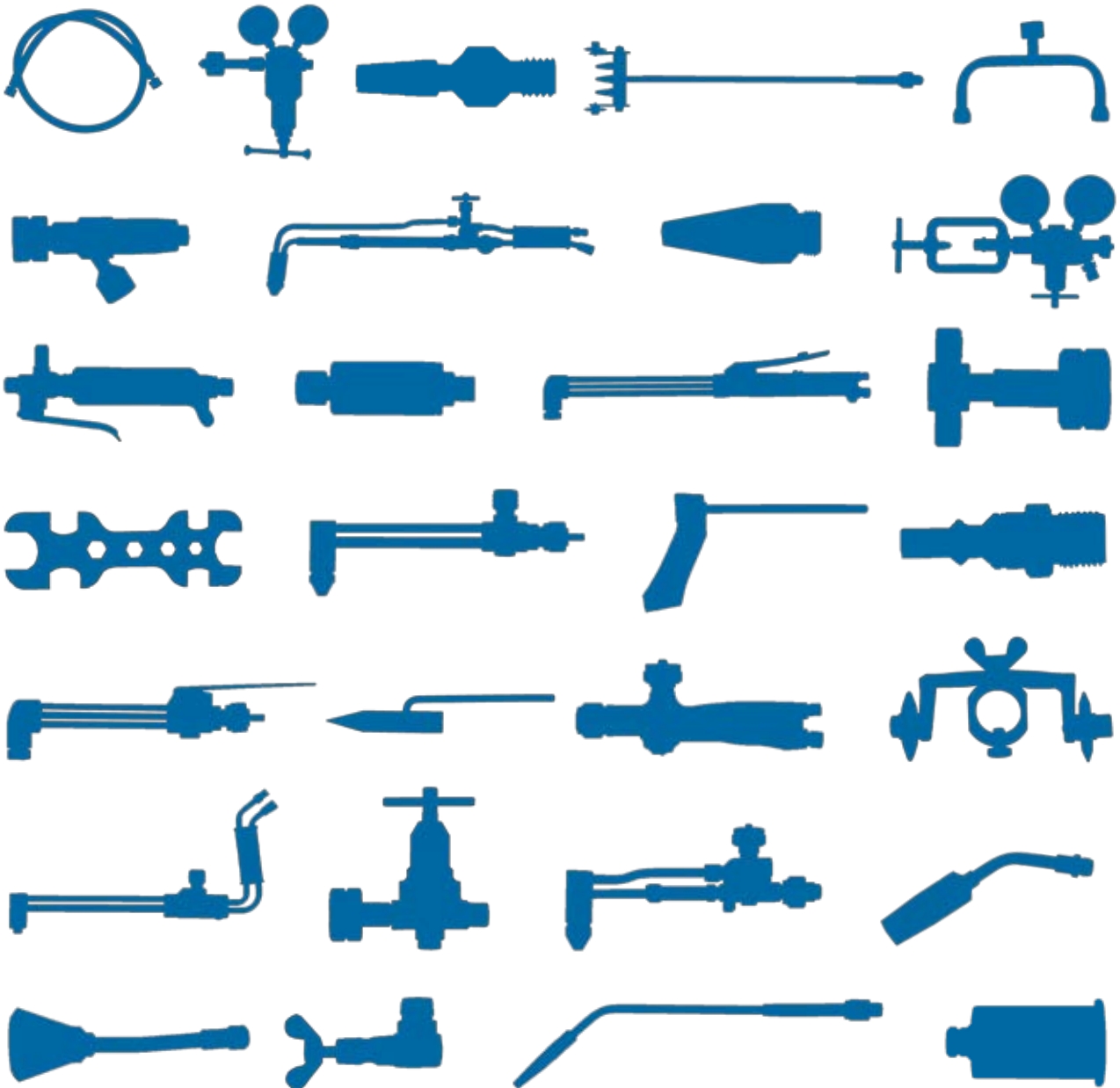




Autogen / Propane Katalog

made
in
Germany



Our history



In 1929 the company has been established as a family enterprise which is proud of three generations experience and competence. This small company has grown permanently and plays an important role in the autogenous technic. In the sixties the production has been enlarged by the Propane-Soldering Technic and the name changed from „Kuno Kayser“ into Kayser-Werk GmbH.

International companies, the German shipbuilding industry and a variety of important dealers are customers of Kayser.

In the beginning of the nineties, the enterprise is in the position to enlarge its export activities considerably; at the same time a consolidation on the domestic market takes place.

In 1997 important steps were initiated to fulfil the high expectations into German products – and last but not least – new products were created. The result is a permanent developing sale in Germany Europe and abroad.

Well trained and motivated employees are taking care in securing the good name of the company and the production of German welding and cutting equipment in the Federal Republic of Germany.

Beginning 2007 the owners Kuno and Detlef

Kayser decide to sell their company to an investor. The company Kayser-Werk GmbH will continue its activities with the same staff under the management of Mr. Detlef Kayser in Dortmund.

Our program

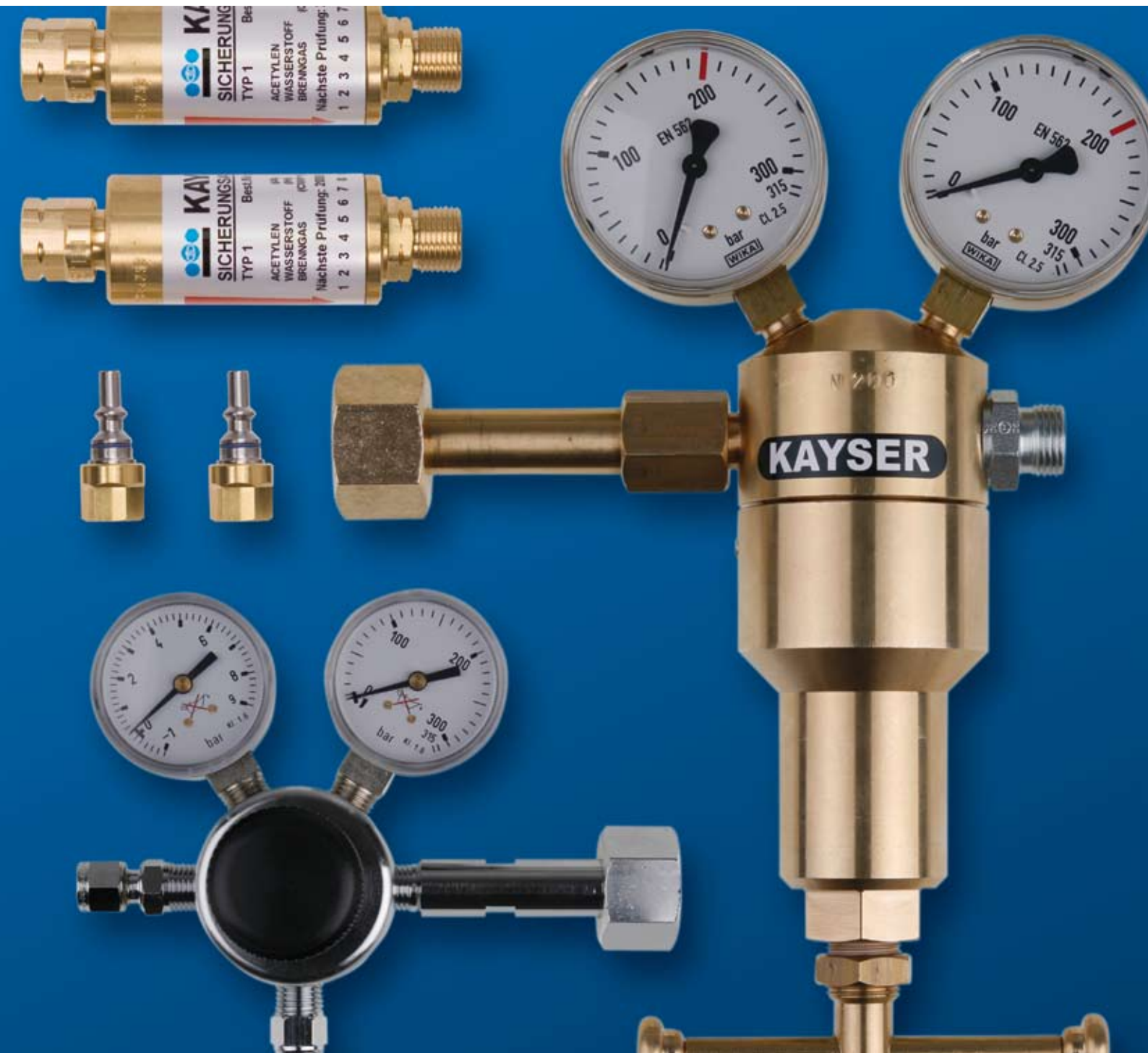
Autogen Equipment

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Propane Equipment

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Pressure Regulators / Safety Device / Couplers



High pressure regulator K 97 - 300 bar



Standard outlet: 12 mm tube fitting, with safety valve, connection CEN (W 30 x 2 IG)

Outlet pressure - 100 bar

Argon	11000
Pressurised air*	11010
Natural gas	11020
Helium	11030
Nitrogen	11040
Hydrogen	11050
Test gas	11060

Outlet pressure - 200 bar

Argon	11100
Pressurised air*	11110
Natural gas	11120
Helium	11130
Nitrogen	11140
Hydrogen	11150
Test gas	11160

* connection DIN (G 5/8" Pressure screw)

High pressure regulator K 97 - 200 bar



Standardabgang: 12 mm Schneidringverschraubung, mit Sicherheitsventil, Connection DIN 477

Outlet pressure - 100 bar

Argon	11200
Pressurised air	11210
Natural gas	11220
Helium	11230
Nitrogen	11240
Hydrogen	11250
Test gas	11260

Outlet pressure - 200 bar

Argon	11300
Pressurised air	11310
Natural gas	11320
Helium	11330
Nitrogen	11340
Hydrogen	11350
Test gas	11360

Gas type	Code (old)	Marker	Cyl. connection DIN 477	Hose Connection DIN 560
Oxygen	blue	0	G 3/4"	G 1/4"
Acetylene	yellow	A	Bügel	G 3/8" LH
Nitrogen	black	N	W 24,32 x 1/14	G 1/4"
Hydrogen	red	H	W 21,8 x 1/14 LH	G 3/8" LH
Forming gas	red		W 21,8 x 1/14 LH	G 3/8" LH
Pressurised air	black	D	G 5/8" Pressure screw	G 1/4"
Inert gas	black	N	W 21,8 x 1/14	G 1/4"
Helium	black	N	W 21,8 x 1/14	G 1/4"
Test gas	purple		M 19 x 1,5 LH	G 3/8" LH
Propane	orange	P	W 21,8 x 1/14 LH	G 3/8" LH
Nitrous oxide			G 3/8"	G 1/4"

Stainless steel pressure regulator K 96



Cone: Stainless steel 1.4401
 housing seal: Viton-A
 diaphragm: stainless steel 1.4310
 seat: PVDF / Teflon
 sealing cone: stainless steel 1.4401,

inlet temperature: max. 150° C (for type H), safety valve: built-in, inlet temperature: max. 205° C (for type L), filter Hastelloy, connection: 1/4" NPT

Inlet pressure max.	Outlet pressure max.	Flow (N2) max.	Art.-Nr.
210 bar / 70 bar	1,5 bar	10 Nm ³ /h / 10 Nm ³ /h	11600
210 bar / 70 bar	3,5 bar	18 Nm ³ /h / 18 Nm ³ /h	11610
210 bar / 70 bar	7 bar	36 Nm ³ /h / 36 Nm ³ /h	11620
210 bar / 70 bar	15 bar	86 Nm ³ /h / 65 Nm ³ /h	11630
210 bar / 70 bar	30 bar	152 Nm ³ /h / 65 Nm ³ /h	11640

Pressure regulator K 98 - 300 bar



Gas	Outlet pressure	Q Nm ³ /h	Connection CEN	Art.-Nr.
Inert gas	0-10 bar	up to 60	W 30 x 2 IG	12225
Inert gas	0-28/30 l/min		W 30 x 2 IG	12205
Nitrogen	0-10 bar	up to 60	W 30 x 2 IG	12405
Nitrogen	0-20 bar		W 30 x 2 IG	12410
Nitrogen	0-25 bar		W 30 x 2 IG	12420
Nitrogen	0-40 bar		W 30 x 2 IG	12425
Pressurised air*	0-10 bar	up to 60		12505
Pressurised air*	0-20 bar			12510
Hydrogen	0-10 bar	up to 60	W 30 x 2 IG	12565
Test gas	0-10 bar	up to 60	W 30 x 2 IG	12765
Forming gas	0-30 l/min		W 30 x 2 IG	12705
Forming gas	0-50 l/min		W 30 x 2 IG	12707
Helium	0-10 bar	up to 60	W 30 x 2 IG	12605

* connection DIN (G 5/8" Pressure screw)

Pressure regulator K 98 with Flowmeter - 200 bar / 300 bar



Gas	Pressure		Connection	Art.-Nr.
	Inlet	Outlet		
Argon	300 bar	2-9 l/min	CEN	12245
Argon/CO ₂	300 bar	5-20 l/min	CEN	12265
Argon/CO ₂	300 bar	5-30 l/min	CEN	12275
Forming gas	300 bar	5-20 l/min	CEN	12715
Forming gas	300 bar	5-50 l/min	CEN	12716
Argon	200 bar	2-9 l/min	DIN 477	14240
Argon/CO ₂	200 bar	5-20 l/min	DIN 477	14260
Argon/CO ₂	200 bar	5-30 l/min	DIN 477	14270
Forming gas	200 bar	5-20 l/min	DIN 477	14710
Forming gas	200 bar	5-50 l/min	DIN 477	14711

Ecomat 2000 - 200 bar / 300 bar



Argon/CO₂- Pressure regulator with flow meter and integrated gas saver

		Art.-Nr.
as cylinder pressure regulator up to 200 bar	5-30 l/min	17000
as cylinder pressure regulator up to 300 bar	5-30 l/min	17001
as cylinder pressure regulator up to 200 bar	5-20 l/min	17002
as POU pressure regulator	5-30 l/min	17010
as POU pressure regulator	5-20 l/min	17011

Oxygen-Pressure regulator K 98 - 200 bar



Single stage

		Art.-Nr.
Inlet gauge	0-315 / 200 bar	
Outlet gauge	0-16 / 10 bar	
Outlet pressure adjustable	0-10 bar	
Flow	up to 60 Nm ³ /h	14000

with rubber protection cup 14010

Acetylene-Pressure regulator K 98



Single stage

		Art.-Nr.
Inlet gauge	0-40 bar	
Outlet gauge	0-2,5 / 1,5 bar	
Outlet pressure adjustable	0-1,5 bar	
Flow	up to 8 Nm ³ /h	14100

with rubber protection cup 14110

Argon-CO₂-Pressure regulator K 98 - 200 bar



Single stage, with built-in pilot tube

		Art.-Nr.
Inlet gauge	0-315 / 200 bar	
Outlet gauge with Twin scale	0-30 / 28 l/min	14200

without shut-off valve 14210

Outlet pressure adjustable	0-10 bar	14220
Outlet pressure adjustable	0-1,5 bar	14222

Nitrogen-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable
 Outlet pressure adjustable
 Outlet pressure adjustable
 Outlet pressure adjustable

0-10 bar
 0-20 bar
 0-25 bar
 0-40 bar

Art.-Nr.

14400
 14410
 14420
 14425

Pressurised air-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable
 Outlet pressure adjustable

0-10 bar
 0-20 bar

Art.-Nr.

14500
 14510

Helium-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable

0-10 bar

Art.-Nr.

14800

Nitrous oxide-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable

0-10 bar

Art.-Nr.

14850

Propane-Pressure regulator K 98



Outlet pressure adjustable
only with outlet gauge

0-3,5 bar
0-3,5 bar

Art.-Nr.
14650
14660

Forming gas-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable
Outlet pressure adjustable

0-30 l/min
0-50 l/min

Art.-Nr.
14700
14701

Hydrogen-Pressure regulator K 98 - Methane (Natural gas)



Outlet pressure adjustable
Outlet pressure adjustable

0-1,5 bar
0-10 bar

Art.-Nr.
14550
14560

Test gas-Pressure regulator K 98 - 200 bar



Outlet pressure adjustable
Outlet pressure adjustable

0-2,5 bar
0-10 bar

Art.-Nr.
14750
14760

Pressure regulator K 98



Single stage, chromed with metal diaphragm for non corrosive high purity gas

Art.-Nr.
14050

Point-of-use-Pressure regulator K 98



Single stage, with outlet gauge

Inlet non flammable gas
Inlet flammable gas

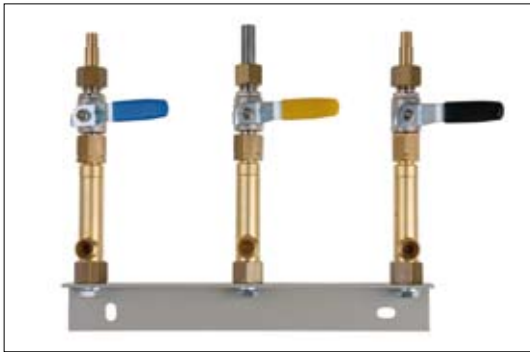
G 3/8"
G 3/8" LH

Oxygen adjustable
Acetylene adjustable
Argon / CO₂ adjustable
Carbon dioxide adjustable
Hydrogen adjustable
Nitrogen adjustable
Propane adjustable
Pressurised air adjustable
Forming gas adjustable
Forming gas adjustable

0-10 bar
0-1,5 bar
0-32/28 l/min
0-10 bar
0-10 bar
0-10 bar
0-3,5 bar
0-10 bar
0-30 l/min
0-50 l/min

Art.-Nr.

