

EX-TRAFIRE® 105HD

INDUSTRIAL CUTTING. HEAVY-DUTY PERFORMANCE.

SOLUTIONS / INDUSTRIES



Automotive and transportation



Steel mills and steel service centers



Structural



Shipyards and Offshore



Heavy fabrication

Last update of this page: 01/07/2022. See Revision history for details.



105 A

CAR 105

THERMACUT
FHT-EX

IEC 61141-7

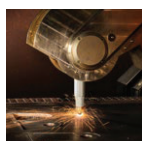
EX-TRAFIRE 105HD

THERMACUT

EX-TRAFIRE® 105HD

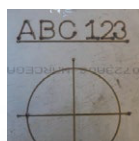


IMPRESSIVE PERFORMANCE



- + Extremely high cutting speed
- + Maximum cutting quality, even with long cuts
- + Also ideal for automated processes

MARKING MODE



- + Automatic gas identification (air, nitrogen, argon)
- + Integrated gas saving function
- + Fine, deep or wide markings
- + Optional smooth marking for applications below 20A

READY FOR INDUSTRY 4.0



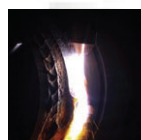
- + Industry leading connectivity
- + CAN / RS 485 / RS 422 Bus interface (optional)
- + Easy monitoring
- + Expandable and updatable

AUTOMATIC SETTINGS



- + Cutting gas media, electricity and pilot current
- + Compensation for pressure drops
- + Fewer operating errors, better cutting quality

HIGHEST FLEXIBILITY



- + Plate thicknesses up to 55 mm and more
- + For mechanized and manual applications
- + Gouging with high removal rate
- + Suitable for worldwide use

NEW CUTTING TORCH FHT® EX105TT



- + Torch design award winner
- + Optimized ergonomics
- + Relaxed PE and PA cutting
- + 100% duty cycle

Last update of this page: 01/07/2022. See Revision history for details.

EX-TRAFIRE® 105HD

SPECIFICATIONS

Output current [A]	20-105
Modes	cutting / grid cutting / gouging / marking
Duty cycle	100 % @ 105 A
Rated output voltage [VDC]	200
Severance cutting capacity [mm]	50+ ⁽¹⁾
Piercing capacity [mm]	20 ⁽¹⁾
Recommended cutting capacity [mm]	35 ⁽¹⁾
Plasma gas	compr. air / nitrogen / argon
Max. Air flow [lpm/bar]	205/5
CNC interface / CAN BUS interface	optional / optional
Preadjusted voltage divider ratio	50:1
Input voltage [VAC]	3 x 400 ± 15 % ⁽²⁾
Frequency [Hz]	50/60
Dimensions (L×H×W) [mm]	613 x 515 x 302
Weight [kg]	35.4
Certification depending on region	CE, C-TICK, CCC, CSA
Maximum input pressure [bar/psi]	10/145
Protection level	IP23S
Insulation class	F
Type of hand torch	FHT-EX®105TTH
Type of machine torch	FHT-EX®105TTM

⁽¹⁾ related to low-alloy steel (mild steel)

⁽²⁾ suitable for generator use



4 DIFFERENT OPERATION MODES

The plasma cutting systems in the EX-TRAFIRE®HD range are the absolute specialists in meeting tough demands in continuous operation. The mobile EX-TRAFIRE®105HD plasma cutting system with 100% duty cycle is the perfect solution for demanding heavy duty applications in industry.

- CUTTING
- GRID CUTTING
- MARKING
- GOUGING

Last update of this page: 22/03/2023. See Revision history for details.

EX-TRAFIRE® 105HD

ORDERING INFORMATION

Description	Length	Part No.
MANUAL PLASMA CUTTING SYSTEMS		
EX-TRAFIRE®105HD/CE/3x400 V Hand System/CNC Port/FHT-EX®105TTH/Starter Kit	5 m	EX-5-010-009
EX-TRAFIRE®105HD/CE/3x400 V Hand System/CNC Port/FHT-EX®105TTH/Starter Kit	8 m	EX-5-010-010
EX-TRAFIRE®105HD/CE/3x400 V Hand System/CNC Port/FHT-EX®105TTH/Starter Kit	15 m	EX-5-010-011
EX-TRAFIRE®105HD/CE/3x400 V Hand System/CNC Port/FHT-EX®105TTH/Starter Kit	23 m	EX-5-010-012
MECHANIZED PLASMA CUTTING SYSTEMS		
EX-TRAFIRE®105HD/CE/3x400 V Machine System/CNC Port/Serial Interface/FHT-EX®105TTM STD-NR/Starter Kit	8 m	EX-5-011-019
EX-TRAFIRE®105HD/CE/3x400 V Machine System/CNC Port/Serial Interface/FHT-EX®105TTM STD-NR/Starter Kit	15 m	EX-5-011-020
EX-TRAFIRE®105HD CE 3x400 V Machine System/CNC Port/Serial Interface/FHT-EX®105TTSM/Starter Kit	8 m	EX-5-012-006
EX-TRAFIRE®105HD CE 3x400 V Machine System/CNC Port/Serial Interface/FHT-EX®105TTSM/Starter Kit	15 m	EX-5-012-007
EX-TRAFIRE®105HD/CE/3x400 V Machine System/CNC Port/FHT-EX®105TTM STD-NR/Starter Kit	8 m	EX-5-013-002
EX-TRAFIRE®105HD/CE/3x400 V Machine System/CNC Port/FHT-EX®105TTM STD-NR/Starter Kit	15 m	EX-5-013-003
EX-TRAFIRE®105HD CE 3x400 V Machine System/CNC Port/FHT-EX®105TTSM/Starter Kit	8 m	EX-5-014-002
EX-TRAFIRE®105HD CE 3x400 V Machine System/CNC Port/FHT-EX®105TTSM/Starter Kit	15 m	EX-5-014-003
PLASMA CUTTING UNITS		
EX-TRAFIRE®105HD/CE/3x400 V power supply unit/CNC Port/Serial Interface		EX-5-001-002
EX-TRAFIRE®105HD/CE/3x400 V power supply unit/CNC Port		EX-5-003-001

