

## US450 Heavy Duty Pipe Beveling Machine

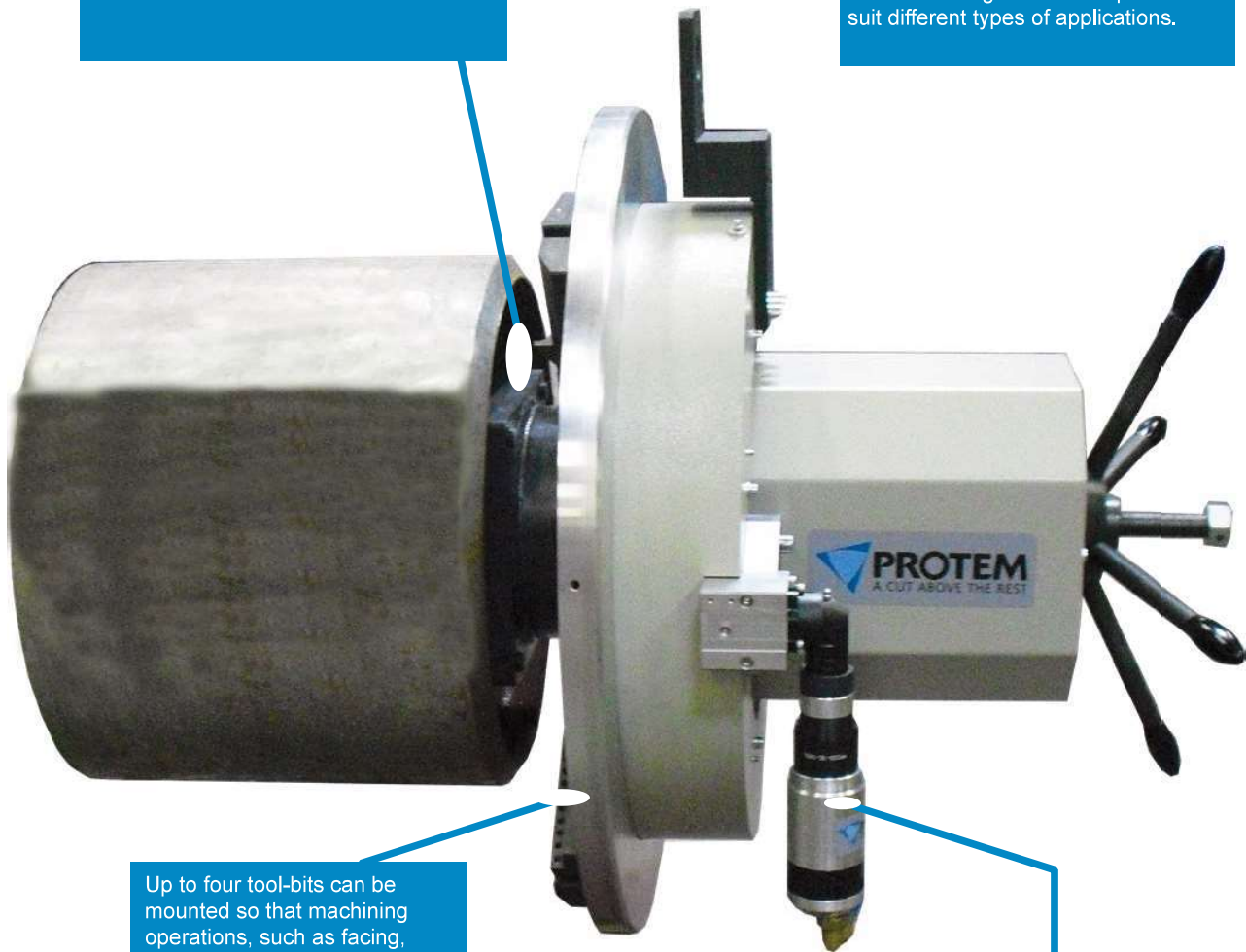
Clamping jaws are available in several different configurations.

Additional clamping jaws extend the capacity of the machine.

Several clamping options are available for particular applications. For example, the clamping can be done automatically.