15000
15100
15200
15210
15550
15400
15650
15500
15700
15701



1er panel G 3/8" LH
1er panel G 3/8" RH
2er panel 1 x RH, 1 x LH
2er panel 2 x LH
2er panel 2 x RH
3er panel 1 x LH, 2 x RH
3er panel 2 x LH, 1 x RH
3er panel 3 x RH
3er panel 3 x LH
4er panel

59510
59511
59521
59522
59523
59531
59532
59534
59535
59540

Point-of-use-Pressure regulator K 98 with Flowmeter



Gas	Outlet
Argon	2-9 l/min
Argon/CO ₂	5-20 l/min
Argon/CO ₂	5-30 l/min
Forming gas	5-20 l/min
Forming gas	5-50 l/min

Art.-Nr.
15230
15250
15260
15310
15320

Pressure regulator K 98 - 200 bar

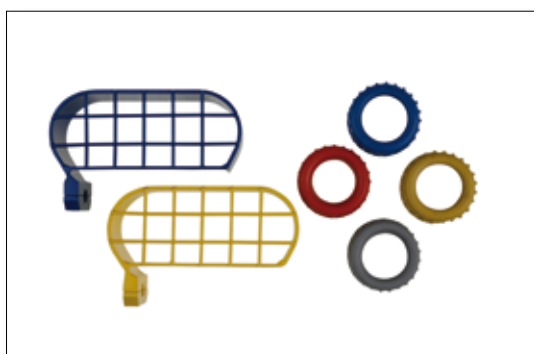


- Balloon valve with gauge
- Balloon valve without gauge
- Balloon valve with only nut for manual connection

- Foil adapter for foil balloons

- | | |
|----------|-------|
| Art.-Nr. | |
| | 16800 |
| | 16810 |
| | 16820 |
| | 16830 |

Protective grating / Cups for single stage Pressure regulator K 98



- blue
- yellow
- black
- red

- Protection cap for gauge
- Protection cap for gauge
- Protection cap for gauge
- Protection cap for gauge
- Protection cap for gauge

- Ø 63 blue
- Ø 63 yellow
- Ø 63 red
- Ø 63 grey
- Ø 63 black

- | | |
|----------|-------|
| Art.-Nr. | |
| | 18110 |
| | 18120 |
| | 18130 |
| | 18140 |
| | 18210 |
| | 18220 |
| | 18230 |
| | 18240 |
| | 18250 |

Gauges according to EN 562



Ø 63 mm, connection G 1/4"

- | | | |
|------------------------------------|---------------|-------|
| Inlet gauge Oxygen | 315/200 bar | 18510 |
| Inlet gauge Acetylene | 40 bar | 18520 |
| Inlet gauge neutral | 400/300 bar | 18561 |
| Inlet gauge neutral | 315/200 bar | 18550 |
| Inlet gauge neutral | 40 bar | 18560 |
| Outlet gauge Oxygen | 16/10 bar | 18610 |
| Outlet gauge Oxygen | 40/20 bar | 18620 |
| Outlet gauge Acetylene | 2,5/1,5 bar | 18630 |
| Outlet gauge neutral | 0-30 l/min | 18640 |
| Outlet gauge neutral | 0-50 l/min | 18641 |
| Outlet gauge Argon-CO ₂ | 0-30/28 l/min | 18650 |
| Outlet gauge neutral | 16/10 bar | 18670 |
| Outlet gauge neutral | 2,5/1,5 bar | 18680 |
| Outlet gauge neutral | 6/3,5 bar | 18681 |
| Outlet gauge neutral | 100/50 bar | 18683 |
| Outlet gauge neutral | 60/40 bar | 18684 |
| Outlet gauge neutral | 160/100 bar | 18682 |

Alu-seal

- | | |
|----------|---------|
| Art.-Nr. | |
| | 18510 |
| | 18520 |
| | 18561 |
| | 18550 |
| | 18560 |
| | 18610 |
| | 18620 |
| | 18630 |
| | 18640 |
| | 18641 |
| | 18650 |
| | 18670 |
| | 18680 |
| | 18681 |
| | 18683 |
| | 18684 |
| | 18682 |
| | 1400002 |

Flash back arrestors according to EN 730 for pressure regulators, single cylinder installations and tubes



Type	Gas	Outlet pressure	Inlet	Outlet	Art.-Nr.
1	Fuel gas	max. 5 bar	G 3/8" LH IG	G 3/8" LH AG	64030
1	Fuel gas	max. 5 bar	G 1/2" LH IG	G 1/2" LH AG	64031
1	Fuel gas	max. 5 bar	G 1/2" LH IG	G 3/8" LH AG	64032
1	Oxygen	max. 15 bar	G 1/4" IG	G 1/4" AG	64035
1	Oxygen	max. 15 bar	G 3/8" IG	G 3/8" AG	64036
1	Oxygen	max. 15 bar	G 1/2" IG	G 1/2" AG	64037
2	Fuel gas	max. 5 bar	G 3/8" LH IG	G 3/8" LH AG	64000
2	Oxygen	max. 15 bar	G 1/4" IG	G 1/4" AG	64001
2	Oxygen	max. 15 bar	G 3/8" IG	G 3/8" AG	64005

Flow Type 1

Inlet pressure in bar	0,5	1,0	1,5	2,5	5,0
Air flow Nm ³ /h	6,5	13,2	20,5	29,5	54,7

Flow Type 2

Inlet pressure in bar	0,5	1,0	1,5	2,5	5,0
Air flow Nm ³ /h	4,0	7,6	11,1	18,4	32,6

Flash back arrestors according to EN 730 for shanks and hose installation



Type	Gas	Outlet pr.	Inlet	Outlet	Art.-Nr.
3	Fuel gas	max. 5 bar	Nozzle 9,0 mm	G 3/8" LH IG	64050
3	Oxygen	max. 15 bar	Nozzle 6,3 mm	G 1/4" IG	64051
3	Fuel gas	max. 5 bar	Nozzle 6,3 mm	G 3/8" LH IG	64052
3	Fuel gas	max. 5 bar	G 1/4" LH AG	Nozzle 6,3 mm	64054
3	Fuel gas	max. 5 bar	G 1/4" LH AG	Nozzle 8,0 mm	64055
3	Fuel gas	max. 5 bar	G 3/8" LH AG	G 3/8" LH IG	64060
3	Oxygen	max. 15 bar	G 1/4" AG	G 1/4" IG	64061
3	Oxygen	max. 15 bar	G 3/8" AG	G 3/8" IG	64067
3	Fuel gas	max. 5 bar	Nozzle 9,0 mm	Nozzle 9,0 mm	64065
3	Oxygen	max. 15 bar	Nozzle 6,3 mm	Nozzle 6,3 mm	64066
3	Fuel gas	max. 5 bar	Nozzle 8,0 mm	Nozzle 4,0 mm	64075
3	Fuel gas	max. 5 bar	Nozzle 6,3 mm	Nozzle 4,0 mm	64076

Flash back arrestors SR according to EN 730 for pressure regulators, single cylinder installation and tubes



Welding up to 30 mm
 Cutting up to 60 mm
 Warm up up to 30 mm

Oxygen G 1/4"
 Fuel gas G 3/8" LH

NV, FA, TV

Art.-Nr.
 64016
 64015

Flash back arrestors SHT according to EN 730 for pressure regulators, single cylinder installation and tubes



Welding up to 30 mm
 Cutting up to 60 mm
 Warm up up to 30 mm

Oxygen G 1/4"
 Fuel gas G 3/8" LH

NV, FA, TV

Art.-Nr.
 64014
 64013

Flash back arrestors DS 1000 according to EN 730 for pressure regulators, single cylinder installation and tubes



Welding up to 30 mm
 Cutting up to 200 mm
 Warm up > 50 mm

Oxygen G 3/8"
 Oxygen G 1/4"
 Fuel gas G 3/8" LH

NV, FA, TV, PV

Art.-Nr.
 64083
 64082
 64084

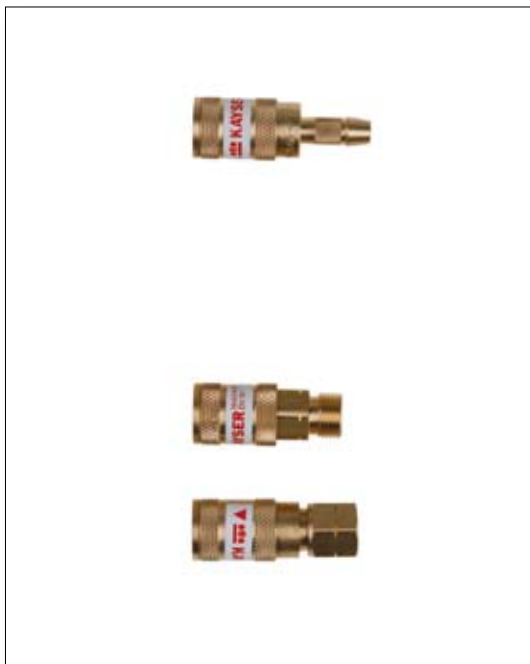
NV = Gasrückventil, FA = Flamm Sperre, TV = Temperaturgesteuerte Nachströmsperre, PV = Pressuregesteuerte Nachströmsperre

Hose splicers acc. to EN 561 stainless steel



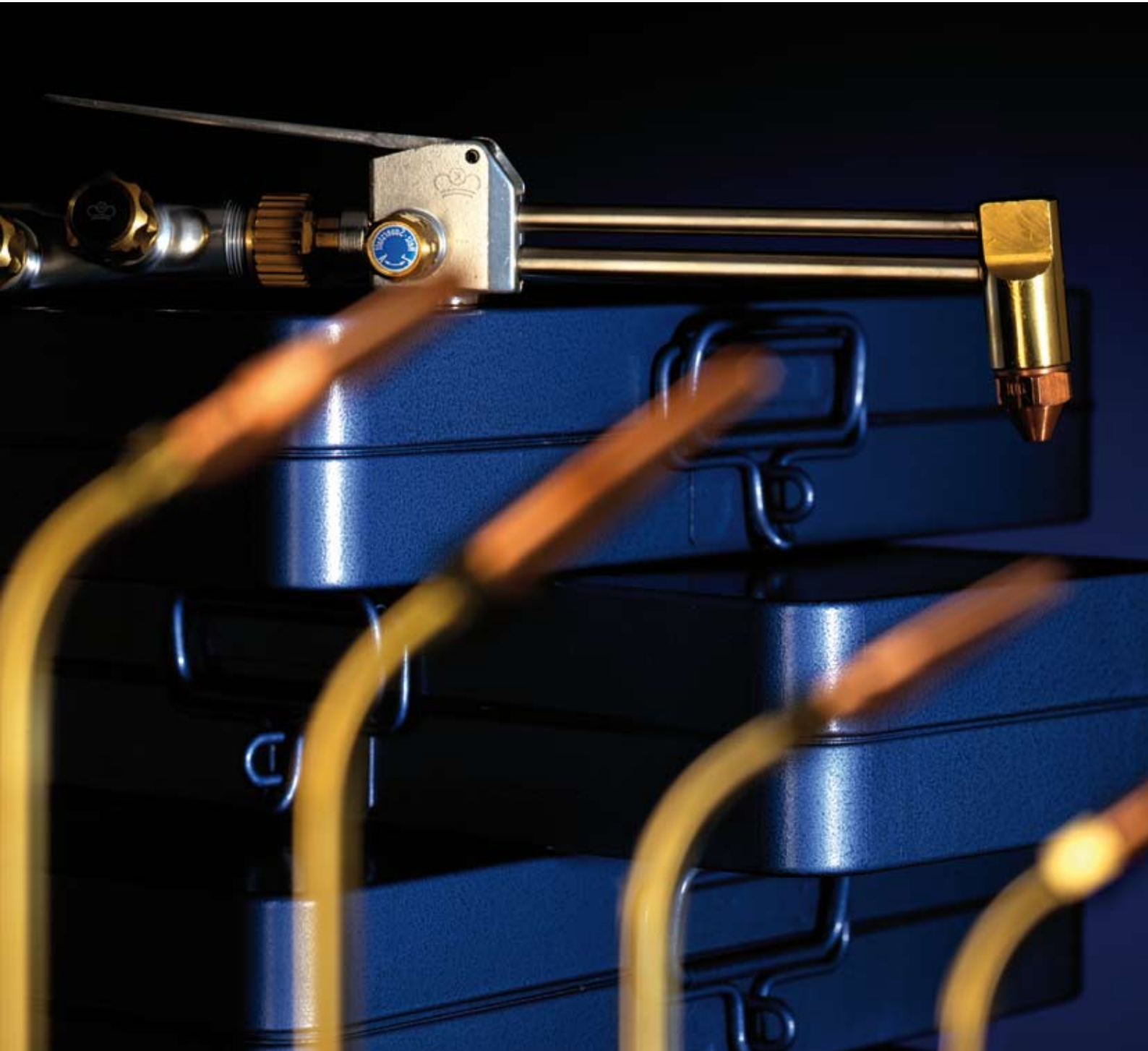
Gas	Inlet		Art.-Nr.
Oxygen	G 1/4" IG	for shank	64196
Fuel gas	G 3/8" LH IG	for shank	64296
Neutral Gas	G 1/4" IG	for device	64396
Oxygen	Nozzle 6,0 mm	for hose installation	64195
Fuel gas	Nozzle 9,0 mm	for hose installation	64295
Oxygen	Nozzle 4,0 mm	for hose installation	64194
Fuel gas	Nozzle 4,0 mm	for hose installation	64294
Fuel gas	Nozzle 6,3 mm	for hose installation	64293
Neutral Gas	Nozzle 6,3 mm	for hose installation	64330
Oxygen	G 1/4" AG	for built-in hoses	64300
Fuel gas	G 3/8" LH AG	for built-in hoses	64310
Neutral Gas	G 1/4" AG	for built-in hoses	64320
Markers			
1 line = O ₂ , 2 lines = fuel gas, 3 lines = neutral gas			

Quick couplers with automatic shut-off acc. to EN 561



Gas	Inlet		Art.-Nr.
Oxygen	Nozzle 6,0 mm	for hose installation	64105
Fuel gas	Nozzle 9,0 mm	for hose installation	64205
Oxygen	Nozzle 4,0 mm	for hose installation	64106
Fuel gas	Nozzle 4,0 mm	for hose installation	64206
Fuel gas	Nozzle 11,0 mm	for hose installation	64207
Fuel gas	Nozzle 6,3 mm	for hose installation	64208
Neutral Gas	Nozzle 6,3 mm	for hose installation	64305
Oxygen	Nozzle 6,0 mm	mit Gasrücktrittsicherung	64400
Fuel gas	Nozzle 9,0 mm	mit Gasrücktrittsicherung	64410
Oxygen	G 1/4" AG	for built-in hoses	64110
Fuel gas	G 3/8" LH AG	for built-in hoses	64210
Neutral Gas	G 1/4" AG	for built-in hoses	64215
Oxygen	G 1/4" IG	for pressure regulator	64600
Fuel gas	G 3/8" LH IG	for pressure regulator	64610
Neutral Gas	G 1/4" IG	for pressure regulator	64620

Cutting and Welding



Combi cutting and welding Set KM 15



Connection ø 15 mm, Oxygen - Acetylene

Consisting of:
Shank, cutting lever torch AR,
torch carriage, nozzle cleander, edge guide,
torch spanner, sheet steel box,
for welding 0,5 - 14 mm for cutting 3 - 100 mm

Art.-Nr.

22100

Combi cutting and welding Set KM 15



Connection ø 15 mm, Oxygen - Acetylene

Consisting of:
Shank, cutting lever torch, AGN/PNME,
torch carriage, cleaning needles, edge guidance,
torch nut spanner, sheet steel box,
for welding 0,5 - 14 mm for cutting 3 - 100 mm

Art.-Nr.

22101

sheet steel box, empty

23140

Shank KM 15



Connection ø 15 mm, with connection nut

Connection nut KM 15

Art.-Nr.

22200

2220001

Lever cutting attachment KM 15



Connection ø 15 mm

for gas mixing nozzles matching AGN, PNME
without nozzles (see figure)

Art.-Nr.

22301

for nozzles matching AR, ARS, without nozzles

22300

Welding attachment KM 15



Size		
0	0,2 - 0,5 mm	22400
1	0,5 - 1 mm	22401
2	1 - 2 mm	22402
3	2 - 4 mm	22403
4	4 - 6 mm	22404
5	6 - 9 mm	22405
6	9 - 14 mm	22406

Art.-Nr.

Heating attachment KM 15



Multihole - copper tip		
Size		
3	2 - 4 mm	22407
4	4 - 6 mm	22408

Art.-Nr.

