




Köco

KÖSTER & CO



**EVOLUTION
INDUSTRIAL
FASTENING
TECHNOLOGY**

Setting new standards in the Studwelding and Fastening Technology

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KÖCO SETS NEW STANDARDS IN THE FASTENING TECHNO LOGY. ■

KÖCO sets new standards in the fastening technology.

Design the future now with product solutions from KÖCO. Mumbai, London, Shanghai or Moscow – our studs and stud welding technology are applied worldwide wherever secure joints are in demand. We are your partner for stud welding technology and set the standards worldwide. Strong innovations are the basis for market-driven solutions.

Using our own developments in the fields of materials, forming technology and stud welding technology, we solve the fastening technology problems of our clients across a wide variety of industries.

Working together with external partners in the fields of industry and research, we implement solutions that prove themselves in practice.

OWN STUD PRODUCTION FOR MORE THEN 60 YEARS. ■

Own stud production for more then 60 years.

There is a long tradition of welding studs in KÖCO. Since 1952 we are producing threaded studs, shear connectors, unthreaded studs, studs with internal thread, boiler tube studs and heat- and scale-resistant welding studs of diameter 3-25 mm from many different materials.

KÖCO Threaded Studs K 800 – similar to strength category 8.8K.

As the only manufacturer worldwide, KÖCO can supply threaded studs with a minimum yield strength of 640 N/mm²!

SAFETY & INNOVATION ■

Safety & Innovation.

Köster & Co. is dedicated to the maxim Safety & Innovation. For you as user of KÖCO stud welding technology and welding studs, this means the safety of being able to rely on raw materials, documented & certified fabrication processes as well as high-performance logistics. KÖCO customers know that they can rely on the highest dependability when planning projects and on-going further development of already deployed products. Partnership in its best form.

INNOVATION

Collaboration with universities with a view to part geometries in relation to new materials. Goal here is the definition of new material qualities with increased benefit for deployment.

For example, KÖCO supplies S235J2+C470 as standard material for all shear connector types DIN EN ISO 13918. That means an average of 10 – 20 % higher tensile strength for the static design of steel subassemblies. A real positive aspect in structural planning is being able to calculate with reduced numbers of studs. Furthermore, shear connectors demonstrate notch impact toughness down to as far as $-40\text{ }^{\circ}\text{C}$. And thereby we can guarantee deployment in extreme climate zones.

BASIC MATERIAL

Only special steels are sourced & processed for coldworking, taken exclusively from German and West-European steel production. All in all about 6,500 tons per year.

PRODUCTION FACILITIES

We make use of 4 to 6-step cold forming processes, with up to 550 tons press capacity and with up to 240 mm lengths and shaft diameters between 5 and 32 mm.

ABILITY TO DELIVER

Ability to deliver is guaranteed by 100% company own-production, i.e. control over own-production facilities. All fabrication processes are carried out on our own premises. Documentation is according to works standard or customer specs.

KÖCO'S APPLICATION ACTIVITIES ARE BUNDLED UP IN 6 COMPETENCE AREAS. ■

Köco's application activities are bundled up
in 6 competence areas.

- Structural Engineering / Steel Construction
- Power Plants
- Vehicle Construction / Rail Vehicles
- Mechanical Engineering
- Ship-Building
- Refractory Construction



#STRUCTURAL ENGINEERING
#STEEL CONSTRUCTION

RELIABILITY AND DURABILITY

Stud welding technology is used in many industries. KÖCO is much more than a manufacturer of studs and stud welding equipment. Being an innovative and competent supplier with a long-time experience.

Besides the operation in these core sectors, KÖCOs outstanding technology can freely be combined with new applications. We continuously enhance our products and develop new markets with visions and possibly new solutions for you.



#POWER PLANTS

HIGH STANDARD OF QUALITY AND SAFETY

KÖCO studs are reliable anchoring elements in power plant construction with suitable stud welding equipment for absolute product reliability and ultimate safety in power plants. Due to this reason, we produce different studs and anchoring elements exactly for your individual needs.

For an on-site support our global distribution network stands by your side – no matter where you are.

#VEHICLE CONSTRUCTION
#RAIL VEHICLES

HIGH-PERFORMANCE MOBILITY THROUGH ROBUST HIGH-END THREADED STUDS TECHNOLOGY

It's highly important to depend on longevity and superb product safety just in the production of vehicle construction and railway vehicle manufacturing. Whether threaded bolts, High-strength bolts, welding machines or anchoring elements - the optimum reliability of the products is in our focus.

In our development and construction centre our engineers develop individual made products together with you specially for small batch series. Our products are subjected to stringent quality controls as well as documentation requirements and can be retraced back up to the material supplier. This guarantees the necessary safety.

#MECHANICAL ENGINEERING

EFFICIENT ENGINEERING WITH WELDING STUDS

With our long-time experience in mechanical engineering, our focus is to support you regarding the development and layout of the required studs.

Thanks to the strong consulting and developing skills of our engineers, we will implement individual product solutions together with you. Many certificates confirm our quality and support you with the necessary reliability.

#SHIP-BUILDING

GUARANTEED IMPLEMENTATION OF ALL CURRENT TECHNICAL SPECIFICATIONS AND STANDARDS

KÖCO Stud Welding Technique is a warrant for full reliability. As a long-term experienced partner for the ship building industries, KÖCO feels obliged to observe the current technical specifications and rules.

Köco's products make you play safe to help you find solutions and devices for any connecting application in the fields of ship building. KÖCO offers excellent quality – fast and flexible manufacture – and full compliance with agreed delivery dates. Products to fully meet your requirements.

With our long-time partner the company Hilbig GmbH, the specialist in ship-building industry, we guarantee a huge availability of experience and service.

#REFRACTORY CONSTRUCTION

STUD WELDING COMPONENTS MADE OF HEAT-RESISTANT MATERIALS

In the field of refractory applications e.g. in furnace and boiler building we know the demands of our customers as well: special, high temperature resistant materials and technical process know-how are essentially.

We produce individual refractory anchoring systems with all necessary material textures.

SPECIAL FIELDS & CUSTOMIZED SOLUTIONS. ■

Special fields & customized solutions.

- Stud welding element on a sheet-metal plate
- Cold formed parts to customer requirements
- Finishing operation
- Heat-treatment and surface coating
- Stud welding equipment to customer applications
- Köco shear connectors welded on anchor plates
- And many applications and combinations more...

#SPECIAL FIELDS

Customized solutions are our challenge.

KÖCO is much more than a manufacturer of Studs and Stud Welding Equipment. Being an innovative and competent supplier with a long-time experience KÖCO provides you with a wide range of solutions for all kinds of applications.

Besides the operation in these core sectors, KÖCOs outstanding technology can freely be combined with new applications. Stud welding elements on a sheet-metal plate, cold formed parts to customer requirements or stud welding equipment to customer applications - in our application and development department our engineers will implement individual product solutions together with you.

WELDING MACHINES.

series

Top performed compact equipment for drawn arc stud welding.

For more than 60 years now KÖCO has been involved in the international market with its own production of stud welding machines and welding guns. In the field of drawn arc stud welding, dominance has become a way of life for the series ELOTOP and INVERTER for industrial applications in all industries.

We accompany documentation obligations of safety-relevant components with welding data documentation and data interfaces. For mobile tasks e.g. on ship yards the inverter technology is the ideal equipment. When working on thin sheet deployments with the tip ignition process then our series KST is ideally suited.

series

ELOTOP INVERTER





ELOTOP 510

- Weldable stud range 3–8 mm
- Max. current 450 A
- Max. time 460 ms
- Robust housing



ELOTOP 810

- Weldable stud range 3–12 mm
- Max. current 800 A
- Max. time 600 ms
- Robust housing

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–8
Short cycle stud welding, weldable stud range Ø (mm)	3–6
Stud welding with shielding gas, weldable stud range Ø (mm)	3–8
Max. current (A)	450
Time setting range (ms)	20–460
Max. stud/min. at ... Ø (mm)	15 / 3 4 / 8
Mains connection 50/60 Hz, 3-phase (V)	400
Mains plug at 400 V (A)	32
4-wire mains cable at 400 V (m/mm ²)	5 / 2,5
Mains plug at 400 V (A)	16
Mains power consumption at ...% ED (kVA)	≈ 1 29
Tolerance range mains voltage (%)	- 15 / + 6
Class of protection	IP 23
Housing dimensions (L x B x H) mm	375 x 220 x 360
Weight (kg)	approx. 25

- Fully controlled power source with thyristor bridge
- For threaded studs up to 8 mm
- Designed for welding on building sites
- Self-diagnosis: Overheating and mains phase failure, short circuit control, malfunction of pilot arc
- Microprocessor controlled
- Repeat cycle lock
- Mains connection special voltages (V): optional
- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Stud counter: standard

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–12
Short cycle stud welding, weldable stud range Ø (mm)	3–8
Stud welding with shielding gas, weldable stud range Ø (mm)	3–10
Max. current (A)	800
Current setting range (A)	50–750
Time setting range (ms)	20–600
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø (mm)	32 / 3 3 / 12
Mains connection 50/60 Hz, 3-phase (V)	230/400
Mains plug at 400 V (A)	32
4-wire mains cable at 400 V (m/mm ²)	5/4
Mains plug at 400 V (A)	35/25
Mains power consumption at ...% ED (kVA)	1,4/3,2/100 55/38/7
Tolerance range mains voltage (%)	- 15 / + 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	555 x 308 x 535
Handle	2
Lifting eye	2
Weight (kg)	approx. 65

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection special voltages (V): optional
- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages



ELOTOP 1010

- Weldable stud range 3–14 mm
- Max. current 1100 A
- Max. time 1000 ms
- Robust housing



ELOTOP 1710

- Weldable stud range 3–20 mm
- Max. current 1800 A
- Max. time 1500 ms
- Robust housing

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–14
Short cycle stud welding, weldable stud range Ø (mm)	3–10
Stud welding with shielding gas, weldable stud range Ø (mm)	3–12
Max. current (A)	1100
Current setting range (A)	150–1000
Time setting range (ms)	20–1000
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø	49 / 3 4 / 14
Mains connection 50/60 Hz, 3-phase	230 / 400
Mains plug at 400 V	32
4-wire mains cable at 400 V	5/4
Mains plug at 400 V (A)	50/35
Mains power consumption at ...% ED (kVA)	2,5/7/100 73/43/12
Tolerance range mains voltage	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	555 x 308 x 535
Swivel castors/fixed castors	2/2
Handle	2
Lifting eye	2
Weight (kg)	approx. 85

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–20
Short cycle stud welding, weldable stud range Ø (mm)	3–12
Stud welding with shielding gas, weldable stud range Ø (mm)	3–16
Max. current (A)	1800
Current setting range (A)	150–1600
Time setting range (ms)	20–1500
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø	50 / 3 2 / 20
Mains connection 50/60 Hz, 3-phase	230/400
Mains plug at 400 V (A)	63
4-wire mains cable at 400 V	5/10
Mains plug at 400 V (A)	100/63
Mains power consumption at ...% ED	2,25/9/100 121/59/17
Tolerance range mains voltage	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	700 x 415 x 660
Swivel castors/fixed castors	2/2
Handle	1
Lifting eye	2
Weight (kg)	approx. 160

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection Special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment: optional
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages



ELOTOP 2010

- Weldable stud range 3–22 mm
- Max. current 2300 A
- Max. time 1500 ms
- Robust housing



ELOTOP 3010

- Weldable stud range 6–25 mm
- Max. current 3500 A
- Max. time 2000 ms
- Robust housing

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–22
Short cycle stud welding, weldable stud range Ø (mm)	3–12
Stud welding with shielding gas, weldable stud range Ø (mm)	3–16
Max. current (A)	2300
Current setting range (A)	300–2000
Time setting range (ms)	20–1500
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø (mm)	52 / 3 4 / 22
Mains connection 50/60 Hz, 3-phase (V)	230/400
Mains plug at 400 V (A)	63/125
4-wire mains cable at 400 V (m/mm ²)	5/16
Mains plug at 400 V (A)	160/63 (80)
Mains power consumption at ...% ED (kVA)	2,5/7/100 156/93/25
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	805 x 430 x 730
Swivel castors/fixed castors	2/2
Handle	1
Lifting eye	2
Weight (kg)	approx. 190

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment: optional
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	6–25
Short cycle stud welding, weldable stud range Ø (mm)	3–12
Stud welding with shielding gas, weldable stud range Ø (mm)	3–16
Max. current (A)	3500
Current setting range (A)	300–2600
Time setting range (ms)	20–2000
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø (mm)	50/6 6/25
Mains connection 50/60 Hz, 3-phase (V)	230/400
Mains plug at 400 V (A)	125
4-wire mains cable at 400 V (m/mm ²)	5/16
Mains plug at 400 V (A)	80/100
Mains power consumption at ...% ED (kVA)	8/13/100 187/145/52
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	950 x 605 x 860
Swivel castors/fixed castors	2/2
Handle	1
Lifting eye	2
Weight (kg)	approx. 350

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment: optional
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages



ELOTOP 3020

- Weldable stud range 6–25 mm
- Max. current 3500 A
- Max. time 2000 ms
- Robust housing



ELOTOP 6020

- Weldable stud range 6–25 mm
- Max. current 3500 A
- Max. time 2000 ms
- Robust housing

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	6–25
Short cycle stud welding, weldable stud range Ø (mm)	3–12
Stud welding with shielding gas, weldable stud range Ø (mm)	3–16
Max. current (A)	3500
Current setting range (A)	300–2600
Time setting range (ms)	20–2000
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø (mm)	50/6 6/25
Mains connection 50/60 Hz, 3-phase	230/400
Mains plug at 400 V (A)	125
4-wire mains cable at 400 V (m/mm ²)	5/16
Mains plug at 400 V (A)	80/100
Mains power consumption at ...% ED (kVA)	9/16/100 187/145/52
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	1150 x 610 x 905
Swivel castors/fixed castors	2/2
Handle	1
Lifting eye	2
Weight (kg)	approx. 390

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection Special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment: optional
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages
- Two gun connection for stud welding guns

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	6–25
Short cycle stud welding, weldable stud range Ø (mm)	3–12
Stud welding with shielding gas, weldable stud range Ø (mm)	3–16
Max. current (A)	3500
Current setting range (A)	300–2600
Time setting range (ms)	20–2000
Gas pre-flow time (ms)	100–2000
Storage of parameters	20
Max. stud/min. at ... Ø (mm)	55 / 6 7 / 25
Mains connection 50/60 Hz, 3-phase	230/400
Mains plug at 400 V (A)	125
4-wire mains cable at 400 V (m/mm ²)	5 / 16
Mains plug at 400 V (A)	80/100
Mains power consumption at ...% ED (kVA)	10/17/100 225/173/62
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) (mm)	920 x 610 x 975
Swivel castors/fixed castors	2/2
Handle	1
Lifting eye	2
Weight (kg)	approx. 490

