

### CTA Series:

#### PIPE RANGE

CTA 1-4	1" – 4"
CTA 2-6	2" – 6"
CTA 2-12	2" – 12"
CTA 6-16	6" – 16"
CTA 12-24	12" – 24"
CTA 16-30	16" – 30"
CTA 24-36	24" – 36"



#### PROTEM USA LLC

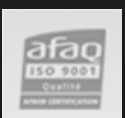
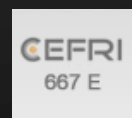
29340 Industrial Way, # 402  
Evergreen, CO 80439 | USA  
Phone: +1 303 955 4862  
Fax: +1 303 955 5904  
contact@protemusa.com  
www.protemusa.com

#### PROTEM SAS

Z.I. Les Bosses  
26800 Etoile-sur-Rhône | FR  
Phone: +33 (0) 4 75 57 41 41  
Fax: +33 (0) 4 75 57 41 49  
contact@protem.fr  
www.protem.fr

#### PROTEM GmbH

Am Hambiegel 27  
76706 Dettenheim | DE  
Phone: +49 (0) 7247 9393 - 0  
Fax: +49 (0) 7247 9393 - 33  
info@protem-gmbh.de  
www.protem-gmbh.de





The PROTEM CTA – HIGH SPEED CUTTING AND BEVELING MACHINE is the equipment you will need for your production and prefabrication requirements!

The PROTEM CTA – HIGH SPEED CUTTING AND BEVELING MACHINE saves space in your workshop and can be integrated in your production lines for unmatched results.

Tubes and pipes with OD diameters ranging from 2" to 36" / 60.3 to 914.4 mm will be cut and beveled within just a few seconds! Larger diameters are available upon request.

The CTA serves virtually *any industry where the weld quality is critical and projects must stay on schedule and on budget.*

Mechanical expertise for best weld end preparation results!  
Machining solutions for demanding industries!  
The cutting process is a cold cutting one!  
No heat affected zone!  
Excellent quality of the weld end preparation!

- ✓ Nuclear and Power Industries
- ✓ Oil and Gas
- ✓ Tube Processing
- ✓ Prefabrication Workshops
- ✓ Pipeline
- ✓ Chemical
- ✓ Power Generation
- ✓ Tube and Pipe Processing...



## Technical Features

The machining unit is made of a welded structure with:

- One tool holder plate
- Two OD clamping systems for the pipe
- Cutting principle

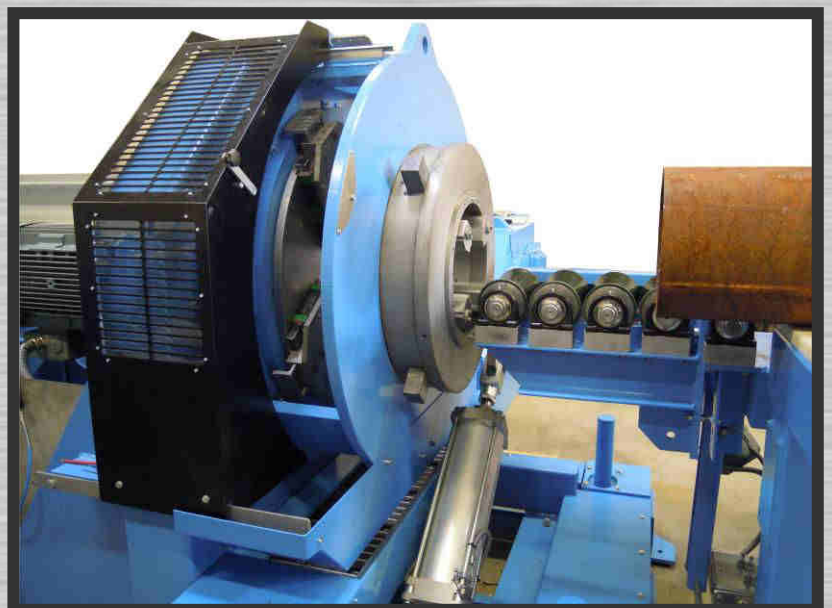
The tube to cut and bevel is stationary. It is immobilized in the machine's OD clamping devices. The tool bits mounted on the rotating plate are put into rotation around the tube to perform the cut. The feed and back up of the tool bits are handled entirely mechanically during the rotation of the tool holder plate. While cutting, the machine performs beveling on both ends. The tool holder carriages mounted on the rotating plate are equipped with housings which can accept several types of tool blocks.

## Possible bevel geometries :

- Straight cuts
- 30° Beveling with land (performed simultaneously with a 60° tool bit + pointed tool bit)
- 37°30 Beveling with land (performed simultaneously with a right and left tool bits + pointed tool bit)
- 30°+10° Beveling with land (performed simultaneously with a 60° tool bit + pointed tool bit + 10°)
- 37.5°+10° Beveling with land (performed simultaneously with a 60° tool bit + pointed tool bit + 10°)
- Others: please consult PROTEM.

