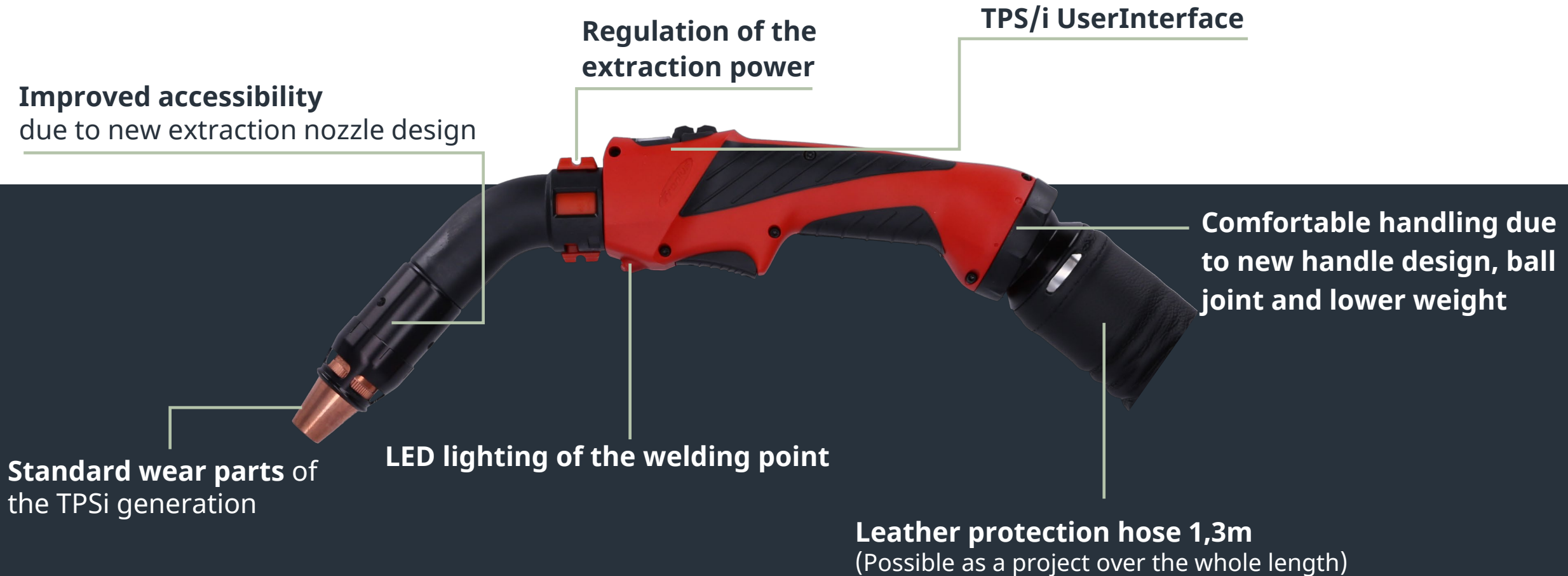


# Exento Fume Extraction Torch



Fronius International, PM Welding Torches  
Information Class: Confidential

# MTW/MTG Exento Fume Extraction Torch



# Accessibility | Energy Saving



## **Improved accessibility:**

Even without extraction nozzle, the standard EN ISO 21904-1 is fulfilled. Therefore best accessibility.



## **With extraction nozzle 10% energy saving**

Extraction nozzle for best energy- and extraction efficiency.