AVAILABLE BULK PACKS

Description	Pcs	Part No.
Bulk Pack - Electrode 45-105 A - 25 pcs	1	EX-5-401-061
Bulk Pack - Nozzle 75 A - 25 pcs	1	EX-5-410-032
Bulk Pack - Nozzle Smoothline- 25 pcs	1	EX-5-410-060
Bulk Pack - Nozzle 45 A - 25 pcs	1	EX-5-410-061
Bulk Pack - Nozzle 55/65 A - 25 pcs	1	EX-5-410-063
Bulk Pack - Nozzle 85 A - 25 pcs	1	EX-5-410-065
Bulk Pack - Nozzle 100/105 A - 25 pcs	1	EX-5-410-066
Bulk Pack - Hand Shield 45-85 A - 18 pcs	1	EX-5-422-041
Bulk Pack - Hand Shield 100/105 A - 18 pcs	1	EX-5-422-042
Bulk Pack - Machine Shield Smoothline - 18 pcs	1	EX-5-422-060
Bulk Pack - Machine Shield 45-85 A - 18 pcs	1	EX-5-422-061
Bulk Pack - Machine Shield 100/105 A - 18 pcs	1	EX-5-422-062

ACCESSORIES

Description	Pcs	Part No.
CNC Interface 14-pin Plug Kit	1	EX-0-803-001
CNC Interface connection lead 3 m	1	EX-0-803-003
CNC Interface connection lead 6 m	1	EX-0-803-004
CAN bus connection cable 10 m	1	EX-0-803-006
CAN bus connection cable 5 m	1	EX-0-803-007
RS422 bus connection cable 10 m	1	EX-0-803-008
RS422 bus connection cable 5 m	1	EX-0-803-009
Universal connection cable 10 m	1	EX-0-803-010
Universal connection cable 5 m	1	EX-0-803-011
Silicone Grease 25 ml	1	EX-0-805-001
Work lead with clamp 300 A/4 m/16 mm2/EU-plug 35-70 mm2	1	EX-5-543-037
Work lead with clamp 300 A/8 m/16 mm2/EU-plug 35-70 mm2 (ON REQUEST)	1	EX-5-543-001
Work lead with clamp 300 A/15 m/16 mm2/EU-plug 35-70 mm2 (ON REQUEST)	1	EX-5-543-002
Work lead with clamp 300 A/23 m/16 mm2/EU-plug 35-70 mm2 (ON REQUEST)	1	EX-5-543-003

Last update of this page: 01/07/2022. See Revision history for details.

EX-TRAFIRE® 105HD



FRONT VIEW



BACK VIEW



SIDE VIEW

Last update of this page: 01/07/2022. See Revision history for details.

FHT-EX® 105TT

HAND / MACHINE TORCHES AND CONSUMABLES

SUITABLE FOR EX-TRAFIRE® 65HD/85HD/105HD



Last update of this page: 09/06/2021. See Revision history for details.



FHT-EX® 105TT



The high-performant FHT-EX® 105TT H/M hand and machine torches are ideal for meeting tough demands in continuous operation. These torches are optimally designed for use with EX-TRAFIRE® 105HD power supplies and are suitable for cutting, gouging, grid-cutting and marking. They can cut plate thickness of up to 55+ mm and more precisely and quickly.

Thanks to the THERMACUT® Torch Connection System (TCS), changing the torch is a quick and easy process. The powerful torches are the result of decades of experience in the field of plasma cutting. They feature an extremely robust and durable design in which all consumables can be replaced quickly and easily.

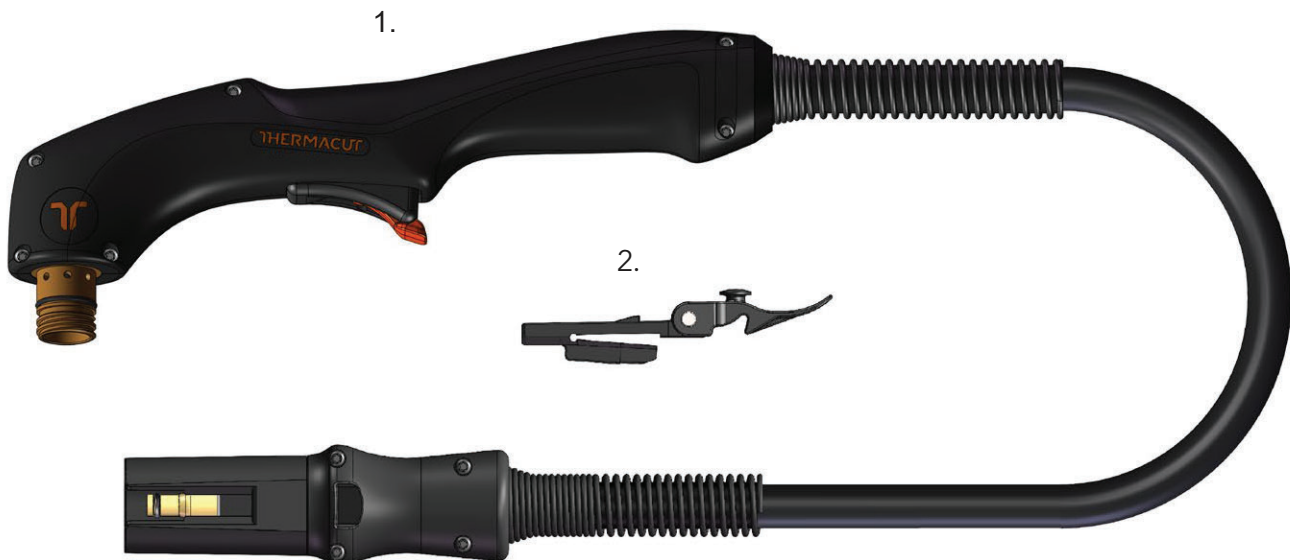
BENEFITS

- High-performant torches for mechanised applications and handheld use
- Ergonomic handheld torches for safe and reliable holding and guiding in all positions
- Compact and flexible for handheld applications, even in the case of tight radii or gouging of fillet welds
- 100 % duty cycle at 105 A, ideal for continuous use
- Ideal for plate thicknesses of up to 50+ mm and more with high power reserves
- Consumables with an extended lifetime
- Quick and tool-free replacement of consumables
- Piercing 25+ mm
- Perfectly designed for use with EX-TRAFIRE® 105HD power supplies

Last update of this page: 01/07/2022. See Revision history for details.

