²			
Crimping cycle	3 s to 5 s (depending o	on cross-section)		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 64 mm dia. roun	d		
Charging time	45 min.			
Weight	4.8 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic univ	ersal tool 6 - 300 mm²	EK60UNVCFB	EK60UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-	lon	RALB2EU		493
Bosch quick-charger for 18 V L	i-lon battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li	-lon		RAL40	492
Makita quick-charger for 18 V L	i-lon battery		LGL1	494
Plastic case 450 x 370 x 105 m	ım	UA22	UA22	478
Adapter for crimping dies of Se	ries 22	KK120UNVNG	KK120UNVNG	

# EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>











- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	108 kN			
Stroke	42 mm			
Crimping range	10 - 400 mm²			
Crimping cycle	Depending on cable typ	е		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square			
Charging time	45 min.			
Weight	6.5 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. <b>Makita</b>	
Battery-powered hydraulic unive	ersal tool 10 - 400 mm²	EK120UNVCFB	EK120UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-lo	on	RALB2EU		493
Bosch quick-charger for 18 V Li-lon battery		LGLB1EU		494
Plastic case 450 x 370 x 105 mr	n	KK120UNVNG	KK120UNVNG	
Adapter for crimping dies		UA12TKL	UA12TKL	478









# Hydraulic punch with hand pump



#### **▶** Compact design

#### **Characteristics**

With hand pump, hose and cylinder

#### **Suitable for**

- All punches up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

#### Operation

- Hydraulic

#### **Additional information**

 When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)

Technical data				
Punching force	110 kN			
Weight	8.3 kg			
Item		P	art No.	
Hydraulic punch with han	d pump	50	15906	2
Scope of supply		Part N	0.	Page
Hydraulic cylinder		501709	910	
Draw stud for hydraulic o	peration 9.5 mm to 19 mm, 122 mm	520428	327	
Spacer, short		500324	188	
Spacer bush, medium		510324	190	
Spacer bush 38 mm, long		500690	)47	
Kwik Stepper™ step bit 1	2.7 mm	503441	02	466
767 Hydraulic hand pump	1	501328	349	490
Hydraulic hose 6.4 mm di	a. x 0.9 m	503831	67	498
Draw stud for hydraulic op	peration 19.0 x 137 mm	520450	)40	

# Hydraulic punch with foot pump



#### **Characteristics**

· With foot pump, hose and cylinder

- Up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

Hydraulic

#### **Additional information**

When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)

Technical data				
Punching force	110 kN			
Weight	15.2 kg			
Item		Part No.		
Hydraulic punch with foot pump	1	50250973	50250973	
Scope of supply		Part No.	Page	
Hydraulic cylinder		50170910		
Spacer, short		50032488		
Spacer bush, medium		51032490		
Spacer bush 38 mm, long		50069047		
Kwik Stepper™ step bit 12.7 m	ım	50344102	466	
1725 Hydraulic foot pump		50313533	490	
Hydraulic hose 6.4 mm dia. x 3	m	50377299	498	
Draw stud for hydraulic operation	on 9.5 mm to 19 mm, 122 mm	52042827		
Draw stud for hydraulic operation	on 19.0 x 137 mm	52045040		

# Thread grease



- Increases the service life
- ▶ Prevents "seizing"
- Screw and nut threads resistant to wear

#### **Suitable for**

- Statically and dynamically high stressed thread connections

Item	Part No.
Draw stud thread grease, 30 g	50115472









# Portable C-frame punch driver, 15.2 - 34.6 mm



# ▶ Fast, one shot punching - no pre-drilling of pilot holes required

#### **Additional information**

- For actuation we recommend hydraulic foot pump 1725, Part No. 50313533, hand pump 767, Part No. 50132849 or pumps EHP4 and AHP700L
- When using the AHP700L adapter CMGSK is required

Throat	200 mm		
Weight	6.8 kg		
Punching capacity	up to 3 mm St37		
	15.2 - 34.6 mm		
Punching range	15.2 - 34.0 111111	2.11	
Item	nr 1701	Part No. <b>5015911</b>	
Portable C-frame punch drive	1131		
Scope of supply		Part No.	Page
Punch adapter 9.5 mm		50132768	
Punch adapter 19 mm		50132776	
Punch Pg 16		51040060	
Punch Pg 21		51040080	
Punch 34.6 mm		50040103	
Die Pg 16 (22.5 mm)		50120875	
Die Pg 21 (28.3 mm)		50120867	
Die 34.6 mm		50120859	
Metal case		50166344	
Accessories		Part No.	Page
Punch Pg 9 (15.2 mm)		50213164	
Die Pg 9 (15.2mm)		50185578	
Punch Pg 11 (18.6 mm)		50177001	
Die Pg 11 (18.6 mm)		50185586	
Punch Pg 13 (20.4 mm)		50176978	
Die Pg 13 (20.4 mm)		50185594	
Punch 30.5 mm (oil-tight)		50362828	
Die 30.5 mm (oil-tight)		50371037	
Die ISO 16		50766421	
Die ISO 20		50766438	
Die ISO 25		50766445	
Die ISO 32		50766452	
Punch ISO 25		50039865	
i ulicii ioo zo			

# Portable C-frame punch driver, 15.2 - 115.4 mm



#### **Suitable for**

• For use with standard punches and dies, punching range 15.2 to 115.4 mm

#### **Additional information**

- For actuation we recommend hydraulic hand pump 755, Part No. 50156772 or pumps EHP4 and AHP700L
- When using the AHP700L adapter CMGSK is required

Technical data			
Throat	200 mm		
Weight	27 kg		
Punching capacity	up to 3 mm St37		
Punching range	15.2 to 115.4 mm		
Item		Part No.	
Portable C-frame punch drive	r 1732	50273612	2
Scope of supply		Part No.	Page
Die adapter 9.5 mm		50117912	
Die adapter 19 mm		50117904	
Die adapter 28.6 mm		50117890	
Die adapter 9.5 mm		50132660	
Die adapter 19 mm		50132679	
Die adapter 28.6 mm		50132687	
Hexagonal nut		90542657	
Metal case		50273353	
Accessories		Part No.	Page
Punch Pg 9 (15.2 mm)		50213164	
Die Pg 9 (15.2mm)		50185578	
Punch Pg 11 (18.6 mm)		50177001	
Die Pg 11 (18.6 mm)		50185586	
Punch Pg 13 (20.4 mm)		50176978	
Die Pg 13 (20.4 mm)		50185594	
Punch 30.5 mm (oil-tight)		50362828	
Die 30.5 mm (oil-tight)		50371037	
Die ISO 16		50766421	
Die ISO 20		50766438	
Die ISO 25		50766445	
Die ISO 32		50766452	
Punch ISO 25		50039865	
D l- 100 00		50044500	
Punch ISO 32		50244590	









# LSK 120 Hydraulic hole punching head - basic tool



- ► Fast and precise cutting
- ▶ Punching in just a few seconds
- ▶ Compact design permits working in tight areas

#### **Suitable for**

- Aluminium, copper and steel with a tensile strength to 470 N/mm² to 10 mm thick
- Hole diameters: 6.5 17 mm
- Centric punching: 120 mm max. material width
- Drive with EHP 4 and AHP 700-L

#### **Additional information**

Drive with EHP 4 and AHP 700-L available; adapter CMGSK required

Technical data			
Max. operating pressure	max. 700 bar		
Max. compressive force	160 kN		
Dimension	234 x 174 x 88 mm		
Weight	9.5 kg		
Item		Part No.	
Hydraulic hole punching head	LSK 120	5005211	0
Accessories		Part No.	Page
Perforated die 6.5 mm dia.		50050070	400
remorateu die 6.5 mm dia.		50052276	480
Punch and die 8.5 mm dia.		50052276	480
Punch and die 8.5 mm dia.		50052284	480
Punch and die 8.5 mm dia. Punch and die 11 mm dia.		50052284 50052292	480 480
Punch and die 8.5 mm dia. Punch and die 11 mm dia. Punch and die 13 mm dia.		50052284 50052292 50052306	480 480 480

# Slug Buster® punch set for all applications from ISO 16 - 40



#### **Suitable for**

Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### Predrilling

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set ISO 16 to 40	50366920	
Scope of supply	Part No.	Page
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 x 55 mm	50040405	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	

# Slug Buster® punch set for all applications from PG 9 to PG 21 and 30.5 mm



#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item Slug Buster® punch set PG 9 to PG 21 and 30.5 mm	Part No. <b>50366904</b>	
Scope of supply	Part No.	Page
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET	455
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	

# Slug Buster® punch set for ISO 16 - 63



#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set ISO 16 to 63	50366939	
Scope of supply	Part No.	Page
Slug Buster® punch set ISO 16 - 63	50068920SET	454
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 mm x 75 mm	50040421	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	







# Slug Buster® punch set for all applications from PG 9 - 48 and 30.5 mm



#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set PG 9 to PG 48 and 30.5 mm	50366912	
Scope of supply	Part No.	Page
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 x 55 mm	50040405	423
Ratchet	50349414	
Slug Buster® punch set PG 9 - 48, 30.5 mm	50328034SET	455
Plastic case	50366858	

# Speed Punch™ Set ISO 16 – 40



- ▶ Up to 3-times faster than conventional punching tools
- Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

#### **Suitable for**

Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Hydraulic

### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### Scope of supply

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.	
Speed Punch™ punch set ISO 16/20/25/32/40	52055439SET	
Scope of supply	Part No.	Page
Punch and die ISO 16 (16.2 mm)	52055431	422
Punch and die ISO 20 (20.4 mm)	52055432	422
Punch and die ISO 25 (25.4 mm)	52055434	422
Punch and die ISO 32 (32.5 mm)	52055435	422
Punch and die ISO 40 (40.5 mm)	52055436	422
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439	422
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440	422
Plastic case	KKSPIS016B63	
Accessories	Part No.	Page
Plastic case	KKSPIS016B63	

# Speed Punch™ Set ISO 16 – 63



- ▶ Up to 3-times faster than conventional punching tools
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

#### **Suitable for**

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

- Hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### **Scope of supply**

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.	
Speed Punch™ Set ISO 16 – 63	52055440SET	
Scope of supply	Part No.	Page
Punch and die ISO 16 (16.2 mm)	52055431	422
Punch and die ISO 20 (20.4 mm)	52055432	422
Punch and die ISO 25 (25.4 mm)	52055434	422
Punch and die ISO 32 (32.5 mm)	52055435	422
Punch and die ISO 40 (40.5 mm)	52055436	422
Punch and die ISO 50 (50.8 mm)	52055437	422
Punch and die ISO 63 (64.0 mm)	52055438	422
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439	422
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440	422
Plastic case	KKSPIS016B63	
Accessories	Part No.	Page
Plastic case	KKSPIS016B63	









# Slug-Splitter® punch set (stainless steel) ISO 16 - 40



- **▶** Unique punch profile
- ▶ Split slugs fall free and can be removed easily

#### **Suitable for**

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

#### **Operation**

Hydraulic

#### **Predrilling**

 Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030 draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.	
Slug-Splitter® punch set (stainless steel) ISO 16/20/25/32/40	50766803	
Scope of supply	Part No.	Page
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527	421
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543	421
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560	421
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594	421
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616	421
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512	424
Draw stud for hydraulic operation 19 x 140 mm	50294520	424
Plastic case	KKSSIS016B63	

# Slug-Splitter® punch set (stainless steel) ISO 16 - 63



- ▶ Unique punch profile
- > Split slugs fall free and can be removed easily

#### **Suitable for**

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

#### **Operation**

Hydraulic

## Predrilling

 Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030 draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.		
$\underline{\hbox{Slug-Splitter}^{\circledR}\hbox{ punch set (stainless steel) ISO 16/20/25/32/40/50/63}}$	50766797		
Scope of supply	Part No.	Page	
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527	421	
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543	421	
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560	421	
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594	421	
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616	421	
Slug-Splitter® punch (stainless steel) 50.8 mm	50069632	421	
Slug-Splitter® punch (stainless steel) 64 mm	50069667	421	
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512	424	
Draw stud for hydraulic operation 19 x 140 mm	50294520	424	
Plastic case	KKSSIS016B63		

# Slug Buster® hand hydraulic punch driver set PG 9 - PG 21, 30.5 mm



#### **Suitable for**

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Part No.			
50356119SET			
Part No.	Page		
50342886			
51300430			
50318721	424		
50032488			
50339672	426		
50323989SET 455			
50352024			
	Part No. 50342886 51300430 50318721 50032488 50339672 50323989SET		

# Slug Buster® hand hydraulic 90° punch driver set PG 9 - PG 21, 30.5 mm



#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm thick

# **Operation**

Hydraulic

#### **Predrilling**

Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.				
Slug Buster® hand hydraulic punch driver set PG 9 to PG 21 and 30.5 mm	50356151SET				
Scope of supply	Part No.	Page			
Hand hydraulic punch 7904E	50337866				
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430				
Draw stud for hydraulic operation 19.0 x 105 mm	50318721 42				
Spacer, short	50032488				
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426			
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET 455				
Plastic case 50352024					







# Slug Buster® hand hydraulic punch driver set ISO 16 - 40



#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm thick

#### **Operation**

Hydraulic

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.		
Slug Buster® hand hydraulic punch driver set ISO 16 to 40	50356143SET		
Scope of supply	Part No.	Page	
Hand hydraulic punch 7804E	50342886		
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430		
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	424	
Spacer, short	50032488		
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426	
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454	
Plastic case	50352024		

# Slug Buster® hand hydraulic 90° punch driver set ISO 16 - 40



#### **Suitable for**

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

#### **Operation**

Hydraulic

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item Slug Buster® hand hydraulic punch driver set ISO 16 to 40	Part No. <b>50356160SET</b>			
Scope of supply	Part No. Pag			
Hand hydraulic punch 7904E	50337866			
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430			
Draw stud for hydraulic operation 19.0 x 105 mm	50318721 43			
Spacer, short	50032488			
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426		
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454		
Plastic case	50352024			

# Hand hydraulic punching set 90° ISO 16 - 40



#### ▶ Flexible head for multi-purpose use even in confined areas

#### **Suitable for**

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

Item	Part No.			
Hand hydraulic punching set ISO 16 - 40	52034233			
Scope of supply	Part No.	Page		
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454		
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827			
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	426		
Spacer, short	50032488			
HSS Co5 step bit	52049371			
Plastic case	Kunststoffkoffer			

# Slug Buster® punch set ISO 16 – 40



- ▶ For guick, clean, effortless and burr-free holes
- Split slugs fall free and can be removed easily

#### **Suitable for**

• Mild steel (St37), plastic and aluminium to 3.0 mm

#### **Operation**

Manual

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### Scope of supply

- Complete system including punch and die incl. plastic case

#### **Additional information**

- A case is not included in scope of supply, this must be ordered separately

Item	Part No.	
Slug Buster® punch set ISO 16/20/25/32/40	50356178S	ET
Accessories	Part No.	Page
Plastic case	KKIS016B63	

# Slug Buster® punch set ISO 16 - 63



- ▶ Long product life
- Very easy to use

#### **Suitable for**

Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### **Scope of supply**

- Complete system including punch and die incl. plastic case

Item	Part No.		
Slug Buster® punch set ISO 16/20/25/32/40/50/63	50068920S	ET	
Accessories	Part No.	Page	
Plastic case	KKIS016B63		







# Slug Buster® punch set PG 9 - 21, 30.5 mm



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

#### **Operation**

Manual

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### **Scope of supply**

- Complete system including punch and die incl. plastic case

Item	Part No.		
Slug Buster® punch set PG 9/11/13/16/21 and 30.5 mm	50323989\$	ET	
Accessories	Part No.	Page	
Plastic case	KKPG9B48		

# Slug Buster® punch set PG 9 - PG 48, 30.5 mm



- **▶** Unique punch profile
- ▶ Split slugs fall free and can be removed easily

#### **Suitable for**

• Mild steel (St37), plastic and aluminium up to 3.5 mm

## **Operation**

Manual

#### **Predrilling**

 Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183 draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### **Scope of supply**

- Complete system including punch and die incl. plastic case

Item	Part No.	
Slug Buster $^{\! \rm B}$ punch set PG 9/11/13/16/21/29/36/48 and 30.5 mm	50328034S	ET
Accessories	Part No.	Page
Plastic case	KKPG9B48	

# FOR DEEP INCISIONS - HOLE SAWS

Clear the way for cables and electrical connections. Our Greenlee hole saws offer a long-term precise solution. Reinforced back plate reduces vibrations. Saving you effort and ensuring precise concentricity. HSS bi-metal hole saws are suitable for processing steel sheet, cast iron, brass and other materials.



#### In brief

- ▶ Reduced vibrations thanks to reinforced back plate
- ▶ Long service life due to high-performance steel
- **▶** Suitable for numerous materials
- ▶ For multi-functional use, please note our universal tools



# ▶ HSS bi-metal hole saws

No material is safe from the HSS bi-metal hole saws. Very hard high-performance steel (M 42) for clean and reliable prolonged operation.

- Precise cut with positive pitch
- Reinforced back plate reduces vibrations
- High true running accuracy

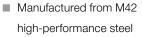
- Cooling slots for low heat build-up
- Saws up to a cut depth of of 41.3 mm
- Improved service life due to tooth hardness Rc65-68
- Suitable for steel sheet, cast iron, brass, fibreglass, wood and plastic



# ▶ Set of hole saws: HSS bi-metal hole saw set

The hole saw set gives you all standard sizes tidily combined. Well sorted and perfectly protected.

All standard sizes of hole saws





# **HSS Bi-metal hole saws**





- ▶ Vibration-reduction and high true running accuracy due to thick back section
- ▶ High-quality serration easily assured, precise cut
- ► Cooling slots ensure low heat build-up
- ▶ No canting when sawing

#### **Characteristics**

- High-quality, rake variable pitch design provides faster, easier cutting
- High true running accuracy
- Max. cutting depth 41.3 mm
- Tooth hardness Rc 65 68

#### **Suitable for**

- Mild steel, cast iron, brass, aluminium, fibreglass, wood and plastic

#### **Additional information**

Arbors have to be ordered separately, not included in scope of supply

		for	ting speed r.p.m.	commended cut	Rec					
Part No.	wood	aluminium	non-ferrous metal	cast iron	tool and stainless steel	steel sheet	Weight g	Standard size ISO	Standard size Pg	Punch size mm
50191314	800	900	790	400	300	580	46			14
52057722	800	900	790	400	300	580	46			15
52057723	760	825	730	365	275	550	46	ISO 16	Pg 9	16
52057724	720	750	665	330	250	500	46			17
52057725	720	750	665	330	250	500	46			18
52057726	680	690	600	300	230	460	46		Pg 11	19
52057727	640	660	580	290	220	445	46	ISO 20		20
52057728	580	635	560	280	195	425	46		Pg 13	21
52057729	560	585	520	260	195	390	46		Pg 16	22
52057730	540	570	510	250	190	380	46			23
52057731	520	555	494	245	185	370	46			24
52057732	500	525	470	235	175	350	46	ISO 25		25
52057733	500	480	435	215	160	325	46			26
52057734	450	450	400	200	150	300	46			27
52057735	450	450	400	200	150	300	46			28
52057736	430	425	380	190	145	285	91		Pg 21	29
52057737	410	410	360	180	140	270	91			30
52057738	410	410	360	180	140	270	91	ISO 32		32
52057739	370	375	330	165	125	250	46			33
52057740	30	360	315	160	120	240	46			35
52057741	30	360	315	160	120	240	91			36
52057742	330	345	300	150	115	230	91		Pg 29	37
52057743	310	330	290	145	110	220	91			38
52057744	290	315	280	140	110	210	91	ISO 40		40
52057745	270	305	270	135	105	205	91			41
52057746	270	305	270	135	105	205	137			42
52057747	250	295	260	130	100	195	91			43
52057748	230	285	250	125	95	190	91			44
52057749	230	285	250	125	95	190	91			45
52057750	210	270	240	120	90	180	137			46
52057751	210	270	240	120	90	180	91		Pg 36	48
52057752	200	255	230	115	85	170	91	ISO 50		50
52057753	200	245	220	110	80	165	137			51







					Recommended cutting speed r.p.m. for					
Punch	Otendend	Ota in daniel	\A/-:		tool and					
size mm	Standard size Pg	Standard size ISO	Weight g	steel sheet	stainless steel	cast iron	non-ferrous metal	aluminium	wood	Part No.
53			137	160	80	105	210	240	190	52057755
54	Pg 42		137	160	80	105	210	240	190	52057756
55			137	150	75	100	200	225	185	52057757
57			227	150	75	100	195	225	185	52057758
59			137	140	70	95	190	220	180	52057760
60	Pg 48		137	135	70	90	180	205	180	52057761
63		ISO 63	182	130	65	85	175	200	175	52057762
64			182	130	65	85	175	200	175	52057801
65			182	130	65	85	170	195	170	52057763
67			182	125	60	80	160	185	165	52057764
68			182	125	60	80	160	185	160	52057765
70			182	120	55	80	160	180	160	52057766
73			182	115	55	75	150	170	150	52057767
74			182	115	55	75	150	170	150	52057768
75			227	115	55	75	150	170	150	52057769
76			227	110	55	70	140	165	145	52057770
79			227	120	55	70	140	165	165	52057802
80			227	110	55	70	140	165	145	52057771
83			273	105	50	70	140	155	140	52057773
86			273	100	50	65	130	150	135	52057774
89			273	95	45	65	130	145	130	52057775
92			273	95	45	60	120	130	120	52057776
95			318	95	45	60	120	135	110	52057777
98			318	90	40	60	120	135	110	52057778
102			318	85	10	55	110	130	100	52057779
105			363	80	40	55	110	120	110	50191772
108			363	80	40	55	110	120	110	50191780
111			363	80	40	50	100	120	110	50191799
114			409	75	40	50	100	105	100	50191802
121			499	75	35	50	95	95	100	50191810
127			545	65	35	45	90	90	100	50191829
140			545	60	35	35	85	85	100	50191837
152			636	55	35	35	75	75	100	50191845
168			701	55	35	35	68	65	100	52057803
177			728	55	35	35	65	65	100	52057804
210			820	55	35	25	55	55	100	52057805

# HSS Bi-metal hole saw set



- ▶ Saves time thanks to low vibration and heat development
- ▶ Variable pitch for an uniform cut
- ▶ Requires minimal effort when drilling

#### **Characteristics**

- High true running accuracy
- Less effort when cutting

#### **Suitable for**

• Metal, brass, fibreglass, non-ferrous metal, cast iron, aluminium, wood and plastics, stainless steel sheet

Item	Part No.
HSS bi-metall hole saw set Elektro II	52059292SET
HSS bi-metal universal hole saw set	52059293SET
HSS bi-metal hole saw set ISO 16 to 63	50069497SET
HSS bi-metal plumbing hole saw set	52059294SET
HSS bi-metal hole saw set (830 PG)	50292099SET
HSS bi-metal electrical hole saw set	52059295SET
Electro set with countersink 35/68/75 mm	50125630SET

		Stand	lard size				Hole set			
Description	Nominal size mm	Pg	ISO	52059292SET Electro II	52059293SET Universal	50069497SET ISO 16-63	52059294SET Plumbing	50292099SET 830PG	52059295SET Standard	50125630SET Electro
Bi-metal hole saw	16	Pg 9			•				•	
	17		ISO 16			•				
	19	Pg 11			•		•	•	•	
	21	Pg 13	ISO 20			•		•		
	22	Pg 16		•	•			•	•	
	24						•			
	25		ISO 25		•	•				
	29	Pg 21		•	•		•	•	•	
	30							•		
	33		ISO 32			•				
	35			•	•				•	•
	37	Pg 29						•		
	38				•		•			
	41		ISO 40			•				
	44			•	•		•		•	
	48	Pg 36						•		
	51		ISO 50	•	•	•				
	52								•	
	57						•		•	
	60	Pg 48						•		
	63		ISO 63	•	•	•				
	67						•		•	
	68			•						•
	75									•
	76				•					
Countersink for Hole Saw 68	8 mm									•
Arbor 14 to 30 mm				•	•	•	•	•	•	
Arbor 32 to 152 mm				•	•	•	•	•	•	•
Case				•	•	•	•	•	•	•







# Electro set with countersink



#### **Characteristics**

- Countersink with two specially-hardened cutting teeth

#### Suitable for

 Steel, non-ferrous metal, aluminium, cast iron, stainless steel, wood, plastic and building materials

#### **Scope of supply**

 Consisting of hole saws 35 mm, 68 mm, 75 mm, countersink for 68 mm hole saw, arbor with pilot drill and counter nut for hole saws 32 - 152 mm and spare HSS pilot drill 6.35 mm dia.

Item	Part No.	Part No.		
Electro set with countersink 35/68/75 mm	50125630SE	T		
Scope of supply	Part No.	Page		
HSS bi-metal hole saw 35 mm	52057740	458		
HSS bi-metal hole saw 68 mm	52057765	459		
HSS bi-metal hole saw 75 mm	52057769	459		
Countersink for hole saws	52033839			
Arbor for HSS bi-metal hole saws 8.6 mm	52057781	462		
Plastic case	52059258			

# Hole saws

# Arbor for HSS bi-metal hole saws 14 - 30 mm



#### **Suitable for**

Sizes from 14 - 30 mm

Item	Part No.
Arbor 6.3 mm	50371576
Arbor for HSS bi-metal hole saws 7.9 mm	50385224
Arbor 8.6 mm	52057780
Arbor 11.1 mm	50371550

# Arbor for HSS bi-metal hole saws 32 - 152 mm



#### Suitable for

- Sizes from 32 51 mm
- Sizes from 32 152 mm

Item	Part No.
Arbor 7.9 mm for HSS bi-metal hole saws 32 - 51 mm	50371541
Arbor 8.6 mm for HSS bi-metal hole saws 32 - 152 mm	52057781
Arbor 11.1 mm for HSS bi-metal hole saws 32 - 152 mm	50371568

# SDS arbor for HSS bi-metal hole saws



#### **Suitable for**

- Sizes from 32 152 mm
- Sizes from 14 30 mm

Item	Part No.
SDS arbor for HSS bi-metal hole saws 14 - 30 mm	50069691
SDS arbor for HSS bi-metal hole saws 32 - 152 mm	50069292

# Replaceable pilot drill for arbor HSS bi-metal hole saws



Item	Part No.
Replaceable pilot drill for arbor HSS bi-metal hole saws	52057782







# SIMPLE DRILLING – EVERYTHING IN ONE OPERATION

Greenlee bits are produced using the latest CNC technology. The benefit to you is clear: Clean cutting edges produce longer and better cutting operations from the very first use. That saves you effort. The two-sided deburring of the edge breaker saves you time. The Rotastop system on the shank prevents the bit from slipping through in the chuck. That's how drilling is done today.



#### In brief

- ▶ Perfect cutting performance in the first pass
- ▶ Rotastop prevents the bit slipping through
- > Split point requires less effort



#### **▶** Kwik Stepper with Rotastop

Years of experience and development have gone into this bit. The Kwik Stepper drills not only burr-free with optimum swarf removal, the spiral groove also reduces heat build-up during the drilling operation. This makes the Kwik Stepper especially durable. The Rotastop system holds the bit in place - without slipping through. Additionally, the split point reduces your effort during the drilling operation. Great performance from just one bit.

- All required drilling ranges in one tool
- Rotastop for maximum torque transmission
- Quick bit change
- No slipping through in the chuck
- Spiral groove for improved cutting performance
- Two-sided burr removal
- Can be used for sheet, pipes, non-ferrous metals, stainless steel and plastics

# ▶ Performance in the set: Kwik Stepper set of step bits

To keep you flexible while drilling, we have combined all standard step bits in a practical set and accommodated them in a robust plastic box. Everything to hand.

- All common step bits
- Clear assignment of the bit through laser scaling of the step bit
- Robust plastic box with integrated pop-up hinge
- Easy to transport and store



# Kwik Stepper™ step bit



- ► Minimum burr
- Long service lifeGood torque transmission
- Less effort when drilling

#### Suitable for

- Sheet, pipe, NF metal and plastic

Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit 3.2 - 12.7 mm	3.2 - 12.7	3.2 / 4.0 / 4.8 / 5.6 / 6.4 / 7.1 / 7.9 / 8.7 / 9.5 / 10.3 / 11.1 / 11.9 / 12.7	80	13	634	50344013
Kwik Stepper™ step bit 4.8 - 12.7 mm	4.8 - 12.7	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7	80	6	6.4	50364022
Kwik Stepper™ step bit 22.2 mm	22.2	22.2	85	1	9.5	50344110
Kwik Stepper™ step bit 4.8 - 22.2 mm	4.8 - 22.2	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7 / 14.3 / 15.9 / 17.5 / 19.1 / 20.6 / 22.2	85	12	9.5	50344030
Kwik Stepper™ step bit 12.7 - 28.6 mm	12.7 - 28.6	12.7 / 22.2 / 28.6	57	3	9.5	50300083
Kwik Stepper™ step bit 22.2 - 34.9 mm	22.2 - 34.9	22.2 / 28.6 / 31.0 / 31.8 / 34.9	73	5	9.5	50364146
Kwik Stepper™ step bit 9.7 mm	9.7	Predrilling for Green- lee-Draw stud 9.7	40	1	6.4	50360183
Kwik Stepper™ step bit 12.7 mm	12.7	Predrilling for Green- lee-Draw stud 12.7	40	1	6.4	50344102
Kwik Stepper™ step bit Pg 7 - 21	Pg 7 - 21	Pg7 / Pg9 / Pg11 / Pg13 / Pg16 / Pg21	90	7	9.5	50360205
Kwik Stepper™ step bit ISO 16 - 32	ISO 16 – 32	ISO 16 / 20 / 25 / 32	80	4	9.5	50360221







# Kwik Stepper™ step bit with ROTASTOP® shaft





- ▶ No slipping in the chuck with ROTASTOP®
- ► Long service life
- ▶ Requires minimum effort when drilling

#### Suitable for

- Reaming of steel sheets, pipes, non-ferrous metals and plastic







Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 12 mm	4 – 12	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0	80	9	8.0	50069845
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	4 – 20	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0	67	9	8.0	50069853
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	6 – 30	6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	98	13	10.0	50069861
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 36 mm	6 – 36	6.0 / 9.0 / 12.0 / 15.0 / 18.0 / 21.0 / 24.0 / 27.0 / 30.0 / 33.0 / 36.0	85	11	12.0	50069870
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm	ISO 12 - 40	For ISO 12 / 16 / 20 / 25 / 32 / 40	110	6	12.0	50069888

#### Kwik Stepper™ step bit set



- ► ROTASTOP® guarantees best-possible torque transmission
- ▶ Hardly any burr
- ► No slipping in the chuck with ROTASTOP®
- ▶ Long service life
- ▶ Requires minimal effort when drilling

#### **Suitable for**

- Reaming of steel sheets, pipes, non-ferrous metals and plastic

Item	Part No.	
Kwik Stepper™ step bit set	50069900	
Scope of supply	Part No.	Page
Kwik Stepper <sup>™</sup> step bit with ROTASTOP® shaft 4 - 12 mm	50069845	467
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	50069853	467
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	50069861	467

#### Combi bit set in plastic cassette M 3 - M 10



▶ Drill, tap and deburr in one operation

#### **Suitable for**

• For use with St37, non-ferrous metals and plastics

Item	Part No.		
Combi bit set in plastic cassette M 3 - M 10	50116304	1	
Scope of supply	Part No.	Page	
Combi bit M3	50116312		
Combi bit M4	50116320		
Combi bit M5	50116339		
Combi bit M6	50116347		
Combi bit M8	50116355		
Combi bit M10	50116363	50116363	
Combi bit holder	50116371		















# Universal tools

Hand-operated hydraulic universal tool, hydraulic universal head	472
Battery powered universal tools	475
Bus bar tool centre	479

#### Universal tools

## ONE TOOL FOR ALL SITUATIONS -UNIVERSAL TOOLS

Crimping, cutting or punching: Replaceable adapter and dies quickly adapt the tool to individual tasks. Low weight and powerful: Crimping up to 400 mm<sup>2</sup>, cutting up to 40 mm diameter or punching up to 92 x 92 mm, no problem at all for the Klauke Multi.

The Klauke Multi: The right tool in every instance.



#### **▶** Systematic crimping

All crimping dies from Klauke function with every Klauke tool. Crimp cable lugs with the Klauke series 5, 18 and 22 (6 t tools) and wide crimping with the series 13 (12 t tools). Differing crimp shapes and nominal cross-sections up to 400 mm<sup>2</sup> can be processed with just one tool.

- Can be used with dies series 5, 18 and 22 (6 t)
- Wide crimping with dies series 13 (12 t) possible
- Cross sections up to 400 mm²
- Simple adapter replacement

#### **▶** All-around cutting

Stay prepared for various materials. Cables from copper and aluminium are not a problem with appropriate cutting head, likewise for DIN-profile rails, threaded bars or railway catenary wires. Klauke universal tool cuts everything up to 40 mm diameter.

- Differing materials can be cut: Aluminium and copper cables, threaded rods, profile rails, railway catenary wires
- The right cutting dies for every application
- Cutting range up to 40 mm

#### ▶ The plus one: Hole punching

Retooling of hole punches is really simple with the Klauke multi. In conjunction with hole punch adapters from Greenlee, you can punch holes up to 64 mm round and max. 92 mm x 92 mm square.

#### ▶ Solid in use

The Klauke universal tool can also be used for machining operations on solid bus bars and laminated bus bars up to 120 mm x 12 mm. Bending, punching, cutting and offsetting with one device that can be operated with the AHP700L and the electric pumps from Klauke.



#### HK 60 UNV Hand-operated hydraulic universal tool











- ▶ One head for crimping, cutting and punching one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool

#### **Characteristics**

- Universal head flip top style, rotatable
- Adapter for crimping dies of the Klauke Series 5, 18 and 22
- Various cutting dies for aluminium and copper conductors with and without armouring as well as Al/St-Cables (ACSR)
- Dies for cutting threaded rods and DIN rails
- Punching adapter for Greenlee punching tools
- Dies to punch DIN rails
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Automatic retraction when operation is complete

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data			
Crimping force	60 kN		
Stroke	42 mm		
Crimping range	6 - 300 mm²		
Cutting range	max. 40 mm dia.		
Punching capacity	up to 64 mm dia. round, up to 9	2 x 92 mm square	
Length	540 mm		
Weight	3.5 kg		
Ambient temperature	-20 °C to +40 °C		
Item		Part No.	
Hand-operated hydraulic un	iversal tool	HK60UNV	
Scope of supply		Part No.	Page
Steel carrying case		MK60UNV	



#### PK 60 UNV Hydraulic universal head











- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for best possible crimping, cutting and punching results

#### **Characteristics**

- Universal head with quick coupling, 360° rotation when not pressurised, flip top style
- Various cutting dies for aluminium and copper conductors with and without armouring as well as Al/St-Cables (ACSR)
- Dies to punch DIN rails
- Adapter for crimping dies of the Klauke Series 5, 18 and 22

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	60 kN	60 kN		
Stroke	42 mm			
Crimping cycle	3 s to 5 s (depending on crimping o	cross-section)		
Number of crimps	approx. 300 at 150 mm² Cu DIN			
Cutting range	max. 40 mm dia.			
Number of cuts	approx. 110 at 4 x 70 mm² NYY			
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square			
Operating pressure	max. 700 bar			
Length	350 mm			
Weight	2.4 kg			
Item		Part No.		
Hydraulic universal head		PK60UNV		
Scope of supply		Part No.	Page	
Carrying bag		TT2	192	









#### EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>













- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app
- ▶ Small and slim, perfect for cramped conditions

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

on page 476				
Technical data				
Crimping force	60 kN			
Stroke	42 mm			
Crimping range	6 - 300 mm²			
Crimping cycle	7 s up to 9 s (depending	on cross-section)		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 64 mm dia. round,	up to 92 x 92 mm s	square	
Charging time	15 min.			
Weight	3.0 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. <b>Bosch</b>	Part No. Ma	akita
Battery-powered hydraulic un	iversal tool 6 - 300 mm²	EKM60UNVCFB	EKM60UN	/CFM
Scope of supply				Page

Ambient temperature -10 G up to +40 G			
Item	Part No. <b>Bosch</b>	Part No. Ma	akita
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	EKM60UNVCFB	EKM60UN\	/CFM
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-lon	RALB1EU		492
Bosch quick-charger for 18 V Li-lon battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-lon		RAL1	491
Makita quick-charger for 18 V Li-lon battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-lon	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2	491

#### EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

















- ▶ One head for crimping, cutting and punching one tool for all
- Ideal in the assembly field where all common jobs can be carried out using one tool
- ► Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	60 kN			
Stroke	42 mm			
Crimping range	6 - 300 mm²			
Crimping cycle	3 s to 5 s (depending o	n cross-section)		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 64 mm dia. round	t		
Charging time	45 min.			
Weight	4.8 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. Makita	
Battery-powered hydraulic unive	ersal tool 6 - 300 mm²	EK60UNVCFB	EK60UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-I	on	RALB2EU		493
Bosch quick-charger for 18 V Li	-lon battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-	lon		RAL40	492
Makita quick-charger for 18 V L	i-lon battery		LGL1	494
Plastic case 450 x 370 x 105 m	m	UA22	UA22	478
Adapter for crimping dies of Ser	ies 22	KK120UNVNG	KK120UNVNG	









#### EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>











- > One head for crimping, cutting and punching one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and ipress app

#### **Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

#### **Technical instructions**

 Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data				
Crimping force	108 kN			
Stroke	42 mm			
Crimping range	10 - 400 mm²			
Crimping cycle	Depending on cable typ	ре		
Cutting range	max. 40 mm dia.			
Punching capacity	up to 144 mm dia. rour	nd, up to 138 x 1	38 mm square	
Charging time	45 min.			
Weight	6.5 kg			
Ambient temperature	-10 °C up to +40 °C			
Item		Part No. Bosch	Part No. <b>Makita</b>	
Battery-powered hydraulic unive	ersal tool 10 - 400 mm²	EK120UNVCFB	EK120UNVCFM	
Scope of supply				Page
Bosch battery 18 V / 5.0 Ah, Li-l	on	RALB2EU		493
Bosch quick-charger for 18 V Li-	-lon battery	LGLB1EU		494
Plastic case 450 x 370 x 105 m	m	KK120UNVNG	KK120UNVNG	
Adapter for crimping dies		UA12TKL	UA12TKL	478



## Interchangeable adapters and dies for crimping, cutting or punching

rt description	on	Part no.	То	ols
plication: c	rimping		6 ton	12 to
	Adapter for crimping dies series 5	UA5	•	
	Adapter for crimping dies series 13	UA12TKL		•
	Adapter for crimping dies series 18	UA18	•	
	Adapter for crimping dies series 22	UA22	•	
olication: c	uttina		6 ton	12 to
<b>C</b> >	Cutting die for Al/Cu conductors to max. 40 mm dia.	UCACSR	0 1011	12 10
		UC26		
	Cutting die for AI/Cu conductors to max. 26 mm dia.			
	Cutting die for Al/Cu conductors to max. 40 mm dia.	UC40 UCM5		
	Cutting die for threaded rods M5 metric  Cutting die for threaded rods M6 metric	UCM6		
		UCM8		
	Cutting die for threaded rods M8 metric		•	
3	Cutting die for threaded rods M10 metric  Cutting die for threaded rods M12 metric	UCM10		
		UCM12		
	Cutting die for threaded rods 1/4"	UCUNC14		
	Cutting die for threaded rods 3/8"	UCUNC38	•	
	Cutting die for threaded rods 1/2"	UCUNC12		
ettie	Cutting die for profile conductors 35 x 15	UCD3515		
160	Cutting die for profile conductors 32 x 15 x 9	UCD3215		
4	Cutting die for profile conductors 35 x 7.5	UCD3575	•	•
**	Cutting die for profile conductors 2980	UCN2980	•	•
	Cutting die for laminated Cu bus bars, max. width 37.5 mm	UCF	•	
	Cutting die 107 mm² type AC for catenary wires in railway construction	UCAC107	•	•
	Cutting die 85 mm² type BC for catenary wires in railway construction	UCBC85	•	•
	Cutting die 110 mm² type BC for catenary wires in railway construction	UCBC110	•	•
_	Cutting die 120 mm² type BC for catenary wires in railway construction	UCBC120	•	•
	Cutting die 150 mm² type BC for catenary wires in railway construction	UCBC150	•	•
olication: P	unching		6 ton	12 to
*	Hole punch adapter for holes to 64 mm dia., 92 x 92 mm and 46 x 92 mm	UA6P	•	
	Hole punch adapter for holes to 144 mm dia., 138 x 138 mm and 68 x 138 mm	UA12P		•
SAL	Die for punching DIN rails 35 x 15; 32 x 15 x 9; 35 x 7.5	UPD6		









#### Bus bar tool centre



- ▶ Basic tool for bending, punching and cutting solid and laminated bus bars up to 120 x 12 mm
- **▶** Compact design and low weight

#### **Suitable for**

Drive with EHP4 or AHP700-L

#### **Additional information**

• For drives with EHP4 the Part Number appendix "EHP4" is required (50052241EHP4) For drives with AHP700-L connector Sbz4 is required.

