

# xFUME® CATALOG 1.0



**Fume extraction technology for professional industrial use**

**ABICOR  
BINZEL®**





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# **xFUME® PRO & COMPACT**

**MIG/MAG fume extraction torch –  
air cooled and liquid cooled**

## **xFUME® PRO**

This powerful fume extraction torch line combines efficiency with occupational health and safety. As easy to handle as if holding a standard MIG/MAG welding torch in your hand.

## **xFUME® COMPACT**

A fume extraction torch that should be available in every process finishing and workshop. Be careful: It can quickly turn into your favorite tool.

# MIG/MAG fume extraction torches xFUME® PRO

## Air cooled and liquid cooled

Wherever thick sheets are welded with high currents, this air cooled or liquid cooled welding fume extraction torch shows its potential. This makes it the perfect tool for healthy welding in the structural, heavy fabrication, shipyards & offshore and energy segments.

With the xFUME® PRO, welding with high currents and integrated welding fume extraction is also fun! Welding almost as if it were without any extraction.

- 10% more power
- 20% less weight
- Significantly improved ergonomics
- Better accessibility and clarity
- Improved stability and robustness
- Flow-optimized interior design
- Reduced gas loss due to optimized front end
- Uses the same parts as the xFUME® series
- Optional short or long button
- Conforms to standard DIN EN ISO 21904



### xFUME® PRO 24

#### Technical data (EN 60 974-7):

Cooling:	air cooled
Rating:	270 A CO <sub>2</sub> 250 A mixed gases M21 (DIN EN ISO 14175)
Duty cycle:	60%
Wire Ø:	0.8-1.2 mm

### xFUME® PRO 36

#### Technical data (EN 60 974-7):

Cooling:	air cooled
Rating:	330 A CO <sub>2</sub> 300 A mixed gases M21 (DIN EN ISO 14175)
Duty cycle:	60%
Wire Ø:	0.8-1.2 mm

### xFUME® PRO 501

#### Technical data (EN 60 974-7)

Cooling:	liquid cooled
Rating:	500 A CO <sub>2</sub> 450 A mixed gases M21 (DIN EN ISO 14175)
Duty cycle:	100%
Wire Ø:	1.0-1.6 mm

#### Note on liquid cooled torches:

To protect the cable assembly components from overheating, we recommend a cooling system run-on time of at least four minutes.

Torch complete Type	Part-No.		Swan neck complete	
	4 m	5 m	Type	Part-No.
xFUME® PRO 24	612.0127.1	612.0128.1	50°	614.0264.1
xFUME® PRO 36	614.0262.1	614.0263.1	50°	614.0264.1
xFUME® PRO 501	634.0207.1	634.0208.1	50°	634.0209.1

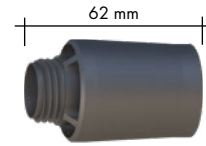
# xFUME® PRO 24, xFUME® PRO 36, xFUME® PRO 501

## Wear parts

### xFUME® PRO 24

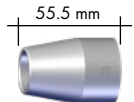
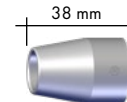
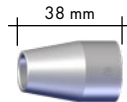


### xFUME® PRO 36 / 501



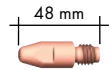
## Extraction nozzle (1 pc.)

Standard	600.0148.1	600.0147.1
Tapered	-	600.0140.1



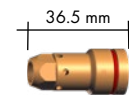
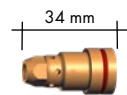
## Gas nozzle (5 pcs.)

Conical	145.0880.5	145.0903.5	-
Cylindrical	-	145.0911.5	-
Conical (long)	-	-	317.0458.5



## Contact tip (10 pcs.)

	M6	M8	M8
CuCrZr	Ø 0.8	140.0054	140.0117
	Ø 1.0	140.0245	140.0316.10
	Ø 1.2	140.0382	140.0445.10
	Ø 1.4	-	140.0536
	Ø 1.6	-	140.0590
CuCrZr (long)	Ø 0.8	-	140.1792.10
	Ø 1.0	-	140.1772.10
	Ø 1.2	-	140.1773.10
	Ø 1.6	-	140.1791.10



## Tip adaptor (5 pcs.)

M6	142.0308.5	-
M8	-	142.0306.5



## Spatter protector (5 pcs.)

	146.0091.5	146.0093.5
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## Centering star (1 pc.)

