

# EX-TRAFIRE<sup>®</sup> 45SD

PROFESSIONAL AND VERSATILE PLASMA CUTTING SYSTEM



Automotive  
and transportation



Steel mills and  
steel service  
centers



Structural



Shipyards  
and Offshore



Heavy fabrication

# EX-TRAFIRE® 45SD

## SPECIFICATIONS

	SINGLE PHASE		THREE PHASE
Input voltage [VAC]	1×120 V +-15 %	1×230 V +-15 %	3×400 V +-15 %
Output current [A]	20-25	20-45	20-45
Plasma gas	Compressed air / nitrogen		
Certification	CE	CE	CE
Modes	standard cutting / gouging / grid cutting		
Frequency [Hz]	50/60		
Maximum input power [kVA]	4.4	7.59	11.2
Output voltage [VDC]	145		
Duty cycle @ 40 °C	40 % @ 25 A / 100 % @ 16 A	50 % @ 45 A / 10 0% @ 32 A	80 % @ 45 A / 100 % 40 A
Dimension (L × H × W) [mm]	470 × 229 × 177		
Weight [kg]	12,7		
Recommended cutting capacity [mm]	4	10	
Severance cutting capacity [mm]	6	25	
Piercing capacity [mm]	4	10	
Air flow @ [lpm/bar]	90/4.8		
Maximum input pressure [bar/psi]	10/145		
Protection level	IP23S		
Insulation class	F		
CNC interface	YES		
Type of hand torch	FHT-EX®45TTH		
Type of machine torch	FHT-EX®45TTM		

<sup>(1)</sup>Values for low alloy steel, E. G. MS S235JR

<sup>(2)</sup>Suitable for generator use



### 3 DIFFERENT OPERATION MODES

Lightweight, exceptionally portable system with precise cuts suitable for generator use. The mobile EX-TRAFIRE®45SD plasma cutting system is engineered for professionals and demanding beginners.



CUTTING



GRID CUTTING



GOUGING

Last update of this page: 10/01/2025. See Revision history for details.  
For product availability, please check with your local THERMACUT® dealer.

# EX-TRAFIRE® 45SD

## ORDERING INFORMATION

Description	Length	Part No.
<b>MANUAL PLASMA CUTTING SYSTEMS</b>		
<i>Equipped with CNC interface</i>		
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX®45TTH /H Starter Kit	5 m / 16.4'	EX-2-010-011
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX®45TTH /H Starter Kit	8 m / 26.2'	EX-2-010-012
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX45®TTH /H Starter Kit	15 m / 49.2'	EX-2-010-013
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTH /H Starter Kit	5 m / 16.4'	EX-2-010-020
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTH /H Starter Kit	8 m / 26.2'	EX-2-010-021
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTH /H Starter Kit	15 m / 49.2'	EX-2-010-022
<b>MECHANIZED PLASMA CUTTING SYSTEMS</b>		
<i>Equipped with CNC interface</i>		
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX45®TTM /M Starter Kit	5 m / 16.4'	EX-2-011-008
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX45®TTM /M Starter Kit	8 m / 26.2'	EX-2-011-009
EX-TRAFIRE®45SD/CE/3×400 V / Torch FHT-EX45®TTM /M Starter Kit	15 m / 49.2'	EX-2-011-010
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTM /M Starter Kit	5 m / 16.4'	EX-2-011-014
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTM /M Starter Kit	8 m / 26.2'	EX-2-011-015
EX-TRAFIRE®45SD/CE/1×110/230 V / Torch FHT-EX45®TTM /M Starter Kit	15 m / 49.2'	EX-2-011-016
<b>PLASMA POWER SUPPLY UNITS</b>		
<i>Equipped with CNC interface</i>		
EX-TRAFIRE®45SD/CE/3×400 V power supply unit		EX-2-001-030
EX-TRAFIRE®45SD/CE/1×110/230 V power supply unit		EX-2-001-024

## AVAILABLE BULK PACKS

Information about available bulk packs on the end of Torch Consumables section

## AVAILABLE STARTER KITS

Information about available starter kits on the end of Torch Consumables section

## ACCESSORIES

Information about available accessories on the last pages of this section

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# FHT-EX® 45TT



## MODERN AND CAPABLE TORCH



The high-performant FHT-EX®45TT 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®45SD power supplies and are suitable for cutting, gouging and grid-cutting. They can cut plate thickness of up to 25 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 40 A, recommended for industrial use
- Optimal for plate thicknesses of up to 25 mm, thanks to high power reserves
- Consumables with an extended lifetime
- Quick and tool-free replacement of consumables
- Piercing max. 10 mm
- Perfectly designed for use with EX-TRAFIRE®45SD power supplies

