

ESAB CUTTING SYSTEMS



# TELEREX TXB

*Efficient, versatile, state of the art*



Machines



Processes



Numerical Controls



Programming



Environment



**ESAB, YOUR PARTNER IN WELDING AND CUTTING.**



## TELEREX TXB

The TELEREX is the largest gantry in ESAB cutting systems' range and benefits from all the latest technologies, equipment and cutting solutions. Almost 70 years experience and an impressive number of delivered machines guarantee the reliability and quality of this exceptional machine.

The TELEREX is without doubt the leader and best performer in the large cutting machine range (up to 32 meters in width), used in shipbuilding, bridge fabricating, pressure vessel and defence industries.

### General description

The TELEREX portal CNC machine offers extensive scope for flexibility, customized equipment and extensive carriage options such as:

- Precision automated 3 torch bevel cutting
- Plasma variable bevelling
- High power and high precision plasma
- Vacublast or grinding plate preparation
- Dual contour Y axis cutting
- High speed omni-directional plate marking
- Automated oxy-fuel cutting
- Etc.

The TELEREX can be equipped with the complete range of equipment for an optimum configuration to meet a customer's exact requirements.

- A massive beam to deliver high rigidity and accuracy.
- Easy to use operation.
- Modular design to enable easy future upgrade and enhancement.
- Tailored solutions to meet your exact needs.
- Best cutting performance.

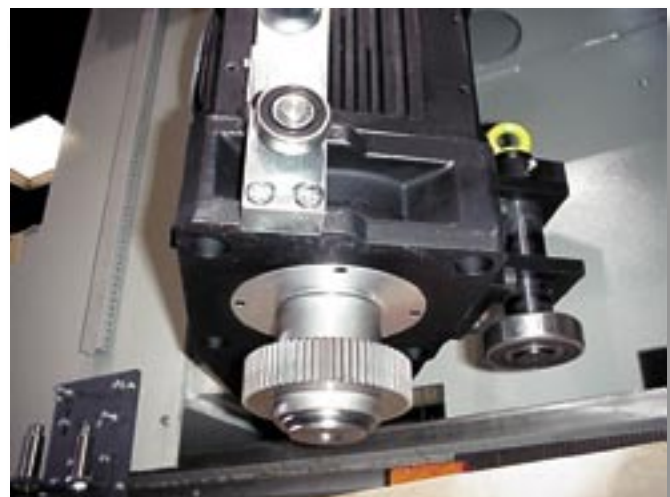


### Reliability and Durability

Almost 70 years of experience in building large gantries has resulted in a robust TELEREX machine that can deliver reliability and durability from:

### State of the art in mechanics

ESAB's state-of-the-art technology allows their customers to customize the machine to meet their exact requirements. Designed and manufactured as a precision machine tool, the TELEREX features heavy-duty floor mounted rails, machined tracks, precision gearboxes and rack



and pinion drives for excellent machine performance and accurate cut parts. According to the machine size and the tools, it is supplied with different gearboxes and high performance AC drives that deliver speeds up to 24 m/min. This provides:

- Accurate parts
- Faster production cycle
- Unsurpassed longevity in a difficult industrial environment
- Lower maintenance cost

### Unsurpassed mechanical design:

- Transverse linear guiding system including an automatic lubrication device, for higher accuracy, better carriage load repartition and longer lifetime
- Stable construction to guide the heaviest equipment accurately
- Gantry design enables the customer to fit a large number of different modular tools.
- Optimum quality whatever cutting tool selected
- Maintenance free AC servo motors ensure speed and precision
- Oversized design to maximise the lifetime of the machine.



### Engineered to maximize Productivity

The TELEREX machine can be equipped with:

- A fully automatic process control regardless the process
- Automatic tool spacing via multi transverse drives for faster and more accurate tool positioning
- Automatic height sensing for each fitted tool.
- Operating platform for higher safety and easier process monitoring.



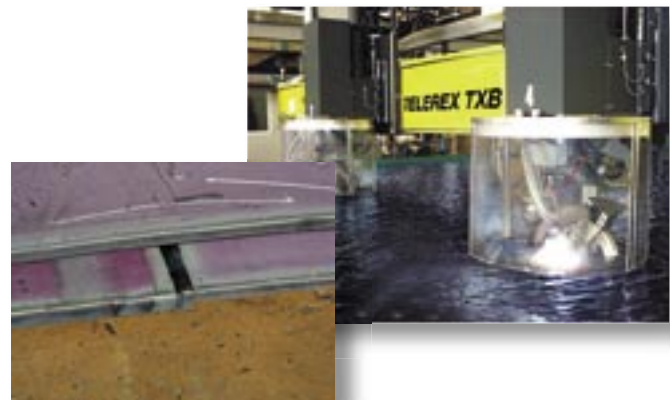
All these features make the TELEREX a first class, quality machine, meeting all European and ISO norms. Service and maintenance troubleshooting is facilitated by an integrated service check within the numerical control.