FHT-EX® 105TTH

HAND TORCH ASSEMBLY



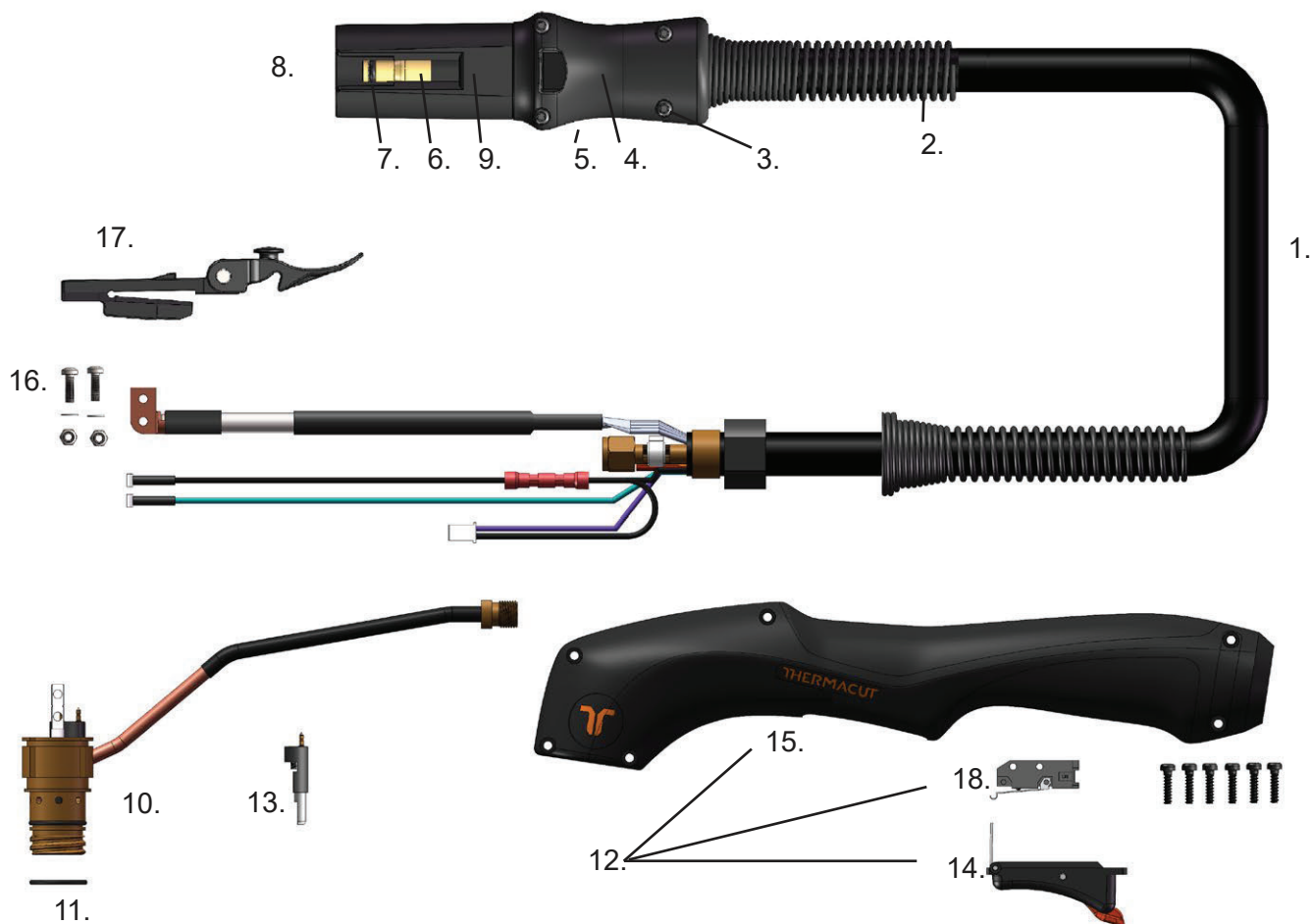
Item	Part No.	Description	Pcs
1.	EX-5-133-002	DEMO FHT-EX®105TTH Hand Torch Assembly/TCS13	1
	EX-5-139-001	FHT-EX®105TTH Hand Torch Assembly-w/o consumables w/5m (16.5') Lead/TCS13	1
	EX-5-139-002	FHT-EX®105TTH Hand Torch Assembly w/o consumables w/8m (26') Lead/TCS13	1
	EX-5-139-003	FHT-EX®105TTH Hand Torch Assembly w/o consumables w/15m (50') Lead/TCS13	1
	EX-5-139-004	FHT-EX®105TTH Hand Torch Assembly w/o consumables w/23m (75') Lead/TCS13	1
⊕ 2.	EX-0-321-003	Latch with Key Assembly	1

⊕ LATCH WITH KEY IS NOT CONTENT OF TORCHES ABOVE. IF YOU NEED IT, YOU HAVE TO ORDER SEPARATELY.