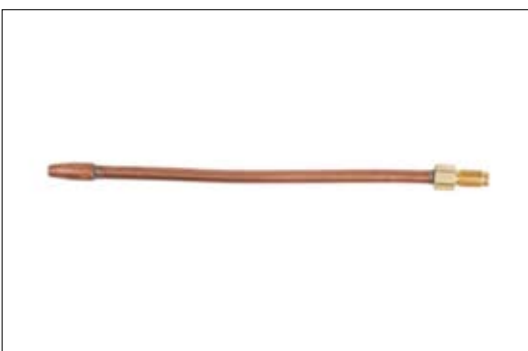
Tube welding attachment KM 15



Copper tube \varnothing 6 mm, flexible		
Size		
2	1 - 2 mm	22505
3	2 - 4 mm	22503
4	4 - 6 mm	22504
5	6 - 9 mm	22502

Art.-Nr.

Tube welding attachment head KM 15



Copper tube \varnothing 6 mm, flexible		
Size		
2	1 - 2 mm	22532
3	2 - 4 mm	22533
4	4 - 6 mm	22534
5	6 - 9 mm	22535

Art.-Nr.

Copper tips KM 15



Size		
0	0,2 - 0,5 mm	2240001
1	0,5 - 1 mm	2240101
2	1 - 2 mm	2240201
3	2 - 4 mm	2240301
4	4 - 6 mm	2240401
5	6 - 9 mm	2240501
6	9 - 14 mm	2240601

Art.-Nr.

Multihole copper tips KM 15



Size		
3	2 - 4 mm	2240701
4	4 - 6 mm	2240801

Art.-Nr.

Combi cutting and welding set KM 17



Connection \varnothing 17 mm, Oxygen - Acetylene connection A consisting of :
shank, torch carriage, edge guidance, cleaning needles, torch nut spanner, sheet steel box,

cutting lever torch with short spindle
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

cutting lever torch with long spindle
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

23100
23101

23130
23131

Combi cutting and welding set KM 17 (Bayonet locking)



Connection \varnothing 17 mm, Oxygen - Acetylene connection B consisting of :
shank, torch carriage, edge guidance, cleaning needles, torch nut spanner, sheet steel box,

cutting lever torch with short spindle
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

cutting lever torch with long spindle
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

24100
24101

24130
24131

Sheet steel box empty

23140

Shank KM 17 A



Connection \varnothing 17 mm, with connection nut

Connection nut KM 17 A

Art.-Nr.

23200

2320001

Shank KM 17 B (Bajonett)



Connection \varnothing 17 mm, with connection nut

Connection nut KM 17 B

Art.-Nr.

24200

2420001

Cutting attachment KM 17



With short spindle

for connection A
without nozzles
with 1 heating and cutting nozzle (AR: H1, S2)

for connection B
without nozzles
with 1 heating and cutting nozzle (AR: H1, S2)

Art.-Nr.

23300
23301

24300
24301

Cutting attachment KM 17



With long spindle

for connection A
without nozzles
with 1 heating and cutting nozzle (AR: H1, S2)

for connection B
without nozzles
with 1 heating and cutting nozzle (AR: H1, S2)

Art.-Nr.

23310
23311

24310
24311

Hole cutting attachment KM 17



With long spindle

for connection A
with 1 heating and cutting nozzle (AR: H1, S2)

for connection B
with 1 heating and cutting nozzle (AR: H1, S2)

Art.-Nr.

23320

24420

Flat head cutting attachment KM 17



With short spindle

for connection A
with 1 heating and cutting nozzle (FK: H1, S2)

for connection B
with 1 heating and cutting nozzle (FK: H1, S2)

Art.-Nr.

23330

24330

Flat head cutting attachment KM 17



With long spindle
for connection B
with 1 heating and cutting nozzle (FK: H1, S2)

Art.-Nr.

24335

Cutting lever attachment KM 17



for connection A
with 1 heating and cutting nozzle (AR: H1, S2)
for connection B
with 1 heating and cutting nozzle (AR: H1, S2)

Art.-Nr.

23340

24340

Welding attachment KM 17



for connection A

Size

- 1 0,5 - 1 mm
- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm
- 6 9 - 14 mm
- 7 14 - 20 mm
- 8 20 - 30 mm

with connection nut
with connection nut

Art.-Nr.

- 23401
- 23402
- 23403
- 23404
- 23405
- 23406
- 23407
- 23408

Welding attachment KM 17



for connection B

Size

- 1 0,5 - 1 mm
- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm
- 6 9 - 14 mm
- 7 14 - 20 mm
- 8 20 - 30 mm

Art.-Nr.

- 24401
- 24402
- 24403
- 24404
- 24405
- 24406
- 24407
- 24408

Heating attachment KM 17



Connection A
 Multihole nozzle
 3 2 - 4 mm
 4 4 - 6 mm

Connection B
 Multihole nozzle
 3 2 - 4 mm
 4 4 - 6 mm

Art.-Nr.
 23409
 23410
 24409
 24410

Tube type welding attachment KM 17



Connection A
 Copper tube \varnothing 6 mm, flexible

Size
 2 1 - 2 mm
 3 2 - 4 mm
 4 4 - 6 mm
 5 6 - 9 mm

Art.-Nr.
 23502
 23503
 23504
 23505

Tube type welding attachment KM 17



Connection B
 Copper tube \varnothing 6 mm, flexible

Size
 2 1 - 2 mm
 3 2 - 4 mm
 4 4 - 6 mm
 5 6 - 9 mm

Art.-Nr.
 24502
 24503
 24504
 24505

Tube type welding attachment head KM 17



Copper tube \varnothing 6 mm, flexible

Size
 2 1 - 2 mm
 3 2 - 4 mm
 4 4 - 6 mm
 5 6 - 9 mm

Art.-Nr.
 23532
 23533
 23534
 23535

Copper tips KM 17



- Size
- 1 0,5 - 1 mm
 - 2 1 - 2 mm
 - 3 2 - 4 mm
 - 4 4 - 6 mm
 - 5 6 - 9 mm
 - 6 9 - 14 mm
 - 7 14 - 20 mm
 - 8 20 - 30 mm

Art.-Nr.

- 2340101
- 2340201
- 2340301
- 2340401
- 2340501
- 2340601
- 2340701
- 2340801

Multihole copper tips KM 17



- Size
- 3 2 - 4 mm
 - 4 4 - 6 mm

Art.-Nr.

- 2340901
- 2341001

Combi cutting and welding set KE 17



Connection \varnothing 17 mm, Oxygen - Acetylene
consisting of:
shank, torch carriage, edge guidance, cleaning needles,
torch nut spanner, Sheet steel box

Cutting lever torch
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

25100
25101

Combi cutting and welding set KE 17



Connection \varnothing 17 mm, Oxygen - Acetylene
consisting of:
shank, torch carriage, edge guidance, cleaning needles,
torch nut spanner, sheet steel box

Lever cutting attachment
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

25120
25121

Sheet steel box empty

23140

Combi cutting and welding set KEK 17



Connection \varnothing 17 mm, Oxygen - Acetylene
consisting of:
Shank, cleaning needles, torch nut spanner,
sheet steel box

Lever cutting attachment
for welding 0,5 - 9 mm, for cutting 3 - 100 mm

Art.-Nr.

25131

Sheet steel box empty

25135

Shank KE 17



Connection \varnothing 17 mm, with connection nut

Connection nut KE 17

Art.-Nr.

25200

2320001

Lever cutting attachment KE 17



without nozzles
with 1 heating and 1 cutting nozzle (KE: H1, S2)
for block type nozzles AB, without nozzles

Art.-Nr.

25300

25301

25304

Lever cutting attachment KE 17



with 1 heating and 1 cutting nozzle (KE: H1, S2)
for block type nozzles AB, without nozzles

Art.-Nr.

25340

25341

Welding attachment KE 17



Size

- | | |
|---|------------|
| 1 | 0,5 - 1 mm |
| 2 | 1 - 2 mm |
| 3 | 2 - 4 mm |
| 4 | 4 - 6 mm |
| 5 | 6 - 9 mm |
| 6 | 9 - 14 mm |
| 7 | 14 - 20 mm |
| 8 | 20 - 30 mm |

Art.-Nr.

25401

25402

25403

25404

25405

25406

25407

25408

Heating attachment KE 17



Multihole copper tips

- Size
- 3 2 - 4 mm
 - 4 4 - 6 mm

Art.-Nr.

- 25409
- 25410

Tube type welding attachment KE 17



Copper tube \varnothing 6 mm, flexible

- Size
- 2 1 - 2 mm
 - 3 2 - 4 mm
 - 4 4 - 6 mm
 - 5 6 - 9 mm

Art.-Nr.

- 25502
- 25503
- 25504
- 25505

Tube type welding attachment head KE 17



Copper tube \varnothing 6 mm, flexible

- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm

Art.-Nr.

- 25532
- 25533
- 25534
- 25535

Copper tips KE 17



- Size
- 1 0,5 - 1 mm
 - 2 1 - 2 mm
 - 3 2 - 4 mm
 - 4 4 - 6 mm
 - 5 6 - 9 mm
 - 6 9 - 14 mm
 - 7 14 - 20 mm
 - 8 20 - 30 mm

Art.-Nr.

- 2140101
- 2140201
- 2140301
- 2540401
- 2540501
- 2540601
- 2540701
- 2540801

Multihole copper tips KE 17



Size

- 3 2 - 4 mm
- 4 4 - 6 mm

Art.-Nr.

- 2540901
- 2541001

Braze welding torch KEP 17 - Propane



Connection ø 17 mm, Oxygen - Propane
 Consisting of:
 Shank, torch nut spanner, mini pressure regulator propane without gauge with combi connection,
 5 mixer 0,5 - 9 mm,
 1 mixer flexible 2 - 4 mm
 Sheet steel box

Art.-Nr.

25150

Braze welding and welding torch KEP 17 - Propane



Connection ø 17 mm, Oxygen - Propane
 Consisting of:
 Shank, torch nut spanner, mini pressure regulator
 Propane without gauge with combi connection,
 5 mixer 0,5 - 9 mm,
 1 mixer flexible 2 - 4 mm
 Flügelhebel -Cutting torch, concentric nozzles PR 3 - 100,
 Sheet steel box

Art.-Nr.

25151

Sheet steel box empty

25135

Shank KEP 17 - Propane



Oxygen - Propane
 Connection ø 17 mm, with connection nut
 Connection nut KE 17

Art.-Nr.

25250

2320001

Lever cutting attachment KEP 17 - Propane



Oxygen - Propane
 with 1 heating and 1 cutting nozzle (PR: PH 1, P 2)

Art.-Nr.

25350

Lever cutting attachment KEP 17 - Propane



Oxygen - Propane
with 1 heating and 1 cutting nozzle (PR: PH 1, P 2)

Art.-Nr.

25351

Braze welding attachment KEP 17 - Propane



Oxygen - Propane

Size

- 1 0,5 - 1 mm
- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm
- 6 9 - 14 mm
- 7 14 - 20 mm
- 8 20 - 30 mm

Art.-Nr.

25451

25452

25453

25454

25455

25456

25457

25458

Heating attachment KEP 17 - Propane



Oxygen - Propane

Multihole copper tips

Size

- 3 2 - 4 mm
- 4 4 - 6 mm

Art.-Nr.

25459

25460

Copper tips KEP 17 - Propane



Oxygen - Propane

Size

- 1 0,5 - 1 mm
- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm
- 6 9 - 14 mm
- 7 14 - 20 mm
- 8 20 - 30 mm

Art.-Nr.

2545101

2545201

2545301

2545401

2545501

2545601

2545701

2545801

Multihole copper tips KEP 17 - Propane



Oxygen - Propane

- Size
- 3 2 - 4 mm
 - 4 4 - 6 mm

Art.-Nr.

- 2545901
- 2546001

Tube type welding attachment KEP 17 - Propane



Oxygen - Propane

Copper tube \varnothing 6 mm, flexible

- Size
- 2 1 - 2 mm
 - 3 2 - 4 mm
 - 4 4 - 6 mm
 - 5 6 - 9 mm

Art.-Nr.

- 25552
- 25553
- 25554
- 25555

Tube type welding attachment head KEP 17 - Propane



Copper tube \varnothing 6 mm, flexible

- Size
- 2 1 - 2 mm
 - 3 2 - 4 mm
 - 4 4 - 6 mm
 - 5 6 - 9 mm

Art.-Nr.

- 25562
- 25563
- 25564
- 25565

Combi cutting and welding set KG 20



Connection \varnothing 20 mm Consisting of:
 shank, torch carriage, edge guidance,
 cleaning needles, torch nut spanner, sheet steel box,
 handwheel cutting torch for concentric nozzles KG
 for welding 0,5 - 14 mm, for cutting 3 - 100 mm
 for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

26100
26101

Combi cutting and welding set KG 20



Connection \varnothing 20 mm Consisting of:
 shank, torch carriage, edge guidance,
 cleaning needles, torch nut spanner, sheet steel box,
 handwheel cutting torch for block type nozzles
 for welding 0,5 - 14 mm, for cutting 3 - 100 mm
 for welding 0,5 - 30 mm, for cutting 3 - 100 mm

Art.-Nr.

26110
26111

Sheet steel box empty 23140

Shank KG 20



Connection \varnothing 20 mm, with connection nut

 Connection nut KG 20

Art.-Nr.

26200
2620001

Handwheel cutting attachment KG 20



For concentric nozzles KG, without nozzles

 with 1 heating and 1 cutting nozzle (KG: H 3 - 30, S 10 - 30)

 for nozzles matching AR, ARS, without nozzles

 for block type nozzles AB, without nozzles

Art.-Nr.

26300
26301
26303
26310

Lever cutting attachment KG 20



für Düsen passend AR, ARS, without nozzles

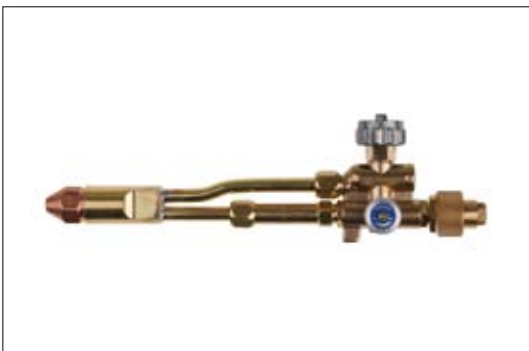
for block type nozzles AB, without nozzles

Art.-Nr.

26307

26309

Hole cutting attachment KG 20



with 1 heating and 1 cutting nozzle (KG: H 3 - 30, S 10 - 30)

for block type nozzles AB, without nozzles

Art.-Nr.

26320

26321

Lever cutting attachment KG 20



with 1 heating and 1 cutting nozzle (KG: H 3 - 30, S 10 - 30)

for block type nozzles AB, without nozzles

Art.-Nr.

26340

26341

Welding attachment KG 20



Size

- 1 0,5 - 1 mm
- 2 1 - 2 mm
- 3 2 - 4 mm
- 4 4 - 6 mm
- 5 6 - 9 mm
- 6 9 - 14 mm
- 7 14 - 20 mm
- 8 20 - 30 mm

with connection nut
with connection nut

Art.-Nr.

26401

26402

26403

26404

26405

26406

26407

26408

Heating attachment KG 20



Multihole copper tips

Size	
3	2 - 4 mm
4	4 - 6 mm

Art.-Nr.

26409
26410

Tube type welding attachment KG 20



Copper tube \varnothing 6 mm, flexible

Size	
2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm

Art.-Nr.

26502
26503
26504
26505

Tube type welding attachment head KG 20



Copper tube \varnothing 6 mm, flexible

Size	
2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm

Art.-Nr.

23532
23533
23534
23535

Copper tips KG 20



Size	
1	0,5 - 1 mm
2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm
6	9 - 14 mm
7	14 - 20 mm
8	20 - 30 mm

2340101
2340201
2340301
2340401
2340501
2340601
2340701
2340801

Multihole copper tips KG 20



Size
3 2 - 4 mm
4 4 - 6 mm

Art.-Nr.
2340901
2341001

Combi cutting and welding set K 3000



Consisting of:
shank, torch carriage, edge guidance,
cleaning needles, torch nut spanner, sheet steel box,
for welding 0,5 - 14 mm, for cutting 3 - 100 mm
with:
cutting lever-cutting torch for concentric nozzles AR
cutting lever-cutting torch for block type nozzles AB
handwheel cutting torch for block type nozzles AB

Art.-Nr.

27100
27101
27103

Combi cutting and welding set K 3000



Consisting of:
shank, torch carriage, edge guidance, cleaning needles,
torch nut spanner, sheet steel box,
for welding 0,5 - 30 mm, for cutting 3 - 100 mm
with:
cutting lever-cutting torch for concentric nozzles AR
cutting lever-cutting torch for block type nozzles AB
Handwheel cutting attachment for block type nozzles AB

Art.-Nr.

27110
27111
27113

Sheet steel box empty

23140

Shank K 3000

Connection \varnothing 20 mm, with connection nut

Connection nut K 3000

Art.-Nr.

27200

2620001

Lever cutting attachment K 3000



For nozzles matching AR, ARS, without nozzles
with 1 heating and cutting nozzle (AR: H1, S2)
for block type nozzles AB, without nozzles
for nozzles matching LPN, PR, PLRC, without nozzles

Art.-Nr.