- Self-diagnosis: Overheating, short circuit control, mains phase failure and malfunction of pilot arc
- Fully controlled power source with thyristor bridge
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Mains connection Special voltages (V): optional

- Dust and moisture protection of control unit
- Steel housing, powder-coated
- Shielding gas equipment: optional
- Stud counter: standard
- Interface for automatic components: optional
- Menu: selection of various languages
- Two gun connection for stud welding guns



INVERTER 905i

- Weldable stud range 2–12 mm
- Max. current 800 A
- Max. time 800 ms
- Low weight
- Welding energy accurately adjustable



INVERTER 1305i

- Weldable stud range 3–16 mm
- Max. current 1.300 A
- Max. time 1.000 ms
- Low weight
- Welding energy accurately adjustable

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	2–12
Short cycle stud welding, weldable stud range Ø (mm)	2–8
Stud welding with shielding gas, weldable stud range Ø (mm)	2–10
Max. current (A)	800
Current setting range (A)	100–800
Time setting range (ms)	1–800
Gas pre-flow time (ms)	10–2000
Max. stud/min. at ... Ø (mm)	4 / 12 9 / 10
Storage of parameters	20
Mains connection 50/60 Hz	400
Mains plug at 400 V (A)	32
4-wire mains cable at 400 V (m/mm ²)	5/4
Mains plug at 400 V (A)	min. 20
Mains power consumption at ...% ED (kVA)	3/45 7,5/28
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	410 x 220 x 250
Weight (kg)	approx. 17

- Particularly suitable for short-cycle-stud welding
- Particularly suitable for thin work-pieces
- Stepless, exact adjustment of welding current and time
- Ideal for mobile tasks
- Designed for welding on building sites
- Plain text on LC-display
- Operating interface: choice between 4 languages: German, English, French, Italian
- Shielding gas equipment: standard
- Self-diagnosis: overheating, short circuit control, failure and malfunction of pilot arc
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Steel housing, powder-coated
- Shielding gas equipment
- Interface for automatic components: optional
- Stud counter

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3–16
Short cycle stud welding, weldable stud range Ø (mm)	3–8
Stud welding with shielding gas, weldable stud range Ø (mm)	2–16
Max. current (A)	1300
Current setting range (A)	200–1300
Time setting range (ms)	1–1000
Storage of parameters for Current, Time and Gas pre-flow time	20
Max. stud/min. at ... Ø (mm)	2 / 16 5 / 12
Mains connection 50/60 Hz, (V)	3x400
Mains plug at 400 V (A)	32
4-wire mains cable at 400 V (m/mm ²)	5/6
Mains plug at 230/400 V (A)	35
Mains power consumption at ...% ED (kVA)	2/69, 4,5/45, 100/9,5
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	550 x 175 x 395
Weight (kg)	approx. 24
Gas pre-flow time (ms)	100–2000

- Particularly suitable for short-cycle-stud welding
- Particularly suitable for thin work-pieces
- Stepless, exact adjustment of welding current and time
- Ideal for mobile tasks
- Designed for welding on building sites
- Plain text on LC-display
- Operating interface: choice between 4 languages: German, English, French, Italian
- Shielding gas equipment: standard
- Self-diagnosis: overheating, short circuit control, failure and malfunction of pilot arc
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Steel housing, powder-coated
- Interface for automatic components: optional
- Stud counter



INVERTER 1805i

- Weldable stud range 2–19 mm
- Max. current 1600 A
- Max. time setting 1000 ms
- Low weight
- Welding energy accurately adjustable



INVERTER 2305i

- Weldable stud range 2–25 mm
- Max. current 2300 A
- Max. time setting 1–1500 ms
- Weight only 63 kg

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	2–19
Short cycle stud welding, weldable stud range Ø (mm)	2–10
Stud welding with shielding gas, weldable stud range Ø (mm)	2–12
Max. current (A)	1600
Current setting range (A)	200–1600
Time setting range (ms)	1–1000
Storage of parameters for current, time and Gas pre-flow time	20
Max. stud/min. at ... Ø (mm)	2 / 19 6 / 16
Mains connection 50/60 Hz, 3-phase (V)	400
Mains plug at 400 V (A)	63
4-wire mains cable at 400 V (m/mm ²)	5/10
Mains plug at 230/400 V (A)	min. 50
Mains power consumption at ...% ED (kVA)	3/90, 6/65, 100/7,5
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	600 x 270 x 410
Swivel castors/fixed castors	2/2
Handle	2
Weight (kg)	approx. 36
Gas pre-flow time (ms)	10–2000

- Particularly suitable for short-cycle-stud welding
- Particularly suitable for thin work-pieces
- Stepless, exact adjustment of welding current and time
- Ideal for mobile tasks
- Designed for welding on building sites
- Plain text on LC-display
- Operating interface: choice between 4 languages: German, English, French, Italian
- Shielding gas equipment: standard
- Self-diagnosis: overheating, short circuit control, failure and malfunction of pilot arc
- Microprocessor controlled
- Constant current regulation
- Repeat cycle lock
- Steel housing, powder-coated
- Interface for automatic components: optional
- Stud counter

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	2–25
Short cycle stud welding, weldable stud range Ø (mm)	12
Stud welding with shielding gas, weldable stud range Ø (mm)	2–12 (16)
Max. current (A)	2300
Current setting range (A)	200–2300
Time setting range (ms)	1–1500
Gas pre-flow time (ms)	100–2000
Storage of parameters for current, time and Gas pre-flow time	20
Max. stud/min. at ... Ø (mm)	5 / 22 8 / 19
Mains connection 50/60 Hz, 3-phase (V)	400
Power plug (A)	63 / optional 125
Power supply cable 4-wire (m/mm ²)	5/16
Mains fusing time-lag (A)	63/80
Mains power consumption at ...% ED (kVA)	8/117, 11/90 100/17
Max. welding cable length at ... A weld current and at ... weld cable cross section (m/mm ²)	2000/10 at 95
Tolerance range mains voltage (%)	- 15/+ 6
Class of protection	IP 23
Cooling	F
Housing dimensions (L x B x H) mm	800 x 310 x 535
Swivel castors/fixed castors	2/2
Handle	2
Lifting eyes	2
Weight (kg)	approx. 63
Memory connection	USB

- Ideal for mobile tasks
- Designed for welding on building sites
- Plain text on LC-display
- Self-diagnosis: overheating, short circuit control, failure and malfunction of pilot arc
- Menu: selection of various languages
- Constant current regulation
- Repeat cycle lock
- Steel housing, powder-coated
- Shielding gas equipment: standard
- Stud counter (Daily and total counter)
- Process control
- Perfectly tuned for weld guns of the SK- and K-series



KST 108

- Stud welding equipment with capacitor discharge
- Suitable for welding steel, stainless steel, aluminium and brass
- Weldable stud range 3-10 mm stud diameter
- Continuously adjustable charging voltage
- Digital display of charging voltage
- Weight only 9,9 kg
- Steel housing, powder-coated



KST 110

- Stud welding equipment with capacitor discharge
- Suitable for welding steel, stainless steel, aluminium and brass
- Weldable stud range 3-10 mm stud diameter
- Continuously adjustable charging voltage
- Digital display of charging voltage
- Weight only 9,9 kg
- Steel housing, powder-coated

Technical data

Weldable stud range Ø (mm)	3-8
Weld rate (pieces studs... /min)	M 8/10, M 6/15
Capacitance (µF)	66000
Mains connectionsspannung (V)	115/230
Charging voltage (V)	50-200
Main fusing, time-lag (A)	6,3
Frequency (Hz)	50/60
Power consumption (W)	700
Dimensions (LxBxH) mm (without handle and appliance leg)	330x190x280
Weight approx. (kg)	8,9
Class of protection	IP23
Protection class	1
Cooling	F
Working temperature range (°C)	0-45

Technical data

Weldable stud range Ø (mm)	3-10
Weld rate (pieces studs... /min)	M 10/8, M 6/15
Capacitance (µF)	99000
Mains connectionsspannung (V)	115/230
Charging voltage (V)	50-200
Main fusing, time-lag (A)	6,3
Frequency (Hz)	50/60
Power consumption (W)	700
Dimensions (LxBxH) mm (without handle and appliance leg)	330x190x280
Weight approx. (kg)	9,9
Class of protection	IP23
Protection class	1
Cooling	F
Working temperature range (°C)	0-45

WELDING GUNS.



Series

Series

Extensive choice of welding guns for different processes.

For 60 years KÖCO has been globally active in the field of Stud Welding and Fastening Technology with its own production of Stud Welding Equipment, Stud Welding Torches, Welding Studs, Shear Connectors and Cold Formed Parts.

CLASSIC
ESP



CLASSIC SK 14

- Weldable stud range 4-12 mm
- Resistant body
- Designed for welding on building sites



CLASSIC SK 14-ISO

- Weldable stud range 3-12 mm
- Resistant body
- Designed for welding on building sites

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	4-12
Short cycle stud welding, weldable stud range Ø (mm)	3-12
Stud welding with shielding gas, weldable stud range Ø (mm)	3-12
Standard support with ...legs	2
Lifting range from ... to ...	1-4,5
Welding cable (m/mm ²)	5/35
Control cable (m/mm ²)	5/4 x 1,0
Length (excluding chuck) (mm)	185
Body Ø (mm)	approx. 50
Height (including handle) (mm)	150
Weight (approx. kg) excluding cables	approx. 0,9

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	3-12
Short cycle stud welding, weldable stud range Ø (mm)	3-12
Stud welding with shielding gas, weldable stud range Ø (mm)	3-12
Standard support with ...legs	2
Lifting range from ... to ...	1-4,5
Welding cable (m/mm ²)	5/35
Control cable (m/mm ²)	5/4 x 1,0
Length (excluding chuck) (mm)	205
Body Ø (mm)	approx. 50
Height (including handle) (mm)	150
Weight (approx. kg) excluding cables	approx. 1,0

- The model SK14 is a robust stud welding gun, designed for welding of threaded studs with ceramic ferrules ø 4 - 12 mm
- Ideal for short cycle stud welding ø 4-12 mm
- Best for stud welding using shielding gas ø 3 - 12 mm
- Lifting range 1 - 4,5 mm
- Standard support with 2 legs
- High repeatability
- Body Polyamid
- Control cable plug (4 wire)





CLASSIC SK 15

- Weldable stud range 4-12 mm
- Resistant body
- Designed for welding on building sites



CLASSIC K 22

- Weldable stud range 4-14 mm
- Resistant body
- Designed for welding on building sites

Technical data	
Stud welding with ceramic ferrule, weldable stud range Ø (mm)	4-12
Short cycle stud welding, weldable stud range Ø (mm)	3-12
Stud welding with shielding gas, weldable stud range Ø (mm)	3-12
Standard support with ...legs	2
Lifting range from ... to ...	1-4,5
Welding cable (m/mm ²)	5 /35
Control cable (m/mm ²)	5 /4 x 1,0
Length (excluding chuck) (mm)	205
Body Ø (mm) (mm)	approx. 50
Height (including handle) (mm)	150
Weight (approx. kg) excluding cables	approx. 1,0

- The model SK15 is a robust stud welding gun, designed for welding of threaded studs with ceramic ferrules Ø 4 - 12 mm
- Ideal for short cycle stud welding Ø 3 - 12 mm
- Best for stud welding using shielding gas Ø 3 - 12 mm
- Lifting range 1 - 4,5 mm
- Standard support with 2 legs
- High repeatability
- Body made of fibre-glass reinforced polyamide
- Control cable plug (4 wire)
- Optional Integrated shielding gas device

Technical data	
Stud welding with ceramic ferrule, weldable stud range Ø (mm)	4-14
Short cycle stud welding, weldable stud range Ø (mm)	6-12
Stud welding with shielding gas, weldable stud range Ø (mm)	3-16
Standard support with ...legs	2
Lifting range from ... to ...	1-4,5
Welding cable (m/mm ²)	2/50
Control cable (m/mm ²)	2/4 x 1,0
Length (excluding chuck) (mm)	175
Body Ø (mm) (mm)	approx. 60
Height (including handle) (mm)	165
Weight (approx. kg) excluding cables	approx. 1,3

- Best for stud welding using shielding gas Ø 3 - 16 mm
- High repeatability
- Standard support with 2 legs
- Body made of fibre-glass reinforced polyamide
- Compensation for stud length variations up to 8mm
- Control cable plug (4 wire)
- Stud welding with shielding gas: optional



CLASSIC K 22-D

- Weldable stud range 4–19 mm
- Adjustable plunge damper
- Resistant body
- Designed for welding on building sites



CLASSIC K 24

- Weldable stud range 13–22 mm
- Adjustable plunge damper
- Robust housing
- Designed for welding on building sites

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	4–19
Standard support with ...legs	2
Lifting range from ... to ...	1–4,5
Welding cable (m/mm ²)	2/50
Control cable (m/mm ²)	2/4 x 1,0
Length (excluding chuck) (mm)	175
Body Ø (mm)	approx. 60
Height (including handle) mm	165
Weight (approx. kg) excluding cables	approx. 1,3

- Ideal for shear studs and threaded studs
- High repeatability
- Hydraulic plunge damper
- Standard support with 2 legs
- Body Polyamid
- Compensation for stud length variations up to 8mm
- Control cable plug (4 wire)
- Stud welding with shielding gas: optional

Technical data

Stud welding with ceramic ferrule, weldable stud range Ø (mm)	13–22
Standard support with ...legs	2
Lifting range from ... to ...	2,5–6
Welding cable (m/mm ²)	2/95
Control cable (m/mm ²)	2/4 x 1,0
Length (excluding chuck) (mm)	250
Body Ø (mm)	approx. 60
Height (including handle) (mm)	220
Weight (approx. kg) excluding cables	approx. 1,4

- The model K 24 is a robust stud welding gun, especially for studs Ø 19 - 22 mm
- Ideal for welding shear connectors
- Ideal for through-deck-welding
- High repeatability
- Hydraulic plunge damper
- Standard support with 2 legs
- Body made of fibre-glass reinforced polyamide
- Compensation for stud length variations up to 8mm
- Control cable plug (4 wire)
- Stud welding with shielding gas: optional



CLASSIC K 26

- Weldable stud range 13–25 mm
- Adjustable plunge damper
- Robust housing
- Designed for welding on building sites



ESP 1 K

- Weldable stud range 3–10 mm
- Ideal for KÖCO Stud Welding Equipment KST
- Ergonomic body