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# FHT-EX® 45TTH

## HAND TORCH ASSEMBLY



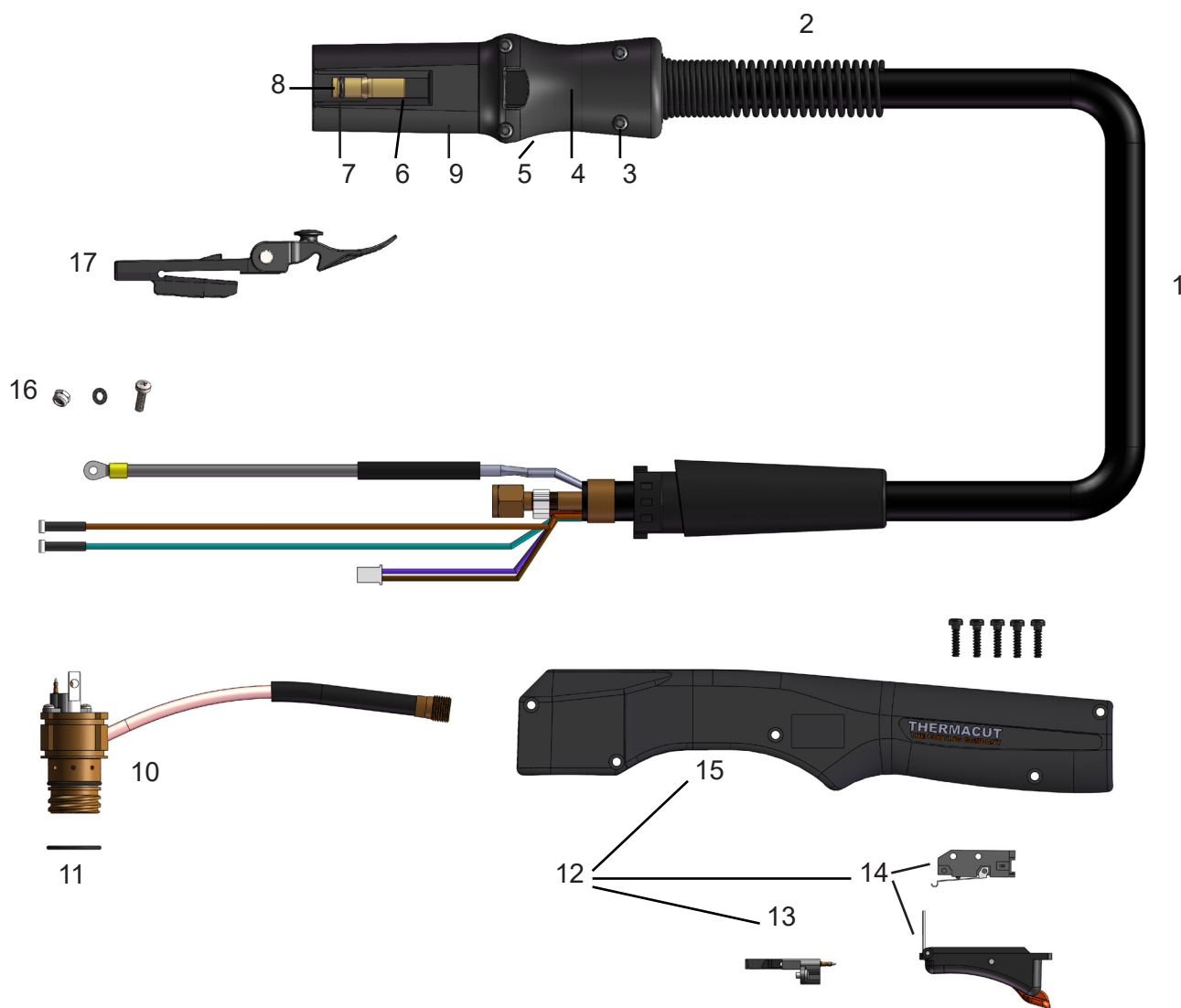
Item	Part No.	Description	Pcs
1.	EX-2-133-001	FHT-EX45®TTH DEMO Hand Torch Assembly w/consumables/TCS13	1
	EX-2-101-001	FHT-EX45®TTH Hand Torch Assembly w/o consumables w/5m Lead/TCS13	1
	EX-2-103-001	FHT-EX45®TTH Hand Torch Assembly w/o consumables w/8m Lead/TCS13	1
	EX-2-106-001	FHT-EX45®TTH Hand Torch Assembly w/o consumables w/15m Lead/TCS13	1
a	EX-0-321-003	Latch with Key Assembly	1