27340
27341
27342
27343

Lever cutting attachment K 3000

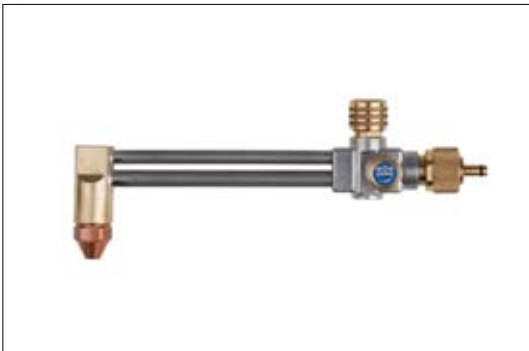


Oxygen / Acetylene - Propane - Methane (Natural gas)
for gas mixing nozzles AGN, PNME

Art.-Nr.

27350

Handwheel cutting attachment K 3000



for nozzles matching AR, ARS, without nozzles
with 1 Heating and cutting nozzle (AR: H1, S2)
for block type nozzles AB, without nozzles

Art.-Nr.

27330

27331

27332

Hole cutting attachment for nozzles matching AR, ARS,
without nozzles

27335

Welding attachment K 3000



Size

- | | |
|---|--------------------------------|
| 1 | 0,5 - 1 mm |
| 2 | 1 - 2 mm |
| 3 | 2 - 4 mm |
| 4 | 4 - 6 mm |
| 5 | 6 - 9 mm |
| 6 | 9 - 14 mm |
| 7 | 14 - 20 mm with connection nut |
| 8 | 20 - 30 mm with connection nut |

27401

27402

27403

27404

27405

27406

27407

27408

Heating attachment K 3000



Multihole nozzle

Size

- | | |
|---|----------|
| 3 | 2 - 4 mm |
| 4 | 4 - 6 mm |

Art.-Nr.

27409

27410

Welding attachment K 3000

Copper tube \varnothing 6 mm, flexible

Size

2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm

Art.-Nr.

27502
27503
27504
27505

Tube type welding attachment head K 3000

Copper tube \varnothing 6 mm, flexible

Size

2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm

Art.-Nr.

23532
23533
23534
23535

Copper tips K 3000



Size

1	0,5 - 1 mm
2	1 - 2 mm
3	2 - 4 mm
4	4 - 6 mm
5	6 - 9 mm
6	9 - 14 mm
7	14 - 20 mm
8	20 - 30 mm

Art.-Nr.

2340101
2340201
2340301
2340401
2340501
2340601
2340701
2340801

Multihole nozzle K 3000

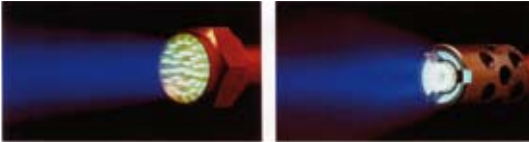


Size

3	2 - 4 mm
4	4 - 6 mm

Art.-Nr.

2340901
2341001



Acetylene NEF-B

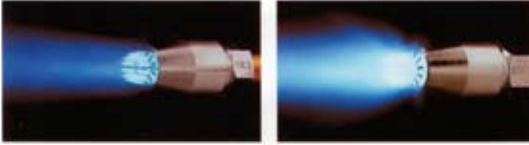
NEF-S

WARM UP / PREHEATING

It might be difficult to distinguish these thermal processes, often these names are used for the same task.

In order to enable clearer definition of the procedures:

- Warm up (Flame heating): for forming purposes
- Preheating: Reaching or maintaining certain temperature levels



Heating nozzles D / DK

In both procedures, the goal is to soak the material. To this end, a flame with low heat flux density is used. The selection of gas depends on the technical requirements or the temperature to be met. If you select the burner you should give preference to the multi-hole nozzle instead of the single-hole nozzle, it is much quieter and prevents the "surface waviness".

High performance shank KS 22



Flow: 30 m³/h
 Connection: Oxygen: G 3/8"
 Fuel gas: G 1/2" LH

Art.-Nr.

31050

Heavy duty attachment KS 22



Oxygen / Acetylene
 Gr. 9 30 - 50 mm
 10 50 - 100 mm

Art.-Nr.

31100

31110

Replacement - Copper tips



Oxygen / Acetylene
 Gr. 9 30 - 50 mm
 10 50 - 100 mm

Art.-Nr.

3110001

3110010

Heating attachment- Acetylene



Copper headed

14 - 20 mm KM 17 A / KE 17
 20 - 30 mm KM 17 A / KE 17
 30 - 50 mm KM 17 A / KE 17

14 - 20 mm KM 17 B
 20 - 30 mm KM 17 B
 30 - 50 mm KM 17 B

14 - 20 mm KG 20
 20 - 30 mm KG 20
 30 - 50 mm KG 20

14 - 20 mm K 3000
 20 - 30 mm K 3000
 30 - 50 mm K 3000

30 - 50 mm KS 22
 50 - 100 mm KS 22

Art.-Nr.

23420
 23421
 23422

24600
 24601
 24602

26600
 26601
 26602

27600
 27601
 27602

31200
 31210

Replacement - Heating nozzle - Acetylene



KM 17 A / KE 17 / KM 17 B / KG 20 / K 3000

14 - 20 mm
 20 - 30 mm
 30 - 50 mm*

30 - 50 mm KS 22*
 50 - 100 mm KS 22*

* brazed

Art.-Nr.

2460011
 2460111
 2460211

3120008
 3121008

Heating attachment - Propane



Copper headed

14 - 20 mm KM 17 A / KEP 17
 20 - 30 mm KM 17 A / KEP 17
 30 - 50 mm KM 17 A / KEP 17

14 - 20 mm KM 17 B
 20 - 30 mm KM 17 B
 30 - 50 mm KM 17 B

14 - 20 mm KG 20
 20 - 30 mm KG 20
 30 - 50 mm KG 20

14 - 20 mm K 3000
 20 - 30 mm K 3000
 30 - 50 mm K 3000

30 - 50 mm KS 22
 50 - 100 mm KS 22

Art.-Nr.

23414
 23415
 23416

24650
 24651
 24652

26650
 26651
 26652

27650
 27651
 27652

31500
 31510

Replacement heating nozzle - Propane



KM 17 A / KEP 17 / KM 17 B / KG 20 / K 3000

 14 - 20 mm
 20 - 30 mm
 30 - 50 mm*

 30 - 50 mm KS 22*
 50 - 100 mm KS 22*

* brazed

Art.-Nr.

 2465011
 2465111
 KAY2465211

 3150008
 3151008

Heating attachment - Acetylene



Brass headed

 7 KM 17 A / KE 17
 Gr. 9 KM 17 A / KE 17

 7 KG 20
 Gr. 9 KG 20

 7 K 3000
 Gr. 9 K 3000

 30 - 50 mm KS 22
 50 - 100 mm KS 22

Art.-Nr.

 23610
 23615

 26610
 26615

 27610
 27615

 31600
 31610

Replacement Heating Nozzle - Acetylene


 7
 Gr. 9
 30 - 50 mm
 50 - 100 mm

Art.-Nr.

 2661007
 2661009
 3160008
 3161008

Heating attachment - Propane



Brass headed

 30 - 50 mm KS 22
 50 - 100 mm KS 22

Art.-Nr.

 31620
 31630

Replacement heating Nozzle - Propane

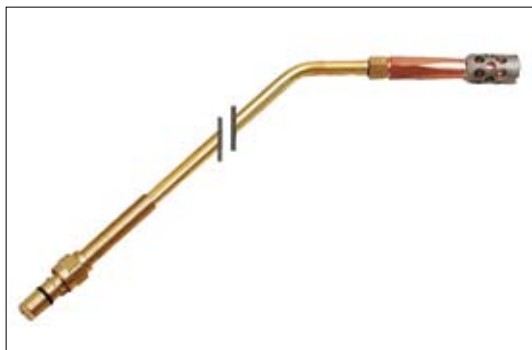


30 - 50 mm
50 - 100 mm

Art.-Nr.

3162008
3163008

Super heating attachment - Acetylene



12 KM 17 A / KE 17
13 KM 17 A / KE 17

12 KG 20
13 KG 20

12 K 3000
13 K 3000

12 KS 22
13 KS 22

Art.-Nr.

23640
23645

26640
26645

27640
27645

31640
31645

Replacement heating nozzle - Acetylene



Size
12
13

Art.-Nr.

2364012
2364013

Warm up torch attachment D - Propane / Natural gas



For preheating of steel structures, with extreme flame power. The bundled The bunched primary flame enables easily controlled warming up.

Type	Size	Length	Art.-Nr.
K 3000	D1	290	27604
K 3000	D2	490	27605
K 3000	D3	650	27606
KM 17A/KE 17	D1	290	23423
KM 17A/KE 17	D2	490	23424
KM 17A/KE 17	D3	650	23425
KS 22	D3	710	31220
KS 22	D4	710	31230
KS 22	D5	710	31240

Warm up head D - Replacement (chromed)



Type	Oxygen Pressure (bar)	Propane Pressure (bar)	Oxygen Consumption (m³/h)	Propane Consumption (m³/h)	Art.-Nr.
D1	3	0,5	1,8	0,5	2760401
D2	5	0,5	6,5	2,03	2760402
D3	6	0,8/1,3	13,0/18,6	4,0/5,5	2760403
D4	6	1,3	21,6	6,2	2760404
D5	6	1,3	23	6,6	2760405

2. value with type D3 is valid for super torch shank size Ø 22 cm

Warm up torch attachment DK - Propane / Natural gas



For concentric preheating of steel structures extreme flame concentration. The warm up head is working with optimal heat-up time. This creates at a high heat density of the gas jet a strong converging flame. Due to the large heat performance DK shall be used only where no accumulation of heat takes place.

Type	Size	Length	Art.-Nr.
K 3000	DK2	490	27607
K 3000	DK3	650	27608
KM 17A/KE 17	DK2	490	23426
KM 17A/KE 17	DK3	650	23427
KS 22	DK3	710	31250

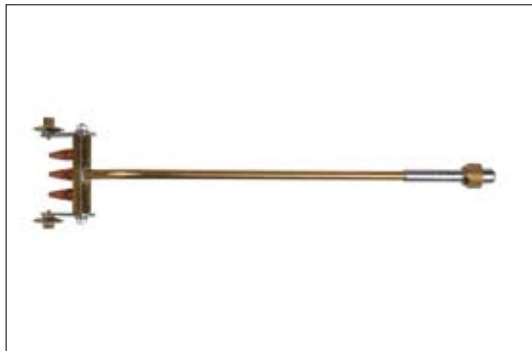
Warm up head DK - Replacement (chromed)



Type	Oxygen Pressure (bar)	Propane Pressure (bar)	Oxygen Consumption (m³/h)	Propane Consumption (m³/h)	Art.-Nr.
DK2	5	0,5	6,5	2,03	2760702
DK3	6	0,8/1,3	13,0/18,6	4,0/5,5	2760803

2. value with type D3 is valid for super torch shank size Ø 22 cm

Triple flame trueing torch



Acetylene / Oxygen
with copper tips 4 - 6 mm

Connection KM 17 A / KE 17
Connection KG 20
Connection K 3000

Art.-Nr.

32060
32061
32062

Five flame trueing torch



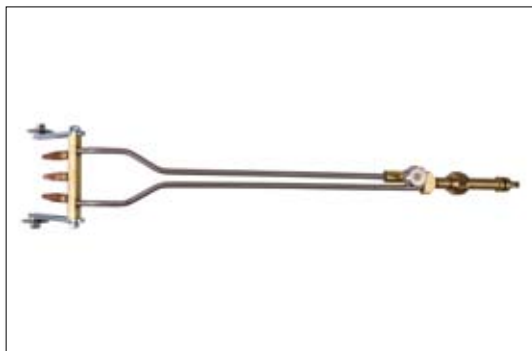
Acetylene / Oxygen
with copper tips 4 - 6 mm

Connection KM 17 A / KE 17
Connection KG 20
Connection K 3000

Art.-Nr.

32160
32161
32162

Triple flame trueing torch



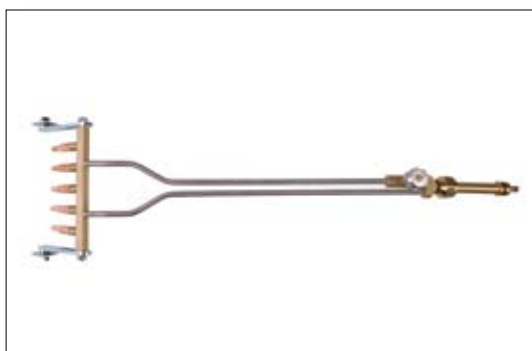
Acetylene / Oxygen
switchable 3/2 flames, with copper tips 4 - 6 mm

Connection KG 20
Connection K 3000

Art.-Nr.

32011
32012

Five flame trueing torch



Acetylene / Oxygen
switchable 5/3 Flames, with copper tips 4 - 6 mm

Connection KM 17 A / KE 17
Connection KG 20
Connection K 3000

Art.-Nr.

32110
32111
32112

Replacement - Copper tips

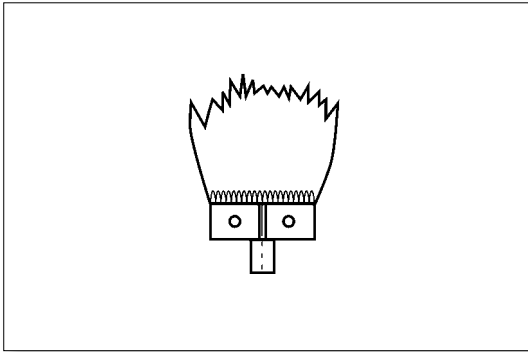


Size	
3	2 - 4 mm
4	4 - 6 mm

Art.-Nr.

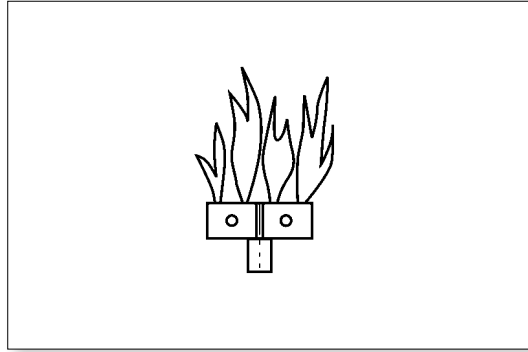
32200
32201

Adjusting the flame with Oxygen excess



Adjusting of a neutral flame with
Adjusting valves at the shank

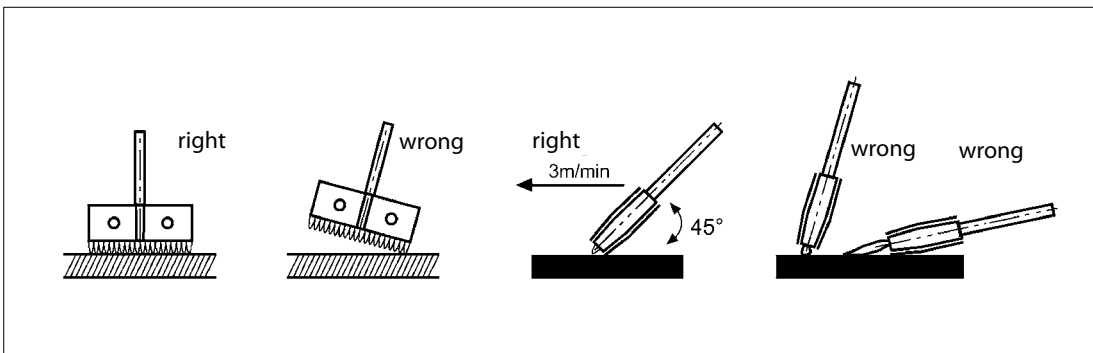
Sharp flame aspects



Adjusting the flame with „exceeding Oxygen“,
blue flame

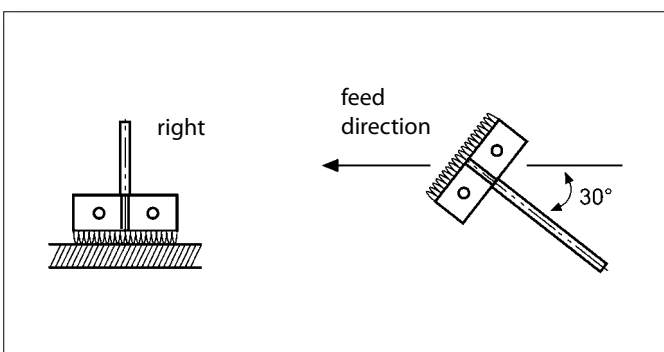
Flames distance to the torch increase

Processing concrete

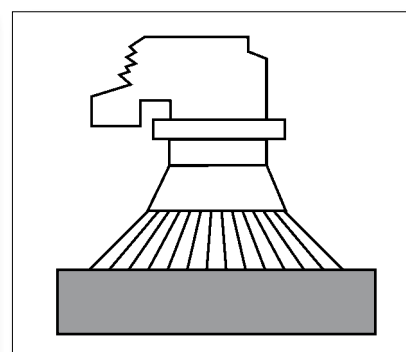


Smoothly touching the surface adjusting a working angle of 45°. the flame tips have to touch the surface

Processing steel constructions



Mechanical finishing with a brush



Brush (right angle grinder)
Revolutions: 1500-2000 U/min

Attention: Cleaning torches!