# Regulation of the Extraction Power on the Welding Torch

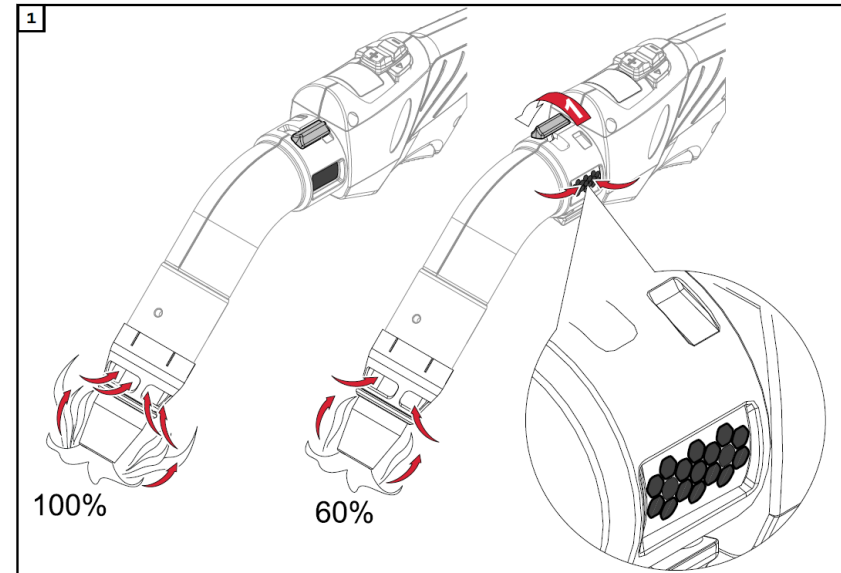


Closed:  
Standard setting



Open

- Opening the bypass slider reduces the extraction rate by approx. 40%.
- Application example: prevents extraction of shielding gas in corners or narrow welding spots



# UserInterface

**Standard**



**UpDown**



**JobMaster**



**Torch trigger top**

(Possible as a project)



# LED Lighting of the Welding Point

A red and black welding torch is shown from a high angle, pointing towards the bottom left. The torch has a red handle with a black grip and a black body. A bright white LED light is visible at the tip of the torch, illuminating the work surface below. The background is dark, and the work surface is a light-colored, textured metal plate.

Lighting of the welding point before  
and after welding

Control via two-step torch trigger



# Standard Wear Parts of the TPSi Generation



# Exento Extraction Torches

## Fulfill the Norm EN ISO 21904-1

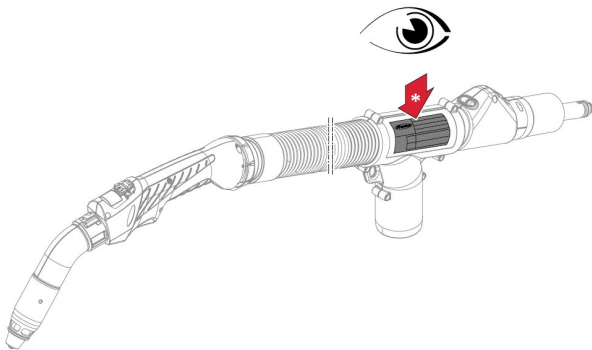
- Extraction torches capture and separate welding fumes directly where they are generated.
- They fulfill the requirements of the EN ISO 21904-1 norm for occupational health and safety in welding and allied processes.









# Option „Exentometer“ 44,0350,2079

- The measuring tube is used for precise adjustment of the optimum extraction power
- The optimum extraction rate depends on many things, welding process, power, material, welded parts....
- Example MTG 400i: According to the norm, a value of at least 57 m<sup>3</sup>/h extraction rate must be set here.  
(The value can be found on the rating plate)



 www.fronius.com		Type				
		Art.No.				
		Charge No.				
CE		EN ISO 21904-1		EN IEC 60974-7/-10 Cl.A		
		X (40 °C)				
		CO2				
		MIXED				
		Check		$\Delta p_c$ [kPa]	$Q_{v,c}$ [m³/h]	$Q_{v,n}$ [m³/h]
				11,0	94	57

Set value

Extraction "On"



# Check

- Each Exentometer is checked before delivery.
- The upper Exentometer is designed as a testing device at Fronius and is checked once a year.
- The lower Exentometer is a new one which is tested
- Tested with 55 m<sup>3</sup>/h
- Tolerance is between +/- 5m<sup>3</sup>/h



Testing device

New one which is tested

# Variants & Technical Data

## Gas cooled:

- MTG 250i Exento – 250A 40% DC (Gas nozzle ø22mm)
- MTG 320i Exento – 320A 40% DC (Gas nozzle ø25mm)
- MTG 400i Exento – 400A 40% DC (Gas nozzle ø25mm)

