

MINITHERM[®]

The featherweight welding
and heating torch



Contents

MINITHERM ® torch range	Pages	4-5
MINITHERM ® handles	Page	6
MINITHERM ® welding, brazing and heating inserts type HA	Page	7
MINITHERM ® brazing and heating inserts type PMYF	Page	8
MINITHERM ® brazing, heating and melting inserts type FK-HA	Page	9
MINITHERM ® brazing, heating and melting inserts type FK-PMYF	Page	10
MINITHERM ® micro inserts type M-HA and MG-HA	Page	11
MINITHERM ® micro inserts type M-PMYF and MG-PMYF	Page	12
MINITHERM ® micro needle inserts type G-H, G-H/PMYF and G-PMYF	Page	13
MINITHERM ® forked torch type Z-HA and Z-PMYF	Page	14
MINITHERM ® forked torch type FK-HA and FK-PMYF	Page	15
MINITHERM ® accessories	Pages	16-19

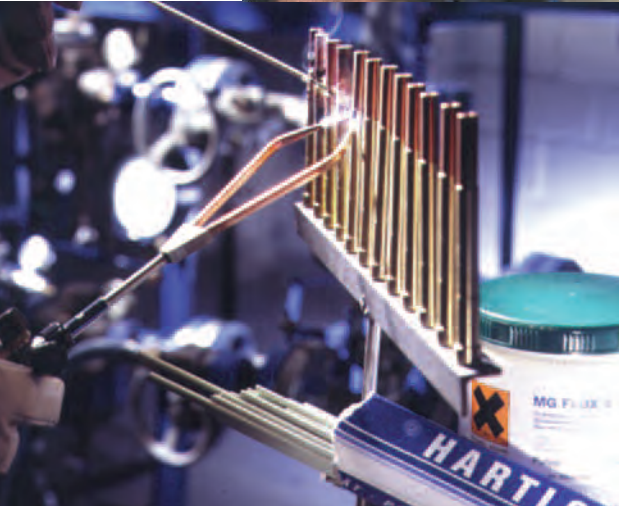
MINITHERM®

The **MINITHERM®** torch range has been developed to meet the need of trade and industry for a small injector torch to handle special jobs.



Gas welding on pipes up to material thickness of 4,0 mm

MINITHERM® in the dental laboratory.



MINITHERM® brazing in industrial mass production.

A large number of torch inserts with the most different flame characteristics and flame powers offer a universal, well rounded, broad spectrum of applications from the micro flame which is hardly visible to the naked eye right up to powerful welding flames.

In contrast to conventional hand gas torches, the drastically lower weight of the handle and inserts allows fatigue-free continuous work over long periods. This is especially important in pipe-line work, in production of jewellery, dental laboratories and fine

engineering as well as in mass production of hand welded, hand brazed or heated components. Welding, brazing and heating in difficult positions and hard to reach locations can usually be carried out with adequate freedom of movement and control to give high quality results due to the small size of the handle and the various inserts.

**MINITHERM®
Handle**



**Brazing and heating insert
type F-PMYF**



**Forked torch
type Z-HA and Z-PMYF**



**Welding, brazing
and heating insert type HA**



**Micro inserts
type M-HA and M-PMYF**



**Forked torch
type FK-HA and FK-PMYF**



**Welding and brazing insert
type PMYF**



**Micro inserts
type MG-HA and MG-PMYF**



With suitable pressure regulators safety equipment and hoses for Oxygen and fuel gas as well as torch holders and flame ignition units the **MINITHERM®** range includes an extensive selection of accessories for the comfortable handling of even the most difficult tasks.

**Welding and brazing
insert type F-HA**



**Micro needle inserts
type G-H/PMYF**



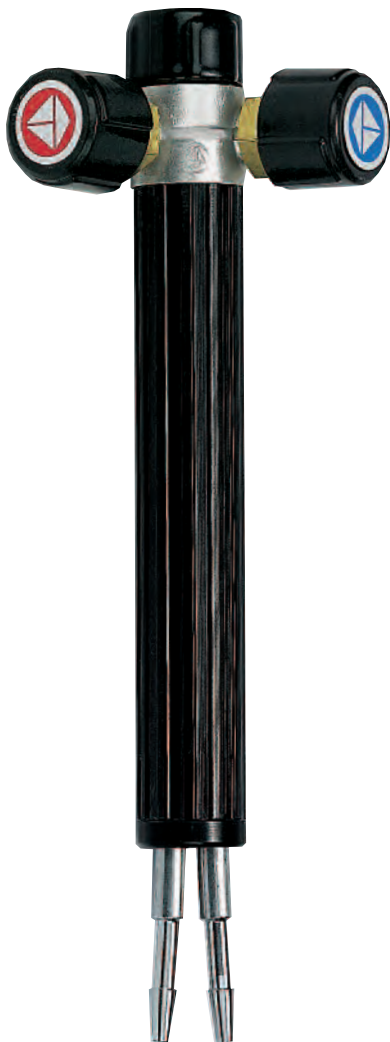
The entire range meets the requirements of the accident prevention regulations for „welding, cutting and allied processes“ BVG D1 (VBG15) as well as meeting DIN 8543.