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FHT-EX® 105TTH

HAND TORCH COMPONENTS

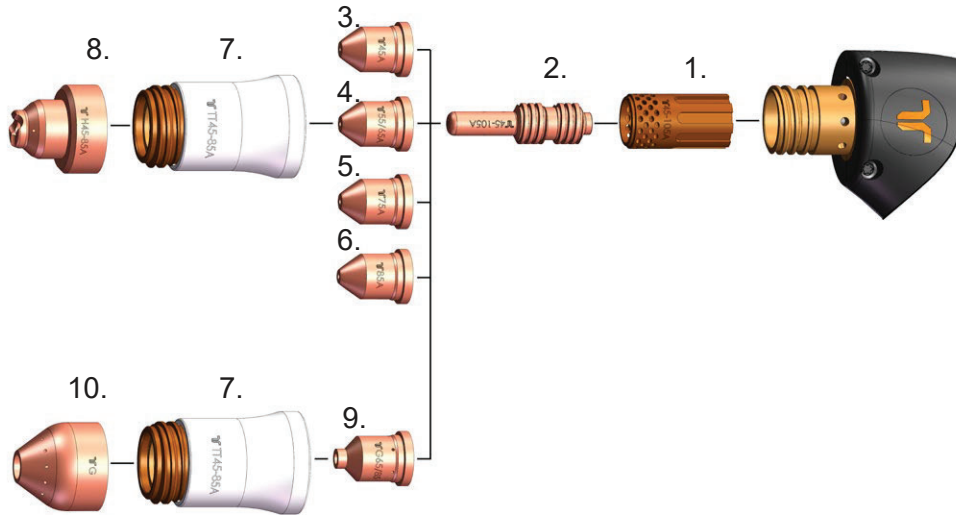


Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-374-010	FHT-EX®105TTH Hand Torch Lead Replacement 5m (16.5')/TCS13	1	9.	EX-0-323-001	TCS13 Plug Body	1
1.	EX-5-374-011	FHT-EX®105TTH Hand Torch Lead Replacement 8m (26')/TCS13	1	10.	EX-5-302-001	Hand Torch Body Repl. Kit (incl. Torch body & Cap sensor)	2
1.	EX-5-374-012	FHT-EX®105TTH Hand Torch Lead Replacement 15m (50')/TCS13	1	11.	EX-5-431-050	O-Ring (fitted on the torch body) - 2 pcs	1
1.	EX-5-374-013	FHT-EX®105TTH Hand Torch Lead Replacement 23m (75')/TCS13	1	12.	EX-5-314-001	Hand Torch Handle Replacement Kit	1
2.	EX-5-318-001	TCS Plug Spring Strain Relief	1	13.	EX-5-305-002	Cap-sensor Replacement Kit with Screws/ Hand Torch	1
3.	EX-0-325-015	TCS Clam Shell Screw Kit (incl. 4 screws)	1	14.	EX-5-313-031	Safety Trigger	1
4.	EX-0-325-002	TCS Clam Shell Upper	1	15.	EX-5-308-001	Hand Torch Handle with Screws	1
5.	EX-0-325-001	TCS Clam Shell Lower	1	16.	EX-5-372-010	Cathode mounting kit	1
6.	EX-0-325-010	Retaining Ring (Outer circlip ring)	1	17.	EX-0-321-003	Latch w/Key Assembly	1
7.	EX-0-325-009	O-Ring (fitted in the TCS plug)	1	18.	EX-5-313-030	Safety Trigger Micro-Switch	1
8.	EX-0-325-005	Male Crimp Pin for TCS Plug	1				

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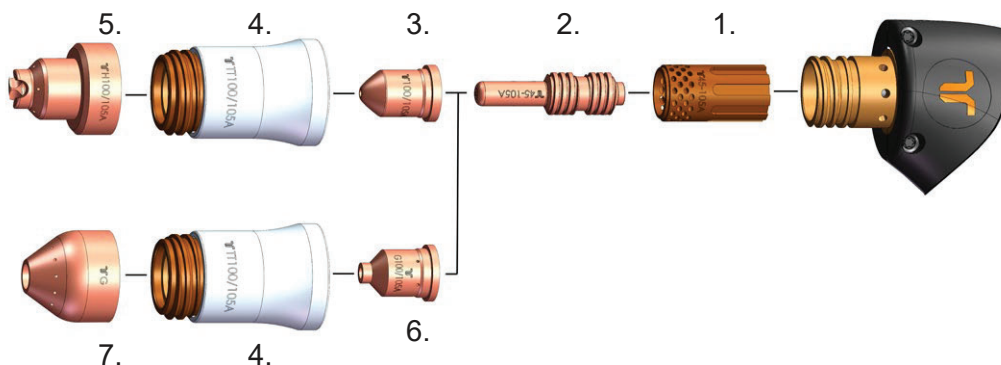
CONSUMABLES

HAND TORCH CONSUMABLES - 45-85 A



Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1	6.	EX-5-410-055	Nozzle 85 A	5
2.	EX-5-401-051	Electrode 45-105 A	5	7.	EX-5-415-050	Nozzle Retaining Cap 45-85 A	1
3.	EX-5-410-051	Nozzle 45 A	5	8.	EX-5-422-031	Hand Shield 45-85 A	1
4.	EX-5-410-053	Nozzle 55/65 A	5	9.	EX-5-440-051	Gouging Nozzle 65-85 A	5
5.	EX-5-410-030	Nozzle 75 A	5	10.	EX-5-440-050	Gouging Shield	1

HAND TORCH CONSUMABLES - 100-105 A

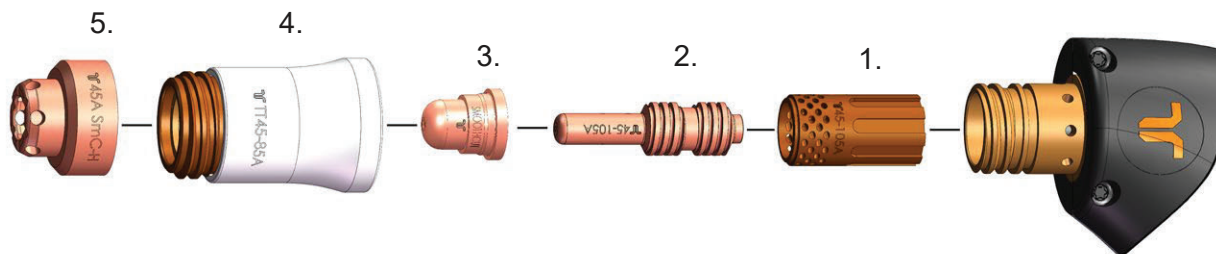


Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1	5.	EX-5-422-032	Hand Shield 100/105 A	1
2.	EX-5-401-051	Electrode 45-105 A	5	6.	EX-5-440-052	Gouging Nozzle 100/105 A	5
3.	EX-5-410-056	Nozzle 100/105 A	5	7.	EX-5-440-050	Gouging Shield	1
4.	EX-5-415-051	Nozzle Retaining Cap 100/105 A	1				