Technical data		
Crimping force	185 kN	
Max. operating pressure	700 bar	
Capacity	1.5 l / min.	
Required oil volume	0.15 l	
Dimension	480 x 500 x 360 mm	
Weight	51 kg	
Item		Part No.
Bus bar tool centre for operation	with AHP700-L	50052241

#### **Bending tool**



- ▶ For Al/Cu materials to max. 120 x 12 mm
- ▶ Bending radius 5.00 mm

#### **Characteristics**

Max. bending angle 100°

Technical data		
Weight	7.1 kg	
Item		Part No.
Bending tool, 5.0 mm b	ending radius	50052250

#### **Punching tool I**



#### Characteristics

Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

#### Suitable for

- Hole diameters from 6.5 - 21 mm

Technical data		
Weight	4.5 kg	
Item		Part No.
Punching tool I		50052128



#### **Punching tool I**



#### **Characteristics**

- Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	50052276
Punch and die 8.5 mm dia.	50052284
Punch and die 11 mm dia.	50052292
Punch and die 13 mm dia.	50052306
Punch and die 15 mm dia.	50052314
Punch and die 17 mm dia.	50052322
Punch and die 21 mm dia.	50052330
Oblong punch and die 6.5 x 13 mm	50052349
Oblong punch and die 8.5 x 16 mm	50052357
Oblong punch and die 11 x 20 mm	50052365
Oblong punch and die 13 x 20 mm	50052373
Oblong punch and die 17 x 20 mm	50052381

#### **Punching tool III**



#### **Characteristics**

Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

#### **Suitable for**

- Hole diameters from 6.5 - 21 mm

Technical data		
Weight	4.5 kg	
Item		Part No.
Punching tool III		50766919

#### Punch & die for punching tool III









#### **Characteristics**

- Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	50115286
Punch and die 8.5 mm dia.	50115294
Punch and die 11 mm dia.	50115308
Punch and die 13 mm dia.	50115316
Punch and die 15 mm dia.	50115324
Punch and die 17 mm dia.	50115332
Punch and die 21 mm dia.	50115340
Oblong punch and die 6.5 x 13 mm	50115359
Oblong punch and die 8.5 x 16 mm	50115367
Oblong punch and die 11 x 20 mm	50115375
Oblong punch and die 13 x 20 mm	50115383
Oblong punch and die 17 x 20 mm	50115391







#### **Cutting tool**



#### **Characteristics**

For Al/Cu materials to max. 120 x 12 mm

Technical data		
Weight	5.3 kg	
Item		Part No.
Cutting tool		50052144

#### Offset tool



#### **Characteristics**

- Workpiece offset 5, 6, 8, 10 and 12 mm by using insertion plates
- For Al/Cu materials to max. 120 x 12 mm

Technical data		
Dimension	175 x 90 x 135 mm	
Weight	10.0 kg	
Item		Part No.
Offset tool		50052152

#### Aluminium accessory box for punching tools, empty



#### **Suitable for**

Storage of accessories

Technical data		
Dimension	350 x 250 x 200 mm	
Weight	4.3 kg	
Item		Part No.
Tool chest alu (empty)		50052160







# Pumps

Pumps	48
Hydraulic pumps	48
Accessories for hydraulic tools	49

# THE DRIVE HYDRAULIC PUMPS AND DRIVE UNITS

With Klauke, everything fits together. Klauke hydraulic pumps provide every Klauke crimping, cutting and multi head with the required thrust. All pumps are matched to the various heads. They generate 700 bar pressure so that the tool

can provide full power with every operation.



#### ▶ Foot pressure actuation: Hydraulic foot pumps

Keep your hands free: With the steady hydraulic foot pumps, you can operate all crimping and cutting tools by your foot pressure. The 2-stage hydraulic system work especially efficiently.

- Foot pumps with up to 700 bar pressure
- 2-stage hydraulic system for efficient pumping effect
- Automatic pressure switch off
- Best possible convenience and good durability
- Up to 10 m hydraulic hose available

#### ▶ Portable pressure: Battery-powered hydraulic pumps

Pumps wherever you want. Simply take our battery-powered hydraulic pump AHP 700-L along with shoulder strap or rucksack.

- Pumps delivering up to 700 bar pressure
- Compact dimensions for portable use
- Simple operation via hand switch with 1.5 m cable
- Display with reverse function
- Hydraulic hose up to 10 m long available

#### **▶** Pressure with current: Electro-hydraulic pumps

Use the full force of your tools also with EHP 2, 3 or 4 electro-hydraulic drive.

- Power output up to 700 bar
- High capacity with compact dimensions
- Hydraulic hose up to 10 m long available



#### FHP 2 Foot pump 700 bar



- ▶ Two-stage hydraulics
- ▶ Manual retraction if required, also at high pressure
- **▶** Sturdy design

#### **Characteristics**

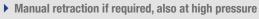
- Automatic pressure switch off

#### **Suitable for**

• The operation of hydraulic crimping and cutting heads

Technical data			
Operating pressure	max. 700 bar		
Weight	12 kg		
Item		Part No.	
Foot pump 700 bar		FHP2	
Scope of supply		Part No.	Page
Hydraulic hose, 2 m		HS22	497
Accessories		Part No.	Page
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	497

#### PHD 2 Pneumatic/hydraulic pressure transmitter, 700 bar



#### Suitable for

• The operation of hydraulic crimping and cutting heads



Technical data			
Required air pressure	max. 6 bar		
Operating pressure	max. 700 bar		
Weight	6.3 kg		
Item		Part No.	
Pneumatic/hydraulic pressu	ure transmitter	PHD2	
Scope of supply		Part No.	Page
Hydraulic hose, 2 m		HS22	497
Accessories		Part No.	Page
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	497

#### EHP 2 Electro hydraulic drive unit 400 V, 700 bar



#### ▶ Compact dimensions and low weight combined with high conveying capacity

#### **Characteristics**

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control
- 70 % power-on time

Hydraulic hose, 10 m

Adapter Klauke sleeve to Greenlee plug

#### **Suitable for**

The operation of hydraulic crimping and cutting heads

Technical data			
Version	Three-phase motor		
Rated output	0.55 kW		
Motor voltage	360 V - 440 V / 50 Hz		
Capacity	0.82 I / min.		
Operating pressure	max. 700 bar		
Weight	22.9 kg		
Operating mode	70 % power-on time		
Item		Part No.	
Electro-hydraulic pump, 4	100 V, 700 bar	EHP2380	
Scope of supply		Part No.	Page
Hydraulic hose, 2 m		HS22	497
Foot switch for electro-hy	draulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Accessories		Part No.	Page
Transport trolley for electr	ro-hydraulic pump EHP 2	TW50	
Two-hand safety controlle	er for pumps EHP 2 to EHP 4	ZST3	496
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497







497

HS210

**CMGSK** 



#### EHP 3 Electro hydraulic drive unit 400 V, 700 bar



- Continuous operationHigh conveying capacities with compact dimensions

#### Characteristics

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control

#### **Suitable for**

The operation of hydraulic crimping and cutting heads

Technical data			
Version	Three-phase motor		
Rated output	1.1 kW		
Motor voltage	360 V - 440 V / 50 - 60 Hz		
Capacity	0.9 I / min.		
Operating pressure	max. 700 bar		
Weight	40.9 kg		
Operating mode	100 % power-on time		
Item		Part No.	
Electro-hydraulic pump, 400 V,	700 bar	EHP3	
Scope of supply		Part No.	Page
Hydraulic hose, 2m		HS22	497
Foot switch for electro-hydrauli	c pumps EHP 4 and HK 12/2 EL	FTA1	496
Accessories		Part No.	Page
Transport trolley for electro-hydraulic pump EHP 3		TWEHP3	496
Two-hand safety controller for p	oumps EHP 2 to EHP 4	ZST3	497
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	
Adapter Klauke sleeve to Green	lee plug	CMGSK	

#### EHP 4 Electro-hydraulic pumps, 700 bar



- High capacity
- ▶ Manually adjustable piston stroke speed / delivery volume of the pump
- ▶ Closed, compact and lockable housing (IP54 or higher) to protect against humidity, dust and unauthorised manipulation

#### **Characteristics**

- Compatibility with Klauke hydraulic crimping and cutting heads
- For connecting to busbar machining centre
- For use in conjunction with the LSK 120 with adapter CMGSK for punching bus bars
- Compatible with Greenlee punching tools (round and special shape punches) with adapter CMGSK

#### **Additional information**

• The hydraulic pumps can be individually configured as customer-specific system.

Technical data			
Version	AC		
Rated output	0.75 kW		
Motor voltage	EHP4115: 115 V/50 Hz, EHP4230: 2	230 V/50 Hz	
Capacity	0.82 I / min.		
Operating pressure	max. 700 bar		
Weight	28.3 kg		
Operating mode	70% power-on time		
Item		Part No.	
Electro-hydraulic pump, 11	5 V	EHP4115	
Electro-hydraulic pump, 230	0 V	EHP4230	
Scope of supply		Part No.	Page
Hydraulic hose, 3 m		HS23	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL		FTA1	496
Accessories		Part No.	Page
Two-hand safety controller for pumps EHP 2 to EHP 4		ZST3	496
Hydraulic hose, 3 m		HS23	497
Hydraulic hose, 4 m		HS24	497
Hydraulic hose, 5 m		HS25	497
Hydraulic hose, 6 m		HS26	497
Hydraulic hose, 8 m		HS28	497
Hydraulic hose, 10 m		HS210	497
Transport trolley for electro-hydraulic pump EHP 4		TW150	495
Adapter Klauke sleeve to Greenlee plug		CMGSK	









#### AHP 700-L Battery powered hydraulic pump, 700 bar





- ▶ Compact and lightweight design for mobile use
- ▶ High capacity

#### **Characteristics**

- Select programme from crimping, cutting, and punching
- Housing from impact-resistant, fibreglass reinforced polyamide
- Large display for monitoring, diagnostics and setting the pump
- Two powerful, high-capacity Li-lon batteries
- Automatic retraction when operation is complete
- Manual retract stop with "teach-in" (MRS+) for positioning control for multiple crimps
- Remote control with cable for easy operation of the battery-operated pump
- Maintenance display via LED
- All hydraulic hoses have coupling plug and coupling sleeve, oil filled
- High wearing comfort with padded shoulder strap

#### **Suitable for**

- Operates all single-acting Klauke crimping, cutting and punching tools with 700 bar operating pressure
- The connection to busbar machining centre
- The punching of busbars in conjunction with the LSK 120 with adapter CMGSK

#### **Additional information**

Also available in country-specific variants, Part Number appendix "C"

Technical data					
Battery voltage	18 V				
Battery capacity	2 x 4.0 Ah, Li-lon				
Charging time	22 min.				
Weight incl. battery	(with two batteries) appro	x. 6.4 kg			
Ambient temperature	-12 °C to +40 °C				
Operating pressure	max. 700 bar				
Max. oil volume;	approx. 800 ml				
Dimensions	L x W x H: 330 x 160 x 28	30 mm			
Item			Pa	art No.	
Battery powered hydraulic pump	o, 700 bar		AH	P700L	
Scope of supply		Part	No.	Quantity	Page
Makita battery 18 V / 4.0 Ah, Li-	lon	RAL	40	2	491
Makita quick-charger for 18 V Li	-lon battery	LGL	.1	1	494
Hydraulic hose, 2 m, oil filled		HSO	L2	1	497
Carrying strap with shoulder padding		TG	3	1	495
Carrying bag		TT	2	1	196
Remote control with 1.5 m cable		HTA	١4	1	499
Accessories			Pa	ırt No.	Page
Hydraulic hose, 3 m, oil filled			HS	SOEL3	497
Hydraulic hose, 4 m, oil filled			HS	SOEL4	497
Hydraulic hose, 5 m, oil filled			HS	SOEL5	497
Hydraulic hose, 6 m, oil filled			HS	SOEL6	497
Hydraulic hose, 8 m, oil filled			HS	SOEL8	497
Hydraulic hose, 10 m, oil filled			HS	0EL10	497
18 V mains adapter for 230 V Voltage			NO	G2230	493
Two-hand safety control for battery powered hydraulic pump AHP 700-		HP 700-L	Z	ZST4	496
Foot switch for battery powered hydraulic pump			F	TA4	
Transport rucksack			TRA	HP700L	
Variants			Pa	ırt No.	Page
AHP 700-L with transport rucks	ack		TRAH	P700LSET	

#### 767 Hydraulic hand pump



- Lightweight, portable hand pump
- **▶** Robust construction

#### **Characteristics**

- All-purpose works in every position
- Incl. mounting holes for work bench assembly

#### **Additional information**

In combination with punch cylinder 50170910 for all hole sizes

Technical data			
Dimension	330 x 100 x 100 mm		
Operating pressure	max. 460 bar		
Weight	2.7 kg		
Item		Part No.	
Hydraulic hand pump 767		50132849	
Accessories		Part No.	Page
Hydraulic hose 6.4 mm dia. x 0.9 m		50383167	498

#### 1725 Hydraulic foot pump



▶ Foot operation facilitates two-handed operation of round and special shaped punches

#### **Characteristics**

- Lockable pedal for storage and transport
- All-purpose

#### **Additional information**

In combination with punch cylinder 50170910 for all hole sizes

Technical data			
Dimension	400 x 200 x 150 mm		
Operating pressure	max. 460 bar		
Weight	5.0 kg		
Item		Part No.	
1725 Hydraulic foot pump		50313533	
Accessories		Part No.	Page
Hydraulic hose 6.4 mm dia. x 3 m		50377299	498









#### RAL 1 Makita battery 18 V / 1.5 Ah Li-Ion (27 Wh)



#### **Characteristics**

- No memory effect
- Extremely low self-discharge
- Low weight

#### **Suitable for**

Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data		
Battery voltage	18 V	
Battery capacity	1.5 Ah	
Charging time	With LGL1: 15 min.	
Cell technology	Li-lon	
Weight	0.4 kg	
Item		Part No.
Makita battery 18 V / 1.5 Ah, Li	-lon	RAL1

#### RAL 2 Makita battery 18 V / 3.0 Ah Li-Ion (54 Wh)



#### **Characteristics**

- No memory effect
- Extremely low self-discharge
- Low weight

#### **Suitable for**

Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data		
Battery voltage	18 V	
Battery capacity	3.0 Ah	
Charging time	With LGL1: 22 min.	
Cell technology	Li-lon	
Weight	0.6 kg	
Item		Part No.
Makita battery 18 V / 3.0 Ah, Li-lon (54 Wh)		RAL2

#### RAL 3 Battery 18 V / 3.3 Ah Li-Ion (54 Wh)



#### Characteristics

- No memory effect
- Extremely low self-discharge
- Low weight

#### **Suitable for**

Klauke safety cutter

Technical data		
Battery voltage	18 V	
Battery capacity	3.3 Ah	
Charging time	With LGL3: 60 min.	
Ambient temperature	-20 °C to +40 °C	
Cell technology	Li-lon	
Weight	0.6 kg	
Item		Part No.
Battery 18 V / 3.3 Ah, Li-lon (54 Wh)		RAL3

#### **Pumps**

#### RAL 40 Makita battery 18 V / 4.0 Ah Li-Ion (72 Wh)





#### **Characteristics**

- No memory effect
- Extremely low self-discharge
- Light same weight as the Makita 3.0 Ah battery

Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data		
Battery voltage	18 V	
Battery capacity	4.0 Ah	
Charging time	With LGL1: 36 min.	
Ambient temperature	-20 °C to +40 °C	
Cell technology	Li-lon	
Weight	0.6 kg	
Item		Part No.
Makita battery 18 V / 4.0 Ah, Li-lon		RAL40

#### RAL 4 Makita battery 18 V / 5.0 Ah, Li-Ion





#### **Characteristics**

- No memory effect
- Extremely low self-discharge
- Light same weight as the Makita 3.0 Ah battery

Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data		
Battery voltage	18 V	
Battery capacity	5.0 Ah, Li-lon	
Charging time	With LGL1: 45 min.	
Ambient temperature	-20 °C to +40 °C	
Cell technology	Li-lon	
Weight	0.6 kg	
Item		Part No.
Makita battery 18 V / 5.0 Ah, Li-lon (90 Wh)		RAL4

#### RAL B1 EU Bosch battery 18 V / 2.0 Ah, Li-Ion





Technical data		
Battery capacity	2.0 Ah	
Charging time	With LGLB1EU: 15 min.	
Cell technology	Li-lon	
Voltage range	18 V	
Weight	0.4 kg	
Item		Part No.
Bosch battery 18 V / 2.0 Ah, Li-lon		RALB1EU







#### RAL B2 EU Bosch battery 18 V / 5.0 Ah, Li-Ion





Technical data		
Battery voltage	18 V	
Battery capacity	5.0 Ah, Li-lon	
Charging time	With LGLB1EU: 45 min.	
Cell technology	Li-lon	
Weight	0.69 kg	
Item		Part No.
Bosch battery 18 V / 5.0 Ah, Li-lon		RALB2EU

## RAML1 battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)



Technical data		
Battery voltage	10.8 V	
Battery capacity	1.5 Ah	
Cell technology	Li-lon	
Weight	0.3 kg	
Item		Part No.
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)		RAML1
· ·	· ·	<u> </u>

#### NG2 mains adapter 18 V for 120 V or 230 V mains voltage



#### Characteristics

- Temperature protection
- Current limiter
- Overload protection 250 V
- Cable lengths: 5 m

#### **Suitable for**

For all Klauke tools with 18 V all-mains sets - Makita version

Technical data		
Mains supply	120 V / 230 V	
Voltage range	18 V	
Weight	0.8 kg	
Item		Part No.
18 V mains adapter for	120 V Voltage	NG2115
18 V mains adapter for	230 V Voltage	NG2230

#### LGL 1 Makita quick-charger for 18 V Li-lon batteries

#### **Suitable for**

Klauke Li-Ion Makita battery 18 V



Technical data			
Charging time	With RAL1: 15 min., with RAL2: 22 min.		
Mains supply	230 V		
Voltage range	18 V		
Weight	1 kg		
Item		Part No.	
Makita quick-charger for 18 V Li-lon battery LGL1		LGL1	

#### LGL 3 Makita quick-charger for 18V Li-Ion batteries

#### **Suitable for**

- Klauke Li-lon Makita battery 18 V
- Connection to car cigarette lighter



Technical data		
Charging time	60 min.	
Mains supply	220 - 240 V	
Voltage range	18 V	
Weight	0.6 kg	
Item		Part No.
Charger for 18 V Li-lon batterie	es	LGL3

#### LGL B1 EU Bosch charger for 18 V Li-Ion batteries





#### **Characteristics**

Charger for safety cutting unit batteries

- 18 V / 3.30 Ah Li-lon batteries

Technical data			
Charging time	With RALB1EU.:15 mi	With RALB1EU.:15 min, RALB2EU: 45 min.	
Mains supply	230 V	230 V	
Voltage range	18 V	18 V	
Weight	0.65 kg	0.65 kg	
Item		Part No.	
Bosch quick-charger for	18 V Li-lon battery	LGLB1EU	







#### LGML 1 Charger for 10.8 V Li-Ion batteries, 230 V



#### Suitable for

Klauke Li-lon battery 10.80 V

Technical data		
Cell technology	Li-lon	
Mains supply	220 - 240 V	
Voltage range	10.8 V	
Weight	0.5 kg	
Item		Part No.
Charger for 10.80 V Li-lon ba	atteries, 230 V	LGML1

## TW 150 Transport trolley for electro-hydraulic pump EHP 4



Item	Weight kg	Part No.	
Transport trolley for electro- hydraulic pump EHP 4	8.7	TW150	

## TG 3 Carrying strap with shoulder padding



#### **Suitable for**

Battery powered hydraulic pump AHP 700-L

Item	Part No.
Carrying strap with shoulder padding	TG3

## FTA 3 / FTA 4 Two-hand safety controls for pumps



#### **Suitable for**

Pumps: EHP 4 and AHP 700-L

Item	Part No.
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3
Two-hand safety control for battery powered hydraulic pump AHP 700-L	ZST4

#### FTA 1 / FTA 4 Foot switches for pumps



#### **Suitable for**

Pumps: EHP 4, HK 12/2 EL, AHP 700-L

Item	Part No.
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1
Foot switch for battery powered hydraulic pump AHP 700-L	FTA4

#### T 15 Special hydraulic oil



#### **Characteristics**

- Environmentally-friendly hydraulic oil, quickly biodegradable
- 5 I canister

#### Suitable for

- Hydraulic pumps, exception: Safety cutter

Item	Part No.
Special hydraulic oil	T15







#### Hydraulic oil



#### **Characteristics**

Specially-developed for GREENLEE hydraulic tools

Item	Part No.
Hydraulic oil 3.8 l	90510593
Hydraulic oil 0.95 l	90508068

#### **HS 2 Hydraulic hoses**



#### **Suitable for**

- Hydraulic crimping and cutting systems and pumps
- For connecting to hydraulic pumps FHP 2, PHD 2, EHP 2, EHP 3, EHP 4, HK12/2 EL, HK 25/2 EL, AS 65 FHP, AS 105 FHP, HK 25/2, HK 45

Item	Part No.
Hydraulic hose, 2 m	HS22
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210

#### HS OEL hydraulic hose, oil filled



#### **Characteristics**

• For connecting to battery-powered hydraulic pump AHP 700-L

#### **Additional information**

- Also available in country-specific variants, Part Number appendix "C"

Item	Part No.
Hydraulic hose, 2 m, oil filled	HS0EL2
Hydraulic hose, 3 m, oil filled	HS0EL3
Hydraulic hose, 4 m, oil filled	HS0EL4
Hydraulic hose, 5 m, oil filled	HS0EL5
Hydraulic hose, 6 m, oil filled	HS0EL6
Hydraulic hose, 8 m, oil filled	HS0EL8
Hydraulic hose, 10 m, oil filled	HS0EL10

#### Hydraulic hose 6.4 mm dia. x 3 m



#### **Characteristics**

- Filled with hydraulic oil

#### Suitable for

Hydraulic foot pump 1725

Item	Part No.	
Hydraulic hose 6.4 mm dia. x 3 m	50377299	
Scope of supply	Part No.	Page
Hydraulic hose, 3 m	90525159	
Coupler plug	90541693	
Dust cap	90541707	

#### Hydraulic hose 6.4 mm dia. x 0.9 m



#### **Characteristics**

· Without hydraulic oil

#### Suitable for

Hydraulic hand pump 767

Item	Part No.	
Hydraulic hose 6.4 mm dia. x 0.9 m	50383167	
Scope of supply	Part No. Page	
Hydraulic hose, 0.9 m	50063022	
Coupler plug	90541693	
Dust cap	90541707	

#### **KST 2 Coupler**



#### **Characteristics**

- Including adapter

#### **Suitable for**

Hydraulic crimping and cutting systems and pumps

Item	Part No.
Coupler plug	KST2







#### KMF 1 Coupler for crimping and cutting heads



#### **Characteristics**

- KMF 1: For connecting to hydraulic crimping/cutting heads: PK 18, PK 22, PK 120/42, PK 120 U, PK 25/2, PK 45, PK 60 VP, PK 60 VP/FT, PK 60 UNV, THK 18, THK 22, THK 120, SDG 45, SDG 50, SDG 55, SDG 85/2, SDG 105, SDK 65, SDK 85, SDK 105, SDK 120
- Includes barrel nipple
- With 1/4" connection (external thread)

Item	Part No.	
Coupler for crimping and cutting heads with barrel nipple	KMF1	

#### **DNP 2 Barrel nipple**



#### Suitable for

To connect and to extend hydraulic hoses HS 2

Item	Part No.
Barrel nipple	DNP2

#### HTA 4 remote control for hydraulic pump



#### **Suitable for**

- Battery powered hydraulic pump AHP 700-L

Item	Part No.
Remote control with 1.5 m cable	HTA4







# Hand tools

Strinning tools for communication technology	549
Stripping tools	547
Wire stripping tools	545
Wire stripping tools	544
Tool cases	537
Basic tools	533
Assortinents and sets  Measuring and marking	520
Bits, holders and adapters Assortments and sets	526 528
Electronic / precision mechanic's tools	525
Water pump pliers, fitting pliers	524
Standard tools and accessory	523
Tool cases	522
Fully insulated tools	517
Safety tools	514
Assortments and sets	510
Screwdrivers	508
Pliers	504
VDE tools	502

# SAFETY-TESTED RANGE – VDE TOOLS

For the safety of our customers, we also have our tools tested by independent bodies. The "VDE Tool" marking indicates that this special Klauke range conforms to the current directives of the safety testing procedure to EN/IEC 60900. All tools with the VDE name are approved to 1000 V alternating current and 1500 V direct current. Special tool steel creates additional robustness.

#### In brief

- ► Conforms to current directive EN/IEC 60900
- ▶ Manufactured using special tools steel
- ▶ Effortless operations due to optimal ergonomic design





#### ▶ When you need to go deeper: SLIM range

SLIM range screwdrivers have a tapered blade at the front. Deeper screws, such as those in circuit breakers, can be reached with ease. No slipping and rolling due to special handle shape. With its narrow tip, the SLIM range is best suited for loosening cables in spring terminals.

- For use in confined areas due to tapered blade
- Safe operations due to rolling protection





#### ▶ More than just a force: Power combi-pliers

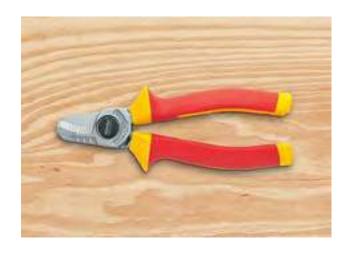
The power combi-pliers are really multi-talented: Cutting, gripping, counter holding, inserting conductors. Hence the name combi-pliers. Four tools in one: You need fewer tools and the power assist function also helps you when working.

- Cuts cables, conductors and wires
- Grips flat and round material such as safety splints
- Simplifies the insertion of cables into the clamp or circuit breaker
- Can also be used to tighten nuts

#### ▶ Everything under control: VDE cable cutters

The VDE cable cutters are hard-wearing. They withstand cold impact tests to -25 °C, tests of the adhesion of the insulating material to 500 N and individual voltage tests in a water bath with 10,000 V AC. The reward: Certification to EN/IEC 60900. Completely safe.

- Extra hand protection against flying sparks
- Safe operations due to slip-proof overlay
- Safe even under extreme conditions
- For fine and superfine stranded copper and aluminium cables



# **VDE** Cable cutter





## **Characteristics**

- Adjustable joint
- Cuts fine and superfine stranded copper and aluminium cable

Part No.	KL010160IS	KL010210IS
Item	VDE Cable cutter 160 mm	VDE Cable cutter 210 mm
Dimension mm	160	210
Weight g	225	340
Cutting power up to dia.	16	25

# **VDE Power combination pliers**





## **Characteristics**

- With combination spanner from 11 17 mm (M8 M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL020165IS	KL020180IS	KL020205IS
Item	VDE Power combina- tion pliers, 165 mm	VDE Power combina- tion pliers, 180 mm	VDE Power combina- tion pliers, 205 mm
Dimension mm	165	180	205
Weight g	200	255	280
Cutting power soft wire dia. mm	4.0	5.2	5.9
Cutting power medium wire dia. mm	3.1	3.4	3.8
Cutting power hard wire dia. mm	2.0	2.2	2.5

# VDE Power combination pliers, angled





- Comfortable working due to ergonomically optimised, 45° angled head
- With combination spanner from 11 17 mm (M8 M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL026205IS
Item	VDE Power combination pliers, offset, 205 mm
Dimension mm	205
Weight g	285
Cutting power soft wire dia. mm	5.9
Cutting power medium wire dia. mm	3.8
Cutting power hard wire dia. mm	2.5







## **Characteristics**

- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL040145IS	KL040160IS	KL040180IS
Item	VDE Side cutter 145 mm	VDE Side cutter 160 mm	VDE Side cutter 180 mm
Dimension mm	145	160	180
Weight g	180	210	265
Cutting power soft wire dia. mm	5.0	6.0	7.0
Cutting power medium wire dia. mm	2.5	3.5	4.0
Cutting power hard wire dia. mm	1.7	2.0	2.5
Cutting power up to dia.	8.0	11.0	13.0

# **VDE Electricians side cutter**





#### **Characteristics**

- High cutting performance for superfine wires due to hardened precision cutters
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL042190IS
Item	VDE Electricians side cutter, 190 mm
Dimension mm	190
Weight g	285
Cutting power soft wire dia. mm	2.0
Cutting power medium wire dia. mm	1.0
Cutting power up to dia.	4.0

# **VDE** Power side cutter





- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Optimum handling due to ergonomically-shaped handle
- High cutting performance on hard wires and piano wires

Part No.	KL045180IS	KL044200IS	KL045240IS
Item	VDE Power side cutter, 180 mm	VDE Electric power side cutter, 200 mm	VDE Power side cutter, 240 mm
Dimension mm	180	200	240
Weight g	285	280	420
Cutting power soft wire dia. mm	3.7	4.0	4.5
Cutting power medium wire dia. mm	2.6	2.8	3.5
Cutting power hard wire dia. mm	2.2		3.0
Cutting power piano wire dia. mm		2.5	

# **VDE** Lever power side cutter





#### **Characteristics**

- 40% force saving
- High cutting performance for superfine wires due to hardened precision cutters
- Special tool steel drop-forged, oil-hardened
- Cuts medium-hard wires, e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire as well as piano wire

Part No.	KL046200IS
Item	VDE Lever power side cutter, 200 mm
Dimension mm	200
Cutting power medium wire dia. mm	4.5
Cutting power hard wire dia. mm	3.5
Cutting power piano wire dia. mm	3.0

# **VDE** Telephone pliers, straight





#### **Characteristics**

- Long, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 17 mm (M8 M10)
- With wire cutter for soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL050205IS
Item	VDE long-nose pliers, straight, 205 mm
Dimension mm	205
Weight g	215
Cutting power soft wire dia. mm	3.9
Cutting power medium wire dia. mm	3.2
Cutting power hard wire dia. mm	2.2

# **VDE Telephone pliers, curved**





- Long, 45° offset, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 17 mm (M8 M10)
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL055205IS	
Item	VDE long-nose pliers, bent, 205 mm	
Dimension mm	205	
Weight g	215	
Cutting power soft wire dia. mm	3.9	
Cutting power medium wire dia. mm	3.2	
Cutting power hard wire dia. mm	2.2	





# **VDE** Wire stripper



#### **Characteristics**

- With opening spring and V-shaped cutting edges
- · With setting screw for setting the cable diameter

Part No.	KL060160IS
Item	VDE Wire stripper, 160 mm
Dimension mm	160
Weight g	185

# VDE Water pump pliers, jaw width 50 mm



# **₹** 1000V

#### **Characteristics**

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area

Part No.	KL070250IS
Item	VDE Water pump pliers, jaw width 50 mm
Dimension mm	250
Weight g	410

# Automatic VDE wire stripper 0.2 - 6 mm<sup>2</sup>





#### **Characteristics**

- Tested acc. to VDE standards for safe working on live conductors up to 1000 V
- Adjustable length stop from 5 12 mm
- Locking function to protect the blades

## **Suitable for**

Flexible and solid conductors from 0.2 - 6 mm²

Part No.	KL760180IS
Item	Automatic VDE wire stripper 0.2 - 6 mm²
Dimension mm	215
Weight g	130



# **VDE** Slotted screwdriver





Item	Dimension mm	Weight g	Part No.
VDE Slotted screwdriver, 2.5 x 0.4 mm	75 x 2.5 x 0.4	22	KL1007525IS
VDE Slotted screwdriver, 3.0 x 0.5 mm	100 x 3.0 x 0.5	28	KL10010030IS
VDE Slotted screwdriver, 3.5 x 0.6 mm	100 x 3.5 x 0.6	30	KL10010035IS
VDE Slotted screwdriver, 4.0 x 0.8 mm	100 x 4.0 x 0.8	44	KL10010040IS
VDE Slotted screwdriver, 5.5 x 1.0 mm	125 x 5.5 x 1.0	70	KL10012555IS
VDE Slotted screwdriver, 6.5 x 1.2 mm	150 x 6.5 x 1.2	86	KL10015065IS
VDE Slotted screwdriver, 8.0 x 1.2 mm	175 x 8.0 x 1.2	135	KL10017580IS

# **VDE** Phillips screwdriver





ltem	Dimension mm	Weight g	Part No.
VDE Phillips screwdriver, PH1	80 x PH 1	52	KL110PH1IS
VDE Phillips screwdriver, PH2	100 x PH 2	80	KL110PH2IS
VDE Phillips screwdriver, PH3	150 x PH 3	145	KL110PH3IS

# **VDE** Pozidriv screwdriver





Item	Dimension mm	Weight g	Part No.
VDE Pozidriv screwdriver, PZ1	80 x PZ 1	49	KL120PZ1IS
VDE Pozidriv screwdriver, PZ2	100 x PZ 2	76	KL120PZ2IS
VDE Pozidriv screwdriver, PZ3	150 x PZ 3	140	KL120PZ3IS

# **VDE Plus/Minus screwdriver**





Item	Dimension mm	Weight g	Part No.
VDE Plus/Minus screwdriver, Z1	80 x Z1	52	KL130PM1IS
VDE Plus/Minus screwdriver, Z2	100 x Z2	80	KL130PM2IS

# **VDE TORX®** screwdriver





ltem	Dimension mm	Weight g	Part No.
VDE TORX® Screwdriver TX 10	100 x TX 10	45	KL150TX10IS
VDE TORX® Screwdriver TX 15	100 x TX 15	45	KL150TX15IS
VDE TORX® Screwdriver TX 20	100 x TX 20	69	KL150TX20IS
VDE TORX® Screwdriver TX 25	100 x TX 25	69	KL150TX25IS
VDE TORX® Screwdriver TX 30	100 x TX 30	96	KL150TX30IS







# **VDE-M-TEC Screwdriver for hexagonal nuts**





## **Characteristics**

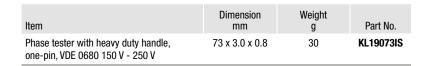
- With box spanner tube immersion depth approx. 41 mm optimal for deep-seated screws and nuts
- With spring-loaded magnetic body

Item	Dimension mm	Für Gewinde	Weight g	Part No.
VDE Screwdriver M-TEC size 5.5	110 x 5.5	М3	100	KL14555IS
VDE Screwdriver M-TEC size 6	110 x 6.0	M3.5	100	KL14560IS
VDE Screwdriver M-TEC size 7	110 x 7.0	M4	100	KL14570IS
VDE Screwdriver M-TEC size 8	110 x 8.0	M5	110	KL14580IS
VDE Screwdriver M-TEC size 10	125 x 10.0	M6	110	KL145100IS
VDE Screwdriver M-TEC size 13	110 x 13.0	M8	110	KL145130IS

# Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V

#### **Characteristics**

- Single-pole
- With heavy duty handle



# THE PARTY OF THE P

# **VDE** screwdriver Slim range





- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item	Part No.
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLIM
VDE Slotted screwdriver 4.0 x 0.8 x 100 Slim Line	KL10010040ISLIM
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLIM
VDE Slotted screwdriver 6.5 x 1.2 x 125 Slim Line	KL10012565ISLIM
VDE Phillips screwdriver PH1 Slim Line	KL110PH1ISLIM
VDE Phillips screwdriver PH2 Slim Line	KL110PH2ISLIM
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIM
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIM
VDE Plus/Minus screwdriver Z1 x 100 Slim Line	KL130PM1ISLIM
VDE Plus/Minus screwdriver Z2 x 100 Slim Line	KL130PM2ISLIM
VDE Slotted screwdriver TX 15 x 100 Slim Line	KL150TX15ISLIM
VDE Slotted screwdriver TX 20 x 125 Slim Line	KL150TX20ISLIM
VDE Slotted screwdriver TX 25 x 125 Slim Line	KL150TX25ISLIM

# VDE Pliers set, 3-pce.



VDE Power combination pliers, 180 mmKL020180IS504VDE Side cutter 160 mmKL040160IS505	Item VDE Plier set, 3-pieces		art No. <b>L303IS</b>
VDE Side cutter 160 mm KL040160IS 505	Scope of supply	Part No.	Page
	VDE Power combination pliers, 180 mm	KL020180IS	504
1/05/1	VDE Side cutter 160 mm	KL040160IS	505
VDE long-nose pliers, straight, 205 mm KL050205IS 506	VDE long-nose pliers, straight, 205 mm	KL050205IS	506

# VDE Pliers set, 4-pce.



Item	F	Part No.
VDE Plier set, 4-pieces	K	L304IS
Scope of supply	Part No.	Page
VDE Power combination pliers, 180 mm	KL020180IS	504
VDE Electric power side cutter, 200 mm	KL044200IS	505
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Wire stripper, 160 mm	KL060160IS	507

# 

# VDE Pliers/screwdriver set, 4-pce.



Item Pliers/screwdriver set, 4-pce.		art No. L <b>305IS</b>
Scope of supply	Part No.	Page
VDE Cable cutter 160 mm	KL010160IS	504
VDE Wire stripper, 160 mm	KL060160IS	507
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS	508
VDE Plus/Minus screwdriver, Z1	KL130PM1IS	508



# VDE Pliers/screwdriver set, 6-pce.



œ	<b>№</b> 1000 V IEC 60900
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Item		Part No.
Pliers/screwdriver set, 6-pce.		KL306IS
Scope of supply	Part No.	Page
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Side cutter 160 mm	KL040160IS	505
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508





# VDE Screwdriver set, 3-pce.



Item	P	art No.
VDE Screwdriver set, 3-pieces	KI	.391IS
Scope of supply	Part No.	Page
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS	508
·	·	

# VDE Screwdriver set, 3-pce.



Item	Pa	art No.
VDE Screwdriver set, 3-pieces	KL392IS	
Scope of supply	Part No.	Page
VDE Pozidriv screwdriver, PZ1	KL120PZ1IS	508
VDE Pozidriv screwdriver, PZ2	KL120PZ2IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508

# VDE Screwdriver set, 3-pce.



Item		Part No.
VDE Screwdriver set, 3-pieces		KL393IS
Scope of supply	Part No.	Page
VDE Plus/Minus screwdriver, Z1	KL130PM1IS	508
VDE Plus/Minus screwdriver, Z2	KL130PM2IS	508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	509

# **VDE** Screwdriver set, 6-pce.



Item VDE Screwdriver set, 6-pce.		Part No.
Scope of supply	Part No.	Page
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS	S 508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040I	S 508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555I	S 508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	509

# VDE Screwdriver set Slim Line, 5-pce.



## **Characteristics**

- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item VDE Screwdriver set Slim Line, 5-pce.			rt No. <b>Ooislim</b>
Scope of supply VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	Part No.		Page 509
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555l	SLIM	509
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1IS	LIM	509
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2IS	LIM	509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073l	S	509

# VDE Screwdriver set Slim Line, 6-pce., case





- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item		Part No.
VDE Screwdriver set Slim Line, 6-pce., case	KL391ISLIM	
Scope of supply	Part No.	Page
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLI	И 509
VDE Slotted screwdriver 4.0 x 0.8 x 100 Slim Line	KL10010040ISLII	И 509
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLI	M 509
VDE Phillips screwdriver PH2 Slim Line	KL110PH2ISLIN	<b>/</b> 509
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIN	<b>1</b> 509
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIN	<b>1</b> 509









# Klauke E-smart box 13-pce.





## **Characteristics**

- 10 IEC exchangeable blades for all applications incl. contactless voltage tester
- Secure grip of blades in the handle by automatic locking
- Snap-on rotating cap and soft coating zone for use as a precision tool
- Safety tool acc. to EN/IEC 60900
- Blades can be re-ordered individually

Item		Part No.
Klauke E-smart box 12-pce.		KL301IS
Scope of supply	Part No.	Page
Blade 2.5 x 0.4 mm	KLE300IS1	
Blade 3.5 x 0.6 mm	KLE300IS3	
Blade 4.0 x 0.8 mm	KLE300IS4	
Blade 5.5 x 1.0 mm	KLE300IS5	
Blade PH 1	KLE300IS6	
Blade PH 2	KLE300IS7	
Blade PZ 2	KLE300IS8	
Blade TX 20	KLE300IS11	
Blade Plus/Minus Z1	KLE300IS13	
Blade Plus/Minus Z 2	KLE300IS14	
Rotating cap	KLE300IS15	
E-smart handle 93 x 32 mm	KLE300IS12	
GT-12A Contactless voltage tester 50 - 1.000 V	52063422	574

# VDE replaceable blade in blister pack











- Blades from special chrome/molybdenum/vanadium alloy
- Standard 1/4" mounting for greatest-possible flexibility
- 100% safe due to VDE single part testing

Item	Part No.	
Tool bag, equipped with 9 VDE replaceable blades	KL390TB9	
VDE Slotted blade, 3.5 x 0.6 mm in blister pack	KL400S35170	ISSB
VDE Slotted blade, 4.0 x 0.8 mm in blister pack	KL400S40170	ISSB
VDE Slotted blade, 5.5 x 1.0 mm in blister pack	KL400S55170ISSB	
VDE Philips blade, PH1 in blister pack	KL400PH1170ISSB	
VDE Philips blade, PH2 in blister pack	KL400PH2170ISSB	
VDE Pozidriv blade, PZ1 in blister pack	KL400PZ1170ISSB	
VDE Pozidriv blade, PZ2 in blister pack	KL400PZ2170ISSB	
VDE Plus/Minus blade, PM1 in blister pack	KL400PM1170ISSB	
VDE Plus/Minus blade, PM2 in blister pack	KL400PM2170	ISSB
Accessories	Part No.	Page
Tool bag, empty	KL390TL	
Nm handle 0.6 - 1.5 Nm	KLE3871513	
Nm handle 1.5 - 3.0 Nm	KLE3883013	
Nm handle 3.0 - 5.4 Nm	KLE3895413	