With all inserts the mixing of Oxygen and fuel gas takes place with the reduced pressure mixing system (injector suction principle). This prevents the risk of Oxygen entering the fuel gas feed line or fuel gas entering the Oxygen line.

MINITHERM®

Handle

The **MINITHERM®** small handle with its high throughput forms the basis for difficult and sensitive use of the Oxy-fuel flame in continuous applications, in locations with extremely difficult access and in places which are inaccessible with conventional torches.



Its ergonomic construction gives the user a high standard of operating comfort despite its low weight and small size.

This gives such features as

- balanced weight distribution
- safe handle position due to the shaped tubular grip
- one handed operation thanks to the V positioning of the setting valves for gas and Oxygen
- sensitive and accurate dosage of the flame settings due to the fine spindle adjustment in the Oxygen and gas setting valves
- colour coding of the setting valves to prevent confusion
- safe sealing of the inserts even when the nut is only lightly hand tightened thanks to the well proven radial seals
- suitability for use with all gases
- threadless, leakproof hose connections

Length: 120 mm
(without hose connections)

Grip diameter: 16mm

Connections: Hose connections 3,2mm Ø for Oxygen and fuel gas

Weight: 90 g

Handle MINITHERM®
716.06109

Handle MINITHERM®
716.05770

with hanging knob on valve body. Applicable when using the table torch holder
716.05781

Handle MINITHERM®
716.06111

complete with 3,2 mm Ø hoses for Oxygen and fuel gas, 3m long and with thread connections G 1/4 for Oxygen and G 3/8 LH for fuel gas

MINITHERM®

Welding, brazing and heating inserts type HA

With central flame outlet.

Fuel gases: Acetylene/Oxygen
Hydrogen/Oxygen.

Version

One piece injector (reduced pressure mixing) made of chrome plated brass with interchangeable nozzle consisting of a mixing tube with forged copper mouthpiece.

Insert lengths: 121 mm
(Size 00) to
165 mm
(Size 3)

Mixing tube dia.: 6mm

Weight: 32 g
(Size 00) to
39 g (Size 3)

Applications

MINITHERM® inserts type HA are a set of 5 inserts in steps to DIN 8543 for the welding and flame straightening of 0,1 to 4mm thick steel sheets, for the welding of pipes up to 4 mm wall thickness and for the heat treatment of steel, non-ferrous stainless and sintered metals, as well as glass, quartz glass, ceramics and plastics.

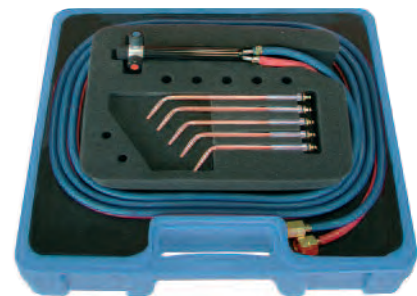
Because of their low weight and small size they are especially suitable for fatigue free continuous work and for welding, heating and brazing in difficult positions, usually with adequate freedom of movement.

Main area of use

- pipeline work and manufacture of heat exchangers
- Installation and commissioning work
- production lines and conveyor belts
- vehicle and chassis building
- assembling domestic equipment (white goods)
- making jewellery and false teeth
- processing laboratory glass and quartz glass

MINITHERM® Set Type HA 716.01407

1 handle with integral hoses 3 m long, inlet connections G 1/4 for Oxygen and G 3/8 LH for fuel gas.
5 Inserts type HA sizes 00 to 3.



