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PLATE BEVELLING **MACHINES**

- Pipe Bevelling Machines
- Pipe Cutting Machines
- **Grinding Machines**
- **Custom Built Machines**
- Pipe Stands and Clamps
- **Pipe Purging**
- Plate Bevellers
- Heat Exchanger, Boiler & Bundle









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GBC INDUSTRIAL TOOLS LTD ARE THE 'PIPE EQUIPMENT SPECIALISTS' FOR THE SUPPLY OF PIPEWORK E QUIPMENT AND TOOLS.

Over the past 30 years our parent company GBC Industrial Tools Spa, has established itself as one of the worlds leading manufacturers of portable pipework machinery, due to its consistent high level of quality, both in product and service. We are pleased to be part of that team.

GBC has established an extensive distribution network to industries across the world. These industries include:





- Petrochemical
- Offshore
- Power Generation
- Heat Exchange Manufacture/Repair
- Boiler Industry
- Ship Building and Repair
- Nuclear
- General Fabrication
- Site Services



GBC Industrial Tools offer a comprehensive range of on-site machining services, please check with our office for your specific requirements.







Registered address: 7 Drakes Drive, Crendon Business Park Long Crendon, HP18 9FE

Registered in England & Wales. Registration no. 08966210 VAT no. 190019919



Portable Hand Held Plate bevelling machine

for straight and shaped plate

Compact, lightweight and portable, our manual plate beveler is conceived for beveling plates of reduced size and thickness, equipped with a face mill with interchangeable inserts, recommended especially for curved plates or plate with exotic profiles.

The GBC HANDYBEVEL is capable of executing bevels with the most common angles for which we can supply the respective face mill, it can bevel any material thanks to the different inserts available and can be employed for high productivity jobs delivering a maximum diagonal bevel length of 17mm.







Power supply 230V /110v 50-60 Hz

2100W Motor Motor speed 6500 rpm

Minimal dia of counter -

sinking

40 mm

Maximal bevel width @ 45° (b) 17 mm

Feed 0.5 - 10 m/min (Manual)

22.5, 30, 37.5, 45, Bevelling angles

55 and 60 degrees

Plate thickness minimum 2.0 mm **Dimensions** 585 x 156 x 238 mm

Weight 8.8 kg

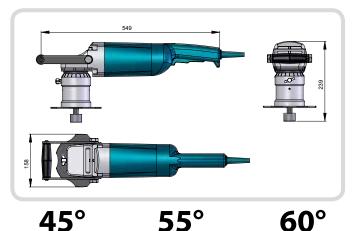
22,5°

37,5°



Upon request GBC can supply a special face mill with inserts for rounding the sharp corners of the plate edge (R3, R4, R5).

















GBC210

Portable Plate bevelling machine

Range: Thickness 6-60 mm Bevel Angle: from 0° to 60° Max Bevel Width: 21 mm

Materials: Any type of steel and aluminium

Power: 110v or 230v

The GBC210 is an easy to use, portable machine designed for bevelling steel plates prior to welding. It is fitted with two high speed milling heads, each holding six indexable carbide inserts for smooth and efficient bevelling.

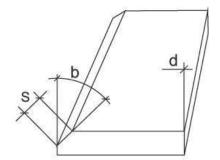




Plate facing attachment (optional)

A	B	R	S	Dmin	a	b	g	d =0°	weight
mm (")	mm (")	mm (")	mm (")	mm (")	(°)	(°)	(°)		kg (lbs)
420 16 ⁹ / ₁₆	330 13	305 12	0-20 0-3/ ₄	150 6	45-75	15-60	75-30	yes	20.0 43

TECHNICAL SPECIFICATION			
Power supply	1,1 KW, 110v or 230v		
Motor	Inductive with increased start-up current		
Motor speed	2.820 rpm		
Tooling	Integral milling head with 10 square inserts		
Standard angles range	0°-60°		
Optional functions	Plate facing		
Plate thickness	minimum 6 mm		
Dimensions	461 x 140 x 256 mm		
Weight	20 kg		



Mono block milling head, with 10 indexable inserts fixed with screws.



