



# BB HIGH SPEED BEVELING BENCHES

## STATIONARY PIPE BEVELING MACHINE

### BB - SERIES

BB 3-16	PIPE RANGE 3" - 16"
BB 12-24	PIPE RANGE 12" - 24"
BB 24-36	PIPE RANGE 24" - 36"
BB 36-48	PIPE RANGE 36" - 48"



## BB HIGH SPEED BEVELLING BENCH

Are the most powerful and reliable machines enabling to achieve a perfect weld end preparation in a matter of seconds.

## BB HIGH SPEED BEVELLING BENCH

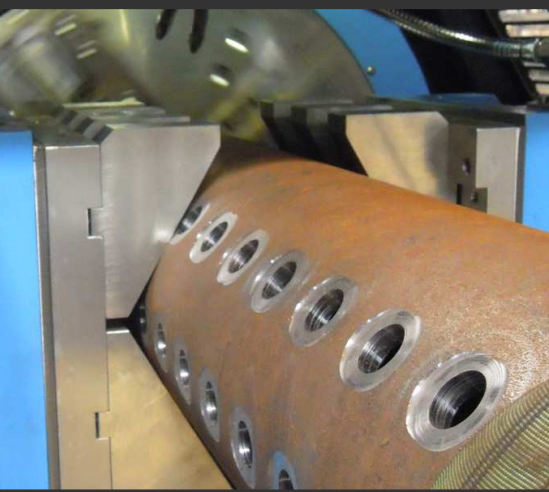
Are the equipment you will need for all your weld end preparation jobs!

You will drastically increase your productivity with the BB - High Speed Beveling Bench!

The BB - High Speed Beveling Machine serves virtually all industries where the weld quality is critical and projects must stay on schedule.

The machines are easy to install and quickly adjustable to any size of tube or pipe within the machine's range. It will machine the pipe ends in **one smooth pass, in few seconds.**

- ✓ Heat exchangers
- ✓ Pipeline construction and maintenance
- ✓ Offshore and Onshore construction and maintenance
- ✓ Prefabrication workshops
- ✓ Shipbuilding
- ✓ etc...



## Features

### BB HIGH SPEED BEVELLING BENCH

Are used for beveling, facing and counter boring works. These works can be processed individually or simultaneously.

They will perform repeatable high quality bevels with a I, V, J, X shape or compounded bevels. Perfectly suitable for manual or mechanized welding processes.

### BB HIGH SPEED BEVELLING MACHINES

Can achieve perfect weld preparations on virtually all materials: carbon steel, stainless steel, exotic alloys such as INCOLOY, HASTELLOY, INCOLOY DUPLEX; SUPER DUPLEX etc.

#### ADVANTAGES :

- ✓ Self centering clamping
- ✓ High speed machining operation
- ✓ Very Powerful electric motors
- ✓ Multifunctional control Panel on swivel
- ✓ Continuously variable feed
- ✓ Versatile and suited for all forms of bevels
- ✓ maximum reliability
- ✓ High precision
- ✓ High performance
- ✓ Accurate
- ✓ No heat affected zone
- ✓ Premium weld end preparation
- ✓ Easy to handle and set up
- ✓ Wide size range
- ✓ High production rate
- ✓ Optimum stability
- ✓ Versatile
- ✓ Reliable
- ✓ Modular design
- ✓ Improved weld volume
- ✓ Safety chip guard
- ✓ Safe use on site or in prefabrication workshops



## THE PROTEM BB- SERIES

	BB 3-16	BB 12-24	BB 24-36	BB 36-48
<b>Clamping range</b>	3" to 16" 89 to 406 mm	12" to 24" 304 to 609 mm	24" to 36" 609 to 914 mm	36" to 48" 914 to 1219 mm
<b>Clamping</b>	prism	prism	prism	prism
<b>Clamping process</b>	Manual Semi automatic Automatic	Manual Semi automatic Automatic	Manual Semi automatic Automatic	Manual Semi automatic Automatic
<b>Feed stroke</b>	100 mm	150 mm	150 mm	200 mm
<b>Feed operation</b>	Manual Automatic	Manual Automatic	Manual Automatic	Manual Automatic
<b>Machining time</b>	Few seconds	Few seconds	Few seconds	Few seconds
<b>Motor power</b>	30 kW	37 kW	50 kW	50 kW
<b>Machining</b>	Carbide insert	Carbide insert	Carbide insert	Carbide insert
<b>Weight</b>	3500 kg	8800 kg	10500 kg	12500 kg