MINITHERM® inserts type HA, fuel gases Hydrogen and Acetylene

Size	Welding range [mm]	Part No. Insert complete	Part No. Changeable nozzle	Oxygen pressure [bar]	Acetylene pres. [bar]	Hydrogene pres. [bar]	Oxygen consumption [l/h]	Acetylene consumption [l/h]	Hydrogen consumption [l/h]
00-HA	to 0,3	716.00978	716.00983	0,5-2,5	>0,2	>0,5	20- 55	20- 55	56- 153
0-HA	0,2-0,5	716.00979	716.00984	0,5-2,5	>0,2	>0,5	28- 72	28- 72	78- 200
1-HA	0,5-1,0	716.00980	716.00985	0,5-2,5	>0,2	>0,5	58-150	58-150	161- 420
2-HA	1,0-2,0	716.00981	716.00986	1,0-2,5	>0,2	>0,5	155-285	155-285	431- 792
3-HA	2,0-4,0	716.00982	716.00987	1,0-3,0	>0,2	>0,5	215-440	215-440	597-1220

MINITHERM®

Welding, brazing and heating inserts type PMYF

With central flame outlet.

Fuel gases: Propane/Oxygen, Methane (Natural Gas)/Oxygen
MAPP®/Oxygen, GRIESON®/Oxygen



Version

One piece injector (reduced pressure mixing) made of chrome plated brass with interchangeable nozzle consisting of a mixing tube with forged copper mouthpiece.

Insert lengths: 121 mm (Size 00) to 165 mm (Size 3)

Mixing tube dia.: 6mm

Weight: 32 g (Size 00) to 39 g (Size 3)

Applications

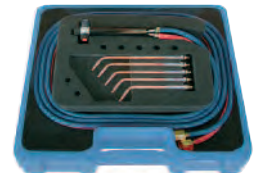
MINITHERM® inserts type PMYF for slow burning gases or gas

mixtures are especially suitable for fatigue free continuous work and for welding, heating and brazing in difficult positions, usually with adequate freedom of movement.

MINITHERM® Set Type PMYF 716.01408

1 handle with integral hoses 3 m long, inlet connections G 1/4 for Oxygen and G 3/8 for fuel gas.

5 Inserts type PMYF sizes 00 to 3.



MINITHERM® inserts type PMYF, fuel gases Propane, MAPP® and GRIESON®

Size	Part No. Insert complete	Part No. Changeable nozzle	Oxygen pressure [bar]	Fuel gas pressure [bar]	Oxygen consumption [l/h]	Propane consumption [l/h]	MAPP® consumption [l/h]	GRIESON® consumption [l/h]
00-PMYF	716.00988	716.00993	0,5-2,5	>0,2	20- 55	6- 13	8- 22	11- 30
0-PMYF	716.00989	716.00994	0,5-2,5	>0,2	28- 72	8- 20	11- 29	16- 40
1-PMYF	716.00990	716.00995	0,5-2,5	>0,2	58-150	16- 41	23- 60	32- 83
2-PMYF	716.00991	716.00996	1,0-2,5	>0,2	155-285	42- 77	62-114	86-158
3-PMYF	716.00992	716.00997	1,0-3,0	>0,2	215-440	58-119	86-176	119-244

MINITHERM® inserts type PMYF, fuel gas Methane (Natural gas)

Size	Part No. Insert complete	Part No. Changeable nozzle	Oxygen pressure [bar]	Methane (Natural gas) pressure [bar]	Oxygen consumption [l/h]	Methane (Natural gas) consumption [l/h]
00-PMYF	716.00988	716.00993	0,5-1,0	>0,1	20-32	15- 24
0-PMYF	716.00989	716.00994	0,5-1,5	>0,1	28-55	21- 41
1-PMYF	716.00990	716.00995	1,0-2,0	>0,1	58-128	43- 95
2-PMYF	716.00991	716.00996	1,0-2,5	>0,1	55-285	115-211
3-PMYF	716.00992	716.00997	1,0-3,0	>0,1	215-440	159-326

MINITHERM®

Welding, brazing and heating inserts type FK-HA

With flat shaped flame outlet.

Fuel gases: Acetylene/Oxygen

Hydrogen/Oxygen.

Version

One piece injector (reduced pressure mixing) made of chrome plated brass; threaded mixing tube with brazed threaded nozzle connecting bush made of chromed brass, and interchangeable copper nozzle with flat flame outlet.

Insert length: 180mm

Flame outlet:

Size FK 1 HA: 5 holes

Size FK 2 HA: 7 holes

Weight: 67 g

Applications

Because of their low weight

MINITHERM® FK-HA inserts are especially suitable for fatigue free continuous work in trade and industry as well as for installation and assembly and site work.

Their high heating power makes the rapid warming even of large

components of steel, non-ferrous metals, stainless steels, sintered metals, glass, quartz glass, and ceramics to their forming, hardening, hard soldering and melting temperatures possible.