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

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# FHT-EX® 45TTH

## HAND TORCH COMPONENTS



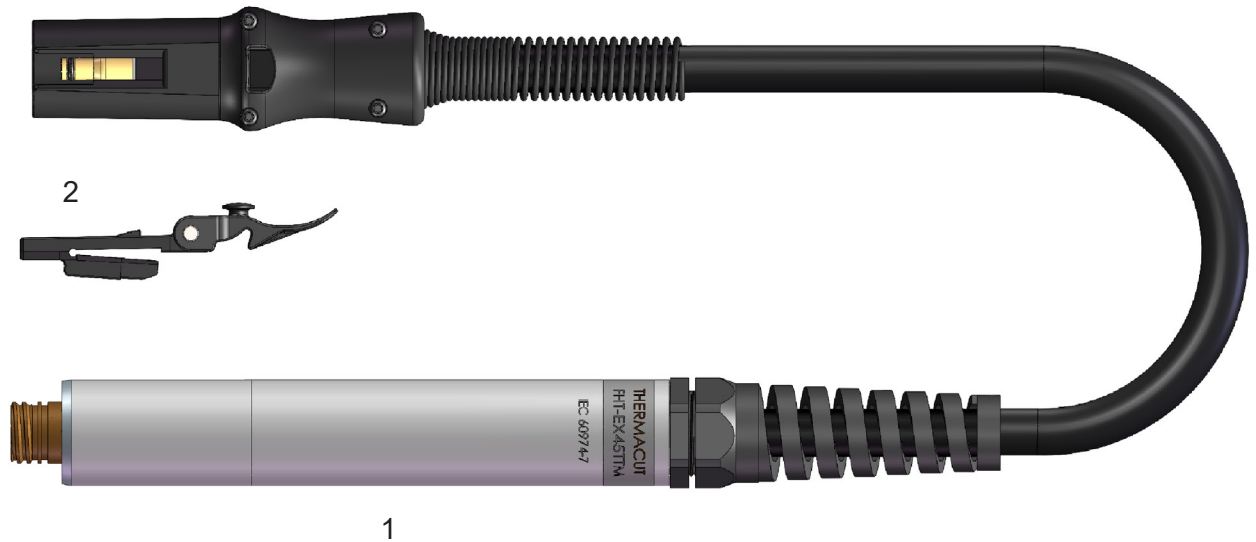
Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-2-331-001	FHT-EX®45TTH Hand Torch Lead Replacement Kit 5m Lead/TCS13	1	9.	EX-0-323-001	TCS13 Plug Body	1
1.	EX-2-333-001	FHT-EX®45TTH Hand Torch Lead Replacement Kit 8m Lead/TCS13	1	10.	EX-2-302-001	Hand Torch Body FHT-EX®45TTH	1
1.	EX-2-336-001	FHT-EX®45TTH Hand Torch Lead Replacement Kit 15m Lead/TCS13	1	11.	EX-5-431-050	O-Ring (fitted on the torch body)	2
2.	EX-5-318-001	TCS Plug Spring Stain Relief	1	12.	EX-2-314-001	FHT-EX®45TTH Hand Torch Handle Replacement Kit	1
3.	EX-0-325-015	TCS Clam Shell Screw	1	13.	EX-2-305-001	Cap-sensor Replacement Kit with Screws/ Hand Torch	1
4.	EX-0-325-002	TCS Clam Shell Upper	1	14.	EX-2-313-001	Safety Trigger with start switch	1
5.	EX-0-325-001	TCS Clam Shell Lower	1	15.	EX-2-308-001	Hand Torch Handle with Screws	1
6.	EX-0-325-010	Retaining Ring (Outer circlip ring)	1	16.	EX-5-372-010	Cathode mounting kit	1
7.	EX-0-325-009	O-Ring (fitted in the TCS plug)	1	a 17.	EX-0-321-003	Latch w/Key Assembly	1
8.	EX-0-325-005	Male Crimp Pin for TCS Plug	1				