Continuous angle adjustment from 0 to 60 degrees.



Plate facing-off



Plate beveling

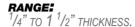


Plate bevelling machine Range w.t. 6-40 mm (1/4" - 1 ½")



Plate bevelling machine GBC CHALLENGE 12, with compact design to meet high portability demand all around working area. Once positioned on the plate edge the machine travels along the plate automatically, without any intervention by the operator.

Unit is fixed head type which allow bevel angle according with roller assembly skid mounted only. Replacement of the 30° roller supplied as std, for a different bevel angle ones (available 22°30' - 25° - 35° - 37°30' -45° - 55°) takes less than one minute.



FUNCTIONS:BEVEL FROM 22°30' TO 55°.

MATERIALS: CARBON STEEL, ALLOYS AND STAINLESS STEEL.

POWER: ELECTRIC 3 PHASE 380 V 50-60 Hz.

NOTE: COMPLETELY SILENT! REDUCED WEIGHT AND DIMENSIONS ALLOW TO GBC CHALLENGE

12 AN EASY HANDLING. CAN BE MOVED BY HAND FROM STRIP PLATES BEVELLING TO BIG SIZE PLATES WITHOUT USE OF CRANE OF ANY LIFTING DEVICE.





Different types of milling cutters are available according with different steel grade to be machined.



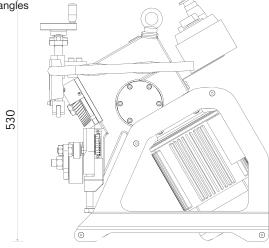


Technical Features

Power	Volts / Hz / Phase	380* / 50 / 3
Bevelling speed	Surface metres / min	2.4
Electric motor power	Kw	2.2
Min. plate width	Inches / Millimetres	2.36" / 60mm
Plate thickness	Inches / Millimetres	1/4" - 1 1/2" / 6-40mm
Std bevel angle**	Degrees	30°
Weight	Kg	65

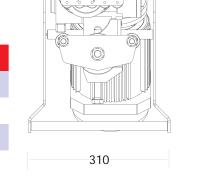
^{*}Different Voltage available on request

BEVEL CHART IN SINGLE OPERATION CARBON STEEL STAINLESS STEEL 40Kg. 50Kg. 60Kg. 50Kg. 60Kg. 70Kg. R. R. S S S Α L S L Α L S S 30° 12 10 8 7 30° 6 5 5 4.2 3.6 10 8.5 4.3 35° 12 9.5 10 8 8 6.5 35° 6 5 5 4 4.2 3.5 37.5 12 10 7.5 8 6 37.5° 6 4.5 5 4.2 3.3 7 45° 12 8.5 10 8 5.5 45° 6 5 3.5 4.2 3



500

Ordering Information	Part No.
Challenge 12	03-150-100-10000
Milling tool for Carbon Steel	V02814/CARB
Milling tool for Stainless Steel	V03380/INOX
Millings tools for other mate	rials available on request



All CHALLENGE 12 units are supplied in wooden boxes for storage and transportation, complete with milling tool for carbon steel, roller assembly for 30 deg. angle, service wrenches, drawings, instruction manual and warranty certificate.

^{**} See optional chart for any different bevel angles



Portable Plate Edge Bevelling Machine



Range: ¼" – 1½" thickness Functions: from 22½° to 55°

Materials: any type of steel and aluminium

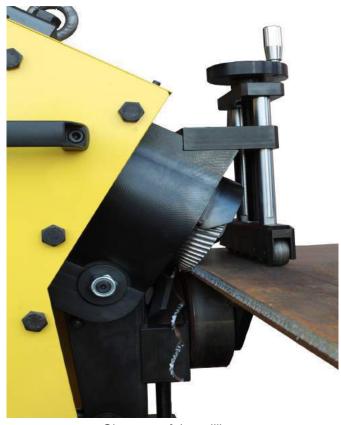
Power: electric 3 phase

No more Grinding! The Challenge 15 machine gives you a clean bevelled weld ready surface with no thermal distortion, saving time and money. This model offers automatic self feeding of the plate when bevelling small strips, or once positioned on a large plate will travel along the edge to the end with no requirement for intervention by the operator. Various angles from 22 to 55 degrees can be machined on different materials including stainless steel. There is no need to change rollers to change the angle of bevel. Our cutter head can be adjusted from angle to angle in minutes.