# NH safety handle with guard





## **Characteristics**

- Designation: 1000 V
- Acc. to DIN VDE 0680/4
- Made from impregnated leather
- · With non-slip and cuff protection

## **Suitable for**

For NH fuses sizes 00-3

Item	Weight g	Part No.
NH safety handle with guard	470	KL600

# **Electricians safety helmet**





## **Characteristics**

- Designation: 1000 V
- To DIN EN 397
- 440 V AC
- Sizes adjustable

Item	Weight g	Part No.
Electricians safety helmet	370	KL602GELB

# **Electricians safety visor**





#### **Characteristics**

- Designation: 1000 V
- To VDE
- Suitable for helmet KL602GELB

Item	Weight g	Part No.
Electricians safety visor	195	KL603

## Insulated stand mat





- Tested acc. to DIN 0303, part 21
- Safety mat for safe working with live parts in high voltage areas up to 1.000 Volt
- Penetration-proof to 14.4 kV/mm (>50 kV/4 mm)
- Slip proof, thereby increased sure-footedness

Item	Dimension mm	Weight g	Part No.
Insulating floor mat	1000 x 1000 x 4	5300	KL620S1000





# Rubber insulating blanket





## **Characteristics**

- Tested acc. to DIN VDE 0680, part 1
- Test voltage: 5 kV/1 min.
- Insulating cover
- Penetration resistant
- Upper and lower side flat

Item	Dimension mm	Weight g	Part No.
Rubber cover/blanket, small	500 x 500 x 1.6	440	KL625A500
Rubber cover/blanket, large	1000 x 1000 x 1.6	1900	KL625A1000

# Plastic clamp





## **Characteristics**

For securing rubber towels

Item	Dimension mm	Weight g	Part No.
Plastic clamp for rubber cover/blanket	150	70	KL628

# Protective gloves





#### **Characteristics**

- To DIN EN 60903

# Suitable for

For working in voltage ranges up to 1000 Volt

Item	Dimension mm	Weight g	Part No.
Protective gloves, size 9	Size 09	250	KL60509
Protective gloves, size 10	Size 10	250	KL60510
Protective gloves, size 11	Size 11	250	KL60511

# **Cotton gloves**



- Inner gloves from cotton
- For use with protective gloves, Part No. KL60509 / KL60510

Item	Weight g	Part No.
Cotton gloves	50	KL605U

# Cable knife, straight



## **Characteristics**

- With straight blade and safety cap
- Blade length: 50 mm

Item	Dimension mm	Weight g	Part No.
Cable knife, straight	200	105	KL640GK

# Cable knife with hooked blade



#### **Characteristics**

- With hooked blade and safety cap
- Blade length: 40 mm
- Special blade tip to protect insulation of conductor

Item	Dimension mm	Weight g	Part No.
Cable knife with hooked blade	190	100	KL642HK

# Cable knife with blade protection, 1000 V



Item	Part No.
Cable knife with blade protection, 1000 V	KL645GSK

## **Tweezers**



## **Characteristics**

- Straight and pointed tips
- With 2-layer safety insulation
- Non-slip protection

ltem	Dimension mm	Weight g	Part No.
Tweezers	130	30	KL690130

# **Cleaning brush**



## **Characteristics**

- Brush width 45 mm
- All-plastic version

Item	Weight g	Part No.
Cleaning brush	75	KL698

# **VDE** Expansion wedge



Item	Part No.
Guide wedge	K610









# Fully insulated tool set, 1/2", 20-piece





## **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- Vanadium special steel acc. to DIN 7448

## **Suitable for**

For working in voltage ranges up to 1.000 Volt

Item	Part	No.
Fully insulated tool set, 1/2", 20-piece	KL1300IS12B20	
Scope of supply	Part No.	Page
Case KL1300L	KL1300L	
Ratchet 1/2" drive	KL1000IS12	518
T-wrench 1/2" drive	KL1299IS12	518
Extension 1/2" drive x 250 mm long	KL1290IS12250	519
Extension 1/2" drive x 125 mm long	KL1290IS12125	519
Socket 1/2" drive, AF 10 mm	KL1240IS1210	519
Socket 1/2" drive, AF 11 mm	KL1240IS1211	519
Socket 1/2" drive, AF 12 mm	KL1240IS1212	519
Socket 1/2" drive, AF 13 mm	KL1240IS1213	519
Socket 1/2" drive, AF 14 mm	KL1240IS1214	519
Socket 1/2" drive, AF 17 mm	KL1240IS1217	519
Socket 1/2" drive, AF 19 mm	KL1240IS1219	519
Socket 1/2" drive, AF 22 mm	KL1240IS1222	519
Socket 1/2" drive, AF 24 mm	KL1240IS1224	519
Socket 1/2" drive for slotted screws, 5.5 mm	KL1200IS1255	520
Socket 1/2" drive for Phillips screws, PH2	KL1210IS12PH2	521
Socket 1/2" drive for Plus/Minus PM2	KL1230IS12PM2	520
Cable knife, straight	KL640GK	516
VDE Side cutter 180 mm	KL040180IS	505
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS	508

# Fully insulated open-ended spanner





## Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- DIN 7448 from vanadium special steel

## Suitable for

Hexagonal head screws

Item	Part No.
item	rait ivu.
Fully insulated open-ended spanner 6 AF	KL1100IS6
Fully insulated open-ended spanner 7 AF	KL1100IS7
Fully insulated open-ended spanner 8 AF	KL1100IS8
Fully insulated open-ended spanner 10 AF	KL1100IS10
Fully insulated open-ended spanner 11 AF	KL1100IS11
Fully insulated open-ended spanner 12 AF	KL1100IS12
Fully insulated open-ended spanner 13 AF	KL1100IS13
Fully insulated open-ended spanner 17 AF	KL1100IS17
Fully insulated open-ended spanner 19 AF	KL1100IS19
Fully insulated open-ended spanner 22 AF	KL1100IS22

# Torque wrench - Compact - 3/8" and 1/2" drive





#### **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- With automatic release
- Positive locking system on the square end with pull-off force to 50 Nm
- Set the response value using the rotary grip
- Quickly read-off the values on the scale
- +/- 4% response accuracy
- Versatile use thanks to small dimensions

Item	Part No.
Torque wrench compact, 3/8", drive 5 - 25 Nm	KL1000IS38NM25
Torque wrench compact, 1/2", drive 5 - 25 Nm	KL1000IS12NM25

# Torque wrench - 3/8" and 1/2" drive





#### **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- With automatic release
- Positive locking system on the square end with pull-off force to 50 Nm
- Set the response value using the rotary grip
- Quickly read-off the values on the scale
- +/- 4% response accuracy

Item	Part No.
Torque wrench, 3/8", 2-27 Nm	KL1000IS38NM27
Torque wrench, 3/8", 5-50 Nm	KL1000IS38NM50
Torque wrench, 1/2", 2-27 Nm	KL1000IS12NM27
Torque wrench, 1/2", 5-50 Nm	KL1000IS12NM50

# Ratchet - 3/8" and 1/2" drive





#### **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- Chrome vanadium steel
- One-hand operation

Item	Part No.
Ratchet 3/8" drive	KL1000IS38
Ratchet 1/2" drive	KL1000IS12

# T-wrench 3/8" and 1/2" drive



- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- Chrome vanadium steel

Item	Part No.
T-wrench 3/8" drive	KL1299IS38
T-wrench 1/2" drive	KL1299IS12







# Extension 3/8" and 1/2" drive







## **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- Chrome vanadium steel

Item	Dimension mm	Part No.
Extension 3/8" drive, 125 mm	125	KL1290IS38125
Extension 3/8" drive x 250 mm long	250	KL1290IS38250
Extension 1/2" drive x 125 mm long	125	KL1290IS12125
Extension 1/2" drive x 250 mm long	250	KL1290IS12250

# Hexagonal sockets 3/8" and 1/2" drive





## **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- DIN 7448 from vanadium special steel

#### **Suitable for**

For hex. head screws

Item	Part No.
Socket 3/8" drive, AF 10 mm	KL1240IS3810
Socket 3/8" drive, AF 11 mm	KL1240IS3811
Socket 3/8" drive, AF 12 mm	KL1240I\$3812
Socket 3/8" drive, AF 13 mm	KL1240I\$3813
Socket 3/8" drive, AF 14 mm	KL1240IS3814
Socket 3/8" drive, AF 17 mm	KL1240IS3817
Socket 3/8" drive, AF 19 mm	KL1240IS3819
Socket 1/2" drive, AF 10 mm	KL1240IS1210
Socket 1/2" drive, AF 11 mm	KL1240IS1211
Socket 1/2" drive, AF 12 mm	KL1240IS1212
Socket 1/2" drive, AF 13 mm	KL1240IS1213
Socket 1/2" drive, AF 14 mm	KL1240IS1214
Socket 1/2" drive, AF 16 mm	KL1240IS1216
Socket 1/2" drive, AF 17 mm	KL1240IS1217
Socket 1/2" drive, AF 19 mm	KL1240IS1219
Socket 1/2" drive, AF 22 mm	KL1240IS1222
Socket 1/2" drive, AF 24 mm	KL1240IS1224
Socket 1/2" drive, AF 27 mm	KL1240IS1227

# Allen key sockets 3/8" and 1/2" drive





## **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- DIN 7448 from vanadium special steel

#### **Suitable for**

Hexagon socket

Item	Part No.
Socket 3/8" drive for Allen key, AF 4 mm	KL1260IS38I4
Socket 3/8" drive for Allen key, AF 5 mm	KL1260IS38I5
Socket 3/8" drive for Allen key, AF 6 mm	KL1260IS38I6
Socket 3/8" drive for Allen key, AF 8 mm	KL1260IS38I8
Socket 1/2" drive for Allen key, AF 4 mm	KL1260IS12I4
Socket 1/2" drive for Allen key, AF 5 mm	KL1260IS12I5
Socket 1/2" drive for Allen key, AF 6 mm	KL1260IS12I6
Socket 1/2" drive for Allen key AF 8 mm	KL1260IS12I8

# Screwdriver sockets 3/8" and 1/2" drive for Plus/Minus screws





#### **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- DIN 7448 from vanadium special steel

## **Suitable for**

Plus/Minus screws

Item	Part No.
Socket 3/8" drive for Plus/Minus PM1	KL1230IS38PM1
Socket 3/8" drive for Plus/Minus PM2	KL1230IS38PM2
Socket 3/8" drive for Plus/Minus PM3	KL1230IS38PM3
Socket 1/2" drive for Plus/Minus PM1	KL1230IS12PM1
Socket 1/2" drive for Plus/Minus PM2	KL1230IS12PM2
Socket 1/2" drive for Plus/Minus PM3	KL1230IS12PM3

# Screwdriver sockets - 3/8" and 1/2" for slotted screws





#### **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellow
- DIN 7448 from vanadium special steel

## **Suitable for**

Slotted screws 5.5

Item	Part No.
Socket 3/8" drive for slotted screws, 5.5 mm	KL1200IS3855
Socket 1/2" drive for slotted screws, 5.5 mm	KL1200IS1255







# Screwdriver sockets - 3/8" and 1/2" for Philips PH 2 screws





## **Characteristics**

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation outside orange / inside yellowDIN 7448 from vanadium special steel

## Suitable for

Philips PH2 screws

Item	Part No.
Socket 3/8" drive for Phillips screws, PH2	KL1210IS38PH2
Socket 1/2" drive for Phillips screws, PH2	KL1210IS12PH2

# VDE Tool case, 27-piece



## **Characteristics**

- Hard shell, red
- Equipped with 27 mainly VDE-tested tools to DIN EN 60900

Item	Dimension mm	We	eight a	Pa	rt No.	
VDE Tool case, 27-pce.	515 x 420 x 230	98	ŭ		.880B26IS	
Scope of supply			Part No.		Page	
VDE Power combination pliers, 180 mm			KL020180	OIS	504	
VDE Water pump pliers, jaw width 50 mm			KL070250	OIS	507	
VDE Side cutter 160 mm			KL040160	OIS	505	
VDE long-nose pliers, straight, 205 mm			KL050205	5IS	506	
VDE Wire stripper, 160 mm			KL060160	OIS	507	
VDE Cable cutter 160 mm			KL010160	OIS	504	
VDE Slotted screwdriver, 2.5 x 0.4 mm		ŀ	KL100752	5IS	508	
VDE Slotted screwdriver, 3.5 x 0.6 mm		K	L1001003	35IS	508	
VDE Slotted screwdriver, 4.0 x 0.8 mm		K	L1001004	40IS	508	
VDE Slotted screwdriver, 5.5 x 1.0 mm		K	L100125	55IS	508	
VDE Phillips screwdriver, PH1			KL110PH	1IS	508	
VDE Phillips screwdriver, PH2			KL110PH2	2IS	508	
VDE Pozidriv screwdriver, PZ1			KL120PZ	1IS	508	
VDE Pozidriv screwdriver, PZ2			KL120PZ2	2IS	508	
VDE Plus/Minus screwdriver, Z1			KL130PM	1IS	508	
VDE Plus/Minus screwdriver, Z2			KL130PM	2IS	508	
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V			KL19073	IS	509	
Cable knife, straight			KL640G	K	516	
Rubber cover/blanket, large			KL625A10	000	515	
Plastic clamp for rubber cover/blanket			KL628		515	
Protective gloves, size 10			KL6051	0	515	
Cotton gloves			KL605U	J	515	
Tweezers			KL69013	30	516	
Cleaning brush			KL698		516	
Control cabinet spirit level, 200 mm			KL42020	00	531	
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>		KL760180IS		OIS	507	
Tool case red, empty			KL880L	-	522	
VDE Electric power side cutter, 200 mm			KL044200	OIS	505	

# Tool case red, empty



## **Characteristics**

- Hard shell, red

ltem	Dimension mm	Weight g	Part No.
Tool case red, empty	515 x 420 x 230	4400	KL880L









# STANDARD – KLAUKE BASIC TOOLS, SETS AND ACCESSORIES

With Klauke sets, you always have your basic equipment to hand. Whether you are an electronics technician or precision engineer - the Klauke range includes all standard versions through to pliers for water pumps and fittings. Rely on Klauke quality from the outset - even just for quick, occasional use.

#### ▶ Socket wrench set KL 361

We have compiled the standard set of socket wrenches for you and made everything shockproof by storing in a high-quality plastic case. In total, the set comprises 29 pieces in 1/4" sizes.

 29 piece: 16-piece bit set, bit holder, adapter, 7-piece socket set, professional ratchet, various extensions,
 T-Smart grip

# ▶ The apprentice's case: KL 855 B22

The impact-resistant case made from ABS material contains everything an apprentice electrician needs, from standard tools such as cable knives and phase testers through to VDE safety tools.

Head into your apprenticeship well-prepared!

## ▶ The technician's basic equipment: KL 905 B15

The practical notebook bag holds everything you need on-site. The 15-piece set is securely stowed in the fold-out compartments.

- Technician's notebook bag made from highly durable nylon
- Tools are quickly located thanks to fold-out front pocket
- Reliably transported due to splash-proof base
- Twin fixed carrying handle
- Basic set of VDE screwdrivers
- Standard tools such as phase tester and cable knife

# Water pump pliers, jaw width 50 mm



## **Characteristics**

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area
- Plastic coated handles
- 2-component handle

Part No.	KL070250G		
Item	Water pump pliers, jaw width 50 mm		
Dimension mm	250		
Weight g	355		

# Water pump pliers



#### **Characteristics**

- Jaw width up to 65 mm
- Safe working due to clamp protection and safety joint
- Push button adjustment for setting quickly and accurately
- Inverted box joint with wide guide surfaces
- Optimum hold due to toothed grip area
- High retaining force and load-bearing capacity due to inductively-hardened teeth
- Plastic coated handles
- 2-component handle

Part No.	KL072180G	KL072250G	KL072300G
Item	Water pump pliers, jaw width 35 mm	Water pump pliers, jaw width 50 mm	Water pump pliers, jaw width 65 mm
Dimension mm	180	250	300
Weight g	190	300	530

# Fitting pliers, jaw width 53 mm



- Parallel and moveable jaws for maximum force
- Large jaw opening adjustable from 0 53 mm
- Safe working due to clamp protection and safety joint
- Push button adjustment for setting quickly and accurately
- Box joint
- Plastic coated handles

Part No.	KL078250G			
Item	Fitting pliers, jaw width 53 mm			
Dimension mm	250			
Weight g	375			









# **ESD Electronic side cutter**



## **Characteristics**

- Precision pliers for high precision work
- Double leaf spring with low friction
- High cutting force thanks to additional induction hardening
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 M0hm

#### **Suitable for**

- For soft wires to 1.2 mm

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, with facet	115	62	KL040115EL
Electronic side cutter, without facet/surface flush cut	115	60	KL040115ELW

# **ESD Electronic long-nose pliers**



#### **Characteristics**

- Smooth inside jaws, edges rounded
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 M0hm
- Optimised for gripping fine strands of wires

Item	Dimension mm	Weight g	Part No.
Electronic long-nose pliers	115	64	KL050115EL

# **Electronic side cutter**



## Characteristics

- Cutter angled at 21°
- Backlash-free operation
- With opening spring
- 2-component handle

## **Suitable for**

• For soft wires to 1.3 mm dia.

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, without wire trapping spring	128	64	KL040128EL
Electronic side cutter, with wire trapping spring	128	66	KL040128ELH

# Screwdriver with interchangeable bits



## Characteristics

- Compact, versatile, ergonomic

ltem	Dimension mm	Weight g	Part No.
Screwdriver with interchangeable bits, 8-pce.	128	64	KL180B8
Scope of supply			
Slotted screwdriver bit, 1.0 x 5.5 mm			
Philips screwdriver bit, PH 1 & PH 2			
Pozidriv screwdriver bit, PZ 1 & PZ 2			
TORX® screwdriver bit, Torx 15, 20, 25			
Magnetic bit holder			

# Electronic assortment, 7-pce.



## **Characteristics**

- 2-component handle
- Blade replacement by replacement blade holder

Item Electronic assortment, 7-pce.	Weight g 161	Part No. <b>KL350</b>
Scope of supply	Pa	art No. Page
Blade 1.5 x 0.25 - 3.0 x 0.5 mm  Blade 2.0 x 0.4 - 3.5 x 0.6 mm	<del>``</del>	E3501 E3502
Blade 2.5 x 0.4 - 4.0 x 0.8 mm		E3503
Blade PH 000 - PH 00 Blade PH 0 - PH 1		E3504 E3505
Blade PH 0 - PZ 1	KL	E3506
Tool holder 95 x 14 mm	KL	E3507

# Slotted screwdriver bit 1/4", 73 mm

#### **Characteristics**

• Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
Slotted screwdriver bit 1/4", 73 mm	73 x 0.6 x 3.5	16	2	KL2007335
Slotted screwdriver bit 1/4", 73 mm	73 x 0.8 x 4.0	18	2	KL2007340
Slotted screwdriver bit 1/4", 73 mm	73 x 1.0 x 5.5	26	2	KL2007355
Slotted screwdriver bit 1/4", 73 mm	73 x 1.2 x 6.5	34	2	KL2007365

# Phillips screwdriver bit 1/4", 73 mm

## **Characteristics**

- Shank 1/4" (6.3), DIN 3126



ltem	Dimen- sion mm	Weight g	Number parts	Part No.
Phillips screwdriver bit 1/4", 73 mm PH1	73 x PH 1	22	2	KL21073PH1
Phillips screwdriver bit 1/4", 73 mm PH2	73 x PH 2	30	2	KL21073PH2

# Pozidriv screwdriver bit 1/4", 73 mm

## **Characteristics**

- Shank 1/4" (6.3), DIN 3126



Item	Dimen- sion mm	Weight g	Number parts	Part No.
Pozidriv screwdriver bit 1/4", 73 mm PZ1	73 x PZ 1	22	2	KL22073PZ1
Pozidriv screwdriver bit 1/4", 73 mm PZ2	73 x PZ 2	30	2	KL22073PZ2







ltem	Dimen- sion mm	Weight g	Number parts	Part No.
Plus/Minus screwdriver bit, 1/4", 73 mm	73 x Z 1	20	2	KL23073PM1
Plus/Minus screwdriver bit, 1/4", 73 mm	73 x Z 2	30	2	KL23073PM2

# TORX® screwdriver bit, 1/4", 73 mm

#### **Characteristics**

- Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
TORX® screwdriver bit, 1/4", 73 mm TX10	73 x TX 10	22	2	KL25073TX10
TORX® screwdriver bit, 1/4", 73 mm TX15	73 x TX 15	22	2	KL25073TX15
TORX® screwdriver bit, 1/4", 73 mm TX20	73 x TX 20	25	2	KL25073TX20
TORX® screwdriver bit, 1/4", 73 mm TX25	73 x TX 25	25	2	KL25073TX25
TORX® screwdriver bit, 1/4", 73 mm TX27	73 x TX 27	25	2	KL25073TX27
TORX® Screwdriver bit, 1/4", 73 mm TX30	73 x TX 30	30	2	KL25073TX30
TORX® Screwdriver bit, 1/4", 73 mm TX40	73 x TX 40	40	2	KL25073TX40

# Magnetic holder for screwdriver bits, 1/4", 58 mm

## **Characteristics**

- Shank 1/4" (6.3), DIN 3126
- Strong magnet



Item	Dimension mm	Weight g	Part No.
Magnetic holder for screwdriver bits, 1/4", 58 mm	58	32	KL290

# Bit holder with quick-change chuck E6.3 1/4"

- Shank 1/4" (6.3), DIN 3126
- With quick-change chuck



Item	Dimension mm	Weight g	Part No.
Bit holder with quick-change chuck E6.3 1/4"	52	30	KL291

# Adapter, 1/4", 50 mm



## ▶ Shank E 6.3 and 1/4" socket wrench

## **Characteristics**

- Shank 1/4" (6.3)

## Suitable for

Drive for 1/4" socket wrenches

Item	Dimension mm	Weight g	Part No.
Adapter, 1/4", 50 mm	50	15	KL295

# Adapter, 3/8", 50 mm



## **Characteristics**

- Shank 3/8" (10), DIN 3126

Item	Dimension mm	Weight g	Part No.
Adapter, 3/8", 50 mm	50	22	KL296

# Pliers set, 3-piece



Item	Weight g		Part No.
Pliers set, 3-piece	1000		KL315
Scope of supply		Part No.	Page
Fitting pliers, jaw width 53 mm		KL078250G	524
Water pump pliers, jaw width 35 mm		KL072180G	524
Water pump pliers, jaw width 50 mm		KL072250G	524

# Socket head bit set 1/4", 29-pce.



Item	Weight g	Number parts	Part No.
Socket head bit set 1/4", 29-pce.	1130	29	KL361
Scope of supply		Part No	. Page
16-pce. Bit set C6.3 1/4"		KLE360	1
Bit holder with quick-change chuck E6.3 1/4"		KL291	527
7-pce. Socket set AF5 - AF13 1/4"		KLE360	2
Adapter C6.3 (25 mm) 1/4"		KLE360	3
Extension E6.3 (150 mm) 1/4"		KLE360	4
Extension (75 mm) 1/4"		KLE360	5
Professional ratchet 1/4"			
T-Smart handle 105 x 39 mm 1/4"		KLE360	7







## **Characteristics**

- In practical holder

Item	Dimen- sion mm	Weight g	Number parts	Part No.
Allen key set, 7-pce.	SW 2 - 8	171	7	KL370

# Ball-point allen key set, 9-pce.



## **Characteristics**

- In practical plastic holder

Item	Dimension mm	Weight g	Number parts	Part No.
Ball-point allen key set, 9-pce.	SW 1.5 - 10	273	9	KL375

# Torque-wrench set, 0.6 - 1.5 Nm



- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.	
Torque-wrench set, 0.6 - 1.5 Nm	1048	14	KL38715	
Scope of supply		Part No.	Page	
Nm-slotted blade 3.0 x 0.5 x 170 mm		KLE38715	58	
Nm-slotted blade 3.5 x 0.6 x 170 mm		KLE38715	59	
Nm-Phillips blade PH 0 x 170 mm		KLE38715	10	
Nm blade PZ 0 x 170 mm		KLE38715	11	
Nm-TORX® blade TX 6 x 170 mm	KLE387151			
Nm-TORX® blade TX 7 x 170 mm	KLE387152			
Nm-TORX® blade TX 8 x 170 mm		KLE38715	53	
Nm-TORX® blade TX IP 7 x 170 mm		KLE38715	55	
Nm-TORX® blade TX IP 8 x 170 mm		KLE38715	56	
Nm-TORX® blade TX IP 9 x 170 mm		KLE38715	57	
Nm blade Z1 x 170 mm	KLE3883014			
Nm blade magnetic 170 mm	KLE3871512			
Nm handle 0.6 - 1.5 Nm	KLE3871513			
Adjusting spanner	KLE3871514			

# Torque-wrench set, 1.5 - 3.0 Nm



## **Characteristics**

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.	
Torque-wrench set, 1.5 - 3.0 Nm, 14 pieces	1066	14	KL38830	
Scope of supply		Part No	. Page	
Nm-slotted blade 4.0 x 0.8 x 170 mm		KLE38830	01	
Nm-Phillips blade PH 1 x 170 mm		KLE38830	02	
Nm-Phillips blade PH 2 x 170 mm		KLE38830	03	
Nm blade PZ 1 x 170 mm		KLE38830	04	
Nm blade PZ 2 x 170 mm	KLE388305			
Nm-TORX® blade TX 10 x 170 mm	KLE388307			
Nm-TORX® blade TX 15 x 170 mm		KLE38830	08	
Nm-TORX® blade TX IP 10 x 170 mm		KLE38830	10	
Nm-TORX® blade TX IP 15 x 170 mm		KLE38830	111	
Nm blade Z1 x 170 mm	KLE3883014			
Nm blade Z2 x 170 mm	KLE3883015			
Nm blade magnetic 170 mm	KLE3883012			
Nm handle 1.5 - 3.0 Nm	KLE3883013			
Adjusting spanner		KLE38715	14	

# Torque-wrench set, 3.0 - 5.4 Nm



- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.	
Torque-wrench set, 3.0 - 5.4 Nm	1066	14	KL38954	
Scope of supply		Part No.	Page	
Nm-slotted blade 4.0 x 0.8 x 170 mm		KLE388301		
Nm-Phillips blade PH 2 x 170 mm		KLE388303		
Nm-Phillips blade PH 1 x 170 mm		KLE388302		
Nm blade PZ 1 x 170 mm		KLE388304		
Nm blade PZ 2 x 170 mm		KLE388305		
Nm-TORX® blade TX 15 x 170 mm		KLE388308		
Nm-TORX® blade TX IP 10 x 170 mm		KLE3883010		
Nm-TORX® blade TX IP 15 x 170 mm		KLE3883011		
Nm blade Z2 x 170 mm	KLE3883015			
Nm blade magnetic 170 mm	KLE3883012			
Nm handle 3.0 - 5.4 Nm	KLE3895413			
Adjusting spanner	KLE3871514			





# Bit set, 6-piece, 1/4", 73 mm



## **Characteristics**

- Shank 1/4" (6.3), DIN 3126
- KL330: 3.0 x 0.5 mm / 3.5 x 0.6 mm / 4.0 x 0.8 mm / 5.5 x 1.0 mm / PH 1 / PH 2
- KL331: PH 1 / PH 2 / PH 3 / PZ1 / PZ2 / PZ3
- KL335: TX10 / TX15 / TX20 / TX25 / TX30 / TX40

Item	Blade length mm	Weight g	Number parts	Part No.
Bit assortment, 1/4", 73 mm	73	120	6	KL330
Bit assortment, 1/4", 73 mm	73	120	6	KL331
TORX® bit assortment, 1/4", 73 mm	73	120	6	KL335

# Bit box Swift, 7-piece, 1/4", 25 mm



#### **Characteristics**

- Shank 1/4" (6.3), DIN 3126
- In practical holder
- Incl. magnetic holder
- KL340: 1.0 x 5.5 mm / 1.2 x 6.5 mm / PZ 1 / PZ 2 / PH 1 / PH 2
- KL345: TX10 / TX15 / TX20 / TX25 / TX30 / TX40

ltem	Blade length mm	Weight g	Number parts	Part No.
Bit box Swift, 1/4", 25 mm	25	75	7	KL340
TORX® bit box swift, 1/4", 25 mm	25	75	7	KL345

# Combination spanner set, 12-pce.



#### **Characteristics**

- Material: Chrome vanadium

- Surface: chromed

Item	Dimension mm	Weight g	Part No.
Combination spanner set, 12-pce.	SW 8 - 22	1055	KL365

# Control cabinet spirit level, 200 mm



## **Characteristics**

With horizontal, vertical and 45° spirit level

Item	Dimension mm	Weight g	Part No.
Control cabinet spirit level, 200 mm	200x42x17	65	KL420200

# Alu spirit level

## **Characteristics**

- With horizontal and vertical spirit level



# Wooden folding rule, 2 m

## **Characteristics**

- White/yellow
- No. of links 10

		Weight	D
The second secon	Item	g	Part No.
	Wooden folding rule, 2 m	126	KL402

# Measuring tape, 3 m

## **Characteristics**

• With 3 functions: Length, inside dimension and circles



# Carpenter's pencil

## **Characteristics**

- Oval shape
- Pointed

Item	Weight g	Part No.
Carpenter's pencil	10	KL449

# Marking pen

- Multimark permanent marker, black
- Fine tip 0.6 mm

Item	Weight g	Part No.
Marking pen	10	KL440F









# **Control cabinet key**



## **Characteristics**

- With chain, adapter and interchangeable bit 1/4"
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 5 mm
- Bit PH2 and slot 1.2 x 0.7 mm
- Radiator valve key closing (5 mm square) in the centre slot

Item	Weight g	Part No.
Control cabinet key	75	KL500

# Universal cabinet key, subkey Electro



#### **Characteristics**

- 30% lighter and simpler opening mechanism
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 5 mm
- Including 1/4" bit mounting and 2 double bits
- Radiator valve key closing (5 mm square) on the pin head
- Bit slot 1.2 x 7 mm, PH2

Item	Dimension mm	Weight g	Part No.
Universal cabinet key, subkey Electro	145	120	KL510

# Universal cabinet key, SuBMaVo



- Incl. voltage field sensor to safely determine alternating current at e.g. cable connections, sockets, lamps
- Integrated magnetic field sensor for the contactless determination of magnetic fields or permanent magnets
- Twin rotating mechanism for 4 different control cabinet closures
- Square drive 6 and 7 8 mm
- Triangular 9 mm
- Double pin keys 3 5 mm
- Bit slot 1.2 x 7 mm, PH2

Item	Weight g	Part No.
Universal cabinet key, SuBMaVo	105	KL520

# **Engineer's hammer**



## **Characteristics**

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Engineer's hammer, 300 g	370	300	KL580300
Engineer's hammer, 500 g	610	500	KL580500

# Sledge hammer



## **Characteristics**

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Club hammer, 1000 g	1150	1000	KL5821000
Club hammer, 1250 g	1400	1250	KL5821250

# Jointing chisel



- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Jointing chisel	230 x 26 x 7	250	KL584230

# **Electricians chisel**

#### **Characteristics**

- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Electrician's chisel, 200 mm	200	90	KL585200
Electrician's chisel, 250 mm	250	120	KL585250

# Safety handle for jointing chisel



#### **Suitable for**

Jointing chisel, part no. KL584230

Item	Weight g	Part No.
Safety handle for jointing chisel	110	KL586







# KIBUKE A Textron Company

# Cable knife



## **Characteristics**

· Hinged, with plastic handle

Item	Dimension mm	Weight g	Part No.
Cable knife	80	115	KL540

# Mini saw



#### **Characteristics**

- With fixed wooden handle

ltem	Dimension mm	Weight g	Part No.
Mini saw	290	95	KL559
Metal saw blades, 12-piece	150	2	KL550ES

# **Universal** saw



## **Characteristics**

- With fibreglass reinforced plastic handle

Item	Dimension mm	Weight g	Part No.
Universal saw	250	170	KL550
Metal saw blades, 12-piece	150	2	KL550ES

# **Combination scissors**



## **Characteristics**

- Serrated cutting edges
- With safety lock
- Cuts e.g. round and flat material from copper, aluminium, plastic, paper, cardboard, leather

Item	Dimension mm	Weight g	Part No.
Combination scissors	190	100	KL545

# **Universal** knife



#### **Characteristics**

With adjustable and replaceable blades

Item	Dimension mm	Weight g	Part No.
Universal knife		305	KL542
Replacement blade for universal knife	60 x 19 x 0.5	8	KL542ES

# **Cutter knife**



## **Characteristics**

· Knife with knock-off blades, all 9 mm

Item	Dimension mm	Weight g	Part No.
Cutter knife	9	45	KL544
Replacement blade for cutter knife	9	5	KL544ES

# Safety glasses uvex i-vo in microfibre bag



- Duo component technology with soft components for the sensitive zones (nose, forehead, ears) giving optimum and long-term wearing comfort
- Individual bar length adjustment
- Individual incline setting
- Clear lens for permanent anti-fog inside, extremely scratch-resistant outside
- Sun protection lens extremely scratch-resistant both sides
- Easy and quick replacement of the sunglasses' lens
- 100 % UV protection
- Elegant microfibre pouch, also suitable for cleaning the glasses

Item	Weight g	Part No.
Safety glasses uvex i-vo in microfibre bag	33	KL604
Sun protection lens for safety glasses KL604	23	KL604S











# L-BOXX with basic equipment for electricians, 18-piece



## Characteristics

- L-BOXX from shock and impact resistant ABS plastic, 100 kg capacity
- Stackable L-BOXXes due to Easy-Click system

## **Suitable for**

• For integration in TÜV-approved in-vehicle equipment systems

Item	Dimension mm	Part N	lo.
L-BOXX with basic equipment for electricians, 18-piece	442 x 357 x 151	LBOXXK	LB18
Scope of supply	Par	rt No. P	age
L-BOXX with front handle (W/D/H: 442 x 357	x 151 mm) LBOXX	(136LFG	
VDE long-nose pliers, straight, 205 mm	KL05	0205IS 5	506
VDE Power combination pliers, 180 mm	KL02	0180IS 5	504
VDE Side cutter 160 mm	KL04	0160IS 5	505
VDE Cable cutter 160 mm	KL01	0160IS 5	504
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>	KL76	0180IS 5	507
VDE Water pump pliers, jaw width 50 mm	KL07	0250IS 5	507
Measuring tape, 3 m	KL	.403 5	532
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL100	10040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL100	12555IS 5	508
VDE Plus/Minus screwdriver, Z1	KL13	OPM1IS 5	508
VDE Plus/Minus screwdriver, Z2	KL13	OPM2IS	508
VDE Phillips screwdriver, PH1	KL11	OPH1IS 5	508
VDE Phillips screwdriver, PH2	KL11	OPH2IS	508
Phase tester with heavy duty handle, one-pir VDE 0680 150 V - 250 V	ı, KL19	9073IS \$	509
GT-85NE Bipolar voltage tester with LCD disp	play 520	49407	575
Hexagonal angle screwdriver set, 7-pce.	KL	.370 5	529
Cable knife with hooked blade	KL7	'45HK 5	548
DM-200A Digital multimeter	5204	7801V2 5	578

# **Apprentice case**



▶ Tool case can be personalised with own brand logo http://www.klauke.com/personalization

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm	Weight kg	Part No.
Apprentice case	500 x 470 x 210	6.0	KL855B22
Scope of supply		Part No	. Page
VDE Power combination pliers, 180 mm		KL02018	OIS 504
VDE Side cutter 160 mm		KL04016	OIS 505
VDE long-nose pliers, straight, 205 mm		KL05020	5IS 506
VDE Slotted screwdriver, 3.0 x 0.5 mm		KL100100	30IS 508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL100100	40IS 508
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL100125	55IS 508
VDE Pozidriv screwdriver, PZ1		KL120PZ	1IS 508
VDE Pozidriv screwdriver, PZ2		KL120PZ	2IS 508
VDE Plus/Minus screwdriver, Z1		KL130PM	1IS 508
VDE Plus/Minus screwdriver, Z2		KL130PM	2IS 508
Phase tester with heavy duty handle, one-pir VDE 0680 150 V - 250 V	l,	KL19073	BIS 509
Wooden folding rule, 2 m		KL402	532
Control cabinet spirit level, 200 mm		KL42020	00 531
Carpenter's pencil		KL449	532
Universal saw		KL550	535
Engineer's hammer, 300 g		KL58030	00 534
Cable knife with hooked blade		KL745H	K 548
Automatic VDE wire stripper 0.2 - 6 mm²		KL76018	OIS 507
Water brush			
Plasterer's bowl 125 mm			
Painter's spatula 40 mm			
Painter's spatula 40 mm			









# **Tool case Economy**



► Tool case can be personalised with own brand logo http://www.klauke.com/personalization

#### **Characteristics**

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm	Weig kg	_	Part No.
Tool case Economy	500 x 400 x 210	5.7	K	L855B8
Scope of supply			Part No.	
VDE Power combination pliers, 180 mm		KL	KL020180IS	
VDE Side cutter 160 mm		KL	KL040160IS	
VDE long-nose pliers, straight, 205 mm		KL	KL050205IS	
VDE Slotted screwdriver, 3.0 x 0.5 mm		KL1	KL10010030IS	
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL1	KL10010040IS	
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL1	KL10012555IS	
VDE Pozidriv screwdriver, PZ1		KL	KL120PZ1IS	
VDE Pozidriv screwdriver, PZ2		KL	KL120PZ2IS	

# **Professional tool case**





► Tool case can be personalised with own brand logo http://www.klauke.com/personalization

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm		Weight kg	Pa	rt No.
Professional tool case with 19 tools	520 x 440 x 230		9.15	KL8	65B19
Scope of supply			Part No.		Page
VDE Power combination pliers, 180 mm			KL020180IS		504
VDE Side cutter 160 mm			KL040160IS		505
VDE long-nose pliers, straight, 205 mm		KL050205IS		5IS	506
Nater pump pliers, jaw width 50 mm			KL072250G		524
VDE Slotted screwdriver, 3.0 x 0.5 mm			KL10010030IS		508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL10010040IS		508	
/DE Slotted screwdriver, 5.5 x 1.0 mm			KL10012555IS		508
VDE Pozidriv screwdriver, PZ1			KL120PZ1IS		508
DE Pozidriv screwdriver, PZ2			KL120PZ2IS		508
/DE Plus/Minus screwdriver, Z1			KL130PM1IS		508
VDE Plus/Minus screwdriver, Z2			KL130PM2IS		508
Wooden folding rule, 2 m			KL402		532
Carpenter's pencil			KL449		532
Control cabinet key			KL500		533
Cable knife with blade protection, 1000 V			KL645GSK		516
Automatic VDE wire stripper 0.2 - 6 mm²			KL760180IS		507
T-55NE Bipolar voltage tester with LED display			52049408		575
Allen key set					
Open-end wrench set					

### Professional roller trolley, 88-piece



- With 4-section telescopic handle, up to 1050 mm
- Document compartment
- Double aluminium frame
- Smooth-running thanks to large rubber casters
- Case shell manufactured from non-breakable ABS
- Loads up to 40 kg
- Hinges for case lid lock

Item	Dimension mm	Weight q	Part No.
Professional roller trolley, 88-piece	470 x 210 x 355	15500	KL890TB88
Scope of supply		Part No	. Page
Professional roller trolley, empty		KL890T	L 541
VDE Power combination pliers, 180 mm		KL020180	DIS 504
VDE long-nose pliers, straight, 205 mm		KL05020	5IS 506
VDE Electric power side cutter, 200 mm		KL044200	OIS 505
VDE Wire stripper, 160 mm		KL060160	OIS 507
VDE Slotted screwdriver, 2.5 x 0.4 mm		KL100752	5IS 508
VDE Slotted screwdriver, 3.5 x 0.6 mm		KL1001003	35IS 508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL1001004	40IS 508
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL100125	55IS 508
VDE Phillips screwdriver, PH1		KL110PH	1IS 508
VDE Phillips screwdriver, PH2		KL110PH	2IS 508
VDE Pozidriv screwdriver, PZ1		KL120PZ	1IS 508
VDE Pozidriv screwdriver, PZ2		KL120PZ2	2IS 508
Phase tester with heavy duty handle, one-pin VDE 0680 150 V - 250 V	,	KL19073	IS 509
VDE Plus/Minus screwdriver, Z1		KL130PM	1IS 508
VDE Plus/Minus screwdriver, Z2		KL130PM	2IS 508
VDE Cable cutter 210 mm		KL010210	DIS 504
Bit assortment, 1/4", 73 mm		KL330	531
Wire stripper for flexible and solid conductors	<b>,</b>	KL76018	30 546
Combination spanner set, 12-pce.		KL365	531
Socket head bit set 1/4", 29-pce.		KL361	528
Universal cabinet key, subkey Electro		KL510	533
Universal saw		KL550	535
Crimping tool with interchangeable dies		K507	243
Wooden folding rule, 2 m		KL402	532
Carpenter's pencil		KL449	532
Cable knife with hooked blade		KL745H	K 548
Round cable stripper 8 - 13 mm <sup>2</sup>		KL710	548
Allen key set, 7-pce.		KL370	529
Engineer's hammer, 300 g		KL58030	00 534
Safety glasses uvex i-vo in microfibre bag		KL604	536
Marking pen		KL440F	532
GT-85NE Bipolar voltage tester with LCD disp	lay	5204940	7 575
Kwik Stepper™ step bit with ROTASTOP® sha	aft ISO 12 - 40 mm	5006988	38 467
NETcat® Micro NC-100 + 200EP		NC100E	P 608
NETcat® Micro NC-100		5202454	11 608
TC-20 Nylon carrying case for measuring inst with carrying strap	truments	5007535	57 583







### Engineers professional case, 15-piece



### ▶ Engineers basic equipment, mainly with VDE tools

### Characteristics

- Technicians Notebook tool bag
- Material: hard-wearing nylon
- 90° folding-out front pocket
- High-quality zipper
- Spray-water protected bottom
- Each side pocket has a zipper
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Twin fixed carrying handle
- Insert for visitor cards

Item		Part No.
Engineers professional case, 15-piece		KL905B15
Scope of supply	Part No.	Page
Technicians professional case, empty	KL905L	542
VDE Phillips screwdriver, PH1	KL110PH1I	S 508
VDE Phillips screwdriver, PH2	KL110PH2I	S 508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525	IS 508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040	OIS 508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL1001255	5IS 508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073I	5 509
VDE Plus/Minus screwdriver, Z1	KL130PM1	IS 508
VDE Plus/Minus screwdriver, Z2	KL130PM2	IS 508
Cable knife with hooked blade	KL745HK	548
VDE long-nose pliers, straight, 205 mm	KL050205I	S 506
VDE Electric power side cutter, 200 mm	KL044200I	S 505
Round cable stripper 8 - 13mm <sup>2</sup>	KL710	548
VDE Power combination pliers, 165 mm	KL020165	S 504
Measuring tape, 3 m	KL403	532

### Professional roller trolley, empty



- With 4-section telescopic handle, up to 1050 mm
- Document compartment
- Double aluminium frame
- Smooth-running thanks to large rubber casters
- Case shell manufactured from non-breakable ABS
- 2 compartments for business cards
- Two straps for writing instruments

Item	Dimension mm	Weight g	Part No.
Professional roller trolley, empty	470 x 210 x 355	6600	KL890TL

### **Professional installers case**



### **Characteristics**

- Robust version with plastic slide rails and upper metal rails with sponge rubber
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Outdoors: 1 large lockable label pocket, 9 pockets, 2 Velcro® for fastening spirit level etc. Indoor connections: 3 compartments, 14 straps

Item	Dimension mm	Weight g	Part No.
Profi-installer's pocket	350 x 200 x 200	2600	KL920L

### Technicians professional case, empty



- Material: highly durable nylon, splash-proof base
- 90° folding front pocket, each side pocket has a zipper
- Twin fixed carrying handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Protected notebook compartment
- Insert for visitor cards
- High-quality zipper

Item	Dimension mm	Weight g	Part No.
Technicians professional case, empty	330 x 440 x 200	2600	KL905L









### Tool wallet from nylon, empty



- Material: Polytex
- Accepts up to 11 tools

Item	Dimension mm	Weight g	Part No.
Tool wallet from nylon, empty	200 x 200 x 50	100	KL910L

## PREPARATION WITH PRECISION STRIPPING TOOLS

In the world of professionals, every assignment counts. Better if you can rely on your tool. Stripping tools from Klauke remove insulation and cable sheathing quickly and precisely. All strands remain intact.