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# FHT-EX® 45TTM

## MACHINE TORCH ASSEMBLY



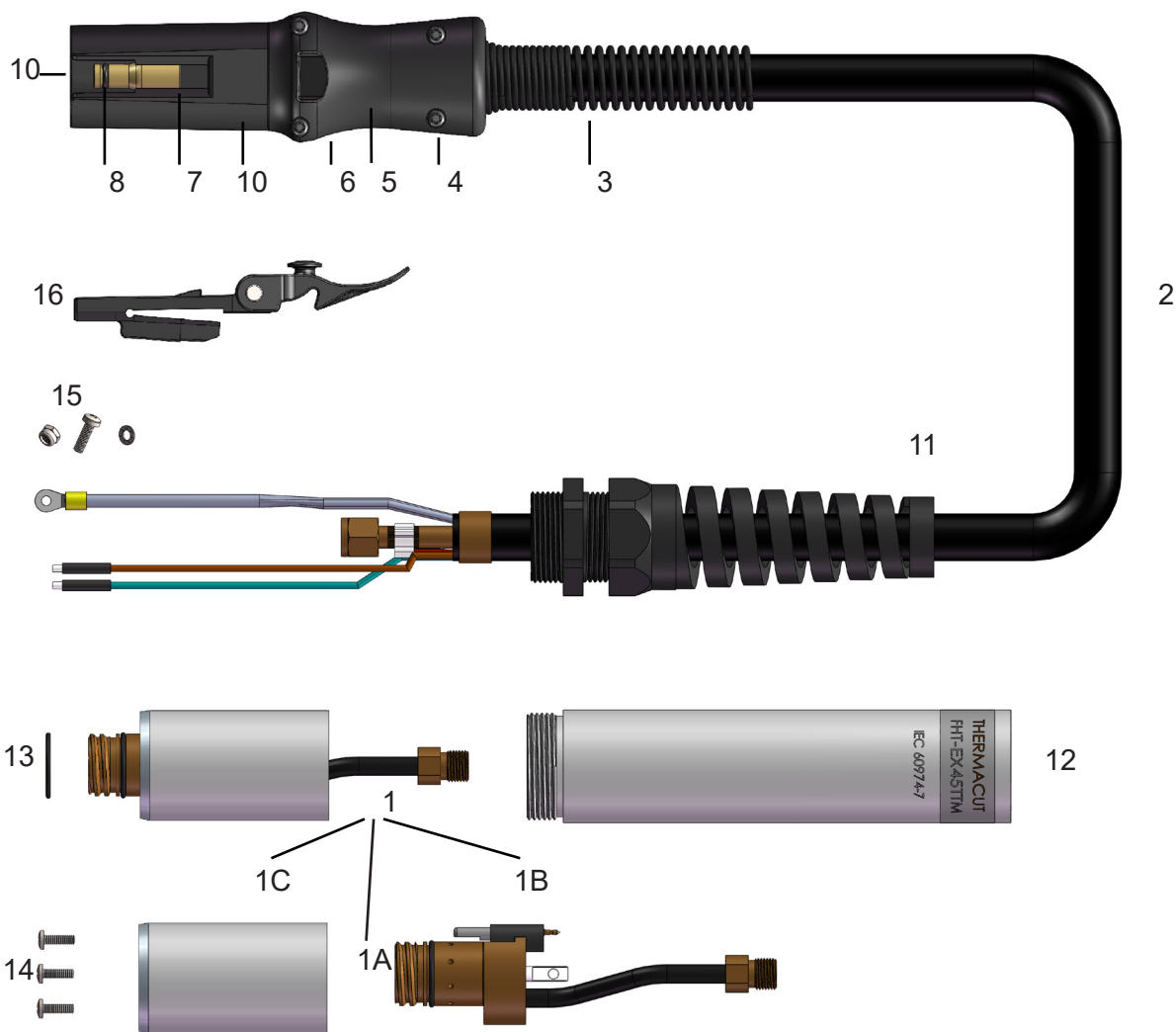
Item	Part No.	Description	Pcs
1.	EX-2-233-001	FHT-EX®45TTM DEMO Machine Torch Assembly w/consumables/TCS13	1
	EX-2-202-001	FHT-EX®45TTM Machine Torch Assembly w/o consumables w/5m Lead/TCS13	1
	EX-2-204-001	FHT-EX®45TTM Machine Torch Assembly w/o consumables w/8m Lead/TCS13	1
	EX-2-207-001	FHT-EX®45TTM Machine Torch Assembly w/o consumables w/15m Lead/TCS13	1
a 2.	EX-0-321-003	Latch with Key Assembly	1