## ADVANTAGES :

- |  |                                    |                             |
|--|------------------------------------|-----------------------------|
| ✓ Save a lot of space in your workshop     | ✓ Multifunctional control Panel    | ✓ Fast prism clamping       |
| ✓ Save tube transportation times           | ✓ Maximum reliability              | ✓ High accuracy             |
| ✓ Fast return on investment                | ✓ Premium weld end preparation     | ✓ Easy to handle and set up |
| ✓ Proven efficiency                        | ✓ Adapted for extreme conditions   | ✓ Wide size range           |
| ✓ Programming of your machining operations | ✓ Safe use on site or in workshops | ✓ High production rate      |
| ✓ Self-centering clamping                  | ✓ Improved weld volume             | ✓ Optimum stability         |
| ✓ High-speed machining operation           | ✓ Secured machining operation      | ✓ Versatile                 |
| ✓ Extremely Powerful electric motors       | ✓ Reliable                         | ✓ Modular design            |



## THE PROTEM CTA - SERIES

	CTA 1-4	CTA2-6	CTA 2-12	CTA 6-16	CTA 12-24	CTA 16-30	CTA 24-36
<b>Clamping range</b>	1" – 4" 25.4-101.6mm	2" – 6" 50.8-152.4 mm	2" – 12" 50.8- 304.8 mm	6" – 16" 152.4-406.4 mm	12" – 24" 304.8-610 mm	16" – 30" 406.4-762 mm	24" – 36" 610-914.4 mm
<b>Machining capacity</b>	10mm (.394")	22 mm (.866")	15 mm (.591")	25.4 mm (1")	15 mm (.591")	25.4 mm (1")	25.4 mm (1")
<b>Clamp operation</b>	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
<b>Machining time</b>	1 to 2 minutes depending on the wall thickness	1 to 3 minutes depending on the wall thickness	2 to 5 minutes depending on the wall thickness	1 to 3 minutes depending on the wall thickness	4 to 8 minutes depending on the wall thickness	3 to 6 minutes depending on the wall thickness	3 to 6 minutes depending on the wall thickness
<b>Capacity</b>	10 to 20 per hour depending on the wall thickness	10 to 20 per hour depending on the wall thickness	10 to 20 per hour depending on the wall thickness	15 to 30 per hour depending on the wall thickness	6 to 10 per hour depending on the wall thickness	10 to 15 per hour depending on the wall thickness	10 to 15 per hour depending on the wall thickness
<b>Motor power</b>	15 KW	40kW	30 kW	55 kW	30 kW or 30kW x2	55 kW	55 kW
<b>Machining</b>	Carbide insert	Carbide insert	Carbide insert	Carbide insert	Carbide insert	Carbide insert	Carbide insert
<b>Weight</b>	≈ 1200 kg (2646 LB)	≈ 2500Kg (5512 LB)	≈ 3500 kg (7716 LB)	≈ 4500 kg (9921 LB)	≈ 5300 kg (11,684 LB)	≈ 6500 kg (14,330 LB)	≈ 7000 kg (15,432 LB)

Larger models on request



## MAIN FEATURES



## MULTIFUNCTIONAL CONTROL PANEL

The machine is delivered with an electric panel in accordance with the EC Standards.

On the panel face, several switches and a touch screen enable users to operate the machine and access the saved machining programs.

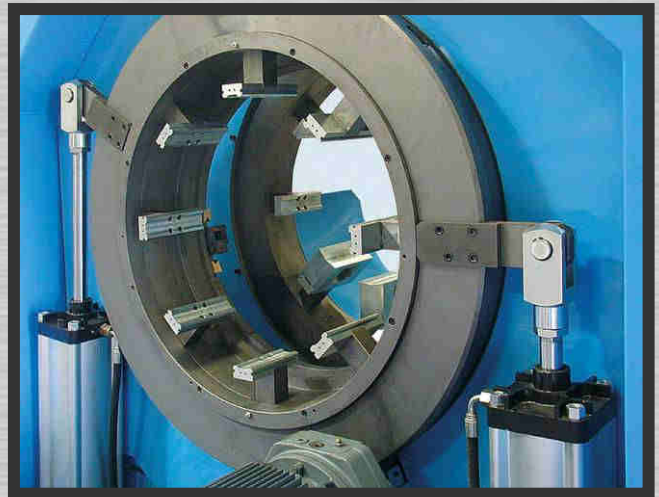
The machine can also be operated manually. The control panel allows the operator to control the functions:

- ✓ Clamp /Unlock
- ✓ Slow / Fast Machining
- ✓ Start / Stop Machine
- ✓ Manual / Automatic
- ✓ Direction tool holder
- ✓ Lubrication
- ✓ Chip conveyor
- ✓ Emergency stop button

## PRISM CLAMPING SYSTEM

The prism clamps the pipe. Accuracy and repetitive perfect weld end preparation are achieved within a few seconds.