Main area of use

- pipeline work and manufacture of heat exchangers
- installation and commissioning work
- assembling domestic equipment (white goods)
- manufacture of water and gas valves
- production lines and conveyor belts
- industrial and craft production, modification and repair of precious and fashion jewellery
- processing laboratory glass and quartz glass



MINITHERM® inserts type FK-HA, fuel gases Hydrogen and Acetylene

Size	Part No. Insert complete	art No. Change- able nozzle	Oxygen pressure [bar]	Fuel gas pressure [bar]	Oxygen consump- tion [l/h]	Acetylene consump- tion [l/h]	Hydrogen consump- tion [l/h]
FK 1 HA	716.50808	716.50798	0,5-1,5	>0,5	210-350	190-320	580- 970
FK 2 HA	716.50809	716.50799	0,5-2,0	>0,5	210-420	190-380	580-1170

MINITHERM®

Welding, brazing and heating inserts type FK-PMYF

With flat shaped flame outlet.

Fuel gases: Propane/Oxygen, Methane (Natural Gas)/Oxygen
MAPP®/Oxygen, GRIESON®/Oxygen



Version

One piece injector (reduced pressure mixing) made of chrome plated brass; threaded mixing tube with brazed threaded nozzle connecting bush made of chromed brass, and interchangeable copper nozzle with flat flame outlet.

Insert length: 180mm
Flame outlet:
Size FK 1 PMYF: 5 holes
Size FK 2 PMYF: 7 holes
Weight: 67 g

Applications

Because of their low weight **MINITHERM®** FK-PMYF inserts are especially suitable for fatigue free continuous work in trade and industry as well as for installation and assembly and site work. Their high heating power makes the rapid warming even of large components of steel, non-ferrous

metals, stainless steels, sintered metals, glass, quartz glass, and ceramics to their forming, hardening, hard soldering and melting temperatures possible.

Main area of use

- pipeline work and manufacture of heat exchangers
- installation and commissioning work
- assembling domestic equipment (white goods)
- manufacture of water and gas valves
- production lines and conveyor belts
- industrial and craft production, modification and repair of precious and fashion jewellery
- processing laboratory glass and quartz glass

MINITHERM® inserts type FK-PMYF fuel gases Propane, Methane (Natural gas), MAPP® and GRIESON®

Size	Part No. Insert complete	Part No. Change- able nozzle	Oxygen pres- sure [bar]	Fuel gas pres. [bar]	Oxygen consump- tion [l/h]	Propane consump- tion [l/h]	Methane consump- tion [l/h]	MAPP® consump- tion [l/h]	GRIESON® consump- tion [l/h]
FK 1 PMYF	716.50804	716.50800	0,5-1,5	>0,5	210-350	56- 93	131-219	75-125	117-194
FK 2 PMYF	716.50805	716.50801	0,5-2,0	>0,5	280-420	75-112	175-263	100-150	156-233

MINITHERM®

Micro inserts type M-HA and MG-HA

Smallest inserts in straight and angled form with central flame outlet.

Fuel gases: Acetylene/Oxygen
Hydrogen/Oxygen

Version

One piece injector (reduced pressure mixing) made of Chrome plated Brass; threaded connection adapter for micro inserts M-HA and MG-HA. Both types of inserts (M-HA = straight and; MG-HA = angled) are identical in construction and power for the same insert size except for the shape of the mixing tube. They consist of a copper mixing tube and a chromed brass injector connecting nut. The gas mixture outlet is a forged nozzle.

Insert length (without injector):
42/38 mm (straight/angled)

Mixing tube

diameter: 3 mm

Weights: Insert 4,5 g
Injector 18 g

Applications

MINITHERM® micro inserts facilitate the spot on application of the Oxy-fuel flame without undesired heating of the surrounding area through stray side flames. With its micro flame welding, brazing and heating of the thinnest sheets as well as ultra-fine wires is just as easily possible as is targeted work on the most complex tiny work-pieces of steel, non-ferrous metals, stainless steels and sintered metals as well as glass and ceramics.

Main area of use

- industrial and craft production, modification and repair of precious and fashion jewellery
- making, modifying and repair of false tooth parts in dental laboratories
- very fine sheet work in model and toy-making
- processing circuit boards and wiring in the electronics industry



Injectors for micro insert M-HA



Injectors for micro insert MG-HA



Injectors type M/MG-HA/PMYF

MINITHERM® micro inserts type M-HA and MG-HA, fuel gases Hydrogen and Acetylene

Size	Part No. Insert M-HA	Part No. Insert MG-HA	Size	Injector for micro insert M-HA and MG-HA Part No.	Oxygen pres- sure [bar]	Fuel gas pres- sure [bar]	Oxygen consump- tion [l/h]	Acetylene consump- tion [l/h]	Hydrogen consump- tion [l/h]
4	716.05791	716.05785	0	716.50814	0,5-0,8	>0,5	32-39	32-39	89-108
5	716.05792	716.05786	0	716.50814	0,8-1,0	>0,5	39-43	39-43	108-120
6	716.05793	716.05787	0	716.50814	1,0-1,5	>0,5	43-54	43-54	120-150
7	716.05794	716.05788	0	716.50814	1,5-2,5	>0,5	54-76	54-76	150-210

MINITHERM®

Micro inserts type M-PMYF and MG-PMYF

Smallest inserts in straight and angled form with central flame outlet.