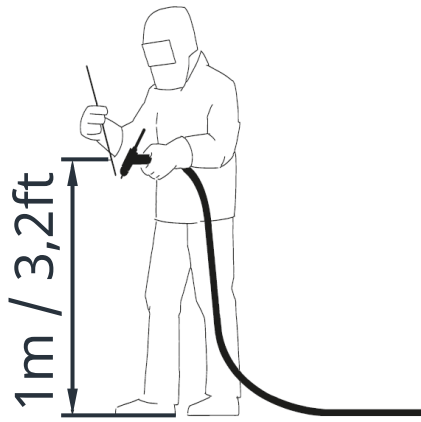
## Water cooled:

- MTW 300i Exento – 300A 100% DC (Gas nozzle ø22mm)
- MTW 500i Exento – 500A 40% DC (Gas nozzle ø25mm)



Welding torch lengths:  
3,5m and 4,5m

# Weight



## Gas cooled:

- MTG 250i Exento
- MTG 320i Exento
- MTG 400i Exento

Manual weight: 1,4 kg

Manual weight: 1,7 kg

Manual weight: 1,75 kg

**3,5m | 4,5m**

Net weight: 3,34 kg | 3,77 kg

Net weight: 4,08 kg | 4,69 kg

Net weight: 4,15 kg | 4,85 kg

## Water cooled:

- MTW 300i Exento
- MTW 500i Exento

Manual weight: 1,33 kg

Manual weight: 1,42 kg

Net weight: 3,01 kg | 3,36 kg

Net weight: 3,62 kg | 4,11 kg

# Central connectors

**FSC** for TPS/i and TransSteel power sources

- TPSi supports Standard, UpDown and JobMaster
- TransSteel supports Standard and UpDown

**Euro Connector**

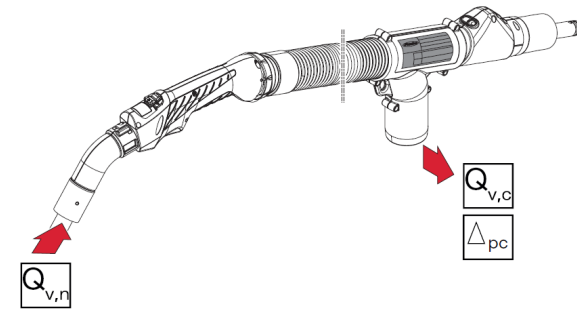
- With part number only Standard UserInterface
- As a project also UpDown possible
  - For Fronius power sources with Tuchel control plug
  - For competitor power sources with 3-pole control line without control plug

**Adapter FSC to F/F++ and Euro** for TPS power sources

- Standard and UpDown possible
- Note: BasicKits with .000 or .001 to be ordered as well