Technical data	
Stud welding with ceramic ferrule, weldable stud range Ø (mm)	13–25
Standard support with ...legs	3
Lifting range from ... to ...	2,5–6
Welding cable (m/mm ²)	2/120
Control cable (m/mm ²)	2 /4 x 1,0
Length (excluding chuck) (mm)	300
Body Ø (mm)	approx. 63
Height (including handle) mm	240
Weight (approx. kg) excluding cables	approx. 2,6

Technical data	
Process variants	with contact
Welding / control cable (length) m	4
Body PA GF30	black
Length (excluding chuck) mm	165
Body Ø (mm)	approx. 40
Height (including handle) mm	130
Weight (approx. kg) excluding cables	approx. 0,625

- The model K 26 is a robust stud welding gun, especially for studs Ø 22 – 25 mm
- Ideal for welding shear connectors SD 25 mm
- Ideal for through-deck-welding
- Most suitable for long shear studs
- Adjustable hydraulic plunge damper
- Standard support with 3 legs
- Body: fibre-glass reinforced polyamide
- Lifting ring system with length compensation up to 8mm
- Control cable plug (4 wire)
- Optimal Integrated shielding gas device



ESP 1 S

- Weldable stud range 3–10 mm
- Ideal for KÖCO Stud Welding Equipment KST
- Ergonomic body

Technical data

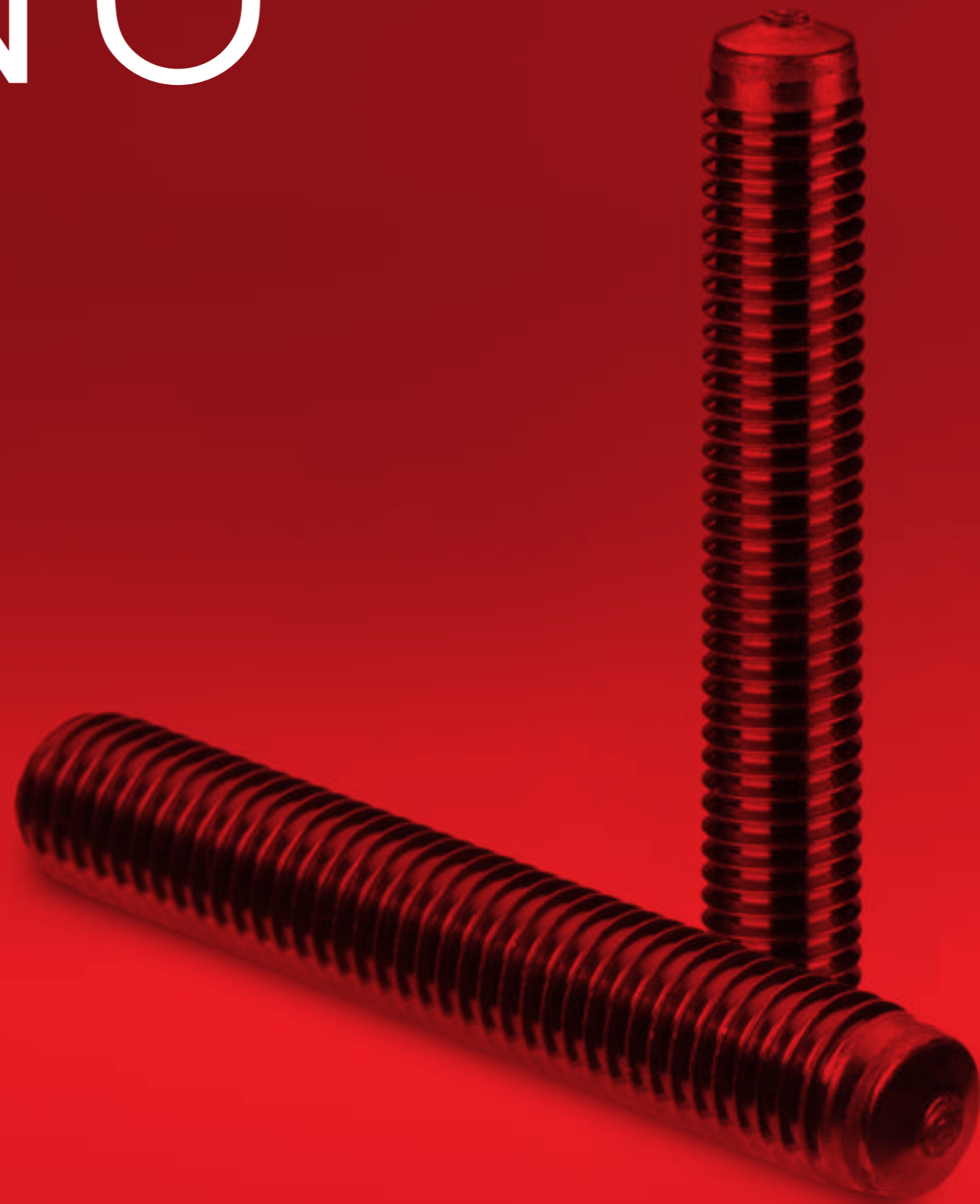
Process variants	with gap
Welding / control cable (length) m	4
Body PA GF30	black
Length (excluding chuck) mm	165
Body (Ømm)	approx. 40
Height (including handle) mm	130
Weight (approx. kg) excluding cables	approx. 0,730



WELDING STUDS.

Welding studs for safe fastening.

There is a long tradition of welding studs in KÖCO. Since 1952 we are producing threaded studs, shear connectors, unthreaded studs, studs with internal thread, boiler tube studs and heat- and scale-resistant welding studs of diameter 3-25 mm from many different materials.



TECHNICAL DATA FOR KÖCO-WELDING STUDS

All KÖCO welding studs are made from materials suitable for stud welding. Dimensions and design of our standard products conform to EN ISO 13918, any non-standard products supplied will be produced to correspond to the norm. If you wish to use a type of stud other than those listed, please send us your enquiry and consult our specialists about your welding task.

KÖCO welding studs are available in different materials. Upon request the properties of each can be documented by test report 2.2 or inspection certificate 3.1 or 3.2 [EN 10204].

Non-alloy structural steel:

KÖCO non-alloy structural steel welding studs are manufactured from S235 according to EN 10025:2005 with more stringent requirements for carbon content, degree of purity, grain size and surface properties. This makes the material ideally suited for stud welding. Through cold forming the material's tensile strength and yield strength are enhanced and a favourable grain structure is also achieved.

For threaded studs, pins, tapped studs and similar products, we guarantee mechanical properties according to EN ISO 898-1, property class 4.8.

Tensile strength R_m	≥ 420 N/mm ²
Yield strength R_{el}	≥ 340 N/mm ²
Elongation A_5	$\geq 14\%$

We supply shear connectors manufactured from S235J2+C470 or S355 according to EN 10025:2005 with the following mechanical properties:

Tensile strength R_m	≥ 470 N/mm ²
Tensile strength R_m S355	≥ 510 N/mm ²
Yield strength R_{el}	≥ 375 N/mm ²
Elongation A_5	$\geq 15\%$

KÖCO shear connectors exceed the requirements of EN ISO 13918. The CE-conformity with the European Technical Approval ETA-03/0039 dated May 31, 2010 by Deutsches Institut für Bautechnik (DIBt, German Institute for Building Engineering) has been demonstrated.



Stainless steel:

We supply KÖCO threaded studs, pins, tapped studs and similar products made from 1.4301/03 according to DIN EN ISO 3506-1.

Tensile strength R_m	≥ 500 N/mm ²
Yield point $R_{p0,2}$	≥ 210 N/mm ²
Elongation A_5	$\geq 25\%$

KÖCO welding studs made from stainless and acid-resistant steels such as 1.4541, 1.4571, 1.4401, 1.4404 in various property classes are available upon request.

We supply stainless steel shear connectors made of 1.4301 in accordance with EN 10088:2005 with the following mechanical properties:

Tensile strength R_m	540-780 N/mm ²
Yield point $R_{p0,2}$	≥ 350 N/mm ²

The CE-conformity with the European Technical Approval ETA-03/0039 dated May 31, 2010 by Deutsches Institut für Bautechnik (DIBt, German Institute for Building Engineering) has been demonstrated.

Heat- and scale-resistant KÖCO welding studs are manufactured from 1.4713, 1.4742, 1.4762, 1.4828, 1.4841, 2.4851 or 2.4856. Other materials are available upon request.

Stud dimensions:

Generally, the nominal length is the length of the stud "after welding". The studs delivered are 1 to 5 mm longer than their specified nominal length (except KÖCO KKS boiler tube studs and KÖCO KHS concave pins). This enables the welding parameters to be checked by measuring the stud length after welding.

Threads:

The threads of KÖCO studs are cold rolled and manufactured in accordance with DIN 13-20, tolerance 6g. Non-standard threads are available upon request.



Flux:

KÖCO studs for welding with ceramic ferrules are provided with an aluminium tip as required by the welding process, to facilitate the ignition of the arc, to stabilize the arc and to deoxidize the welding pool. The correct amount of flux used is an essential factor in obtaining perfect welding results.

Surface protection:

Unless specified otherwise, KÖCO welding studs are delivered uncoated. The manufacturing process requires surface coating of the wire, which cannot be removed from the stud shank but does not impair weldability.

The codes for materials and types of surface are given in the last three digits of the article number, according to the following table (excerpt):

001	Non-alloy structural steel, uncoated
002	Stainless steel 1.4301/03
005	A4-50
008	1.4713 (Sicromal 8)
009	1.4742 (Sicromal 10)
011	1.4828
012	1.4841
053	1.4845
018	16Mo3
013	2.4851 (Inconel 601)
054	19MnB4, hardened
062	K 800
057	2.4856 (Inconel 625)
101	4.8, A2L zinc-plated and yellow chrome-plated
100	4.8, A2K (zinc-plated) without Cr VI
103	4.8, C2E (copper-plated)
102	4.8, G2E (nickel-plated on copper-plated base)
112	4.8, flZnnc-600h without Cr VI zinc-flake coating

In the case of zinc-plated studs, the zinc coating is removed at the welding tip to prevent contamination of the welding pool.

Ceramic Ferrules:

The ceramic ferrules can be used only once. The ferrules required for welding are generally included in the delivery of the studs. Ceramic ferrules are not available without studs.

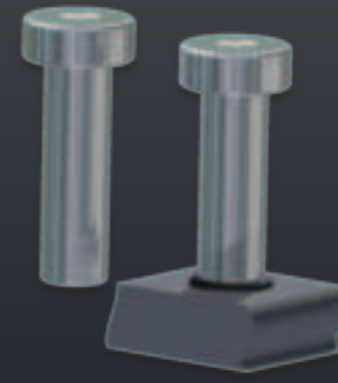
Weld collar:

In the course of stud welding a weld collar is formed where the stud is joined to the work-piece. Its dimensions depend on the welding parameters as well as the ceramic ferrule used. In this area threads, for example, cannot be utilised.

Ordering example:

KÖCO threaded stud PD M 20 x 100, material 4.8, weldable, uncoated: Article No. 001-0487-001, ceramic ferrule PF 20.

In case of other materials or surface coatings the last three digits of the article number must be changed as shown in the table above.



KÖCO SD

DIN EN ISO 13918/ETA-03/0039 Shearconnectors

- For steel components acc. to European Technical Approval ETA-03/0039 (except 6 and 12 mm).
- Different types (e.g. in 1.4301) upon request, many dimensions available.



d_1	l_2	h_4^1	d_3	d_3^1	h_3	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
6	35	2,5	13	8,5	5	016-0005-001	1,23	UF 6	350-0056-000	355-0031-000	360-0116-000
	50					016-0001-001	1,56				
	75					016-0003-001	2,12				
	100					016-0004-001	2,67				
10	30	2,5	13	8,5	7	016-0004-001	3,12	UF 10	350-0164-000	355-0033-000	360-0117-000
	50					016-0004-001	4,36				
	70					016-0004-001	5,90				
	100					016-0004-001	7,44				
	125					016-0004-001	8,98				
	150					016-0004-001	10,52				
12	30	3	25	17	8	016-0004-001	5,26	UF 12	350-0056-000	65-09-00	NS 20: 36-01-00
	35					016-0004-001	5,11				
13	50	3	25	17	8	016-0004-001	7,72	UF 13	350-0056-000	355-0035-000	360-0118-000
	75					016-0004-001	10,32				
	100					016-0004-001	15,53				
	125					016-0004-001	18,14				
	150					016-0004-001	20,74				
	175					016-0004-001	23,35				
	200					016-0004-001	25,59				
	225					016-0004-001	28,56				
	250					016-0004-001	33,77				
	300					016-0004-001	38,98				
	350					016-0004-001	44,19				
16	400	4,5	32	21	8	016-0004-001	45,90	UF 16	350-0060-000	355-0036-000	360-0119-000
	35					016-0004-001	9,79				
	50					016-0004-001	12,15				
	75					016-0004-001	16,10				
	100					016-0004-001	20,04				
	125					016-0004-001	23,99				
	150					016-0004-001	27,94				
	175					016-0004-001	31,88				
	200					016-0004-001	35,84				
	225					016-0004-001	29,77				
525	016-0004-001	47,67									

¹ h_4 and d_3 are approximate values.

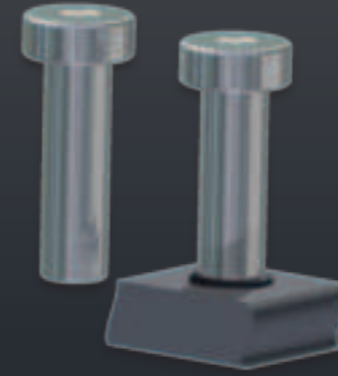




KÖCO SD

DIN EN ISO 13918/ETA-03/0039
Shearconnectors

- For steel components acc. to European Technical Approval ETA-03/0039 (except 6 and 12 mm).
- Different types (e.g. in 1.4301) upon request, many dimensions available.