The Challenge 15 is fitted with a two speed motor, enabling the operator to reduce the speed according to the material, thus dramatically increasing the life of the milling tool when bevelling stainless steel and more exotic materials.



The Challenge 15 once mounted onto the plate edge will propel itself along automatically without any operator intervention



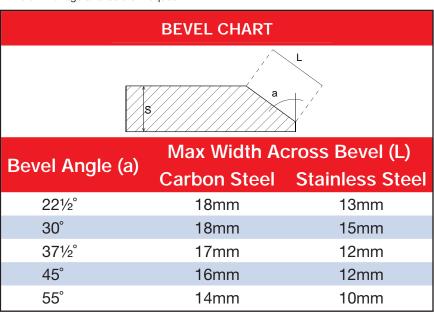
Close up of the milling cutter



Technical Features

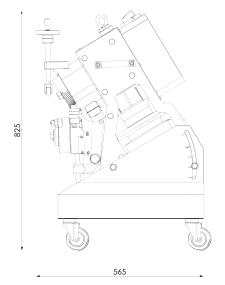
Power	Volts / Hz / Phase	380* / 50 / 3
Bevelling speed	Surface metres / min	1.5 3
Electric motor power	Kw	.42 .80
Min. plate width	Inches / Millimetres	2.75" / 70mm
Plate thickness	Inches / Millimetres	1/4" - 1 1/2" / 6-40mm
Bevel angles	Degrees	22½° to 55°
Weight	Kg	104

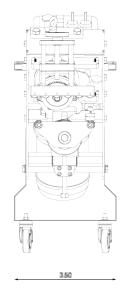
^{*}Different Voltage available on request

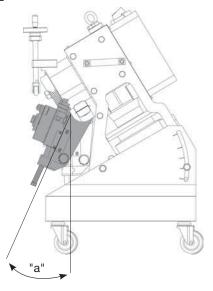


Different types of milling cutters are available according to the material to be machined.









Ordering Information	Part No.	
Challenge 15	C11650/00	
Milling tool for Carbon Steel	V03385/CARB	
Milling tool for Stainless Steel	V03601/INOX	
Hydraulic height adjustable trolley	04010/00	
Millings tools for other materials available on request		



Basic Edge 50

Plate Bevelling Machine

The **BASIC EDGE 50** is a versatile machine conceived to be employed in big sized industrial realities where the productivity is the key factor but at the same time it can easily be employed in smaller scenarios like workshops where some features specific of the COMPACT EDGE are actually unnecessary.

The **BASIC EDGE 50** was designed to satisfy the requirements of the smalll production realities that can easily accept to work with less technological features but still buying a high productivity ma-chine. The **BASIC EDGE 50** is fact a simplified version of the well-known COMPACT EDGE.



The control panel allows to adjust the feeding speed.



Milling head speed regulator



With the optional milling head speed regulator, it is possible to reduce the rpm of the milling head for an optimal result on any kind of material.