Complete	614.0253.1	614.0253.1
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Liner		for 4 m	for 5 m
Liner	xFUME® PRO 24	124.0031	124.0035
	xFUME® PRO 36	124.0031	124.0035
	xFUME® PRO 501	124.0112	124.0113
PTFE liner	xFUME® PRO 24	126.0026	126.0028
	xFUME® PRO 36	126.0026	126.0028
	xFUME® PRO 501	126.0026	126.0028

# MIG/MAG fume extraction torch xFUME® COMPACT

## Air cooled

The xFUME® COMPACT fume extraction torch will quickly become a favorite tool when it comes to welding thin sheets and currents of up to 250 amperes are used.

Weight, haptics and handling make it easy to forget that you have a welding fume extraction torch in your hand. The optionally short or long button additionally supports this feeling - while a leather covering tube not only protects the cable assembly, but also allows it to glide easily over edges.

- Approx. 1.1 kg handling weight
- Dimensions and weight as close as possible to standard MIG/MAG torch
- Patented extraction nozzle
- Improved accessibility and clarity
- Easy maintenance due to component minimisation
- Improved ergonomics
- Reduced gas loss due to optimized front end
- Uses the same parts as the xFUME® series
- Conforms to DIN EN ISO 21904



### xFUME® COMPACT 25

#### Technical data (EN 60 974-7):

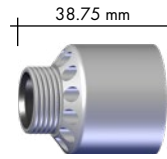
Cooling:	air cooled
Rating:	250 A CO <sub>2</sub> 230 A mixed gases M21 (DIN EN ISO 14175)
Duty cycle:	35%
Wire Ø:	0.8-1.2 mm

Torch complete		Part-No.		Swan neck	
Type	4 m	5 m	Type	Part-No.	
xFUME® COMPACT 25	604.0144.1	604.0145.1	45°	604.0140.1	



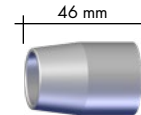
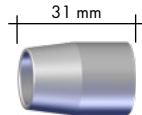
# xFUME® COMPACT 25

## Wear parts



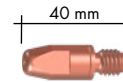
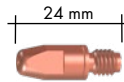
### Extraction nozzle (1 pc.)

Standard	600.0145.1
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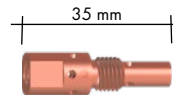
### Gas nozzle (5 pcs.)

Conical	145.0900.5	-
Conical (long)	-	145.0915.5



### Contact tip (10 pcs.)

		M6	M6
CuCrZr	Ø 0.8	140.D456.10	-
	Ø 1.0	140.D457.10	-
	Ø 1.2	140.D458.10	-
CuCrZr (long)	Ø 0.8	-	140.1252.10
	Ø 1.0	-	140.1254.10
	Ø 1.2	-	140.1255.10



### Tip adaptor (5 pcs.)

M6	142.0001
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### Centering star (1 pc.)

Complete	604.0142.1
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	Liner	PTFE liner
4 m	124.0031	126.0026
5 m	124.0035	126.0028

# Bikox<sup>®</sup>, control cables, hoses and liners

## I. Cable assemblies, air cooled

Type	Description	Cable assembly length	
		4 m	5 m
xFUME <sup>®</sup> PRO 24	Bikox <sup>®</sup> 28 / LW 2-pole	160.1866.1	160.1867.1
xFUME <sup>®</sup> PRO 36	Bikox <sup>®</sup> 53 / LW 2-pole	160.1860.1	160.1861.1
xFUME <sup>®</sup> COMPACT 25	Bikox <sup>®</sup> 28 / LW 2-pole	160.1866.1	160.1867.1