### ▶ For very precise use

- Fast and precise removal of insulation and cable sheathing
- Automatic cross-section adjustment
- Reduced effort due to optimum power transmission
- Reduced wear
- Including replacement blade



### Automatic wire stripper, 0.02 - 10 mm<sup>2</sup>



### Characteristics

- Self-setting cutting and stripping tool for commercially available flexible cables 0.02 - 10 mm² and solid conductors to 1.5 mm²
- Easily replaceable blade system
- Long service life of pliers due to precise adjustment for stripping thin insulation without damaging the conductor
- Integrated side cutter

Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire-stripping tool K43/2	0.02 - 10	140	K432
Automatic wire stripper K43/2-90, angled at 90°	0.02 - 10	140	K43290
Accessories	Part No.	Page	
Interchangeable cassette, black, for wire-stri 0.02 - 10 mm² flexible conductors and to 1.5	K432E tors		
Interchangeable cassette, blue, for wire-strip K432 for PTFE insulated conductors 0.1 - 4 r	K432E2		
Interchangeable cassette, red, for wire-stripp K432 / 4 - 16 mm²	oing tool	K432E3	

### Wire stripper with stepless stripping range 0.03 - 16 mm<sup>2</sup>

- ▶ First wire stripper with stepless stripping range 0.03 16 mm²
- ▶ Perfect for damage-free stripping of solid and flexible conductors with PVC

- Effortless working thanks to ergonomic styling
- Safe working thanks to integrated clamp protection
- Durable tool with easily replaceable blades
- Integrated side cutter up to max. 9 mm dia.
- High stability due to glass fiber reinforced polyamide
- Accurate and consistent stripping length thanks to adjustable stop



Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper with stepless stripping range 0.03 - 16 mm <sup>2</sup>	0.03 - 16	140	K433

### Wire stripper, 0.2 - 6 mm<sup>2</sup>



### **Characteristics**

- Adjustable length stop from 5 12 mm
- Integrated easy to reach side cutter up to max. 2 mm dia.

### **Suitable for**

For all standard flexible and solid conductors from 0.2 - 6 mm²

Item	Dimen- sion mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for flexible and solid conductors	180	0.2 - 6	130	KL760180

### Wire stripper for round and flat cables



### **Characteristics**

- Fine adjustment (5-way) on various cable types and cable diameters
- Optical length dimension 8 24 mm (5/16 1 inch)
- Integrated side cutter up to max. 3 mm dia.

### **Suitable for**

- Flat cable: Baring and stripping of 2-core PVC-insulated flat cables from 0.75 - 1.5 mm<sup>2</sup>
- Round cable: Baring and stripping flexible cables in the range 0.5 16 mm<sup>2</sup> (20-6 AWG), solid conductors 0.5 - 10 mm<sup>2</sup> (20-8 AWG)

Item	Dimen- sion mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for round and flat cables	180	0.5 - 16	205	KL765FR215

### Automatic wire stripper for round cables in the solar technology sector



### **Characteristics**

- Fine adjustment (5-way) on various cable types and cable diameters
- Integrated side cutter up to max. 3 mm dia.
- Optical length dimension 8 24 mm (5/16 1 inch)

### **Suitable for**

 Baring and stripping of all standard, flexible cables from 1.5 mm<sup>2</sup> - 6.0 mm<sup>2</sup> (15-9 AWG) in the solar technology sector.

Item	Dimen- sion mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire-stripping tool for round cables in the solar technology sector	180	1.5 - 6	205	KL765PV







### K 400 Professional wire stripping tool 4.5 - 40 mm



### **Characteristics**

- Max. cutting depth of the knife: 4.5 mm
- Max. baring diameter: 21 mm (small hook)
- Max. baring diameter: 40 mm (large hook)
- Stop hook is replaceable

Item	Dimension mm	Weight g	Pa	art No.
K 400 Professional wire stripping tool 4.5 - 40 mm	200 x 93 x 33	120	ŀ	<b>K400</b>
Accessories		Part No.		Page
K 400E Replacement blade for wire strippin	K400E			

### Cable knife without blade



### **Characteristics**

- Precise, fast and safe stripping of all standard round cables
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife, without blade 4 - 16 mm dia.	4 - 16	70	KL740416
Cable knife, without blade 8 - 28 mm dia.	8 - 28	70	KL740828
Accessories		Part No.	. Page
Replacement blade for electricians knife with hooked blade		KL749E	S

### Cable knife with straight blade



- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item Cable knife with straight blade	Dimension mm 4 - 28	Weight g 80		art No. <b>745GK</b>
Accessories		Part No.		Page
Replacement blade for electricians knife with hooked blade		KL749ES	;	

### Cable knife with hooked blade



### **Characteristics**

- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Pa	art No.
Cable knife with hooked blade	4 - 28	80	KL	745HK
Accessories		Part No.		Page
Replacement blade for electricians knife with hooked blade		KL749E	3	

### Round cable stripper 8 - 13mm<sup>2</sup>



### **Characteristics**

- Simple stripping even in hard-to-reach areas, e.g. ceiling and walls, junction and distribution boxes, switch cabinets etc.
- Strips round and damp proof installation cables from 8 13 mm dia. (e.g. NYM 3 x 1.5 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>)
- No need to adjust the cutting depth

Item	Dimension mm	Weight g	Part No.
Round cable stripper 8 - 13mm <sup>2</sup>	8 - 13	43	KL710

### Multi-stripper



### **Characteristics**

• Universal stripping tool with the following functions: Baring, round cut, long cut, stripping, cutting

ltem	Dimension mm	Weight g	Part No.
Multi-stripper	8 - 13	77	KL730

### Photovoltaic stripper



### **Characteristics**

- Replaceable blade system
- Protected blade
- Simple handling
- Fixed stripping from 8.5 mm
- Compact design

### Suitable for

For all standard PV cables to 8.5 mm

Item	Dimension mm	Weight g	Part No.
Photovoltaic stripper	8.5	40	KL735PV







### Coax-stripper



### **Characteristics**

- No need to adjust the cutting depth
- Gradual stripping of all standard coaxial cables
   (e.g. antenna and transmission cables) 4.8 7.5 mm outside diameter

### Suitable for

Flexible cables, e.g. 3 x 0.75 mm², 10 mm² and 16 mm²

Item	Part No.
Coax-stripper	KL720

### Kiwi Stripper coax wire stripper - 3 stage



### ▶ Pre-set for three different cable types

- Dresses coaxial cable types RG58, RG59, RG62 and RG6 and many more
- Adjustable blade to cutting depth
- Quick and simple interchangeable blade holder
- The frame takes both 2 and 3 stage holders

Item		Part No.
Kiwi Stripper coax wire stripper - 3 stage	5	0455770
Accessories	Part No.	Page
Spare holder - 3 stage	50450395	
Spare holder - 2 stage	50450409	



### DN-AW3 wire stripping tool, 2.5 - 11 mm



### **Characteristics**

- For stripping signal, telephone, AV, control and data transmission cables from copper and fibreglass
- 9 adjustable cutting depths
- Cable capacity: 2.5 11 mm diameter
- Insulation thickness: up to 1 mm
- Interchangeable blade holder
- Including one holder with replacement blade

Item		Part No.
DN-AW3 wire stripping tool, 2.5 - 11 mm		DNAW3
Accessories	Part No.	Page
Spare holder for DN-AW3	DNAW3M	

### Ratchet crimping tool for telephone lines



### **Characteristics**

- Integrated cutting and stripping tool for ribbon cable
- The full radius ratchet mechanism permits consistent terminations with each operation
- Straight access guarantees consistent crimp connection
- Optimum handling due to ergonomically-shaped handle

### **Suitable for**

Modular connectors of type RJ10 4P4C, RJ11 6P4C, RJ12 6P6C and RJ45 8P8C

Item	Part No.
Ratchet crimping tool for telephone lines	50455753















## Cable pulling technology

Fish tapes/pulling rods	556
Polyester	556
Perlon	556
Nylon	556
Steel	557
Flex-O-Twist speed flex leader	557
Fibreglass cable pulling rods	557
Cable pulling systems	558
With Polyester tapes (Dura Spinner and Flexi Spinner)	558
With fibreglass tapes (Speedy Spinner)	559
Fish tapes in winder case	560
Smart Butler	562
Cable puller	564
Easy Roller (cable drum unwinder)	564
Cable puller with accessory	564
Pulling grips	566
Pulling grips, closed	566
Pulling grips, open	567
Accessory	568

### THE PULLING AID CABLE PULLING TECHNOLOGY

Clean construction site - clean laying. Our cable pulling technology ensures that all cables are cleanly rolled in and out. No parts not required left lying around. No awkward handling. Greenlee pulling systems are made from high-quality ABS plastic. Making them robust and drop-proof. You are in control: Reliable laying with safe cable pulling technology.



### In brief

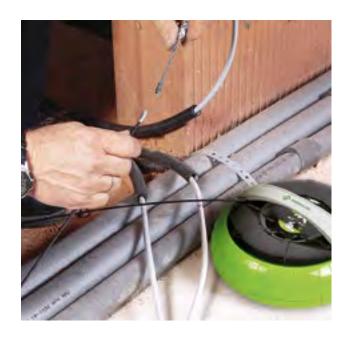
- ▶ Simple pulling through of cables and conductors
- Cable puller made from polyester, perlon, nylon, steel and fibreglass
- ▶ Cable pulling rods for cavities and suspended ceilings
- ▶ Made from high-quality ABS plastic
- Solutions for light and heavy cable types, angled ducts or long straights



### ▶ The Dura Spinner

The Dura Spinner is small, but has a great effect. High-quality materials ensure robustness and the best functionality. Its user-friendly design also permits unwinding on the floor. The Dura Spinner is even able to hold in place cables that are laid around corners. A genuine help on the construction site.

- ABS plastic housing
- Cable puller made from virtually indestructible polyester tape
- Simple unwinding and rewinding
- Unwinding even on the floor
- User-friendly design ensures convenient and smooth operations





### Polyester fish tape green 4.5 mm dia.



- ▶ 50% less friction than nylon tapes
- ▶ Extremely flexible and almost unbreakable

### **Characteristics**

- High thrust due to twisted tape design
- Reduces the pulling force due to much lower friction
- Replaceable pulling eyelet and spring guide head

### **Additional information**

Further detailed information can be found in the application table on page i-12

Length	Part No.	Diamet mm	ter
10 m	52055292	4.5	
15 m	52055293	4.5	
20 m	52055294	4.5	
25 m	52055295	4.5	
30 m	52055296	4.5	
Accessory			Part No.
5-piece accessory set for polyester fish tapes 52055396			52055396

### Perlon® fish tape 4 mm dia.



### **Characteristics**

- With pressed M4 front piece
- With unscrewable spring guide head and pulling eyelet

### **Additional information**

Further detailed information can be found in the application table on page i-12

Length	Part No.	Diame mn	0.0.
5 m	52055276	4	
10 m	52055277	4	
15 m	52055278	4	
20 m	52055279	4	
25 m	52055280	4	
30 m	52055281	4	
Accessory			Part No.
	rts for Perlon fish ta I spring guide head	pes, comprising pulling eyes M4 (1)	52055288

### Nylon fish tape 4 mm dia.



### **Characteristics**

· With pressed spring guide head and eyelet

### **Additional information**

- Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
5 m	52055270	4
10 m	52055271	4
15 m	52055272	4
20 m	52055273	4
25 m	52055274	4
30 m	52055275	4







### Steel fish tape 4 mm dia.



### **Characteristics**

With pressed spring guide head and eyelet

### **Additional information**

• Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
5 m	52055282	4
10 m	52055283	4
15 m	52055284	4
20 m	52055285	4
25 m	52055286	4
30 m	52055287	4

### Flex-O-Twist™ speed flex leader

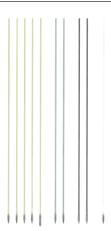


### Characteristics

- Especially suitable for sharp bends
- Flexible fish tape leader

Length	Part No.
300 mm	50308599

### Fibreglass cable pulling rods



### **Characteristics**

- Almost unbreakable due to special outer jacket
- Time-saving cable laying
- Laying also under the most difficult conditions

### **Suitable for**

- Cable installation and laying
- Pulling or pushing

Length	Part No.	Version	
10 m	52055385	Comprising of: 4 pce. light greer mm dia. with WW connecting sle fibreglass rod 5.6 mm dia. with universal joint, 2 pce. black fibre WW connecting sleeve, 1 pce. w with WW connecting sleeve, 2 p 4.6 mm dia. with WW connectin	eeve, 1 pce. light green WW connecting sleeve and eglass rods 6 mm dia. with white nylon rod 4 mm dia. ce. green fibreglass rods
5 m	52055386	Consists of: 3 pce. light green fibreglass sticks 5.6 mm dia. with WW connecting bushing, 1 pce. black fibreglass stick 6 mm dia. with WW connecting bushing, 1 pce. white nylon stick 4 mm dia. with WW connecting bushing	
Accessories Part No.			
Accessory set for cable pulling rods, 8-pcs. 52055387			52055387
Accessory set fo	Accessory set for cable pulling rods, 4-pcs. 52055388		

### **Dura Spinner polyester fish tape system**



### **Characteristics**

- Thin and extremely robust fish tape
- Uncoiling also possible on the floor
- Unique, user-friendly design
- Goes into every corner and holds every cable

### **Suitable for**

The laying of additional cables

Item	Part No.
Dura Spinner 3.8 mm dia., 20 m	52074600
Dura Spinner 3.8 mm dia., 30 m	52074650
Scope of supply	Part No.
Dura Spinner accessory kit, 3 pieces	52074653
Accessories	Part No.
Dura Spinner spare fish tape 3.8 mm dia., 20 m	52074651
Dura Spinner spare fish tape 3.8 mm dia., 30 m	52074652

### Flexi Spinner polyester cable pulling system



- ► Almost unbreakable
- ▶ Approx. 50 % less frictional resistance compared with nylon and perlon
- ▶ High thrust for long distances with narrow bending radius

### **Characteristics**

- Highly-flexible polyester tape
- Modern design
- Robust housing

### **Additional information**

• Further detailed information can be found in the application table on page i-12

Item	Length	Part No	ı.	Diam mi	.0.0.
Flexi Spinner polyester cable pulling system	20 m	5205538	39	4.	5
Flexi Spinner polyester cable pulling system	25 m	5205539	90	4.	5
Flexi Spinner polyester cable pulling system	30 m	5205539	91	4.	5
Flexi Spinner, winder case empty		5205539	92		
Scope of supply		Part No		Quar	ntity
5-piece accessory set for polyester fish tapes		5205539	96	1	
Accessories			Part	No.	Page
Polyester fish tape green 4.5 mm dia., 20 m			52055	5294	556
Polyester fish tape green 4.5 mm dia., 25 m		52055	5295	556	
Polyester fish tape green 4.5 mm dia., 30 m			5205	5296	556







### Speedy Spinner fibreglass cable pull-in system



- ► Unique, user-friendly design
- ▶ Very simple and quick pulling in and out of fibreglass tapes

### Characteristics

- One-handed operation
- Uncoiling also possible on the floor
- Flexible fibreglass spring for quick pulling in and out
- High thrust
- Accessory set supplied as standard

### **Suitable for**

- Tube diameter: 16 - 32 mm

### **Additional information**

- Further detailed information can be found in the application table on page i-12
- Always order repair adhesive separately!

Item	Diameter mm	Le	ngth	Part	t No.
Speedy Spinner fibreglass cable pull-in system	3		) m	5205	55298
Speedy Spinner fibreglass cable pull-in system	3	30	) m	5205	5299
Speedy Spinner fibreglass cable pull-in system	3	40	) m	5205	5300
Scope of supply			Part	No.	Quantity
Head with eye M5			5205	5304	3
Spring guide head with eye M5			52055305		1
Spring guide head with eye M5 - 10 mm			52055306		1
Start/bushing sleeves M5			5205	5308	3
Connecting sleeves			5205	5309	3
Cable grip M5, 4-15 mm dia.			5205	5310	1
Pulling aid for pulling system 3 -	6 mm dia.		5205	5311	1
Accessories					Part No.
Speedy Spinner accessory, repair patch for fibreglass tape 3 mm dia. 520					52055312
Fibreglass replacement tape 3 mm dia., 20 m 52055289					52055289
Fibreglass replacement tape 3 mm dia., 30 m 52055290					52055290
Fibreglass replacement tape 3 mm dia., 40 m 52055291					52055291
Speedy Spinner repair set, 10-piece 52055303					

### MagnumPRO™ oil-hardened steel fish tape



### **Characteristics**

- · Winder case eases cable pulling
- Dirt-free tape finish
- High impact nylon winder case with large handle grip

Item	Tape dimen- sions mm	Length	Part No.
MagnumPRO™ oil-hardened steel fish tape	3.0 x 1.5	20 m	52041709
MagnumPRO™ oil-hardened steel fish tape	6.3 x 1.5	30 m	52041745
MagnumPRO™ oil-hardened steel fish tape	3.0 x 1.5	38 m	52041741
MagnumPRO™ oil-hardened steel fish tape	3.0 x 1.5	73 m	52041743
Accessories			Part No.
Rotating head eye for 3 mm fish	50293672		
MagnumPRO™ oil-hardened ste	52044594		

### MagnumPRO™ stainless steel fish tape



- ► Stainless, speed flex leader
- ▶ Slim pulling eyelet permits trouble-free pulling in long and winding conduits

### **Characteristics**

- Can be used in conjunction with every steel fish tape with a tape dimension of 3.0 x 1.5 mm
- High impact nylon winder case with large handle grip

Item	Tape dimen- sions mm	Length	Part No.
$\label{eq:magnumPROTM} \textbf{MagnumPRO}^{\text{TM}} \text{ stainless steel} \\ \text{fish tape}$	3.0 x 1.5	30 m	52041746
MagnumPRO™ stainless steel fish tape	3.0 x 1.5	60 m	52041747
Accessory			Part No.
Speed Flex leader for fish tapes v	50143921		

### MagnumPRO™ nylon fish tape



▶ Non-conductive, non-coiling nylon tape

- Diameter 4.8 mm
- High impact nylon winder case with large handle grip

Item	Diameter mm	Length	Part No.
MagnumPRO™ nylon fish tape	4.8	15 m	52041750
MagnumPRO™ nylon fish tape	4.8	30 m	52041751
Accessory			Part No.
Replacement tip			50016644









### MagnumPRO™ fish tape



### **Characteristics**

- Fish tape from multi-strand steel tape
- Flexible type
- High impact nylon winder case with large handle grip

### **Suitable for**

For quick and simple application

Item	Diameter mm	Length	Part No.
MagnumPR0™ fish tape	4.8	15 m	52041748
MagnumPRO™ fish tape	4.8	30 m	52041749

### MagnumPRO™ fibreglass fish tape



### **Characteristics**

- Non-conductive fibreglass tape with low friction coating
- To fish in small and large conduits even with wire or cable in place
- High impact nylon winder case with large handle grip

### **Suitable for**

- Data and telecommunication industry

Item	Diameter mm	Length	Part No.
MagnumPRO™ fibreglass fish tape	4.5	15 m	52041752
MagnumPRO™ fibreglass fish tape	4.5	30 m	52041753
MagnumPRO™ fibreglass fish tape	4.8	60 m	50357468
MagnumPRO™ fibreglass fish tape	4.8	76 m	50357476
Accessory			Part No.
Fibreglass fish tape accessory set			50357506
Pulling eyelet 3.0 mm			50359193
Pulling eyelet 4.8 mm			50359304

### Steel fish tape EZ Reach



- With hand crank
- Flat steel tape for working above suspended ceilings, under carpets and through walls

Item	Tape dimensions mm	Part No.
Steel fish tape EZ Reach	7.5 x 6	50016962

### Smart Butler fibreglass cable pulling-in system with steel reel basket



- ▶ Unique, user-friendly design, galvanised and sprayed
- ▶ Teflon-coated adapter for low resistance when winding and unwinding

- High thrust
- Low-friction unwinding and rewinding
- Secure working thanks to operative holding brake
- Effective working with accessories mounted directly on frame
- From size 790 mm dia. steel reel basket, incl. rollers

ltem	Diameter mm	steel reel basket mm	Version	Length	Weight kg	Part No.
Smart Butler fibreglass cable pulling-in system 4.5 mm dia. with steel reel basket 330 mm dia. 40 m	4.5	330 dia.		40 m	4	52055313
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 60 m	4.5	330 dia.		60 m	5	52055315
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 80 m	4.5	330 dia.		80 m	6	52055316
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 40 m	6.0	550 dia.		40 m	10	52055325
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 60 m	6.0	550 dia.		60 m	11	52055326
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 80 m	6.0	550 dia.		80 m	12	52055327
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 100 m	6.0	550 dia.		100 m	12	52055328
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 40 m	7.5	660 dia.		40 m	13	52055337
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 60 m	7.5	660 dia.		60 m	14	52055338
mart Butler fibreglass cable pulling-in system 60 mm dia. steel reel basket, 80 m	7.5	660 dia.		80 m	15	52055339
mart Butler fibreglass cable pulling-in system 60 mm dia. steel reel basket, 100 m	7.5	660 dia.		100 m	17	52055340
mart Butler fibreglass cable pulling-in system 60 mm dia. steel reel basket, 120 m	7.5	660 dia.		120 m	18	52055341
mart Butler fibreglass cable pulling-in system 60 mm dia. steel reel basket, 40 m	9.0	660 dia.		40 m	14	52055347
mart Butler fibreglass cable pulling-in system 60 mm dia. steel reel basket, 60 m	9.0	660 dia.		60 m	16	52055348
mart Butler fibreglass cable pulling-in system 90 mm dia. steel reel basket, 80 m	9.0	790 dia.	incl. rollers	80 m	31	52055349
mart Butler fibreglass cable pulling-in system 90 mm dia. steel reel basket, 100 m	9.0	790 dia.	incl. rollers	100 m	33	52055350
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 120 m	9.0	1000 dia.	incl. rollers	120 m	35	52055351
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 150 m	9.0	1000 dia.	incl. rollers	150 m	37	52055352
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 150 m	11.0	1000 dia.	incl. rollers	150 m	53	52055359
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 200 m	11.0	1000 dia.	incl. rollers	200 m	60	52055360
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 250 m	11.0	1000 dia.	incl. rollers	250 m	67	52055361
mart Butler fibreglass cable pulling-in system 000 mm dia. steel reel basket, 300 m	11.0	1000 dia.	incl. rollers	300 m	75	52055362









### Scope of supply

 $4.5 \ / \ 6 \ mm \ dia.: Tension \ head \ with \ eyelet, \ pulling-in \ tape \ with \ pressed \ start/end \ sleeves, \ connecting \ sleeve \ WW \ 1/4"-M6, \ starting \ spinner \ with \ shackle$ 

7.5 / 9 / 11 mm dia.: Tension head with eyele	t, fish tape with pressed start/end sleeves	. connecting sleeve WW 1/2"-I	V12. starting spinner with shackle

7.07 57 11 mm dia tonoion noda with dyolot, non tapo with pr	Cooca otal bolla oloci
Accessories	Part No.
Smart Butler fibreglass replacement tape 4.5 mm dia., 40 m	52055317
Smart Butler fibreglass replacement tape 4.5 mm dia., 60 m	52055318
Smart Butler fibreglass replacement tape 4.5 mm dia., 80 m	52055319
Smart Butler fibreglass replacement tape 6 mm dia., 40 m	52055329
Smart Butler fibreglass replacement tape 6 mm dia., 60 m	52055330
Smart Butler fibreglass replacement tape 6 mm dia., 80 m	52055331
Smart Butler fibreglass replacement tape 6 mm dia., 100 m	52055332
Smart Butler fibreglass replacement tape 7.5 mm dia., 40 m	52055342
Smart Butler fibreglass replacement tape 7.5 mm dia., 60 m	52055343
Smart Butler fibreglass replacement tape 7.5 mm dia., 80 m	52055344
Smart Butler fibreglass replacement tape 7.5 mm dia., 100 m	52055345
Smart Butler fibreglass replacement tape 7.5 mm dia., 120 m	52055346
Smart Butler fibreglass replacement tape 9 mm dia., 40 m	52055353
Smart Butler fibreglass replacement tape 9 mm dia., 60 m	52055354
Smart Butler fibreglass replacement tape 9 mm dia., 80 m	52055355
Smart Butler fibreglass replacement tape 9 mm dia., 100 m	52055356
Smart Butler fibreglass replacement tape 9 mm dia., 120 m	52055357
Smart Butler fibreglass replacement tape 9 mm dia., 150 m	52055358
Smart Butler fibreglass replacement tape 11 mm dia., 150 m	52055363
Smart Butler fibreglass replacement tape 11 mm dia., 200 m	52055364
Smart Butler fibreglass replacement tape 11 mm dia., 250 m	52055365
Smart Butler fibreglass replacement tape 11 mm dia., 300 m	52055366
Starter and end bushing WW ¼" for fish tape 4.5 mm dia.	52055321
Starter and end bushing WW ¼" for fish tape 6.0 mm dia.	52055333
Starter and end bushing WW ½" for fish tape 7.5 mm dia.	52055369

, , , , , , , , , , , , , , , , , , , ,	
Accessory	Part No.
Starter and end bushing WW ½" for fish tape 9 m	m dia. 52055370
Starter and end bushing WW ½" for fish tape 11 n	mm dia. 52055371
Connecting sleeve for fibreglass 4.5 mm dia.	52055322
Connecting sleeve for fibreglass 6 mm dia.	52055334
Connecting sleeves for fibreglass tape 9 mm dia.	52055372
Connecting sleeves for fibreglass tape 11 mm dia	. 52055373
Connecting sleeve WW 1/2" with rotary swivel	52055374
Bulb with shackle WW ¼" for 4.5 mm dia.	52055323
Bulb with shackle WW ¼" for 6.0 mm dia.	52055335
Bulb with shackle WW ½" for 7.5 mm dia.	52055367
Bulb with castor WW ½"	52055368
Tension head with eyelet WW 1/4" for 4.5 - 6 mm	dia. 52055320
Emergency repair set for fibreglass tape 4.5 mm of	dia. 52055324
Emergency repair set for fibreglass tape 6 mm dia	a. 52055336
Emergency repair set for fibreglass tape 7.5 mm of	dia. 52055375
Emergency repair set for fibreglass tape 9 mm dia	a. 52055376
Emergency repair set for fibreglass tape 11 mm d	ia. 52055377

### Easy Roller cable drum unwinder



- ► Unique, user-friendly design
- ▶ 30 % less weight
- ▶ Ramp with shallow incline

### **Characteristics**

- Light 30% less weight
- Easy loading and unloading of heavy cable drums thanks to the shallow inclined ramp
- Rollers with integrated side guides
- Possible to fit to the cable drum diameter

### **Suitable for**

- Large and small cable drums
- Width 530 mm, 200 kg carrying capacity
- Width 670 mm, 250 kg carrying capacity

Item	Dimension mm	Width mm	Part No.
Standard	530 x 570 x 90	530	52055383
Wide	670 x 605 x 95	670	52055384

### Ultra Tugger™ cable puller 6800-22 CE



- ▶ Tapered capstan and patented rope guide system for better control of the rope when feeding onto the capstan
- ▶ Pulling force gauge for monitoring the max. pulling of 3.6 t



### **Characteristics**

- Direct gear drive

Technical data			
Maximum pulling force	3.6 t		
Continuous output	3 t		
Pulling rate	2.7 m/min at no load, 2.4 m/min at 900 kg load, 2.3 m/min at 1.8 kg load, 2.1 m/min at 2.7 kg load, 1.8 m/min at 3.6 kg load		
Dimension	300 x 660 x 22	20 mm	
Motor	230 V, 50 Hz		
Item			Part No.
Ultra Tugger™ cable puller 680	0-22 CE		50031961
Scope of supply			Part No.
Pulling force gauge			50010697
Device for floor-mounting			50008650







### Rope for cable puller 6800-22 CE



### **Characteristics**

- Breaking strength approx. 14.2 t
- Rope diameter 22 mm
- Rope on rope stand

Item	Part No.
Rope for cable puller 6800-22 CE, 91 m	50341367
Rope for cable puller 6800-22 CE, 182 m	50341375
Rope for cable puller 6800-22 CE, 365 m	50341383
Rope stand for ropes 91 m and 182 m	50343629

### Tray type sheaves for cable puller 6800-22 CE



### **Characteristics**

- Steel frames with forged eyelet 25 mm
- Sheaves from aluminium alloy with self-lubricating bearings
- Max. rated capacity 3.6 t
- Tool support/hanging ring (Carabiner)

External diameter mm	Internal radius mm	Width mm	Weight kg	Part No.
300	100	125	12	50008722
460	180	150	20	50008730
600	250	165	30	50008749

### Platform-type sheave 125 mm



### **Characteristics**

- Sheaves from aluminium alloy
- Self-lubricating bearings
- Steel frames for mounting to cable ducts up to 50 mm thickness
- Extremely robust

Length mm	Width mm	Weight kg	Part No.
300	125	5	50153323
560	125	8	50190946

### Platform-type sheave



- Steel ball-bearings
  - Steel frames
- Mounting slots
- Universal mounting brackets

Part No.	Version	Width of cable conduit mm	Weight kg
50273833	Straight	300 - 450	3.6
50273841	Straight	500 - 600	4.5
50273868	Straight	600 - 760	5.9
50273884	Radius	300 - 450	5
50273892	Radius	500 - 600	5.4
50273906	Radius	600 - 760	5.9

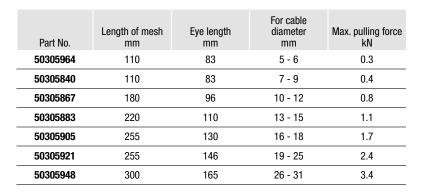
### Pulling grips Junior, closed

### **Characteristics**

- Single weave, galvanized steel mesh with flexible pulling eyelet

### **Suitable for**

- The pulling-in of small diameter cables
- For manual pulling of feed lines in pipes and cable ducts



### T-Basket type pulling grips, closed

### **Characteristics**

Double weave galvanized steel mesh with flexible pulling eyelet

### **Suitable for**

Medium-weight pulls in pipes and cable ducts

Part No.	Length of mesh	Eye length mm	For cable diameter mm	Max. pulling force kN
50305581	535	200	13 - 15	4.0
50305603	610	200	16 - 18	4.9
50305620	610	230	19 - 25	6.0
50305646	610	230	26 - 38	8.7
50305662	610	280	39 - 50	14.5
50305689	610	300	51 - 63	16.4
50305700	610	300	64 - 76	21.7
50305727	610	360	77 - 88	21.7
50305743	660	360	89 - 100	27.5
50305760	915	230	19 - 25	6.0
50305786	915	230	26 - 38	8.7
50310100	915	280	39 - 50	14.5
50305808	915	300	51 - 63	16.4
50310127	915	300	64 - 76	21.7
50305824	915	360	77 - 88	21.7
50310143	1020	360	89 - 100	27.5











### Pulling grip set, closed



### **Characteristics**

 Set of the most important pulling grips for the most frequently required pulling operations

Part No.	Diameter mm
50307584	7 - 31
50314823	19 - 50
50314831	51 - 76
50314840	19 - 76

### Pulling grip, open



### **Characteristics**

- Single weave, galvanised steel netting mesh with bar closure
- Offset flexible eyelet

### **Suitable for**

- Easy and straight pulls when the cable end is not available

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
50306588	150	175	13 - 15	1.3
50310240	200	175	16 - 18	1.6
50306600	250	175	19 - 25	1.9
50310267	300	200	26 - 31	3.0
50306626	350	200	32 - 38	4.0
50310283	380	230	39 - 44	5.1
50306642	400	250	45 - 50	6.7
50310305	480	250	51 - 63	8.0
50306669	500	250	64 - 76	9.7
50310321	530	300	77 - 88	10.6
50306685	600	300	89 - 100	10.6

### Cable Cream™ cable puller lubricant



### **Characteristics**

- Adheres well without dripping
- Easy to remove
- Won't break after exposure to heat or freezing cold
- Quality cream (yellow) for quick and easy application

Item	Part No.
Cable Cream™ cable puller lubricant, 0.95 I	50352075
Cable Cream <sup>™</sup> cable puller lubricant, 3.8 l	50352083

### **Cable installation lubricant**



### **Characteristics**

- Reduces friction by up to 80 %
- Biodegradable
- Harmless to the user

### **Suitable for**

- Electric/telephone cables in pipes 16 25 mm dia.
- Large cable diameters

Item	Part No.
Cable lubricant gel in tube 0.25 kg	52055379
Lubricant foam bottle 1.00 kg	52055380
Cable lubricant liquid for optical fibres and power cables, canister 5 kg	52055381
Cable lubricant liquid for optical fibres and power cables, canister 10 kg	52055382

### **Lubricant spray**



### **Characteristics**

- Reduces friction by up to 80 %
- Biodegradable
- Silicon-free

### **Suitable for**

• Electric/telephone cables in pipes 16 - 25 mm dia.

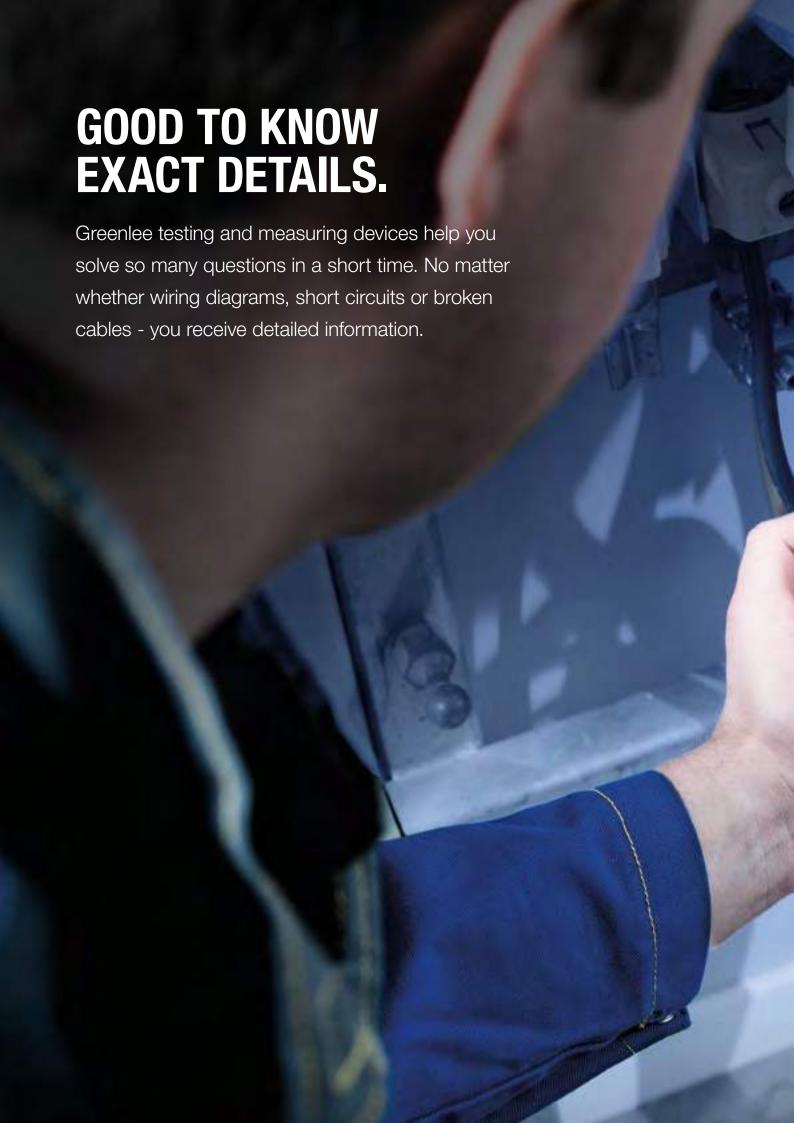
Item	Part No.
Lubricant foam bottle 400 ml	52055378















# Testing and measuring instruments

Voltage testers	572
Digital multimeter	576
Digital clamp meters	584
Test and measuring instruments for medium and high voltage	590
Temperature measuring devices	598
Cable and conductor identifiers	602
Network measuring devices and testers	606

### IMMEDIATELY TO HAND – VOLTAGE TESTERS

Greenlee voltage testers - whether contactless or two-pole - are practically immediately to hand. Always to hand in pocket format, they measure voltages from 5 V to 1000 V AC and 12 V to 750 V AC/DC. If voltage is present, the tester emits an acoustic or optical signal as a warning. Ergonomically-shaped handles ensure the best grip, even when used outdoors. Stay safe with our Greenlee brand.



### In brief

- Practical pocket format
- ▶ Automatic warning signals when voltage is present
- ▶ Also for contactless detecting
- ▶ Suitable for outdoor use



### ▶ Contactless measuring with the GT-16

The GT-16 is the practical pen-shaped voltage tester.

Automatic signalling in case of voltage and an integrated self-test make the GT-16 a tester with maximum user safety.

- Readily detects broken cables
- Maximum safety through CAT IV 1000 V
- Integrated self-test for optimum safety
- Optical and acoustic signal in case of voltage
- Select from various voltage levels via adjustable sensitivity
- Ergonomic handle
- Limited Lifetime Warranty





### ▶ Two-pole measuring with the GT-85NE

The Greenlee GT-85NE is the ideal solution for voltages from 12 V to 750 V AC/DC. Able to withstand adverse operating conditions.