KÖCO SD

DIN EN ISO 13918/ETA-03/0039
Shearconnectors

- For steel components acc. to European Technical Approval ETA-03/0039 (except 6 and 12 mm).
- Different types (e.g. in 1.4301) upon request, many dimensions available.



d_1	l_2	h_4^1	d_5	d_3^1	h_3	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
19	50	6	32	23	10	017-0001-001	16,11	UF 19	350-0060-000	355-0036-000	360-0119-000
	60					017-0002-001	18,2				
	75					017-0004-001	21,67				
	80					017-0005-001	22,7				
	90					017-0006-001	25,4				
	100					017-0007-001	27,23				
	125					017-0008-001	32,80				
	150					017-0010-001	38,36				
	175					017-0011-001	43,93				
	200					017-0012-001	49,49				
	225					017-0031-001	55,06				
	250					017-0079-001	60,62				
	275					017-0037-001	66,18				
	300					017-0079-001	71,75				
	350					017-0082-001	82,88				
400	017-0032-001	94,01									
525	017-0034-001	121,83									
22	50	6	35	29	10	017-0040-001	20	UF 22	350-0061-000	355-0037-000	360-0119-000
	75					017-0042-001	28,44				
	90					017-0043-001	23,8				
	100					017-0044-001	35,90				
	125					017-0047-001	43,36				
	150					017-0048-001	50,82				
	175					017-0049-001	58,28				
	200					017-0050-001	65,74				
	225					017-0060-001	73,20				
	250					017-0058-001	80,66				
	300					017-0074-001	95,58				
	350					017-0101-001	110,50				
	400					017-0102-001	125,42				
450	017-0105-001	140,34									
525	017-0066-001	162,72									
25	75	7	40	31	12	017-0081-001	38,04	UF 25	350-0062-000	355-0038-000	360-0119-000
	100					017-0070-001	47,67				
	125					017-0071-001	57,31				

¹ h_4 and d_3 are approximate values.



d_1	l_2	h_4^1	d_5	d_3^1	h_3	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
25	150	7	40	31	12	017-0072-001	66,94	UF 25	350-0062-000	355-0038-000	360-0119-000
	175					017-0075-001	76,57				
	200					017-0076-001	86,21				
	225					017-0104-001	95,84				
	250					017-0103-001	105,47				
	300					017-0111-001	124,74				
	350					017-0112-001	144,01				
	400					017-0113-001	163,27				
	450					017-0114-001	182,54				
	525					017-0115-001	211,44				

¹ h_4 and d_3 are approximate values.



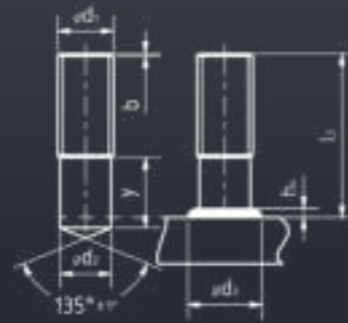


KÖCO PD

DIN EN ISO 13918

Drawn arc threaded stud with partial thread

■ Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800. Other types and dimensions upon request.

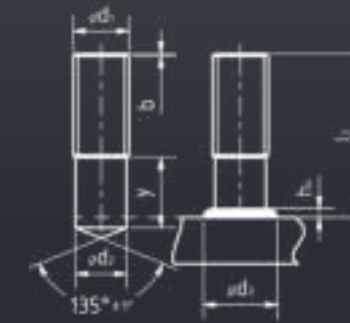


KÖCO PD

DIN EN ISO 13918

Drawn arc threaded stud with partial thread

■ Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800. Other types and dimensions upon request.



d ₁	l ₂	h ₄ ¹	d ₂	d ₃ ¹	b	y	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M6	20	3,5	5,35	8,5	20	9	001-0041-001	0,38	PF 6	350-0004-000	355-0002-000	360-0101-000 - K 360-0013-000 - SK
	25						001-0043-001	0,45				
	30						001-0046-001	0,55				
	35						001-0047-001	0,64				
	40						001-0048-001	0,73				
	50						001-0050-001	0,91				
	60						001-0052-001	1,08				
M8	20	3,5	7,19	10	40	9	001-0081-001	0,69	PF 8	350-0006-000	355-0003-000	360-0101-000 - K 360-0013-000 - SK
	25						001-0085-001	0,84				
	30						001-0087-001	1,0				
	35						001-0088-001	1,16				
	40						001-0093-001	1,32				
	45					001-0096-001	1,48					
	50					001-0097-001	1,64					
	55					001-0098-001	1,8					
	60					001-0099-001	1,96					
	80					001-0104-001	2,6					
100	001-0108-001	3,18										
M10	20	4	9,03	12,5	40	9,5	001-0191-001	1,09	PF 10	350-0008-000	355-0004-000	360-0101-000 - K 360-0013-000 SK
	25						001-0192-001	1,34				
	30						001-0193-001	1,57				
	35						001-0197-001	1,84				
	40						001-0201-001	2,09				
	50					001-0207-001	2,60					
	55					001-0210-001	2,85					
	60					001-0218-001	3,08					
	70					001-0222-001	3,60					
	80					001-0224-001	4,10					
	100					001-0232-001	5,11					
	140					001-0243-001	7,12					
	150					001-0386-001	7,62					
	160					001-0261-001	8,13					
	M12					25	4,5	10,86		15,5		
30		001-0296-001	2,31									
35		001-0298-001	2,64									
40		001-0300-001	3,04									
45		001-0302-001	3,40									

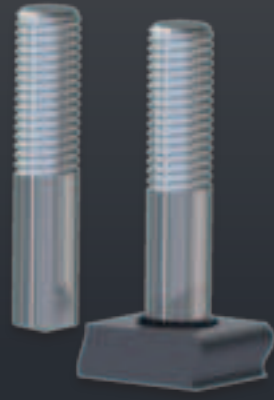
¹ h₄ and d₃ are approximate values.



d ₁	l ₂	h ₄ ¹	d ₂	d ₃ ¹	b	y	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M12	50	4,5	10,86	15,5	40	40	001-0305-001	3,76	PF 12	350-0011-000	355-0005-000	360-0101-000 - K 360-0013-000 - SK
	60						001-0307-001	4,49				
	70						001-0310-001	5,22				
	80						001-0314-001	5,94				
	100						001-0357-001	7,40				
	120						001-0323-001	8,85				
	140						001-0328-001	10,31				
	160						001-0358-001	11,03				
M16	30	6	14,7	19,5	40	13,5	001-0391-001	4,27	PF 16	350-0015-000	355-0007-000	360-0103-000
	35						001-0392-001	4,81				
	40						001-0393-001	5,60				
	45						001-0394-001	6,26				
	50						001-0396-001	6,93				
	55					001-0397-001	7,60					
	60					001-0398-001	8,26					
	65					001-0403-001	8,93					
	70					001-0405-001	9,59					
	75					001-0406-001	10,04					
	80					001-0407-001	10,93					
	85					001-0408-001	11,59					
	90					001-0409-001	12,26					
	100					001-0411-001	13,59					
	140					001-0421-001	18,92					
160	001-0427-001	21,58										
M20	40	7	18,38	24,5	50	15,5	001-0472-001	8,80	PF 20	350-0018-000	355-0007-000	360-0103-000
	45						001-0473-001	9,85				
	50						001-0474-001	10,67				
	60						001-0476-001	12,97				
	65						001-0478-001	14,01				
	70						001-0480-001	15,05				
	80					001-0483-001	17,14					
	90					001-0485-001	18,82					
	100					001-0487-001	21,30					
	115					001-0490-001	24,42					
	120					001-0491-001	25,47					
	125					001-0492-001	26,51					

¹ h₄ and d₃ are approximate values.

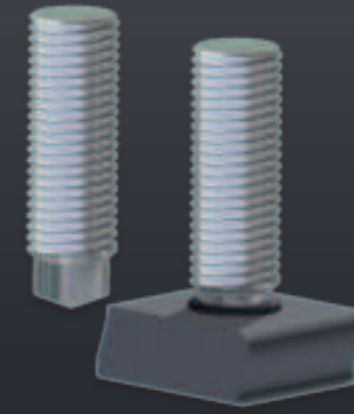




KÖCO PD DUO

Drawn arc bi-metallic threaded stud

- Material A: 4.8 weldable
- B: 1.4301 or 1.4 571
- Other types and dimensions upon request.

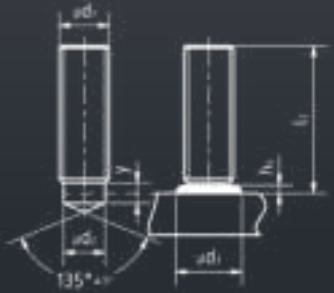


KÖCO RD

DIN EN ISO 13918

Drawn arc threaded stud with reduced shaft

- Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800. Other types and dimensions upon request.



d ₁	l ₂	h ₄ ¹	d ₂	d ₃ ¹	b	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M8	30	3	7,1	10	15	Upon request.		PF 8	350-0007-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	35				20						
	40				25						
	45				30						
	50				40						
M10	30	3	8,95	12,5	15	Upon request.		PF 10	350-0009-000	355-0004-000	360-0101-000- K 360-0013-000-SK
	35				20						
	40				25						
	45				30						
	55				40						
M12	30	4,5	10,8	14,5	15	Upon request.		PF 12	350-0011-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	35				20						
	40				25						
	45				30						
	50				35						
	55				40						
	100				40						
140	80										

d ₁	l ₂	h ₄ ¹	d ₂	d ₃ ¹	y	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M6	20	2,5	4,7	7	4	003-0028-001	0,34	RF 6	350-0004-000	355-0002-000	360-0101-000 K 360-0013-000 SK
	25					003-0029-001	0,43				
	30					003-0030-001	0,52				
	35					003-0031-001	0,60				
	40					003-0032-001	0,69				
	50					003-0034-001	0,87				
M8	60	2,5	6,2	9	4	003-0036-001	1,05	RF 8	350-0005-000	355-0002-000	360-0101-000 K 360-0013-000 SK
	20					003-0073-001	0,61				
	25					003-0076-001	0,77				
	30					003-0078-001	0,93				
	35					003-0079-001	1,09				
	40					003-0080-001	1,25				
	45					003-0081-001	1,41				
	50					003-0082-001	1,57				
	55					003-0083-001	1,73				
	60					003-0084-001	1,89				
80	003-0088-001	2,52									
100	003-0092-001	3,16									
M10	20	3	7,9	11,5	5	003-0169-001	0,96	RF 10	350-0006-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	25					003-0172-001	1,21				
	30					003-0173-001	1,46				
	35					003-0174-001	1,72				
	40					003-0176-001	1,97				
	50					003-0178-001	2,47				
	55					003-0179-001	2,72				
	70					003-0182-001	3,48				
	80					003-0184-001	3,98				
	100					003-0188-001	5,01				
M12	25	4	9,5	13,5	6	003-0262-001	1,74	RF 12	350-0007-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	30					003-0263-001	2,11				
	35					003-0265-001	2,47				
	40					003-0266-001	2,83				
	45					003-0267-001	3,20				
	50					003-0268-001	3,56				
	60					003-0270-001	4,29				

¹ h₄ and d₃ are approximate values.



¹ h₄ and d₃ are approximate values.



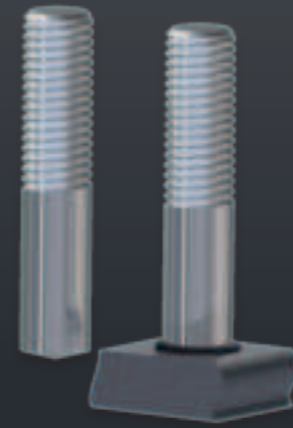
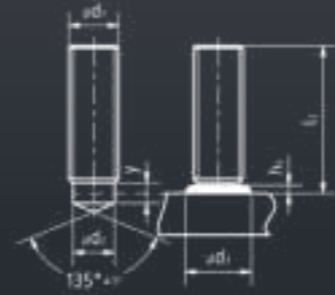


KÖCO RD

DIN EN ISO 13918

Drawn arc threaded stud with reduced shaft

- Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800.
- Other types and dimensions upon request.



KÖCO RD DUO

Drawn arc bi-metallic threaded stud with reduced shaft

- Material A: 4.8 weldable
- B: 1.4301 or 1.4 571
- Other types and dimensions upon request.



d_1	l_2	h_4^1	d_2	d_3^1	y_{min}	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M12	70	4	9,5	13,5	6	003-0272-001	5,02	RF 12	350-0011-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	80					5,74					
	100					7,20					
M16	30	6	13,2	18	11	003-1101-001	3,81	RF 16	350-0016-000	355-0007-000	360-0103-000
	35					4,48					
	40					5,14					
	45					5,81					
	50					6,48					
	55					7,14					
	60					7,81					
	65					8,47					
	70					9,14					
	75					9,81					
	80					10,47					
90	11,80										
100	13,14										
M20	40	7	16,5	23	13	003-0492-001	8,00	RF 20	350-0019-000	355-0007-000	360-0103-000
	45					9,04					
	50					10,8					
	60					12,16					
	65					13,20					
	70					14,25					
	80					16,33					
	90					18,41					
100	20,49										
M24	50	10	20	28	15	003-0522-001	14,53	RF 24	350-0023-000	355-0008-000	360-0103-000
	55					16,03					
	60					17,53					
	70					20,53					
	80					23,52					
	90					26,52					
100	29,52										

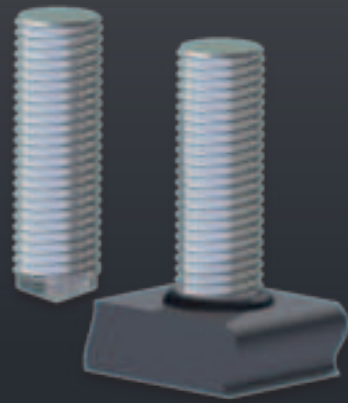
¹ h_4 and d_3 are approximate values.



d_1	l_2	h_4^1	d_2	d_3^1	y	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M8	20	2,5	6,2	9	4	003-0073-001	0,61	RF 8	350-0007-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	25					0,77					
	30					0,93					
	35					1,09					
	40					1,25					
	45					1,41					
	50					1,57					
	55					1,73					
	60					1,89					
	100					3,16					
M10	20	3	7,9	11,5	5	003-0169-001	0,96	RF 10	350-0009-000	355-0004-000	360-0101-000 K 360-0013-000 SK
	25					1,21					
	30					1,46					
	35					1,72					
	40					1,97					
	50					2,47					
	55					2,72					
	70					3,48					
	80					3,98					
	100					5,01					
M12	25	4	9,5	13,5	6	003-0262-001	1,74	RF 12	350-0011-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	30					2,11					
	35					2,47					
	40					2,83					
	45					3,20					
	50					3,56					
60	4,29										

¹ h_4 and d_3 are approximate values.

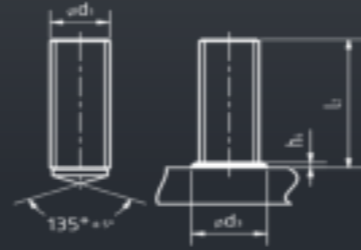




KÖCO FD

Drawn arc threaded stud with complete thread

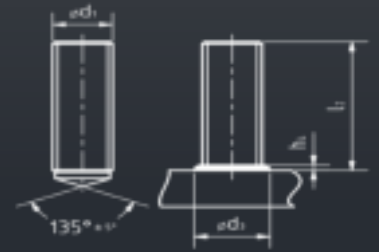
■ Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800. Other types and dimensions upon request.