Fuel gases: Propane/Oxygen, Methane (Natural Gas)/Oxygen

MAPP®/Oxygen, GRIESON®/Oxygen



Micro inserts typ M-PMYF

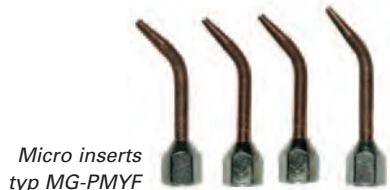
Version

One piece injector (reduced pressure mixing) made of chrome plated brass; threaded connection adapter for micro inserts M-PMYF and MG-PMYF.

Both types of inserts (M- PMYF = straight and ;MG- PMYF = angled) are identical in construction and power for the same insert size except for the shape of the mixing tube. They consist of a copper mixing tube and a chromed brass injector connecting nut.

Applications

MINITHERM® micro inserts facilitate the spot on application of the Oxy-fuel flame without undesired heating of the surrounding area through stray side flames. With its micro flame brazing and heating of the thinnest sheets as well as ultra-fine wires is just as easily possible as is targeted work on the most complex tiny work-pieces of steel, non-ferrous metals, stainless steels and sintered metals as well as glass and ceramics.



Micro inserts typ MG-PMYF

Insert length (without injector):

42/38 mm (straight/angled)

Mixing tube diameter: 3 mm

Weights: Insert 4,5 g
 Injector 18 g

Main area of use

- industrial and craft production, modification and repair of precious and fashion jewellery
- making, modifying and repair of false tooth parts in dental laboratories
- very fine sheet work in model and toy-making
- processing circuit boards and wiring in the electronics industry



Injektors typ M/MG-HA/PMYF

MINITHERM® micro inserts type M-PMYF and MG-PMYF, fuel gases Propane, Methane, MAPP® and GRIESON®

Size	Part No. Insert M-PMYF	Part No. Insert MG-PMYF	Size	Injector for micro insert M-PMYF and MG-PMYF Part No.	Oxygen pres- sure [bar]	Fuel gas pres- sure [bar]	Oxygen con- sump- tion [l/h]	Propane con- sump- tion [l/h]	Methane (Natural gas) con. [l/h]	MAPP® con- sump- tion [l/h]	GRIESON® con- sump- tion [l/h]
4	716.05791	716.05785	000	716.50813	1,0-2,5	>0,5	12-21	3- 6	8-13	4- 8	7-12
5	716.05792	716.05786	000	716.50813	2,0-4,0	>0,5	18-30	5- 8	11-19	6-11	10-17
6	716.05793	716.05787	0	716.50814	1,0-2,5	>0,5	43-76	11-20	27-48	15-27	24-42
7	716.05794	716.05788	0	716.50814	2,0-3,5	>0,5	65-98	17-26	41-60	23-35	36-54

Micro needle inserts type G-H, G-H/PMYF and G-PMYF

Injection needle inserts,
straight versions with central flame outlet

Fuel gases used with Oxygen

Type G-H	Type G-PMYF	Type G-H/PMYF
Hydrogen	Propane	Hydrogen
	Methane	Propane
	(Naturalgas)	Methane (Natural gas)
	MAPP®	MAPP®
	GRIESON®	GRIESON®

Version

One-piece brass injector (reduced pressure mixing device) with conical adapter for micro needle inserts G-H, G-PMYF and GH/PMYF. The single piece needle insert consists of a Luer lock brass conical connector with a brazed in capillary tube stainless steel nozzle.

Insert length (without injector):

41 mm

Nozzle tube length:

24 mm

Nozzle tube outer diameter:

0,8 mm (size 1) to

1,5 mm (size 5)

Weight: Insert 2 g

Injector 18 g

Applications

MINITHERM® micro needle inserts facilitate the spot on application of the Oxy-fuel flame without undesired heating of the surrounding area through stray side flames. With its micro flame brazing and heating of the thinnest sheets as well as ultra-fine wires is just as easily possible as is targeted work on the most complex tiny work-pieces of steel, non-ferrous metals, stainless steels and sintered metals as well as glass and ceramics.