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# FHT-EX® 45TTM

## MACHINE TORCH COMPONENTS



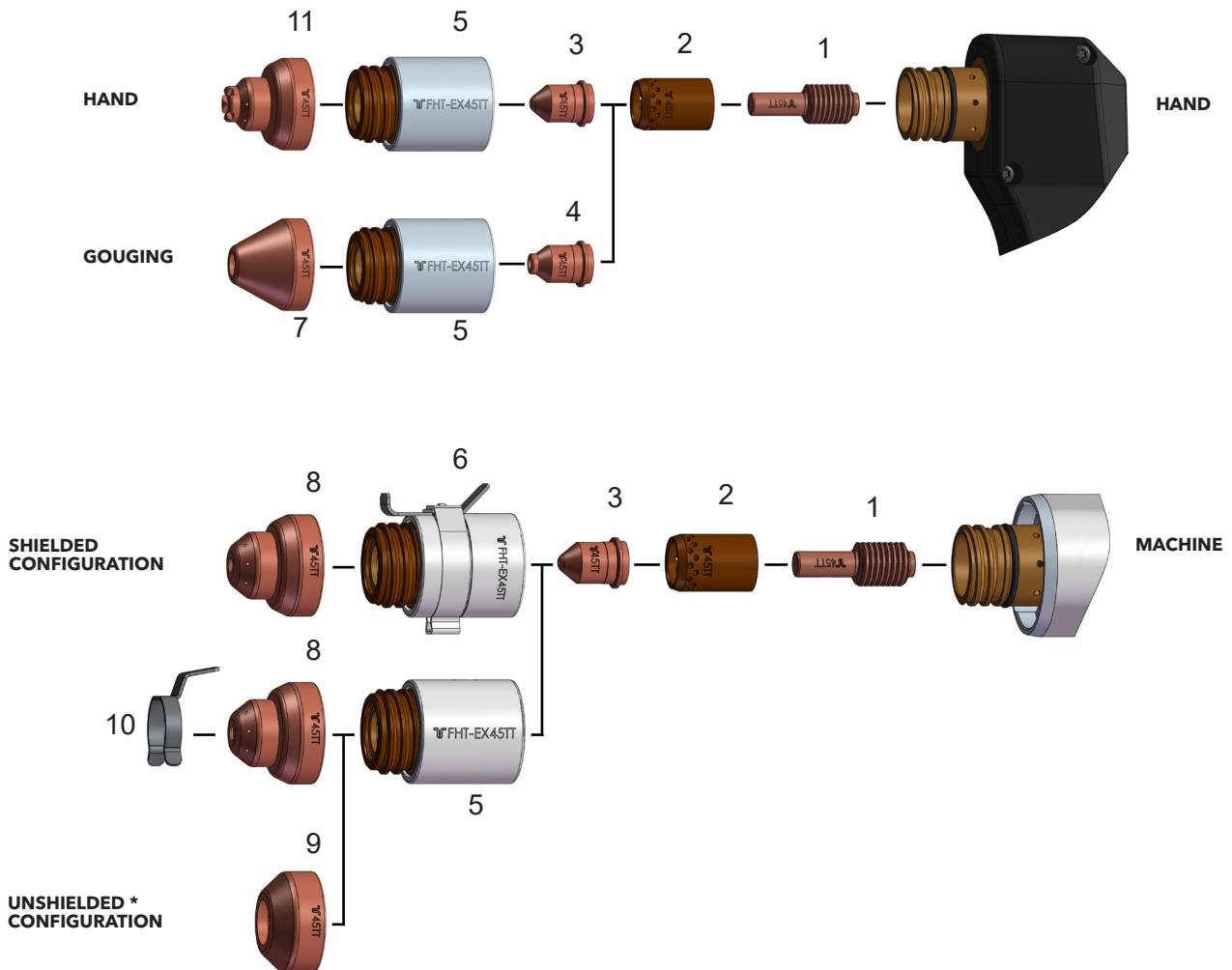
Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-2-301-001	Machine Torch Body Assembly FHT-EX®45TTM	1	7.	EX-0-325-010	Retaining Ring (Outer circlip ring)	1
1a.	EX-2-301-002	Machine Torch Body FHT-EX®45TTM	1	8.	EX-0-325-009	O-Ring (fitted in the TCS plug)	1
1b.	EX-5-304-001	Cap Sensor Replacement Kit with Screws / Machine Torch	1	9.	EX-0-325-005	Male Crimp Pin for TCS Plug	1
1c.	EX-5-306-002	Torch Mounting Sleeve (incl. 3 screws)	1	10.	EX-0-323-001	TCS13 Plug Body	1
2.	EX-2-352-001	FHT-EX®45TTM Machine Torch Lead Replacement Kit 5m Lead/TCS13	1	11.	EX-5-317-021	Machine Torch Strain Relief	1
	EX-2-354-001	FHT-EX®45TTM Machine Torch Lead Replacement 8m Lead/TCS13	1	12.	EX-2-306-001	FHT-EX®45TTM Standard Mounting Tube w/o Rack	1
	EX-2-357-001	FHT-EX®45TTM Machine Torch Lead Replacement 15m Lead/TCS13	1	13.	EX-5-431-050	O-Ring (fitted on the torch body)	2
3.	EX-5-318-001	TCS Plug Spring Strain Relief	1	14.	EX-5-372-005	Torch Mounting Screws Kit (incl. 3 screws)	1
4.	EX-0-325-015	TCS Clam Shell Screw Kit (incl. 4 screws)	1	15.	EX-5-372-010	Cathode Mounting Kit	1
5.	EX-0-325-002	TCS Clam Shell Upper	1	a 16.	EX-0-321-003	Latch w/Key Assembly	1
6.	EX-0-325-001	TCS Clam Shell Lower	1				