KÖCO FD

Drawn arc threaded stud with complete thread

■ Part.no. applies to steel, grade 4.8, uncoated, many dimensions available, also in 1.4301 and K800. Other types and dimensions upon request.



d ₁	l ₂	h ₁ ¹	d ₃ ¹	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M6	20	4	8,5	002-0046-001	0,38	UF 6	350-0004-000	355-0002-000	360-0101-000 K 360-0013-000 SK
	25			002-0047-001	0,45				
	30			002-0048-001	0,55				
	35			002-0049-001	0,64				
	40			002-0050-001	0,73				
	50			002-0052-001	0,91				
60	002-0054-001	1,08							
M8	20	4	11	002-0086-001	0,69	UF 8	350-0007-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	25			002-0089-001	0,84				
	30			002-0090-001	1,0				
	35			002-0091-001	1,16				
	40			002-0092-001	1,32				
	45			002-0093-001	1,48				
	50			002-0094-001	1,64				
	55			002-0095-001	1,8				
	60			002-0096-001	1,96				
	80			002-0100-001	2,6				
100	002-0104-001	3,18							
M10	20	4	13	002-0176-001	1,09	UF 10	350-0009-000	355-0004-000	360-0101-000 K 360-0013-000 SK
	25			002-0178-001	1,34				
	30			002-0179-001	1,57				
	35			002-0180-001	1,84				
	40			002-0181-001	2,09				
	50			002-0183-001	2,60				
	55			002-0184-001	2,85				
	60			002-0185-001	3,08				
	70			002-0187-001	3,60				
	80			002-0189-001	4,10				
100	002-0193-001	5,11							
M12	25	5	16	002-0266-001	1,95	UF 12	350-0010-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	30			002-0267-001	2,31				
	35			002-0268-001	2,64				
	40			002-0269-001	3,04				
	45			002-0270-001	3,40				
	50			002-0271-001	3,76				
60	002-0273-001	4,49							

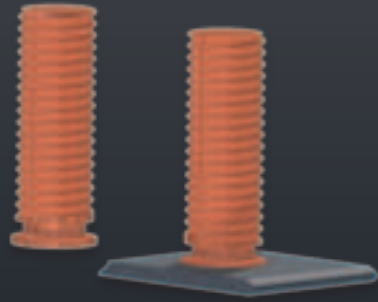
¹ h₁ and d₃ are approximate values.



d ₁	l ₂	h ₁ ¹	d ₃ ¹	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M12	70	5	16	002-0275-001	5,22	UF 12	350-0011-000		
	80			002-0277-001	5,94				
	100			002-0281-001	7,40				
M16	30	7	21	002-0350-001	4,27	UF 16	350-0016-000	355-0007-000	360-0103-000 K
	35			002-0351-001	4,81				
	40			002-0352-001	5,60				
	45			002-0353-001	6,26				
	50			002-0354-001	6,93				
	55			002-0355-001	7,60				
	60			002-0356-001	8,26				
	65			002-0357-001	8,93				
	70			002-0358-001	9,59				
	75			002-0359-001	10,04				
	80			002-0360-001	10,93				
	85			002-0361-001	11,59				
	90			002-0362-001	12,26				
100	002-0364-001	13,59							
M20	40	7	26	002-0437-001	8,80	UF 20	350-0019-000	355-0007-000	360-0103-000
	45			002-0438-001	9,85				
	50			002-0439-001	10,67				
	60			002-0441-001	12,97				
	65			002-0442-001	14,01				
	70			002-0443-001	15,05				
	80			002-0445-001	17,14				
	90			002-0447-001	18,82				
	100			002-0449-001	21,30				

¹ h₁ and d₃ are approximate values.



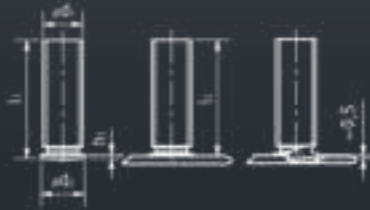


KÖCO PS

DIN EN ISO 13918

Short-cycle drawn arc threaded stud with flange

■ Part-no. applies to steel, grade 4.8, uncoated, other types and dimensions upon request.



KÖCO PT

DIN EN ISO 13918

Threaded stud with flange and ignition tip

■ Part.no. applies to steel, grade 4.8, copper plated
 ■ Other types and dimensions upon request.
 Not a part from warehouse, minimum quantities are needed.



d ₁	l ₁	d ₂	h ₁	Part-no.	Mass kg/100	Chuck
M3	4	0,7 - 1,4	6	104-0120-103	0,031	350-0001-000
			8	104-0121-103	0,040	
			10	104-0122-103	0,046	
			12	104-0123-103	0,055	
			16	104-0124-103	0,071	
			20	104-0125-103	0,088	
M4	5	0,7 - 1,4	8	104-0130-103	0,070	350-0002-000
			10	104-0131-103	0,080	
			12	104-0132-103	0,100	
			16	104-0133-103	0,130	
			20	104-0134-103	0,160	
			25	104-0135-103	0,190	
M5	6	0,7 - 1,4	10	104-0160-103	0,130	350-0003-000
			12	104-0161-103	0,150	
			16	104-0162-103	0,200	
			20	104-0163-103	0,240	
			25	104-0164-103	0,300	
			30	104-0165-103	0,360	
M6	7	0,7 - 1,4	10	104-0200-103	0,188	350-0005-000
			12	104-0201-103	0,220	
			16	104-0202-103	0,283	
			20	104-0203-103	0,350	
			25	104-0204-103	0,435	
			30	104-0205-103	0,520	
M8	9	0,8 - 1,4	12	104-0120-103	0,380	350-0007-000
			16	104-0231-103	0,509	
			20	104-0232-103	0,632	
			25	104-0233-103	0,785	
			30	104-0234-103	0,930	
			35	104-0235-103	1,091	
M10	11	0,8 - 1,4	16	104-0260-103	0,809	350-0009-000
			20	104-0261-103	1,030	
			25	104-0262-103	1,280	
			30	104-0263-103	1,527	
			35	104-0264-103	1,774	
			40	104-0265-103	2,020	

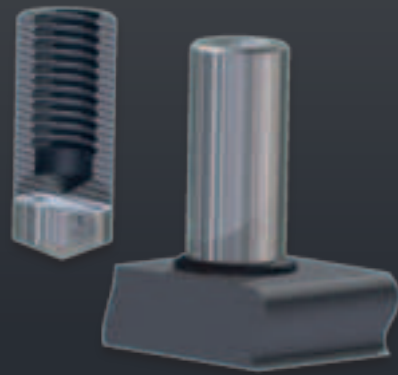
d ₁	l ₁	d ₂	d ₄	l ₃	max. h ₂	h ₁	Part-no.	Mass kg/100	Chuck
M3	4,5	0,6	0,55	0,6	0,7 - 1,4	6	100-0001-103	0,031	351-7003-000
						8	100-0003-103	0,039	
						10	100-0005-103	0,047	
						12	100-0006-103	0,056	
						16	100-0008-103	0,072	
						20	100-0009-103	0,089	
M4	5,5	0,65	0,55	0,5	0,7 - 1,4	8	100-0032-103	0,067	351-7004-000
						10	100-0033-103	0,082	
						12	100-0034-103	0,097	
						16	100-0036-103	0,127	
						20	100-0038-103	0,156	
						25	100-0039-103	0,193	
M5	6,5	0,75	0,8	1	0,7 - 1,4	10	100-0067-103	0,130	351-7005-000
						12	100-0068-103	0,153	
						16	100-0071-103	0,201	
						20	100-0072-103	0,248	
						25	100-0073-103	0,307	
						30	100-0074-103	0,366	
M6	7,5	0,75	0,8	1	0,7 - 1,4	10	100-0101-103	0,186	351-7006-000
						12	100-0103-103	0,220	
						16	100-0105-103	0,287	
						20	100-0106-103	0,355	
						25	100-0108-103	0,439	
						30	100-0109-103	0,523	
M8	9	0,75	0,85	1,5	0,8 - 1,4	12	100-0136-103	0,387	351-7008-000
						16	100-0138-103	0,509	
						20	100-0139-103	0,632	
						25	100-0140-103	0,789	
						30	100-0142-103	0,938	

¹ l₂ depends on l₁ and the welding energy.



l₂ = l₁ - 0,3 mm.

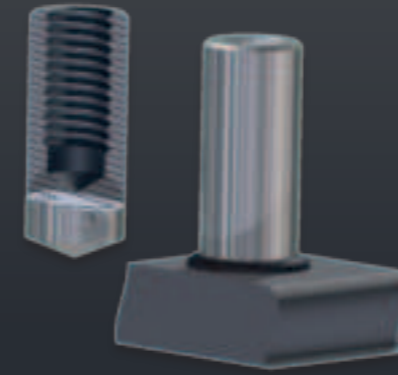
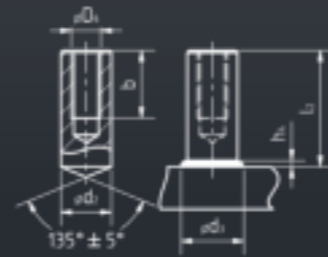




KÖCO ID

Drawn arc tapped stud

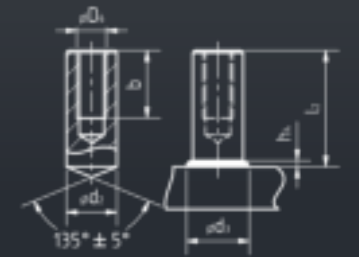
- Part-no. applies to steel, grade 4.8, uncoated.
- Other types and dimensions upon request.



KÖCO ID

Drawn arc tapped stud

- Part-no. applies to steel, grade 4.8, uncoated.
- Other types and dimensions upon request.



D ₁	L ₂	d ₂	b	h ₄ ¹	d ₃ ¹	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M6	15	10	9	4	13	006-0021-001	0,79	UF 10	350-0008-000	355-0002-000	360-0101-000 K 360-0013-000 SK
	20					006-0021-001	1,10				
	25					006-0024-001	1,41				
	30					006-0025-001	1,71				
	35					006-0026-001	2,02				
	40					006-0027-001	2,33				
	50					006-0030-001	2,95				
	60					006-0032-001	3,56				
M8	15	12	12	5	16	006-0061-001	0,98	UF 12	350-0010-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	20					006-0064-001	1,43				
	25					006-0065-001	1,87				
	30					006-0066-001	2,32				
	35					006-0068-001	2,76				
	50					006-0071-001	4,10				
	60					006-0074-001	4,98				
	80					006-0078-001	6,76				
100	006-0082-001	8,53									
M8	22	14,6	12	6	18,5	006-0110-001	2,60	PF 16)	350-0014-000		
	25					006-0111-001	3,0				
	30					006-0123-001	3,65				
	40					006-0109-001	4,97				
M10	25	16	15	7	21	006-0233-001	3,3	UF 16	350-0015-000	355-0004-000	360-0101-000 K 360-0013-000 SK
	30					006-0234-001	4,09				
	35					006-0235-001	4,88				
	40					006-0236-001	5,66				
	50					006-0238-001	7,24				
	55					006-0240-001	8,03				
	60					006-0245-001	8,82				
	70					006-0247-001	10,4				
	80					006-0243-001	12,0				
	100					006-0244-001	15,1				
M12	25	18,2	18	7	23	006-0275-001	3,94	PF 20	350-0017-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	30					006-0269-001	4,96				
	35					006-0268-001	5,98				
	40					006-0309-001	7,0				

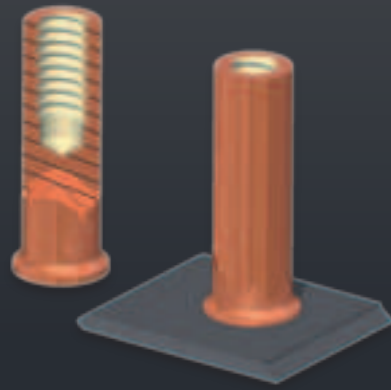
¹ h₄ and d₃ are approximate values.



D ₁	L ₂	d ₂	b	h ₄ ¹	d ₃ ¹	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
M12	45	18,2	18	7	21	006-0326-001	8,02	PF 20	350-0017-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	50					006-0272-001	9,05				
	60					006-0273-001	11,09				
	70					006-0285-001	13,13				
	80					006-0286-001	15,17				
	100					006-0284-001	19,26				

¹ h₄ and d₃ are approximate values.



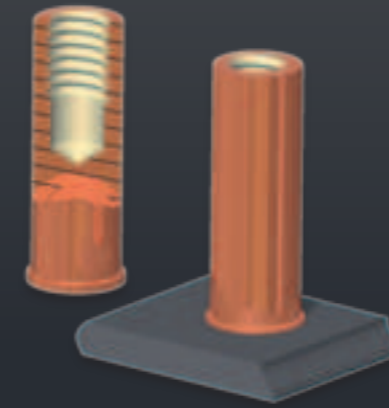


KÖCO IS

DIN EN ISO 13918

Short-cycle drawn arc tapped stud with flange

- Type, material and surface coating upon request



KÖCO IT

DIN EN ISO 13918

Flanged stud with internal thread and ignition tip

- Part.no. applies to steel, grade 4.8, copper plated
 - Other types and dimensions upon request.
- Not a part from warehouse, minimum quantities are needed.



d_1	l_1	h_2	h_1	Part-no.	Mass kg/100	Chuck
3	4	8	0,7 - 1,4	Upon request.		350-0001-000
		10				
		12				
		16				
		20				
		25				
4	5	8	0,7 - 1,4	Upon request.		350-0002-000
		10				
		12				
		16				
		20				
		25				
5	6	8	0,7 - 1,4	Upon request.		350-0003-000
		10				
		12				
		16				
		20				
		25				
6	7	8	0,7 - 1,4	Upon request.		350-0005-000
		10				
		12				
		16				
		20				
		25				
7,1	9	16	0,8 - 1,4	Upon request.		350-0006-000
		20				
		25				
8	9	16	0,8 - 1,4	Upon request.		350-0007-000
		20				
		25				
		30				
		35				
		40				

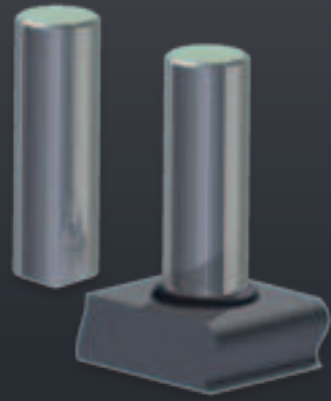
d_1	D_6	l_1	b	d_2	d_4	l_3	h_1	Part-no.	Mass kg/100	Ceramic ferrule
5	M3	10	5	6,5	0,75	0,8	0,7 - 1,4	102-0001-103	0,134	351-7051-000
		12						102-0002-103	0,164	
		16						102-0003-103	0,226	
		20						102-0004-103	0,288	
		25						102-0005-103	0,365	
		6						M4	10	
12	102-0031-103		0,218							
16	102-0032-103		0,307							
20	102-0033-103		0,396							
25	102-0034-103		0,507							
7,1	M5		10	7,5	9	0,75	0,85		0,8 - 1,4	102-0058-103
		12	102-0060-103					0,270		
		16	102-0061-103					0,387		
		20	102-0062-103					0,513		
		25	102-0063-103					0,670		

l_2 depends on l_1 and the welding energy.