The clamping can be done either manually or automatically.



## POWERFUL ELECTRIC MOTOR

The electric motor power up to 50kW for large diameters, gives the necessary power to cut heavy duty pipe. The brushless motor allows very precise machining and offers different cutting and feed speeds.

## OPTIONS

	CTA 1-4	CTA 2-6	CTA 2-12	CTA 6-16	CTA 12-24	CTA 16-30	CTA 24-36
<b>Tube Conveyors</b>	•	•	•	•	•	•	•
<b>Tube storage table</b>	•	•	•	•	•	•	•
<b>Lifting table</b>	•	•	•	•	•	•	•
<b>Chip conveyor</b>	•	•	•	•	•	•	•
<b>Lubrication device</b>	•	•	•	•	•	•	•
<b>Insert holder sets</b>	•	•	•	•	•	•	•
<b>Internet connection</b>	•	•	•	•	•	•	•

## TUBE CONVEYORS

All tube conveyors can be used with the range of CTA machines. The tube conveyor can be delivered in various configurations to meet the customer's application requirements.

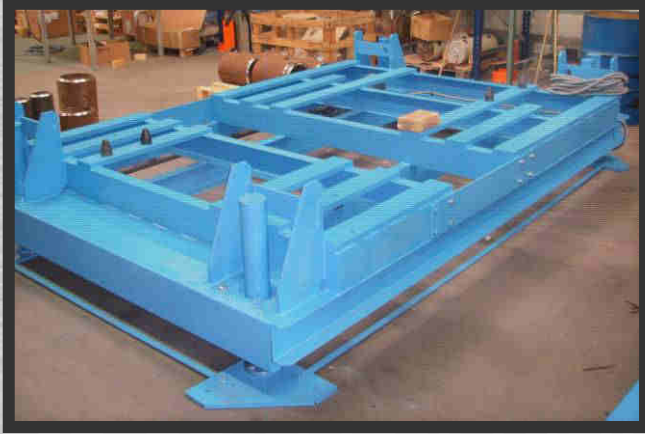
The tube conveyor can be supplied with different lengths; 6 meters (20'), 8 meters (26'), 10 meters (33') or 12 meters (39'). The height adjustment makes for a very precise positioning of the tube in the mandrel.

The tubes can be manually conveyed or be driven by motorized rollers. The rollers are zinc treated and therefore able to accept stainless steel tubes while avoiding any risk of pollution of the transported tubes.

## TUBE STORAGE TABLE

All the feeding tube conveyors or storage tube conveyors can be incorporated easily with any CTA series machine. The length of the feeding or storage tube conveyor should be adapted to the length of the tube conveyor.





## LIFTING TABLE

The optional lifting table can be used with all CTA machines.

The lifting table is positioned under the CTA structure. Its purpose is to align the axis tool holder plate with the tube to be machined, which must be set on a fixed tube conveyor.

This option saves time and therefore increases productivity. Moreover, it offers a great ease of use due to the alignment between the axis of the tube set on a tube conveyor and the axis of the tool holder plate of the CTA.

## CHIPS CONVEYOR

The chips conveyor can be used on all CTA machines.

The productivity rate is increased as all the chips produced during a machining cycle are removed automatically.

This option brings a real ease of use for the operator as it is not necessary to stop the production operation to remove the chips, which is the case with the standard chips tank.



## LUBRICATION DEVICE

In order to increase the lifetime of the inserts and to reduce noise level during machining operations, we propose:

- A lubrication system integrated with a chip conveyor (for chips removal).
- A pump sprays oil mixed with water during the cut. A tank replaces the standard chips box and a filter ensures a closed circuit with the pump.

This option is activated through a push button.



## INTERNET CONNECTION

The internet connection can be used on all versions of the CTA.

This option enables the operator to connect the CTA to the internet to display machining programs for maintenance purposes and failure diagnostics.



# CONTACT & COMMENTS

## OUR COMMITMENT! YOUR SATISFACTION!

Serving our customers around the world with competence, efficiency and reliable service is our main goal. Whatever questions you may have, please do not hesitate to consult with us. Our staff will always advise you in a professional manner and recommend the right equipment to meet your technical requirements.

Call or email us for more information!

**PROTEM USA LLC**  
29340 Industrial Way, # 402  
Evergreen, CO 80439 | USA  
Phone: +1 303 955 4862  
Fax: +1 303 955 5904  
contact@protemusa.com  
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Z.I. Les Bosses  
26800 Etoile-sur-Rhône | FR  
Phone: +33 (0) 4 75 57 41 41  
Fax: +33 (0) 4 75 57 41 49  
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**PROTEM GmbH**  
Am Hambiegel 27  
76706 Dettenheim | DE  
Phone: +49 (0) 7247 9393 - 0  
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## YOUR COMMENTS:

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