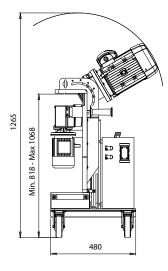


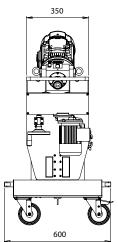


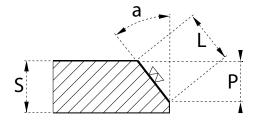
Basic Edge 50

Technical Features				
Electric motor power	W	4000		
Tension	Volt	230 / 400*		
Frequency	Hz	50 / 60		
Face mill speed	rpm	1400 (with opt. from 500 to 2500)		
Face mill type	-	Ø50 mm - 5 inserts		
Bevel angle	-	10° - 70°		
Plate thickness	mm	Min. 6 - Max. 60		
Bevel diagonal length	mm	Min. 0 - Max. 50		
Travel speed	Mt./min.	0 ÷ 1,8		
Weight	Kg	150		
Acoustic emissions	dB	76		

 $^{{\}bf *Different\ voltage\ available\ on\ request}$







Bevel Angle	Max Plate W.T.	Max Bevel P	erformance*
"a"	"S"	"L"max	"P"max
10°	60	46,69	45,98
15°	60	45,74	44,18
20°	60	45,23	42,51
22,5°	60	45,14	41,7
25°	60	45,16	40,93
30°	60	45,53	39,43
35°	60	46,41	38,01
37,5°	60	47,05	37,33
40°	60	47,85	36,66
45°	60	50	35,36
50°	60	47,85	30,76
55°	60	46,41	26,62
60°	60	45,53	22,77
65°	60	45,16	19,08
70°	60	45,23	15,47

^{*}In multiple steps



Compact Edge





STANDARD

Thanks to its new design the unit can be used in two different configurations:

- standard: the machine is used with the trolley
- special: the head of the machine is detached from the trolley and directly applied on the edge of the plate





Compact Edge

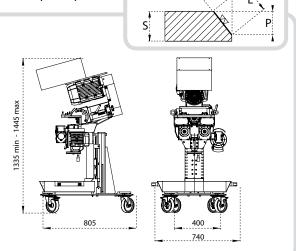
compact **EDGE R**everse compact **EDGE** - TECHNICAL FEATURES 400/50/3 volt/hz/phase 400/50/3 std. voltage 0 - 1.6 m/min 0 - 1.6 adjustable beveling speed surface feet/min 0 - 5.25 0-5.25 3 kw 3 electric motor power 6 - 60 6 - 60 mm plate thickness inch 1/4" - 2 3/8" 1/4" - 2 3/8" 15° - 60° 15° - 60° std bevel angle deg 800 800 face mill speed without speed regulator rpm min 300 - max 800 min 300 - max 800 face mill speed with speed regulator rpm 80 80 mm 9 inserts face mill (Ø) 3.15" 3.15" inches kg 210 210 machine gross weight lb 462,97 462,97 143 143 kg machine head weight without trolley 315,26 lb 315,26 kg 67 67 trolley weight Ιb 147,70 147,70

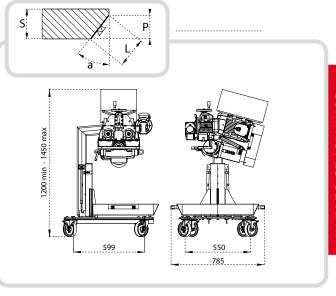
BEVEL ANGLE "a"	MAX PLATEW.T. "S"	MAX BEVEL PEF "L"max	RFORMANCE* "P"max
15°	60 mm	40 mm	38,7 mm
22,5°	60 mm	40 mm	37,0 mm
30°	60 mm	40 mm	34,7 mm
37°31′	60 mm	40 mm	31,7 mm
45°	60 mm	40 mm	28,3 mm
55°	60 mm	40 mm	23,0 mm
60°	60 mm	40 mm	20,0 mm

*Different voltage available on request

COMPACT **EDGE**







^{*}In più passate



Compact Edge Reverse • •

Range w.t. 6-60 mm (1/4" – 2 3/8")

Brand new plate beveling machine **Compact EDGE Reverse**, featuring the same technical expedients of the standard version equipped with a high speed face mill with interchangeable inserts, with reduced structural dimensions and weight for a more flexible and dynamic use.

RANGE: ¼" to 2 3/8" thickness **FUNCTIONS**: bevel from 15° to 60°.