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# CONSUMABLES

## HAND / MACHINE TORCH CONSUMABLES



Item	Part No.	Description	Pcs	Item	Part No.	Description	Pcs
1.	EX-2-401-201	Electrode	5	7.	EX-2-419-202	Gouging Shield	1
2.	EX-2-404-201	Swirl ring	1	8.	EX-2-421-201	Machine Shield	1
3.	EX-2-409-201	Nozzle	5	9.	EX-2-423-211	Deflector	1
4.	EX-2-409-202	Gouging nozzle	5	10.	EX-2-428-011	IHS Ohmic Clip	1
5.	EX-2-415-201	Retaining Cap	1	11.	EX-2-419-201	Hand (contact) Shield	1
6.	EX-2-415-202	Retaining Cap w/IHS Tab	1				

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

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# CONSUMABLES

## AVAILABLE BULK PACKS



Part No.	Description	Std. package QTY
EX-2-434-201	Bulk Pack-Electrode - 25pcs	1×25



Part No.	Description	Std. package QTY
EX-2-435-201	Bulk Pack-Nozzle - 25pcs	1×25



Part No.	Description	Std. package QTY
EX-2-436-201	Bulk Pack - Hand (Contact) Shield - 18pcs	1×18
EX-2-437-201	Bulk Pack - Machine Shield - 18pcs	1×18

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# CONSUMABLES

## AVAILABLE STARTER KIT

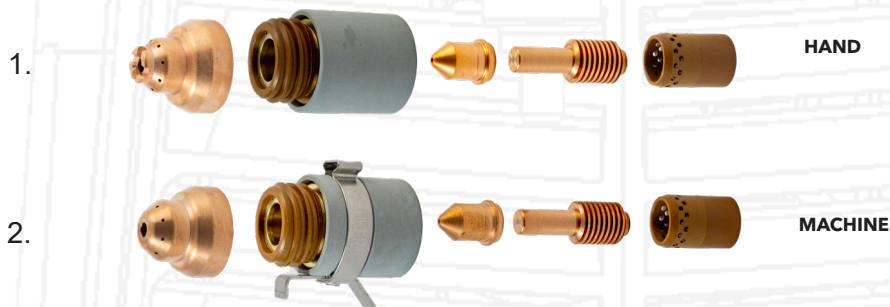


### CONTAIN OF THE PACKAGE

- 4 pcs of electrodes
- 4 pcs of nozzles
- 4 pcs of Hand/Machine shields
- 1 pc of swirl ring
- 1 pc of torch body O-ring