- Wider AC and DC voltage measurement range
- Acoustic signal with voltages maximises safety
- Automatic phase sequence indicator

- Water and dust proof
- Drop-resistant from 1 m
- Suitable for outdoor use
- Limited Lifetime Warranty

### GT-12A Contactless voltage tester 50 - 1000 V













- Contactless voltage testing
- Clear LED and acoustic warning signal when the voltage has been determined
- ON/OFF switch provides longer battery service life
- Handy pen format, which fits easily into a jacket or tool pocket
- Fast, easy replacement of batteries
- Automatic self test

Technical data			
Frequency range	50 - 500 Hz		
Voltage range	50 - 1000 V AC		
Measuring category	CAT IV 1000 V		
Item		Part No.	
GT-12A Contactless voltage to	ester 50 - 1000 V	52063422	
Scope of supply		Part No.	Page
Battery 2 x 1.5 V AAA			

### GT-16 Adjustable, contactless voltage tester 5 - 1000 V











- Contactless voltage testing
- Clear LED and acoustic warning signal when the voltage has been determined
- ON/OFF switch provides longer battery service life
- Handy pen format, which fits easily into a jacket or tool pocket
- Optimum handling due to ergonomically-shaped handle
- Fast, easy replacement of batteries
- Automatic self test
- Adjustable sensibility by rotary switch

Technical data			
Frequency range	50 - 500 Hz		
Voltage range	5 - 1000 V AC		
Measuring category	CAT IV 1000 V		
Item		Part No.	
GT-16 Adjustable, contactless v	oltage tester 5 - 1000 V	52033580	
Scope of supply		Part No.	Page
Battery 1 x 1.5 V AAA			







### GT-55NE Bipolar voltage tester with LED display



### **Characteristics**

- LED Display 12, 24, 50, 120, 230, 400, 750 V AC/DC
- Power LED for measuring point illumination
- Display of AC and DC voltage
- Bipolar rotary field testing
- Unipolar phase testing, optical and acoustic
- Continuity check, optical and acoustic
- Drop proof from 1 m
- Polarity indicator, loud beeper
- IP2X contact protection
- IP65 splash water proof and dust tight

Technical data			
Frequency range	45 - 65 Hz		
Voltage range	12 - 750 V AC/DC		
Measuring category	CAT III 1000 V, CAT IV 600 V		
Item		Part No.	
GT-55NE Bipolar voltage tester v	with LED display	52049408	
Scope of supply		Part No.	Page
Battery 2 x 1.5 V AAA			
Accessories		Part No.	Page
TC-30 Nylon carrying case for m	neasuring instruments with belt loop	50075365	589
Replacement tips		52034234	

### GT-85NE Bipolar voltage tester with LCD display



- LC display with backlit display
- Resistance measurement to 2 KΩ
- Power LED for measuring point illumination
- Display of AC and DC voltage
- Bipolar rotary field testing
- Unipolar phase testing, optical and acoustic
- Continuity check, optical and acoustic
- Drop proof from 1 m
- Polarity indicator, loud beeper
- IP2X contact protection
- IP65 splash water proof and dust tight

- 750 V AC/DC		
- 730 V AG/DG		
2 ΚΩ		
- 999 Hz		
T III 1000 V, CAT IV 600 V		
	Part No.	
LCD display	52049407	
	Part No.	Page
	Part No.	Page
uring instruments with belt loop	50075365	589
	52034234	
	- 750 V AC/DC - 2 KΩ - 999 Hz T III 1000 V, CAT IV 600 V  LCD display  uring instruments with belt loop	2 KΩ - 999 Hz T III 1000 V, CAT IV 600 V  Part No.  LCD display  Part No.  Part No.  Part No.  Part No.  Part No.  Southern Sout

### VERSATILE IN USE – DIGITAL MULTIMETER

Greenlee multimeters are highly versatile. The functions are geared to your tasks in low-voltage systems. The multimeters measure on phase shift controllers, test conductors for breaks and indicate results in measurement categories CAT II, III and IV. To evaluate and archive the measurements, connect the devices to your PC via a USB cable. Select one multimeter for all tasks.





### ▶ Basic: Multimeter DM-510A

The DM-510A performs all elementary functions. This is the basic meter for every qualified electrician.

- Suitable for industrial electricians and in building installations
- Integrated contactless voltage tester for locating broken cables
- Temperature measurement function via a thermocouple type K (included in the scope of supply) for checking air-conditioning systems in control cabinets or buildings
- Elementary functions for trouble shooting



### ▶ Industrial application: Multimeter DM-820A

Equipped with true RMS measurement (TRMS function), the DM-820A can also measure non-sinusoidal voltages and currents precisely and reliably. The multimeter knows immediately if measuring lines are incorrectly connected and sends a warning signal and error message on the display.

- Can be used in all low-voltage systems in measurement category CAT IV 1000 V
- Measurements on frequency converters, phase shift controls and mains units without disruptions by voltage peaks
- Integrated TRMS function for measuring non-sinusoidal voltages and currents
- Automatic "Beep Jack" warning signal and optical signal on the display when measuring lines are incorrectly connected



### ▶ For dual displays: Multimeter DM-860A

Perfect for troubleshooting in electrical systems: The DM-860A allows you to measure and display two measurements at the same time. Saving time and providing an overview. All values are easily legibly on the large white display. The DM-860A withstands voltage peaks of up to 12,000 V.

- Extra large display for easy reading
- Dual display: Two measurements can be displayed at the same time
- Measurement category CAT IV 1000 V offers the best-possible safety
- Loop current function: Displays faults in measurement and control equipment

### PDMM-20 Pocket digital multimeter



### **Characteristics**

- AC/DC voltage measurement
- Resistance measurement
- Acoustic continuity check
- Contactless voltage testing

Technical data			
Dimension	113 x 53 x 13 mm		
Weight	0.08 kg		
Display	LCD, 6000		
Capacitance	up to 100 μF		
Voltage measurement	1 mV - 450 V		
Resistance	0.001 kΩ - 6 MΩ		
Frequencymeasurement	10 Hz - 30 kHz		
Measuring category	CAT II 450 V, CAT III 300 V		
Item		Part No.	
PDMM-20 Pocket digital multim	eter	50116894v2	
Scope of supply		Part No.	Page
Protective cover			
Test leads			
Battery 3V button cell			
Dationy OV Duttoll Gell			

### **DM-200A Digital multimeter**

















- Contactless voltage testing
- Automatic and manual range selection
- Large, background lit LC display
- Auto off
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data			
Dimension	161 x 80 x 50 mm		
Weight	0.34 kg		
Display	LCD, 6000		
Voltage measurement	0.01 mV - 1000 V AC/DC		
Current measurement	0.1 μA - 8 A AC/DC		
Resistance	0.1 Ω - 60 ΜΩ		
Frequencymeasurement	10 Hz - 50 kHz sinus wave; 5 Hz - 1 MHz square wave logic lev	el	
Measuring category	CAT II 1000 V, CAT III 600 V, CAT IV 3	300 V	
Interface	R>S232, USB		
Item		Part No.	
DM-200A Digital multimeter		52047801V2	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
Protective cover			
Battery 2 x 1.5 V AAA			
Accessories		Part No.	Page
DMSC-2U Interface kit, for dow (DM-200A, DM-210A, DM-510)	_	52047947	582









### DM-210A Digital multimeter for temperature measurement -50 °C up to +1000 °C

















- Includes thermoelement
- Automatic and manual range selection
- Large, background lit LC display
- Automatic shut-off
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data			
Capacitance	60 nF - 3000 μF		
Voltage measurement	0.01 mV - 1000 V AC/DC		
Current measurement	0.1 μA - 8 A AC/DC		
Resistance	0.1 Ω - 60 ΜΩ		
Frequencymeasurement	10 Hz - 50 kHz sinus wave; 5 Hz - 1 MHz square wave logic lev	rel	
Measuring category	CAT II 1000 V, CAT III 600 V, CAT IV	300 V	
Temperature measurement	-50 °C up to +1000 °C		
Item DM-210A Digital multimeter for -50 °C up to +1000 °C	temperature measurement	Part No. <b>52047802V2</b>	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
Protective cover			
Battery 2 x 1.5 V AAA			
Accessories		Part No.	Page
DMSC-2U Interface kit, for down (DM-200A, DM-210A, DM-510A	•	52047947	582



### DM-510A Digital multimeter, True RMS

















- Autocheck function permits the automatic selection of AC V / DC V or resistance with low impedance for ghost-voltage removal
- Contactless voltage detection
- Frequency, temperature and capacity measurement
- Automatic and manual range selection
- Large, background lit LC display
- Max / Min value memory
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data			
Frequency range	50 Hz - 400 Hz		
Capacitance	60 nF - 3000 μF		
Voltage measurement	0.01 mV - 1000 V AC/DC		
Current measurement	0.1 μA - 8A AC/DC		
Resistance	0.1 Ω - 60 ΜΩ		
Frequencymeasurement	5 Hz - 1 MHz		
Measuring category	CAT III 600 V; CAT II 1000 V; CAT IV	300 V	
Temperature measurement	-50 °C up to +1000 °C		
Item		Part No.	
DM-510A Digital multimeter, Tru	e RMS	52047803V2	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
Temperature sensor, bright finis	h		
Battery 2 x 1.5 V AAA			
Accessories		Part No.	Page
TC-20 Nylon carrying case for n with carrying strap	neasuring instruments	50075357	583
DMSC-2U Interface kit, for down (DM-200A, DM-210A, DM-510A	S	52047947	582









### **DM-810A Digital multimeter, True RMS**















### **Characteristics**

- Automatic and manual range selection
- Large, background lit LC display
- Two measured values at a glance
- TRMS AC + DC
- Optical and acoustic warning in the event of incorrect handling

Technical data			
Capacitance	0.01 nF - 25 mF		
Voltage measurement	0.01 mV - 1000 V AC/DC		
Current measurement	0.1 μA - 10 A AC/DC		
Resistance	0.1 Ω - 60 ΜΩ		
Frequencymeasurement	5 Hz - 1 MHz		
Measuring category	CAT IV, 1000 V		
Item		Part No.	
DM-810A Digital multimeter, T	rue RMS	52047805V2	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
TC-20 Nylon carrying case for with carrying strap	measuring instruments	50075357	583
Battery			
Accessories		Part No.	Page
DMSC-9U Interface kit, for dov (DM-810A / DM-820A / DM-8	•	52047948	583

### **DM-820A Digital multimeter, True RMS**















- Contactless voltage detection
- Recording of peak value (5 ms peak hold) max, min and max/min results
- Automatic and manual range selection
- Large, background lit LC display
- Automatic shut-off
- TRMS AC + DC
- Optical and acoustic warning in the event of incorrect handling

Technical data			
Capacitance	0.01 nF - 25 mF		
Voltage measurement	0.01 mV - 1000 V AC/DC		
Current measurement	0.1 μA - 10 A AC/DC		
Resistance	0.1 Ω - 60 ΜΩ		
Frequencymeasurement	5 Hz - 1 MHz		
Measuring category	CAT IV, 1000 V		
Temperature measurement	-50 °C up to +1000 °C		
Item		Part No.	
DM-820A Digital multimeter, T	rue RMS	52047806V2	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
TC-20 Nylon carrying case for with carrying strap	measuring instruments	50075357	583
Battery			
Temperature sensor, bright fin	ish		
Accessories		Part No.	Page
DMSC-9U Interface kit, for dov (DM-810A / DM-820A / DM-80	· ·	52047948	583

### DM-860A Industrial digital multimeter, True RMS













### **Characteristics**

- Capturing Max, Min and Max-Min results
- Recording of peak value (5 ms peak hold) max, min and max/min results
- 5 5/6-place display with a display range of 500 for greater precision
- Carrying out frequency, temperature and capacity measurements as well as diode tests and continuity checks
- Display of the relative measured value offset for checking the relative measured value changes
- Automatic range selection
- Analogue 41-segment bar chart
- Large, background lit LC display
- Temperature measurements to 1000° C

Technical data			
Capacitance	50 nF - 9999 μF		
Voltage measurement	500 mV - 1000 V		
Current measurement	500 μA - 10 A		
Resistance	500 Ω - 50 MΩ		
Frequencymeasurement	5 Hz - 200 kHz sinus wave; 5 Hz - 2	MHz square wave lo	gic level
Measuring category	CAT IV 1000 V		
Temperature measurement	Type-K, -50 °C up to +1000 °C (-58	3 °F up to +1832 °F	=)
Item		Part No.	
DM-860A Industrial digital mul	timeter, True RMS	52056268V2	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
TC-20 Nylon carrying case for me	easuring instruments with carrying strap	50075357	583
Temperature sensor, bright fini	sh		
Accessories		Part No.	Page
DMSC-9U Interface kit, for dow (DM-810A / DM-820A / DM-86	•	52047948	583
- Com Clorry Din Co	,		

### DMSC-2U Interface kit, for downloading data (DM-200A, DM-210A, DM-510A)



- For connecting to a serial PC port for saving the data recorded by digital multimeters
- For recording and graphically representing data in real time
- For exporting data for analysis with every type of table calculation program

Technical data			
Connection	Free series COM connector with 9-	Free series COM connector with 9-pin plug/USB.	
Monitor	Minimum resolution 640 x 480, 800	0 x 600 recommended	
Fixes disc	Minimum 20 megabyte free memor	ry	
Hardware requirements	Processor and working memory must correspond at least to the requirements of Windows		
Software requirements	Windows ME/98/95 or Windows XP	P/2000/NT4/Vista	
Item		Part No.	
DMSC-2U Interface kit, for down (DM-200A, DM-210A, DM-510A	•	52047947	









### DMSC-9U Interface kit, for downloading data (DM-810A / DM-820A / DM-860)



### **Characteristics**

- For connecting to a serial PC port for saving the data recorded by digital multimeters
- For recording and graphically representing data in real time
- For exporting data for analysis with every type of table calculation program

Technical data		
Connection	Free series COM connector with 9-	pin plug/USB
Monitor	Minimum resolution 640 x 480, 800	0 x 600 recommended
Fixes disc	Minimum 20 megabyte free memo	ry
Hardware requirements	Processor and working memory must correspond at least to the requirements of Windows	
Software requirements	Windows ME/98/95 or Windows XP	/2000/NT4/Vista
Item		Part No.
DMSC-9U Interface kit, for down (DM-810A / DM-820A / DM-860	S .	52047948

### TC-20 Nylon carrying case with carrying strap for measuring instruments



### Characteristics

With inner pocket for test leads

### **Suitable for**

- Series 200, Series 500 and Series 800 measuring instruments

Item	Part No.
TC-20 Nylon carrying case for measuring instruments with carrying strap	50075357

## CONTACTLESS MEASUREMENTS - DIGITAL CLAMP METERS

Quality evident in use. In practice, not every current circuit can be disconnected. Greenlee clamp meters measure currents and voltages without contact. AMP-TIP<sup>TM</sup> technology permits precise measurements even in confined areas. Numerous functions - one quality.



### In brief

- ▶ Measure without disconnecting the cable
- **▶** Suitable for confined areas
- ► Easily legible display
- ▶ Contactless measurements to 600 A



### ▶ For alternating currents to 600 A

The CM-660 is a real lightweight. 185 g lies firmly in the hand thanks to a good grip. Convenient readily legible measurements.

- Contactless measurement of alternating currents up to 600 A
- Sensor for contactless voltage tests
- Lightweight construction saves weight in the tool case
- Built-in deep-pass filter for the most accurate measurements
- Hand grip guarantees very good handling





### **Expanded functions**

The CM-960 is the model that performs several functions. It measures alternating and direct current to 600 A, also non-sinusoidal currents and voltages thanks to the TRMS function (true root mean square).

- Contactless measurement of alternating and direct currents up to 600 A
- Detect voltages without contact
- AMP-Tip technology for precise measurements up to 16 mm<sup>2</sup> conductor cross-section
- The backlit display guarantees very good legibility

### CM-450 Digital clamp meter













### **Characteristics**

- Compact, ergonomic design for measuring in tight spaces
- Data hold function for recording important measurement results
- Acoustic continuity check

Technical data			
Display	LCD		
Current measurement	0.01 A - 400 A AC		
Measuring category	CAT III 600 V		
Jaw size	26 mm		
Item		Part No.	
CM-450 Clamp multimeter		52033579V2	
Scope of supply		Part No.	Page
TC-5 Nylon carrying case for n	neasuring instruments with belt loop	50075888	589
Battery 3 V button cell			
Test leads			

### CM-660 Digital clamp meter

















- Contactless voltage testing
- $\mathbf{AMP}\,\mathsf{TIP^{\mathsf{TM}}}$
- Data hold function for recording important measurement results
- Intelligent Automatic Power OFF (APO)
- Record mode for Max/Min/Average

Technical data			
Display	LCD		
Continuity test	yes		
Voltage measurement	0 V - 600 V AC/DC		
Current measurement	0.1 A - 600 A AC		
Resistance	0.1 Ω - 60 kΩ		
Measuring category	CAT III 600 V, CAT IV 300 V		
Jaw size	30 mm		
Item		Part No.	
CM-660 Digital clamp mete	r	52066379	
Scope of supply		Part No.	Page
TC-10 Nylon carrying case	for measuring instruments with belt loop	50075349	589
TSG-3 test leads		50120344	
Battery 2 x 1.5 V AAA			







### CM-860 Digital clamp meter

















### **Characteristics**

- Particularly suitable for measurements on frequency converters
- Measurement of alternating voltage and alternating current
- Illuminated display
- Longer battery life due to intelligent automatic power-off

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Technical data			
Current measurement 0.1 A - 600 A AC  Resistance 0.1 - 60 kΩ  Measuring category CAT III 600 V, CAT IV 300 V  Jaw size 30 mm  Item Part No.  CM-860 Digital clamp meter 52066378	Display	LCD		
Resistance       0.1 - 60 kΩ         Measuring category       CAT III 600 V, CAT IV 300 V         Jaw size       30 mm         Item       Part No.         CM-860 Digital clamp meter       52066378	Voltage measurement	0 V - 600 V AC/DC		
Measuring category  CAT III 600 V, CAT IV 300 V  Jaw size  30 mm  Part No.  CM-860 Digital clamp meter  52066378	Current measurement	0.1 A - 600 A AC		
Jaw size 30 mm  Item Part No. CM-860 Digital clamp meter 52066378	Resistance	0.1 - 60 kΩ		
Item Part No. CM-860 Digital clamp meter 52066378	Measuring category	CAT III 600 V, CAT IV 300 V		
CM-860 Digital clamp meter 52066378	Jaw size	30 mm		
	Item		Part No.	
Scope of supply Part No. Page	CM-860 Digital clamp meter		52066378	
	Scope of supply		Part No.	Page
TC-10 Nylon carrying case for measuring instruments with belt loop 50075349 589	TC-10 Nylon carrying case for m	neasuring instruments with belt loop	50075349	589
TSG-3 test leads 50120344	TSG-3 test leads		50120344	
Battery 2 x 1.5 V AAA	Battery 2 x 1.5 V AAA			

### CM-960 Digital clamp meter

















- Jaw opening 51 mm
- Current measurement AC/DC
- Easy-to-read backlit display for poor lighting conditions
- Peak hold and data hold function for recording measurement results
- Automatic range selection
- Relative zero point mode
- Use of bright conductor

Technical data			
Display	LCD		
Voltage measurement	0 - 600 V AC/DC		
Current measurement	0 - 600 A AC/DC		
Frequencymeasurement	5 Hz - 999 Hz		
Measuring category	CAT III 600 V, CAT IV 300 V		
Jaw size	35 mm		
Item		Part No.	
CM-960 Digital clamp meter		52066376	
Scope of supply		Part No.	Page
TC-5 Nylon carrying case for n	neasuring instruments with belt loop	50075888	589
TSG-3 test leads		50120344	
Battery 2 x 1.5 V AAA			

### CM-1360 Digital clamp meter















### **Characteristics**

- True RMS actual effective value for the most precise measurements
- Illumination of the measuring point
- Easy-to-read backlit display for poor lighting conditions
- Acoustic continuity check
- Longer battery life due to intelligent automatic power-off
- Data hold function for recording measurement results

Technical data			
Display	LCD		
Voltage measurement	0 - 1,000 V AC/DC		
Current measurement	0 - 1,000 A AC/DC		
Resistance	0.1 - 60 kΩ		
Measuring category	CAT III 1,000 V, CAT IV 600 V		
Jaw size	51 mm		
Item		Part No.	
CM-1360 Digital clamp meter		52066374	
Scope of supply		Part No.	Page
TSG-3 test leads		50120344	
TC-30 Nylon carrying case for r	neasuring instruments with belt loop	50075365	589
Battery 2 x 1.5 V AAA			

### CM-1560 Digital clamp meter

















- Jaw opening 51 mm
- True RMS actual effective value for the most precise measurements
- Particularly suitable for measurements on frequency converters
- Easy-to-read backlit display for poor lighting conditions
- Diode test
- Acoustic continuity check
- Illumination of the measuring point

Technical data			
Display	LCD		
Voltage measurement	0 - 1,000 V AC/DC		
Current measurement	0 - 1,000 A AC/DC		
Frequencymeasurement	5 Hz - 999 Hz		
Measuring category	CAT III 1,000 V, CAT IV 600 V		
Jaw size	51 mm		
Item		Part No.	
CM-1560 Digital clamp meter		52066372	
Scope of supply		Part No.	Page
TC-30 Nylon carrying case for	measuring instruments with belt loop	50075365	
TSG-3 test leads		50120344	589
Battery 2 x 1.5 V AAA			







### TC-5 Nylon carrying case for measuring instruments with belt loop

### **Suitable for**

- CM-450



Item	Part No.	
TC-5 Nylon carrying case for measuring instruments with belt loop	50075888	

### TC-10 Nylon carrying case for measuring instruments with belt loop

### Suitable for

- CM-660 / CM-860 / CM-960



Item	Part No.
TC-10 Nylon carrying case for measuring instruments with belt loop	50075349

### TC-30 Nylon carrying case for measuring instruments with belt loop

### **Suitable for**

- CM-1360 / CM-1560
- Voltage tester GT-55NE / GT-85NE



Item	Part No.
TC-30 Nylon carrying case for measuring instruments with belt loop	50075365

# PREDICTABLE SAFETY: MEASURING DEVICES FOR THE MEDIUM AND HIGH VOLTAGE SECTORS

HDE stands for optimised safety. For over 75 years now, the company has tested and developed products for safe and efficient handling of medium and high voltages. Equipment and supply systems in the medium and high voltage sector can be tested accurately, safely and reliably with HDE products.



### In brief

- ▶ V-Watch automatically warns of hazardous voltage
- ▶ Phase and voltage tester in one device
- Voltage display via audible and visual signal
- **▶** Suitable for catenary lines
- Simple operation



### ▶ Watches over you: V-Watch

The V-Watch voltage detector from HDE warns of hazardous electrical voltages. The nearer you get to the hazard through electric flashovers, the greater the frequency of the optical and acoustic alarm. The warning signal is preset at a measurement of 4 kV at 2 m distance. The safe distances can also be set in the factory. The V-Watch increases your personal safety when working in environments exposed to electrical voltages.

- Contactless detection of electrical voltages and electrical fields from 2.4 kV AC
- Active even when not switched on
- Warning via optical and acoustic

- Warning becomes more intensive the closer the device gets to the voltage source
- Values can be individually set
- Presetting: 4 kV at 2 m







### ▶ Numerous functions, one device

The DVM-80 is phase tester and voltmeter in one. Replaceable measuring tips make it suitable for checking the phase balance of catenary lines and transformers. The measurements are easy to read on the large display and even from a few meters away.

- For direct and alternating voltages to 80 kV
- Background-lit display when working at low light levels
- Large display is easy to read even from a distance
- Replaceable measuring tips
- Determining the phase balance on catenary lines and transformers

### ▶ Measurements to 2000 A

The measuring ranges of the HVA-2000 are adequate for all medium and high voltages: 2000 A alternating current (25-500 Hz) at a voltage of 500 kV does not present a problem. The measurements are easy to read on the large display and even from a safe distance of up to 10 m. The last 4 measurements can be saved, and so the device does not have to be removed from the conductor to obtain each result.

- Current to 2000 A AC at 25-500 Hz
- Can be used to 500 kV
- Automatically saves the last 4 measurements
- Large, illuminated display for better legibility from a great distance
- Simple operation using the one-button principle
- Field of vision is always towards the user

### Test and measuring instruments for medium and high voltage

### **DVM-80 Universal voltage/phase tester**



- ▶ Combination voltage and phase tester with two measuring tips
- Suitable for open wires and earth cables

### **Characteristics**

- Digital kilovolt display
- Digital with backlit display
- Display accuracy of 1 %
- Peak hold function

Technical data			
_			
Frequency range	DC and AC up to 1000 l	Hz ————————————————————————————————————	
Dimension	Length 460 mm		
Ambient temperature	-25 °C to +55 °C		
Weight	1.02 kg		
Power supply system	9 V battery		
Voltage measurement	5 V AC - 40 kV AC (5 V A	AC - 80 kV AC with add-or	ı resistors)
Measurement accuracy	1 % / 2 % with add-on	resistor	
Item		Part No.	
Universal voltage/phase tester		DVM-80UVM/K65	
Scope of supply		Part No.	Quantity
Overhead Hook Probe		025-0LPS-5	2
Contact measuring tips		GCP-1	2
Two-pole functional tester		PT-5000B	1
Universal Hotstick Adapter (She	otgun)	HSA-2500	2
Robust carrying case		B-12	1
Battery 9 V			

### Digital voltage display sets to 100 kV or 500 kV



- ► Large bright LED display
- ▶ Suitable for open wires and earth cables

- Acoustic signal when voltage present
- Voltage display enables distinction between rated and induced voltages
- Measuring tips for busbars and earth cable



Technical data	DVI100T50K02	DVI-500K02	
Frequency range	50 Hz	50 Hz	
Dimension	110 x 180 x 110 mm	110 x 180 x 110 r	mm
Ambient temperature	-40 °C to +49 °C	-40 °C to +49 °C	
Weight	0.62 kg	0.62 kg	
Power supply system	9 V battery	9 V battery	
Voltage measurement	100 V AC to 100 kV AC	100 V AC to 500 k	V AC
Measurement accuracy	10 %	10 %	
Item		Part No.	
DVI-100 Digital voltmeter se	t	DVI100T50K02	
DVI-500 Digital voltmeter se	t	DVI-500K02	
Scope of supply		Part No.	Quantity
Overhead Hook Probe, 5 cm	Diameter	HP-DVI-2	1
Overhead Hook Probe, 15 cn	n Diameter (only at 500 kV)	HP-DVI-6	1
Underground Bushing Probe	, 15, 25 and 35 kV Class	IEP-DVI-5	1
Proof Tester for Digital Voltag	ge Indicator	PT-DVI	1
Rugged Plastic Case		CS-DVI-5	1







### Contactless voltage detectors sets to 4, 69 or 500 kV



- ▶ Battery with 15 min. fast charging for a useful life of more than one day
- ▶ Voltage display via an audible and visual signal
- **▶** Suitable for open wires

### **Characteristics**

- Detection distance of 25 cm
- Two insulated probe connections for insulated probes with universal coupling and hook insulated probes
- Detects voltages on angled test points

Technical data	PRX4220P	PRX69D220P	PRX-500220P
Frequency range	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
Dimension	280 x 76 x 50 mm	280 x 76 x 50 mm	280 x 76 x 50 mm
Ambient temperature	-29 °C to +60 °C	-29 °C to +60 °C	-29° C to +60 °C
Weight	0.31 kg	0.31 kg	0.31 kg
Power supply system	integrated battery	integrated battery	integrated battery
Voltage measurement	50 V AC to 4 kV AC	120 V AC to 69 kV AC	120 V AC to 500 kV AC
Item			Part No.

Item	Part No.
PRX-4 Contactless voltage detector kit	PRX4220P
PRX-69 Contactless voltage detector kit	PRX69D220P
PRX-500 Contactless voltage detector kit	PRX-500220P
Scope of supply	Part No.
Carrying Holster with Belt Clip and Restraining Strap	PRX-HS
Charge Cord with 12 V DC Automotive Jack	PRX-Cord
115 V AC transformer to plug PRX-CORD into 115 V AC - 240 V AC Wall outlet	PRX-XF
Carrying case	PRX-CS

### LV-5 Stray voltage detector



- ▶ Detects stray voltages from 5 V AC
- ▶ Robust waterproof housing
- Suitable for e.g. street lights, wooden power pylons, meter housings and much more.

- Especially light, durable LED
- Integrated tester in the belt pocket

Technical data		
Frequency range	50 Hz / 60 Hz	
Dimension	188 x 40 x 30 mm	
Weight	0.176 kg	
Power supply system	9 V block battery for tester, 2 x 1.5	V AA for LV-5
Voltage measurement	5 V AC up to 600 V AC, above 600 V AC contactless	
Item		Part No.
LV-5 Stray voltage detector		LV-5K01
Scope of supply		Part No.
Proof Tester for LV-5		LV-PT
Holster for LV-5 and LV-PT		LV-HS

### Test and measuring instruments for medium and high voltage

### V-Watch personal voltage detector



- ▶ Protects the user from hazardous electrical voltages
- ► Contactless detection or electrical voltages and fields

### **Characteristics**

- Alarm frequency increases the higher the voltage
- Audibly and optically increasing alarm frequency when approaching voltage-carrying plant components
- Warning distance at 4 kV AC is 2.13 m

Technical data		
Frequency range	50 Hz / 60 Hz	
Dimension	94 x 73 x 31 mm	
Ambient temperature	-29 °C to +49 °C	
Weight	0.147 kg	
Power supply system	9 V block battery for tester	
Voltage measurement	from 2.4 kV AC	
Item		Part No.
V-Watch personal voltage detec	tor	VW-20HFR
Scope of supply		Part No.
Flame Resistant Carrying Case	Lanyard	C-10FRVW

### **TILT II Transformer tester**



- Quick testing of transformers for short circuits and wire breaks
- ▶ Simple one-button operating concept

- Tests the primary and secondary sides of voltageless transformers
- An alarm tone is signalled when an error is detected
- Especially light LED
- 3 test results are displayed
- With automatic self-test
- Magnetic holder

Technical data		
Short	≤ 10 0hm	
Open	≥ 10 0hm	
Transformator O.K.	Minimum inductance 800 μH	
Kondensator O.K.	Minimum capacitance 0.5 μF, Maxi	mum capacitance 300 µF
Dimension	146 mm x 88 mm x 38 mm	
Weight	0.51 kg	
Power supply system	9 V battery for tester	
Item		Part No.
TILT II Transformer tester		TL-AST-M
Scope of supply		Part No.
Padded Carrying Bag		B-8









### **HVA-2000 Digital ammeter for high voltages**



- ▶ Large bright display
- ▶ Fast measurement results
- ▶ Suitable for free conductors and earthing cables up to 7 cm diameter

### Characteristics

- Easy to handle thanks to small and light design
- Saves the last 4 measured values

Technical data		
Frequency range	25 bis 500 Hz	
Dimension	100 x 170 x 290 mm	
Ambient temperature	-40 °C to +49 °C	
Weight	0.8 kg	
Power supply system	9 V battery	
Voltage measurement	500 kV AC	
Current measurement	2,000 A AC	
Measurement accuracy	1 %	
Item		Part No.
HVA-2000 Digital ammeter for h	igh voltages	HVA-2000
Scope of supply		Part No.
Rugged Plastic Carrying Case		CS-HVA

### IT-4 Insulation tester



- **▶** Detects invisible insulation defects
- ► Adjustable contact probes
- ▶ Suitable for all types of ceramic and porcelain insulators

- Easy to read thanks to LED display
- An audible signal is emitted in case of error
- Universal coupling for insulated probes
- Supplies fast, secure and reliable test results

Technical data		
Weight	1.4 kg	
Test voltage	10 kV DC	
Power supply system	Rechargeable battery	
Item		Part No.
IT-4 Insulation tester		IT-4220P
Scope of supply		Part No.
Standard Side Bent Test Pro	bbe	025-02035-SUB
Standard Side Straight Test	Probe	025-02040-SUB
220 V AC Charging Adapter		050-02025-220V
Carrying Case		CS-IT4



Test and measuring instruments for medium and high voltage

### RT-200 Cable tester



- ► Continuous testing of any cable or tape lengths
- ▶ Suitable for cables with a diameter of 0.95 cm to 3.8 cm

### **Characteristics**

- Dielectric state is displayed via a green LED (good) or a red LED (poor)
- An acoustic signal is emitted when a faulty cable section is detected
- Compact and light design
- Integrated battery

Technical data		
Dimension	190 mm x 235 mm x 220 mm	
Weight	1.27 kg	
Power supply system	Rechargeable battery	
Item		Part No.
RT-200 Cable tester		RT-200220P
Scope of supply		Part No.
220 V AC Charging Adapter		050-02025-220V

### **Insulated probes**



- ▶ No rotating of the tester owed to universal toothed coupling
- ▶ Suitable for all voltage/current testers from HDE

- Telescopic insulated probes with universal toothed coupling
- Variable length of telescopic insulated probe
- Including retention hooks

Item	Part No.
Insulated probes, 1.2 m	567-4
Insulated probes, 1.8 m	567-6
Telescopic insulated probes, max. 6 m	HV-220
Telescopic insulated probes, max. 10.6 m	HV-235









### Watchman™





### **Characteristics**

- The Watchman Detector can be activated to visually alert to the presence of an electrical field and can also alert crews that they no longer have active power in the area
- Power button serves dual function, press once on/off function, hold down for self-test to verify battery power and proper functioning of detector
- Once turned on, the Watchman Detector provides a "heartbeat" pattern to indicate it is actively checking for the presence of high voltage electric fields
- Powerful neodymium magnets allow the detector to be mounted to accessory brackets or any magnetic surface

### **Suitable for**

- Save the working area
- Protection for your carlift or manlift in the medium and high voltage area
- Protection for trucks and construction machines in the medium and high voltage area

### Material

- ABS UL 94-HB

### **Additional information**

 The batteries have a life of 2 years storage, 1,000 hours standby / "heartbeat" mode and 10 hours continuous voltage indication

Technical Data		
Frequency range	50 Hz / 60 Hz	
Dimension	height: 36 mm	
Ambient temperature	-29 °C up to +49°C	
Weight	with battery: 0.227 kg	
Diameter	9.7 cm	
Power supply system	3 x AAA	
Voltage measurement	> 2,400 AC	
Article		Part No.
Watchman™		WM01

## THERMAL MEASUREMENTS FROM A DISTANCE - TEMPERATURE GAUGES

Greenlee temperature gauges are ideal for preventive maintenance. Infra-red sensors measure without contact, even in confined areas. This allows the temperatures of motors and electrical connections to be measured and read from a safe distance. The measurements are used to identify fault sources in the electrical system.





### **▶** Accuracy counts

The TG-1000 can be used for temperatures from -60  $^{\circ}$ C to 550  $^{\circ}$ C. When the minimum and maximum values are entered, the user automatically receives an acoustic and optical warning signal if the values are overrun or underrun. Even from a distance of 1.2 m, the TG-1000 measures to an accuracy of 10 cm.

- Optimised measuring range for maintenance tasks
- Single laser for focussing on the measuring point
- Visual resolution 12:1 (measures from 1.2 m away at an accuracy of 10 cm)
- Acoustic and optical warning signal when set values for monitoring limit values are reached





### ▶ Double focus for the measuring range

The TG-2000 measures with more accuracy. It clearly marks your measuring range with the dual laser. The visual resolution of 16:1 ensures exact values. Even at a distance of 3.2 m, the temperatures of objects and conductors can be accurately measured to a range of 20 cm. As a result, the TG-2000 guarantees the optimum safe distance to the object being measured.

- Optimum measuring range for maintenance and fault analysis in electrical systems
- Dual laser for focussing on the measuring range
- Acoustic and optical warning signal when defined limit values are reached
- Connection point for thermocouple type K for temperature measurements with contact
- Emission ratio of all standard materials included in the operating instructions

Temperature measuring devices

### TG-1000 Infrared thermometer



### **Characteristics**

- Lower / upper limit values adjustable
- Display with background illumination for comfortable read-off in all work areas
- Temperature display selectable in Celsius (°C) or Fahrenheit (°F)
- Maximum/minimum temperature, difference and average measurements
- Twin laser for identification of the approximate diameters of the target measuring area
- Bush for type K thermocouple

### **Suitable for**

Preventative maintenance of switching devices, motors and electrical connections

Technical data		
Monitor	LCD	
Optical resolution	12:1	
Temperature measurement	-60 °C up to +550 °C	
Item		Part No.
TG-1000 Infrared thermometer		52059365

### TG-2000 Dual laser infrared thermometer



### **Characteristics**

- Lower / upper limit values adjustable
- Display with background illumination for comfortable read-off in all work areas
- Temperature display selectable in Celsius (°C) or Fahrenheit (°F)
- Maximum/minimum temperature, difference and average measurements
- Twin laser for identification of the approximate diameters of the target measuring area
- Bush for type K thermocouple

### **Suitable for**

· Preventative maintenance of switching devices, motors and electrical connections

Technical data		
Monitor	LCD	
Optical resolution	16:1	
Temperature measurement	-60 °C up to +625 °C	
Item		Part No.
TG-2000 Dual laser infrared th	ermometer	52059364

### TPB Temperature probe for temperatures of -40 °C to +204 °C



Technical data		
Sensor length	1 m ±5 mm (39.4" ±0.2")	
Temperature measurement	-40 °C up to +204 °C (-40 °F up	to +399 °F)
Thermoelement	Thermocouple type K	
Item		Part No.
TPB Temperature probe for ter	mperatures of -40 °C to +204 °C	50075926









# IDENTIFY CABLES AND CONDUCTORS WITHIN SECONDS

No time to loose when cables are connected incorrectly. Interruptions must be quickly rectified and cables and conductors must be correctly assigned. Greenlee cable and conductor identifiers provide the required data in the desired units in a matter of seconds. No time wasted with Greenlee.



### In brief

- ▶ Evaluation in a matter of seconds
- ▶ Exact length determination from 5 m to 30 km
- ▶ Clear assignment of cables and conductors in the system



### ▶ The length gauge

No estimates, precise values for your inventory or stock taking. The CLM-1000E allows to you measure the exact length of the conductor or cable in a matter of seconds. From 5 m to 30 km, the gauge uses the material, the temperature and the cable thickness to measure the actual cable length.

- Measurements in a matter of seconds
- Measures cable and conductor lengths from 5 m to 30 km

- Suitable for copper and aluminium
- Suitable for AWG cross-sections and metric cross-sections
- Reliable measurements for stock taking and inventories
- Cables do not need to be cut to length
- No more time-consuming counting of cable coils required
- With pre-programmed settings



### **▶** The identifier

Identify the correct cable or the correct conductor right away with the Greenlee 701K-G. In systems without wiring diagrams or documentation, the wiring is assigned without a problem. Possible break points can de detected based on acoustic signals (warble tones).

- Identification of individual conductors or cables
- Adjustable warble tones for clear identification
- Range of up to 15 km
- Quickly locates break points
- Results within seconds



### Classic Tone and Probe Kit 701K-G



### **Characteristics**

- For identifying individual conductors or cables
- Talk battery supply
- Tone generator with crocodile terminals and RJ-11 plug
- 3-colour LED display (identifies WS call voltages)
- Weather-resistant design
- Tone generator with interchangeable tips
- Selectable wobble tone
- Polarity test
- Continuity test

Item	Part No.
Classic Tone and Probe Kit 701K-G	52047869
Scope of supply	Part No.
High-power sound generator 77HPCE	52055781
Inductive amplifier 200 EP-G	52055782
Bag	50086839
Battery 9 V	

### CLM-1000E cable length measuring device





- ▶ Saves time no cutting to length or counting the cable coils
- ▶ Reliable measuring results for inventory management

### **Characteristics**

- To determine cable lengths
- Measurement range between 5 m 30 km
- Measurement range cross-section between 0.75 mm<sup>2</sup> 500 mm<sup>2</sup> and 18 Kcmill - 1000 Kcmill
- Backlit display
- Hold function
- 20 pre-programmable settings 8 storage spaces for individual settings
- Automatic shut-off
- Resistance measurements from 0.10 m $\Omega$  1,999.999  $\Omega$

### **Suitable for**

- Copper and aluminium
- · Metric as well as UK and US units

Item	Part No.
CLM-1000E cable length measuring device	52067352
Scope of supply	Part No.
Calibration rod	52067353
KELVIN Klemmen / Messleitungen	52067354
Plastic case	











### Classic Tone and Probe Kit 801K/50



- Talk battery supply
- Tone generator with crocodile terminals with pincushion and RJ-11 plug
- 3-colour LED display (identifies WS call voltages)
- Weather-resistant design
- Selectable wobble tone
- Continuity test
- Polarity test
- 50 Hz filter function

Item	Part No.
Classic Tone and Probe Kit 801K/50	50604660
Scope of supply	Part No.
77HP-G/6A Tone generator	52047489
200FP filter sensor	50604678
Bag 5008683	
Battery 9 V	

# CONTINUOUSLY CONNECTED TO ONE ANOTHER - MEASURING GAUGES AND TESTERS FOR NETWORKS

Correct connections help to achieve non-interrupted communication. Greenlee measuring gauges and testers for networks test screened and non-screened conductors and immediately identify fault sources such as split pair faults, incorrect wiring, broken cables and short circuits. Even in poor light conditions, the measurements are clearly legible on the illuminated display. You rectify faults straight away.