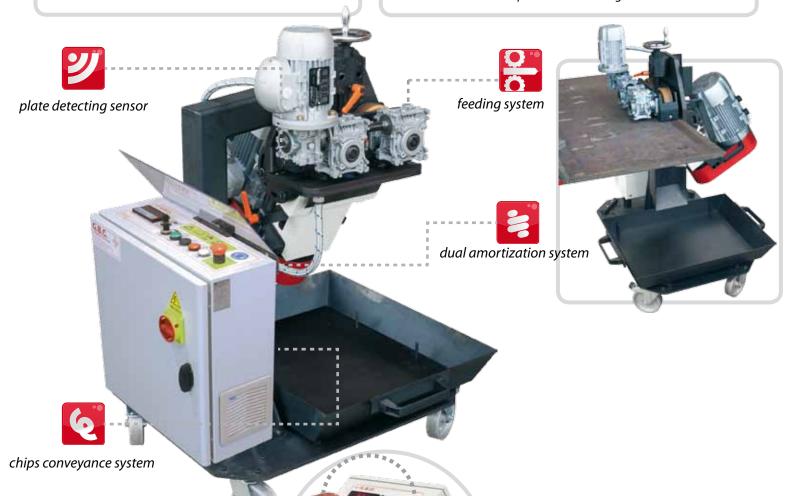
MATERIALS: carbon steel, stainless steel, duplex, super

duplex, inconel, aluminium, etc. **POWER**: electric 3 phase 400V 50Hz.

NOTE: It can bevel any material with smooth surface finishing,

groove free.

The feeding system with adjustable speed allows the unit to be used without the help of cranes or lifting devices.







The plate beveller Compact EDGE can be equipped with a speed regulator. Such device, which on this model is an optional, can be directly installed onboard from the factory when purchased with the machine or in a latter moment by a simply plugging the special connector.





Compact Edge Reverse

TECHNICAL FEATURES compact EDGE Severse

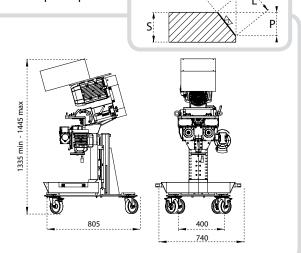
std. voltage	volt/hz/phase	400 / 50 / 3
adjustable beveling speed	m/min surface feet/min	0 - 1.6 <i>0 - 5.25</i>
electric motor power	kw	3
plate thickness	mm <i>inch</i>	6 - 60 1/4" – 2 3/8"
std bevel angle	gradi <i>deg</i>	15° - 60°
face mill speed without speed regulator	gg/min <i>rpm</i>	800
face mill speed with speed regulator	gg/min <i>rpm</i>	min 300 - max 800
9 inserts face mill (Ø)	mm inches	80 <i>3.15"</i>
machine gross weight	kg Ib	210 <i>462,97</i>
machine head weight without trolley	kg Ib	143 <i>315,26</i>
trolley weight	kg Ib	67 147,70

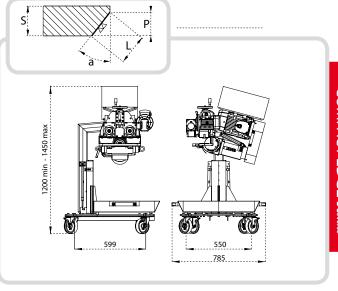
*Different voltage available on request

BEVEL ANGLE "a"	MAX PLATE W.T. "S"	MAX BEVEL PER "L"max	FORMANCE* "P"max
15°	60 mm	40 mm	38,7 mm
22,5°	60 mm	40 mm	37,0 mm
30°	60 mm	40 mm	34,7 mm
37°31′	60 mm	40 mm	31,7 mm
45°	60 mm	40 mm	28,3 mm
55°	60 mm	40 mm	23,0 mm
60°	60 mm	40 mm	20,0 mm

*In multiple steps

COMPACT **EDGE**







Edge 80 - Plate Bevelling Machine

EDGE 80, high speed plate beveling machine with variable angle head, high beveling capacity, fast and precise, thanks to the face mill equipped with high speed interchangeable inserts.