# Part numbers



Variants	Part numbers	Description	User interface	Available with Euro connector ending in ,001	Q <sub>v,n</sub> [m³/h]	Q <sub>v,c</sub> [m³/h]	Δpc [kPa]
MTG 250i Exento	4,036,454	MTG 250i Exento/FSC/3,5m	Standard	X	52	70	10,0
	4,036,455	MTG 250i Exento/FSC/4,5m	Standard	X		80	10,8
	4,036,456	MTG 250i Exento/FSC/UD/3,5m	Up/Down			70	10,0
	4,036,457	MTG 250i Exento/FSC/UD/4,5m	Up/Down			80	10,8
	4,036,458	MTG 250i Exento/FSC/JM/3,5m	JobMaster			70	10,0
	4,036,459	MTG 250i Exento/FSC/JM/4,5m	JobMaster			80	10,8
MTG 320i Exento	4,036,460	MTG 320i Exento/FSC/3,5m	Standard	X	57	90	10,2
	4,036,461	MTG 320i Exento/FSC/4,5m	Standard	X		94	11,0
	4,036,462	MTG 320i Exento/FSC/UD/3,5m	Up/Down			90	10,2
	4,036,463	MTG 320i Exento/FSC/UD/4,5m	Up/Down			94	11,0
	4,036,464	MTG 320i Exento/FSC/JM/3,5m	JobMaster			90	10,2
	4,036,465	MTG 320i Exento/FSC/JM/4,5m	JobMaster			94	11,0
MTG 400i Exento	4,036,466	MTG 400i Exento/FSC/3,5m	Standard	X	57	90	10,2
	4,036,467	MTG 400i Exento/FSC/4,5m	Standard	X		94	11,0
	4,036,468	MTG 400i Exento/FSC/UD/3,5m	Up/Down			90	10,2
	4,036,469	MTG 400i Exento/FSC/UD/4,5m	Up/Down			94	11,0
	4,036,470	MTG 400i Exento/FSC/JM/3,5m	JobMaster			90	10,2
	4,036,471	MTG 400i Exento/FSC/JM/4,5m	JobMaster			94	11,0
MTW 300i Exento	4,036,472	MTW 300i Exento/FSC/3,5m	Standard	X	52	95	13,5
	4,036,473	MTW 300i Exento/FSC/4,5m	Standard	X		100	15,0
	4,036,474	MTW 300i Exento/FSC/UD/3,5m	Up/Down			95	13,5
	4,036,475	MTW 300i Exento/FSC/UD/4,5m	Up/Down			100	15,0
	4,036,476	MTW 300i Exento/FSC/JM/3,5m	JobMaster			95	13,5
	4,036,477	MTW 300i Exento/FSC/JM/4,5m	JobMaster			100	15,0
MTW 500i Exento	4,036,478	MTW 500i Exento/FSC/3,5m	Standard	X	57	100	11,9
	4,036,479	MTW 500i Exento/FSC/4,5m	Standard	X		105	14,0
	4,036,480	MTW 500i Exento/FSC/UD/3,5m	Up/Down			100	11,9
	4,036,481	MTW 500i Exento/FSC/UD/4,5m	Up/Down			105	14,0
	4,036,482	MTW 500i Exento/FSC/JM/3,5m	JobMaster			100	11,9
	4,036,483	MTW 500i Exento/FSC/JM/4,5m	JobMaster			105	14,0



# Option “Pistol Grip”

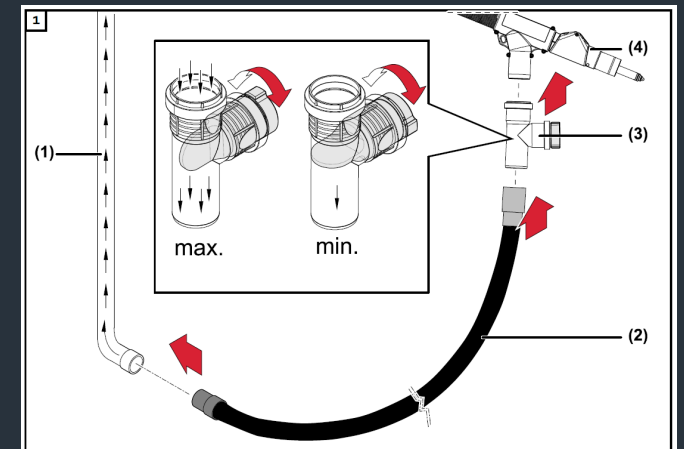
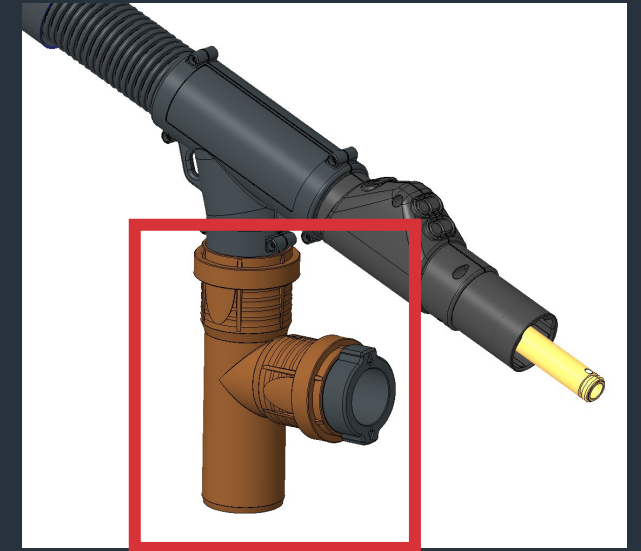
## 44,0350,2169

- We start with a 3D printed variant
- Material: Fiberglass reinforced plastic
- CE requirements were fulfilled
- Feedback on the design is welcome
- If all requirements are known and the request is big enough we will make an injection mold