Part No.	Description	Std. package QTY
EX-2-432-001	Starter Kit 45A for Hand Torch FHT-EX®45TTH	1
EX-2-433-001	Starter Kit 45A for Machine Torch FHT-EX®45TTM	1

## AVAILABLE TORCH CONSUMABLE KITS FOR ASSEMBLING



Item	Part No.	Description	Std. package QTY
1.	EX-2-439-001	H45A Consumable kit for assembling of FHT-EX®45TTH torch	1
2.	EX-2-439-002	M45A Consumable kit for assembling of FHT-EX®45TTM torch	1

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# ACCESSORIES



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# ACCESSORIES

Item	Part No.	Ref. No.	Description	Pcs
1.	T-12452	EX-0-804-001	Filter-EX Compressed Air Filter	1
2.	T-12453	EX-0-804-002	Filter-EX Air Filter Cartridge	8
3.	EX-0-802-001	EX-0-802-001	Quick Connect Plug with male thread G 1/4" *	1
4.	EX-0-802-002	EX-0-802-002	Quick Connect Coupling with male thread G 1/4" *	1
5.	T-0994	EX-0-805-001	Silicone Lubricant 0.8 oz	1
6.	EX-2-801-001	EX-2-801-001	Circle Cut. Guide Kit for FHT-EX®30/40H	1
6.	EX-5-801-002	EX-5-801-002	Circle Cutting Guide Kit for FHT-EX®105RTXH/FHT-EX®105TTH/FHT-EX®45TTH	1
7.	EX-5-801-003	EX-5-801-003	Bevel cutting guide kit FHT-EX®105RTXH/105TTH/45TTH	1
8.	N-21811	EX-0-806-001	THERMACUT® Cutting Gloves	1
9.	EX-0-803-001	EX-0-803-001	CNC Interface 14-pin Plug Kit	1
OD 10.	EX-0-803-003	EX-0-803-003	CNC Interface connection lead 3 m	1
	EX-0-803-004	EX-0-803-004	CNC Interface connection lead 6 m	1
HD OD 11.	EX-0-803-006	EX-0-803-006	CAN bus connection cable 10 m	1
HD	EX-0-803-007	EX-0-803-007	CAN bus connection cable 5 m	1
HD OD 12.	EX-0-803-008	EX-0-803-008	RS422 bus connection cable 10 m	1
HD	EX-0-803-009	EX-0-803-009	RS422 bus connection cable 5 m	1
HD 13.	EX-0-803-010	EX-0-803-010	Universal connection cable 10 m	1
HD OD	EX-0-803-011	EX-0-803-011	Universal connection cable 5 m	1
14.	EX-0-803-005	EX-0-803-005	Plasma Arc START/STOP Remote controller for power supplies equipped with CNCinterface	1
15.	EX-5-543-037	EX-5-543-037	Work lead with clamp 300 A/4 m/16 mm <sup>2</sup> /EU-plug 35-70 mm <sup>2</sup>	1
OD	EX-5-543-003	EX-5-543-003	Work lead with clamp 300 A/16 m/16 mm <sup>2</sup> /EU-plug 35-70 mm <sup>2</sup>	1
OD	EX-5-543-002	EX-5-543-002	Work lead with clamp 300 A/23 m/16 mm <sup>2</sup> /EU-plug 35-70 mm <sup>2</sup>	1
OD	EX-5-543-001	EX-5-543-001	Work lead with clamp 300 A/8 m/16 mm <sup>2</sup> /EU-plug 35-70 mm <sup>2</sup>	1
16.	EX-1-543-036	EX-1-543-036	Work lead with clamp 300A/4 m/10 mm <sup>2</sup> /EU-plug 10-25 mm <sup>2</sup>	1
17.	EX-6-810-001	EX-6-810-001	Hand gouging heat shield	1
18.	EX-0-809-001	EX-0-809-001	Transport case w/foam insert for EX-TRAFIRE®30H/45SD/45HD/55SD	1

**HD** For HD power supplies equipped with serial communication only  
**OD** Only ON DEMAND  
**\*** Items for use with Filter EX

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