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CONSUMABLES

HAND TORCH CONSUMABLES - SMOOTHLINE

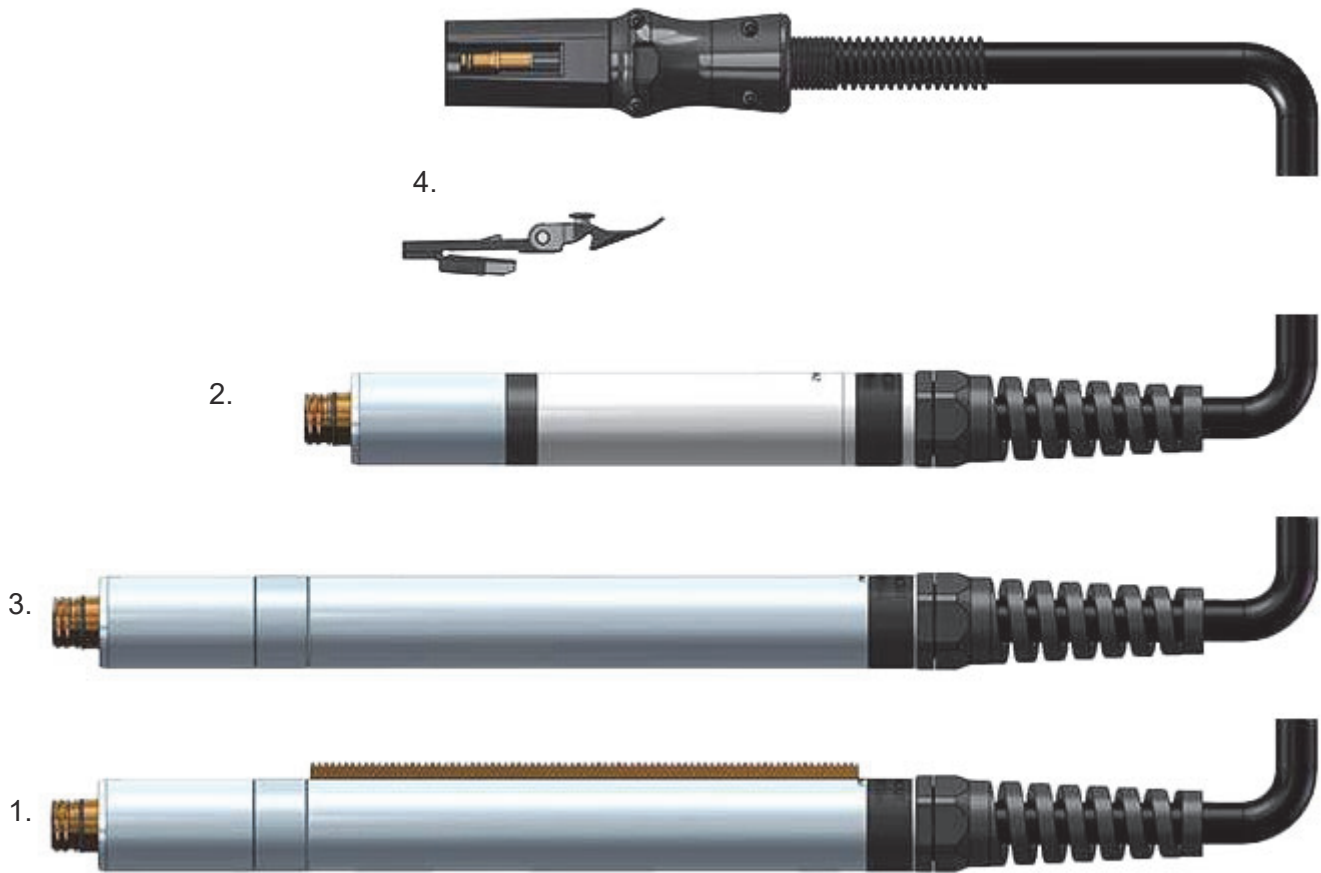


Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1
2.	EX-5-401-051	Electrode 45-105 A	5
3.	EX-5-410-050	Nozzle Smoothline	5
4.	EX-5-415-050	Nozzle Retaining Cap 45-85 A	1
5.	EX-5-420-050	Hand Shield 40/45 A Smoothline	1

Last update of this page: 01/07/2022. See Revision history for details.