# Option „Air Regulator“ 44,0350,2082

- For setting the extraction power for central extraction systems
- Is simply mounted between welding torch and extraction hose
- The throttle valve can be easily turned from max. to min. and vice versa from the outside



(1) central extraction system, (2) extraction hose, (3) external air flow regulator, (4) welding torch

# Option Torch Holder

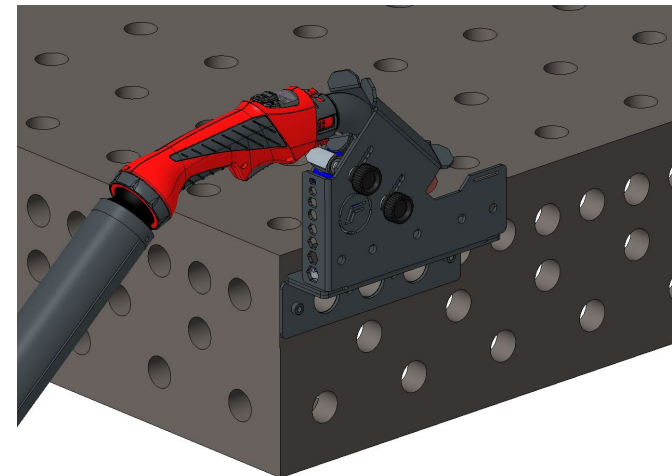
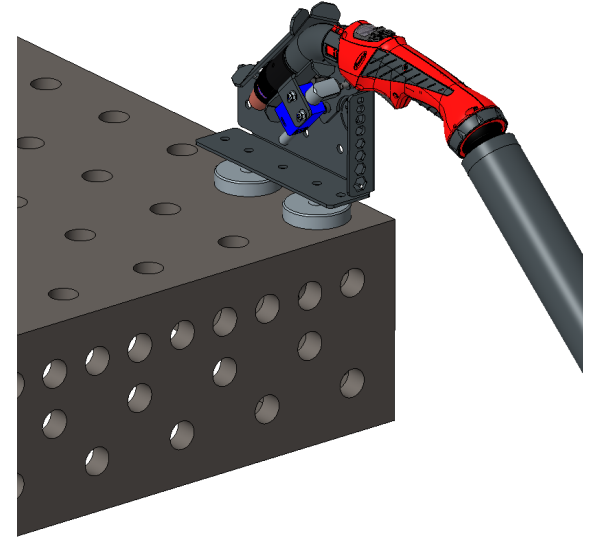
With start/stop switch for extraction unit

- As soon as the torch is removed from the holder, the extraction unit or a pneumatic slide valve in central extraction systems switches on.  
(pay attention to the performance of the switch)



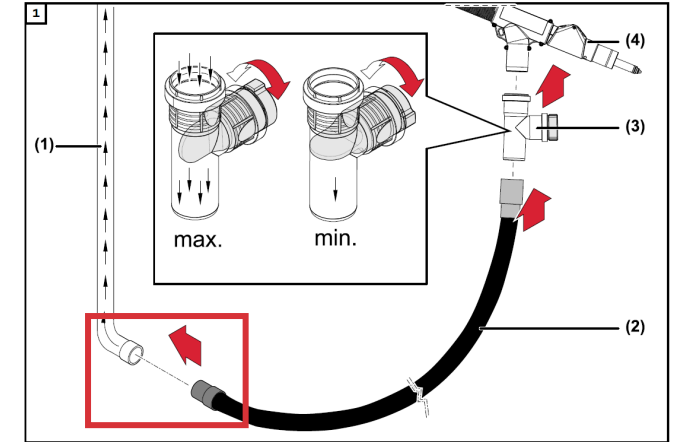
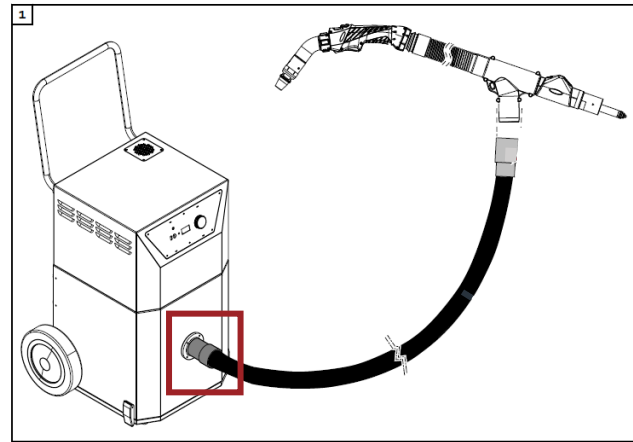
Pneumatic slide valve