With torch width 100, 150, 200 and 250 mm large Acetylene consumption.

Max. Acetylene flow from one 50 litre-cylinder = app. 1m³/h.

To reach this target value the Acetylen cylinders have to be bundled, for cylinder couplers see page Z4.

Flame cleaning torch - Acetylene



Torch head single row bored

KM 17 A / KE 17

Torch width	Length
50 mm torch width	440 mm
100 mm torch width	470 mm
150 mm torch width	470 mm
200 mm torch width	1117 mm
250 mm torch width	1117 mm

KG 20

50 mm torch width	440 mm
100 mm torch width	470 mm
150 mm torch width	470 mm
200 mm torch width	1117 mm
250 mm torch width	1117 mm

Art.-Nr.

32305
32310
32315
32320
32325

32405
32410
32415
32420
32425

Consumption values flame cleaning torch

Width (mm)	Oxygen pressure (bar)	Acetylene pressure (m ³ /h)	Oxygen pressure (m ³ /h)	Acetylene consumption (m ³ /h)
50	3	0,5	1,25	1
100	4	0,6	2,5	2
150	5	0,7	3,75	3
200	5	0,7	5	4
250	5	0,7	6,25	5

Attention: Flame cleaning torches with width size 100, 150, 200 and 250 mm the Acetylene consumption is expected to be high. Max. Acetylene consumption from one single cylinder of 50 l = app. 1m³/h.

To keep secure below these critical values please connect single Acetylene cylinders. Cylinder couplers at page Z 4.

Flame descaling torch - Propane / Natural gas



Torch head single row bored

KM 17 A / KE 17

Torch width	Length
50 mm torch width	360 mm
100 mm torch width	370 mm

KG 20

50 mm torch width	360 mm
100 mm torch width	370 mm

Art.-Nr.

32330
32335

32430
32435

Flame descaling torch - Propane / Natural gas



Torch head triple row bored

KS 22	Length
150 mm torch width	550 mm
200 mm torch width	570 mm
250 mm torch width	570 mm

Art.-Nr.

32640
32645
32650

Consumption values flame descaling torch

Torch width (mm)	Oxygen pressure (bar)	Acetylene pressure (m ³ /h)	Oxygen pressure (m ³ /h)	Acetylene consumption (m ³ /h)
50	0,5	0,5	3,5	0,9
100	0,5	0,5	7,7	1,8
150	0,5	0,5	11,3	3,05
200	0,5	0,5	16,2	4,25
250	0,5	0,5	17,5	4,45

Mobile Device / Cutting Torches



Europrop 08 - Oxygen / Propane



Portable brazing set
consisting of:

Cylinder: Oxygen 2 l, Propane 425 g
Pressure regulator: Oxygen / propane regulator Mini
safety elements: Oxygen / Fuel gas
Hoses: Oxygen / Propane 4 x 4, 2,5 m
Shank: KEP 17
Warm up torch 3

Art.-Nr.

25758

Mobile cutting and welding sets - Oxygen / Acetylene

Mobile cutting and welding set 5 l

Consisting of:
Cylinder: Oxygen 5 l, Acetylene 5 l
Pressure regulator: Oxygen / Acetylene
Safety elements: Oxygen / Acetylene
Hoses: Oxygen / Acetylene 5 m
Cutting and welding set KEK 17
for welding 0,5 - 9 mm,
for cutting 3 - 100 mm complete with sheet steel box
cylinder trolley

Art.-Nr.

25760

without cylinder

25762



Mobile cutting and welding set 10 l

Consisting of:
Cylinder: Oxygen 10 l, Acetylene 10 l
Pressure regulator: Oxygen / Acetylene
Safety elements: Oxygen / Acetylene
Hoses: Oxygen / Acetylene 10 m
Cutting and welding set KEK 17
for welding 0,5 - 9 mm,
for cutting 3 - 100 mm
complete with sheet steel box
cylinder trolley

25770

without cylinder

25772

Mobile cutting and welding set 20 l

Consisting of:
Cylinder: Oxygen 20 l, Acetylene 20 l
Pressure regulator: Oxygen / Acetylene
Safety elements: Oxygen / Acetylene
Hoses: Oxygen / Acetylene 10 m
Cutting and welding set KEK 17
for welding 0,5 - 9 mm,
for cutting 3 - 100 mm complete with sheet steel box
cylinder trolley

25771

without cylinder

25773

Cutting torch „Dortmund I“, lever type



Oxygen / Acetylene - Propane - Methane (Natural gas) for gas mixing nozzles AGN, PNME, cutting power up to 300 mm

Length	Torch head
500 mm	90°
800 mm	90°
1000 mm	90°
500 mm	105°
800 mm	105°
1000 mm	105°
500 mm	180°
800 mm	180°

Art.-Nr.
33600
33601
33602
33610
33611
33612
33606
33605

Low pressure - Cutting torch „Dortmund II“, lever type



Cutting power up to 300 mm, length 500 mm

Oxygen / Acetylene for AR - and ARS - nozzles	Torch head	90°	33650
for AR - and ARS - nozzles	Torch head	180°	33657
for gouging-block type nozzles AB	Torch head	180°	33651
for block type nozzles AB	Torch head	90°	33652
for gouging-block type nozzles AB	Torch head	90°	33653
for flat head nozzles	Torch head	90°	33654
Oxygen / Propane, Natural gas for LPN, PLRC, PR - nozzles	Torch head	90°	33655
for NFF- , NX- nozzles	Torch head	90°	33656

Art.-Nr.
33650
33657
33651
33652
33653
33654
33655
33656

Cutting torch „Dortmund I“



Oxygen / Acetylene - Propane - Methane (Natural gas) for gas mixing nozzles AGN, PNME, cutting power up to 300 mm

Lenght	Torch head
500 mm	90°
800 mm	90°
1000 mm	90°
500 mm	105°
800 mm	105°
1000 mm	105°
500 mm	180°

Art.-Nr.
33620
33621
33622
33630
33631
33632
33624

with angle shank	
500 mm	90°

33682

Low pressure - Cutting torch „Dortmund II“, handwheel type



Cutting power up to 300 mm, Length 500 mm

Oxygen / Acetylene for AR - and ARS - nozzles	Torch head	90°	33670
for nozzles AB	Torch head	90°	33672
for nozzles AB	Torch head	90°	33673
for Flat head nozzles	Torch head	90°	33677
Oxygen / Propane, Natural gas for LPN, PLRC, PR - nozzles	Torch head	90°	33675
for NFF- , NX- nozzles	Torch head	90°	33676

Art.-Nr.
33670
33672
33673
33677
33675
33676

with angled shank, Oxygen / Acetylene for AR and ARS - nozzles	Torch head	90°	33680
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33680

Low pressure - Cutting torch SKR / SKF



Shank angled, head 90°

Oxygen / Acetylene for AR - and ARS - nozzles without nozzles

Art.-Nr.

33400

Oxygen / Acetylene for AR- and ARS-nozzles with 1 heating and 1 cutting nozzle (AR: H1, S3)

33401

Oxygen / Acetylene for flat head nozzles without nozzles

33500

Low pressure - Cutting torch SKR / SKB



Shank straight, head 90°

Oxygen / Acetylene for AR - and ARS - nozzles without nozzles

Art.-Nr.

33410

Oxygen / Acetylene for AR- and ARS-nozzles with 1 heating and 1 cutting nozzle (AR: H1, S3)

33411

Oxygen / Propane (Natural gas) for LPN, PLRC, PR - nozzles without nozzles

33460

Oxygen / Acetylene for block type nozzles AB, without nozzles

33510

Low pressure - Cutting torch SKFB / SKFR



Shank straight, head 145°

Gouging blowpipe SKFB with bent gouging block type nozzle AB, 2

Art.-Nr.

33511

Gouging blowpipe SKFR with two-piece heating and cutting nozzle FHR heating nozzle 0-1, cutting nozzle 1

33415



Shank straight, head 180°

Gouging blowpipe SKFR with two-piece Heating and cutting nozzle FHR heating nozzle 0-1, cutting nozzle 1

33416

Machine cutting torch (3 hose)



Oxygen / Propane
for NFF / NX-nozzles

Oxygen / Acetylene
for AR - and ARS - nozzles

Oxygen / Propane
for LPN / PLRC-nozzles

Art.-Nr.

33700

33710

33720

Fine adjustment valves



for Heating Oxygen
for Cutting Oxygen
for Fuel gas

G 1/4"
G 3/8"
G 3/8" LH

Art.-Nr.

KAY500
KAY501
502

Hoses



Steel coated, length:
for Heating Oxygen
for Cutting Oxygen
for Fuel gas

app. 1000 mm
G 1/4"
G 3/8"
G 3/8" LH

Art.-Nr.

3370016
3370017
3370018

Flashback arrestors



Type Gas	Outlet pr.	Inlet	Outlet	Art.-Nr.
3 Fuel gas	max. 5 bar	G 3/8" LH AG	G 3/8" LH IG	64060
3 Oxygen	max. 15 bar	G 1/4" AG	G 1/4" IG	64061
3 Oxygen	max. 15 bar	G 3/8" AG	G 3/8" IG	64067

We recommend to use the heavy duty cutting nozzles at page A 57.

NOZZLES



Concentric nozzles KE 17 - Acetylene



Heating nozzle H 1	3 - 100	mm
Heating nozzle H 2	100 - 300	mm
Cutting nozzle S 0	3 - 12	mm
Cutting nozzle S 1	12 - 25	mm
Cutting nozzle S 2	25 - 50	mm
Cutting nozzle S 3	50 - 100	mm
Cutting nozzle S 4	100 - 200	mm
Cutting nozzle S 5	200 - 300	mm

Art.-Nr.

61000
61005
61006
61007
61008
61009
61010
61011

only matching KE 17

Concentric nozzles KG 20 - Acetylene



Heating nozzle	3 - 30	mm
Heating nozzle	30 - 100	mm
Heating nozzle	100 - 200	mm
Heating nozzle	200 - 300	mm
Cutting nozzle	3 - 10	mm
Cutting nozzle	10 - 30	mm
Cutting nozzle	30 - 60	mm
Cutting nozzle	60 - 100	mm
Cutting nozzle	100 - 200	mm
Cutting nozzle	200 - 300	mm

Art.-Nr.

61100
61101
61102
61103
61110
61111
61112
61113
61114
61115

only matching KG 20 standard head

Flat head nozzles - FK



Heating nozzle Acetylene H 1	2 - 100	mm
Heating nozzle Acetylene H 2	100 - 300	mm
Heating nozzle Propane H 3	3 - 100	mm
Cutting nozzle S 0	1 - 3	mm
Cutting nozzle S 1	3 - 12	mm
Cutting nozzle S 2	12 - 25	mm
Cutting nozzle S 3	25 - 40	mm
Cutting nozzle S 4	40 - 65	mm
Cutting nozzle S 5	65 - 100	mm
Cutting nozzle S 6	100 - 150	mm
Cutting nozzle S 7	150 - 220	mm

Art.-Nr.

61150
61151
61152
61160
61161
61162
61163
61164
61165
61166
61167

only matching flat head torches

Conentric nozzles AR - Acetylene



Heating nozzle H 0	3 - 25 mm	
Heating nozzle H 1	3 - 100 mm	
Heating nozzle H 2	100 - 300 mm	
Cutting nozzle S 0	1 - 3 mm	
Cutting nozzle S 1	3 - 10 mm	
Cutting nozzle S 2	10 - 25 mm	
Cutting nozzle S 3	25 - 40 mm	
Cutting nozzle S 4	40 - 60 mm	
Cutting nozzle S 5	60 - 100 mm	
Cutting nozzle S 6	100 - 200 mm	
Cutting nozzle S 7	200 - 300 mm	

Art.-Nr.
61200
61201
61202
61210
61211
61212
61213
61214
61215
61216
61217

matching KM 15, KM 17, KG 20 with AR head, K 3000, Dortmund 2, SKR

N ozzles matching ARS - Acetylene



Heating nozzle HA	3 - 100 mm	
Heating nozzle HA	100 - 300 mm	
Cutting nozzle SA	3 - 10 mm	
Cutting nozzle SA	10 - 25 mm	
Cutting nozzle SA	25 - 40 mm	
Cutting nozzle SA	40 - 60 mm	
Cutting nozzle SA	60 - 100 mm	
Cutting nozzle SA	100 - 200 mm	
Cutting nozzle SA	200 - 300 mm	

Art.-Nr.
61250
61251
61261
61262
61263
61264
61265
61266
61267

matching KM 15, KM 17, KG 20 with AR head, K 3000, Dortmund 2, SKR

Propane nozzles PR



Heating nozzle PH 1	3 - 100 mm	
Heating nozzle PH 2	100 - 300 mm	
Cutting nozzle P 0	1 - 3 mm	
Cutting nozzle P 1	3 - 12 mm	
Cutting nozzle P 2	12 - 25 mm	
Cutting nozzle P 3	25 - 40 mm	
Cutting nozzle P 4	40 - 65 mm	
Cutting nozzle P 5	65 - 100 mm	
Cutting nozzle P 6	100 - 150 mm	
Cutting nozzle P 7	200 - 300 mm	

Art.-Nr.
61050
61051
61055
61056
61057
61058
61059
61060
61061
61062

matching KEP 17, SKR, Dortmund 2, KM 17, K 3000, KM 15

Nozzles matching LPN - Propane / Methane (Natural gas) / City gas


Heating nozzle KHPL	2 - 100 mm
Heating nozzle KHPL	100 - 300 mm
Cutting nozzle KSPL	3 - 10 mm
Cutting nozzle KSPL	10 - 25 mm
Cutting nozzle KSPL	25 - 40 mm
Cutting nozzle KSPL	40 - 60 mm
Cutting nozzle KSPL	60 - 100 mm
Cutting nozzle KSPL	100 - 200 mm
Cutting nozzle KSPL	200 - 300 mm

Art.-Nr.	
	61300
	61301
	61310
	61311
	61312
	61313
	61314
	61315
	61316

matching Dortmund 2, SKR, KEP 17

Nozzles matching PLRC - Propane / Methane (Natural gas) / City gas


Heating nozzle HPL	2 - 100 mm
Heating nozzle HPL	100 - 300 mm
Heating nozzle Mapp 2	-100 mm 61355
Cutting nozzle SPL 3	- 10 mm
Cutting nozzle SPL 10	- 25 mm
Cutting nozzle SPL 25	- 40 mm
Cutting nozzle SPL 40	- 60 mm
Cutting nozzle SPL 60	- 100 mm
Cutting nozzle SPL100	- 200 mm
Cutting nozzle SPL200	- 300 mm

Art.-Nr.	
	61350
	61351
	61360
	61361
	61362
	61363
	61364
	61365
	61366

matching Dortmund 2, SKR, KEP 17

Block type nozzles AB - Acetylene


3 - 10 mm
10 - 25 mm
25 - 40 mm
40 - 60 mm
60 - 100 mm
100 - 200 mm
200 - 300 mm

Pressure screw

matching KE 17, KG 20, K 3000, Dortmund 2, SKR B

Art.-Nr.	
	61400
	61401
	61402
	61403
	61404
	61405
	61406
	2631032

Gouging block type Nozzles FAB - Acetylene



Bent	Depth	Width	Art.-Nr.
1	3 - 9 mm	6 - 8 mm	61430
2	6 - 11 mm	8 - 11 mm	61431
3	10 - 12 mm	10 - 12 mm	61432
Straight	Depth	Width	Art.-Nr.
1	3 - 9 mm	6 - 8 mm	61440
2	6 - 11 mm	8 - 11 mm	61441
3	10 - 12 mm	10 - 12 mm	61442
Pressure screw		2631032	
matching Dortmund 2, SKB / SKFB			

Gas mixing nozzles AGN - Acetylene



With cone 30°	Art.-Nr.
3 - 10 mm	61460
10 - 25 mm	61461
25 - 40 mm	61462
40 - 60 mm	61463
60 - 100 mm	61464
100 - 200 mm	61465
200 - 300 mm	61466
Pressure screw	3320040
matching KM 15, K 3000, Dortmund 1	

Gas mixing nozzles PNME - Propane / Methane (Natural gas) / city gas



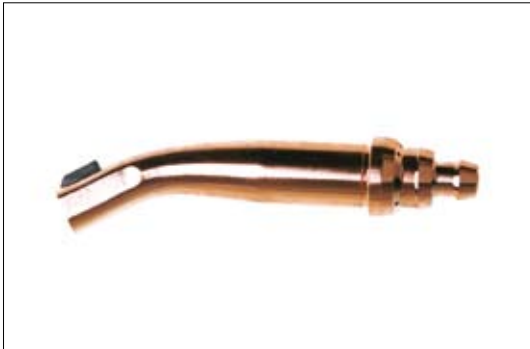
	Art.-Nr.
3 - 10 mm	61470
10 - 25 mm	61471
25 - 40 mm	61472
40 - 60 mm	61473
60 - 150 mm	61474
150 - 300 mm	61476
Pressure screw	3320040
matching KM 15, K 3000, Dortmund 1	

Cutting nozzles NFF - Propane / Natural gas



2 - teilig, outer nozzle copper chromed	Art.-Nr.
NFF 1 6 - 25 mm	61520
NFF 2 25 - 50 mm	61521
NFF 3 50 - 75 mm	61522
NFF 4 75 - 150 mm	61523
NFF 5 150 - 200 mm	61524
NFF 6 200 - 300 mm	61525
Pressure screw	3325602
matching Dortmund 2, machine cutting torch	

Gouging nozzles FAGN - Acetylene



One-piece, gas mixing

Straight

Size 1

Size 2

Size 3

Bent

Size 1

Size 2

Size 3

Pressure screw

matching Dortmund 1, K 3000

Art.-Nr.