## II. Cable assemblies, liquid cooled

xFUME <sup>®</sup> PRO 501	Description	Length		
		4 m	5 m	100 m (pcs.)
Power cable		115.1119.1	115.1120.1	-
Wire conduit/gas hose		154.0018.1	154.0019.1	-
Water hose red	PVC; Ø 5.5x1.5	-	-	109.0056
Water hose blue	PVC; Ø 5.5x1.5	-	-	109.0057
Control cable	2-pole	-	-	100.0019

## III. Outer and extraction hoses

Type	Description	30 m (pcs.)
xFUME <sup>®</sup> PRO 24 / COMPACT 25	Outer hose LW 32	109.0043
xFUME <sup>®</sup> PRO 36 / 501	Outer hose LW 38	109.0044
xFUME <sup>®</sup> PRO 24 / 36 / 501 / COMPACT 25	Outer hose LW 45	109.0080.30

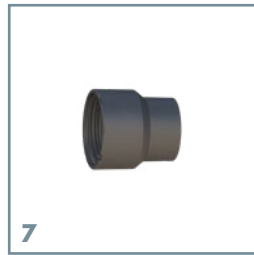
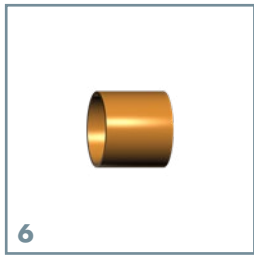
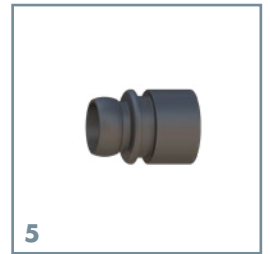
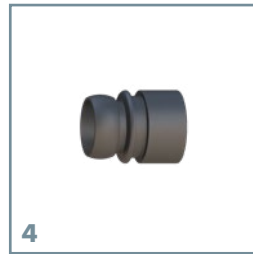
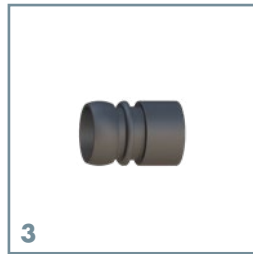
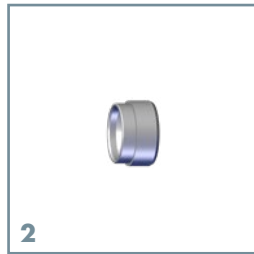
## IV. Hose clamps, quick connector and marking washer

Type	Pcs.	Part-No.	applicable for hose type	
			109.0056	109.0057
Hose clamp D=9.5 infinitely; xFUME <sup>®</sup> PRO 501	20	173.0015.20	•	•
Quick connector ND 5 / Ø=6.0; xFUME <sup>®</sup> PRO 501	20	501.0114	•	•
Fastener cap red; xFUME <sup>®</sup> PRO 501	20	501.2423	•	
Fastener cap blue; xFUME <sup>®</sup> PRO 501	20	501.2424		•