### In brief

- Measurements on screened and non-screened conductors possible
- Displays the fault position
- **▶** With NVP calibration
- **Easy to operate**





### ▶ NETcat Pro NC-500

The NC-500 tests not only for faults, it can also determine lengths of up to 600 m with the integrated TRD technology. For more accurate assignment, network devices can also be displayed in the environment and NVP calibrations can be performed. The NC-500 is therefore the optimal technical aid for correctly wiring and testing data cables.

- For screened and non-screened cables and conductors
- For split pair faults, incorrect wiring, short circuits and broken cables
- Length measurement up to 600 m with integrated TDR technology
- Easy to operate via touch screen
- Illuminated display for optimum legibility
- Displays active network devices (PC and hub)

- NVP calibration for optimum transmission speed
- Robust design suitable for industrial environment
- Selectable sound signals for cable identification



### ▶ For correct network connections: NETcat Pro NC-100

Check networks for correct cable connections in a few steps. Simply insert the cable into the device and the test receiver and select the cable type. The test result is displayed immediately and you can see at a glance which point has to be corrected.

- For screened and non-screened cables and conductors
- For split pair faults, incorrect wiring, short circuits and broken cables

- For twisted pair conductors with RJ-45 and RJ-11 plugs or coaxial cable with type F connection
- Easy to operate
- Readily legible thanks to illuminated display
- In conjunction with the 200 E-P inductive amplifier, cables can also be located and identified



### Network measuring devices and testers

### NETcat® Micro NC-100 is a wiring tester for testing data, voice and video cables



### **Characteristics**

- Built-in tone generator
- Testing of twisted pair (UTP, STP) and coaxial cables
- Locating short-circuits, breaks, incorrect wiring and split pair errors
- Surge warning feature
- Digital, backlit display
- Telephone (RJ-12), LAN (RJ-45) and coaxial connector (F type) ports
- Integrated remote unit
- Three selectable sound signals for cable identification

Item	Part No.	
NETcat® Micro NC-100	52024541	
Scope of supply Part No. Pa		Page
Twisted pair, coax and crocodile clips/connecting cable		
Battery		

### NETcat® Micro NC-100 in combination with inductive receiver 200EP for cable identification



### **Characteristics**

- Telephone (RJ-12), LAN (RJ-45) and coaxial connector (F type) ports
- Integrated remote unit
- Three selectable sound signals for cable identification
- Testing of twisted pair (UTP, STP) and coaxial cables
- Locating short-circuits, breaks, incorrect wiring and split pair errors

Item NETcat® Micro NC-100 + 200EP	Part No. <b>NC100EP</b>
Scope of supply	Part No. Page
NETcat® Micro NC-100	52024541 608
Inductive amplifier 200 EP	52055782
Test leads	
Battery	

### NETcat® Pro NC-500, wiring and network service tester with TDR function



- Length measurement using TDR function up to 600 m
- Four selectable tone signals for cable identification
- Displays active network devices (PC or hub) in 10/100 Base-T networks
- NVP calibration
- ID detection of up to eight remote units with optional NC-510 accessory kit
- Testing of twisted pair (UTP, STP) and coaxial cables
- Locating short-circuits, breaks, incorrect wiring and split pair errors

Item	Part No.	
NETcat® Pro NC-500	52024556	
Scope of supply Part No. Pag		Page
Twisted pair, coax and crocodile clips/connecting cable		
Battery		









### Technical Appendix



(lauke <sup>®</sup>	<b>Technical notes on the various crimping types</b> Legend of pictograms used for type of conductors	
	Legend of pictograms used for connecting materials	i-3
	Special properties of connecting materials	i-4
	Material properties	i-4
	Electrical properties	i-4
	Mechanical properties	i-4
	Assignment of cables and conductors	i-5
	Processing instructions for connecting materials	i-6
	Assembly instructions for cable lugs and connectors	i-6
	Assembly instructions for sleeves for type VHR and VHD compacted conductors	i-7
	Processing instructions for reduction sleeves	i-7
	Assembly instructions for full tension Al/steel connectors	
	to DIN 48085, part 3	i-7
	General notes	i-8
	Processing instructions for screw connectors	i-9
	Conversion charts	i-10
	Check-list for custom made cable lugs and connectors	i-11
G GREENLEE.	General technical information	i-12
A Textron Company	Cable pulling technology – Typical applications	i-12
	Measuring categories	i-13
	Metric cable glands EN 50262	i-14
	Holemaking systems	i-14
	Hydraulic punches	i-14
	Standards and norms	i-15
	Alnhanumeric Index	i-16



### **Technical notes on the various crimping types**

	Pressung	Beschreibung	Anwendungsbereich
$\bigcirc$	Hexagonal crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, compression cable lugs and connectors to DIN 46235/DIN 46267, aluminum cable lugs and connectors	6 – 1000 mm²
$\odot$	Indent crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, solderless terminals to DIN 46234 and pin cable lugs to DIN 46230, insulated solderless terminals, tubular cable lugs and connectors for fine stranded conductors, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors	0.75 – 400 mm²
	Oval crimping	for crimping tubular double compression cable lugs, C-clamps, insulated tubular cable lugs and connectors, insulated pin cable lugs and compression joints to DIN 48217, insulated cable connectors	0.1 – 185 mm²
$\bigcirc$	Indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors	6 – 400 mm <sup>2</sup>
$\odot$	Double indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors	4 – 95 mm²
	Trapezoid crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 240 mm <sup>2</sup>
8	Indent crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.5 – 35 mm²
$\Diamond$	Square crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 16 mm²
$\odot$	Roll crimping	for crimping non-insulated receptacles and cable end-sleeves DIN 46228, part 2	0.1 – 6 mm <sup>2</sup>
		for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 16 mm <sup>2</sup>
-	Round crimping	of 90° and 120° sector-shaped conductors	10 sm – 300 sm 35 se – 300 se
$\square$	Quad-point indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors	10 – 300 mm <sup>2</sup>
[[:::	Four point crimping	for crimping turned pin receptacles and pin connectors	0.1 – 4 mm <sup>2</sup>
()	Special trapezoid crimping	particularly for crimping cable end-sleeves with compacted fine stranded conductors	10 - 240 mm²
	Gas-tight oval crimping	Crimp quality according to automotive standards	

### Legend of pictograms used for type of conductors

Type of cables
Solid conductor (class 1 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
Multi-stranded conductor (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
Compacted multi-stranded conductor (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
Fine stranded conductor (class 5 according to DIN EN 60228) made of bright or coated soft-annealed copper
Superfine stranded conductor (class 6 according to DIN EN 60228) made of bright or coated soft-annealed copper
Solid sector shaped conductor 120 ° (class 1 according to DIN EN 60228) made of aluminium or aluminium alloy

Type of cables
Solid sector shaped conductor 90 ° (class 1 according to DIN EN 60228) made of aluminium or aluminium alloy
Compacted multi-stranded sector shaped conductor 120 ° (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
Compacted multi-stranded sector shaped conductor 90 ° (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
Copper conductor for overhead lines (DIN 48201-1) and aluminium or aluminium alloy conductors (DIN EN 50182)
Conductor for overhead lines (DIN EN 50182) made of aluminium / steel









### Legend of pictograms used for connecting materials

	Designation
	Copper compression cable lugs, double crimp (double cable entry)
	Tubular cable lugs and connectors – Cu, standard type
	Insulated cable lugs and connectors; standard type
	Tubular cable lugs and connectors for fine stranded conductors
	Tubular cable lugs and connectors for solid conductors
VA	Tubular cable lugs and connectors – stainless steel
Ni	Tubular cable lugs and connectors – Ni
DIN	Compression cable lugs and connectors to DIN – Cu
	Solderless terminals, connectors and pin terminals to DIN – Cu
	Insulated solderless terminals
	Sleeves for compacted conductors and sector-shaped conductors – Cu
Aldrey	Compression cable lugs and connectors for Aldrey cables
AI/St	Compression cable lugs and connectors for Al/St cables
Al	Compression cable lugs and connectors to DIN – AI
Al/Cu	Compression cable lugs and connectors – Al/Cu
	C-clamps
	H-clamps
	Cable end-sleeves
	Twin cable end-sleeves
	Insulated cable connections
	Non-insulated receptacles



Special properties of connecting materials

## **Material properties**

#### Information on materials used for copper and aluminum cable lugs and connectors

- All copper tubular cable lugs, solderless terminals, pin terminals and the corresponding connectors are manufactured from Cu to DIN 13600.
- Cable end-sleeves to DIN 46228 part 1 and part 4 are manufactured from Cu to DIN EN 13600.
- Aluminum compression cable lugs and connectors are manufactured from E-Al 99.5 to DIN 1712.

# **Electrical properties**

■ The maximum current load of our cable connections in conjunction with insulated conductors can be found in the chart below.

	Group 1		Group 2		Group 3		
	One or more sintered tors laid in cond	gle-core conduc- uits	Multi-core conductors, e. g. sheathed conductors, conduit wires, lead-sheathed conductors, flat webbed conductors, flexible cables		Overhead single-core conductors with clearance of at least their diameter		
Nominal	Cu	Al	Cu	Al	Cu	Al	
cross-section mm <sup>2</sup>	(A)	(A)	(A)	(A)	(A)	(A)	
0.75	-	_	12	_	15	_	
1	11	_	15	-	19	-	
1.5	15	_	18	-	24	-	
2.5	20	_	26	_	32	-	
4	25	-	34	-	42	-	
6	33	_	44	-	54	-	
10	45	_	61	48	73	57	
16	61	48	82	64	98	77	
25	83	65	108	85	129	103	
35	103	81	135	105	158	124	
50	132	103	168	132	198	155	
70	165	_	207	163	245	193	
95	197	_	250	197	292	230	
120	235	_	292	230	344	268	
150	_	_	335	263	391	310	
185	-	=	383	301	448	353	
240	-	=	453	357	528	414	
300	-	-	504	409	608	479	
400	-	-	-	-	726	569	
500	-	-	-	-	830	649	

Values applicable only at an ambient temperature of 30 °C

## Mechanical properties

■ The connections produced according to the assembly instructions with our tools comply with the tensile strength requirements of the standards IEC 61238-1, DIN EN 60999 and DIN EN 60352-2.

Please note, that crimping solderless cable connections using tools from other manufactures does not guarantee a proper connection. We recommend only the use of solderless cable connections from **KIBUKE\*** using **KIBUKE\*** tools.









# Assignment of cables and conductors

#### a) Copper

Our copper cable lugs and connectors are suitable for connecting copper cables according to DIN EN 60228 and copper conductors DIN 48201 part 1. Please use the table below.

#### b) Aluminium

Our aluminium cable lugs and connectors are suitable for connecting aluminium cables according to DIN EN 60228 and aluminium conductors according to DIN EN 50182. Please use the table below.

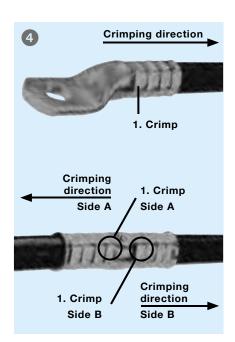


Sector-shaped conductors must be rounded with pre-rounding tools before assembly.

#### Cross-section compatibility chart for cable lugs and connectors for copper and aluminum conductors

■ With the help of this table you can determine the cross-section of your conductor in case of doubt. The minimum diameter of the conductor is for the classes 1 and 2 (not compacted). For classes 5 and 6 are defined by the conductance rather than the minimum diameter. Therefore, no specification can be made regarding the minimum diameter.

				Type of co	nductor acc. to l	DIN EN 60228			
			Copper conduc	tors			Aluminiu	m conductors	
	Round con- ductor solid, class 1	Round conductor multi-stran- ded, class 2	Round conduc	ctor multi- pacted, class 2	Round conductor fine and superfine, class 5 and class 6	Round conduc	ctor solid,	Round condu	ctor multi- pacted, class 2
Nominal cross-secti- on mm <sup>2</sup>	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm
0.5	0.9	1.1	_	_	1.1	_	-	-	_
0.75	1	1.2	-	=	1.3	-	-	_	_
1	1.2	1.4	-	-	1.5	-	-	-	_
1.5	1.5	1.7	-	-	1.8	_	-	_	_
2.5	1.9	2.2	-	-	2.4	_	_	_	_
4	2.4	2.7	-	-	3	_	_	_	_
6	2.9	3.3	-	-	3.9	-	_	_	_
10	3.7	4.2	3.6	4	5.1	3.4	3.7	3.6	4
16	4.6	5.3	4.6	5.2	6.3	4.1	4.6	4.6	5.2
25	5.7	6.6	5.6	6.5	7.8	5.2	5.7	5.6	6.5
35	6.7	7.9	6.6	7.5	9.2	6.1	6.7	6.6	7.5
50	7.8	9.1	7.7	8.6	11	7.2	7.8	7.7	8.6
70	9.4	11	9.3	10.2	13.1	8.7	9.4	9.3	10.2
95	11	12.9	11	12	15.1	10.3	11	11	12
120	12.4	14.5	12.3	13.5	17	11.6	12.4	12.3	13.5
150	13.8	16.2	13.7	15	19	12.9	13.8	13.7	15
185	15.4	18	15.3	16.8	21	14.5	15.4	15.3	16.8
240	17.6	20.6	17.6	19.2	24	16.7	17.6	17.6	19.2
300	19.8	23.1	19.7	21.6	27	18.8	19.8	19.7	21.6
400	22.2	26.1	22.3	24.6	31	21.2	22.2	22.3	24.6
500	-	29.2	25.3	27.6	35	24	25.1	25.3	27.6
630	-	33.2	28.7	32.5	39	27.3	28.4	28.7	32.5
800	_	37.6	-	-	-	30.9	32.1	-	_
1000	_	42.2	_	_	_	34.8	36	_	_



# Assembly instructions for cable lugs and connectors

- Strip conductor in line with insertion depth (+ 10 % because of length change of crimp sleeve).
- The conductor ends must be cleaned mechanically prior to assembly.
- Insert conductor fully into cable lug or connector.
- Observing the crimping direction, crimp the cable lug or connector using the appropriate tools. The crimping direction for cable lug and connector is indicated in the diagram opposite.
- 5 Remove excess compound emerging from aluminum cable lugs and connectors.

#### We recommend the following number of crimps for individual cross sections:

	Tubular cable l	ugs		Cable lugs DIN	N 46235	Al-Cable lugs		
Cross-section mm <sup>2</sup>	5 mm Crimping die	width Crimping dies	EKM60ID	5 mm Crimping die	width Crimping dies	7 mm Crimping die	width Crimping dies	EKM60ID
6	1			2				
10	1			2				
16	1	1	1	2	1	4	2	2
25	2	1	1	2	1	4	2	2
35	2	1	1	2	1	5	2	2
50	2	1	1	3	1	5	2	2
70	2	1	1	3	1	6	3	3
95	2	1	1	4	2	6	3	3
120	2	1	1	4	2	6	3	3
150	2	1	1	4	2	6	3	3
185	2	1*	1*	4	2	6	3	3
240	4	2	2	5	2	8	3	3
300	4	2			2 (17 mm) ** 5 (7 mm) ***	8	3	
400	4	2			3		4	
500					3		4	
625					3			
800					3			
1000					3			

when using quad-point indent crimping (HK60VP, EK60VP/FT etc.) Number of crimping operations: 2

Attention: When crimping F-series cable lugs and solderless terminals according to DIN 46234 by using indent crimping dies, for each cross section only one crimp is necessary.





<sup>\*\*</sup> Crimp with crimping dies of Series 25 and Series 45

<sup>\*\*\*</sup> Crimp with crimping dies of Series 13



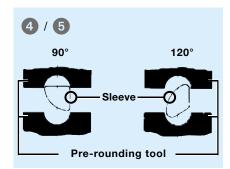
# Assembly instructions for sleeves for type VHR and VHD compacted conductors

We recommend the use of additional VHR and VHD sleeves for compacted round conductors to ensure that the tubular cable lugs and connectors fit accurately.

For sector-shaped conductors, we recommend the use of additional sector sleeves VHR 3 or VHR 4 and VHD 3 or VHD 4 with Cu cable lugs and connectors to prevent the conductor recoil. Sleeves need to be rounded with pre-rounding tools.

#### Please note:

- Ensure that the conductor is deformed as little as possible when cutting to length.
- Strip the conductor insulation in line with the insertion length.
- 3 Slip the sleeve up to the front cut edge of the conductor.
- Place the conductor and sleeve in the pre-rounding tool as per the diagram.
- Crimp the sleeve
  - a) Crimping operation as per the diagram (1st pre-crimp)
  - b) Crimp turned through 90° (2nd pre-crimp)
  - c) Crimp turned through 30° (finish-crimp)
  - d) Crimp turned through 30° as required (finish-crimp)



# Instructions for fitting reduction sleeves

Only wide hydraulic crimping dies to be used when crimping more than two cross-sections.

# Assembly instructions for full tension Al/steel connectors to DIN 48085, part 3

The connectors consist of an Al sleeve (E-Al 99.5) and a soft steel sleeve (St 52).

- Straighten cable ends, remove dirt and any oxide layer.
- Slip the Al-compression joint onto one of the cable ends.
- Tie off the cable end and strip the Al cores.
- Tie off Al and steel cores.
- Slip on the steel sleeve and crimp through according to the crimping marks.
- Slide the Al sleeve centrally over the crimped steel sleeve and crimp according to the crimping marks





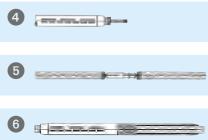


- Caution: Do not crimp in the centre, in the area of the steel connector. Do not crimp in the area of the cones.
- Remove excess compound after crimping the connector.
  - Warning: The compound must not be removed, either fully or partially, prior to assembly.

The tool dies can be assigned either by colour-coding, or preferably based on the code assigned to the cross-section. The dies for the steel sleeve have a black finish, those for the Al sleeve are zinc-coated.

#### **General information:**

The crimping process has to be continued until the dies are completely closed, otherwise a proper crimp cannot be quaranteed.



# **Technical Appendix**



## **General notes**

### **Crimping dies:**

The crimping dies of the series 18 as well as the series 25 correspond in the external dimensions of DIN 48083 part 1 or part 3. For all interchangeable dies, for mechanical tools as well as hydraulic tools, the series D (= for DIN cable lugs and connectors 46235 and 46267) and the series A (aluminium cable lugs and connectors as well as aluminium/ copper cable lugs and connectors) the hexagonal dimensions are of DIN 48083 part 4.

#### **Surfaces:**

All mentioned dies are supplied "chrome-yellow" or "blue coated" for copper and "galvanized" for aluminum and nickel.

## Testing of our copper and aluminium connecting material was carried out with the following maximum torque on the connecting bolt.

Size of thread	Tightening torque (Nm)	Size of thread	Torque (Nm)
M 5	5	M 12	75
M 6	9	M 14	120
M 7	15	M 16	190
M 8	22	M 20	380
M 10	44		









# Assembly instruction for screw connectors

Because they are detachable connecting elements, screw connectors are used preferably for heat-shrunk or cast resin joints. However, they also can be used in all other types of cable joints. Four-screw connectors are especially suitable for multi-stranded conductors, since the longer connector length increases the transverse conductance of the individual wires and the contact resistance decreases accordingly. In addition, higher pull-out values are achieved. Barrier type four-screw connector clamps are suitable for cables with mass-impregnated paper insulation.

In an electrolyte-free, e.g. dry environment, aluminum as well as copper conductors can be combined. This also applies in combination with heat-shrunk hoses. If conductors of different materials (e.g. Cu and Al cables) have to be connected, a barrier type connector is recommended.

While identical types of cables (e.g. NAYY-NAVY) can be used with non-barrier types of connectors for unequal cables (e.g. NAYY-NAKBA), plastic or earth cables, the use of connectors with barrier as an oil stop is recommended.

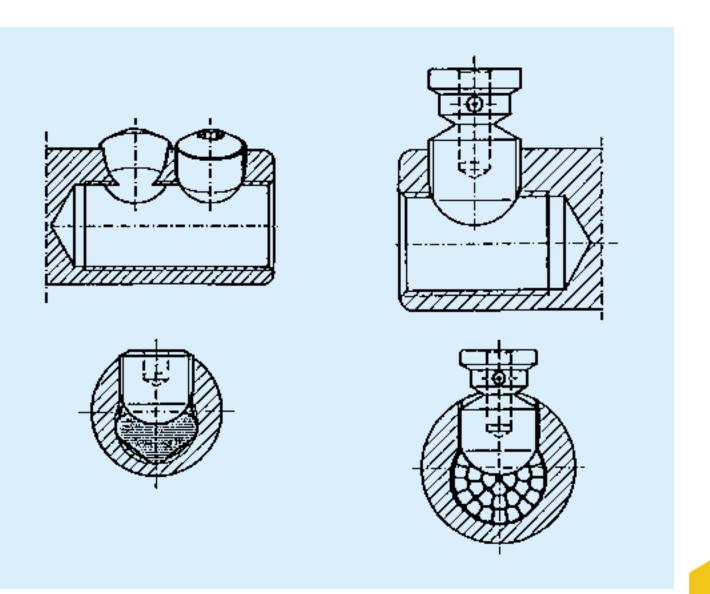
Insertion depth of conductors is controlled either by the conductor stop at the barrier, or by inspection hole on screw connectors without barrier.

In addition to the conventional screw connectors, we offer screw connectors with shear-off heads. The benefit of this design is the defined tightening torque, which is pre-determined by the maximum transferable torque at the rated breaking point. This contact force defined by the manufacturer guarantee optimum electrical and mechanical properties (DIN EN 61238). No torque wrenches are required for assembly of this connector type.

With standard screw connectors, the required contact pressures are reached at approx. 80 % of the specified torque. Over-crimping beyond the torque specified for the connector must be avoided.

The cross-grooves on the conductor channels allow high tensile forces to be transmitted. The tensile forces of our screw connectors correspond to compression joints to DIN 46267, part 2, with identical cross section.

The screws are treated with a high-gliding, molybdenum sulphide-based lubricant. This guarantees adequate contact pressure with a relatively low tightening torque.





# Assignment of conductor cross sections (AWG or MCM sizes to mm²)

AWG	Metric conductor cross-section mm <sup>2</sup>	Comparable conductor cross-section mm <sup>2</sup>	MCM	Metric conductor cross-section mm <sup>2</sup>	Comparable conductor cross-section mm <sup>2</sup>
27	0.102	_	250	127	120
26	0.128	0.14	300	152	150
25	0.163	_	350	177	185
24	0.205	0.2	400	203	_
23	0.259	0.25	500	253	240
22	0.325	0.34	600	304	300
21	0.412	_	700	355	_
20	0.519	0.5	800	405	400
19	0.653	_	900	456	_
18	0.823	0.75	1000	507	500
17	1.04	1	1250	633	625
16	1.31	_	1500	760	800
15	1.65	1.5	1750	887	_
14	2.08	_	2000	1010	1000
13	2.63	2.5			
12	3.31	_			
11	4.15	4			
10	5.27	6			
9	6.62	_			
8	8.35	_			
7	10.6	10			
6	13.3	_			
5	16.8	16			
4	21.2	_			
3	26.7	25			
2	33.6	35			
1	42.4	-			
1/0	53.4	50			
2/0	67.5	70			
3/0	85	95			
4/0	107.2	120			

# **British and American units of measurement**

Length units		Area units		Volume units		Fluid volume u	nits	Weight	
1 mil	0.0254 mm	1 sq. in.	645.1 mm <sup>2</sup>	1 cu. ln.	16.386 cm <sup>3</sup>	1 pint	0.568	1 grain	0.059 g
1 inch (Zoll)	25.4 mm	1 sq. ft.	0.093 m <sup>2</sup>	1 cu. Ft.	0.028 m <sup>3</sup>	1 quart	1.136	1 ounce	28.349 g
1 foot	0.3048 m	1 sq. yd.	0.836 m <sup>2</sup>	1 cu. Yd.	0.764 m <sup>3</sup>	1 engl. gallon	4.554 l	1 pound (lb)	0.454 kg
1 yard	0.9140 m					1 am gallon	3.785 l	1 engl. ton	1.016 t
1 mile	1.6090 km					1 quarter	290.790 l	1 am. ton	0.907 t
						1 bushel	36.350 l		







# Check-list for custom made cable lugs and connectors

Date:

VA-700/800 Index c

Customer / Company:		Customer No.:	
Address:		E-Mail:	
Contact person:		Tel.:	
Technical data		Commercial Data	
Type of conductor*:		Batch size / Annual requirement*:	🗆 einmalig
Cross-section (cable)*:		Partial shipments*:	
Application / Use*:		Additional agreements:	
Crimping tool*:			
Similar Klauke item*:			
Cable lugs und Verbinder			
Material*:		□ Connector	Dimension d4
□ Cable lug	Dimension d4 Dimension d1 Dimension d2 Dimension a Dimension l Dimension b Dimension c1 Dimension c2 Dimension e	Number of butt marks: 0 / 1 / 2	Dimension d4
Inspection hole Yes No  Cable lug with two holes in palm	Dimension d4 Dimension d1 Dimension d2 Dimension a Dimension I Dimension b Dimension c1	Inspection hole	Dimension d2 Dimension a Dimension x1 Dimension b Dimension c1 Dimension l3 Angle w1
Inspection hole	Dimension c2 Dimension e	☐ Angle cable lug up to 30°	Dimension d4 Dimension d1 Dimension d2 Dimension a Dimension b
□ Cable lug with hook	Dimension d4 Dimension d1 Dimension d2 Dimension a Dimension I Dimension b Dimension c1 Dimension c2	Inspection hole	Dimension c1 Dimension c2 Angle wh Angle w1
Inspection hole	Dimension e Angle wh	Other types acc. to your sketches/remarks (extra sheet):	
Drawings and dimensions: Please f	ill in all required dimension	ns (see dimension chart) and necessary c	lata.

Signature (customer):

i-11

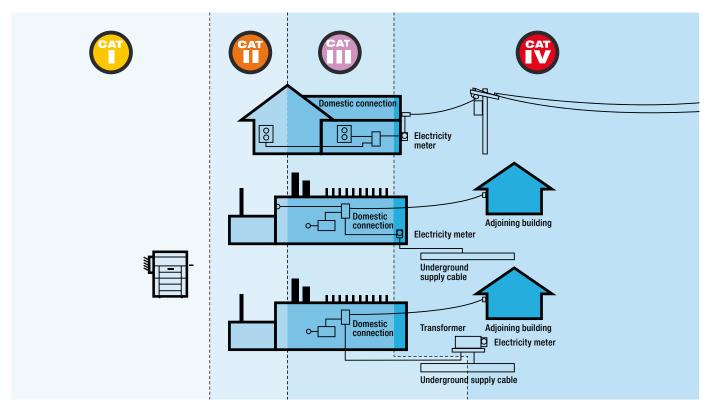


# Cable pulling technology - Typical applications

		Tape diameter	Tube dia- meter	Pressure energy	Min. curve radius	Breaking strength	Tensile force with start/ end sleeve	Recommended length
		ø mm	ø mm	kg	mm	kg	kg	m
Туре		<u></u>	<b>→</b>	<b>*</b>		<b>←-○-</b> →	<b>←-&gt;-</b> →	<del></del>
	Speedy Spinner	3	16 - 32	+++	160	400	110	20-30 (+ 2-3)
	Dura Spinner	3.6	16 - 32	+++	100	250	140	10 - 30
4	Flexi Spinner	4.5	16 - 32	+++	100	250	140	10-25
	Smart Butler	4.5	40 - 60	+++	310	1200	>200	40-60 (+ 3-5)
	Smart Butler	6	50 - 80	+++	400	2000	>300	40-80 (2-3)
		7.5	63 - 100	+++	500	3000	>400	20-30 (+ 3-5)
4	Smart Butler	9	63 - 125	+++	620	4500	>500	20-30 (+ 3-5)
		11	63 - 150	+++	770	7500	>700	150-250 (+ 3-5)
Spe	Polyester	4.5	16 - 32	+++	100	250	140	10-25
4	Nylon, Perlon®	4	16 - 25	+	80	280	120	10-20
0	Steel	4	16 - 25	+	100	900	115	10-20

for trade

for industry









## Measuring categories

Protective values which greatly exceed the nominal capacity of a system are stipulated in the standards of the IEC categories. Without this additional protection, transient overvoltages which occur with increasing regularity may cause serious or fatal injuries.

## Measurement Category I

is the signal level for telecommunications and electronic equipment.

## **Measurement Category II**

is the local level for permanently connected devices or devices not operated by means of a fixed connection - including all types of illumination from household devices to office equipment such as copy machines. Can also be used in Category I ranges.

### Measurement Category III

is the distribution level for fixed main or bypass flow circuits. These electric circuits are usually separated by at least one level of transformer barrier of Category IV (public utility or other high-voltage power source). Can also be used in Category II and Category I ranges.

## **Measurement Category IV**

is the main electric supply level. Greenlee is setting new standards by offering equipment that meets the highest protective values of IEC standards and which are certified accordingly. Can be used in all category ranges.

Greenlee equipment – checked and certified for compliance with norms by an independent party. This catalogue states the category for many Greenlee devices, indicating that these devices comply with the various IEC categories (II, III or IV). All these references represent the categories confirmed in tests by independent testing organisations – giving you additional assurance.

The right type of protection for the task at hand. No matter where you may need overvoltage protection — select a device which has at least the nominal capacity suitable for the work you are carrying out.





#### **Elektronics**

- lectronic equipment
- Equipment with low current usage and surge voltage limit protection



#### Domestic appliances, computers, televisions

- Wall outlets and long bypass flow circuits
- · All wall outlets which are distant more than 10 m from a Category III source
- All wall outlets which are distant more than 20 m from a Category VI source



#### MC switch panel etc.

- · Feeds and short bypass current circuits
- Distributor panels
- Wall outlets for large devices with "short" connections to the domestic connection



#### Outdoor transformers, electricity meters etc.

- Outdoor and domestic connection
- . Supply line from the utility pole to the building
- · Overhead line to the free-standing building
- Underground line to well pump

# Metric cable glands for electrical installation EN 50262

The new European standard EN 50262 defines conditions for all manufacturers of electrical appliance housings and all electrical installation.

It's scope includes cables and conductors for control cabinets, distributor housings, junction boxes, domestic connections, installation boxes, equipment housings etc.

EN 50262 replaces the Pg thread (steel tank pipe thread) used for all housing designs for decades with a metric thread. Sizes Pg 7 to Pg 48 are being replaced by ISO M 6 to M75.

#### Greenlee holemaking tools in ISO sizes acc. to EN 50262

ISO sizes	mm	Slug-Buster® punch	Slug-Splitter® punch	HSS hole saws	Step bits
12	12.5	<b>✓</b>			
16	16.5	<b>✓</b>	✓		<b>✓</b>
20	20.5	<b>✓</b>	✓	✓	✓
25	25.5	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>
32	32.5	<b>✓</b>	✓		✓
40	40.5	<b>✓</b>	✓		<b>✓</b>
50	50.5	<b>✓</b>	✓	<b>✓</b>	
63	63.5	<b>✓</b>	<b>✓</b>	<b>✓</b>	

## Holemaking systems

Round punch	Operation	Capacity	Hole size
Slug-Buster®	Manual, Hydraulic punches	max. 3.0 mm in St 37	12.5 to 64.0 mm
Slug-Splitter®	Hydraulic punches	max. 3.5 mm in V2A	15.2 to 64.0 mm
Speed Punch™	Hydraulic punches	3.5 mm in St 37	16.2 to 64.0 mm
Standard	Manual, Hydraulic punches	max. 3.0 mm in St 37	66.7 to 144.1 mm
Special shaped punches	Operation	Capacity	Hole size
Special shaped punches	Manual, Hydraulic punches	max. 3.0 mm in St 37 bzw. 1.5 mm in V2A	See data for the individual punches

# Hydraulic punches

			Description
1	LS 50 FLEX Battery powered hydraulic punching tool	LS 50 FLEX	<ul> <li>with micro-processor control</li> <li>60 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
7	LS 60-L Battery powered hydraulic punching tool	LS60L	<ul> <li>with micro-processor control</li> <li>60 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
5	Hydraulic punch Quick Draw™ 7804E	50342916	<ul> <li>ideal for fast, frontal punching</li> <li>80 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
	Hydraulic punch Quick Draw 90™ 7904E	50342991	<ul> <li>rectangular cylinder head rotatable around 180°</li> <li>maximum flexibility in narrow working spaces</li> <li>80 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
	Hydraulic punch with hand pump	50159062	<ul> <li>compact design of punch, pump and cylinder</li> <li>110 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
0	Hydraulic punch with foot pump	50250973	<ul> <li>foot pump leaves both hands free for operating the punch</li> <li>110 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>
	Hand hydraulic punch Flex Draw	52033843	<ul> <li>rectangular cylinder head rotatable around 180°</li> <li>maximum flexibility in narrow working spaces</li> <li>80 kN punching force</li> <li>punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size</li> </ul>









## Standards for cabling

A number of standardisation committees that define the technical features of cabling systems have been in existence since 1993. These directives must be observed when planning and setting up networks.

Full volumes can be obtained from specialist bookshops.

### International standards

International Standards are published by the ISO (International Standards Organisation). In Europe these international directives are used for information purposes.

ISO/IEC IS 11801 Description of the performance requirements for

a general cabling system

IEC 1156 Multi-core and symmetrical conductors for digital

message transmission

**IEC 1156-1** Basic specification

**IEC 1156-2** Framework specification for service cables

IEC1156-3 Framework specification for patch and

equipment connecting cables

IEC 1156-4 Framework specification for building connecting

and rising cables

## **European standards**

In collaboration with national standard institutes, the European Committee for Electrical Standardisation CENELEC (Comite Europeen de Normalisation Electrotechnique) has published European standards that are based on the international ISO/IEC 11801 and hence normative for Europe.

**EN 50173** Description of the performance requirements for

a general cabling system (EN 50173 also refers to

HD 608 and also EN 55022)

**608** General specification for symmetrical conductors

for digital message transmission

**EN 50167** Framework specification for service cables

EN 50168

Framework specification for patch and equipment

connecting cables

**EN 50169** Framework specification for building connection

and rising cablesl

**EN 55022** Framework specification for electromagnetic

compatibility (EMC). This specification contains threshold values and measuring procedures for radio interference of data processing equipment.

### **American standards**

The American standards are published by the EINTIA (Electronic Industries Association / Telecommunication Industries Association) an American Joint Venture.

**TSB 36** Framework specification for symmetrical data

cables (100 Ohm, unsheathed)

**TSB 40** Framework specification for passive components

(100 0hm, unsheathed)

**EIA/TIA 568** 

Framework specification for cabling systems

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
101R5	56	110R12	57	133R	64	1620C35	78
101R6	56	110R14	57	134R	64	1620C4	78
101R8	56	110R16	57	135R	64	1620C5	78
1020	159	110R20	57	136DP12	63	1620C6	78
1020V	160	111R10	57	136DP212	63	1620K	80
102R5	56	111R12	57	136R	64	1620L	81
102R6	56	111R14	57	137DP12	63	162R	22
102R8	56	111R16	57	137DP212	63	162R5	58
1030	159	111R20	57	137R	64	162R545	60
1030V	160	112R12	57	138DP12	63	162R6	58
103R10	56	112R14	57	138DP212	63	162R645	60
103R12	56	112R16	57	138R	64	162R8	58
103R6	56	112R20	57	139DP12	63	162R845	60
103R8	56	1130	164	139DP212	63	163010	74
104R10	56	113R14	57	13R12	15	163012	74
104R12	56	113R16	57	13R14	15	16303	74
104R6	56	113R20	57	13R16	15	163035	74
104R8	56	114R14	57	13R20	15	16304	74
1050	159	114R16	57	13SG10	16	16305	74
1050V	160	114R20	57	13SG12	16	16306	74
105R10	56	1150	164	13SG16	16	16308	74
105R12	56	115R16	57	147D212	62	1630C3	78
105R14	56	115R20	57	148D212	62	1630C35	78
105R6	56	116R16	57	148R	22	1630C4	78
105R8	56	116R20	57	149D212	62	1630C5	78
106R10	57	117R16	57	149R	22	1630C6	78
106R12	57	117R20	57	14R12	15	1630K	80
106R14	57	118R16	57	14R14	15	1630L	81
106R16	57	118R20	57	14R16	15	163R	22
106R8	57	11R10	15	14R20	15	163R10	58
107R10	57	11R12	15	150B	29	163R1045	60
107R12	57	11R14	15	150B10	29	163R12	58
107R14	57	11R16	15	150B12	29	163R1245	60
107R16	57	11R20	15	150D212	62	163R6	58
107R8	57	11SG10	16	150R	22	163R645	60
108R10	57	11SG12	16	151D212	62	163R8	58
108R12	57	11SG16	16	151R	22	163R845	60
108R14	57	120B	29	152D212	62	164R10	58
108R16	57	120B10	29	152R	22	164R1045	60
108R8	57	120B12	29	153R	22	164R12	58
109R10	57	120B16	29	154R	22	164R1245	60
109R12	57	121R	64	155R	22	164R6	58
109R14	57	122R	64	156R	22	164R645	60
109R16	57	123R	64	157R	22	164R8	58
109R20	57	124R	64	158R	22	164R845	60
10B	29	125R	64	159R	22	165010	74
10B10	28	126R	64	160R	22	165012	74
10B5	28	127R	64	161R	22	16504	74
10B6	28	128R	64	161R5	58	16505	74
10B8	28	129R	64	161R545	60	16506	74
10R10	15	12R10	15	161R6	58	16508	74
10R12	15	12R12	15	161R645	60	1650C4	78
10R14	15	12R14	15	162010	74	1650C5	78
10R16	15	12R16	15	162025	74	1650C6	78
10R20	15	12R20	15	16203	74	1650C8	78
10R8	15	12SG10	16	162035	74	1650K	80
10SG10	16	12SG12	16	16204	74	1650L	81
10SG12	16	12SG16	16	16205	74	165210	74
10SG6	16	130R	64	16206	74	165212	74
10SG8	16	131R	64	16208	74	16525	74
110R10	57	132R	64	1620C3	78	16526	74







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
16528	74	165R8	58	169R1445	61	1730	167
1652C5	78	165R845	60	169R16	59	1730AZ	167
1652C6	78	166010	75	169R1645	61	17312	144
652K	80	166012	75	169R20	59	17318	144
652L	81	166016	75	169R2045	61	1738	144
165310	74	1660K	80	16B	29	173B	143
65312	74	1660L	81	16B10	28	173BH	143
6535	74	166112	75	16B12	28	173BL	143
16536	74	166116	75	16B6	28	17410	144
16538	74	166212	75	16B8	28	17412	144
653C6	78	166216	75	1706	144	17418	144
1653C8	78	1666	144	1708	144	174GR	143
1653K	80	1668	144	170R10	59	174GRH	143
1653L	81	166GR	142	170R1045	61	174GRL	143
165410	75	166GRL	142	170R12	59	1750	167
165412	75	166R10	58	170R1245	61	17512	144
165416	75	166R1045	60	170R14	59	17518	144
6545	75	166R12	58	170R1445	61	175S	143
6546	75 75	166R1245	60	170R16	59	175SL	143
6548	75 75	166R14		170R16 170R1645	59 61	1755L 17612	143
654K			58 60		59		
1654K 1654L	80 81	166R1445		170R20		17618 176E	145
		166R16	58	170R2045	61		143
165510	75	166R1645	60	170W	143	176EL	143
165512	75 	166R8	58	170WH	143	17712	145
165516	75	166R845	60	170WK	143	17718	145
6556	75	1676	144	170WL	143	177GR	143
6558	75	1678	144	1716	144	177GRL	143
1655K	80	167H	142	1718	144	17816	145
1655L	81	167HL	142	171G	143	17818	145
165610	75	167R10	59	171GH	143	17822	145
165612	75	167R1045	61	171GK	143	178BR	143
165616	75	167R12	59	171GL	143	178BRL	143
16566	75	167R1245	61	171R10	59	179B	143
16568	75	167R14	59	171R1045	61	179BL	143
1656K	80	167R1445	61	171R12	59	17R	21
1656L	81	167R16	59	171R1245	61	1800	143
165710	75	167R1645	61	171R14	59	1800L	143
165712	75	167R8	59	171R1445	61	181R	67
165716	75	167R845	61	171R16	59	18201A	167
16576	75	1686	144	171R1645	61	18202	167
16578	75	1688	144	171R20	59	18203	167
1657K	80	168R10	59	171R2045	61	18203AZ	167
1657L	81	168R1045	61	1720	167	18251	167
165810	75	168R12	59	17210	144	18251A	167
165812	75	168R1245	61	17212	144	182R	67
165816	75 75	168R14	59	17218	144	1830	169
16588	75 75	168R1445	61	17216	144	18303	167
1658K	80	168R16	59	1728	144	18303AZ	167
1658L	81	168R1645	59 61	1726 172R12	59		
						183R	67 67
165910	75 75	168T	142	172R1245	61	184R	67
65912 65016	75 75	168TL	142	172R14	59 61	185B	29
65916	75	1696	144	172R1445	61	185B10	29
6598	75	1698	144	172R16	59	185B12	29
659K	80	1690	142	172R1645	61	185B16	29
1659L	81	1690H	142	172R20	59	185R	67
165R10	58	1690K	142	172R2045	61	186R	67
165R1045	60	169R10	59	172RH	143	187R	67
165R12	58	169R1045	61	172RK	143	188R	67
165R1245	60	169R12	59	172RL	143	189R	67
165R14	58	169R1245	61	172RM	143	18R	21