Main area of use

- industrial and craft production, modification and repair of precious and fashion jewellery
- making, modifying and repair

of false tooth parts in dental laboratories

- very fine sheet work in model and toy-making
- processing circuit boards and wiring in the electronics industry



Micro needle inserts



Injector type G-H/PMYF

MINITHERM® micro needle inserts type G-H, G-H/PMYF and G-PMYF fuel gases Propane, Methane, MAPP® and GRIESON®

Size	Fuel gas	Part No. Insert	Part No. Injector	Oxy- gen pres- sure [bar]	Fuel gas pres- sure [bar]	Oxygen con- sump- tion [l/h]	Propane con- sump- tion [l/h]	Methane (Natural- gas) con. [l/h]	MAPP® con- sump- tion [l/h]	GRIESON® con- sump- tion [l/h]	Hydro- gen con- sump. [l/h]
G1	H	716.05795	716.50811	0,5-1,5	>1,0	9-15	—	—	—	—	25-42
G2	H/PMYF	716.05796	716.50811	0,5-1,5	>1,0	9-15	2,5-4,0	5,6- 9,4	3,3- 4,6	5,0- 8,3	25-50
G3	H/PMYF	716.05797	716.50811	0,5-2,0	>0,5	9-21	2,5-5,6	5,6-13,1	3,3- 7,8	5,0-11,7	25-67
G4	H/PMYF	716.05798	716.50811	0,5-3,0	>0,5	9-24	2,5-6,4	5,6-15,0	3,3- 8,9	5,0-13,3	25-75
G5	PMYF	716.05799	716.50811	0,5-3,5	>0,5	9-27	2,5-7,2	5,6-16,9	3,3-10,0	5,0-15,0	—

MINITHERM®

Forked torch type Z-HA and Z-PMYF

With central flame outlet

Type Z-HA: Acetylene/Oxygen, Hydrogen/Oxygen

Type Z-PMYF: Propane/Oxygen, MAPP®/Oxygen

Methane (Natural Gas)/Oxygen, GRIESON®/Oxygen



Version

One piece injector (reduced pressure mixing) made of chrome plated brass, mixing tube with brazed on stainless steel distributor with two flexible copper burner tubes with forged mouthpieces.

Torch tube diameter: 6 mm
 Gap between nozzles: 30 mm
 Torch length: 210 mm
 Torch tube length: 100 mm
 Weight: 90 g

Applications

MINITHERM® forking torch inserts are suitable for fast heating and hard soldering of steel and non-ferrous metals as well as for the heating of metallic, glass and ceramic components.

Main area of use

- pipeline work and manufacture of heat exchangers
- installation and commissioning work
- assembling domestic equipment (white goods)
- manufacture of water and gas valves
- production lines and conveyor belts
- glass shops

MINITHERM® forking torches type Z-HA, fuel gases Hydrogen and Acetylene

Size	Part No.	Oxygen pressure [bar]	Acetylene pressure [bar]	Oxygen consumption [l/h]	Acetylene consumption [l/h]	Hydrogen consumption [l/h]
Z 0 HA	716.50464	0,5-2,0	>0,5	56-140	51-127	256- 389
Z 1 HA	716.50465	0,5-2,5	>0,5	120-300	109-273	333- 833
Z 2 HA	716.02560	1,0-3,0	>0,5	310-570	282-518	861-1583
Z 3 HA	716.50466	2,0-5,5	>0,5	430-880	391-800	1194-2444

MINITHERM® forking torches type Z-PMYF, fuel gases Propane, Methane (Natural gas), MAPP® and GRIESON®

Size	Part No.	Oxygen pressure [bar]	Fuel gas pressure [bar]	Oxygen consumption [l/h]	Propane consumption [l/h]	Methane (Natural gas) consumption [l/h]	MAPP® consumption [l/h]	GRIESON® consumption [l/h]
Z 0 PMYF	716.50469	0,5-2,0	>0,5	56-140	583- 917	15- 37	20- 50	31- 78
Z 1 PMYF	716.50470	0,5-2,0	>0,5	120-300	778-1167	32- 80	43-107	67-107
Z 2 PMYF	716.50471	1,0-3,0	>0,5	310-570	583-1972	83-152	111-204	172-317
Z 3 PMYF	716.50472	1,0-5,5	>0,5	430-880	778-1167	115-235	154-314	239-489

MINITHERM®

Forked torch type FK-HA and FK-PMYF

With flat shaped flame outlet

Type FK-HA: Acetylene/Oxygen, Hydrogen/Oxygen

Type FK-PMYF: Propane/Oxygen, MAPP®/Oxygen

Methane (Natural Gas)/Oxygen, GRIESON®/Oxygen

Version

One piece injector (reduced pressure mixing) made of chrome plated brass, mixing tube with brazed on stainless steel distributor with two flexible copper burner tubes with brass nozzle threaded connections brazed on and two interchangeable copper heating nozzles with flat shaped flame outlet.