The **EDGE 80** is a heavy duty machine, strong and powerful, capable of working any material and to lock onto plates with a wall thickness range from 6 to 120 mm and able to reach 80 mm of max. diagonal.

Once the machine is placed and secured on the plate, it runs along the edge up to the far end with no intervention by the operator.

Rotating heads



The machine is equipped with a stepless variable head type which allows bevel angles from 10° to 70°, granting a very easy and quick adjustment of the angle of bevel.

Milling head speed regulator



With the optional milling head speed regulator, it is possible to reduce the rpm of the milling head for an optimal result on any kind of material.

The machine is equipped with a plate detecting sensor and trolley with a new chips conveyance system. We have also implemented an amortization system which allows to overcome eventual imperfections of the wall thickness or eventual variations of the plate, as well as the imperfections of the ground.

Locking range w.t. 6 - 120 mm (1/4" - 4 3/4") Max. diagonal: 80 mm

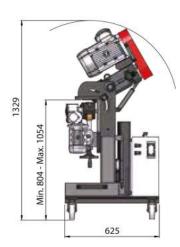


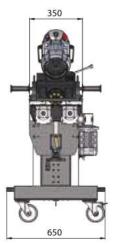


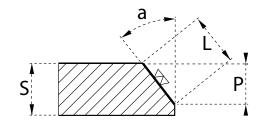
Edge 80 - Plate Bevelling Machine

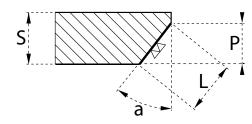
Technical Features				
Electric motor power	W	4000		
Tension	Volt	230 / 400*		
Frequency	Hz	50 / 60		
Face mill speed	rpm	820 (with opt. from 300 to 1500)		
Face mill type	-	Ø80 mm - 9 inserti (inserts)		
Bevel angle	-	10° - 70°		
"J" bevel angle	-	0° - 30°		
Plate thickness	mm	Min. 6 - Max. 120		
Bevel diagonal length	mm	Min. 0 - Max. 80		
Travel speed	Mt./min.	0 ÷ 1,5		
Weight	Kg	288		
Acoustic emissions	dB	76		

^{*}Different voltage available on request









Bevel Angle	Max Plate W.T.	Max Bevel Performance*	
"a"	"S"	"L"max	"P"max
10°	120mm	74,7mm	73,57mm
15°	120mm	73,19 mm	70,7 mm
20°	120mm	72,37 mm	68,01 mm
22,5°	120mm	72,23 mm	66,73 mm
25°	120mm	72,25 mm	65,48 mm
30°	120mm	72,85 mm	63,09 mm
35°	120mm	74,25 mm	60,82 mm
37,5°	120mm	74,29 mm	58,94 mm
40°	120mm	76,57 mm	58,66 mm
45°	120mm	80 mm	56,57 mm
50°	120mm	76,57 mm	49,22 mm
55°	120mm	74,25 mm	42,59 mm
60°	120mm	72,85 mm	36,43 mm
65°	120mm	72,25 mm	30,53 mm
70°	120mm	72,37 mm	24,75 mm

^{*}In multiple steps



Edge 80 Reverse -- Plate Bevelling Machine

EDGE 80 Reverse designed for beveling the lower side of the plate. Heavy duty machine, powerful and strong, suggested for particularly demanding applications on plates with a high grade of hardness and wall thickness.

Unique machine to be employed whenever is requested the beveling of the lower side or both sides of the plate, garanting a noticeable time saving as well as resources, avoiding the movement of the plate.

Rotating heads



The machine is equipped with a stepless variable head type which allows bevel angles from 10° to 70°, granting a very easy and quick adjustment of the angle of bevel.

Milling head speed regulator



With the optional milling head speed regulator, it is possible to reduce the rpm of the milling head for an optimal result on any kind of material.

The machine is equipped with a plate detecting sensor and trolley with a new chips conveyance system. We have also implemented an amortization system which allows to overcome eventual imperfections of the wall thickness or eventual variations of the plate, as well as the imperfections of the ground.