$l_2 = l_1 - 0,3$ mm.



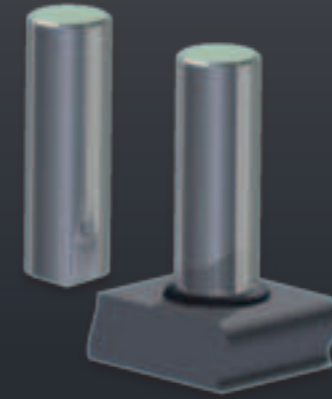
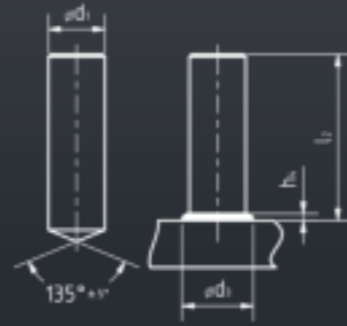


KÖCO UD

DIN EN ISO 13918

Drawn arc unthreaded stud

■ Part-no. applies to steel, grade 4.8, uncoated,
Other types and dimensions upon request.

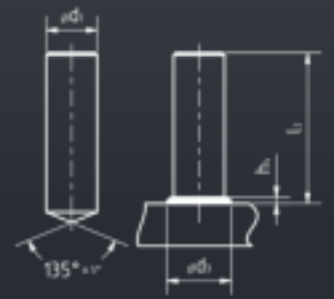


KÖCO UD

DIN EN ISO 13918

Drawn arc unthreaded stud

■ Part-no. applies to steel, grade 4.8, uncoated,
Other types and dimensions upon request.



d_1	l_2	h_4^1	d_3^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
6	15	4	8,5	005-0001-001	0,37	UF 6	350-0004-000	355-0002-000	360-0101-000 K 360-0013-000 SK
	20			005-0002-001	0,48				
	25			005-0003-001	0,59				
	30			005-0004-001	0,70				
	35			005-0005-001	0,81				
	40			005-0006-001	0,92				
	50			005-0008-001	1,14				
	60			005-0010-001	1,37				
8	15	4	11	005-0040-001	0,66	UF 8	350-0006-000	355-0003-000	360-0101-000 K 360-0013-000 SK
	20			005-0041-001	0,85				
	25			005-0043-001	1,05				
	30			005-0044-001	1,25				
	35			005-0045-001	1,45				
	40			005-0047-001	1,64				
	50			005-0049-001	2,04				
	60			005-0052-001	2,43				
	80			005-0056-001	3,22				
	100			005-0060-001	4,01				
10	20	4	13	005-0110-001	1,34	UF 10	350-0008-000	355-0004-000	360-0101-000 K 360-0013-000 SK
	25			005-0111-001	1,65				
	30			005-0112-001	1,96				
	35			005-0113-001	2,27				
	40			005-0114-001	2,58				
	50			005-0116-001	3,19				
	55			005-0117-001	3,26				
	60			005-0118-001	3,81				
	70			005-0120-001	4,42				
	100			005-0122-001	5,04				
12	25	5	16	005-0173-001	2,39	UF 12	350-0010-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	30			005-0174-001	2,84				
	35			005-0175-001	3,28				
	40			005-0176-001	3,72				
	45			005-0177-001	4,17				
	50			005-0178-001	4,61				

¹ h_4 and d_3 are approximate values.



d_1	l_2	h_4^1	d_3^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
12	60	5	16	005-0180-001	5,50	UF 12	350-0011-000	355-0005-000	360-0101-000 K 360-0013-000 SK
	70			005-0182-001	6,39				
	80			005-0184-001	7,27				
	100			005-0188-001	9,05				
14,6	≥ 20 ≤ 100	6	18,5			PF 16	350-0014-000		
16	≥ 20 ≤ 100	7	21			UF 16	350-0016-000	355-0007-000	360-0103-000

¹ h_4 and d_3 are approximate values.

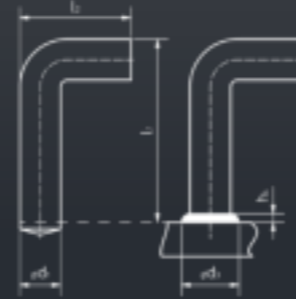




KÖCO KWS

Drawn arc unthreaded stud

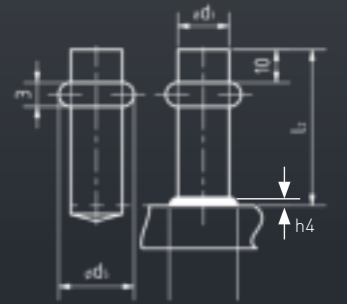
- Material steel, grade 4.8, uncoated.
- Other material and dimensions upon request.



KÖCO KKRB

Drawn arc collar stud

- Material steel, grade 4.8, uncoated.
- Other material and dimensions upon request.



d_1	l_2	l_3	d_3	h_4	Part-no.	Mass kg/100	Ceramic ferrule	Ferrule Grip
6	30	17	8.5	4	Upon request.		UF 6	Upon request.
	40							
	50							
	60							
8	30	20	11	4	Upon request.		UF 8	Upon request.
	40							
	50							
	60							
10	40	25	13	4	Upon request.		UF 10	Upon request.
	50							
	60							
	70							
	80							
12	40	35	16	5	Upon request.		UF 12	Upon request.
	50							
	60							
	70							
	80							
	90							
100								

d_1	l_2	d_3	h_4	Part-no.	Mass kg/100	Ceramic ferrule
8	30	14,5	4	Upon request.		UF 8
	35					
	40					
	45					
	50					
	55					
	60					
	65					
↓						
100						
10	30	15,5	4	Upon request.		UF 10
	35					
	40					
	45					
	50					
	55					
	60					
	65					
↓						
100						

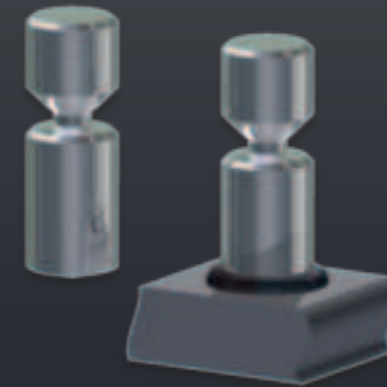
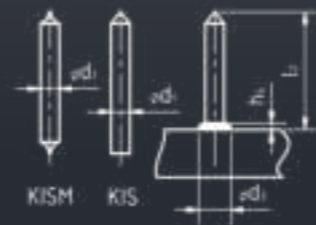
¹ h_4 and d_3 are approximate values.



KÖCO KIS + KISM

Drawn arc insulation pin

- Other types and dimensions upon request.
- Insulation clips, e.g. D=38mm upon request.



KÖCO KAS + KAGB

Drawn arc break-off stud

- Material steel, grade 4.8, uncoated.
- Other types and dimensions upon request.



d_1	l_2	h_4^1	d_3^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Foot Assembly
3	30	2,5	6	Upon request.		-	350-0086-000	360-0103-000 K 360-0012-000 sk
	35							
	40							
	45							
	50							
	55							
	60							
	65							
	70							
	75							
	80							
	85							
	90							
	95							
100								
↓								
300								
4	30	3,5	6	Upon request.		SN 4	350-0088-000	360-0103-000 K 360-0012-000 sk
	35							
	40							
	45							
	50							
	55							
	60							
	65							
	70							
	75							
	80							
	85							
	90							
	95							
100								
↓								
300								

d_1	l_1	l_2	d_3	h_4	Part-no.	Mass kg/100	Ceramic ferrule
6	5	20	8,5	4	Upon request.		UF 6
	8	20					
	10	25					
	12	25					
	15	30					
8	5	20	11	4	Upon request.		UF 8
	8	20					
	10	25					
	12	25					
10	5	20	13	4	Upon request.		UF 10
	8	20					
	10	25					
	12	25					
12	5	20	16	5	Upon request.		UF 12
	8	20					
	10	25					
	12	25					
14,6	9		16	5	008-0061-001		PF 16

- KAGB - Drawn arc break-off threaded studs upon request in different dimensions producible.

¹ h_4 and d_3 are approximate values.



¹ h_4 and d_3 are approximate values.





KÖCO KKS

Boiler tube stud

- Other types and dimensions upon request.
- Part-no. applies to Sicromal 10



KÖCO KHS

Concave boiler stud

- Material 1.4713
- Part-no. applies to material 1.4713
- Other types and dimensions upon request.

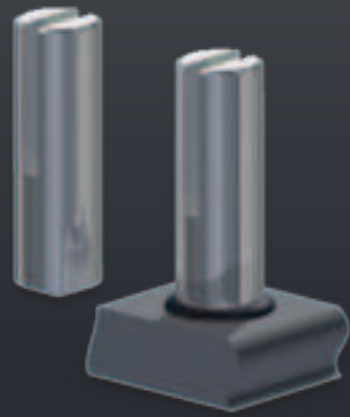


d_1	l_1	h_4^1	d_3^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
8	14	4	11	019-0040-009	0,509	K 8	350-0072-000	355-0101-000	360-0108-000
	20			019-0045-009	0,746				
	25			019-0047-009	0,943				
	30			019-0049-009	1,140				
	40			019-0052-009	1,535				
	45			019-0053-009	1,732				
	50			019-0054-009	1,929				
	60			019-0069-009	0,655				
10	12	4	13	019-0080-009	0,655	K 10S	350-0073-000	355-0152-000	360-0108-000
	14			019-0082-009	0,778				
	15			019-0084-009	0,840				
	16			019-0085-009	0,901				
	20			019-0090-009	1,148				
	25			019-0094-009	1,456				
	30			019-0096-009	1,764				
	35			019-0098-009	2,073				
	40			019-0099-009	2,381				
	45			019-0101-009	2,689				

d_1	l_1	Part-no.	Mass kg/100	Ceramic ferrule
10	10,8	020-0001-009	0,554	350-0073-000
	12	020-0002-009	0,678	
	15	020-0003-009	0,858	
	20	020-0004-009	1,24	
	30	020-0006-009	1,798	

¹ h_4 and d_3 are approximate values.

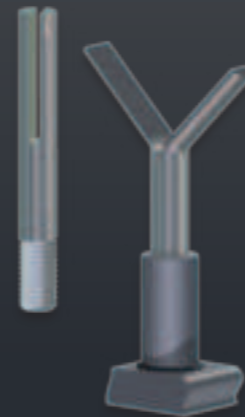
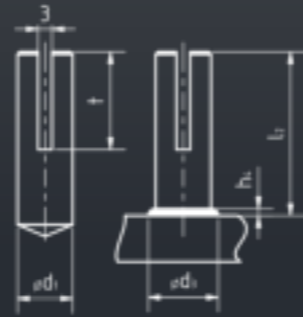




KÖCO KSST

Drawn arc slotted stud

- Part-no. applies to material 1.4841
- Other types and dimensions upon request.



KÖCO KSST/G

Drawn arc slotted stud with thread

- Other types and dimensions upon request.



d_1	l_2	t	h_1^1	d_3	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Ferrule Grip	Foot Assembly
10	30	15	4	13	021-0002-012	1,67	UF 10	350-0009-000	355-0004-000	360-0101-000
	40	20			021-0004-012	2,18				
	50	30			021-0008-012	2,58				
	65	35			021-0014-012	3,40				
	70	40			021-0015-012	3,60				
	75				021-0018-012	3,91				
	90				021-0021-012	4,84				
	100	50			021-0023-012	5,24				
	120				021-0025-012	6,47				
	250				021-0041-012	14,49				

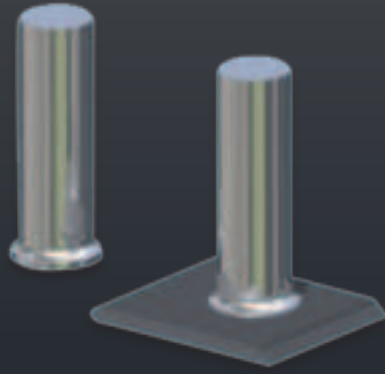
d_1	l_2	t	d_2	l_3^1	Part-no.	Mass kg/100	Ceramic ferrule
10	50	15	M10	10	Upon request.		Depends on type of tapped stud.
	75	40					
	100	50					
	140						
	170						
	200						
12	50		M12	15	Upon request.		Depends on type of tapped stud.
	75						
	100						
	140						
	170						
	200						

¹ h_1 and d_3 are approximate values.



¹ h_1 , s_1 and d_3 are approximate values.



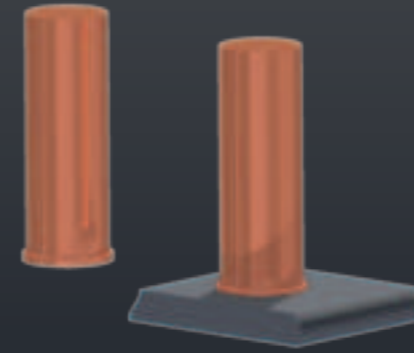


KÖCO US

DIN EN ISO 13918

Short-cycle drawn arc unthreaded stud with flange

- Type, material and surface coating upon request



KÖCO UT

DIN EN ISO 13918

Unthreaded stud with flange and ignition tip

- Part.no. applies to steel, grade 4.8, copper plated
- Other types and dimensions upon request. Not a part from warehouse, minimum quantities are needed.



d_1	l_1	d_2	h_1	Part-no.	Mass kg/100	Chuck
3	8	4	0,7 - 1,4	Upon request.		350-0001-000
	10					
	12					
	16					
	20					
	25					
4	8	5	0,7 - 1,4	Upon request.		350-0002-000
	10					
	12					
	16					
	20					
	25					
5	8	6	0,7 - 1,4	Upon request.		350-0003-000
	10					
	12					
	16					
	20					
	25					
6	8	7	0,7 - 1,4	Upon request.		350-0005-000
	10					
	12					
	16					
	20					
	25					
7,1	16	9	0,8 - 1,4	Upon request.		350-0006-000
	20					
	25					
8	16	9	0,8 - 1,4	Upon request.		350-0007-000
	20					
	25					
	30					
	35					
	40					

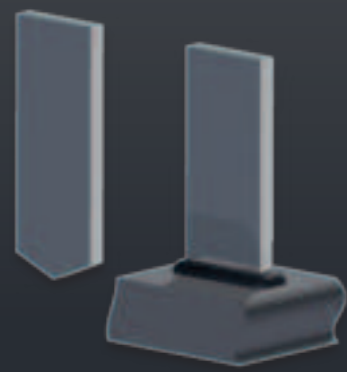
d_1	l_1	d_2	d_4	l_3	h_1	Part-no.	Mass kg/100	Chuck
3	8	4,5	0,6	0,55	0,7 - 1,4	101-0021-103	0,049	351-7003-000
	10					101-0022-103	0,060	
	12					101-0023-103	0,071	
	16					101-0025-103	0,093	
	20					101-0026-103	0,116	
	25							
4	8	5,5	0,65	0,55	0,7 - 1,4	101-0051-103	0,086	351-7004-000
	10					102-0052-103	0,106	
	12					101-0053-103	0,125	
	16					102-0054-103	0,165	
	20					102-0056-103	0,204	
	25							
5	12	6,5	0,75	0,8	0,7 - 1,4	102-0086-103	0,197	351-7005-000
	16					102-0089-103	0,257	
	20					102-0090-103	0,319	
	25					102-0091-103	0,396	
6	12	7,5	0,75	0,8	0,7 - 1,4	102-0118-103	0,279	351-7006-000
	16					101-0120-103	0,367	
	20					101-0121-103	0,456	
	25					101-0122-103	0,567	
	30							
7,1	16	9	0,75	0,85	0,8 - 1,4	101-0163-103	0,496	351-7008-000
	20					101-0164-103	0,620	
	25					101-0165-103	0,775	
	30							

l_2 depends on l_1 and the welding energy.