FHT-EX® 105TTM

MACHINE TORCH ASSEMBLY



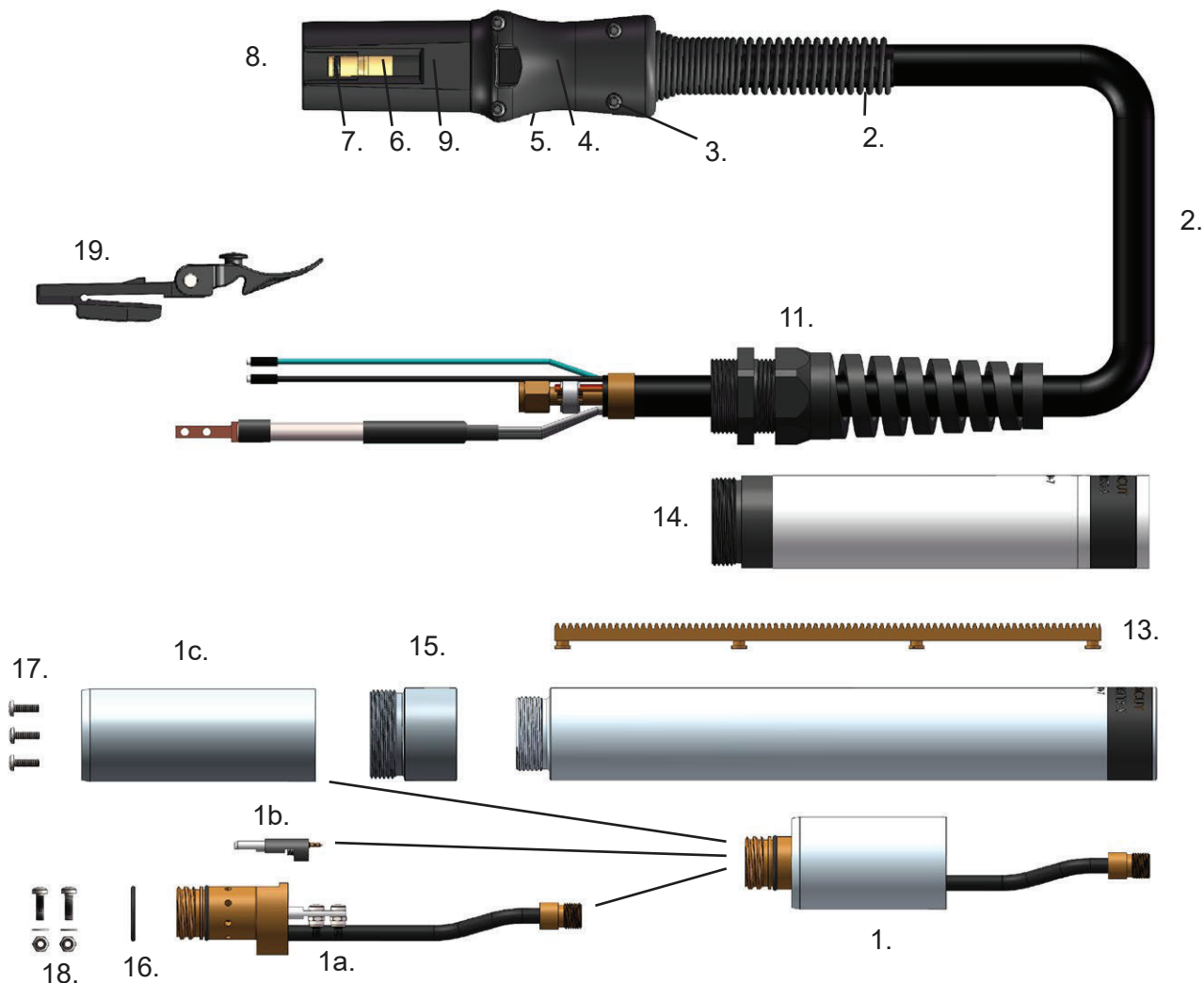
Item	Part No.	Description	Pcs
1.	EX-5-233-020	DEMO FHT-EX®105TTM (STD) Machine Torch w/Rack Assembly/TCS13	1
NS	EX-5-234-021	DEMO FHT-EX®105TTSM Short Machine Torch Assembly/ TCS13	1
2.	EX-5-242-021	FHT-EX®105TTSM Short Machine Torch Assembly-w/o consumables w/5m (16.5') Lead/ TCS13	1
2.	EX-5-244-021	FHT-EX®105TTSM Short Machine Torch Assembly-w/o consumables w/8m (26') Lead/ TCS13	1
2.	EX-5-247-021	FHT-EX®105TTSM Short Machine Torch Assembly-w/o consumables w/15m (50') Lead/ TCS13	1
2.	EX-5-250-021	FHT-EX®105TTSM Short Machine Torch Assembly-w/o consumables w/23m (75') Lead/ TCS13	1
3.	EX-5-202-031	FHT-EX®105TTM M Torch w/o Rack Assy w/o consumables w/5m (16.5')Lead/ TCS13	1
3.	EX-5-204-031	FHT-EX®105TTM M Torch w/o Rack Assy w/o consumables w/8m (26') Lead/ TCS13	1
3.	EX-5-207-032	FHT-EX®105TTM M Torch w/o Rack Assy w/o consumables w/15m (50') Lead/ TCS13	1
3	EX-5-210-034	FHT-EX®105TTM M Torch w/o Rack Assy w/o consumables w/23m (75') Lead/ TCS13	1
⊕	4.	EX-0-321-003 Latch with Key Assembly	1

⊕ LATCH WITH KEY IS NOT CONTENT OF TORCHES ABOVE. IF YOU NEED IT, YOU HAVE TO ORDER SEPARATELY.