- Full extraction power right at the start of the welding process
- Torch holder is fixed to the workstation either with magnets or with screws
- Part number: 44,0350,4515



# Extraction Hose

Item number	Description
42,0510,0481	HV extraction hose ø44mm 2,5m
42,0510,0482	HV extraction hose ø44mm 5m
42,0510,0489	HV extraction hose ø63mm 5m
42,0510,0490	HV extraction hose ø63mm 7,5m
42,0510,0483	HV extraction hose ø63mm 10m
42,0510,0491	Reducer 63/44mm IT/IT



(1) Zentralabsaugung, (2) Absaugschlauch, (3) externer Luftstrom-Regler, (4) Schweißbrenner

## Note:

When using third-party products or a central exhaust system, the customer is responsible for the correct connection.

# Timeline Welding Torches

Variants	Part numbers	Description	User interface	Available from 5 September 2022	Available from 3 April 2023
MTG 250i Exento	4,036,454	MTG 250i Exento/FSC/3,5m	Standard	X	
	4,036,455	MTG 250i Exento/FSC/4,5m	Standard	X	
	4,036,456	MTG 250i Exento/FSC/UD/3,5m	Up/Down	X	
	4,036,457	MTG 250i Exento/FSC/UD/4,5m	Up/Down	X	
	4,036,458	MTG 250i Exento/FSC/JM/3,5m	JobMaster		X
	4,036,459	MTG 250i Exento/FSC/JM/4,5m	JobMaster		X
MTG 320i Exento	4,036,460	MTG 320i Exento/FSC/3,5m	Standard	X	
	4,036,461	MTG 320i Exento/FSC/4,5m	Standard	X	
	4,036,462	MTG 320i Exento/FSC/UD/3,5m	Up/Down	X	
	4,036,463	MTG 320i Exento/FSC/UD/4,5m	Up/Down	X	
	4,036,464	MTG 320i Exento/FSC/JM/3,5m	JobMaster		X
	4,036,465	MTG 320i Exento/FSC/JM/4,5m	JobMaster		X
MTG 400i Exento	4,036,466	MTG 400i Exento/FSC/3,5m	Standard	X	
	4,036,467	MTG 400i Exento/FSC/4,5m	Standard	X	
	4,036,468	MTG 400i Exento/FSC/UD/3,5m	Up/Down	X	
	4,036,469	MTG 400i Exento/FSC/UD/4,5m	Up/Down	X	
	4,036,470	MTG 400i Exento/FSC/JM/3,5m	JobMaster		X
	4,036,471	MTG 400i Exento/FSC/JM/4,5m	JobMaster		X
MTW 300i Exento	4,036,472	MTW 300i Exento/FSC/3,5m	Standard	X	
	4,036,473	MTW 300i Exento/FSC/4,5m	Standard	X	
	4,036,474	MTW 300i Exento/FSC/UD/3,5m	Up/Down	X	
	4,036,475	MTW 300i Exento/FSC/UD/4,5m	Up/Down	X	
	4,036,476	MTW 300i Exento/FSC/JM/3,5m	JobMaster		X
	4,036,477	MTW 300i Exento/FSC/JM/4,5m	JobMaster		X
MTW 500i Exento	4,036,478	MTW 500i Exento/FSC/3,5m	Standard	X	
	4,036,479	MTW 500i Exento/FSC/4,5m	Standard	X	
	4,036,480	MTW 500i Exento/FSC/UD/3,5m	Up/Down	X	
	4,036,481	MTW 500i Exento/FSC/UD/4,5m	Up/Down	X	
	4,036,482	MTW 500i Exento/FSC/JM/3,5m	JobMaster		X
	4,036,483	MTW 500i Exento/FSC/JM/4,5m	JobMaster		X





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