# Wear and spare parts

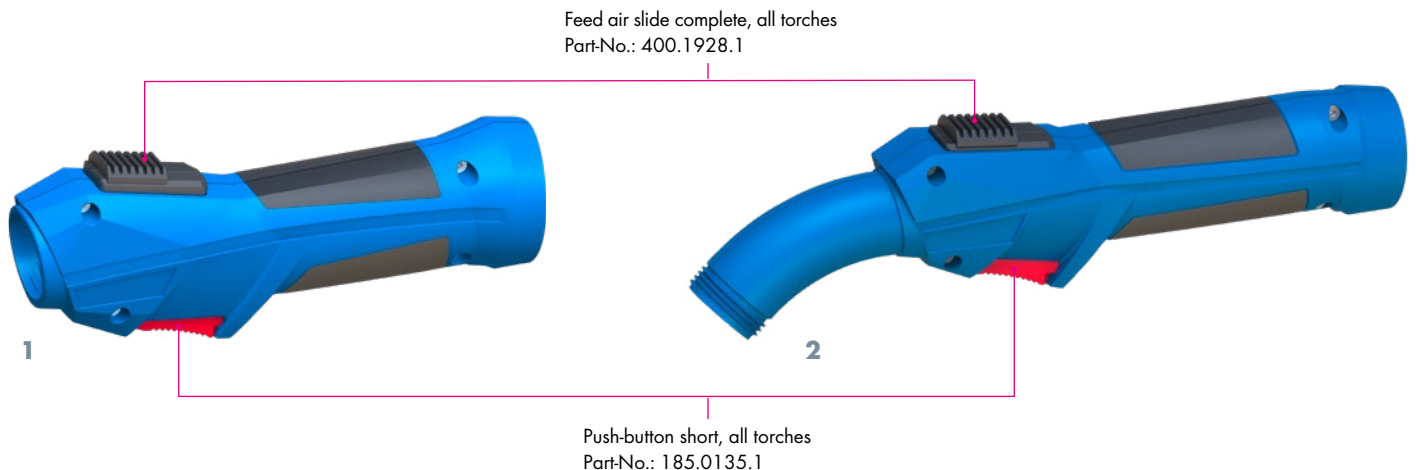
## V. Crabb ring, ball joint, crimping sleeve, adapter piece, branch, leather hose set

Pos.	Type	Description	Part-No.
1	xFUME® PRO 24 / 36 / 501 / COMPACT 25	Branch 45°	600.0126.1
2	xFUME® COMPACT 25	Crabb ring	604.0143.1
3	xFUME® PRO 24	Ball joint	600.0138.1
4	xFUME® PRO 36 / 501	Ball joint	600.0130.1
5	xFUME® COMPACT	Ball joint	600.0146.1
-	xFUME® PRO 24 / COMPACT 25	Leather hose set	600.0142.1
-	xFUME® PRO 36 / 501	Leather hose set	600.0143.1
6	xFUME® PRO	Crimping sleeve	720.0022
7	xFUME® PRO 24 / COMPACT 25	Adaptor piece cable assembly	600.0137.1
8	xFUME® PRO 36 / 501	Adaptor piece cable assembly	600.0128.1



## Handle type xFUME®

Type	Pos.	Part-No.
Handle xFUME® PRO complete	1	180.0207.1
Handle xFUME® COMPACT complete	2	180.0206.1





# xFUME® TIG

TIG fume extraction torches –  
air cooled and liquid cooled



## xFUME® TIG

With these TIG fume extraction torches, even the invisible, highly harmful fumes don't stand a chance.

Suitable for fume extraction units with extraction filter class W3.



# TIG fume extraction torches xFUME® TIG

## Air cooled and liquid cooled

Although TIG welding does not produce a similar amount of fumes compared to MIG/MAG welding, it does produce fumes that are particularly dangerous when inhaled. That is why it was very important to ABICOR BINZEL to develop a high-performance TIG torch for industrial use. The xFUME® TIG fume extraction torch also works according to the principle of extraction at the source and efficiently absorbs these highly hazardous fumes at their place of origin. This is provided by a combined ceramic protection and extraction nozzle, through which this TIG fume extraction torch with its slim front end guarantees an excellent view of the process. With its innovative concept and design, the xFUME® TIG is an excellent TIG fume extraction torch in general fabrication

especially for welding stainless steels, aluminum alloys and high-alloy materials, where welding fumes that pose different health hazards are increasingly released.

- Novel innovation in the field of TIG torches
- Integrated fume extraction to protect the welder
- Dimensions and weight as close as possible to standard TIG torches
- Patented extraction nozzle
- High use of common parts due to ABITIG® wear part concept
- Improved ergonomics
- Reduced gas loss due to optimised frontend



### xFUME® TIG 150

#### Technical data (EN 60 974-7):

Cooling:	air cooled
Rating:	150 A DC 105 A AC
Duty cycle:	35%
Tungsten electrode:	Ø 1.0-2.4 mm