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FHT-EX® 105TTM

MACHINE TORCH COMPONENTS

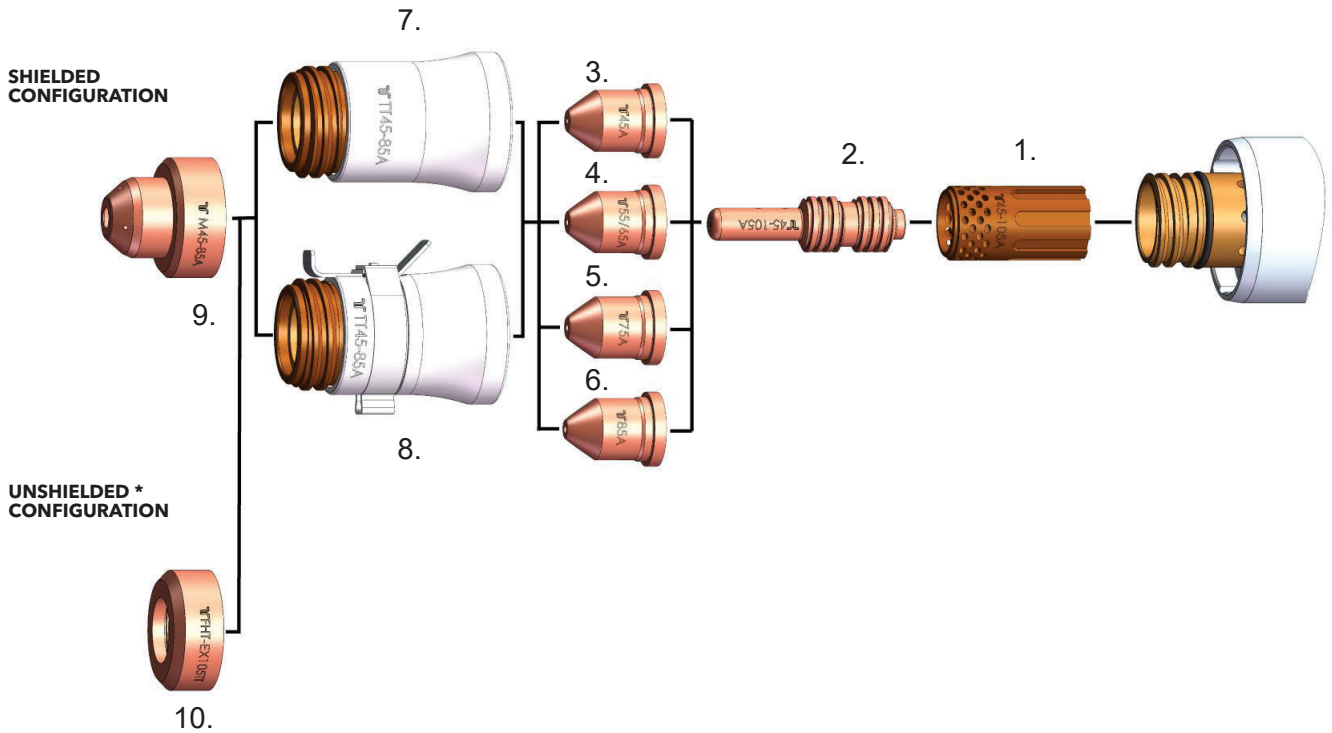


Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-303-011	Machine Torch Body Assembly FHT-EX®105TTM	1	8.	EX-0-325-009	O-Ring (fitted in the TCS plug)	1
1a.	EX-5-303-010	Machine Torch Body FHT-EX®105TTM	1	9.	EX-0-325-005	Male Crimp Pin for TCS Plug	1
1b.	EX-5-304-001	Cap Sensor Replacement Kit with Screws/Machine Torch	1	10.	EX-0-323-001	TCS13 Plug Body	1
1c.	EX-5-306-002	Torch Mounting Sleeve (incl. 3 screws)	1	11.	EX-5-317-021	Machine Torch Strain Relief	1
2.	EX-5-375-010	FHT-EX®105TTM Machine Torch Lead Replacement 5m (16.5')/TCS13	1	12.	EX-5-306-003	Standard Mounting Tube w/o Rack	1
2.	EX-5-375-011	FHT-EX®105TTM Machine Torch Lead Replacement 8m (26')/TCS13	1	13.	EX-5-306-004	Gear Rack	1
2.	EX-5-375-012	FHT-EX®105TTM Machine Torch Lead Replacement 15m (50')/TCS13	1	14.	EX-5-306-009	Short Mounting Tube	1
2.	EX-5-375-013	FHT-EX®105TTM Machine Torch Lead Replacement 23m (75')/TCS13	1	15.	EX-5-306-005	Standard Mounting Tube Reduction Nut	1
3.	EX-5-318-001	TCS Plug Spring Strain Relief	1	16.	EX-5-431-050	O-Ring (fitted on the torch body)	1
4.	EX-0-325-015	TCS Clam Shell Screw Kit (incl. 4 screws)	1	17.	EX-5-372-005	Torch Mounting Screws Kit (incl. 3 screws)	1
5.	EX-0-325-002	TCS Clam Shell Upper	1	18.	EX-5-372-010	Cathode Mounting Kit	1
6.	EX-0-325-001	TCS Clam Shell Lower	1	19.	EX-0-321-003	Latch w/Key Assembly	1
7.	EX-0-325-010	Retaining Ring (Outer circlip ring)	1				

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CONSUMABLES

STANDARD MACHINE TORCH CONSUMABLES - 45-85 A



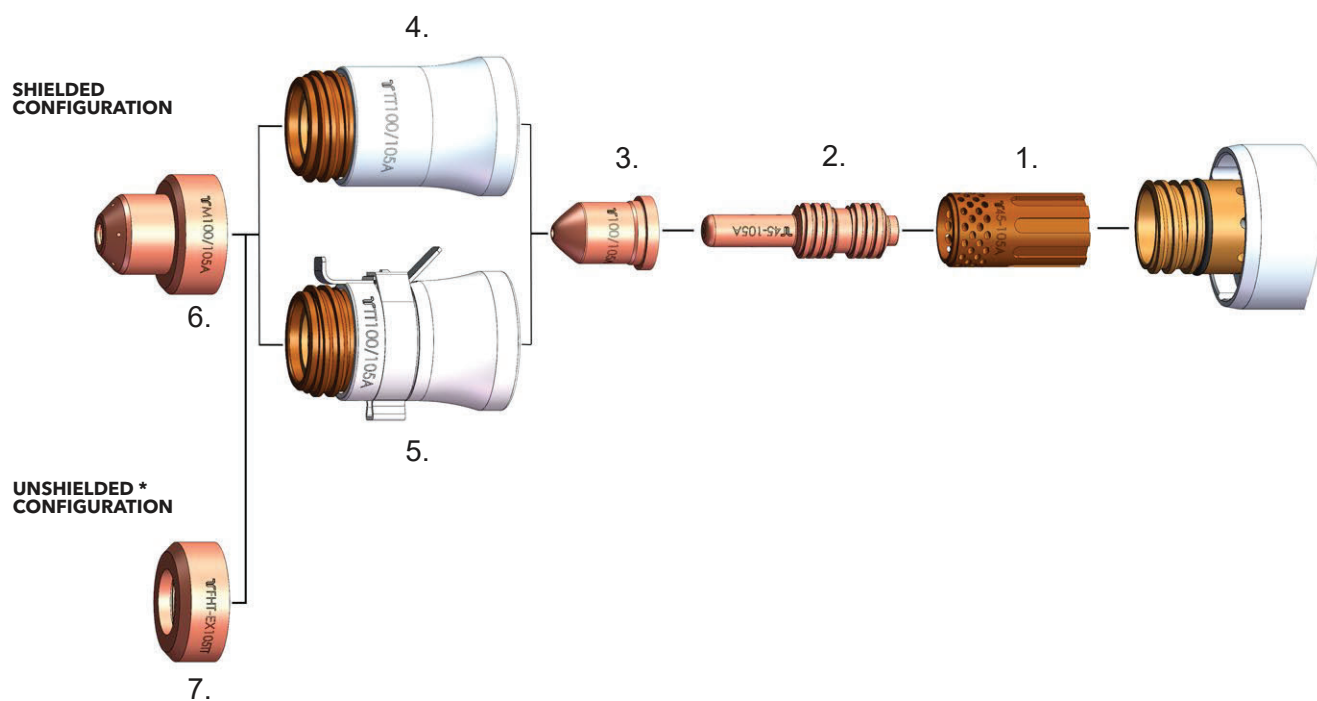
Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1	6.	EX-5-410-055	Nozzle 85 A	5
2.	EX-5-401-051	Electrode 45-105 A	5	7.	EX-5-415-050	Nozzle Retaining Cap 45-85 A	1
3.	EX-5-410-051	Nozzle 45 A	5	8.	EX-5-415-052	Nozzle Retaining Cap 45-85 A w/IHS Tab	1
4.	EX-5-410-053	Nozzle 55/65 A	5	9.	EX-5-422-051	Machine Shield 45-85 A	1
5.	EX-5-410-030	Nozzle 75 A	5	10.	EX-5-423-001	Deflector	1

* IN COUNTRIES FOLLOWING CE STANDARDS, UNSHIELDED CONSUMABLE CONFIGURATION MAY ONLY BE USED IN MECHANIZED TORCH APPLICATIONS.