## MULTIFUNCTIONAL CONTROL PANEL

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

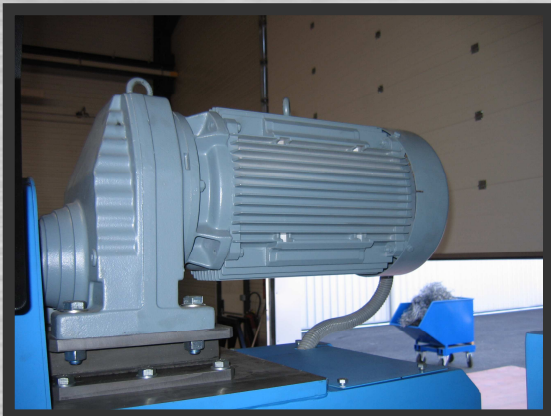
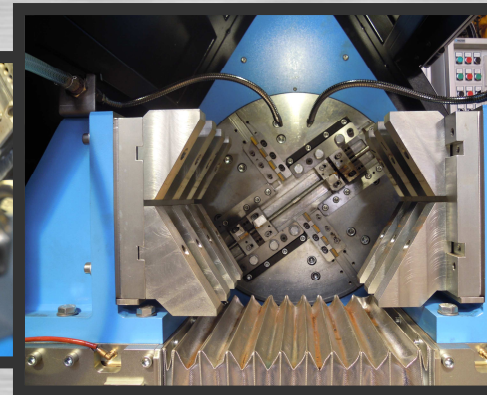
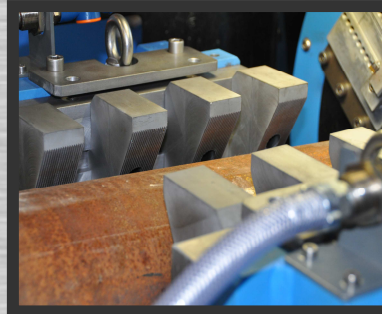
On the face of the panel, several switches and a screen to operate the machine are available. The end user can use the manual mode. The control panel allows the user to control all important functions:

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

## PRISM CLAMPING SYSTEM

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

	BB 3-16	BB 12-24	BB 24-36	BB 36-48
Automatic clamping device	•	•	•	•
Semi automatic clamping	•	•	•	•
Automatic feed	•	•	•	•
Semi automatic feed	•	•	•	•
Lifting table	•	•	•	•
Copying system	•	•	•	•
Roller benches	•	•	•	•
Insert holder sets	•	•	•	•
Chip conveyor	•	•	•	•
Lubrication	•	•	•	•
Safety door	•	•	•	•
Tube storage table	•	•	•	•



## MACHINING TABLE FOR ELBOWS

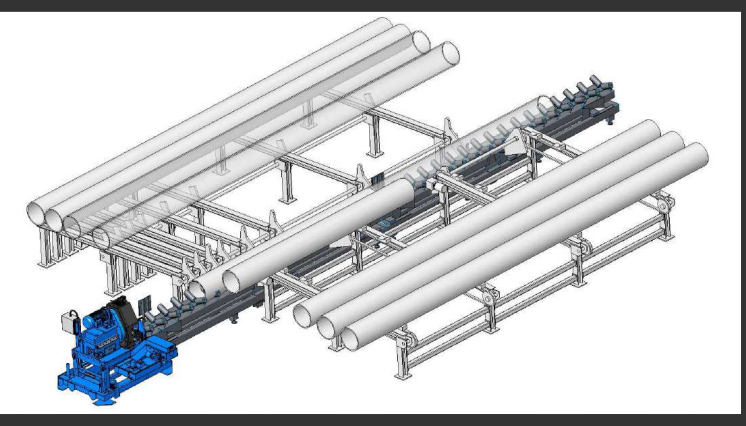
Designed for machining elbows, this option allows you to quickly and easily machine elbows of all sizes.

## TUBE CONVEYORS

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, 8 meters, 10 meters or 12 meters.

Their height adjustment enables 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

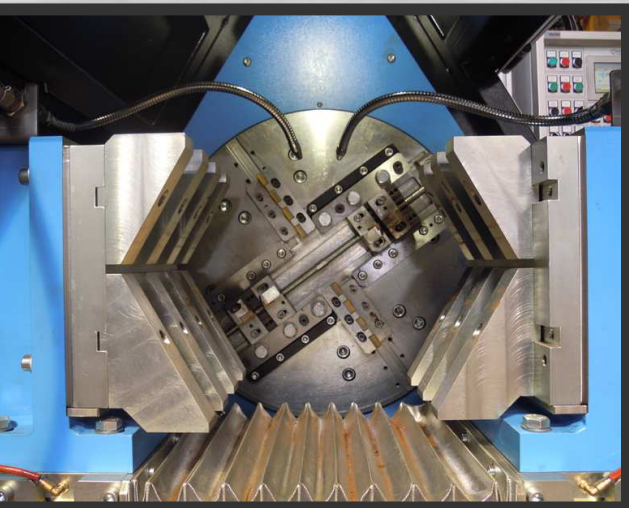
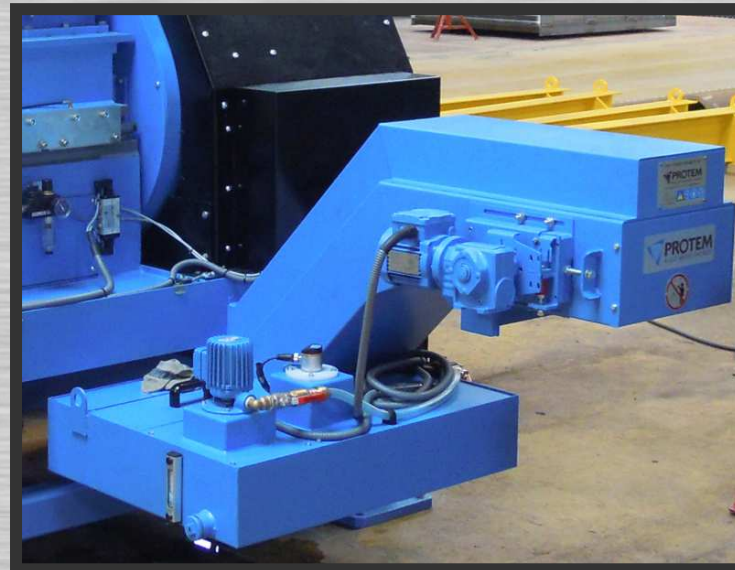
All the feeding tube conveyors or storage tube conveyors can be associated easily with the complete BB range.

