

US25

US25

Ø 12.5 - 120 mm (1/2" - 4.7")



DESCRIPTION :

The PROTEM US25 is a powerful, robust, reliable and versatile portable tube and pipe beveling and facing machine.

The PROTEM US25 will perform repeatable high quality weld end preparations on virtually all materials including mild, chrome, stainless steel, duplex, super duplex, copper-nickel alloy steel, inconel, P91, aluminium, copper etc...

Versatile cutting head accepting up to 4 cutting bits: Four machining operations can be carried out simultaneously or individually. The tool bits can be changed and adjusted very quickly. Carbide tool inserts can alternatively be used.

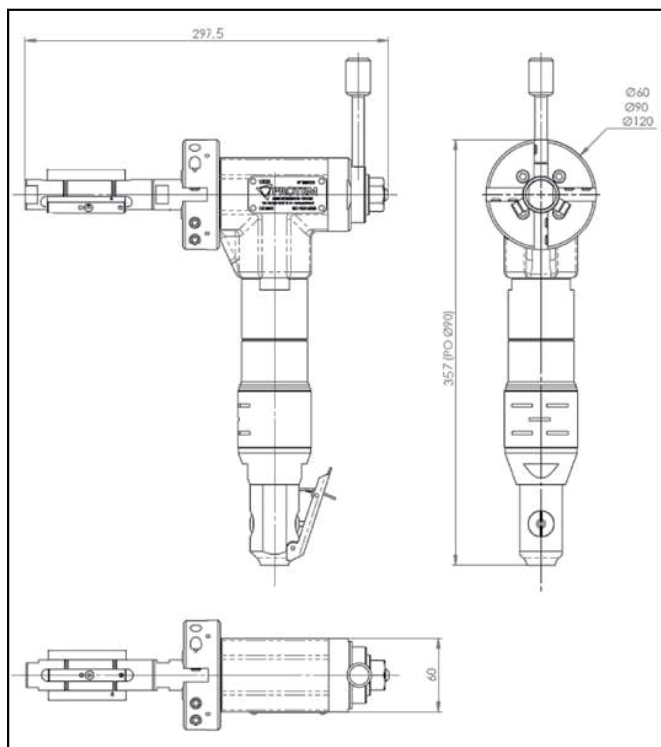


US25 with pneumatic drive

Beveling	Cutting	Facing	Counterboring	Surfacing
✓	✗	✓	✓	✗

OD MOUNT MACHINING

DIMENSIONS :



TECHNICAL FEATURES

Machine	US25
Machining Capacity	Standard model:
	25 mm (0,984") ID
	90 mm (3,543") OD
	With options:
	12,5 mm (0,492") ID
	300mm (11.811") OD
Specific shapes & angles	Facing, 30°, 37°30, 45° bevel, counterbore, J-bevel, others on request
Clamping	manual with key
Feed stroke	35 mm / 1,378"
Expansion	10 mm (0,394")
Cutting head gear drive	150 rpm off-load speed 70 rpm nominal speed. Approximate rotation speed according to air pressure and air flow
Pneumatic drive	730 W, 6 bar (87 psi), 1400 l/min (49 cfm)
Electric drive	110 V (1500 W) or 230 V (1050 W)
<i>Pneumatic driven machines have to be used with a lubricating filter. Recommended option: regulation valve.</i>	

ORDER NO.	DESCRIPTION
US25A	US25 with pneumatic drive 0,73 kW and tool holder Ø 60 mm (2,3"), weight ~ 4,4 kg/9,7 lbs
US25A/E	US25 with electric drive and tool holder Ø 60 mm (2,3"), weight ~ 6,4 kg/14,1 lbs
US25B	US25 with pneumatic drive 0,73 kW and tool holder Ø 90 mm (3,5"), weight ~ 5,3 kg/ 11,7 lbs
US25B/E	US25 with electric drive and tool holder Ø 90 mm (3,5"), weight ~ 6,5 kg/ 14,3 lbs
US25C	US25 with pneumatic drive 0,73 kW and tool holder Ø 120 mm (4,7"), weight ~ 5,3 kg/11,7 lbs
US25C/E	US25 with electric drive and tool holder Ø 120 mm (4,7"), weight ~ 6,5 kg/14,3 lbs

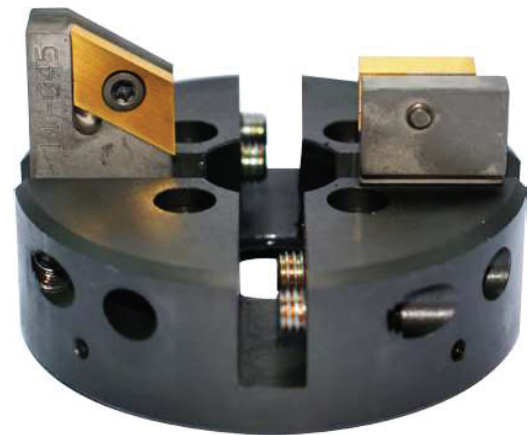
US25 ON-SITE:



APPLICATIONS :



TOOL HOLDER:



OD MOUNT MACHINING

US25

OPTIONS :

US25TA

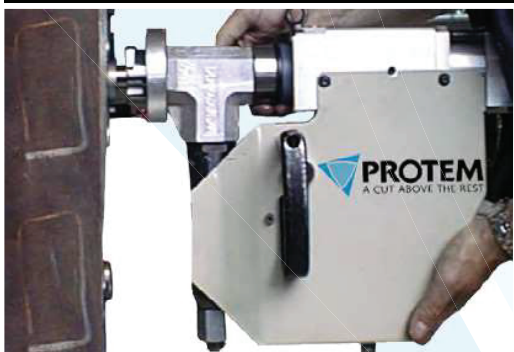


The TA option replace the tool holder of the US-series machines by a milling head. This option is designed to perform weld preps and to excavate membrane walls. Both operations, beveling and excavating, can be performed simultaneously. The machine is clamped inside the tube for a perfectly concentric clamping.



ORDER NO.	DESCRIPTION
US25TA	US25TA for tube beveling and membrane removal, weight ~ 8,2 kg/18,1 lbs
US25TA-PPF	Milling cutter for the US25TA - One milling cutter per diameter is necessary. Please submit a drawing on order.

US25TP



The US-TP series are full automatized beveling machines integrating the clamping mandrel and the tool holders of the US Series. The clamping and the feed are automatic and adjustable. The US-TP series are suited for serials jobs on heat exchangers (tubes cut to length, weld joint extraction, beveling works.).

ORDER NO.	DESCRIPTION
US25TP	US25TP Tube beveling machine for tube panels, 25-60 mm ID.

OD MOUNT MACHINING

US25-EMA



This new generation of elbow mandrel assembly allows the positioning of a US-type machine on all types of elbows. Its concentric adjustment is due to the rules located around the system, this leads to a high quality weld-end preparation on all types of elbows and materials including stainless steel and high nickel alloys.

ORDER NO.	DESCRIPTION
US25-EMA-40-64	US25-EMA-40-64 elbow mandrel assembly for US25 (40-64 mm)
US25-EMA-64-90	US25-EMA-64-90 elbow mandrel assembly for US25 (64-90 mm)
US25-EMA-90-119	US25-EMA-90-119 elbow mandrel assembly for US25 (90-119 mm)

US25ACC



This flange attachment allows to resurface all the different flanges welded on pipes, of all materials, directly on site or in the workshop. This system is reliable, accurate, rigid, lightweighted and very easy to use and operate. The clamping is made directly inside the flange ID via the clamping shaft of the US machines and their additional expansion blades or with a spider elbow mandrel kit.

ORDER NO.	DESCRIPTION
US25-ACC	US25 with flange facing attachment for flange diameters up to 280mm (11"), weight ~ 15,0 kg/33,1 lbs
US25-ACC-BR	US25-ACC-BR flange resurfacing module for US25 (25-280 mm)

US25

US25-K01



ORDER NO.	DESCRIPTION
US25-K01	Transport box for US25 with pneumatic drive
US25-K04	Transport crate for US25 with electric drive
US25-K05	Transport case for US25E with option US25-111
US25-K06	Wooden crate for US25CA
US25-K07	Wooden crate for US25TA or US25ACC

US25 Mandrel

ORDER NO.	DESCRIPTION	VISUAL
US25-OM1	US25-OM1: mandrel from 12,5 mm (0,492") ID up to 18 mm (0,709") ID	
US25-OM2	US25-OM2: mandrel from 18 mm (0,708") ID up to 26 mm (1,024") ID	

US25 Tool holder

ORDER NO.	DESCRIPTION	VISUAL
US25-19	Tool holder 60 mm (2,362")	
US25-12	Tool holder 90 mm (3,543")	
US25-21	Tool holder 120 mm (4,724")	

US25 Other options

ORDER NO.	DESCRIPTION	VISUAL
US25-1	US25-1 Quick lever clamping device	
US25-2	US25-2 Handwheel clamping device	
US25-5	US25-5 Right angle feed with lever	
US25-6	US25-6 Ratchet clamping device	
US25-111	US25-111 Feed and clamping through ratchet	

US25CA

US25CA

Ø 25 - 90 mm (0.984" - 3.543")