61580

61581

61582

61570

61571

61572

3320040

FHR - Concentric gouging nozzles - Acetylene



Two-piece, straight

Heating nozzle size 0 - 1

Heating nozzle size 2 - 3

Size

Depth

Width

0 0 - 5 mm

3 - 6 mm

1 3 - 9 mm

6 - 8 mm

2 6 - 11 mm

8 - 11 mm

3 10 - 12 mm

10 - 12 mm

matching SKFR, Dortmund 2, KM 15, KM 17, KG 20 with AR head, K 3000, SKR

Art.-Nr.

61600

61602

61605

61606

61607

61608

Gouging - Heating and cutting nozzles- Acetylene



For large torch head

Size

Heating nozzle 0

61620

Heating nozzle 1

61621

Cutting nozzle 0

61625

Cutting nozzle 1

61626

Cutting nozzle 2

61627

Cutting nozzle 3

61628

Attention: matching only for thread W 23,3 x 19

Art.-Nr.

Heating nozzles and Cutting nozzles - Acetylene



For cutting machines short version

- Heating nozzle 2 - 10 mm
- Heating nozzle 10 - 125 mm
- Heating nozzle 125 - 300 mm

- Cutting nozzle 2 - 4 mm
- Cutting nozzle 4 - 10 mm
- Cutting nozzle 10 - 20 mm
- Cutting nozzle 20 - 40 mm
- Cutting nozzle 40 - 75 mm
- Cutting nozzle 75 - 125 mm
- Cutting nozzle 125 - 200 mm
- Cutting nozzle 200 - 300 mm

- | Art.-Nr. |
|----------|
| 61700 |
| 61701 |
| 61702 |
| 61710 |
| 61711 |
| 61712 |
| 61713 |
| 61714 |
| 61715 |
| 61716 |
| 61717 |

Flame gouging nozzles - Acetylene



- | | Size |
|----------------------|-------|
| Heating nozzle Cu | 1 - 2 |
| Heating nozzle Cu | 3 |
| Cutting nozzle brass | 1 |
| Cutting nozzle brass | 2 |
| Cutting nozzle brass | 3 |

- | Art.-Nr. |
|----------|
| 61850 |
| 61851 |
| 61860 |
| 61861 |
| 61862 |

Fläme gouging nozzles - Propane / Natural gas / city gas



- | | Size |
|----------------------|-------|
| Heating nozzle Cu | 1 - 2 |
| Heating nozzle Cu | 3 |
| Cutting nozzle brass | 1 |
| Cutting nozzle brass | 2 |
| Cutting nozzle brass | 3 |

- | Art.-Nr. |
|----------|
| 61865 |
| 61866 |
| 61867 |
| 61868 |
| 61869 |

High speed cutting nozzles for cutting machines - Acetylene



- Heating nozzle 3 - 150 mm
- Heating nozzle 150 - 300 mm
- Cutting nozzle 6 - 10 mm
- Cutting nozzle 10 - 25 mm
- Cutting nozzle 25 - 40 mm
- Cutting nozzle 40 - 60 mm
- Cutting nozzle 60 - 100 mm
- Cutting nozzle 100 - 150 mm
- Cutting nozzle 150 - 230 mm
- Cutting nozzle 230 - 300 mm

- | Art.-Nr. |
|----------|
| 61920 |
| 61921 |
| 61924 |
| 61925 |
| 61926 |
| 61927 |
| 61928 |
| 61929 |
| 61930 |
| 61931 |

Matching KM 15, KM 17, KG 20 AR head, K 3000, Dortmund 2, SKR, machine cutting torch

Heavy duty cutting nozzles for cutting machines - Acetylene



- Heating nozzle 2 - 150 mm
- Cutting nozzle 6 - 10 mm
- Cutting nozzle 10 - 25 mm
- Cutting nozzle 25 - 50 mm
- Cutting nozzle 50 - 80 mm
- Cutting nozzle 80 - 100 mm
- Cutting nozzle 100 - 150 mm

- | Art.-Nr. |
|----------|
| 61950 |
| 61954 |
| 61955 |
| 61956 |
| 61957 |
| 61958 |
| 61959 |

Matching KM 15, KM 17, KG 20 AR head, K 3000, Dortmund 2, SKR, machine cutting torch

High speed nozzles for cutting machines - Propane / Mapp / Natural gas



- Heating nozzle 3 - 100 mm
- Heating nozzle 100 - 300 mm
- Cutting nozzle 3 - 6 mm
- Cutting nozzle 7 - 15 mm
- Cutting nozzle 15 - 25 mm
- Cutting nozzle 25 - 40 mm
- Cutting nozzle 40 - 60 mm
- Cutting nozzle 60 - 100 mm
- Cutting nozzle 100 - 150 mm
- Cutting nozzle 100 - 200 mm
- Cutting nozzle 150 - 250 mm
- Cutting nozzle 250 - 300 mm

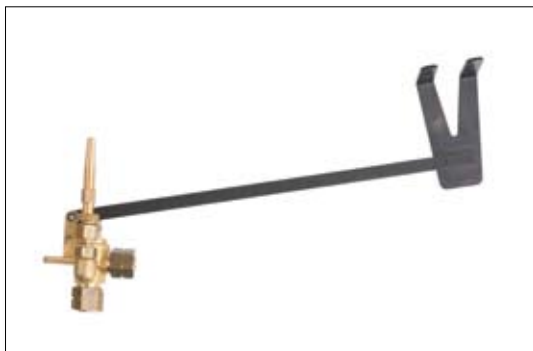
- | Art.-Nr. |
|----------|
| 61970 |
| 61971 |
| 61973 |
| 61974 |
| 61975 |
| 61976 |
| 61977 |
| 61978 |
| 61979 |
| 61980 |
| 61981 |
| 61982 |

Matching KM 15, KM 17, KG 20 AR head, K 3000, Dortmund 2, SKR, machine cutting torch

Accessoires



Gas saver with ignition flame



Acetylene / Oxygen
Propane / Oxygen

Art.-Nr.

66390
66395

Roller guides for round head torches



Head ø 27 mm (short leg)
matching: KM 15, KEP 17, KM 17, KG 20,
K 3000, Dortmund 2

Art.-Nr.

66000

Head ø 27 mm (long leg)
matching: KM 15, KM 17, KG 20, K 3000, Dortmund 1

66001

Head ø 25,5 mm
matching: KE 17

66003

Circle cutting attachment

66054



Single roller guide (head ø 27 mm)

66005

Twin junction valves



G 1/4" for Oxygen / Argon, with nozzles and nuts

Art.-Nr.

66100

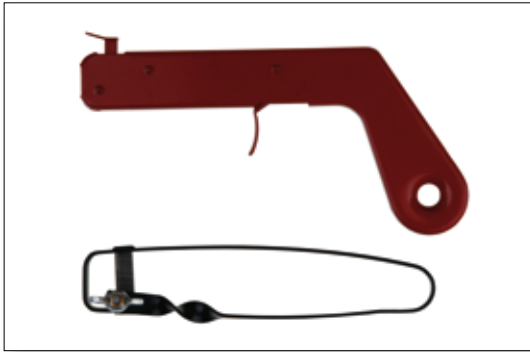
G 3/8" with nozzles and nuts

66110

G 3/8" LH for Fuel gas, with nozzles and nuts

66120

Lighter / flint stones



Pistol lighter
Replacement flint stones 2,6 x 5 mm

Yoke gas lighter
Replacement flint stones 3 x 20 mm

Art.-Nr.

66200
66201

66220
66221

Torch nut spanner



Torch nut spanner

Art.-Nr.

66230

Nozzle cleaner in Alu box



Cleaning needle set in Alu box
consisting of 9 bits and 1 file

Art.-Nr.

66300

Crimping clips acc. to DIN EN 1256



For self-assembly of Autogen and Propane hoses
packaging unit: 200 pcs.

Type	Outer Ø (mm)	Inner Ø (mm)	Wall thickn.
H 10/17	16	6,3	5
	16,3	9	3,5
H 8/13,5	13,3	6,3	3,5
	12	4	4
H 6/12	11	4	3,5

Art.-Nr.

66355

66356

66357

ASS - Binder



ASS - binder (plastic) 16 x 16 mm

ASS - binder (Aluminium) 11 x 11 mm

ASS - binder (Aluminium) 16 x 16 mm

Art.-Nr.

66320

66335

66340

Hose clips



10 - 16 mm

Art.-Nr.

66350

Alu goggles with screwed glasses



Protection goggles Alu with ring nut glasses 5A DIN acc. to EN 166/1

Replacement ring nut glasses 4A DIN

Replacement ring nut glasses 5A DIN

Art.-Nr.

66360

66361

66362

Protective goggles plastic 4A DIN

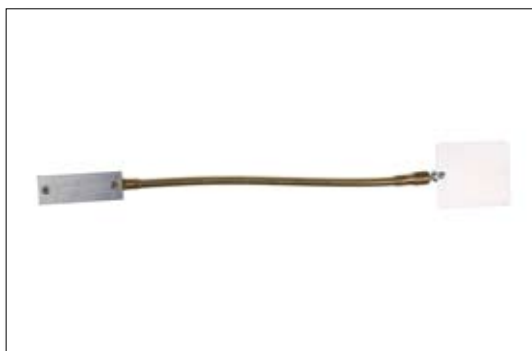


Protective goggles plastic 4A DIN

Art.-Nr.

66370

Magnet hand mirror



Magnet hand mirror

Replacement blade 1,5 mm

Art.-Nr.

66380

66381

Hose nozzles



for G 1/4" x 4 mm
 for G 1/4" x 6 mm shortened
 for G 1/4" x 9 mm shortened

for G 3/8" x 4 mm
 for G 3/8" x 6 mm shortened
 for G 3/8" x 9 mm shortened

for G 1/2" x 6 mm
 for G 1/2" x 9 mm

also available at different sizes

Art.-Nr.

65001

65002

65003

65010

65011

65012

65020

65021

Sleeve nuts



G 1/4" (for nozzle 9 mm)
 G 1/4"
 G 1/4" LH

G 3/8"
 G 3/8" blind nut
 G 3/8" LH

G 1/2"
 G 1/2" LH

G 3/4"
 G 3/4" LH

Art.-Nr.

65049

65050

65051

65060

65061

65062

65070

65071

65073

65083

Screwed male nozzles



G 1/8" x 6 mm

G 1/4" x 6 mm
 G 1/4" x 9 mm

G 3/8" x 6 mm
 G 3/8" LH x 6 mm
 G 3/8" x 9 mm
 G 3/8" LH x 9 mm

G 1/2" x 9 mm

Art.-Nr.

65100

65110

65111

65120

65130

65121

65131

65132

Hose connectors



4 x 4 mm
6 x 6 mm
8 x 8 mm
9 x 9 mm

Art.-Nr.

65150
65151
65153
65152

Hose male couplers, cone type sealing



G 1/4" x G 1/4"
G 1/4" x G 1/4" LH
G 1/4" LH x G 1/4" LH
G 1/4" x G 3/8"
G 1/4" x G 3/8" LH
G 1/4" LH x G 3/8" LH
G 1/4" LH x G 3/8"

G 3/8" x G 3/8"
G 3/8" LH x G 3/8" LH
G 3/8" x G 3/8" LH
G 3/8" x G 1/2"
G 3/8" x G 1/2" LH
G 3/8" LH x G 1/2"
G 3/8" LH x G 1/2" LH
G 3/8" LH x G 3/4"

1/2" x 1/2"
1/2" x 1/2" LH
1/2" LH x 1/2" LH
1/2" x 3/4"
1/2" x 3/4" LH
1/2" LH x 3/4" LH

3/4" x 3/4"
3/4" x 3/4" LH
3/4" LH x 3/4" LH
3/4" x 1"

Art.-Nr.

65200
65201
65202
65203
65204
65208
65216

65205
65206
65207
65223
65224
65225
65226
65227

65230
65209
65232
65233
65234
65235

65243
65244
65245
65246

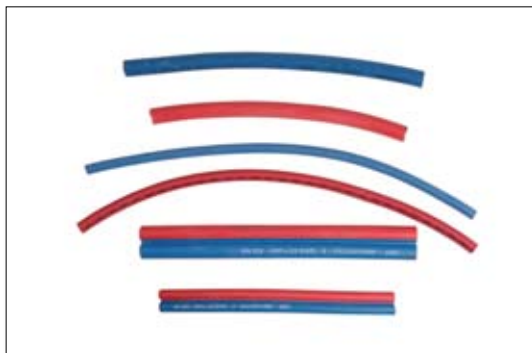
other sizes on demand

Brazing and welding tube socket



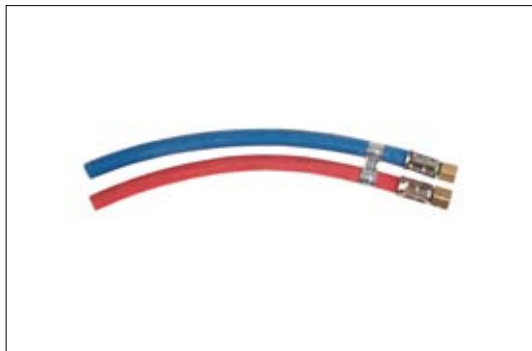
Connection	Ø mm	Brazing	Welding	Art.-Nr.
3/8"	12 (outer)	X		59500
1/2"	14 (outer)	X		59501
3/4"	15 (inner)	X		59502
3/8"	12		X	59503
1/2"	14		X	59504
3/4"	15		X	59505

Unfitted hose (up to 40 m rolls)



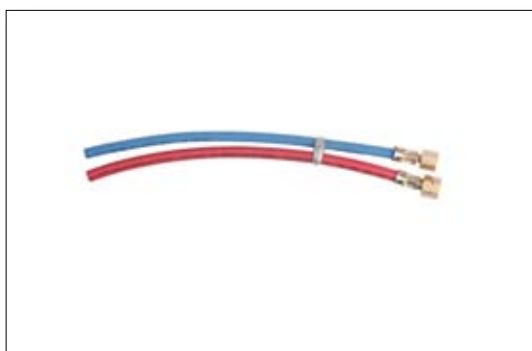
		Art.-Nr.
Oxygen - hose	6,3 x 5 mm	63010
Acetylene - hose	9 x 3,5 mm	63011
Oxygen - hose Liliput	4 x 3,5 mm	63012
Acetylene - hose Liliput	4 x 3,5 mm	63013
Zwillings - hose Oxygen - Acetylene	6 x 9 mm	63014
Zwillings - hose Oxygen - Acetylene Liliput	4 x 4 mm	63015

Oxygen / Acetylene - Hose, fitted



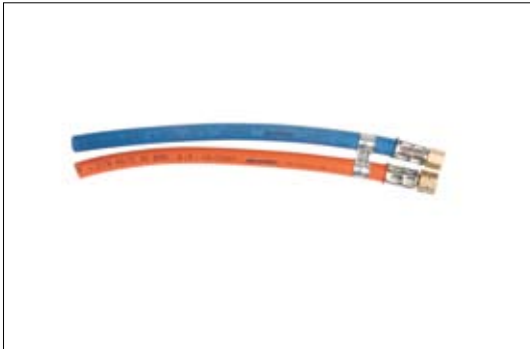
	Art.-Nr.
with ASS - clips	
5 m	63100
10 m	63200
20 m	63300
30 m	63400
40 m	63500

Oxygen / Acetylene - Hose, fitted



	Art.-Nr.
Liliput with ASS - clips	
2,5 m	63050
5 m	63101
10 m	63201
20 m	63301
30 m	63401
40 m	63501

Oxygen / Propane - Hose, fitted



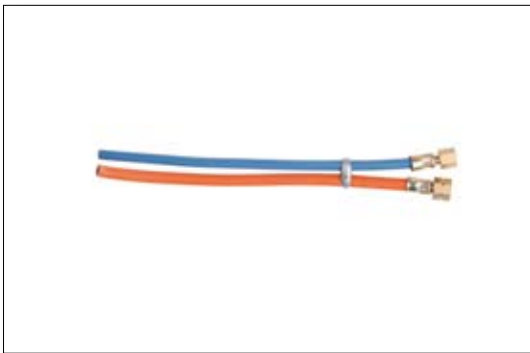
With ASS - clips

- 5 m
- 10 m
- 20 m
- 30 m
- 40 m

Art.-Nr.

- 63104
- 63204
- 63304
- 63404
- 63504

Oxygen / Propane - Hose, fitted



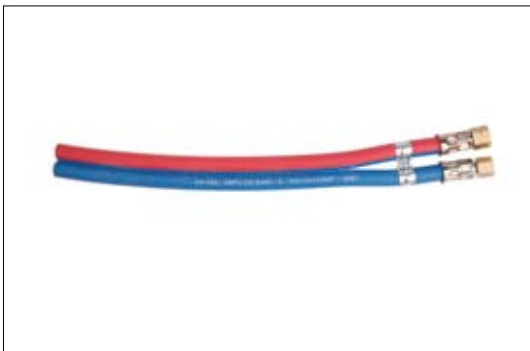
Liliput with ASS - clips

- 2,5 m
- 5 m
- 10 m
- 20 m
- 30 m
- 40 m

Art.-Nr.