### xFUME® TIG 260W

#### Technical data (EN 60 974-7):

Cooling:	liquid cooled
Rating:	260 A DC 185 A AC
Duty cycle:	100%
Tungsten electrode:	Ø 1.0-3.2 mm



#### Torch complete

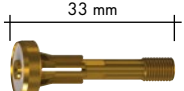
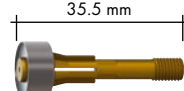
Type	Cooling	Part-No.	Torch body Part-No.
xFUME® TIG 150	air cooled	see note <sup>1</sup>	776.5008.1
xFUME® TIG 260W	liquid cooled	see note <sup>1</sup>	777.5001.1

<sup>1</sup> Due to the highly differing types of connections on the machine side we cannot list order numbers for complete torches. Please use the TIG torch overview for the order of complete torches - this you can find in the download area of our website [www.binzel-abicor.com](http://www.binzel-abicor.com).

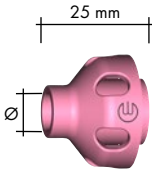
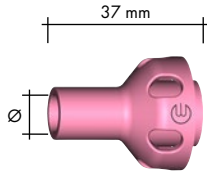
# xFUME® TIG 150, xFUME® TIG 260W

## Wear parts

		
<b>Back cap</b> (10 pcs.)	<b>Short</b>	<b>Long</b>
	776.0053	771.0051

			
<b>Electrode holder/ Gas diffuser</b> (5 pcs.)	<b>Electrode holder</b>	<b>Gas diffuser</b>	<b>Gas diffuser</b>
Ø 1.0 mm	776.0061	776.0171	777.0171.5
Ø 1.6 mm	776.0062	776.0172	777.0172.5
Ø 2.0 mm	776.0067	776.0177	777.0177.5
Ø 2.4 mm	776.0063	776.0173	777.0173.5
Ø 3.2 mm	776.0064	776.0174	777.0174.5

	
<b>Insulator / Adaptor ring</b> (10 pcs.)	<b>Standard version</b>
Insulator	776.1043

		
<b>Gas nozzle, ceramic</b> (10 pcs.)	<b>Short</b>	<b>Long</b>
Ø 8.0 mm	776.5003.10	776.5001.10
Ø 9.5 mm	776.5004.10	776.5002.10
Ø 12.0 mm	776.5005.10	776.5006.10

# Power cables, control cables and hoses

## I. Power cables

Type	Power cable High Flex		
	4 m	8 m	12 m
xFUME® TIG 150	150.0040	150.0041	150.0190
xFUME® TIG 260W	150.0270.1	150.0271.1	150.0272.1

## II. Control cables

Type	Description	Details	Part-No.
xFUME® TIG 150 / 260W	Power cable 7 core	100 m	100.0112
xFUME® TIG 150 / 260W	Power cable 7 core (protected)	100 m	100.0028

## III. Gas hoses, Hose clamps

Type	Description	Details	Part-No.
xFUME® TIG 260W	PVC hose black 3.5 x 1.25	100 m	102.0124
xFUME® TIG 260W	Hose clamp Ø=7.5 with ring (mark. 8.0)	20 pcs.	173.0007

## IV. Outer hoses

Type	Description	Details	Part-No.
xFUME® TIG 150 / 260W	Hose 32 black LW 28 R	30 m	109.0042

## V. Branch, connector set, cable guide, hose clutch, adaptor

Pos.	Type	Description	Part-No.
1	xFUME® TIG 150 / 260W	Branch 45°	600.0126.1
2	xFUME® TIG 150 / 260W	Hose clutch	400.1942.1
3	xFUME® TIG 150 / 260W	Connector cpl.	400.1935.1
4	xFUME® TIG 150 / 260W	Adaptor cpl.	776.5019.1
5	xFUME® TIG 150	Cable guide* AC cpl.	776.5009.5
6	xFUME® TIG 260W	Cable guide** LC cpl.	776.5018.5