≈ 6 kg
≈ 13.2 lbs



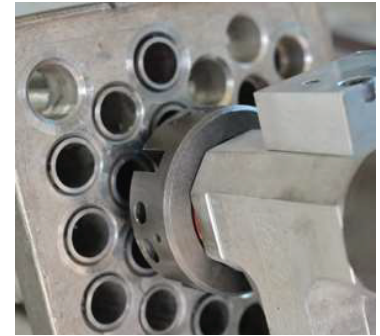
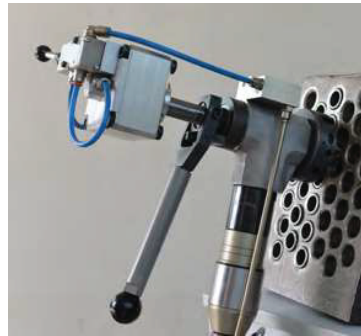
US25 with automatic clamping

DESCRIPTION :

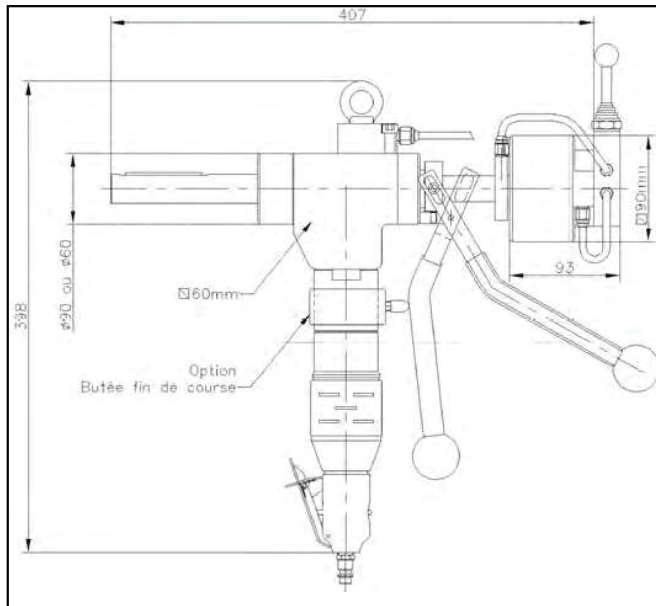
ORDER NO.	DESCRIPTION
US25CA	US25 with automatic clamping system and manual feed lever, tool holder Ø 90 mm (3.5"), weight ~ 7,8 kg/17,2 lbs

Beveling	Cutting	Facing	Counterboring	Surfacing
✓	✗	✓	✓	✗

US25CA ON-SITE :



DIMENSIONS :



TECHNICAL FEATURES

Machine	US25CA
Machining Capacity	25 mm (0.984")
	90 mm (3.543)
Clamping capacity	25 mm (0.984")
	87.5 mm (3.425)
Specific shapes & angles	Facing, 30°, 37°30', 45° bevel, counterbore, J-bevel, others on request
Clamping	manual
Feed stroke	21 mm (0.827")
Cutting head gear drive	300 rpm off-load speed 150 rpm nominal speed
Pneumatic drive	370 W, 6 bar (87 psi)
	350 l/min (12 cfm)
Weight	≈ 6 kg (13.2 lbs)

Pneumatic driven machines have to be used with a lubricating filter. Recommended option: regulation valve.

US25 TOOL BITS

ORDER NO.	DESCRIPTION	VISUAL
US25-TIH-30	US25-TIH-30 Insert holder 30° for US25	
US25-TIH-37.5	US25-TIH-30 Insert holder 37,5° for US25	
US25-TIH-45	US25-TIH-30 Insert holder 45° for US25	
US25-TIH-90	US25-TIH-90 Insert holder 90° for US25	
US25-TIH-S	US25-TIH-S screw for tool insert	
O-US-P1-6-H-T	Tool Holder for US25	
O-US-P2-6-H-T	Tool Holder for US25	
O-US-P1-DU-PLEX-30	Tool Holder for US25	
O-US-P2-DU-PLEX-0	Tool Holder for US25	

ORDER NO.	DESCRIPTION	VISUAL
O-US-A1-6-H-18	Facing 90°	
O-US-A2-6-H-17	30° beveling	
O-US-A3-6-H-19	37°30 beveling	
O-US-A4-6-H-16	15° counterboring	
O-US-B6-6-H-55	Notched tool bit for facing	
O-US-B7-6-H-57	Notched tool bit for 30° beveling	
O-US-B8-6-H-58	Notched tool bit for 37°30 beveling	
O-US-B9-6-H-60	15° counterboring	
O-US-B11-6-H-24	Facing and counterboring	
O-US-C5-6-H-62	J-bevel 7° with radius 6	
O-US-C6-6-H-64	J-bevel 12,5° with radius 6	
O-US-C8-6-H-68	J-bevel 12,5° with radius 6	
O-US-C9-6-H-20	J-bevel 10°, with radius 1,5	

