

BB HIGH SPEED BEVELING BENCHES

STATIONARY PIPE BEVELING MACHINE

BB - SERIES

BB 1-6	PIPE RANGE 1" - 6"
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"



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BB HIGH SPEED BEVELING BENCHES are the most powerful and reliable machines for achieving a perfect weld end preparation in a matter of seconds.

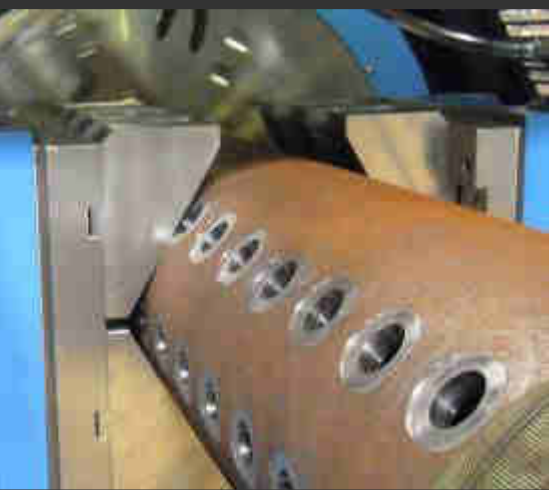
BB HIGH SPEED BEVELING BENCHES
The equipment you will need for all your weld end preparation jobs!

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 just a few seconds.**

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



Features

BB HIGH SPEED BEVELING BENCH

Used for beveling, facing and counterboring operations. These operations can be processed individually or simultaneously.

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

BB HIGH SPEED BEVELING MACHINES

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

ADVANTAGES :

- ✓ Self-centering clamping
- ✓ High speed machining operations
- ✓ Very Powerful electric motors
- ✓ Multifunctional control panel on a 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
- ✓ Reliable
- ✓ Modular design
- ✓ Safety chip guard
- ✓ Safe use on-site or in prefabrication workshops



PROTEM BB- SERIES

	BB 1-6	BB 3-16	BB 12-24	BB 24-36	BB 36-48
Clamping range	1" to 6" 25,4 to 152,4 mm	3" to 16" 76 to 406 mm	12" to 24" 304 to 609 mm	24" to 36" 609 to 914 mm	36" to 48" 914 to 1219 mm
Machining capacity	25,4 mm (1")	25.4 mm (1")	35 mm (1.38")	35 mm (1.38")	35 mm (1.38")
Clamping process	Manual Semi automatic Automatic	Manual Semi automatic Automatic	Manual Semi automatic Automatic	Manual Semi automatic Automatic	Manual Semi automatic Automatic
Feed stroke	100 mm (3.94")	100 mm (3.94")	135 mm (5.31")	150 mm (5.91")	200 mm (7.87")
Feed operation	Manual Automatic	Manual Automatic	Manual Automatic	Manual Automatic	Manual Automatic
Machining time	Few seconds	Few seconds	Few seconds	Few seconds	Few seconds
Motor power	30 kW	30 kW	37 kW	50 kW	50 kW
Machining	Carbide insert	Carbide insert	Carbide insert	Carbide insert	Carbide insert
Weight		3500 kg (138 LB)	8800 kg (347 LB)	10500 kg (413 LB)	12500 kg (492 LB)





MULTIFUNCTIONAL CONTROL PANEL

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

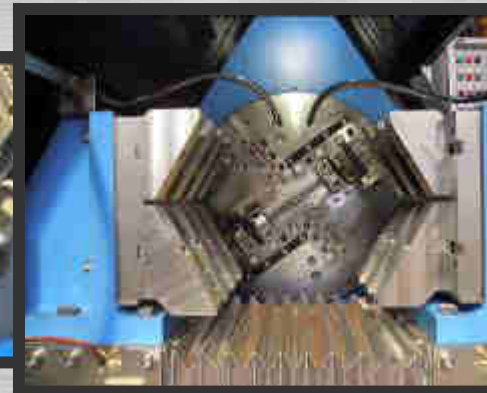
On the face of the panel are several switches and a screen that operate the machine. The end user can use the manual mode. The control panel allows the user to control all important functions:

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

PRISM CLAMPING SYSTEM

The prism shaped jaws clamp to any size pipe in the machine's range. The clamping system ensures weld end preparations, with the highest degree of accuracy and repeatability, 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

		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	•	•	•	•	•
ID tracker	•	•	•	•	•
Roller benches	•	•	•	•	•
Insert holder sets	•	•	•	•	•
Chip conveyor	•	•	•	•	•
Lubrication	•	•	•	•	•
Tube storage table	•	•	•	•	•
Table for elbows	•	•	•	•	•



MACHINING TABLE FOR ELBOWS

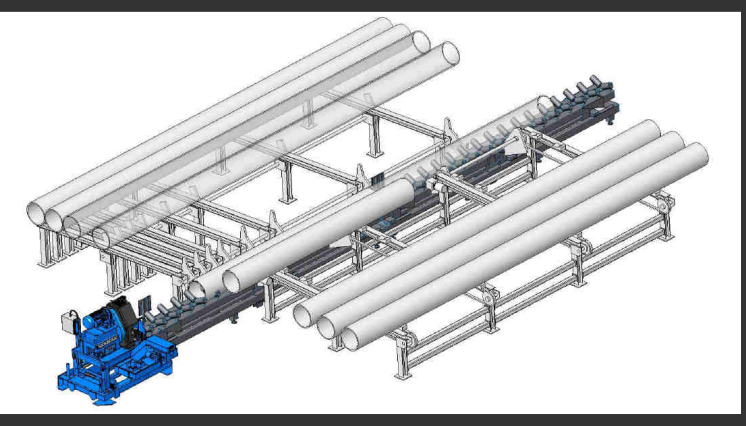
Designed for machining elbows, this option allows you to quickly and easily machine elbows of all sizes.