# Handle and control modules

## Handle xFUME® TIG and control modules

Type	Description	Details	Part-No.
xFUME® TIG 150 / 260W	Handle xFUME® TIG, without control module		180.0210.1
xFUME® TIG 150 / 260W	Control module single push-button	BIS-51	400.1296.1
	Control module single push-button (lower release force than BIS-51)	BIS-S1	400.1647.1
	Control module double push-button	BIS-52	400.1292.1
	Control module UP / DOWN (device-dependent)	BIS-55	400.1388.1
	Control module UP / DOWN (device-dependent)	BIS-65	400.1318.1
	Control module UP / DOWN (compatible with Stel® / CEA®)	BIS-85	400.1375.1
	Control module UP / DOWN (compatible with Lorch®)	BIS-95	400.1354.1
	Lid (5 pcs.)	BIS-57	400.1402.5



**BIS-51 / BIS-S1** (lower release force)  
ED = Single push-button



**BIS-52**  
DD = Double push-button /  
Button short (in torch price list  
standard, under DD)



**BIS-55**  
UD = UP/DOWN  
(device-dependent)



**BIS-65**  
UD = UP/DOWN  
(device-dependent)



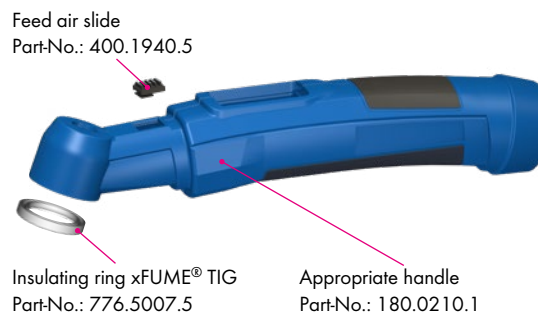
**BIS-85**  
UD = UP/DOWN  
(compatible with Stel® & CEA®)



**BIS-95**  
UD = UP/DOWN  
(compatible with Lorch®)



**BIS-57**  
Lid (5 pcs.)



### Abbreviations for switch functions:

ED	Single push-button
DD	Double push-button
UD	UP/DOWN (two switches)





# **xFUME<sup>®</sup> ROBO System**



## **xFUME<sup>®</sup> ROBO extraction kit**

This attachment for source extraction is the ideal addition to a robotic welding cell fume extraction. It can be attached on the MIG/MAG industrial robot torch in a few simple steps and picks up welding fume directly at the point of origin.

# Robot fume extraction at the source

## xFUME® ROBO extraction kit

The xFUME® ROBO extraction kit is the ideal solution for welding fume extraction at the source. Combined with an ABIROB® W robot welding torch, reliable and precise fume extraction is guaranteed when the extraction kit is attached to the welding robot and connected to an extraction unit.