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
191R	67	222R	97	270R10	94	2R12	14
192R	67	2230	169	270R12	95	2R5	14
193R	67	2235	169	270R16	95	2R6	14
19R	21	223R	97	270R20	95	2R8	14
1R10	14	224R	97	271R10	95	300B	29
1R12	14	2250	169	271R12	95	300B12	29
1R5	14	225R	97	271R16	95	300B16	29
1R6	14	226R	97	271R20	95	302R6	109
1R8	14	227R	97	2720	168	302R8	109
2010	171	228R	97	272R10	95	303R10	109
2020	171	229R	97	272R12	95	303R8	109
2025	171	22R	21	272R16	95	304R10	109
202R6	96	230R	97	272R20	95	304R8	109
202R8	96	231R	97	2730	168	305R10	109
2030	171	232R	97	273R12	95	305R12	109
2035	171	233R	97	273R16	95	306R10	109
203R10	96	234R	97	273R20	95	306R12	109
203R8	96	235R	97	274R12	95	307R10	109
2040	170	23R	21	274R16	95	307R12	110
2045	170	240B	29	274R20	95	308R10	110
204R10	96	240B12	29	2750	168	308R12	110
204R8	96	240B16	29	2755	169	308R16	110
205R10	96	243R	101	275R12	95	309R12	110
205R12	96	244R	101	275R16	95	309R16	110
2060	170	245R	101	275R20	95	30R	21
206R10	96	246R	101	2760	169	310R12	110
206R12	96	247R	101	2765	169	310R16	110
2070	170	248R	101	2770	170	310R20	110
2075	170	249R	101	2775	170	311R12	110
207R10	96	24R	21	2780	170	311R16	110
207R12	96	250R	101	2785	170	311R20	110
2080	170	251R	101	2790	170	312R12	110
2083	170	252R	101	27R	21	312R16	110
208R10	96	253R	101	284R16	100	312R20	110
208R12	96	25B	29	285R25	100	313R16	110
208R16	96	25B10	28	286R25	100	313R20	110
2090	170	25B12	28	286R35	100	314R16	110
209R12	96	25B6	28	287R25	100	314R20	110
209R16	96	25B8	28	287R35	100	31R	21
20R	21	25R	21	287R50	100	322R10	111
2100	170	263R10	94	288R25	100	322R16	111
2105	170	263R8	94	288R35	100	323R10	111
210R12	96	264R10	94	288R50	100	323R16	111
210R16	96	264R12	94	288R70	100	324R10	111
210R20	96	264R8	94	289R50	100	324R16	111
2115	170	265R10	94	289R70	100	324R25	111
211R12	96	265R12	94	289R95	100	324R35	111
211R16	96	265R8	94	28R	21	324R416	111
211R20	96	266R10	94	290R120	100	324R425	111
2123	171	266R12	94	290R70	100	324R50	111
212R12	96	266R8	94	290R95	100	325R16	111
212R16	96	267R10	94	291R120	100	325R25	111
212R20	96	267R12	94	291R150	100	325R35	111
213R16	96	267R8	94	292R120	100	325R50	111
213R20	96	268R10	94	292R150	100	325R616	111
2140	171	268R12	94	292R95	100	325R625	111
2145	171	268R16	94	295AD	102	325R635	111
214R16	96	269R10	94	296AD	102	326R16	111
214R20	96	269R12	94	297AD	102	326R25	111
21R	21	269R16	94	29R	21	326R35	111
2220	169	26R	21	2R10	14	326R50	111
					17	0231100	







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
327R120	112	35B8	28	415R	98	43R1045	19
327R16	111	363R10	108	416R	98	43R12	17
327R25	112	363R8	108	417R	98	43R1245	19
327R35	112	364R10	108	418R	98	43R5	17
327R50	112	364R12	108	419R	98	43R545	19
327R70	112	364R8	108	41R10	17	43R6	17
327R95	112	365R10	108	41R1045	19	43R645	19
328R120	112	365R12	108	41R12	17	43R8	17
328R16	112	365R8	108	41R1245	19	43R845	19
328R25	112	366R10	108	41R5	17	44R10	17
328R35	112	366R12	108	41R545	19	44R1045	19
328R50	112	366R8	108	41R6	17	44R12	17
328R70	112	367R10	108	41R645	19	44R1245	19
328R95	112	367R12	108	41R8	17	44R14	17
329R120	112	368R10	108	41R845	19	44R1445	19
329R35	112	368R12	108	420R	98	44R5	17
329R50	112	368R16	108	421R	98	44R545	19
329R70	112	3698	145	422R	98	44R6	17
329R95	112	369R12	108	423R	98	44R645	19
32R	21	369R16	108	424R	98	44R8	17
330R120	112	3708	145	425R25	99	44R845	19
330R150	112	370R12	108	426R35	99	455R	102
330R16	112	370R16	108	427R35	99	456R	102
330R25	112	370R20	108	427R50	99	457R	102
330R35	112	3718	145	428R50	99	458R	102
330R50	112	371R10	108	428R70	99	459R	102
330R70	112	371R12	108	429R70	99	45R10	17
330R95	112	371R16	108	429R95	99	45R1045	19
331R120	112	371R20	109	42R10	17	45R12	17
331R150	112	3720	168	42R1045	19	45R1245	19
331R185	112	3725	168	42R12	17	45R14	17
331R50	112	3728	145	42R1245	19	45R1445	19
331R70	112	372R10	109	42R5	17	45R16	17
331R95	112	372R12	109	42R545	19	45R1645	19
332R120	112	372R16	109	42R6	17	45R6	17
332R150	112	372R20	109	42R645	19	45R645	19
332R185	112	3735	168	42R8	17	45R8	17
332R240	112	3738	145	42R845	19	45R845	19
332R50	112	373R12	109	430R120	99	46910	141
332R70	112	373R16	109	430R70	99	4696	141
332R95	112	373R20	109	430R95	99	4698	141
333R120	112	374R12	109	431R120	99	46R10	18
333R150	112	380/+	146	431R150	99	46R1045	20
333R185	112	380/-	146	431R70	99	46R12	18
333R240	112	380/0 bis 9	146	431R95	99	46R1245	20
333R300	112	380/A bis Z	146	43210	146		
33R	21		140			46R14	18
344R	113	3R10		4328	146 99	46R1445	20
		3R12	14	432R120		46R16	18
345R	113	3R5	14	432R150	99	46R1645	20
346R	113	3R6	14	432R185	99	46R20	18
347R	113	3R8	14	43312	146	46R2045	20
348R	113	405R	98	4338	146	46R6	18
349R	113	406R	98	433R150	99	46R645	20
34R	21	407R	98	433R185	99	46R8	18
350R	113	408R	98	433R240	99	46R845	20
351R	113	409R	98	43410	146	47010	141
352R	113	410R	98	434R300	99	47012	141
353R	113	411R	98	43512	146	4706	141
35B	29	412R	98	43612	146	4708	141
35B10	28	413R	98	43712	146	47110	141
35B12	28	414R	98	43R10	17	47112	141

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
4716	141	49R14	18	50042386	418	50053051	429
4718	141	49R1445	20	50042408	418	50053078	429
47210	141	49R16	18	50042424	418	50054473	419
47212	141	49R1645	20	50042459	419	50054481	419
47218	141	49R20	18	50042467	419	50063626	419
4726	141	49R2045	20	50042475	419	50063634	419
4728	141	49R8	18	50042483	419	50065866	418
47312	141	49R845	20	50042491	419	50065874	418
47318	141	4R10	14	50042505	419	50067273	420
4738	141	4R12	14	50042513	419	50067281	420
47410	141	4R14	14	50042521	419	50067290	420
47412	141	4R5	14	50042564	419	50068920SET	454
47418	141	4R6	14	50042572	419	50069292	462
47512	141	4R8	14	50042580	419	50069497SET	460
47518	141	50000420	423	50042599	419	50069519	421
47612	141	50008722	565	50045989	421	50069527	421
47618	141	50008730	565	50045997	421	50069535	421
47712	142	50008749	565	50046012	421	50069543	421
47718	142	50016962	561	50046020	421	50069551	421
47816	142	50024086	418	50046039	421	50069560	421
47818	142	50024094	418	50046055	421	50069578	421
47822	142	50024337	418	50046071	421	50069586	421
47916	142	50024434	419	50046080	421	50069594	421
47918	142	50024450	419	50046098	421	50069608	421
47925	142	50024430	424	50046036	421	50069616	421
47R10	18	50031766	564	50046136	421	50069624	
47R1045	20	50031961	418	50046144	421	50069624	421 421
47R12	18						
		50039903	418	50046381	425-428, 430	50069640	421
47R1245	20	50039911	418	50046527	419	50069659	421
47R14	18	50039989	418	50046535	419	50069667	421
47R1445	20	50039997	418	50046543	419	50069691	462
47R16	18	50040022	418	50046551	419	50069721	420
47R1645	20	50040030	418	50046799	423	50069780	419
47R20	18	50040103	418	50046853	419	50069845	467
47R2045	20	50040111	418, 420	50046861	419	50069853	467
47R6	18	50040138	419, 420	50047345	418	50069861	467
47R645	20	50040405	423	50047353	418	50069870	467
47R8	18	50040421	423	50047361	418	50069888	467
47R845	20	50040588	419	50052110	447	50069900	468
48020	142	50040596	419	50052128	479	50069969	418
48025	142	50040618	419, 420	50052144	481	50069977	419
48121	142	50040626	419	50052152	481	50070444	418
48225	142	50040634	419, 420	50052160	481	50075349	589
48327	142	50041754	419	50052241	479	50075357	583
48432	142	50041770	419	50052250	479	50075365	589
48R10	18	50041800	419	50052276	480	50075888	589
48R1045	20	50041835	419	50052284	480	50075926	600
48R12	18	50041878	419	50052292	480	50115286	480
48R1245	20	50041886	423	50052306	480	50115294	480
48R14	18	50042181	423	50052314	480	50115308	480
48R1445	20	50042238	418	50052322	480	50115316	480
48R16	18	50042246	418	50052330	480	50115324	480
48R1645	20	50042254	418	50052357	480	50115332	480
48R20	18	50042262	418	50052373	480	50115340	480
48R2045	20	50042297	418	50052381	480	50115359	480
48R8	18	50042300	418	50052446	425, 426, 428, 429	50115367	480
	20	50042327	419	50052659	419	50115375	480
48R845					410	=044=000	
48R845 49R10	18	50042335	419	50052667	419	50115383	480
	18 20	50042335 50042343	419 419	50053027	419 429	50115383 50115391	480 480
49R10							







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
50115723	426	50244779	418	50306626	567	50320041	418, 420
50116304	468	50250973	444	50306642	567	50320068	418, 420
50116894v2	578	50253417	418	50306669	567	50320084	418, 420
50125630SET	461	50253425	418	50306685	567	50320114	419, 420
50125700	412	50253441	418	50307584	567	50323989SET	455
50132849	490	50253492	419	50308599	557	50328034SET	455
50153323	565	50253506	419	50310100	566	50339672	424
50159062	443	50253514	419	50310127	566	50341367	565
50159119	445	50253603	419	50310143	566	50341375	565
50176870	419	50253611	419	50310240	567	50341383	565
50176900	419	50253727	419	50310267	567	50342916	436
50176978	418	50253832	419	50310283	567	50342991	437
50177001	418	50254030	419	50310305	567	50343629	565
50183311	418	50254278	418	50310321	567	50344013	466
50186353	419	50254286	418	50311174	421	50344030	466
50188860	418	50265342	436	50311190	421	50344102	466
50188879	418	50273612	446		421		466
				50311204		50344110	
50188909	418	50273833	565	50311220	421	50344200	430
50188917	419	50273841	565	50311239	421	50344218	428
50188925	419	50273868	565	50311247	421	50344293	430
50189050	419	50273884	565	50311255	421	50344366	430
50189069	419	50273892	565	50311263	421	50344374	430
50190946	565	50273906	565	50311280	421	50344447	430
50191314	458	50281542	421	50311298	421	50347330	425-43
50191772	459	50281550	421	50311310	421	50351583	420
50191780	459	50281569	421	50311328	421	50351591	418, 420
50191799	459	50281577	421	50311336	421	50351605	420
50191802	459	50281585	421	50311352	421	50351613	419, 420
50191810	459	50281593	421	50313533	490	50351621	418, 420
50191829	459	50281607	421	50314823	567	50351630	420
50191837	459	50281615	421	50314831	567	50351648	418, 420
50191845	459	50281623	421	50314840	567	50351656	420
50199757	419	50281631	421	50317563	420	50351664	420
50199765	419	50281658	421	50317571	420	50351672	420
50199773	419	50281666	421	50317580	420	50351680	418, 420
50199781	419	50292099SET	460	50317598	420	50351699	420
50199803	419	50294512	424	50317601	420	50351770	420
50206672	418	50294520	424	50317610	420	50351788	420
50206680	418	50300083	466	50318721	424	50351796	420
50206702	418	50305581	566	50319620	420	50351800	420
50206710	418	50305603	566	50319639	420	50351818	420
50206737	418	50305620	566	50319647	420	50351826	420
50206761	419	50305646	566	50319655	420	50351923	418
50206788	419	50305662	566	50319663	420	50351931	418
	419						
50206796 50211153	419	50305689	566 566	50319671	420 420	50352075	568
		50305700		50319698		50352083	568 453
50212141	419	50305727	566	50319701	420	50356119SET	452
50212168	419	50305743	566	50319710	420	50356143SET	453
50213164	418	50305760	566	50319736	420	50356151SET	452
50214896	419	50305786	566	50319752	420	50356160SET	453
50214918	419	50305808	566	50319760	420	50356178SET	454
0215191	419	50305824	566	50319787	420	50357468	561
0225634	418	50305840	566	50319892	420	50357476	561
0225642	418	50305867	566	50319906	420	50360183	466
50225650	418	50305883	566	50319914	420	50360205	466
50225669	419	50305905	566	50319930	420	50360221	466
50225677	419	50305921	566	50319957	420	50361716	420
50225685	419	50305948	566	50319965	420	50361724	420
50244590	418	50305964	566	50319981	420	50361732	419, 420
	418	50306588	567	50320025	418	50362780	420
50244620							

Part No.	Page	Part No.	Page
50362828	418	50600460	425
50362844	420	50600478	425
50364022	466	50600486	425
50364146	466	50600494	425
50364898	421	50600508	425
50364901	421	50600516	425
50365061	418	50600524	425
50365088	420	50600524	425
50366904	448	50600540	425
50366912	449	50600559	425
	449		
50366920		50600567	425
50366939	448	50600575	425
50368826	418	50600583	425
50369105	418	50600591	425
50371541	462	50600605	425
50371550	462	50600613	425
50371568	462	50600621	425
50371576	462	50600630	425
50377299	498	50600648	425
50381721	418, 419	50600656	425
50383167	498	50600664	425
50385224	462	50600672	425
50455753	550	50600680	425
50455770	549	50600699	425
504R	66	50600702	425
504RLD	66	50600710	425
505R	66	50600729	425
505RLD	66	50600737	425
50600010	426	50600745	425
50600028	426	50600753	425
50600036	426	50600761	425
50600087	426	50600770	428
50600087	426	50600770	428
50600141	426	50600788	
			428
50600150	426	50601016	429
50600168	426	50601040	429
50600176	426	50601075	429
50600184	426	50601105	429
50600192	426	50601121	429
50600206	426	50601130	432
50600214	426	50601148	424
50600230	426	50601156	432
50600249	426	50601172	432
50600257	425	50601180	432
50600265	425	50601202	425, 426, 429
50600273	425	50601271	427
50600303	425	50601652	425-429
50600311	425	50601660	432
50600320	425	50601679	424
50600338	425	50601687	426
50600346	425	50601695	426
50600354	425	50601709	426
50600362	425	50601717	426
50600370	425	50601717	426
50600370	425 425	50601733	426
50600397	425	50601768	426
E0000400	425	50601776	426
50600400	40=	E0004=0 -	
50600419	425	50601784	426
50600419 50600427	425	50601792	426
50600419			

Part No.	Page
50602373	420
50602381	427
50602390	427
50602420	427
50602438	427
50602462	420
50602497	427
50602500	427
50602586	425-429
50604660	605
50610045	426
50610076	426
50610106	426
50610137	426
50610281	425
50610809	428
50610830	428
50610861	428
50610892	428
50610892	428
50610953	428
50611257	427
50611264	427
506T1204	66
506RLD	66
50766797	451
50766803	451
50766919	480
50767640	426
50767657	426
507R	66
507RLD	66
508R	66
508RLD	66
509R	66
509RLD	66
50B	29
50B10	28
50B12	28
50B8	28
50R10	18
50R1045	20
50R12	18
50R1245	20
50R14	18
50R1445	20
50R16	18
50R1645	20
50R20	18
50R8	18
50R845	20
51040060	418
51040080	418
51069720	418
51069740	419
510R	66
510RLD	66
51147220	418, 420
511R	66
511RLD	66
512R	66

Part No.	Page
512RLD	66
51300430	418, 420
51320090	419, 420
513R	66
513RLD	66
514R	66
514RLD	66
51600790	428
51601020 51601030	429 429
51601050	429
51601060	429
51601080	429
51601090	429
51601110	429
51601160	432
51R10	18
51R1045	20
51R12	18
51R1245	20
51R14	18
51R1445	20
51R16	18
51R1645	20
51R20	18
51R2045	20
52020113	432
52024541	608
52024556	608
52033579V2	586
52033580	574
52033816	431 431
52033817 52033818	431
52033819	431
52033820	431
52033831	431
52033832	431
52033843	437
52034233	454
52041709	560
52041741	560
52041743	560
52041745	560
52041746	560
52041747	560
52041748	561
52041749	561
52041750	560
52041751	560
52041752	561
52041753	561
52045040	419, 420
52045296 52045297	425 425
52045297 52045298	425 425
52045296	425 425
52045300	426, 431
52046101	426, 431
52047801V2	578
52047802V2	579
J	0.0







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
52047803V2	580	52055381	568	52057758	459	52074600	558
52047805V2	581	52055382	568	52057760	459	52074650	558
52047806V2	581	52055383	564	52057761	459	523R	65
52047817	422	52055384	564	52057762	459	524R	65
52047818	422	52055385	557	52057763	459	525R	65
52047869	604	52055386	557	52057764	459	526R	65
52047947	582	52055389	558	52057765	459	527R	65
52047948	583	52055390	558	52057766	459	528R	65
52049407	575	52055391	558	52057767	459	529R	65
52049408	575	52055392	558	52057768	459	52R10	18
52055270	556	52055423	426	52057769	459	52R1045	20
52055271	556	52055431	422	52057770	459	52R12	18
52055272	556	52055432	422	52057771	459	52R1245	20
52055273	556	52055433	422	52057773	459	52R14	18
52055274	556	52055434	422	52057774	459	52R1445	20
52055275	556	52055435	422	52057775	459	52R16	18
52055276	556	52055436	422	52057776	459	52R1645	20
52055277	556	52055437	422	52057777	459	52R20	18
52055278	556	52055438	422	52057778	459	52R2045	20
52055279	556	52055439	422	52057779	459	530R	65
52055280	556	52055439SET	449	52057780	462	531R	65
52055281	556	52055440	422	52057781	462	532R	65
52055282	557	52055440SET	450	52057782	462	533R	65
52055283	557	52055684	411	52057801	459	534R	65
52055284	557	52056268V2	582	52057802	459	535R	65
52055285	557	52057722	458	52057803	459	536R	65
52055286	557	52057723	458	52057804	459	53R12	18
52055287	557	52057724	458	52057805	459	53R1245	20
52055292	556	52057725	458	52058591	431	53R14	18
52055293	556	52057726	458	52058592	431	53R1445	20
52055294	556	52057727	458	52059292SET	460	53R16	18
52055295	556	52057728	458	52059293SET	460	53R1645	20
52055296	556	52057729	458	52059294SET	460	53R20	18
52055298	559	52057730	458	52059295SET	460	53R2045	20
52055299	559	52057731	458	52059364	600	54R12	18
52055300	559	52057732	458	52059365	600	54R1245	20
52055313	562	52057733	458	52063422	574	54R14	18
52055315	562	52057734	458	52065998	422	54R1445	20
52055316	562	52057735	458	52065999	422	54R16	18
52055325	562	52057736	458	52066001	422	54R1645	20
52055326	562	52057737	458	52066002	422	54R20	18
52055327	562	52057738	458	52066021	422	54R2045	20
52055328	562	52057739	458	52066022	422	551R	119
52055337	562	52057740	458	52066023	422	551R 552R	119
52055338	562	52057741	458	52066024	422	553R	119
52055339	562	52057742	458	52066025	422	554R	119
52055340	562	52057743	458	52066026	422	555R	119
52055341	562	52057744	458	52066027	422	556R	119
52055347	562	52057745	456 458	5206027	422 422		119
52055348	562	52057746	456 458	52066029	422 422	557R 558R	119
52055349	562	52057747	458	52066039	422 422		119
						559R	
52055350 52055251	562 562	52057748	458 459	52066031	422	560R	119
52055351 52055252	562 562	52057749	458 459	52066032	422	561R	119
52055352	562	52057750	458	52066033	422	562R	119
52055359	562	52057751	458	52066034	422	563R	119
52055360	562	52057752	458	52066372	588	567-4	596
52055361	562	52057753	458	52066374	588	567-6	596
52055362	562	52057754	459	52066376	587	56C4	51
52055378	568	52057755	459	52066378	587	56C5	51
52055379	568	52057756	459	52066379	586	56N4	50
52055380	568	52057757	459	52067352	604	56N5	50

Part No.	Page	Part No.
572R6	118	604R12
573R6	118	604R14
573R8	118	604R5
574R8	118	604R6
575R8	118	604R8
57C4	51	605R10
57C5	51	605R12
57C6	51	605R14
57N4	50	605R16
57N5	50	605R6
57N6	50	605R8
584R10	118	606R10
584R8	118	606R12
585R10	118	606R14
585R12	118	606R16
585R8	118	606R20
586R10	118	606R6
586R12	118	606R8
587R10 587R12	118 118	607R10
587R12 588R10	118	607R12 607R14
588R12	118	607R16
589R10	118	607R20
589R12	118	607R6
589R16	118	607R8
58C4	51	608R10
58C5	51	608R12
58C6	51	608R14
58N4	50	608R16
58N5	50	608R20
58N6	50	608R8
590R10	118	609R10
590R12	118	609R12
590R16	118	609R16
590R20	118	609R8
59294520	421	60C5
592R12	118	60C6
592R16	118	60C8
592R20	118	60N5
59C5	51	60N6
59C6	51	60N8
59N5	50	6192
59N6	50	61925
5R10	14	6193
5R12	14	61935
5R14	14	6194
5R16	14	6195
5R6	14	619C3
5R8	14	61N6
5SG6	16	61N8
602R10	25	62010
602R12	25	62025
602R5	25	6203
602R6	25	62035
602R8	25	6204
603R10	25	6205
603R12	25	6206
603R5	25	6208
603R6	25	620C3
603R8	25	620C35
COAD40	OE.	60004

620C4

Part No.	Page
620C5	157
620C6	157
622R	27
623R	27
624R	27
625R	27
626R	27
627R 628R	27 27
62N6	50
62N8	50
62R	52
63010	156
6303	156
63035	156
6304	156
6305	156
6306	156
6308	156
630C3	157
630C35	157
630C4	157
630C5	157
630C6	157
63N10	50
63N8	50
63R	52
64N10	50
64N12	50
64R 65010	52 156
6504	156
6505	156
6506	156
6508	156
650C10	157
650C4	157
650C5	157
650C6	157
650C8	157
65210	76
65212	76
6525	76
6526	76
6528	76
652C5	80
652C6	80
65310	76 70
65312	76 76
6535 6536	76 76
6538	76 76
653C6	80
65410	76
65412	76
65416	76
6545	76
6546	76
6548	76
65510	76
65512	76

Part No.	Page
65516	76
6556	76
6558	76
65610	76
65612	76
65616	76
6566	76
6568	76
65710	77
65712	77
65716	77
6576	77
6578	77
65810	77
65812	77
65816	77
65910	77
65912	77
65916	77
65N10	50
65N12	50
65R	52
66010	77
66012	77
66016	77
669	165
66R	52
670	165
670WS	165
680	165
680WS	165
695V	138
697V	138
6B	29
6B10	28
6B5	28
6B6	28
6B8	28
6R10	15
6R12	15
6R14	15
6R16	15
6R20	15
6R6	15
6R8	15
6SG10	16
6SG6	16
6SG8	16
700	165
700WS	165
702F10	33
702F12	33
702F5	33
702F6	33
702F8	33
703F10	33
703F12	33
. 501 12	33
703F5	
703F5 703F6	
703F6	33







604R10



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
704F10	33	713F14	34	743F10	35	7612V	139
704F12	33	713F16	34	743F12	35	7615V	139
704F5	33	713F20	34	743F5	35	7618V	139
704F6	33	715	158	743F6	35	7620V	139
704F8	33	716V	138	743F8	35	7625V	139
705	158	718V	138	744F10	35	769	166
705F10	33	71S10V	138	744F12	35	770	166
705F12	33	71S6V	138	744F5	35	7712V	139
705F14	33	71S8V	138	744F6	35	7715V	139
705F6	33	720	161	744F8	35	7718V	139
705F8	33	7208	161	745F10	35	7720V	139
705K	158	720AZ	162	745F12	35	7725V	139
705V	138	720BZ	162	745F14	35	7732V	139
706F10	33	720V	163	745F6	35	775	172
706F12	33	7210V	138	745F8	35	780	166
706F14	33	7212V	138	746F10	35	7812V	139
706F16	33	7215V	138	746F12	35	7815V	139
706F6	33	7218V	138	746F14	35	7818V	139
706F8	33	7220V	138	746F16	35	7820V	139
707F10	34	722F	37	746F6	35	7825V	139
707F12	34	723F	37	746F8	35	7828V	139
707F14	34	724F	37	747F10	36	7832V	139
707F16	34	725	172	747F12	36	790	166
707F8	34	725F	37	747F14	36	7912V	139
707V	138	726F	37	747F16	36	7915V	139
708F10	34	726V	138	747F8	36	7918V	139
708F12	34	727F	37	748F10	36	7920V	139
708F14	34	727V	138	748F12	36	7922V	139
708F16	34	728F	37	748F14	36	7925V	139
708F8	34	728V	138	748F16	36	7930V	139
709F10	34	729F	37	748F8	36	7932V	139
709F12	34	72S10V	138	748V	139	79R	49
709F14	34	72S12V	138	749F10	36	79V4	48
709F16	34	72S15V	138	749F12	36	79V5	48
709F20	34	72S6V	138	749F14	36	7R10	15
70B	29	72S8V	138	749F16	36	7R12	15
70B10	28	730	161	749F20	36	7R14	15
70B12	28	7308	161	749V	139	7R16	15
70B16	28	730AZ	162	750	161	7R20	15
70B8	28	730BZ	162	7509	161	7R6	15
710	158	730F	37	750AZ	162	7R8	15
710F10	34	730V	163	750BZ	162	7SG10	16
710F12	34	7310V	138	750F10	36	7SG12	16
710F14	34	7312V	138	750F12	36	7SG6	16
710F16	34	7315V	138	750F14	36	7SG8	16
710F20	34	7318V	138	750F16	36	8001	172
710K	158	731F	37	750F20	36	80012	172
710L	158	7320V	138	750V	163	8002	172
7110V	138	735	172	7510V	139	8011	173
7110 <b>V</b> 7112V	138	737V	138	7512V	139	80112	173
7112 <b>V</b> 7115V	138	738V	138	7515V	139	8012	173
711F12	34	7410V	139	7518V	139	8018V	139
711F12 711F14	34	7410V 7412V	139	751F12	36	8022V	139
711F14 711F16	34	7412V 7415V	139	751F12 751F14	36	8025V	139
711F10 711F20	34	7418V	139	751F14 751F16	36	8030V	139
711F2U 712F10	34	7418V 7420V	139				
				751F20	36	80318721	418, 419
712F12	34	742F10	35	7520V	139	8032V	139
712F14	34	742F12	35	7525V	139	8051	172
712F16	34	742F5	35	752F16	36	80512	172
712F20	34	742F6	35	755	172	8052	172
713F12	34	742F8	35	7610V	139	80R	49

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
			·				
80V4	48	8438V	140	91C4	13	9SG6	16
80V5	48	8440V	140	9105	13	9SG8	16
80V6	48	84R	49	91R3	12	A10	339
8101	172	84V6	48	91R4	12	A150	339
81012	172	84V8	48	91R5	12	A1625	339
8102	172	850	164	920	159	A185	339
8122V	140	8502B	164	920V	160	A2210	344
8125V	140	8502V	163	92C3	13	A22150	344
8130V	140	8503	161	92C4	13	A221625	344
8132V	140	8503B	164	92C5	13	A22185	344
8151	173	8503V	163	92C6	13	A22240	344
81512	173	8532V	140	92R3	12	A22300	344
816	174	8540V	140	92R4	12	A2235	344
817	174	85R	49	92R5	12	A2250	344
81R	49	85V6	48	92R6	12	A2270	344
81V4	48	85V8	48	930	159	A2295120	344
81V5	48	8634V	140	93C3	13	A22SET	344
81V6	48	8640V	140	93C4	13	A300	146
820	164	8678	147	93C5	13	A35	339
8201	161	8688	147	93C6	13	A50	339
8201A	161	8698	147	93R3	12	A70	339
8201AV	163	86R	49	93R4	12	A95120	339
8201B	164	86V10	48	93R5	12	AD22120	344
8201C	164	86V12	48	93R6	12	AD22150185	344
8201V	163	86V6	48	93R8	12	AD2225	344
8202	161	86V8	48	94C4	13	AD2235	344
8202B	164	87010	147	94C5	13	AD2250	344
8202V	163	8708	147	9406	13	AD2270	344
8203	161	87110	147	9408	13	AD2295	344
8203B	164	8718	147	94R4	12	AD25	339
8203V	163				12		
		87212	147	94R5		ADSS	339
8225V	140	8728	147	94R6	12	AD50	339
8230V	140	87310	147	94R8	12	AD70	339
8232V	140	87313	147	950	159	AD95	339
8234V	140	87412	147	950V	160	AE10	340
82R	49	87514	147	95B	29	AE16	340
82V5	48	87614	147	95B10	28	AE2210	346
82V6	48	87714	147	95B12	28	AE22120	346
82V8	48	87R	49	95B16	28	AE22150	346
830	164	87V10	48	95C4	13	AE2216	346
8301	161	87 <b>V</b> 12	48	95C5	13	AE22185	346
8301A	161	87 <b>V</b> 16	48	95C6	13	AE22240	346
8301AV	163	87 <b>V</b> 8	48	95C8	13	AE2225	346
8301V	163	88R	49	95R4	12	AE2235	346
8302	161	88V10	48	95R5	12	AE2250	346
8302B	164	88V12	48	95R6	12	AE2270	346
8302V	163	88V8	48	95R8	12	AE2295	346
8303	161	8R10	15	96C5	13	AE25	340
8303B	164	8R12	15	96C6	13	AE35	340
8303V	163	8R14	15	96C8	13	AE50	340
8330V	140	8R16	15	97C5	13	AE501	326
8332V	140	8R20	15	97C6	13	AE502	326
8334V	140	8R8	15	97C8	13	AE503	326
8338V	140	8SG10	16	9R10	15	AE70	340
8340V	140	8SG12	16	9R12	15	AE95	340
83R	49	8SG6	16	9R14	15	AES10	340
83V5	48	8SG8	16	9R16	15	AES16	340
83V6	48	90500113	429	9R20	15	AES2210	346
83V8	48	90508068	429	9R8	15	AES2210	346
8432V	140	90510593	497 497	9NO 9SG10	16		346 346
						AES22150	
8434V	140	91C3	13	9SG12	16	AES2216	346







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
AES22185	346	C35	339	EHP3	487	ESG55CFB	387
AES22240	346	C50	339	EHP4115	488	ESG55CFM	387
AES2225	346	CK16	122	EHP4230	488	ESG85CFB	389
AES2235	346	CK25	122	EK12032CFB	280	ESG85CFM	389
AES2250	346	CK35	122	EK12032CFM	280	ESGM45CFB	383
AES2270	346	CK50	122	EK12042CFB	282	ESGM45CFM	383
NES2295	346	CK70	122	EK12042CFM	282	ESM50CFB	385
AES25	340	CK95	122	EK120IDCFB	279	ESM50CFM	385
NES35	340	CR501	327	EK120IDCFM	279	ESSG105L	408
AES50	340	CR502	327	EK120UCFB	284	ESSG65I	408
AES70	340	CR503	327	EK120UCFM	284	ESSGG85L	408
AES95	340	CR504	327	EK120UNVCFB	477	F10	337
AH120120	123	CR505	327	EK120UNVCFM	477	F16	337
AH7070	123	CS1022	114	EK135FTCFB	286	F2210	342
AH9595	123	CS1228	114	EK135FTCFM	286	F2216	342
AHP700L	489	CS1428	114	EK1550ML	258	F2225	342
AS105FHP	405	CS1635	114	EK354CFB	266	F2235	342
AS120FHP	405	CS630	114	EK354CFM	266	F2250	342
AS65FHP	404	CS818	114	EK354ML	262	F2270	342
ASSG105L	409	D10	338	EK5018CFB	270	F2570	337
ASSG120SL	409	D120	338	EK5018CFM	270	F35	337
ASSG65L	409	D150	338	EK505CFB	268	F50	337
ASSGG105L							
	409	D16	338	EK505CFM	268	FHP2	485
ASSGG85L	409	D185	338	EK50ML	254	FTA1	496
AST22120	345	D2210	343	EK6022CFB	274	FTA4	496
AST2225	345	D22120	343	EK6022CFM	274	GR1698	144
AST2235	345	D22150	343	EK60UNVCFB	476	GR1690	142
AST2250	345	D2216	343	EK60UNVCFM	476	GR1708	144
AST2270	345	D22185	343	EK60VPCFB	276	GR170W	143
AST2295	345	D22240	343	EK60VPCFM	276	GR1718	144
32210	342	D2225	343	EK60VPFTCFB	277	GR171G	143
322120	342	D22300	343	EK60VPFTCFM	277	GR1728	144
322150	342	D2235	343	EKM6022CFB	272	GR172R0	143
B2216	342	D2250	343	EKM6022CFM	272	GR1738	144
B22185	342	D226	343	EKM60IDCFB	278	GR173B	143
B22240	342	D2270	343	EKM60IDCFM	278	GR4698	141
B2225	342	D2295	343	EKM60UNVCFB	475	GR4698D0	184
B22300	342	D22SET	343	EKM60UNVCFM	475	GR4708	141
B2235	342	D25	338	EKP1ML	260	GR4708D0	184
B2250	342	D35	338	ES105CFB	392	GR4718	141
B226	342	D50	338	ES20CFB	379	GR4718D0	184
B2270	342	D505	326	ES20CFM	379	GR4728	141
B2295	342	D6	338	ES20ML	372	GR4728D0	185
B22SET	342	D70	338	ES32CFB	381	GR4738	141
BAG9698	149	D95	338	ES32CFM	381	GR4738D0	185
BAG9708	149	DNAW3	550	ES32FCFB	382	H2270	345
BAG9718	149	DNK742	239	ES32FCFM	382	HA1310	350
BAG9728	149	DNP2	499	ES32FML	373	HA13150	350
BAG9738	149	DP2250	343	ES32ML	373		350
3AK9698	149	DP2270	343			HA131625	
				ES65CFB	388	HA13185	350 350
BAK9708	148	DVI-500K02	592	ES65CFM	388	HA13240	350
BAK9718	148	DVI100T50K02	592	ES85CFB	390	HA13300	350
BAK9728	148	DVM-80UVM/K65	592	ES85CFM	390	HA1335	350
BAK9738	148	EBS12CFB	378	ESG105CFB	391	HA1350	350
BNC501	327	EBS12CFM	378	ESG105CFM	391	HA1370	350
C16	339	EBS12ML	371	ESG25CFB	380	HA1395120	350
C2216	345	EBS6LGKS	376	ESG25CFM	380	HA15400	352
C2225	345	EBS8CFB	377	ESG45CFB	384	HA15500	352
C2235	345	EBS8CFM	377	ESG45CFM	384	HA2510	355
C2250	345	EBS8ML	371	ESG50CFB	386	HA25150	355

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
HA25185	355	HAE1370	351	HAST1335	350	HD15625	352
HA25240	355	HAE1395	351	HAST1350	350	HD25120	354
HA25300	355	HAE25120	357	HAST1370	350	HD25150	354
HA2535	355	HAE25150	357	HAST1395	350	HD2516	354
HA25400	355	HAE25185	357	HAST25120	356	HD25185	354
HA2550	355	HAE25240	357	HAST2525	356	HD25240	354
HA25500	355	HAE2525	357	HAST2535	356	HD2525	354
HA2570	355	HAE2535	357	HAST2550	356	HD25300	354
HA2595120	355	HAE2550	357	HAST2570	356	HD2535	354
HA410	331	HAE2570	357	HAST2595	356	HD25400	354
HA41625	331	HAE2595	357	HB410	329	HD2550	354
HA435	331	HAE410	332	HB4120	329	HD25500	354
HA450	331	HAE416	332	HB4150	329	HD25625	354
HA45150	358	HAE425	332	HB416	329	HD2570	354
HA45185	358	HAE435	332	HB425	329	HD2595	354
HA45240	358	HAE450	332	HB435	329	HD410	330
HA45300							
	358	HAE510	336	HB450	329	HD4120	330
HA45400	358	HAE516	336	HB46	329	HD416	330
HA45500	358	HAE525	336	HB470	329	HD425	330
HA470	331	HAE535	336	HB495	329	HD435	330
HA510	335	HAE550	336	HB4SET	329	HD450	330
HA5150	335	HAE570	336	HB51050	333	HD451000	358
HA51625	335	HAE595	336	HB5120	333	HD45120	358
HA535	335	HAES13120	351	HB5150	333	HD45150	358
HA550	335	HAES13150	351	HB51670	333	HD45185	358
HA570	335	HAES13185	351	HB5185	333	HD45240	358
HA595120	335	HAES13240	351	HB52595	333	HD45300	358
HAD13120	350	HAES1325	351	HB5635	333	HD45400	358
HAD13150185	350	HAES1335	351	HB5SET	334	HD45500	358
HAD1325	350	HAES1350	351	HC1316	351	HD45625	358
HAD1335	350	HAES1370	351	HC1325	351	HD45800	358
HAD1350	350	HAES1395	351	HC1335	351	HD46	330
HAD1370	350	HAES25120	357	HC1350	351	HD470	330
HAD1395	350	HAES25150	357	HC1370	351	HD495	330
HAD25120	355	HAES25185	357	HC2516	356	HD4SET	330
HAD25150185	355	HAES25240	357	HC2525	356	HD51050	334
HAD25240	355	HAES2525	357	HC2535	356	HD5120	334
HAD2525	355	HAES2535	357	HC2550	356	HD5150	334
HAD25300	355	HAES2550	357	HC2570	356	HD51670	334
HAD2535	355	HAES2570	357	HC2595	356	HD5185	334
HAD2550	355	HAES2595	357	HC416	331	HD52595	334
HAD2570	355	HAES410	332	HC425	331	HD5635	334
HAD2595	355	HAES416	332	HC516	335	HD5SET	334
HAD425	331	HAES425	332	HC525	335	HDP1350	348
HAD435	331	HAES435	332	HC535	335	HDP1370	348
HAD450	331	HAES450	332	HD1001000	359	HDP1395	348
HAD45150185	358	HAES510	336	HD100625	359	HDP25120	354
HAD45240	358	HAES516	336	HD100800	359	HDP2550	354
HAD45300	358	HAES525	336	HD13120	348	HDP2570	354
HAD525	335	HAES535	336	HD13150	348	HDP2595	354
HAD535	335	HAES550	336	HD1316	348	HF13120	348
HAD550	335	HAES570	336	HD13185	348	HF13150	348
HAD570	335	HAES595	336	HD13240	348	HF1316	348
HAD595	335	HAH13120	351	HD1325	348	HF1325	348
HAE13120	351	HAH1370	351	HD13300	348	HF1335	348
HAE13150	351	HAH1395	351	HD1335	348	HF1350	348
HAE13185	351	HAH25120	356	HD1350	348	HF1370	348
HAE13240	351	HAH2570	356	HD1370	348	HF1395	348
HAE1325	351	HAH2595	356	HD1395	348	HF25120	354
HAE1335	351	HAST13120	350	HD15400	352	HF25150	354
HAE1350	351	HAST1325	350	HD15500	352	HF2516	354
				10000		2010	