- 63052
- 63105
- 63205
- 63305
- 63405
- 63505

Twin hose - Oxygen / Acetylene, fitted

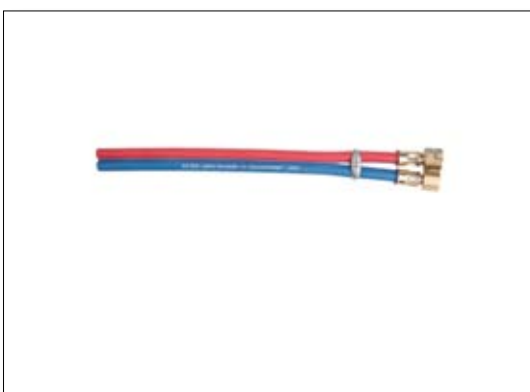


- 5 m
- 10 m
- 20 m
- 30 m
- 40 m

Art.-Nr.

- 63102
- 63202
- 63302
- 63402
- 63502

Twin hose - Oxygen / Acetylene, fitted



Liliput

- 2,5 m
- 5 m
- 10 m
- 20 m
- 30 m
- 40 m

Art.-Nr.

- 63003
- 63103
- 63203
- 63303
- 63403
- 63503

PREHEATING AND BRAZING



Shank - Propane



With shut-off valve, operating lever
and adjustable supervision flame
working pressure: 1,5 - 4 bar
hose connection: G 3/8" LH
connection for attachment: M 14 x 1

with swivel nut and hose nozzle 4 mm
with swivel nut and hose nozzle 6 mm

Art.-Nr.

41000

41001

41002

Shank - Propane



With shut-off valve
working pressure: 1,5 - 4 bar
hose connection: G 3/8" LH
connection for attachment: M 14 x 1
the flame size should not exceed 100 mm

with swivel nut and hose nozzle 4 mm
with swivel nut and hose nozzle 6 mm

Art.-Nr.

41030

41031

41032

Soft soldering attachment - Propane



Working pressure: 1,5 - 2,5 bar

3 borings 3 mm
5 borings 5 mm
7 borings 7 mm

Art.-Nr.

41051

41052

41053

Brazing attachment - Propane



Working pressure 1,5 - 2,5 bar

12 für Kupferrohre ø 12 mm
14 für Kupferrohre ø 18 mm
17 für Kupferrohre ø 22 mm
20 für Kupferrohre ø 28 mm

Art.-Nr.

41061

41062

41063

41064

Paint remover fan burner



Working pressure: 1,5 - 2,5 bar

32 mm
64 mm

Art.-Nr.

41100
41110

Soldering attachment



Working pressure: 1,5 - 2,5 bar

Consisting of: chisel-shaped soldering iron 350 g,
soldering torch with holder, wind break with parking clamp

Art.-Nr.

41300

Soldering bit

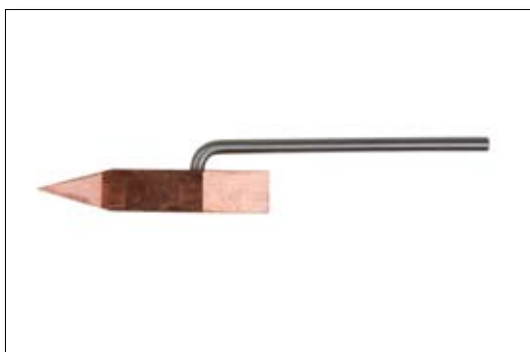


Soldering bit 250 g straight
Soldering bit 350 g angled
Soldering bit 500 g angled

Art.-Nr.

41200
41201
41202

Pointed soldering stick



Pointed soldering stick 250 g
Pointed soldering stick 350 g

Art.-Nr.

41210
41211

Soldering torch



Soldering torch with holder

Art.-Nr.
41250

Wind break with parking bracket



Wind break with parking bracket

Art.-Nr.
41260

Bristle flame cleaner - Propane



Consisting of:
Propane shank with operating lever and adjustable supervision flame, protection shield, connector 75 mm, torch head ø 50 mm

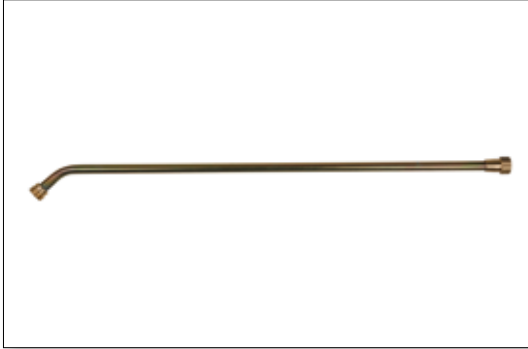
Art.-Nr.
41310

Torch head - Stainless steel / Alu



	Gas consumption at 1,5 bar:	Art.-Nr.
ø 30 mm	app. 600 g/h	41730
ø 40 mm	app. 2000 g/h	41740
ø 50 mm	app. 3000 g/h	41750
ø 60 mm	app. 5000 g/h	41760
ø 80 mm	app. 6200 g/h	41780

Connector tube, steel



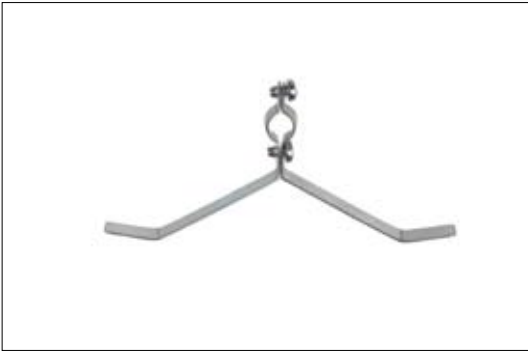
Swivel nut M 14X1 to AG M20x1

Length
 75 mm
 150 mm
 220 mm
 350 mm
 600 mm
 750 mm
 1000 mm

Art.-Nr.

41805
 41810
 41820
 41835
 41860
 41875
 41890

Parking bracket



Deposition device

Art.-Nr.

41800

Multineck tube - 2 outlets



Multineck tube - 2 outlets

Art.-Nr.

41900

Multineck tube - 4 outlets



Multineck tube - 4 outlets

Art.-Nr.

41910

Brazing set - Propane



Consisting of:
 Propane - Shank
 soldering attachment with 350 g soldering bit
 mini pressure regulator „MINI“ with combi connection
 and gauge
 Brazing torches: 12, 14, 17, 20
 1,5 m HD-Hose, bds. Swivel nut G 3/8" LH
 torch nut spanner, gas lighter, im sheet steel box

Art.-Nr.

41400

Combi brazing, soft soldering and flame cleaning set



Consisting of:
 Propane - shank
 soldering attachment with 350 g soldering bit
 mini pressure regulator „MINI“ with combi connection and gauge
 soft soldering torch 5
 brazing torches: 12, 14
 paint remove torch 64 mm
 1,5 m HD hose with swivel nut G 3/8" LH,
 torch nut spanner, gas lighter, sheet steel box

Art.-Nr.

41410

Sheet steel box empty

41140

Brazing set - Propane



Consisting of:
 Propane - shank
 mini pressure regulator „MINI“ with combi connection and
 gauge
 brazing attachment: 14
 paint remove torch 64 mm
 1,5 m HD-Hose, bds. swivel nut G 3/8" LH

Art.-Nr.

41500

Large scale professional warm-up set - Propane



Consisting of:
 Propane - shank
 connector 600 mm
 torch head ø 60 mm
 support
 5 m HD-hose, swivel nut G 3/8" LH,
 mini pressure regulator with combi connection without gauge
 hose check valve 12 kg/h

Art.-Nr.

41610

Small scale professional heating set - Propane



Consisting of:
 Propane - shank
 connector 600 mm
 torch head ø 50 mm
 support
 5 m HD-Hose, bds. Swivel nut G 3/8" LH
 mini pressure regulator „MINI“ with combi
 connection without gauge
 hose check valve 12 kg/h

Art.-Nr.

41611

Line burner



Moveable, vertical adjustable, with attached
 connection tube 600 mm, without torch heads
 connection for shank: G 3/8" (Art.-No.: 41040)
 connection for torch head: M 20 x 1

Art.-Nr.

4 flames

41920

6 flames

41930

Shank for line burner - Propane



With shut-off valve, operating lever and adjustable
 supervision flame
 working pressure: 1,5 - 4 bar
 hose connection: G 3/8" LH
 connection for attachment: G 3/8"

Art.-Nr.

41040

with swivel nut and hose nozzle 6 mm

41041



With Piezo electric ignition, bayonet locking, continuously adjustable flame and turnable hose connection G 3/8" LH

Complete set consisting of:

- shank
- brazing torch \varnothing 19 and 25 mm
- soft soldering torch \varnothing 19 and 25 mm
- special torch \varnothing 9 mm

Art.-Nr.

45000



Shank with support

45003

Special torch for precision works

- torch tube: \varnothing 9 mm
- consumption: 55 g/h

45004



Brazing torch

- \varnothing 19 mm
- consumption: 250 g/h
- for tube brazing to \varnothing 22 mm
- for tube soft soldering to \varnothing 40 mm

45006

- \varnothing 25 mm
- consumption: 580 g/h
- for tube brazing to \varnothing 28 mm
- for tube soft soldering to \varnothing 60 mm

45007



Soft soldering torch

- \varnothing 19 mm
- consumption: 250 g/h
- for tube soft soldering to \varnothing 50 mm

45008

- \varnothing 25 mm
- consumption: 580 g/h
- for tube soft soldering to \varnothing 70 mm

45009

Soft Soldering



Soldering iron, complete



Consisting of:

shank
soldering bit 350 g
heating torch, torch support, wind break

Shank: M 10 x 1 LH

Shank: M 10 x 1 LH without soldering bit

Shank: G 3/8" LH

Shank: G 3/8" LH without soldering bit

Art.-Nr.

42000

42010

42050

42060

Shank



Hose connection: M 10 x 1 LH

Hose connection: G 3/8" LH

Art.-Nr.

42100

42110

Chisel-shaped soldering iron



250 g straight
350 g bent
500 g bent

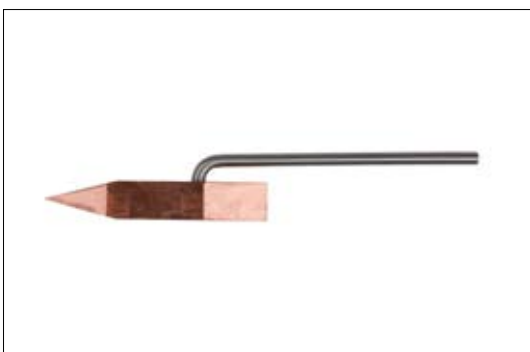
Art.-Nr.

41200

41201

41202

Soldering iron



250 g
350 g

Art.-Nr.

41210

41211

Wind break / Soldering iron / Holder



Wind break
Soldering bit
Soldering bit holder

Art.-Nr.
42170
42150
42160

Soldering attachment



Size
3
5
7

Art.-Nr.
42203
42205
42207

Soldering tube



Soldering torch 18 mm

Art.-Nr.
42218

Paint remove fan burner



For paint removing, etc.
torch 32 mm
torch 64 mm

Art.-Nr.
42300
42310

Soldering set, complete for Propane



Consisting of:

Complete soldering iron with copper bit 350 g
 1,5 m HD-Hose, swivel nuts
 mini pressure regulator „MINI“ with small cylinders connection
 without gauge
 small cylinder
 torch nut spanner

M 10 x 1 LH

Art.-Nr.

42400

G 3/8" LH

42404

Soldering set, for Propane



bestehend aus:

Complete soldering iron with copper bit 350 g
 soldering iron 3, 5, 7
 torch nut spanner
 Gas lighter
 Sheet steel box

M 10 x 1 LH

Art.-Nr.

42410

G 3/8" LH

42415

Soldering set, with small cylinder for Propane



Consisting of:

Complete soldering iron with copper bit 350 g
 soldering iron 3, 5, 7
 soldering tube 18 mm
 paint remove torch 32 mm and 64 mm
 mini pressure regulator „MINI“ without gauge
 1,5 m HD-hose, swivel nuts
 decanting adapter, torch nut spanner, gas lighter,
 im sheet steel box

M 10 x 1 LH

Art.-Nr.

42420

G 3/8" LH

42425

Sheet steel box empty

3023

Small cylinder, for Propane 425 g



TÜV checked
seamless pultruded steel cylinder with valve and hook
connection: G 3/8" LH

with foot

without foot

Art.-Nr.

42500

42510

Valve, hook and protection bracket for small cylinder



Valve for small cylinder

Hook for small cylinder

Protection bracket for small cylinder (without figure)
after first filling as transport protection acc. to ADR

Art.-Nr.

42550

42555

42560

Decanting adapter



For filling small cylinders 425 g
size 5 kg and 11 kg cylinder (household connection)

For filling small cylinders 425 g
size 5 kg, 11 kg and 33 kg cylinder (combi connection)

Art.-Nr.

42600

42610

Reduction adapter



Swivel nut G 3/8" LH
Male thread W 21,8 x 1/14 LH

Art.-Nr.

44500

Low pressure regulator



Only use outside!
crimped version

Outlet pressure: fixed 50 mbar
Flow: 1,5 kg/h
Outlet: G 1/4" LH

Small cylinder connection
combi connection

Art.-Nr.

44100
44101

NiederDruckregler



für Haushalts- und Gewerbeanlagen im Gebäude
mit ÜberDruckversicherung, thermischer Absperrinrichtung
und Kontrollmanometer

Outlet: 45°
Outlet pressure : fest eingestellt 50 mbar
Flow: 1,5 kg/h
Outlet: G 1/4" LH

Small cylinder connection

Art.-Nr.

44140

Low pressure regulator



Only for export
Crimped version
Outlet pressure: fixed
Flow:
Outlet:

30 mbar
1,5 kg/h
G 1/4" LH

Small cylinder connection

Art.-Nr.

44102

Middle pressure regulator



Outlet pressure : fest eingestellt 1,5 bar
Flow: 3 kg/h
Outlet: G 3/8" LH

Combi connection

Art.-Nr.

44201

Liquid gas mini pressure regulator „Mini“



Without gauge
 Outlet pressure adjustable: 0,5 - 4 bar
 Flow: 6 kg/h
 Hose connection: G 3/8" LH

with combi connection

with G 3/8" LH for small cylinder

Outlet pressure fest eingestellt auf 1,5 bar
 mit G 3/8" LH für Kleinstflasche

Art.-Nr.

44300

44301

44302

Liquid gas mini pressure regulator „Mini“



With gauge
 outlet pressure adjustable: 0,5 - 4 bar
 flow: 6 kg/h
 hose connection: G 3/8" LH

with combi connection

with G 3/8" LH for small cylinder

Art.-Nr.

44310

44311

Liquid gas mini pressure regulator



Without gauge
 outlet pressure adjustable: 0,5 - 6 bar
 flow: 18 kg/h
 hose connection: G 3/8" LH

with small cylinder connection W 21,8 x 1 / 14 LH

with combi connection

outlet pressure fixed auf 4 bar
 with combi connection

Art.-Nr.

44400

44402

44403

Liquid gas mini pressure regulator



With gauge
 outlet pressure adjustable: 0,5 - 6 bar
 flow: 18 kg/h
 hose connection: G 3/8" LH

with small cylinder connection W 21,8 x 1 / 14 LH

with combi connection

replacement gauge G 1/8" ø 40 mm

replacement combi sealing

Art.-Nr.

44410

44412

24210015

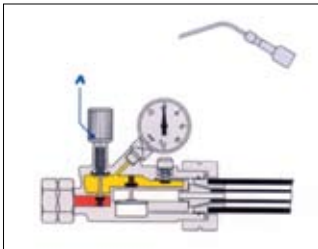
24310017

HOSE CHECK VALVES

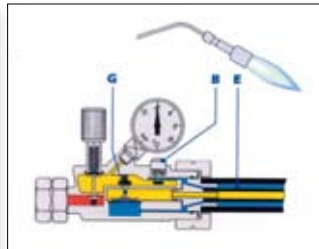


KAYSER-GAS-STOP

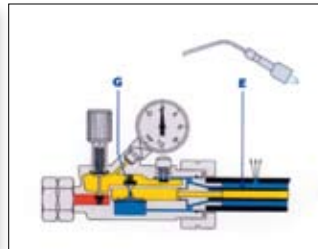
- Complies with all legal requirements
- safe protection against micro-tube leaks, hose inflaming and leaky regulators
- on demand with integrated cylinder pressure regulator



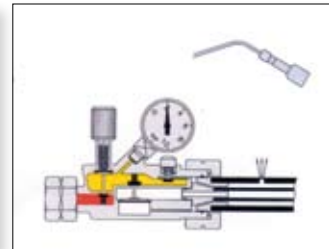
1. Start-up: open cylinder valve and set up pressure with A adjusting spindle.



2. By confirming the filling knob B gas flows into the outer hose chamber E via valve into the inner hose. Now the device is ready to be run.