### Versatility

The TELEREX machine is the most versatile machine in our machine range and can be equipped with any combination of tools:

**Plasma VBA carriage** for the welding edge preparation from  $-45^\circ$  to  $+45^\circ$ , on all conductive materials, including the following exceptional functions:

- Integrated process database making the system totally independent of the operator's skills
- Integrated process compensation database, for  $0^\circ$  plasma bevel angle, fulfilling the strongest welding requirements.
- Beveling Interpolation Function (B.I.F), enabling the bevel on different thicknesses while optimising the cutting straightness. This means higher accuracy, higher productivity and less welding material.



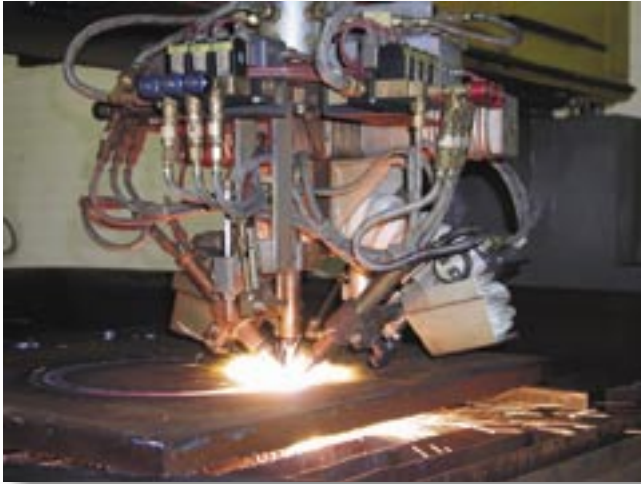
**Different Oxy-fuel bevelling heads** for any kind of welding edge preparation, V, K, X, on carbon steel plate up to 75 mm. The most exceptional is the endless VBA rotating head where all torch settings, such as lateral torch adjustment and bevel angle per torch, are fully CNC controlled. In the fabrication of, for example, wind mill towers, it is quite common to connect plates of different thicknesses, requiring separate weld edge preparations. In addition, in the shipbuilding industry, the joint angle varies from one side to another, or even varies continuously. In these cases, the numerical controller can adjust the angle and the lateral torch adjustment, automatically. The use of such a fully automated bevelling head guarantees:

- High productivity, because the machine is not stopped at each change of bevel setting
- High accuracy due to the CNC controlled setting of the bevel angle, meaning easier to meet the welding procedure specifications
- Exceptional accurate bevel height control of +/- 0.3° for absolute cutting straightness, giving exact angle tolerance therefore minimising welding material and welding time.

- To mark the assembling sign for an easier, faster, safer assembling process
- To write the part reference and material type, for quality procedure follow up and traceability
- To draw the bending line to facilitate second operations after the cutting process.



### Fully integrated tool station



### Different marking tools

A large number of alternate marking tools such as plasma- marking, inkjet, powder marking, punch marking, spot drilling ...can be directly set by program via an integrated database. This avoids manual set-up and enables a very high productivity, by automatically operating the marking and cutting sequences one after the other. The marking sequence is managed by the CNC, performing all offsets between the cutting tool and the marking tool and significantly improving the production time. This allows you:



Customized solutions maximize the productivity by a fully automated production cycle. By integrating a complete tool station that includes several different tools for multiple applications, the process is monitored directly by the numerical control avoiding unnecessary operator set-up and maximizing the return on investment by reducing the pay back time.

Please cut here! Please cut here! Please cut here! Please cut here! Please cut here! Please cut here! Please cut here! Please cut here!

## „XXL“ Solutions



The TELEREX is the REFERENCE machine in shipbuilding especially as part of a panel line for block construction. This guarantees:

- Safer investment due to our unique know-how and reputation in very heavy duty cycle, 24 hours a day, 7 days a week, 365 working days a year!
- Double or triple production time compared to conventional and previous techniques, thanks to a fully multiple automated processes monitored from the CNC and external peripheral controls.
- Specific shipbuilding equipment for customized applications such as rotating grinding tools, shoot blasting, multi-tool carriages etc....

As an example, the grinding tool enables paint removal, for faster and safer welding procedure. Moreover, to optimize the production time it is usual to do 2 operations at once, for example grinding and marking at the same time! This head is also available as a rotating head for grinding in X and Y directions.