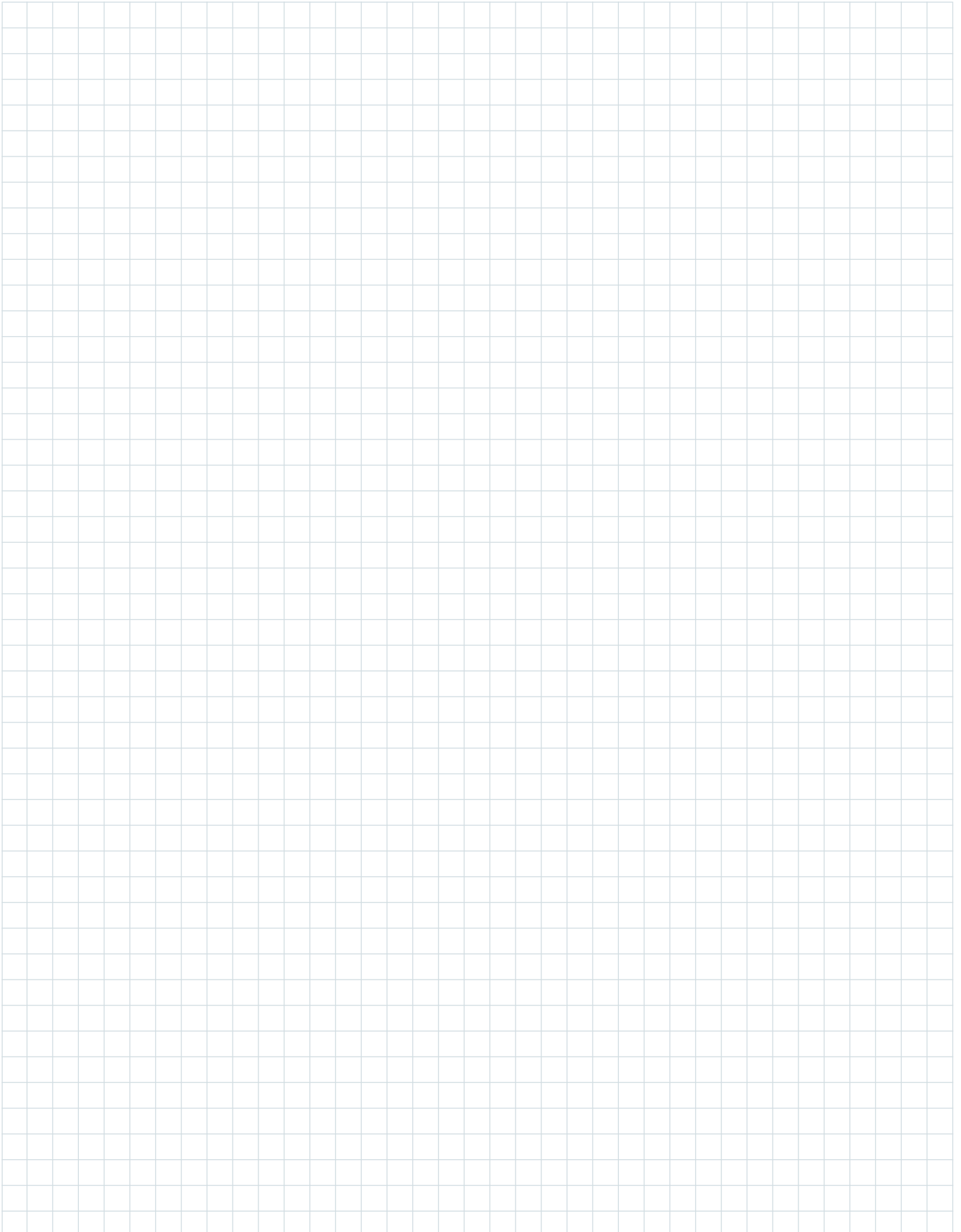
The extraction kit is separated from the cable assembly of the robot torch, which ensures that the welding fumes can flow unobstructed to the extraction unit. Already 50 mbar extraction power is sufficient to extract 95 % and more welding fumes at the source without affecting the shielding gas coverage.



Type	Description	Part-No.	
		3 m	6 m
xFUME® ROBO W 500 / A 500, 0-45°	Complete kit	191.0283.1	191.0284.1
xFUME® ROBO W 600, 0-45°	Complete kit	191.0285.1	191.0286.1

Type	Description	Part-No.
xFUME® ROBO W 500 / A 500, 0-45°	Extraction nozzle	191.0248.1
xFUME® ROBO W 600, 0-45°	Extraction nozzle	191.0249.1

# Notes



## Our product range:

### ■ MIG/MAG

- Welding torches
- Machine and special torches
- Push-Pull welding torches
- Fume extraction torches
- Central adapter system

### ■ TIG

- Welding torches
- Machine and special torches

### ■ PLASMA

- Cutting torches
- Welding torches
- Machine and special torches

### ■ ROBOTIC SYSTEMS

- Robot Torches MIG/TIG/PLASMA
- Electronic Welding Regulator
- Laser Heads
- Seam Tracking Sensors
- TCP Programming Aid
- Robot Mounts
- Wire Cutting Station
- Torch Cleaning Station
- Wire Feeding Systems

### ■ Welding Accessories

- Fumes Extraction Systems
- Coolers
- Welding Cable Plug and Socket
- Anti Spatter Spray and Paste  
and so on ...



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