3. For leaks at the hose or hose fittings the gas will leak from the outer tube chamber E and the gas supply is automatically interrupted by the valve G.



4. The gas supply was automatically shut off. There is no more gas in the tube.

GS 17 Regulator



Adjustable 0-4 bar, with combi connection
with gauge
without gauge

Art.-Nr.
45200
45210

GS 17 Twin hose / Connector



Lenght: 3 m
Lenght: 5 m
Lenght: 10 m
Lenght: 20 m

GS 17 hose connector G 3/8" LH

Art.-Nr.
45220
45230
45240
45250
45260

Hose check valves - Propane

The hose check valve prevents the leak of gas in case of damage or loosening of the hose, and closes the gas flow as soon as the required operating quantity is exceeded by 10%.
Back to the reopening by hand.

Not required for small cylinders



1,5 bar - 3 kg/h
Rated pressure: 1,5 bar
Rated flow: 3,0 kg/h
Inlet: G 3/8" LH IG
outlet G 3/8" LH AG

Art.-Nr.

43003

1,5 bar - 6 kg/h
Rated pressure: 1,5 bar
Rated flow: 6,0 kg/h
Inlet: G 3/8" LH IG
Outlet G 3/8" LH AG

43006

1,5 bar - 8 kg/h
Rated pressure: 1,5 bar
Rated flow: 8,0 kg/h
Inlet: G 3/8" LH IG
Outlet G 3/8" LH AG

43008

0,5 - 4,0 bar - 4,8 - 10 kg/h
Rated pressure: 0,5 - 4 bar
Rated flow: 4,8 - 10 kg/h
Inlet: G 3/8" LH IG
Outlet G 3/8" LH AG

43010

0,5 - 4,0 bar - 7,4 - 12 kg/h
Rated pressure: 0,5 - 4 bar
Rated flow: 7,4 - 12 kg/h
Inlet: G 3/8" LH IG
Outlet G 3/8" LH AG

43012

Information

Selecting the device please keep care that the size and the inlet pressure of the consumer is always lower than the value of the check valve hose or does not exceed. Both values should not distinguish to large for security reasons.

Example:
Consumption value: 2,0 bar - 7 kg/h
Hose check valve:
1,5 bar - 6,0 kg/h = bad
0,5-4 bar - 7,4-12 kg/h = bad
0,5-4 bar - 4,8-10 kg/h = OK

Accessories



High pressure hoses PB 30



High pressure hose 6,3 x 5 mm

G 3/8" LH x G 3/8" LH x	1500 mm
G 3/8" LH x G 3/8" LH x	2000 mm
G 3/8" LH x G 3/8" LH x	2500 mm
G 3/8" LH x G 3/8" LH x	3000 mm
G 3/8" LH x G 3/8" LH x	5000 mm
G 3/8" LH x G 3/8" LH x	8000 mm
G 3/8" LH x G 3/8" LH x	10000 mm

Art.-Nr.

63820
63821
63822
63823
63824
63825
63826

High pressure hoses PB 30



High pressure hose 4 x 4 mm

G 3/8" LH x G 3/8" LH x	1500 mm
G 3/8" LH x G 3/8" LH x	2000 mm
G 3/8" LH x G 3/8" LH x	2500 mm
G 3/8" LH x G 3/8" LH x	3000 mm
G 3/8" LH x G 3/8" LH x	4000 mm
G 3/8" LH x G 3/8" LH x	5000 mm
G 3/8" LH x G 3/8" LH x	8000 mm
G 3/8" LH x G 3/8" LH x	10000 mm

Art.-Nr.

63806
63807
63808
63809
63810
63811
63812
63814

High pressure hoses PB 30



High pressure hose 4 x 4 mm

M 10 x 1 LH x G 3/8" LH x	1500 mm
M 10 x 1 LH x G 3/8" LH x	2000 mm
M 10 x 1 LH x G 3/8" LH x	2500 mm
M 10 x 1 LH x G 3/8" LH x	3000 mm
M 10 x 1 LH x G 3/8" LH x	4000 mm
M 10 x 1 LH x G 3/8" LH x	5000 mm
M 10 x 1 LH x G 3/8" LH x	8000 mm

Art.-Nr.

63800
63801
63802
63803
63804
63805
63813

T-Connector


 2 x combi connection male thread
 1 x combi connection female thread

Art.-Nr.

63740

G - Hose, high pressure



Inlet cylinder connection
 Outlet cylinder connection male
 Length: 300 mm

Art.-Nr.

63700

Inlet combi connection
 Outlet cylinder connection male
 Length: 300 mm

63710

Inlet cylinder connection
 Outlet tube stub with swivel nut and
 ø 12 mm tube fitting
 Length: 300 mm

63720

Both sides combi connection
 Length: 400 mm

63725

Fitted hoses, medium pressure PB 6



Swivel nut x tube fitting

Art.-Nr.

G 1/4" LH x	8 x	300 mm	6,3 x 3,5	63600
G 1/4" LH x	8 x	500 mm	6,3 x 3,5	63601
G 1/4" LH x	8 x	800 mm	6,3 x 3,5	63602
G 1/4" LH x	8 x	1000 mm	6,3 x 3,5	63603
G 1/4" LH x	8 x	1500 mm	6,3 x 3,5	63604
G 1/4" LH x	8 x	2000 mm	6,3 x 3,5	63605
G 1/4" LH x	8 x	3000 mm	6,3 x 3,5	63606
G 1/4" LH x	8 x	5000 mm	6,3 x 3,5	63607
G 1/4" LH x	12 x	300 mm	9,0 x 3,5	63608
G 3/8" LH x	8 x	300 mm	6,3 x 3,5	63609
G 3/8" LH x	12 x	300 mm	9,0 x 3,5	63610
G 1/2" LH x	8 x	300 mm	9,0 x 3,5	63611
G 1/2" LH x	12 x	300 mm	9,0 x 3,5	63612

63600

63601

63602

63603

63604

63605

63606

63607

63608

63609

63610

63611

63612

Fitted hoses, medium pressure PB 6



Both sides swivel nut

Art.-Nr.

G 1/4" LH x G 1/4" LH x	500 mm	6,3 x 3,5	63620
G 1/4" LH x G 1/4" LH x	800 mm	6,3 x 3,5	63621
G 1/4" LH x G 1/4" LH x	1000 mm	6,3 x 3,5	63622
G 1/4" LH x G 1/4" LH x	1500 mm	6,3 x 3,5	63623
G 1/4" LH x G 1/4" LH x	2000 mm	6,3 x 3,5	63624
G 1/4" LH x G 1/4" LH x	3000 mm	6,3 x 3,5	63625

63620

63621

63622

63623

63624

63625

Hoses unfitted



High pressure
High pressure
Medium pressure
Medium pressure

PB 30 4,0 x 4,0
PB 30 6,3 x 5,0
PB 6 6,3 x 3,5
PB 6 9,0 x 3,5

Art.-Nr.
63850
63860
63650
63660

Hose nozzles



M 10 x 1 LH x 4 mm
M 10 x 1 LH x 6 mm
G 1/4" LH x 4 mm
G 3/8" LH x 4 mm short

Art.-Nr.
65090
65091
65004
65013

Swivel nuts



M 10 x 1 LH
G 1/4" LH
G 3/8" LH
Blind nut G 3/8 LH
Blind nut G 3/8 LH with chain

Art.-Nr.
65080
65051
65062
65063
65064

Our Terms and Conditions of Delivery and Payment

General Terms and Conditions of Delivery and Payment of Kayser-Werk GmbH

I. General and Conclusion of Agreement

1. Unless otherwise agreed in writing, our deliveries shall be subject exclusively to the conditions below. On receipt of the goods at the latest, our General Terms and Conditions shall be taken as accepted. The customer's purchasing terms and conditions are hereby expressly excluded, nor shall they comwith us in any way even if they are not expressly excluded at the time of conclusion of the Agreement. In the event of amendments or other subsidiary agreements, the remaining conditions shall retain their full validity.

2. Our offers are always without obligation. In order to be valid, all transactions, orders and other agreements require our confirmation in writing. Our written order confirmation or agreement shall determine the nature and scope of the delivery.

II. Price and Invoicing, Terms of Payment etc.

1. Our normal terms of payment are as follows: 2 % discount for payment within 10 days of date of invoice, 30 days net cash after date of invoice.

2. Unless otherwise agreed, our prices are to be understood in Euros, ex works, excluding packaging.

3. The customer may only set off payment against counterclaims which are undisputed or legally determined.

4. In the event that payment schedules are not maintained, interest of 3 % above the respective EURIBOR interest rate for 3 months.

5. Where payment by bill of exchange is agreed, said bill will only be accepted for payment purposes; in particular, the existing retention of title shall not be affected. In the event that cheques or bills of exchange have not been encashed, either in whole or in part, by the date on which invoices are due for payment, all our unpaid claims shall be due immediately, even where bills of exchange with later due date have been subwithted. We shall only be obliged to make further deliveries if the entire unpaid balance is

settled immediately and if cash in advance is provided for the entire amount of the goods to be delivered.

6. For orders below 30 Euro net we will charge you 10 Euro.

III. Retention of Title

1. Title shall be retained on all delivered goods (reserve items) until all claims against the customer, for whatever legal reason, have been met in full. This is also then applicable when separate claims or our claims have been included in a current invoice and the account has been balanced and accepted. Any contingent treatment or processing of the reserve items shall be performed by the purchaser on behalf of the seller, without any obligation being placed on the latter as a result. In the event that the reserve items are joined, blended or processed by the customer with other items which do not belong to us, we shall have title to the new object in the proportion of the value of the serve item to the other items used for joining or processing at the time of such joining or processing.

2. Claims owing to the customer through further sale are herewith already assigned to us together with all accessory claims. In the event of the sale of reserve items together with other items or the sale of processed reserve items (Section 1, 2nd sentence) the claim is herewith assigned to the extent of our invoice amount for the reserve items.

3. In the event of resale abroad, the entire invoice amount shall be due for payment before the goods leave the country.

4. Excess Safeguarding Clause. Provided that the existing collateral security exceeds the debt claims to be secured by more than 15 %, the seller shall undertake to release the appertaining security to the purchaser upon request.

IV. Delivery Schedule and Unforeseen Circumstances

1. The schedule for deliveries and performance shall begin on the day on which agreement is reached between the customer and the supplier in writing. Maintenance of this schedule is subject to provision in due course of all documents, authorisation and releases, to be supplied by the customer, the acceptance and approval of plans,

observance of agreed payment schedules and other obligations. In the event that these conditions are not met punctually, the delivery schedule may be extended accordingly.

2. The delivery schedule is deemed to have been maintained if the goods are ready for delivery or fetched within the agreed delivery and performance schedule. In the event that delivery is delayed at the fault of the customer, the delivery schedule is deemed to have been met if the Supplier notifies readiness for dispatch within the said schedule.

3. In the event of unforeseen hindrances outside of our control which occur either with us or with our own suppliers, such as force majeure, transport disruptions, strikes and lockouts and other operating disruptions which we are unable to prevent, the delivery schedule shall be extended accordingly.

4. In the event that the customer does not collect the ordered goods within 14 days of notification of readiness for dispatch or after shipment, we shall be entitled, after allowing an additional period of 14 days, to withdraw from the Agreement and/or claim for damages on account of non-fulfilment.

5. In the event that dispatch of the ordered goods is delayed at the request of the customer and with our agreement, he shall be charged for the costs of storage in our factory, a minimum of 0.5 % of the invoice value, for every month or part thereof, starting from the month following notification of readiness for dispatch.

6. If the customer suffers damage because we are in arrears with the delivery, he shall be entitled to demand a lump-sum compensation for damage resulting from delay. It shall be 0.5% for each full week of delay, however altogether a maximum of 5% of the value of the portion of the overall delivery that cannot be used in due time or not at all pursuant to the contract as a result of the delay.

If the customer grants us an appropriate period for performance because of the delay in delivery taking the legal exceptions into consideration and if we do not comply with the period, the customer shall be entitled to withdraw in the framework of the legal regulations.

7. Further claims arising from a delay in delivery are exclusively determined according to section VII.2 of these conditions.

V. Transfer of Risk

1. Complaints can only be taken into account if subwithted within 8 days of receipt of the goods. Delivered goods will only be accepted in return in their original packing. Illustrations and brochures etc. are not binding. Measurements and utilisation data are only to be regarded as approximate and are also not binding.

2. The risk shall pass to the customer, even in the event of delivery carriage-paid, as soon as the ready delivery is dispatched or collected. Unless the customer has given special dispatch instructions, delivery may be made at our discretion by the most suitable means. On request of the customer the delivery will be insured at his cost against breakage, transport and damage from fire or water.

3. In the event that dispatch or delivery is delayed at the request of the customer or for reasons for which he is responsible, the risk shall pass to the customer for the period of the delay, however at the request of the customer, we shall arrange the insurance cover he requires at his expense.

VI. Warranty Claims

Warranty claims shall be recognised, if the defect has been reported to us in writing within 12 months of the delivery date. To the exclusion of further claims – subject to section VII – we will provide a warranty as follows:

1. We shall have the option to either replace or to carry out repairs free of charge on all those parts which prove to be defective due to circumstances which occurred prior to the transfer of risk. The discovery of such defects must be reported to us immediately in writing. Replaced parts become our property.

2. If we have to supply according to drawings, specifications, samples etc. provided by the customer, then the customer carries the risk for the suitability for the intended purpose. Decisive for the condition of the goods conforming to the agreement is the point in time of the transfer of risk according to section V.

3. If a final inspection of the goods has been agreed or an inspection of the first sample, then customer's complaints will not be recognised later concerning defects which the customer should have noticed at the final inspection or inspection of the first sample if it had been carried out with due care and attention.

4. We must be given an opportunity to confirm the defect the complaint is being made about. Rejected goods must be returned to us immediately on demand. We will bear the transport costs if the customer complaint is justified. If the customer does not comply with these obligations or makes changes to the rejected goods without our agreement, then he forfeits any claims under warranty of quality.

5. Only in urgent cases, in which operational security is endangered or to prevent a disproportionate amount of damage being incurred, does the customer have the right to remedy the defect or have it remedied by a third party and to demand compensation from us for expenses thus incurred, whereby we must be informed immediately.

6. Of costs incurred due to the rectification of defects or the replacement delivery, providing the complaint proves to be justified, we will bear the costs for the replacement goods including transport and also reasonable costs for disassembly and assembly.

7. Within the framework of legal provisions, the customer has the right to withdraw from the contract if, taking the legal exceptions into consideration, we do not successfully make use of a reasonable period of time given to us for rectification of defects or a replacement delivery due to a redhibitory defect. If the defect is insignificant, then the customer only has the right to claim a reduction of the contractual price. In all other cases the right to a reduction of the agreed price is excluded.

8. No warranty will be given in the following cases in particular: Unsuitable or inappropriate use, faulty installation or start-up by the customer or a third party, natural wear and tear, incorrect or negligent treatment, maintenance not carried out correctly, unsuitable construction work, unsuitable foundation, chemical, electrochemical or electrical influences providing we are not liable for them.

9. If the customer or a third party reworks the goods incorrectly, then we are not liable for the consequences arising from this. The same applies to changes made to the delivery item without our prior agreement.

10. We only provide a warranty for accessories added on within the framework of the warranty provided by our supplier.

VII. Liability

1. If we are responsible for the customer not being able to use the delivery item as stipulated in the contract as a consequence of suggestions made and consultations carried out before or after the contract was concluded which were omitted or carried out incorrectly or through infringing upon other subsidiary obligations - in particular instructions for operating and maintaining the delivery item - then to the exclusion of further claims made by the customer, the stipulations in sections VI and VII.2 apply correspondingly.

2. For damages, which have not been incurred by the delivery item itself, we only accept liability - whatever legal reasons are given - in the case of

- intent
- gross negligence by executive employees
- culpable injury of life, body, health
- malicious silence with regard to a defect or the nonexistence of which had been guaranteed
- defects of the delivery item for which liability must be accepted according to the German Law on Product Liability for damages to persons or property with regards to privately used objects.

In the case of culpable infringement of essential contractual obligations, we also accept liability for gross negligence of non-executive employees and in the case of slight negligence,

in the latter case limited to reasonable, foreseeable damages typical to a contract.
Any further claims shall be excluded.

VIII. Statutory Limitation

All claims made by the customer - for whatever legal reasons - are subject to a limitation period of 12 months. For wilful or fraudulent behaviour and for claims based on the German Product Liability Law, the legal limitations apply. They shall also apply to defects in a building structure or for delivery items that were used in accordance with the normal use for a building structure and caused its defectiveness.

IX. Place of performance and jurisdiction

1. Place of fulfilment and exclusive place of jurisdiction for all claims arising out of this agreement, including proceedings related to bills of exchange, cheques or documents, shall be Dortmund.

2. German law shall be applicable to matters arising out of this Agreement.

X. Validity of the Agreement

Should one or more of the provisions of this Agreement be or become invalid for any reason, the provisions should be interpreted to ensure that the commercial aim of the original, invalid provision is upheld. The validity of the remaining provisions shall remain unaffected.

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2. German law shall be applicable to matters arising out of this Agreement.

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Schweißgeräte und Propanearmaturen, Zentrale Gase
Cutting, Welding Propanee and Gas equipment

Kayser-Werk GmbH

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