Mobile, rugged, dependable, versatile

Different configurations are possible to suit different types of applications.



Up to four tool-bits can be mounted so that machining operations, such as facing, beveling and counterboring can be carried out simultaneously.

Interchangeable drives:  
Pneumatic and hydraulic

The PROTEM US-SERIES will perform repeatable high quality weld preparations on all types of materials including mild, chrome, stainless steel, duplex, super duplex, copper-nickel alloy steel, inconel, P91, aluminium, copper exotic alloys..

ID Mounted

# US450 Heavy Duty Pipe Beveling Machine

Standard Capacity: 457.2mm - 914.4mm (18" - 36")

Extended Capacity: 457.2mm - 1422.4mm (18" - 56")



Ultimate end machining solution for tubes and pipes with Ø ranging from 457.2mm (18") to 914.4mm (36") for numerous applications. Very powerful, versatile and reliable heavy duty beveler for demanding weld-end preparation applications. Unique capabilities for construction, maintenance and repair works on-field or in the assembly workshop.

Strong ID clamping mandrel provides safe and secured mounting and fixing. Cold machining process and no Heat Affected Zone. For unmatched results! Available with dual pneumatic drive or dual hydraulic drive (to be used with a 22KW hydraulic power unit) The durability, reliability and capacity of the US450 earned this mobile machining unit the excellent reputation it enjoys wherever it is used in the world.

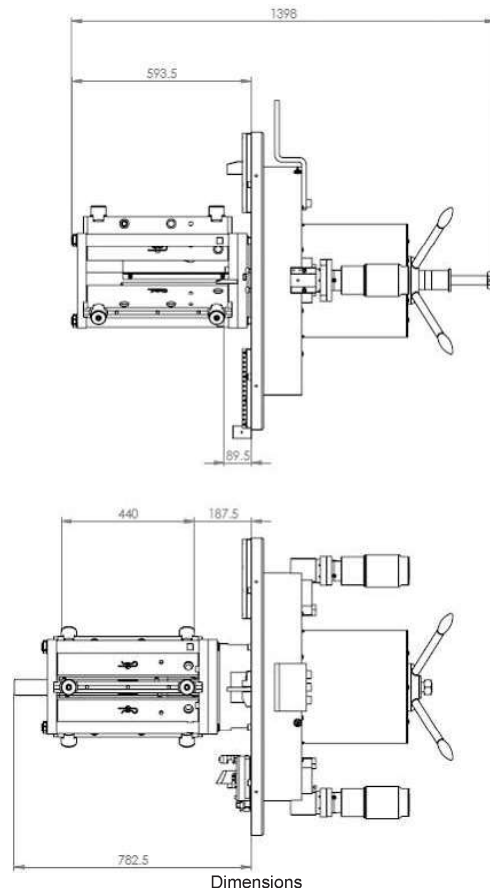
US450 with hydraulic drive

Beveling	Squaring	Counterboring	Cut to length	Weld Joint Removal	Coating Removal	Saddles	Surfacing
✓	✓	✓	✓	✓	✓	✗	✓

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## Advantages:

- Mobile
- Powerful Machining Equipment
- Easy and Safe use for the Operators
- No Heat Affected Zone
- High Accuracy
- Fast and easy mounting
- The tool-bits can be changed and adjusted very quickly
- The machine can be used in all positions: vertical, horizontal, over head
- Versatile Cutting Head: the tool-holder plate can accept up to 4 tool-bits for simultaneous machining operations (land, bevel, counterboring, j prep)
- Smooth and Burr-Free Surface Finish
- No vibration during the machining process



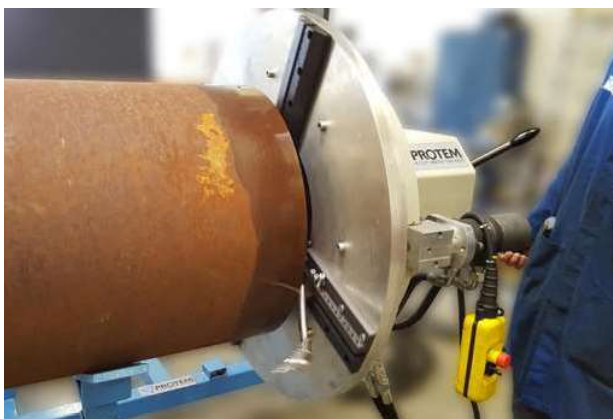
## US450 Heavy Duty Pipe Beveling Machine