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CONSUMABLES

MACHINE TORCH CONSUMABLES - 100-105 A



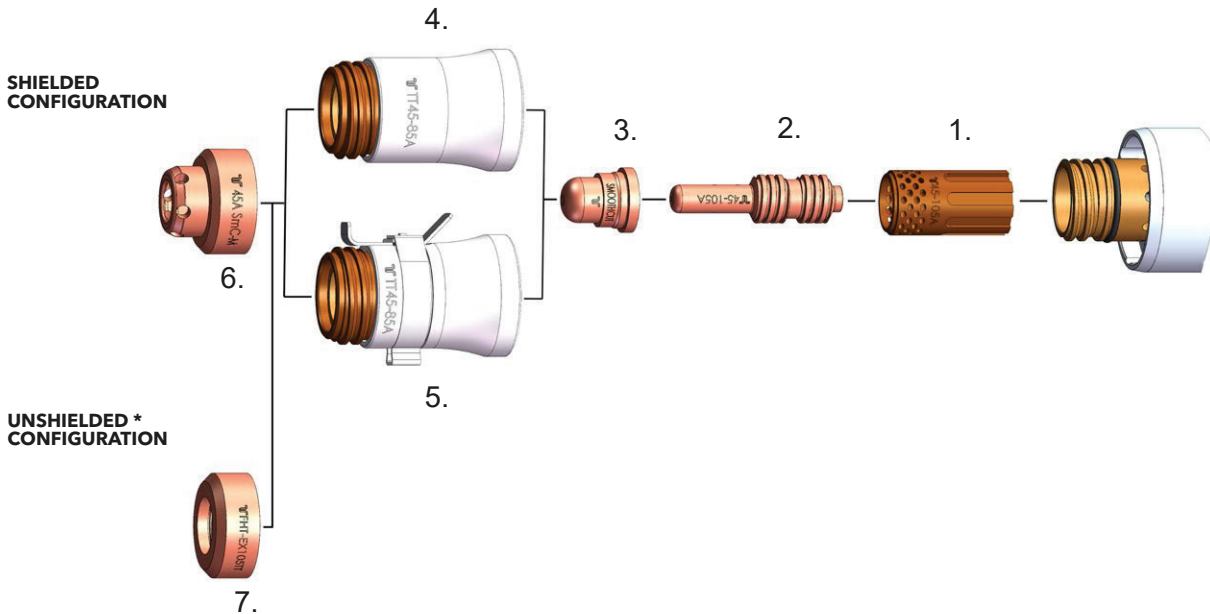
Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1
2.	EX-5-401-051	Electrode 45-105 A	5
3.	EX-5-410-056	Nozzle 100/105 A	5
4.	EX-5-415-051	Nozzle Retaining Cap 100/105 A	1
5.	EX-5-415-053	Nozzle Retaining Cap 100/105 A w/IHS Tab	1
6.	EX-5-422-052	Machine Shield 100/105 A	1
7.	EX-5-423-001	Deflector	1

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CONSUMABLES

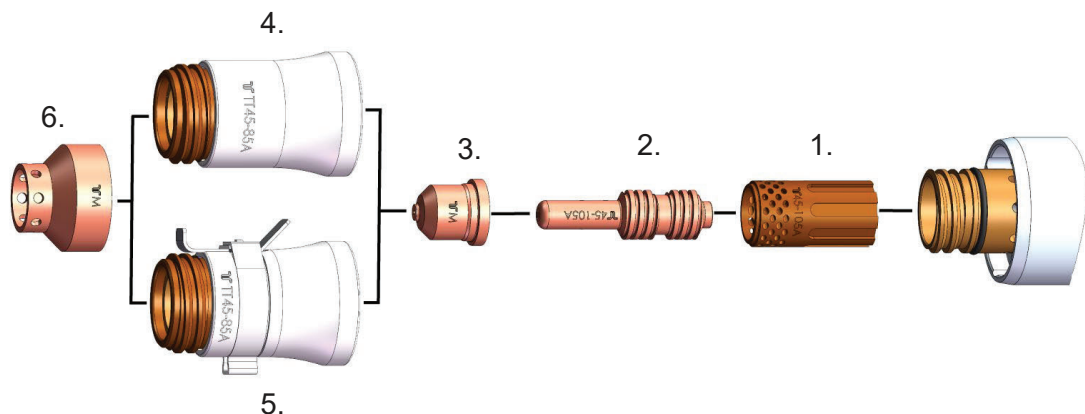
MACHINE TORCH CONSUMABLES - SMOOTHLINE



Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105 A	1	5.	EX-5-415-052	Nozzle Retaining Cap 45-85 A w/IHS Tab	1
2.	EX-5-401-051	Electrode 45-105 A	5	6.	EX-5-422-050	Machine Shield 40/45 A Smoothline	1
3.	EX-5-410-050	Nozzle Smoothline	5	7.	EX-5-423-001	Deflector	1
4.	EX-5-415-050	Nozzle Retaining Cap 45-85 A	1				

* IN COUNTRIES FOLLOWING CE STANDARDS, UNSHIELDED CONSUMABLE CONFIGURATION MAY ONLY BE USED IN MECHANIZED TORCH APPLICATIONS.

MACHINE TORCH CONSUMABLES - MARKING



Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-5-404-051	Swirl Ring 45-105A	1	4.	EX-5-415-050	Nozzle Retaining Cap 45-85A	1
2.	EX-5-401-051	Electrode 45-105 A	5	5.	EX-5-415-052	Nozzle Retaining Cap 45-85A w/IHS Tab	1
3.	EX-5-445-001	Marking Nozzle	5	6.	EX-5-445-002	Marking Shield	1

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