HF25185 HF25240 HF2525 HF25300 HF2535 HF2550	354 354 354	HISQ2550 HISQ2570	355	110.440			
HF2525 HF25300 HF2535	354	LICO2E70		HQ410	330	HRU133525	349
HF25300 HF2535		ทเอนุ23/บ	355	HQ416	330	HRU135035	349
HF2535		HISQ2595	355	HQ425	330	HRU137050	349
	354	HISQ410	330	HQ435	330	HRU139570	349
HF2550	354	HISQ416	330	HQ510	334	HRU2510	355
	354	HK12030	298	HQ516	334	HRU2512095	355
HF2570	354	HK12042	300	HQ525	334	HRU25150120	355
HF2595	354	HK120U	302	HQ535	334	HRU2516	355
HF410	329	HK122EL380	322	HQ550	334	HRU25185150	355
HF416	329	HK252	320	HR13120	347	HRU25240185	355
HF425	329	HK252EL380	323	HR13150	347	HRU25300240	355
HF435	329	HK45	321	HR1316	347	HRU25300SM	355
HF510	334	HK6018	292	HR13185	347	HRU253525	355
HF516	334	HK6022	294	HR13240	347	HRU255035	355
HF525	334	HK60UNV	473	HR1325	347	HRU257050	355
HF535	334	HK60VP	296	HR13300	347	HRU259570	355
HF550	334	HK60VPFT	297	HR1335	347	HRU410	331
		HL15500					
HIS1310	347		352	HR13400	347	HRU412095	331
HIS13120	347	HL15630	352	HR1350	347	HRU4150120	331
HIS13150	347	HM4154	329	HR1370	347	HRU416	331
HIS1316	347	HM416	329	HR1395	347	HRU43525	331
HIS1325	347	HM4610	329	HR25120	353	HRU45035	331
HIS1335	347	HMC1310	351	HR25150	353	HRU47050	331
HIS1350	347	HMC1335	351	HR2516	353	HRU49570	331
HIS1370	347	HMC1350	351	HR25185	353	HRU510	335
HIS1395	347	HMC1370	351	HR25240	353	HRU512095	335
HIS2510	353	HMC25120	356	HR2525	353	HRU5150120	335
HIS25120	353	HMC25150	356	HR25300	353	HRU516	335
HIS25150	353	HMC25185	356	HR2535	353	HRU5185150	335
HIS2516	353	HMC2535	356	HR25400	353	HRU5240185	335
HIS2525	353	HMC2550	356	HR2550	353	HRU5300240	335
HIS2535	353	HMC2570	356	HR2570	353	HRU53525	335
HIS2550	353	HMC2595	356	HR2595	353	HRU55035	335
HIS2570	353	HMC410	331	HR410	328	HRU57050	335
HIS2595	353	HMC435	331	HR4120	328	HRU59570	335
HIS410	328	HMC44	331	HR4150	328	HS210	497
HIS416	328	HN1370	348	HR416	328	HS22	497
HIS425	328	HN1395	348	HR425	328	HS23	497
HIS435	328	HN4051	329	HR435	328	HS24	497
HIS450	328	HN410	329	HR450	328	HS25	497
HIS470	328	HN41525	329	HR46	328	HS26	497
HIS510	333	HN416	329	HR470	328	HS28	497
HIS516	333	HN446	329	HR495	328	HSG45	397
HIS525	333	HQ13120	349	HR4SET	328	HSG50	397
HIS535	333	HQ13150	349	HR51050	333	HSG55	398
HIS550	333	HQ1316	349	HR5120	333	HSG852	398
HIS570	333		349 349			HSOEL10	
HIS595	333	HQ1325		HR5150	333		497
		HQ1335	349	HR51670	333	HSOEL2	497
HISQ1310	349	HQ1350	349	HR5185	333	HSOEL3	497
HISQ1316	349	HQ1370	349	HR5240	333	HS0EL4	497
HISQ1325	349	HQ1395	349	HR52595	333	HS0EL5	497
HISQ1335	349	HQ25120	354	HR5635	333	HSOEL6	497
	349	HQ25150	354	HR5SET	333	HS0EL8	497
HISQ1350	349	HQ2516	354	HRU1310	349	HST131215	350
HISQ1350 HISQ1370		HQ25185	354	HRU1312095	349	HST1320	350
HISQ1350 HISQ1370 HISQ1395	349		354	HRU13150120	349	UCT104C	
HISQ1350 HISQ1370 HISQ1395	349 355	HQ25240	334	1111013130120	0.0	HST1346	350
HISQ1350 HISQ1370 HISQ1395		HQ25240 HQ2525	354	HRU1316	349	HST138	350 350
HISQ1350 HISQ1370 HISQ1395 HISQ2510 HISQ25120	355						
HISQ1350 HISQ1370 HISQ1395 HISQ2510	355 355	HQ2525	354	HRU1316	349	HST138	350
HISQ1350 HISQ1370 HISQ1395 HISQ2510 HISQ25120 HISQ25150	355 355 355	HQ2525 HQ2535	354 354	HRU1316 HRU13185150	349 349	HST138 HST251215	350 356

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
HTA4	499	K06BC	236	K511	239	KL1000IS38NM27	518
HV-220	596	K06D	237	K512	239	KL1000IS38NM50	518
HV-235	596	K06DSP	237	K572	224	KL10010030IS	508
HVA-2000	595	K06SP	236	K582	224	KL10010035IS	508
HZAE410	332	K07	232	K592	225	KL10010035ISLIM	509
HZAE416	332	K07SP	232	K5SP	231	KL10010033I3LIIII	508
HZAE44	332	K09	238	K6	232	KL10010040ISLIM	509
HZAE46	332	K09BC	237	K60	223	KL10010040I3LIW	508
HZAE510	336	K09D	238	K610	516	KL10012555ISLIM	509
HZAE516	336	K09DSP	238	K63	226	KL10012565ISLIM	509
HZAE54	336	K09SP	238	K64	227	KL10015065IS	508
HZAE56	336	K1	212	K65	226	KL1001300313 KL10017580IS	508
HZAES410	332	K100	364	K67	225	KL10077525IS	508
HZAES416	332	K100 K1011	367	K6SP	232	KL100752515 KL1100IS10	517
HZAES410		K1011		K7			
	332		369		233	KL1100IS11	517
HZAES46	332	K102	364	K7SP	233	KL1100IS12	517
HZAES510	336	K1031	365	K8	233	KL1100IS13	517
HZAES516	336	K1041	366	K80	221	KL1100IS17	517
HZAES54	336	K1051	368	K81	222	KL1100IS19	517
HZAES56	336	K1061	365	K82A	222	KL1100IS22	517
IS10	337	K1062	365	K8SP	233	KL1100IS6	517
IS16	337	K118	364	K93	228	KL1100IS7	517
IS2210	341	K130	366	K94	228	KL1100IS8	517
IS22120	341	K150	367	K95	230	KL110PH1IS	508
IS22150	341	K16	223	KF125	123	KL110PH1ISLIM	509
IS2216	341	K18	248	KKPE	195	KL110PH2IS	508
IS2225	341	K2	229	KKPEH25	195	KL110PH2ISLIM	509
IS2235	341	K2011	368	KL010160IS	504	KL110PH3IS	508
IS2250	341	K22	250	KL010210IS	504	KL1200IS1255	520
IS2270	341	K230	366	KL020165IS	504	KL1200IS3855	520
IS2295	341	K25	230	KL020180IS	504	KL120PZ1IS	508
IS25	337	K250	367	KL020205IS	504	KL120PZ1ISLIM	509
IS35	337	K271	218	KL026205IS	504	KL120PZ2IS	508
IS50	337	K272	219	KL040115EL	525	KL120PZ2ISLIM	509
IS501	327	K28	219	KL040115ELW	525	KL120PZ3IS	508
IS503	327	K29	220	KL040128EL	525	KL1210IS12PH2	521
IS504	327	K3	211	KL040128ELH	525	KL1210IS38PH2	521
IS505	327	K3014K	218	KL040145IS	505	KL1230IS12PM1	520
IS5072	327	K303	217	KL040160IS	505	KL1230IS12PM2	520
IS70	337	K304K	217	KL040180IS	505	KL1230IS12PM3	520
IS95	337	K306K	217	KL042190IS	505	KL1230IS38PM1	520
ISQ10	338	K32	213	KL044200IS	505	KL1230IS38PM2	520
ISQ16	338	K34	214	KL045180IS	505	KL1230IS38PM3	520
ISQ2210	343	K35	211	KL045240IS	505	KL1240IS1210	519
ISQ2216	343	K354	246	KL046200IS	506	KL1240IS1211	519
ISQ2225	343	K36	213	KL050115EL	525	KL1240IS1212	519
ISQ2235	343	K37	214	KL050205IS	506	KL1240IS1213	519
ISQ2250	343	K382	215	KL055205IS	506	KL1240IS1214	519
ISQ2270	343	K38ERGO	216	KL060160IS	507	KL1240IS1216	519
ISQ25	338	K38ERGOSET	216	KL070250G	524	KL1240IS1217	519
ISQ35	338	K39	215	KL070250IS	507	KL1240IS1219	519
ISQ50	338	K4	210	KL072180G	524	KL1240IS1222	519
IT-4220P	595	K400	547	KL072250G	524	KL1240IS1224	519
K02	229	K432	545	KL072300G	524	KL1240IS1227	519
K04	234	K43290	545	KL078250G	524	KL1240IS3810	519
K05	235	K433	545	KL1000IS12	518	KL1240IS3811	519
K05BC	234	K46	210	KL1000IS12NM25	518	KL1240IS3812	519
KO5D	234	K48	210				
K05DSP	235			KL1000IS12NM27	518 518	KL1240IS3813	519 510
		K5	231	KL1000IS12NM50	518 519	KL1240IS3814	519 510
K05SP	235	K50	244	KL1000IS38	518	KL1240IS3817	519
K06	236	K507	243	KL1000IS38NM25	518	KL1240IS3819	519







Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
KL1260 \$12 4	520	KL315	528	KL60509	515	LB0XX230B	203
KL1260IS12I5	520	KL330	531	KL60510	515	LB0XX50B	201
KL1260IS12I6	520	KL331	531	KL60511	515	LBOXX65B	200
KL1260 S12 8	520	KL335	531	KL605U	515	LBOXX65BCB	202
KL1260IS38I4	520	KL340	531	KL620S1000	514	LBOXXEK354CFB	205
KL1260IS38I5	520	KL350	526	KL625A1000	515	LBOXXEK354CFM	205
KL1260IS38I6	520	KL361	528	KL625A500	515	LBOXXEK5018CFB	205
KL1260IS38I8	520	KL365	531	KL628	515	LBOXXEK5018CFM	205
KL1290IS12125	519	KL370	529	KL640GK	516	LBOXXEK505CFB	205
KL1290IS12250	519	KL375	529	KL642HK	516	LBOXXEK505CFM	205
KL1290IS38125	519	KL38715	529	KL645GSK	516	LBOXXEKM6022CFB	205
KL1290IS38250	519	KL38830	530	KL690130	516	LBOXXEKM6022CFM	205
KL1299IS12	518	KL38954	530	KL698	516	LBOXXEKM60IDCFB	205
KL1299IS38	518	KL390IS	511	KL710	548	LBOXXEKM60IDCFM	205
KL1300IS12B20	517	KL390ISLIM	512	KL720	549	LBOXXEKM60UNVCFB	205
KL130PM1IS	508	KL390TB9	513	KL730	548	LBOXXEKM60UNVCFM	205
KL130PM1ISLIM	509	KL391IS	511	KL735PV	548	LBOXXES20CFB	205
KL130PM2IS	508	KL391ISLIM	512	KL740416	547	LBOXXES20CFM	205
KL130PM2ISLIM	509	KL392IS	512 511	KL740416 KL740828	547 547	LBOXXES32CFB	205
KL145100IS	509	KL393IS	511 511	KL740828 KL745GK	547 547		205
				KL745GK KL745HK		LBOXXES32CFM	
KL145130IS	509	KL400PH1170ISSB	513		548 546	LBOXXES32FCFB	205
KL14555IS	509	KL400PH2170ISSB	513	KL760180	546 507	LBOXXES32FCFM	205
KL14560IS	509	KL400PM1170ISSB	513	KL760180IS	507	LBOXXKLB18	537
KL14570IS	509	KL400PM2170ISSB	513	KL765FR215	546	LBOXXLS50FLEXCFB	205
KL14580IS	509	KL400PZ1170ISSB	513	KL765PV	546	LBOXXLS50FLEXCFM	205
KL150TX10IS	508	KL400PZ2170ISSB	513	KL850L	542	LBOXXMINIK3	203
KL150TX15IS	508	KL400S35170ISSB	513	KL855B22	538	LBOXXMINIK3014K	204
KL150TX15ISLIM	509	KL400S40170ISSB	513	KL855B8	539	LBOXXMINIK304K	204
KL150TX20IS	508	KL400S55170ISSB	513	KL860L	542	LBOXXMINIK306K	204
KL150TX20ISLIM	509	KL402	532	KL865B19	539	LGL1	494
KL150TX25IS	508	KL403	532	KL880B26IS	522	LGL3	494
KL150TX25ISLIM	509	KL420200	531	KL880L	522	LGLB1EU	494
KL150TX30IS	508	KL425400	532	KL890TB88	540	LGML1	495
KL180B8	525	KL425600	532	KL890TL	541	LS50FLEXCFB	439
KL19073IS	509	KL440F	532	KL905B15	541	LS50FLEXCFM	439
KL2007335	526	KL449	532	KL905L	542	LS60L	438
KL2007340	526	KL500	533	KL910L	543	LV-5K01	593
KL2007355	526	KL510	533	KL920L	542	M154	338
KL2007365	526	KL520	533	KMF1	499	M16	338
KL21073PH1	526	KL540	535	KP1	240	M22154	342
KL21073PH2	526	KL542	535	KP1L	240	M2216	342
KL22073PZ1	526	KL542ES	535	KSK1503	130	M22610	342
KL22073PZ2	526	KL544	536	KSK1504	130	M50154	326
KL23073PM1	527	KL544ES	536	KSK1854	130	M50610	326
KL23073PM2	527	KL545	535	KSK504	131	M610	338
KL25073TX10	527	KL550	535	KST2	498	MC10	339
KL25073TX10	527	KL550ES	535	KV10	24	MC2210	345
KL25073TX13	527	KL559	535	KV10 KV120	24	MC2235	345
KL25073TX25	527	KL580300	534	KV15	24	MC224	345
KL25073TX25	527 527	KL580500	534	KV150	24	MC35	339
KL25073TX27	527 527	KL5821000	534	KV16	24 24	MC4	339
ALZJUI JI AJU	JZI		534				
/I 2E072TV 40		NI E0343E0		KV185	24	MCK1010	122
	527	KL5821250		VVO E	04	MCV1016	100
KL290	527 527	KL584230	534	KV2.5	24	MCK1016	122
(L290 (L291	527 527 527	KL584230 KL585200	534 534	KV240	24	MCK1025	122
KL290 KL291 KL295	527 527 527 528	KL584230 KL585200 KL585250	534 534 534	KV240 KV25	24 24	MCK1025 MCK120120	122 123
KL290 KL291 KL295 KL296	527 527 527 528 528	KL584230 KL585200 KL585250 KL586	534 534 534 534	KV240 KV25 KV35	24 24 24	MCK1025 MCK120120 MCK150150	122 123 123
KL290 KL291 KL295 KL296 KL3011S	527 527 527 528 528 513	KL584230 KL585200 KL585250 KL586 KL600	534 534 534 534 514	KV240 KV25 KV35 KV4	24 24 24 24	MCK1025 MCK120120 MCK150150 MCK185185	122 123 123 123
KL290 KL291 KL295 KL296 KL301IS KL303IS	527 527 527 528 528 513 510	KL584230 KL585200 KL585250 KL586 KL600 KL602GELB	534 534 534 534 514	KV240 KV25 KV35 KV4 KV50	24 24 24 24 24	MCK1025 MCK120120 MCK150150 MCK185185 MCK2550	122 123 123 123 122
KL290 KL291 KL295 KL296 KL301IS KL303IS KL304IS	527 527 527 528 528 513 510	KL584230 KL585200 KL585250 KL586 KL600 KL602GELB KL603	534 534 534 534 514	KV240 KV25 KV35 KV4 KV50	24 24 24 24 24 24	MCK1025 MCK120120 MCK150150 MCK185185	122 123 123 123
KL25073TX40 KL290 KL291 KL295 KL296 KL301IS KL303IS KL304IS KL305IS	527 527 527 528 528 513 510	KL584230 KL585200 KL585250 KL586 KL600 KL602GELB	534 534 534 534 514	KV240 KV25 KV35 KV4 KV50	24 24 24 24 24	MCK1025 MCK120120 MCK150150 MCK185185 MCK2550	122 123 123 123 122

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
MCK44	122	R2235	341	RU2210	344	SH272	140
MCK5050	122	R2250	341	RU2212095	344	SH273	140
MCK7095	123	R226	341	RU22150120	344	SK303P	187
MK18	195	R2270	341	RU2216	344	SK303S	188
MK210L	194	R2295	341	RU22185150	344	SK30B	185
MK22	195	R22SET	341	RU22240185	344	SK30L	193
MK220L	194	R25	337	RU22300240	344	SK32B	186
MK230B507	191	R35	337	RU223525	344	SK32L	193
MK230L	194	R50	337	RU225035	344	SK43L	193
MK55	194	R501	326	RU227050	344	SK43NB	188
MKKP1	196	R502	326	RU229570	344	SK45B	186
MKU	196	R505	326	RU240185	339	SK47B	187
N2210	342	R6	337	RU3525	339	SK4L	193
N2216	342	R70				SK50B	190
			337	RU5035	339		
N2225	342	R95	337	RU7050	339	SK65B	189
N2235	342	RAL1	491	RU9570	339	SK65L	195
N2250	342	RAL2	491	S18	412	SK82P	192
NC100EP	608	RAL3	491	SAK10	120	SK82S	192
NG2115	493	RAL4	492	SAK11	120	SKP1	242
NG2230	493	RAL40	492	SAK12	120	SKP6	242
PHD2	485	RALB1EU	492	SAK13	120	SKR1204	131
PK1000	319	RALB2EU	493	SAK14	120	SKR1501504	131
PK12042	312	RAML1	493	SAK15	120	SKR1503	132
PK120U	314	RH12050	68	SAK16	120	SKR1504	131
PK18	306	RH12070	68	SAK17	120	SKR150504	131
PK22	308	RH12095	68	SAK18	120	SKR1854	131
PK252	316	RH150120	68	SAK19	120	SKV10	32
PK45	318	RH15070	68	SAK20	120	SKV1525	32
PK60ID	311	RH15095	68	SAK21	120	SKV16	32
PK60UNV	474	RH185120	68	SAK22	120	SKV25	32
PK60VP	310	RH185150	68	SAK23	120	SKV35	32
PK60VPFT	310	RH18595	68	SAK24	120	SKV4	32
PRX-500220P	593	RH240120	68	SAK25	120	SKV50	32
PRX4220P	593	RH240150	68	SAK30	121	SKV6	32
PRX69D220P	593	RH240185	68	SAK31	121	SLSN34	436
Q10	338	RH2510	68	SAK32	121	SR106	30
Q16	338	RH2516	68	SAK33	121	SR108	30
Q2210	343	RH300150	68	SAK34	121	SR166	30
Q2216	343	RH300185	68	SAK35	121	SR168	30
Q2225	343	RH300240	68	SAK36	121	SR256	30
Q2235	343	RH3510	68	SAK37	121	SR258	30
Q2250	343	RH3516	68	SAK38	121	SR3510	30
Q2270	343	RH3525	68	SAK39	121	SR356	30
Q25	338	RH400185	68	SAK40	121	SR358	30
Q35	338	RH400240	68	SAK41	121	SR5010	30
Q50	338	RH400300	68	SAK43	121	SR506	30
Q501	326	RH5016	68	SAK44	121	SR508	30
Q70	338	RH5025	68	SAK45	121	SR65	30
R10	337	RH5035	68	SAK46	121	SR66	30
R120	337	RH7025	68	SAK47	121	SSG105	407
R150	337	RH7035	68	SB501	327	SSG65	407
R16	337	RH7050	68	SDG105	403	SSGG105	407
R185	337	RH9535	68	SDG45	400	SSGG85	407
R2210	341	RH9550	68	SDG50	400	ST11B	181
R22120	341	RH9570	68	SDG55	401	ST12B	182
R22150	341	RT-200220P	596	SDG852	402	ST13B	183
R2216	341	RU10	339	SDK105	403	ST15B	181
R22185	341	RU12095	339	SDK120	404	ST1705	79
R22240	341	RU150120	339	SDK65	401	ST1710	79
R2225	341	RU16	339	SDK85	402	ST1715	79
R22300	341	RU185150	339	SH271	140	ST1716	79







Part No.	Page
ST1716IS	77
ST1717	79
ST1717IS	77
ST1718	79
ST1718IS	77
ST1719	79
ST1719IS	77
ST1720	79
ST1720IS	77
ST1721	79
ST1721IS	77
ST1722	79 
ST1722IS	77
ST1B	181
ST21B	180
ST221215	345
ST2220	345
ST2246	345
ST228	345
ST22B	180
ST23B	180
ST2B	182
ST31B	182
ST32B	183
ST33B	184
ST3B	183
ST5L	185
ST9698	148
ST9708	148
ST9718	148
ST9728 ST9738	148
STV10	148 31
STV10	31
STV1625	31
STV25	31
STV35	31
STV4	31
STV50	31
STV6	31
SV10	31
SV100	124
SV1525	31
SV16	31
SV200	124
SV200BK	124
SV25	31
SV300	125
SV300V	125
SV3001	125
SV301AK	125
SV301AKV	125
SV301V	125
SV302	125
SV302AK	125
SV302AKV	125
SV302V	125
SV303	125
SV303AK	125
SV303AKNL	125
SV303V	125

Part No.	Page
SV304AKNL	125
SV304AKNLV	125
SV305	127
SV305AK	127
SV305AKV	127
SV305V	127
SV306	127
SV306AK	127
SV306AKV	127
SV306V	127
SV307AKNL	125
SV307V	125
SV308	125
SV309	126
SV309AK	126
SV309AKV	126
SV309V	126
SV310	126
SV310AK	126
SV310AKV	126
SV310V	126
SV311AKNL	126
SV312AKNL	126
SV312AKNLV	126
SV315	126
SV315V	126
SV319AKNLV	126
SV320	126
SV320V SV35	126 31
SV4	31
SV400	128
SV405V	128
SV410	128
SV410AK	128
SV420	128
SV420AK	128
SV420V	128
SV430	129
SV430AK	129
SV440	129
SV440AK	129
SV50	31
SV6	31
T15	496
TG3	495
THK120	312
THK18	306
THK22	308
TK95	231
TL-AST-M	594
TT2	196
TT4	196
TV10	23
TV120	23
TV15	23
TV150	23
TV16	23
TV185	23
TV2.5	23
TV240	23

TV240

Part No.	Page
TV25	23
TV35	23
TV4	23
TV50	23
TV6	23
TV70	23
TV95	23
TW150	495
UA12P	478
UA12TKL	478
UA18	478
UA22	478
UA5	478
UA6P	478
UC26	478
UC40	478
UCAC107	478
UCACSR	478
UCBC110	478
UCBC120	478
UCBC150	478
UCBC85	478
UCD3215	478
UCD3515	478
UCD3575	478
UCF	478
UCM10	478
UCM12	478
UCM5	478
UCM6 UCM8	478 478
UCN2980	476 478
UCUNC12	478
UCUNC14	478
UCUNC38	478
UPD6	478
VHD120	89
VHD1203	90
VHD1204	91
VHD150	89
VHD1503	90
VHD1503	91
VHD16	89
VHD185	89
VHD1853	90
VHD1854	91
VHD240	89
VHD2403	90
VHD2404	91
VHD25	89
VHD300	89
VHD35	89
VHD353	90
VHD354	91
VHD400	89
VHD50	89
VHD503	90
VHD504	91
VHD70	80

VHD70

VHD703

VHD704

23

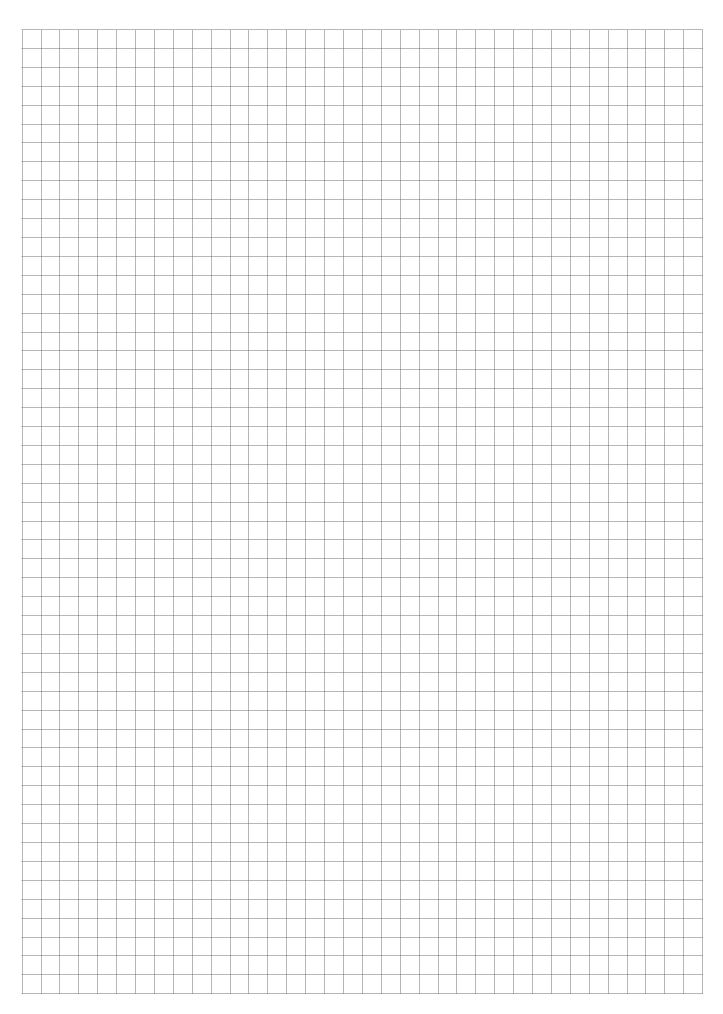
89

90

91

D. I.N.	
Part No.	Page
VHD95	89
VHD953	90
VHD954	91
VHR120	88
VHR1203	90
VHR1204	91
VHR150	88
VHR1503	90
VHR1504	91
VHR16	88
VHR185	88
VHR1853	90
VHR1854	91
VHR240	88
VHR2403	90
VHR2404	91
VHR25	88
VHR300	88
VHR35	88
VHR353	90
VHR354	91
VHR400	88
VHR50	88
VHR503	90
VHR504	91
VHR70	88
VHR703	90
VHR704	91
VHR95	88
VHR953	90
VHR954	91
VW-20HFR	594
WM01	597
ZAE10	340
ZAE16	340
ZAE2210	346
ZAE2216	346
ZAE224	346
ZAE226	346
ZAE4	340
ZAE6	340
ZAES10	340
ZAES16	340
ZAES2210	346
ZAES2216	346
ZAES224	346
ZAES226	346
ZAES4	340
ZAES6	340
ZST3	496
ZST4	496



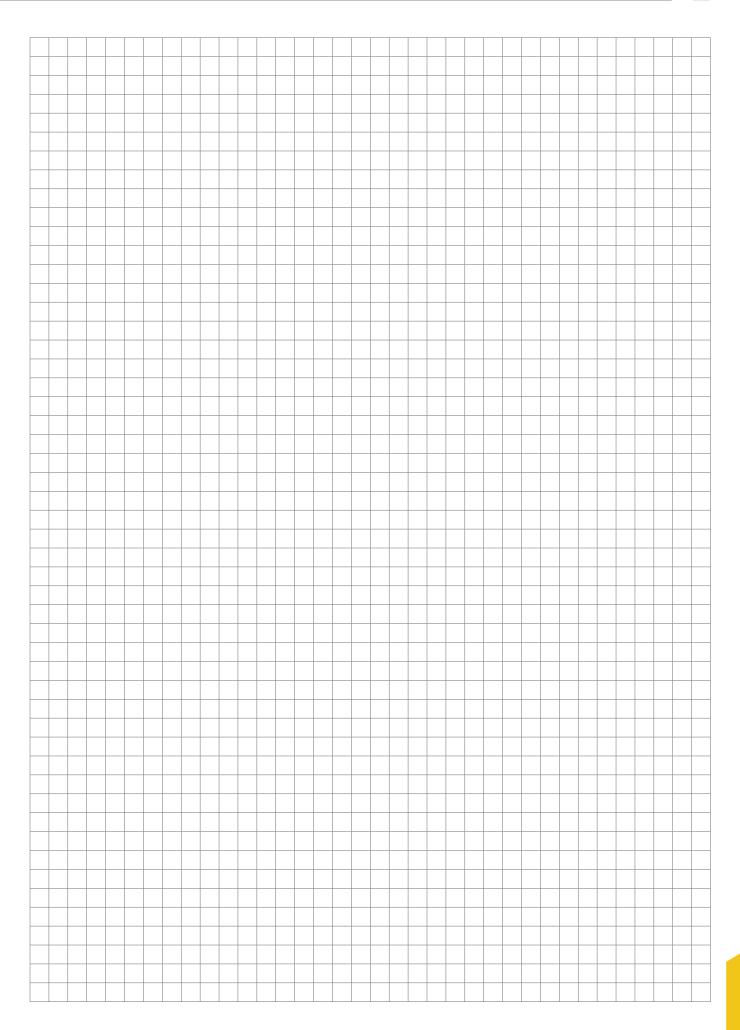




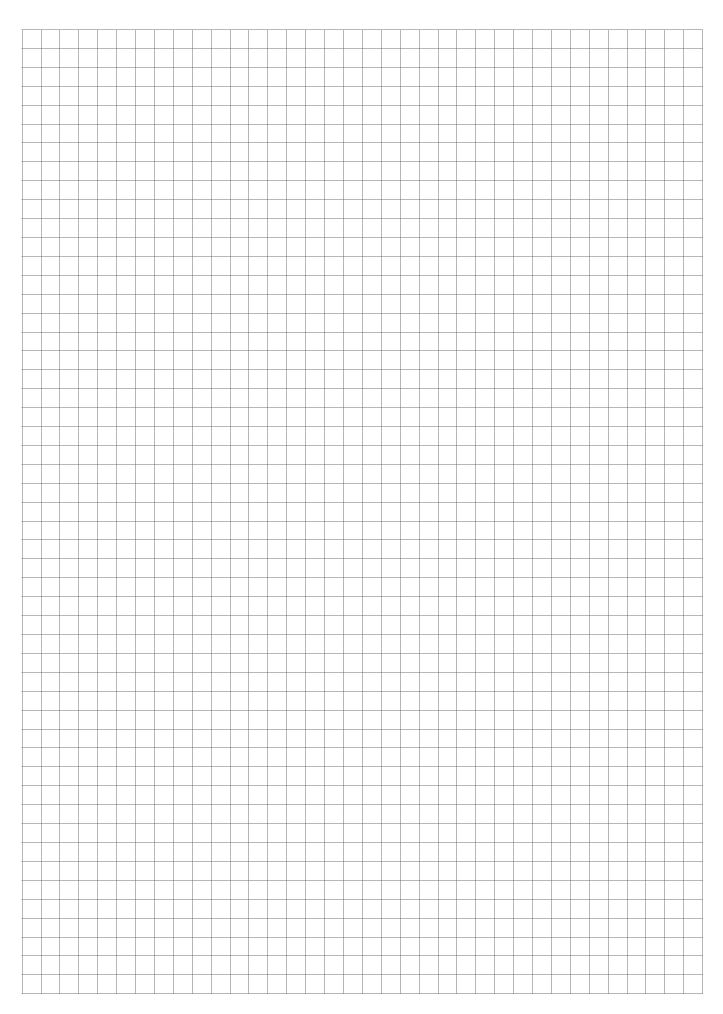










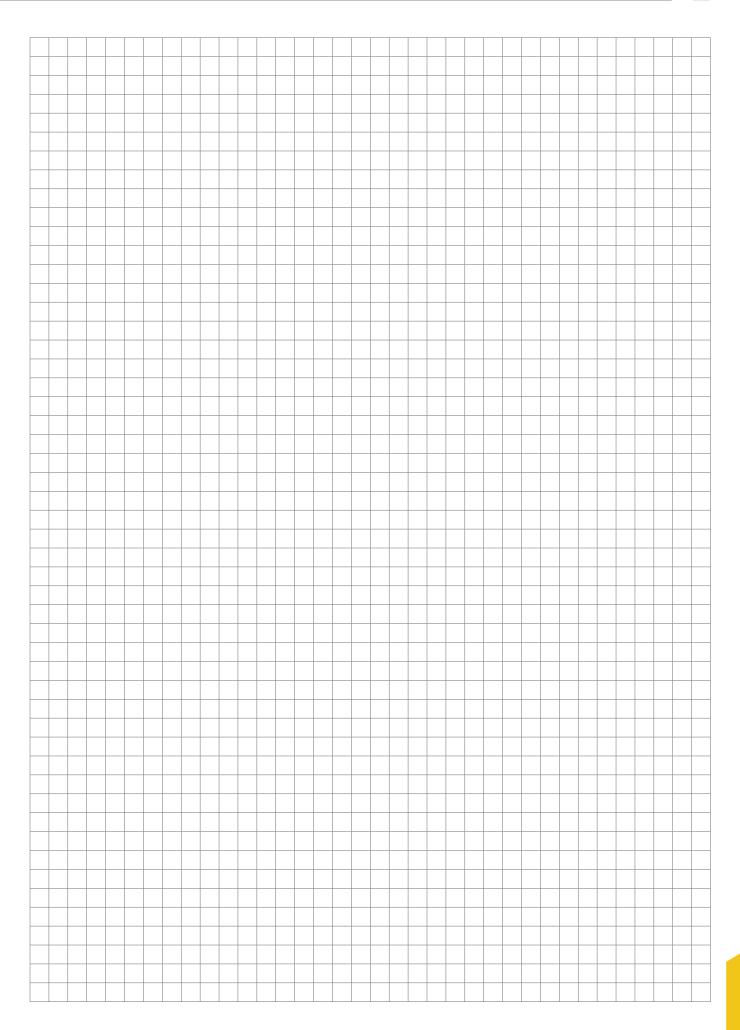




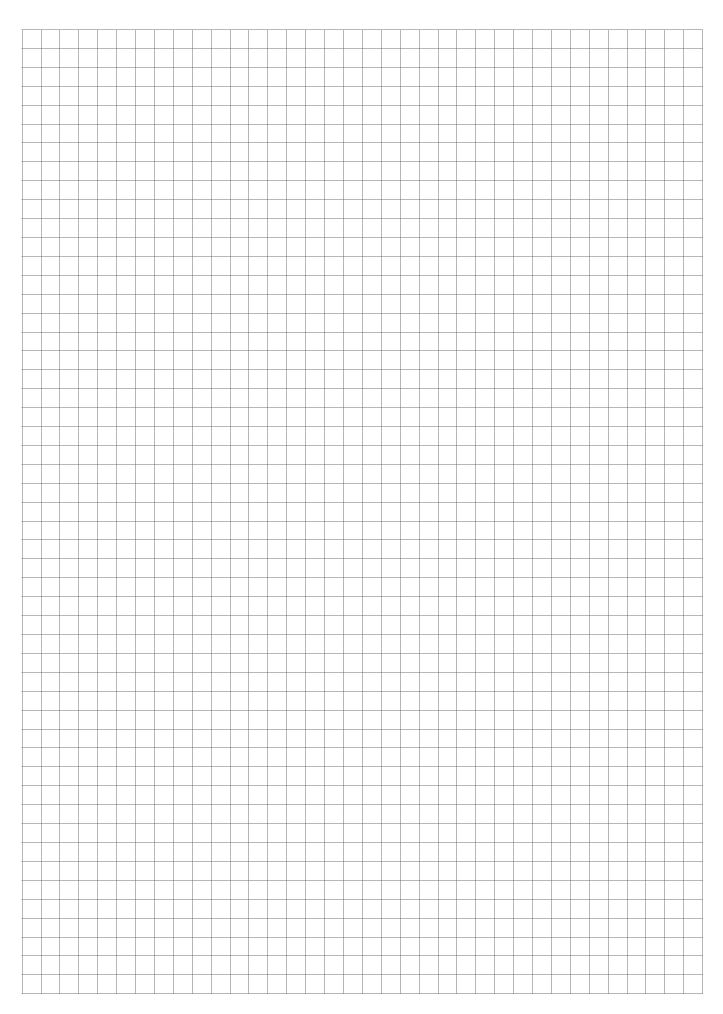




















# **▶** Connecting material



Tubular cable lugs and connectors blue connection - Cu



Tubular cable lugs and connectors - Ni



Compression cable lugs and connectors acc. to DIN - AI



Cable end-sleeves



Tubular cable lugs and connectors - Cu, standard type



Compression cable lugs and connectors acc. to DIN - Cu



Compression cable lugs and connectors for Aldrey cables



Twin cable end-sleeves



Insulated cable lugs and connectors; standard type



Compression cable lugs, double crimp — Cu



Compression cable lugs and connectors for AI/St cables



Insulated cable connections



Tubular cable lugs and connectors for fine stranded conductors



Solderless terminals, connectors and pin terminals acc. to DIN - Cu



Compression cable lugs and connectors - AI/Cu



Non-insulated receptacles



Tubular cable lugs and connectors for solid conductors



Insulated solderless terminals



C-clamps



Tubular cable lugs and connectors - stainless steel



Sleeves for compacted conductors and sector shaped conductors - Cu



H-clamps

#### **▶** Type of cables



Solid conductor (class 1 according acc. to DIN EN 60228)



Fine stranded conductor (class 5 acc. to DIN EN 60228)



Solid sector shaped conductor 90 ° (class 1 acc. to DIN EN 60228)



Conductor for overhead lines (DIN EN 50182) made of aluminium / steel



Multi-stranded conductor (class 2 acc. to DIN EN 60228)



Superfine stranded conductor (class 6 acc. to DIN EN 60228)



Compacted multi-stranded sector shaped conductor 120 ° (class 2 acc. to DIN EN 60228)



Copper conductor for overhead lines (DIN 48201-1) and aluminium or aluminium alloy conductors (DIN EN 50182)



Compacted multi-stranded conductor (class 2 acc. to DIN EN 60228)



Solid sector shaped conductor 120 ° (class 1 acc. to DIN EN 60228)



Compacted multi-stranded sector shaped conductor 90 ° (class 2 acc. to DIN EN 60228)

## **▶** Crimping profiles



Hexagonal crimping

Round crimping



Roll-crimping



Indent crimping



Four point crimping

Oval crimping



Quad-point indent crimping

Trapezoid crimping



Indent crimping tubular cable

Gas-tight oval crimping



Special trapezoid crimpina

Square crimping



Indent crimping cable end-sleeves



Indent cimping compression cable lugs

# Crimping tools

luas



Centering system



Indent crimping



Synchronised die selection

## **▶** Measuring instruments



Measuring Category I



TRUE RMS effective value measurement





VDE

▶ Test mark





IEC







DET NORSKE VERITAS



IEC 60900





German Lloyd



Measuring Category II Measuring Category III



MeasuringCategory IV



Lifetime Warranty













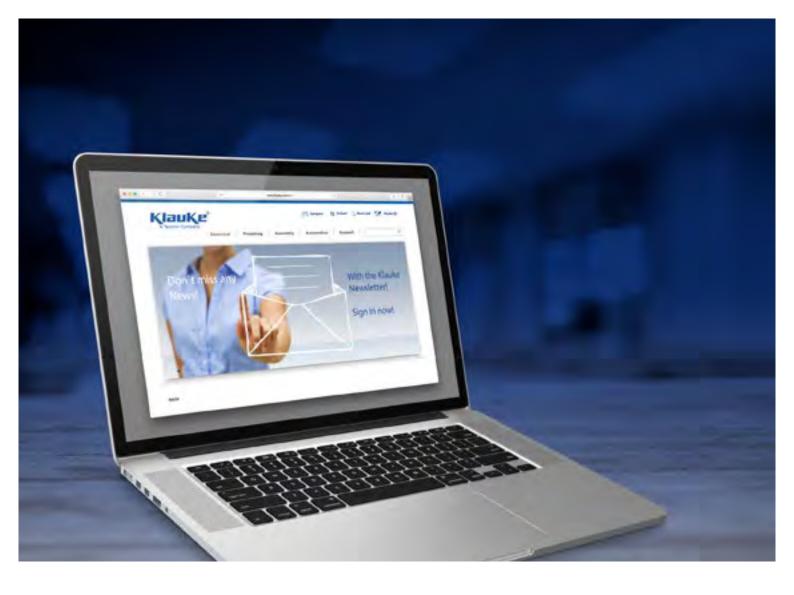
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