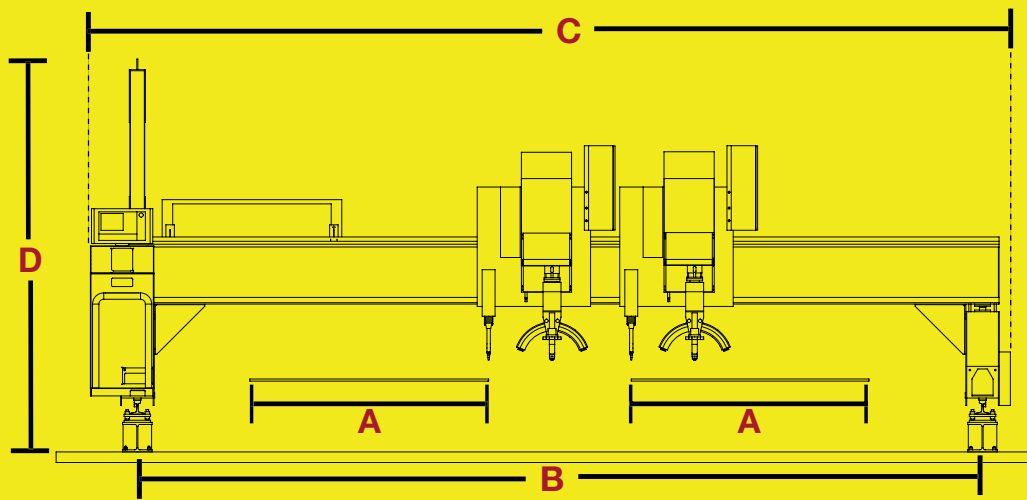
As an alternative to the grinding head, the vacu-blast head removes paint by a shot blasting technique and can be used in all directions.



To maximize the productivity, the VBA plasma reduces the cutting time compared to conventional oxy- fuel technique and improves the part accuracy, which is vitally important in the shipbuilding construction. The use of specific environment devices is essential.



D



**TELEREX TXB**

TELEREX TXB sizes 1) (B) (All dimensions are in mm)

	7000	8000	16000	24000
Working Area (A)				
1 x Under water plasma VBA, infinite rotating, plasma marking	1 x 5000	1 x 6000	1 x 14000	1 x 22000
2 x Single torch carriage, parallel cut	2 x 3050	2 x 3550	2 x 7550	2 x 11550
2 x Single carriage and marking, mirror image	2 x 3000	2 x 3500	2 x 7500	2 x 11500
2 x Plasma, under-water, parallel cut	2 x 2850	2 x 3250	2 x 7250	2 x 11250
2 x Triple oxy-fuel torch, endless rotating, parallel cut	2 x 2850	2 x 3350	2 x 7350	2 x 11350
2 x Triple oxy-fuel torch, endless rotating, marking, mirror image	2 x 2500	2 x 3000	2 x 7000	2 x 11000
2 x Dry plasma VBA, infinite rotating, parallel cut	2 x 2700	2 x 3200	2 x 7200	2 x 11200
2 x Under water plasma VBA, infinite rotating, mirror image	2 x 2000	2 x 2500	2 x 6500	2 x 10500
2 x Under water plasma VBA, infinite rotating, plasma marking, mirror image	2 x 1700	2 x 2200	2 x 6200	2 x 10200
1 x Multi-tool station with 2 Arc markers + Belt grinder	--	--	1 x 12400	1 x 20400
1 x Multi-tool station with 2 Arc markers + Vacublast	--	--	1 x 13800	1 x 21800
1 x Multi-tool stations with 2 Arc markers + Belt grinder + triple oxy-fuel torch endless	--	--	1 x 10000	1 x 18000
Machine width (C)	8000	9000	17000	25000

Cutting thickness (One torch) [mm]	3 - 200 (300)
Cutting thickness (triple torch oxy-fuel) [mm]	8 - 75
Working speed [mm/min]	50 - 25000 <sup>2)</sup>
Positioning speed [mm/min]	up to 25000 <sup>2)</sup>
Max. number of carriages	12
Connection voltage 4) [V/Hz]	3 x 400/50

1) Extension by 500 mm  
 2) Depends on configuration  
 3) Other gases on request  
 4) Other voltages on request  
 General remark: Dimensions can differ according to final specifications.

Input power [VA]	~ 14000
Cutting table height [mm]	650
Track height [mm]	490
Fuel gases 3)	Acetylen/Propane/Mixed gases
Machine with or without platform	Depending on configuration
Machine height (D)	2900 - 3250 depending on

## About ESAB

Almost seventy years' experience of cutting and responding to customers needs have resulted in an extensive range of products to meet profile cutting applications. Based around the four methods of oxy-fuel cutting, plasma cutting, laser cutting and



**ESAB CUTTING SYSTEMS GmbH**  
 Phone: +49 60 39 40-0  
 Fax: +49 60 39 40-301  
 Internet: [www.esab-cutting.de](http://www.esab-cutting.de)  
 E-mail: [info@esab-cutting.de](mailto:info@esab-cutting.de)

Robert-Bosch-Straße 20  
 D-61184 Karben  
 Germany