Torch tube diameter: 6 mm
 Gap between nozzles: 30 mm
 Torch length: 210 mm
 Torch tube length: 100 mm
 Weight: 130 g

Applications

MINITHERM® forked torch inserts with flat flame outlet are suitable for fast heating and hard soldering of steel and non-ferrous metals with large areas as well as for the heating of metallic, glass and ceramic components.

Main area of use

- pipeline work and manufacture of heat exchangers
- installation and commissioning work
- assembling domestic equipment (white goods)
- manufacture of water and gas valves
- production lines and conveyor belts
- glass shops



MINITHERM® forked torches type FK-HA, fuel gases Hydrogen and Acetylene

Size	Part No. Torch complete	Part No. Inter- changeable nozzle	Oxygen pressure [bar]	Fuel gas pressure [bar]	Oxygen consumption [l/h]	Acetylene consumption [l/h]	Hydrogen consumption [l/h]
FK 1 HA	716.50820	716.50798	2,0-4,0	>0,5	420-700	382-636	1170-1795
FK 2 HA	716.50821	716.50799	3,0-5,0	>0,5	550-840	500-734	1528-2039

MINITHERM® forked torches type FK-PMYF, fuel gases Propane, Methane (Natural gas), MAPP® and GRIESON®

Size	Part No.. Torch complete	Part No. Inter- changeable nozzle	Oxygen pres- sure [bar]	Fuel gas pres. [bar]	Oxygen consump- tion [l/h]	Propane consump- tion [l/h]	Methane consump- tion [l/h]	MAPP® consump- tion [l/h]	GRIESON® consump- tion [l/h]
FK 1 PMYF	716.50828	716.50800	2,0-4,0	>0,5	420-700	112-187	263-483	150-250	233-389
FK 2 PMYF	716.50829	716.50801	3,0-5,0	>0,5	550-840	147-224	344-525	196-300	306-467

MINITHERM® Accessories



Part Number: 717.05335

Cylinder Pressure Regulator
CONSTANT 2000 for Oxygen
Single stage construction
Inlet pressure up to 200 bar
Outlet pressure up to 10 bar
Cylinder connection G 3/4 RH
Hose connection G 1/4 RH



Part Number: 717.05337

Cylinder Pressure Regulator
CONSTANT 2000 for Acetylene
Single stage construction
Outlet pressure up to 2,5 bar
Cylinder connection bracket
Hose connection G 3/8 LH



Part Number: 717.05529

Cylinder Pressure Regulator
CONSTANT 2000 for Propane
Single stage construction
Outlet pressure up to 2,5 bar
Cylinder connection
W 21,80 x 1/14" LH
Hose connection G 3/8 LH



Part Number: 717.05528

Cylinder Pressure Regulator
CONSTANT 2000 for MAPP®
Single stage construction
Outlet pressure up to 2,5 bar
Cylinder connection
W 21,80 x 1/14" LH
Hose connection G 3/8 LH



Part Number: 717.05537

Cylinder Pressure Regulator
CONSTANT 2000 for Hydrogen
Single stage construction
Inlet pressure up to 200 bar
Outlet pressure up to 10 bar
Cylinder connection
W 21,80 x 1/14" LH
Hose connection G 3/8 LH

MINITHERM® Accessories

Flashback arrestors acc. to EN 730 with filter, non-return valve, flame trap and automatic break of gas flow on thermal overloads; to be fitted to cylinder regulator outlets.

Flashback arrestor DGN for oxygen

Regulator connection: G 1/4 (union nut)
Hose connection: G 1/4 (male thread)
Working pressure: up to 20 bar
Part No.: 0.463.283



Flashback arrestor DGN for fuel gas

Regulator connection: G 3/8 LH (union nut)
Hose connection: G 3/8 LH (male thread)
Working pressure: acetylene 1,5 bar
hydrogen up to 3,5 bar
other fuel gases up to 5,0 bar
Part No.: 0.463.282



Flashback arrestor DGN-DK with coupling, for oxygen

Regulator connection: G 1/4 (union nut)
Hose connection: connection socket acc. to EN 561
Working pressure: up to 20 bar
Part No.: 0.463.347