$l_2 = l_1 - 0,3$ mm.





KÖCO KFS/A

Rectangular stud type A

- Part-no. applies to steel, grade 4.8, uncoated
- Other types and dimensions upon request.



KÖCO KFS/B

Rectangular stud type B

- Part-no. applies to steel, grade 4.8, uncoated
- Other types and dimensions upon request.



b x s	l ₂	h ₄ ¹	d ₃ ¹	s ₁ ¹	Part-no.	Mass kg/100	Ceramic ferrule	Set of grips
15 x 3	20	4	18	6	011-0001-001	0,80	SF 15 x 3	350-6045-000 + 350-0324-000
	25				011-0002-001	0,98		
	30				011-0003-001	1,16		
	35				011-0004-001	1,33		
	40				011-0005-001	1,51		
	45				011-0006-001	1,69		
	50				011-0007-001	1,86		
	55				011-0008-001	2,04		
	60				011-0008-001	3,63		
15 x 5	20	4	20	10	011-0035-001	1,34	SF 15 x 5	350-6050-000 + 350-0225-000
	25				011-0036-001	1,63		
	30				011-0037-001	1,93		
	35				011-0038-001	2,22		
	40				011-0039-001	2,52		
	45				011-0040-001	2,81		
	50				011-0041-001	3,10		
	55				011-0042-001	3,40		
	60				011-0043-001	6,05		
25 x 3	25	4	28	6	011-0065-001	1,68	SF 25 x 3	350-6044-000 + 350-0324-000
	30				011-0066-001	1,97		
	35				011-0067-001	2,27		
	40				011-0068-001	2,56		
	45				011-0069-001	2,86		
	50				011-0070-001	3,15		
	55				011-0071-001	3,45		
	60				011-0072-001	6,10		
	60				011-0072-001	6,10		

b x s	l ₂	h ₄ ¹	d ₃ ¹	s ₁ ¹	a	e	Part-no.	Mass kg/100	Ceramic ferrule	Set of grips
15 x 3	25	4	18	6	6	15	012-0002-001	0,91	SF 15 x 3	350-6045-000 + 350-0324-000
	30						012-0003-001	1,09		
	35						012-0004-001	1,27		
	40						012-0005-001	1,44		
	45						012-0006-001	1,62		
	50						012-0007-001	1,80		
	55						012-0008-001	2,00		
	60						012-0009-001	3,56		
	15 x 5						25	4		
30		012-0037-001	1,73							
35		012-0038-001	2,02							
40		012-0039-001	2,32							
45		012-0040-001	2,61							
50		012-0041-001	2,91							
55		012-0042-001	3,20							
60		012-0043-001	5,85							
25 x 3		25	4	28	6	8	15		012-0065-001	1,56
	30	012-0066-001						1,86		
	35	012-0067-001						2,15		
	40	012-0068-001						2,45		
	45	012-0069-001						2,74		
	50	012-0070-001						3,03		
	55	012-0071-001						3,33		
	60	012-0072-001						5,98		
	60	012-0072-001						5,98		

■ Type 25x5 producable upon request.

¹ h₄, s₁ and d₃ are approximate values.



¹ h₄, s₁ and d₃ are approximate values.





KÖCO KFS/C

Rectangular stud type C

- Part-no. applies to steel, grade 4.8, uncoated
- Other types and dimensions upon request.



KÖCO KWA

Refractory Y-anchor

- Attention: Up to $l_2 = 45$ mm both legs have the same length.
- Part-no. applies to material 1.4841.
- Other types and dimensions upon request.



b x s	l_2	h_4^1	d_3^1	s_1^1	Part-no.	Mass kg/100	Ceramic ferrule	Set of grips
15 x 3	25	4	18	6	013-0011-001	0,74	SF 15 x 3	350-6045-000 + 350-0324-000
	30				013-0012-001	0,91		
	35				013-0013-001	1,09		
	40				013-0014-001	1,27		
	45				013-0015-001	1,44		
	50				013-0016-001	1,62		
	55				013-0017-001	1,80		
	60				013-0018-001	2,00		
15 x 5	25	4	20	10	Upon request..	SF 15 x 5	350-6050-000 + 350-0225-000	
	30							
	35							
	40							
	45							
	50							
	55							
60	350-6050-000							
25 x 3	25	4	28	6	Upon request.	SF 25 x 3	350-6044-000 + 350-0324-000	
	30							
	35							
	40							
	45							
	50							
	55							
60	350-6044-000							

d_1	l_2	b	h_4^1	d^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck
6	35	18	4	14	023-0002-012	1,8	SNW	350-6121-000
	40				023-0003-012	2,1		
	50				023-0004-012	2,3		
	55				023-0005-012			
	60				023-0006-012	2,9		
	75				023-0009-012	3,7		
	100				023-0014-012	5,1		
	125				023-0019-012	6,4		
	250				023-0039-012			
	8				250	22		
20		023-0310-012	6,6					
25		023-0312-012	9,1					
45		023-0311-012	11,1					

¹ h_4 , s_1 and d_3 are approximate values.



¹ h_4 and b are approximate values.

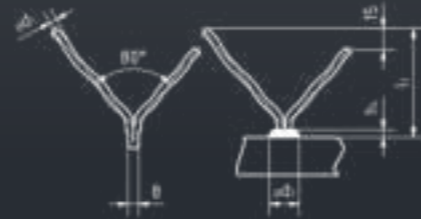




KÖCO KWA/R

Refractory Y-anchor, reduced

- Attention: Up to $l_2 = 45$ mm both legs have the same length.
 - Part-no. applies to material 1.4841.
- Other types and dimensions upon request.



KÖCO KWA/B

Refractory Y-anchor

- Threaded studs Typ PD see page 62/63.
- Other types, materials and dimensions upon request.

Combination:

of refractory Y-anchor welded on tapped stud M 10, incl. threaded stud M 10 Type PD.



d_1	l_2	b	h_4^1	b^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck
6	35	18	4	11	023-0104-011	1,7	K 8 spez.	350-0365-000
	40				023-0105-011	2,0		
	45				023-0103-011	2,3		
	50				023-0100-011	2,1		
	55				023-0107-011	2,5		
	60				023-0106-011	2,8		
	65				023-0116-011	3,2		
	70				023-0108-011	3,5		
	75				023-0101-012	3,8		
	85				023-0114-011	4,1		
	100				023-0111-011	5,3		
	125				023-0112-011	6,6		

d_1	l_1	d_2	l_2	D_3	t	Part-no.
6	50	16	20	M10	12	Upon request.
	75					
	100					
	125					
	150					
	175					
	200					
	225					
	250					
	275					

¹ h_4 and b are approximate values.



KÖCO KVA/A

Special refractory V-anchor

- Material 1.4301
- Other types, materials and dimensions upon request.



KÖCO KHB

Stud

- Material A: 4.8, uncoated
- Other types, materials and dimensions upon request.



d	l ₁	b	Part-no.	Mass kg/100
6	50	18		Upon request.
	60			
	65			
	70			
	75			
	80			
	85			
	90			
	100			

d ₁	l ₂	b	h ₁ '	h ₁	Part-no.	Mass kg/100	Ceramic ferrule	Chuck	Washer	Insulation clips
M6	30	15	8,5	3	Upon request.		UF 6	350-0100-000	40 x 40 x 4	R 6
	40	20								
	50	25								
	60	30								
	70	30								
	80	40								
	100	50								
	125	60								
	150	70								
	200	70								
	↓	70								
	300	70								



KÖCO KFF

Faserfix stud

- Insulation clips D 38, D 60
 - Part-no. applies to material 1.4841.
- Other types and dimensions upon request.



KÖCO KFA/W

DIN EN ISO 13918/ETA-03/0039

Rectangular two tine stud "W"

- Material A: 4.8, uncoated
- Other types, materials and dimensions upon request.



d_1	l_2	h_4^1	d_3^1	Part-no.	Mass kg/100	Ceramic ferrule	Chuck
5	3,5	8	8	029-0002-012	1,2	SN 5	350-0100-000
				029-0004-012	1,5		
				029-0005-012	1,9		
				029-0006-012	2,3		
				029-0008-012	2,7		
				029-0010-012	3,1		
				029-0012-012	3,5		
				029-0013-012	3,9		
				029-0014-012	4,3		
				029-0015-012	4,6		

b	s	l_1	t	Part-no.	Mass kg/100
15	3	80	60	Upon request.	
		100	70		
		120	75		
		130	75		
		150	70		
		25	3		
160	70				
170	70				
180	70				
190	70				
200	70				

¹ h_4 and d_3 are approximate values.

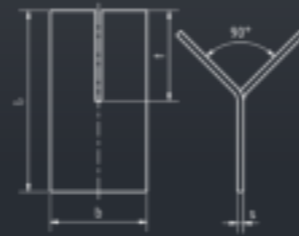




KÖCO KHF-E

Rectangular slotted anchors for manual arc welding

- Material A: 4.8, uncoated
- Other types, materials and dimensions upon request.



b	s	l ₁	t	Part-no.	Mass kg/100
30	3	50	20		Upon request.
		60	30		
		70	35		
		80	40		
		100	50		
		↓	50		
		250	50		
40	4	50	20		Upon request.
		60	30		
		70	35		
		80	40		
		100	50		
		↓	50		
		250	50		

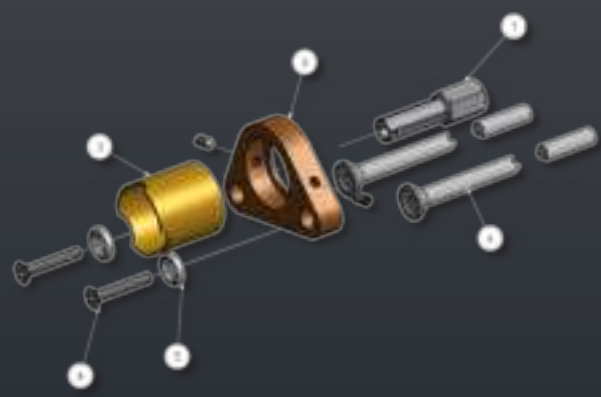


EQUIPMENT & SPARE PARTS.

Equipment & spare parts.

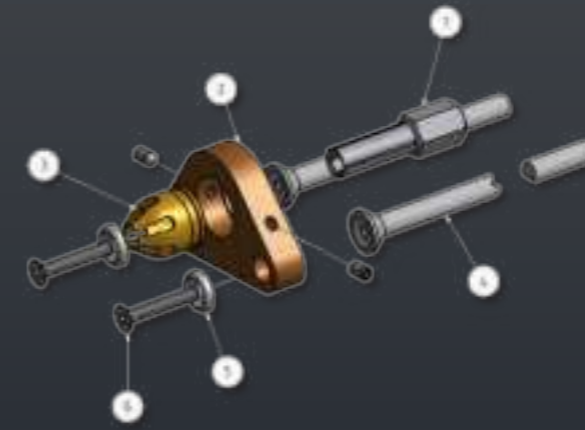
The quality of service is very important for us. Here you find an overview about the spare parts for stud welding guns, so that you get the perfect configuration for all applications.

Köco is using high-quality materials, to give a long availability in your production process.



GUN ACCESSORIES FOR STUD WELDING GUNS SK 14 TO SK15

Gun accessories for short cycle stud welding without shielding gas



GUN ACCESSORIES FOR STUD WELDING GUNS SK 14 TO SK15

Gun accessories for threaded studs and plain pins

Stud diameter d	Chuck pos. 1	Foot Assembly pos. 2	Säule Pos. 4	Stützrohr pos. 3
Ø 3 x > 8	350-0001-00	360-0012-000	370-0240-000	360-0335-000
Ø 4 x > 8	350-0002-00			
Ø 5 x > 10	350-0003-00			
Ø 6 x > 10	350-0005-000			
Ø 8 x > 10	350-0006-000			
Ø 8 x > 15	350-0007-00			
Ø 10 x > 10	350-0008-00			
Ø 10 x > 15	350-0009-000			
Ø 12 x > 10	350-0010-00			
Ø 12 x > 16	350-0011-00			
Washer pos. 5			370-0055-000	
Screw with hexagon socket pos. 6			322-0372-000	

Typ PD	Typ DD	Typ RD	Chuck pos. 1	Ferrule Grip pos. 3	Foot Assembly pos. 2
M 4 x > 16	M 4 x > 16		350-0002-000	355-0001-000	360-0013-000
M 5 x > 16	M 5 x > 16		350-0003-000	355-0002-000	
M 6 x > 16	M 6 x > 16	M 6 x > 16	350-0004-000	355-0002-000	
M 6 x > 20	M 6 x > 20	M 6 x > 20	350-0005-000	355-0002-000	
M 8 x > 16	M 8 x > 16	M 8 x > 16	350-0006-000	355-0003-000	
M 8 x > 20	M 8 x > 20	M 8 x > 20	350-0007-000	355-0003-000	
M 10 x > 16	M 10 x > 20	M 10 x > 20	350-0008-000	355-0004-000	
M 10 x > 20	M 10 x > 25	M 10 x > 25	350-0009-000	355-0004-000	
M 12 x > 16	M 12 x > 20	M 12 x > 20	350-0010-000	355-0005-000	
M 12 x > 25	M 12 x > 25	M 12 x > 30	350-0011-000	355-0005-000	
Leg pos. 5			370-0240-000		
Washer pos. 10			370-0055-000		
Screw with hexagon socket pos. 6			322-0372-000		

For studs with lengths L > app. 6 x diameter chucks with deeper grip length are recommended.
Further information upon request.