### Technical Features:

<b>Specific shapes &amp; angles</b>	Facing 90°, bevel 30°, 37°30', 45°, counterbore, J-bevel, other on request
<b>Clamping</b>	Manual
<b>Feed stroke</b>	98 mm (3.858")
<b>Expansion</b>	28 mm (1.102")
<b>Cutting head gear drive</b>	5-6 rpm nominal speed. Approximate rotation speed according to air pressure and air flow
<b>Single pneumatic drive</b>	2,3 kW, 6 bar (87 psi), 3100 l/min (109 cfm)
<b>Double pneumatic drive</b>	2 x 2,3 kW, 6 bar (87 psi), 2 x 3100 l/min (2 X 109 cfm)
<b>Double hydraulic drive</b>	2 x hydraulic drives (recommended HPP: 22kW)
<b><i>Pneumatically driven machines have to be used with a lubricating filter. Recommended option: regulation valve.</i></b>	

Order No.	Description
US450-1000	Heavy Duty Beveling Unit PROTEM US450 for Ø 18"- 36" (457.2mm-914.4mm) with powerful dual pneumatic drive.
US450-1062	Heavy Duty Beveling Unit PROTEM US450 Kit56" for Ø 18"-56" (457.2mm-1422.4mm) with powerful hydraulic drive.
US450-1068	Heavy Duty Beveling Unit PROTEM US450 for Ø 18"- 36" (457.2mm-914.4mm) with powerful dual hydraulic drive.

### Use On-Site or in Workshop:



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# US450 Heavy Duty Pipe Beveling Machines      Options & Accessories

## US450 Crates:

Order No.	Description
US450-K01	Crate for US450
US450-K02	Crate for US450-Kit56"
US450-K03	Crate for US450 copying carriage

## US450 ID & OD Tracker:

Order No.	Description
US450-3400	ID-Tracker (to keep a constant land when tube is oval; 5 mm at the radius. Limited tube wall thickness according to material and bevel type)
US450-3500	OD-Tracker (to keep a constant land when tube is oval. Limited tube wall thickness according to material and bevel type)

## US450 Pads:

Order No.	Description
US450-1313	Pad height 25 mm set of 6 units
US450-1314	Pad height 50 mm set of 6 units
US450-1315	Pad height 75 mm set of 6 units
US450-1316	Pad height 100 mm set of 6 units

## US450 Copying Carriage:

Order No.	Description
US450-3200	Copying carriage for US150 Stroke 2,952" (75mm) for pipe Ø up to 20 - 48" (508mm - 1219,2mm)

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## Tool-Bits

Order No.	Description	Picture
O-US-PP30-9-14026	Insert-holder 30°	
O-US-PP375-9-14007	Insert-holder 37,5°	
O-US-PP45-9-14008	Insert-holder 45°	
O-US-PP90-9-11066	Insert-holder 90°	
O-VIS-V5	Screw for tool insert P2	
O-US-P1-6-H-T	Tool-insert for US450-TIH-30	
O-US-P2-6-H-T	Tool-insert for US450-TIH-90	
O-US-P1-DUPLEX-30	Tool-insert for US450-TIH-30	
O-US-P2-DUPLEX-0	Tool-insert for US450-TIH-90	

Order No.	Description
O-US-ST-12-H-F-87	TICN-coated 30° beveling tool L=90mm (3.54")
O-US-ST-12-H-F-88	TICN-coated facing tool
O-US-ST-12-H-F-89	TICN-coated 30° beveling tool L=70mm (2.75")
O-US-ST-12-H-F-90	TICN-coated 37,30° beveling tool L=76mm (3")
O-US-ST-12-H-F-91	TICN-coated 30° beveling tool L=102mm (4")
O-US-ST-12-H-F-101	TICN-coated 14° counterboring tool

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