The length of the feeding or storage tube conveyor is adapted to the length of the tube conveyor.

## CHIPS CONVEYOR

The option chips conveyor can be used on all versions of the BB. This option enables to increase the productivity rate as all the chips produced during a machining cycle are removed automatically.

This option brings a real conviviality of use for the operator as it is not necessary to stop the production works to remove the chips.



## LUBRICATION DEVICE

Increase the lifetime of the inserts and reduce the noise level.

- ✓ A lubrication system integrated to 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 insures close circuit with the pump.

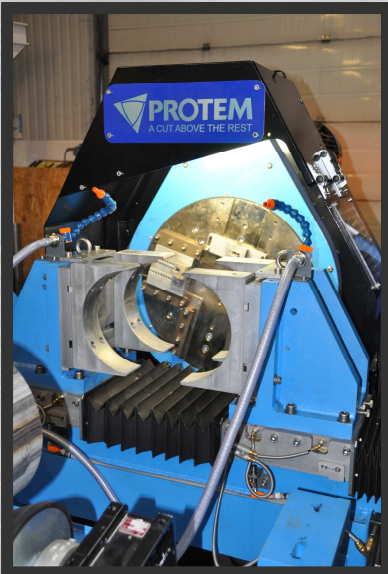
This option is activated through a push button.

## LIFTING TABLE

The optional lifting table can be used with all BB versions. The lifting table is positioned under the BB 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 enables to save time and helps to increase the productivity.

Moreover, it offers a great conviviality of use in the alignment between the axis of the tube set on a tube conveyor and the axis of the tool holder plate of the BB.



## CLAMPING JAWS WRAP

To avoid deforming tubes with thinner wall thickness during the clamping operation, it is recommended to add enveloping clamping jaws in aluminium.

One set of enveloping clamping jaws is necessary for each different OD.

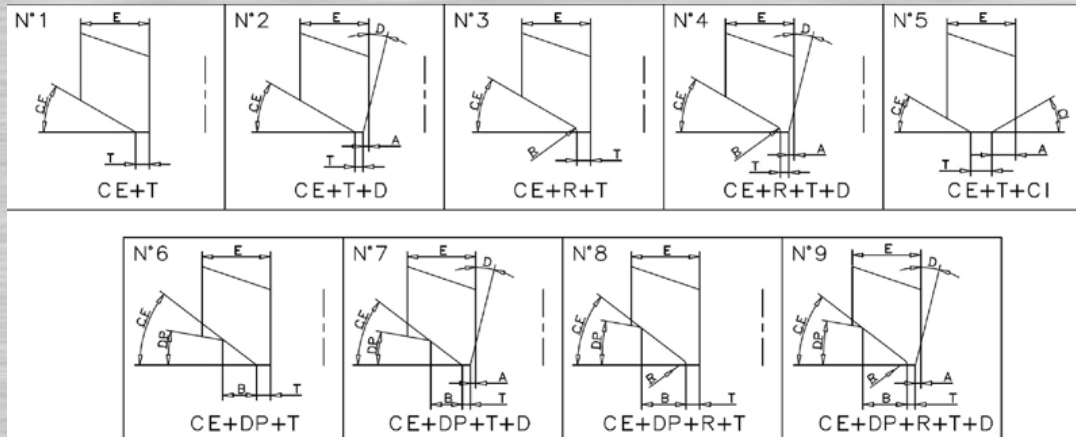
## ID TRACKING CARRIAGE

The ID tracking carriage allows to obtain a constant machining geometry.





## SOME EXAMPLES OF BEVELS



**N°1 V-bevel**

**N°2 V-bevel with internal bevelling**

**N°3 Compound bevel**

**N°4 Compound bevel with internal bevelling**

**N°5 Internal and external bevel**

**N°6 Compound bevel - various combinations of bevelling angles possible**

**N°7 Compound bevel with internal bevelling - various combinations of bevelling angles possible**

**N°8 Compound bevel with various combinations of bevelling angles possible**

**N°9 Compound bevel with various combinations of bevelling angles possible with internal bevelling**

All the above mentioned machining types can be processed individually or simultaneously - Various angles bevelling and facing possible



# CONTACT & COMMENTS

## OUR COMMITMENT! YOUR SATISFACTION!

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

**Call** or **email** us for more information!

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## YOUR COMMENTS

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