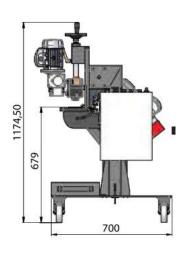


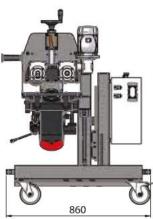


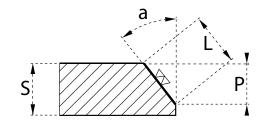
Edge 80 Reverse - Plate Bevelling Machine

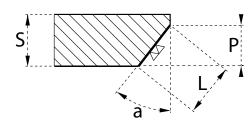
Technical Features				
Electric motor power	W	4000		
Tension	Volt	230 / 400*		
Frequency	Hz	50 / 60		
Face mill speed	rpm	820 (with opt. from 300 to 1500)		
Face mill type	-	Ø80mm - 9 inserti (inserts)		
Bevel angle	-	10° - 70°		
"J" bevel angle	-	0° - 30°		
Plate thickness	mm	Min. 6 - Max. 120		
Bevel diagonal length	mm	Min. 0 - Max. 80		
Travel speed	Mt./min.	0 ÷ 1,5		
Weight	Kg	300		
Acoustic emissions	dB	76		

^{*}Different voltage available on request









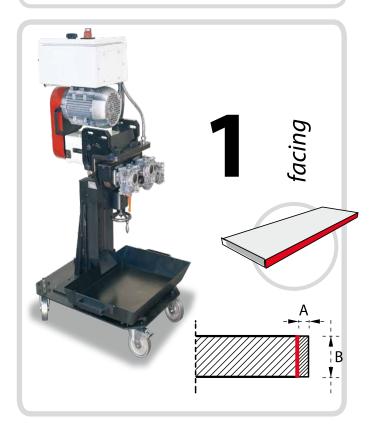
Bevel Angle	Max Plate W.T.	Max Bevel Performance*	
"a"	"S"	"L"max	"P"max
10°	120mm	74,7mm	73,57mm
15°	120mm	73,19mm	70,7mm
20°	120mm	72,37mm	68,01mm
22,5°	120mm	72,23mm	66,73mm
25°	120mm	72,25mm	65,48mm
30°	120mm	72,85mm	63,09mm
35°	120mm	74,25mm	60,82mm
37,5°	120mm	74,29mm	58,94mm
40°	120mm	76,57mm	58,66mm
45°	120mm	80mm	56,57mm
50°	120mm	76,57mm	49,22mm
55°	120mm	74,25mm	42,59mm
60°	120mm	72,85mm	36,43mm
65°	120mm	72,25mm	30,53mm
70°	120mm	72,37mm	24,75mm

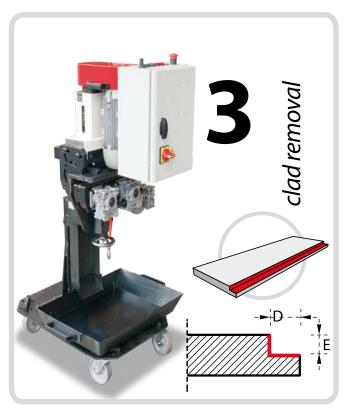
^{*}In multiple steps



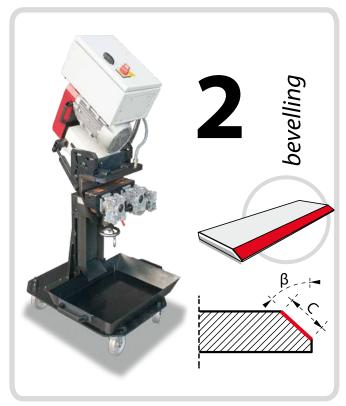
Range 6 - 60 mm (2/8" - 2 3/8")

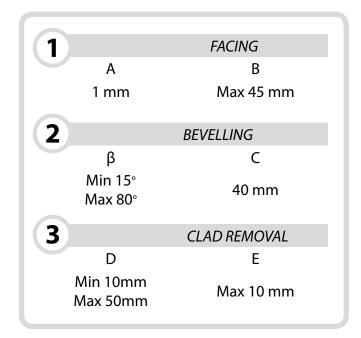
Compact and versatile machine with a wide functions range such as cladding removal, facing and bevelling of plates.