Connection pin D 4 for oxygen

Coupling connection: coupling pin acc. to EN 561
Hose connection: G 1/4 (male thread)
Part No.: 0.463.430



Flashback arrestor DGN-DK with coupling, for fuel gas

Regulator connection: G 3/8 LH (union nut)
Hose connection: connection socket acc. to EN 561
Working pressure: acetylene 1,5 bar
hydrogen up to 3,5 bar
other fuel gases up to 5,0 bar
Part No.: 0.463.346

Coupling pin D 4 for fuel gases

Coupling connection: coupling pin acc. to EN 561
Hose connection: G 3/8 LH (male thread)
Part No.: 0.463.432

MINITHERM®

Accessories



Part No. 716.05781

Table torch holder

For the **MINITHERM®** handle with hanging knob (part number 716.05770) for convenient resting of the torch in an inclined position ready to hand. Especially suitable when using the larger **MINITHERM®** welding, brazing and heating inserts or when using any of the **MINITHERM®** forked torch inserts.



Part No. 716.05782

Magnetic table torch holder

for **MINITHERM®** standard handle without a hanging knob (part number 716.01000) comprising: cast steel stand base with 7 numbered storage holes for all **MINITHERM®** micro inserts, 45° angled holder bar with screwed in disc magnets and chromed holder plate for mounting on the **MINITHERM®** handle.



Part No. 716.05780

Electrical table automatic lighter

Battery driven one hand automatic torch lighter box with easily operated ignition spark on/off button, ignition spark chamber with ignition electrode and main on/off switch.

Dimensions: 70 x 52 x 90 mm (H x W x D)

Batteries: 2 Mono cells 1,5 V



Supply voltage: 24 V, 50/60 Hz

Part No.: 716.05756

Supply voltage: 230 V, 50/60 Hz

Part No.: 716.05755

Gas saver with electrical ignition

for all fuel gases, consisting of: table stand with torch holder, micro switch and high voltage torch ignition button and electrical switchbox with mains switch, adjustable timer element for setting the ignition time, adjustable timer element for setting the Oxygen after-flow time, solenoid valves for Oxygen and fuel gas with threaded connections, connection cable to table stand with protective sleeve, and mains cable with plug.

MINITHERM® Accessories



MINITHERM® hoses PN 20 to EN 559

For oxygen and fuel gas
 Dimensions: 3,2 x 1,8 mm
 Operating pressure: 20 bar
 Test pressure: 40 bar
 Bursting pressure: >60 bar

Oxygen: identifying colour blue
 Part No. 0.140.079

Fuel gas: identifying colour red
 Part No. 0.140.078



Double ended thread connectors to EN 560

For the extension of **MINITHERM®** hoses 3,2 x 1,8 mm or for connection of **MINITHERM®** hoses to normal oxy-fuel hoses DN 6 for oxygen and DN 8 as well as DN 9 mm for fuel gas.

Oxygen: G 1/4 RH/G 1/4 RH-DN 6
 Part No. 718.26006

Fuel gas: G 3/8 LH/G 3/8 LH-DN 9
 Part No. 718.26008



MINITHERM® one ear hose clamps

6,8 mm \varnothing
 for oxygen and fuel gas hoses 3,2 x 1,8 mm
 Part No. 0.800.487

One ear hose clamp pliers

Part No. 0.994.052



Hose connections PN 40 DN 3,2 mm to EN 560

For oxygen and fuel gas hoses 3,2 x 1,8 mm

Oxygen: 3,2-G 1/4
 Part No. 716.01160

Fuel gas: 3,2-G 3/8
 Part No. 716.01161



Cap nuts PN 40 to EN 560

Oxygen: G 1/4 RH
 (for hose connection 3,2-G 1/4)
 Part No. 700.50030

Fuel gas: G 3/8 LH
 (for hose connection 3,2-G 3/8)
 Part No. 700.50040



MINITHERM® consumables

Torch connection nut
 Part No. 716.00975

O-ring 7 x 1,5
 Part No. 673.30008

O-ring 2,5 x 1,5
 Part No. 673.30009

Adjusting valve for oxygen and fuel gas
 Part No. 716.06418

Identification shield oxygen (blue)
 Part No. 716.01249

Identification shield for fuel gas (red)
 Part No. 716.01248

MINITHERM® spare parts lists

Handle
 Part No. 716.18064

Welding, brazing and heating inserts
 Part No. 716.00978



Messer Cutting Systems GmbH
Otto-Hahn-Straße 2-4
D-64823 Groß-Umstadt
Phone: +49 (0) 6078 787-0
Fax +49 (0) 6078 787-150
info@messer-cw.de
www.messer-cw.de

Part of the Messer World 