GUN ACCESSORIES FOR STUD WELDING GUNS SK 14 AND SK 15

Gun accessories for insulation pins



GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K 26

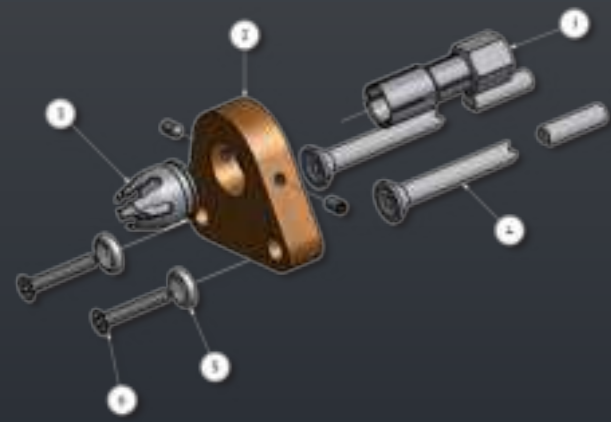
Gun accessories for shear connectors from 50 mm length

Stud dimension	Chuck pos. 1	Foot Assembly pos. 2	Supporting tube pos. 3
from 3 x 35	350-0086-000 (steel) 350-0087-000 (copper)	360-0012-000	360-0335-000
from 4 x 35	350-0088-000 (steel)		
from 5 x 35	350-0089-000 (steel)		

Stud length up to (mm)	Required length of legs (mm)	Part-No. pos. 4
140	240	370-0240-000
200	300	370-0300-000
300	400	370-0400-000
400	500	370-0500-000
500	600	370-0322-000
600	700	370-0323-000
Washer pos. 5		370-0055-000
Screw with hexagon socket pos. 6		322-0372-000

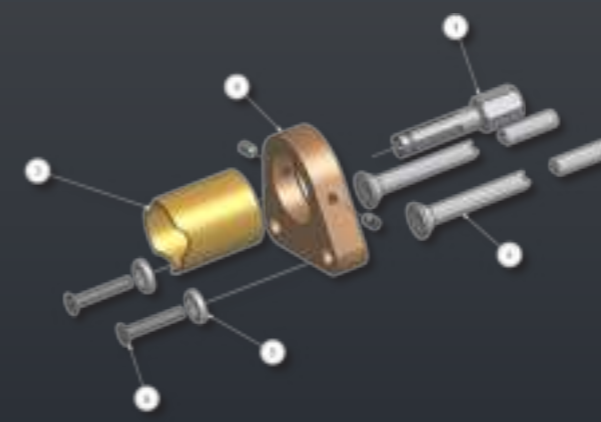
Stud diameter	Chuck pos. 1	Foot Assembly pos. 2	Ferrule Grip pos. 3
6	350-0056-000	360-0116-000	355-0031-000
10	350-0164-000	360-0117-000	355-0033-000
13	350-0059-000	360-0118-000	355-0035-000
16	350-0060-000	360-0119-000 (Type for 2 columns)	355-0036-000
19	350-0060-000		355-0036-000
22	350-0061-000		355-0037-000
25	350-0062-000		355-0038-000
Stud length up to (mm)		360-0149-000 (Type for 3 columns)	

K 22 K 22-D	K 24	K 26	Required length of legs (mm)	Part-No. pos. 4
140	90	70	240	370-0240-000
200	150	130	300	370-0300-000
300	250	230	400	370-0400-000
400	350	330	500	370-0500-000
500	450	430	600	370-0322-000
600	550	530	700	70-0323-000
Washer pos. 5		370-0055-000		
Screw with hexagon socket pos. 6		322-0372-000		



GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

Gun accessories for threaded studs, tapped studs and plain pins



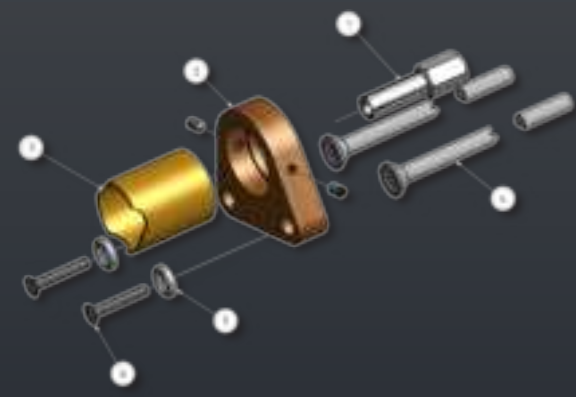
GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

Gun accessories for Insulation pins

Typ PD	Typ DD	Typ RD	Chuck pos. 1	Ferrule Grip pos. 3	Foot Assembly pos. 2
M 4 x > 20	M 4 x > 20		350-0002-000	355-0001-000	360-0101-000
M 5 x > 20	M 5 x > 20		350-0003-000	355-0002-000	
M 6 x > 16	M 6 x > 16	M 6 x > 16	350-0004-000	355-0002-000	
M 6 x > 20	M 6 x > 20	M 6 x > 20	350-0005-000	355-0002-000	
M 8 x > 16	M 8 x > 16	M 8 x > 16	350-0006-000	355-0003-000	
M 8 x > 20	M 8 x > 20	M 8 x > 20	350-0007-000	355-0003-000	
M 10 x > 16	M 10 x > 20	M 10 x > 20	350-0008-000	355-0004-000	
M 10 x > 20	M 10 x > 25	M 10 x > 25	350-0009-000	355-0004-000	
M 12 x > 16	M 12 x > 20	M 12 x > 20	350-0010-000	355-0005-000	
M 12 x > 25	M 12 x > 25	M 12 x > 30	350-0011-000	355-0005-000	
M 16 x > 20			350-0015-000	355-0006-000	360-0102-000
	M 16 x > 25	M 16 x > 20	350-0015-000	355-0007-000	360-0103-000
M 16 x > 30			350-0016-000	355-0006-000	360-0102-000
	M 16 x > 30	M 16 x > 25	350-0016-000	355-0007-000	360-0103-000
	M 20 x > 25	M 20 x > 20	350-0018-000	355-0007-000	
M 20 x > 25			350-0018-000	355-0008-000	
	M 20 x > 30	M 20 x > 25	350-0019-000	355-0007-000	
M 20 x > 30			350-0019-000	355-0008-000	
M 24 x > 35		M 24 x > 30	350-0023-000	355-0008-000	

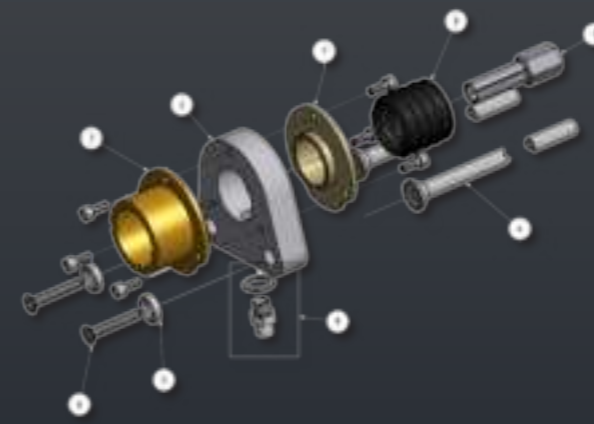
Stud diameter	Chuck pos. 1	Foot Assembly pos. 2	Supporting tube pos. 3
from 3 x 35	350-0086-000 (steel) 350-0087-000 (copper)	370-0103-000	370-0167-000
from 4 x 35	350-0088-000 (steel)		
from 5 x 35	350-0089-000 (steel)		

Stud length up to (mm)	Required length of legs (mm)	Part-No. pos. 4
Gun K 22		
140	240	370-0240-000
200	300	370-0300-000
300	400	370-0400-000
400	500	370-0500-000
500	600	370-0322-000
600	700	370-0323-000
Washer pos. 5		370-0055-000
Screw with hexagon socket pos. 6		322-0372-000



GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

Gun accessories for short cycle stud welding without shielding gas



GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

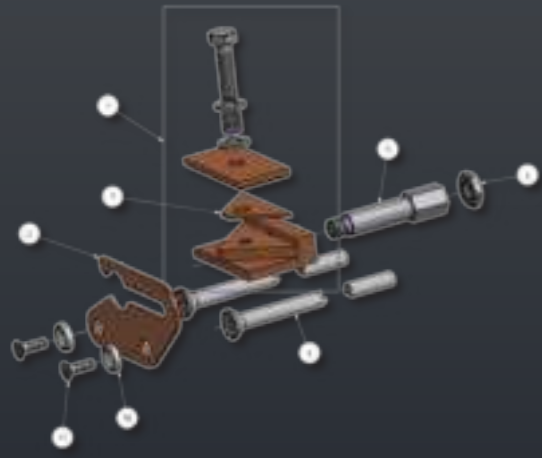
Gun accessories for stud welding with shielding gas (Gun K 22)

Stud diameter d	Chuck pos. 1	Foot Assembly pos. 2	Leg pos. 4	Supporting tube pos. 3
3	350-0001-000	360-0103-000	370-0240-000	370-0167-000
4	350-0002-000			
5	350-0003-000			
6	350-0005-000			
8	350-0007-000			
10	350-0009-000			
Washer pos. 5			370-0055-000	
Screw with hexagon socket pos. 6			322-0372-000	

Stud diameter d	Chuck pos. 1	Foot Assembly ¹ pos. 2	Leg pos. 4	Supporting tube ² pos. 3
5	350-0003-000	322-0011-000	370-0240-000	322-0225-000
6	350-0005-000			
8	350-0007-000			
10	350-0009-000			
12	350-0011-000			
Washer pos. 5				
Screw with hexagon socket pos. 6			322-0372-000	
Circlip ring with 3 socket head cap screw M 4 x 10 pos. 7			324-0042-000	
Bellows pos. 8			322-0098-000	
Gas plug with seal pos. 9			323-0017-000	
Set of shielding gas hoses, completely assembled, 7 m with clip-on connectors at both sides and 3 m with clipon			323-6012-000	
See above, but 12 m and 3 m			323-6013-000	
Shielding gas equipment complete (pos. 2 to pos. 9)			324-6024-000	

Other lengths of shielding gas hoses upon request. For studs with lengths $L > \text{app. } 6 \times \text{diameter}$ chucks with deeper grip length are recommended. Further information upon request.

¹ Foot Assembly with 3 socket head cap screw M 4 x 10 Pos. 2 ² Supporting tube with 3 socket head cap screw M 4 x 10 Pos. 3 |



GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

Gun accessories for Y-anchors



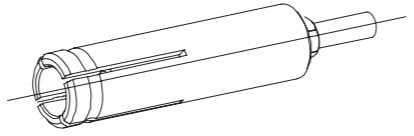
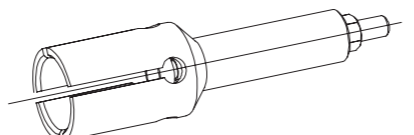
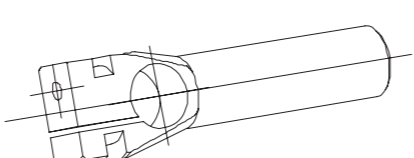
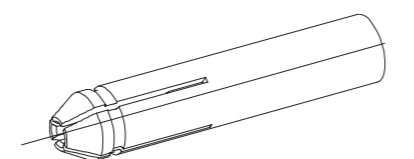
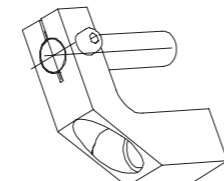
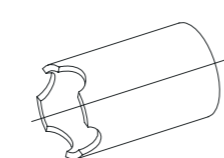
GUN ACCESSORIES FOR STUD WELDING GUNS K 22 TO K26

Gun accessories for reduced Y-anchors



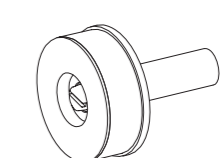
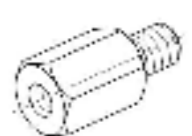
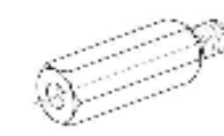
Dimension	Set of grips pos. 1	Foot Assembly pos. 2	Chuck extension pos.3	Counter nut pos. 4 (M 10 flat)	Compensation piece pos. 7
6 x 80°	350-6121-000	360-0122-000	350-0075-000	322-0378-000	-
8 x 80°		360-0123-00			350-0327-000
Leg pos. 5					370-0240-000
Washer pos. 10					370-0055-000
Screw with hexagon socket pos. 11					322-0379-000

Chuck pos. 1	Ferrule Grip pos. 2	Foot Assembly pos. 3	Knurled nut pos. 4
350-0365-000	355-0272-000	360-0108-000	355-0250-000
Leg pos. 5		370-0240-000	
Washer pos. 10		322-0372-000	
Screw with hexagon socket pos. 11		370-0055-000	

GUN ACCESSORIES FOR GUN SERIES ESP 1 S AND ESP 1 K

Designation / Application	Part No.	Illustration
10 mm Ø chuck for threaded studs, smooth pins, tapped studs (D = external diameter of the stud)	D = 3 mm: 351-7003-000 D = 4 mm: 351-7004-000 D = 5 mm: 351-7005-000 D = 6 mm: 351-7006-000 D = 7,1 mm: 351-7053-000 D = 8 mm: 351-7008-000	
Ø 12/10 mm chuck for M 10 threaded studs	D = 10 mm: 351-7010-000	
chuck for 6.3 mm blade terminal	351-7050-000	
chuck for insulating pins (D = diameter of the insulating pin)	D = 2 mm: 351-7002-000 D = 3 mm: 351-7001-000	
angle cantilever for welding at restricted places, near to edges, shaft Ø 10 mm, for 10 mm Ø chucks	351-0044-000	
positioning tube (Ø = 30 mm)	370-0335-000	

GUN ACCESSORIES FOR GUN SERIES ESP 1 S AND ESP 1 K

Designation / Application	Part No.	Illustration
Supporting tube (D = 30 mm)	326-0034-000	
spacer ring (height = 16 mm)	351-0051-000	
chuck for 38 mm Ø pin, with copper plate part-no. 320-0048-000	351-6162-000	
Set of spacer bolts 10 mm long (3 pieces)	326-0026-000	
Set of spacer bolts 20 mm long (3 pieces)	326-0024-000	



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