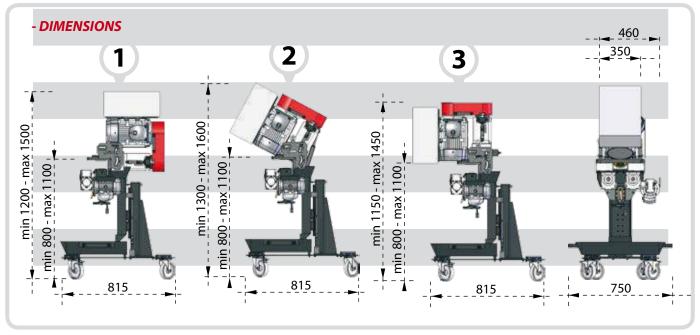






- TECHNICAL FEATURES

Electric motor power	W	3000
Tension	V	230/480
Frequency	Hz	50 / 60
Milling Head RPM	gg/min	800
Milling Head for bevel (Ø)	mm/n° inserts	80 - 9
Milling Head for Clad Removal	mm/n° inserts	80 - 8
Bevelling Angle		15° ÷ 80°
Clad removal width	mm	Min. 10 - Max 50
Max facing thickness	mm	Max 45
Plate Thickness	mm	Min. 6 - Max 60
Bevel Length (Diagonal)	mm	Min. 0 - Max 40
Feeding speed rate	mt/min	0 ÷ 1.6
Weight	kg	205
Head weight without trolley	kg	138
Trolley weight	kg	67
Max Acoustic Emissions in Idle	db	76
Media Max Acoustic Emissions in Idle	db	86







Locking Range 6-120mm (5/16" - 4 3/4")

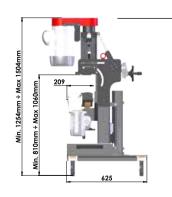
Multifunctional plate beveler equipped with an adjustable head that can be easily set in any configuration required for the specific application.



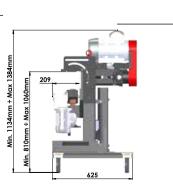
- Working range: plates with thickness from 6 to 120mm;
- Max diagonal bevel: 80mm;
- Suitable for: beveling; cladding removal; facing; J bevel;
- Adjustable head;
- Digital displays for the pass depth and for the angle tilt:
- Onboard speed regulator for both the linear feeding and the face mill RPM;
- Plate detecting sensor.



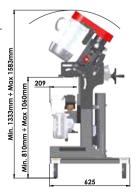
- DIMENSIONS



clad removal



facing



beveling



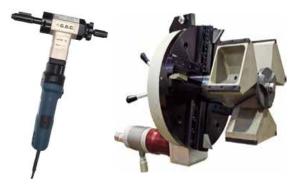


- TECHNICAL FEATURES	ELECTRIC	
Electric Motor Power	W	3000
Tension	Volt	230 / 400
Frequency	Hz	50 / 60
Milling Tool rpm	rpm	Min. 100 - Max 820
Bevel Angle Range		0° a 90°
"J" Bevel Angle Range		0° a 30°
Cladding Removal Width	mm	Min. 0 - Max 80
Plate Facing Max Wall Thickress	mm	Max 80
Wall Thickness Locking Range	mm	Min. 6 - Max 120
Bevel Diagonal	mm	Min. 0 - Max 80
Feeding Speed	mt/min	0 ÷ 1.6
Machine Weight	Kg	250
Idle Acoustic Emission @ 2mt distance	dB (A)	79
Acoustic Emission Peak @ 2mt distance	dB (C)	96









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