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 (20 feet), 8 meters (26 feet), 10 meters (33 feet) or 12 meters (39 feet).

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 contamination of the transported tubes.





TUBE STORAGE TABLE

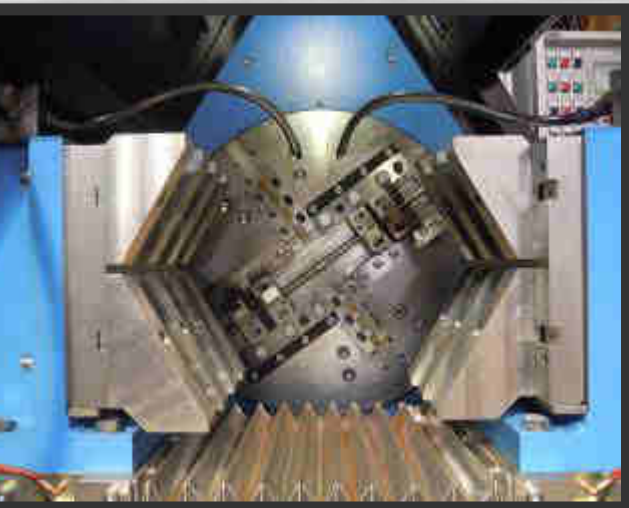
All the feeding tube conveyors or storage tube conveyors can be easily incorporated into any machine in the BB range.

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

CHIPS CONVEYOR

The optional chips conveyor can be used on all versions of the BB. The productivity rate is greatly 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 machining operation to remove the chips.



LUBRICATION DEVICE

Increases the lifetime of the tool bit inserts and reduces the noise level.

- ✓ A lubrication system integrated into a chip conveyor (for chips removal).
- ✓ A pump sprays oil mixed with water during the cut. A tank replaces the standard chips box. The lubrication fluid is filtered and reused in a closed circuit with the pump.

This system 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 of the tool holder plate with the axis of the tube. The tube to be machined must be dually supported by the tube conveyor and the clamping jaws of the BB. This option saves setup time thereby helping to increase productivity.

Moreover, it offers 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 BB.



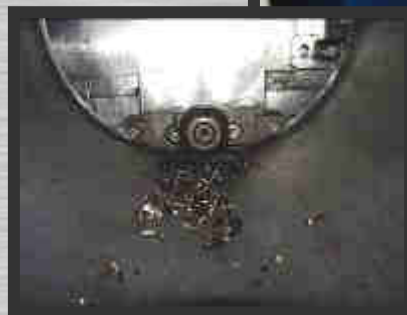
CLAMPING JAWS WRAP

To avoid deforming tubes with thinner wall thicknesses during the clamping operation, it is recommended to add enveloping clamping jaws made of aluminum.

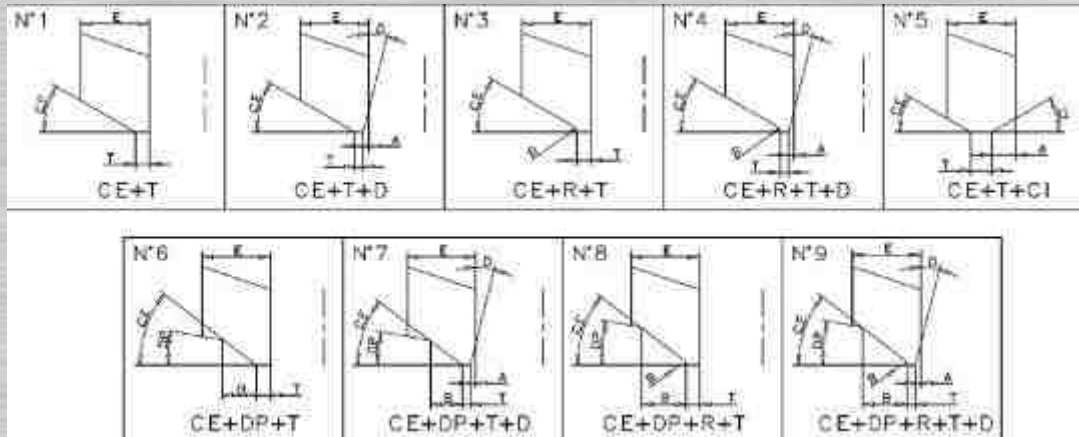
One set of enveloping clamping jaws is necessary for each different OD.

ID TRACKING CARRIAGE

The ID tracking carriage maintains a constant machining geometry.



SOME EXAMPLES OF BEVELS



N°1 V – Bevel

N°2 V – Bevel with internal beveling

N°3 J – Bevel

N°4 J – Bevel with internal beveling

N°5 – Internal and external bevel

N°6 – Compound bevel – various combinations of beveling angles possible

N°7 – Compound bevel with internal beveling – various combinations of beveling angles possible

N°8 – J – Bevel + Compound with various combinations of beveling angles possible

N°9 – J – bevel + Compound + internal with various combinations of beveling angles possible with internal beveling

All the above mentioned machining types can be processed individually or simultaneously – Various beveling angles and facing are possible.



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!

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YOUR COMMENTS:
