

# PLATE BEVELLERS



Pipe Beveling Machines  
Pipe Cutting Machines  
Grinding Machines  
Pipe Stands and Clamps  
Pipe Purging  
Plate Bevelers  
Heat Exchanger, Boiler & Bundle

 **GBC UK**   
THE CUTTING & BEVELLING EXPERTS





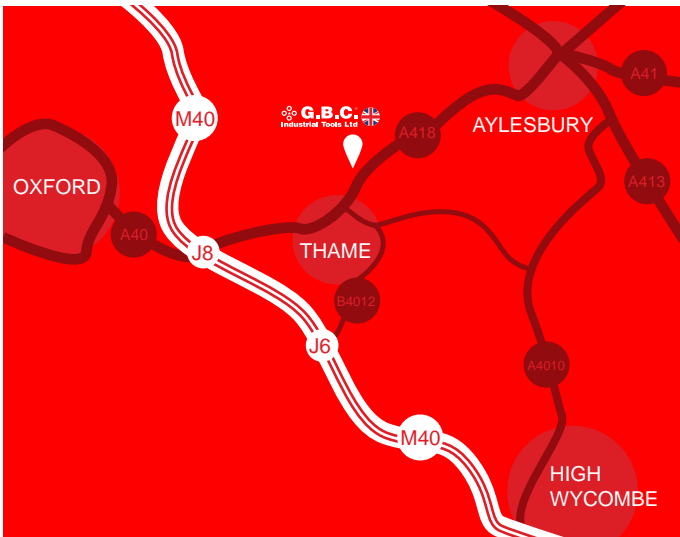
GBC INDUSTRIAL TOOLS LTD ARE THE 'PIPE EQUIPMENT SPECIALISTS' FOR THE SUPPLY OF PIPEWORK EQUIPMENT AND TOOLS.

Over the past 30 years our parent company GBC Industrial Tools Spa, has established itself as one of the world's 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

# GBC HANDYBEVEL

**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.

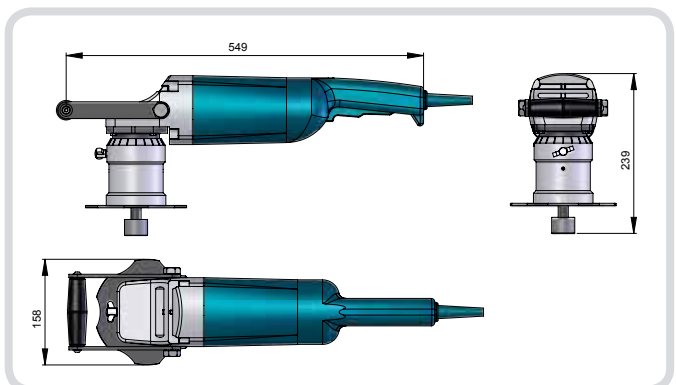
The **GBC HANDYBEVEL** is capable of executing bevels with the most common angles for which we can supply the respective face mill, it can bevel any material thanks to the different inserts available and can be employed for high productivity jobs delivering a maximum diagonal bevel length of 17mm.



## Technical Features

Power supply	230V /110v 50-60 Hz
Motor	2100W
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)
Bevelling angles	22.5, 30, 37.5, 45, 55 and 60 degrees
Plate thickness	minimum 2.0 mm
Dimensions	585 x 156 x 238 mm
Weight	8.8 kg

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



**22,5°**

**30°**

**37,5°**

**45°**

**55°**

**60°**



# GBC 210

## 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.

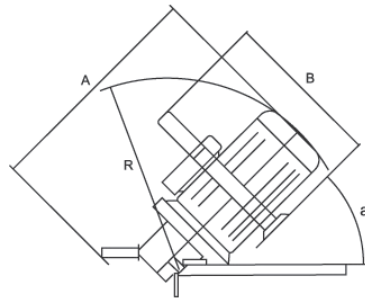
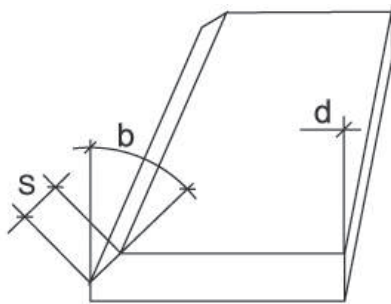


Plate facing attachment (optional)

A mm (")	B mm (")	R mm (")	S mm (")	Dmin mm (")	a (°)	b (°)	g (°)	d = 0°	weight 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



# Challenge 12

## Plate bevelling machine

Range w.t. 6-40 mm (1/4" - 1 1/2")



**RANGE:**  
1/4" TO 1 1/2" THICKNESS.

**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.

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.



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

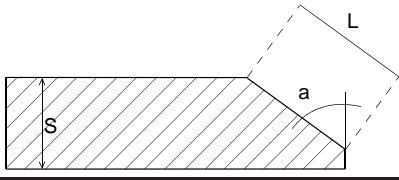


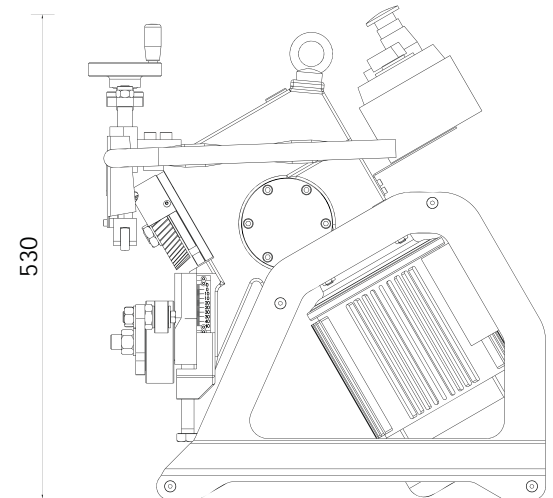
## Technical Features

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	¼" - 1 ½" / 6-40mm
Std bevel angle**	Degrees	30°
Weight	Kg	65

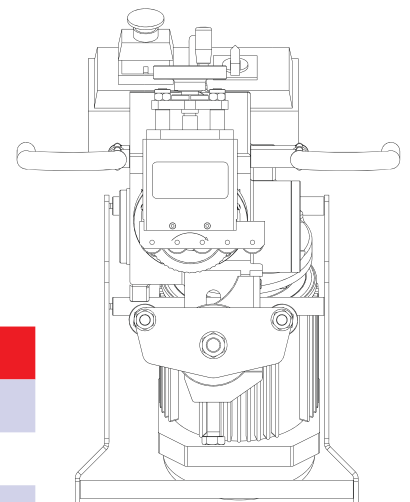
\*Different Voltage available on request

\*\* See optional chart for any different bevel angles

BEVEL CHART IN SINGLE OPERATION													
													
CARBON STEEL							STAINLESS STEEL						
R.	40Kg.		50Kg.		60Kg.		R.	50Kg.		60Kg.		70Kg.	
A	L	S	L	S	L	S	A	L	S	L	S	L	S
30°	12	10	10	8.5	8	7	30°	6	5	5	4.3	4.2	3.6
35°	12	9.5	10	8	8	6.5	35°	6	5	5	4	4.2	3.5
37.5°	12	9	10	7.5	8	6	37.5°	6	4.5	5	4	4.2	3.3
45°	12	8.5	10	7	8	5.5	45°	6	4	5	3.5	4.2	3



500



310

### 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 materials 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.

# Challenge 15

## Portable Plate Edge Beveling Machine



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

**Range:** ¼" – 1½" thickness

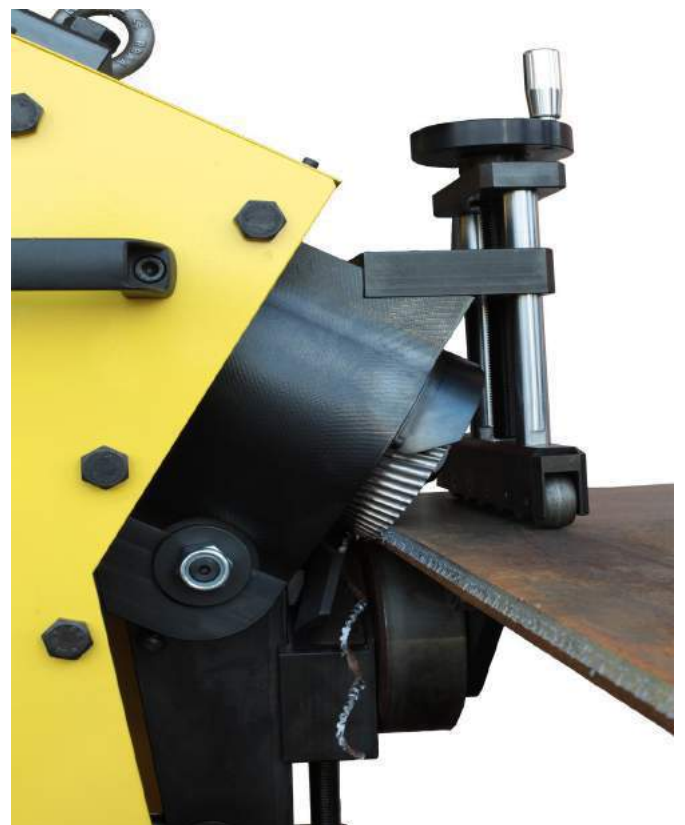
**Functions:** from 22½° to 55°

**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 beveling 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 beveling stainless steel and more exotic materials.



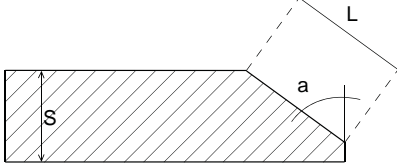
*Close up of the milling cutter*



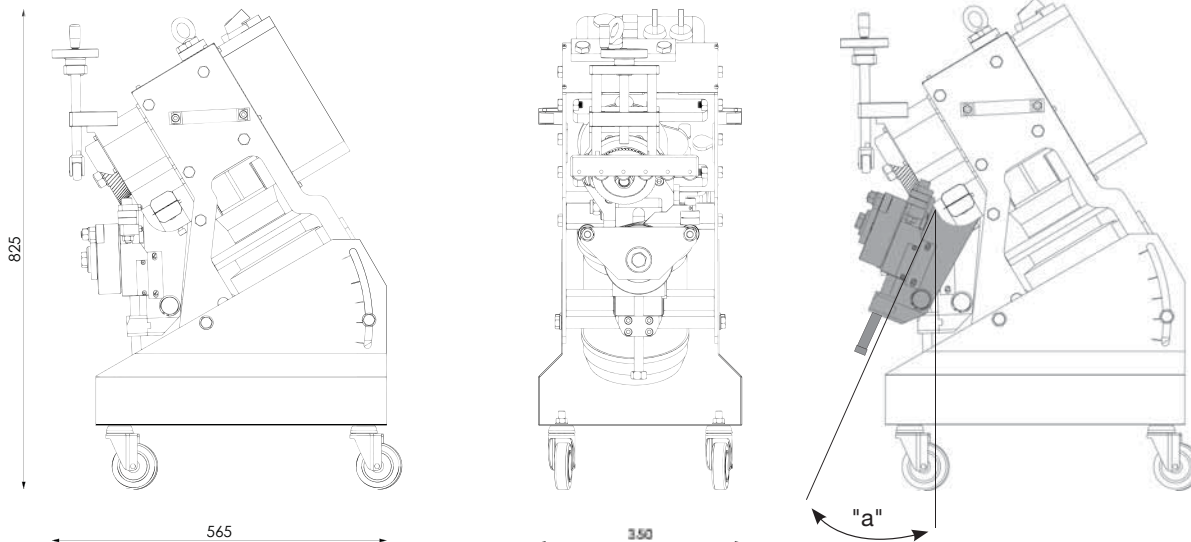
## Technical Features

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	¼" - 1 ½" / 6-40mm
Bevel angles	Degrees	22½° to 55°
Weight	Kg	104

\*Different Voltage available on request

BEVEL CHART		
		
Bevel Angle (a)	Max Width Across Bevel (L)	
	Carbon Steel	Stainless Steel
22½°	18mm	13mm
30°	18mm	15mm
37½°	17mm	12mm
45°	16mm	12mm
55°	14mm	10mm

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	

All CHALLENGE 15 units are supplied in wooden boxes for storage and transportation, complete with milling tool for carbon steel, angle, service wrenches, drawings, instruction manual and warranty certificate.

# compact **EDGE**

Range w.t. 6-60 mm (1/4" – 2 3/8")

Brand new plate beveling machine **Compact EDGE**, featuring a high speed face mill with interchangeable inserts, with reduced structural dimensions and weight for a more flexible and dynamic use.



← **STANDARD**

**SPECIAL** →



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

Range w.t. 6-60 mm (1/4" - 2 3/8")

## - TECHNICAL FEATURES

**compact  
EDGE**

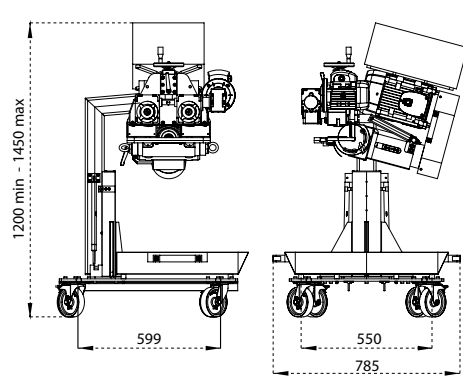
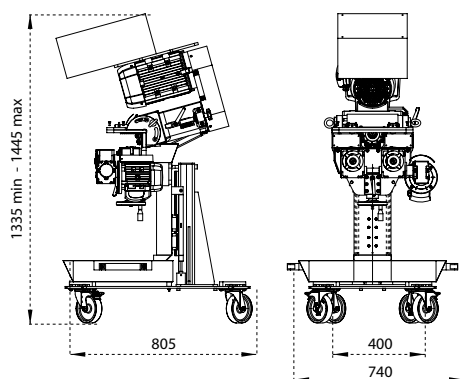
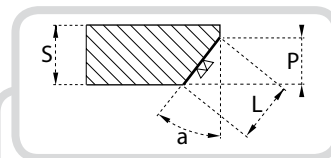
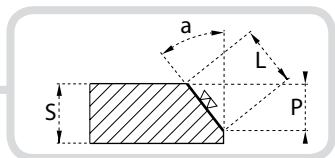
**compact  
EDGE  $\mathbf{\Psi}$ reverse**

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

\*Different voltage available on request

BEVEL ANGLE "a"	MAX PLATE W.T. "S"	MAX BEVEL PERFORMANCE*	
		"L"max	"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 <td 23,0 mm	
60°	60 mm	40 mm	20,0 mm

\*In più passate  
\*In multiple steps

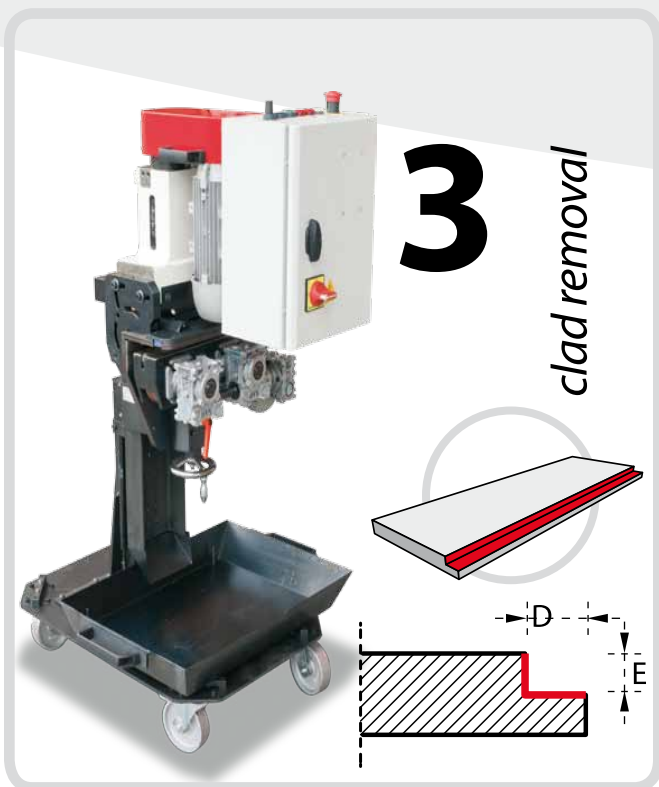
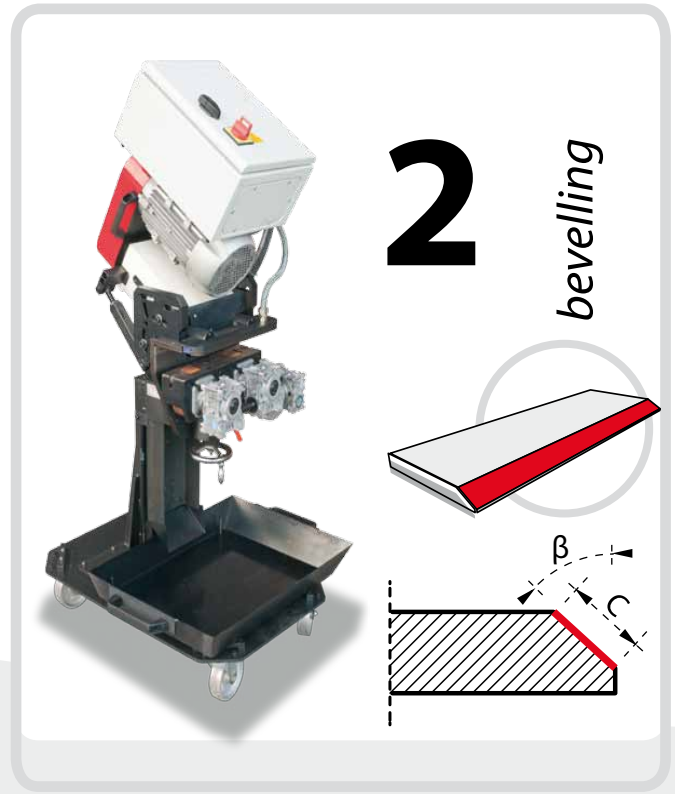
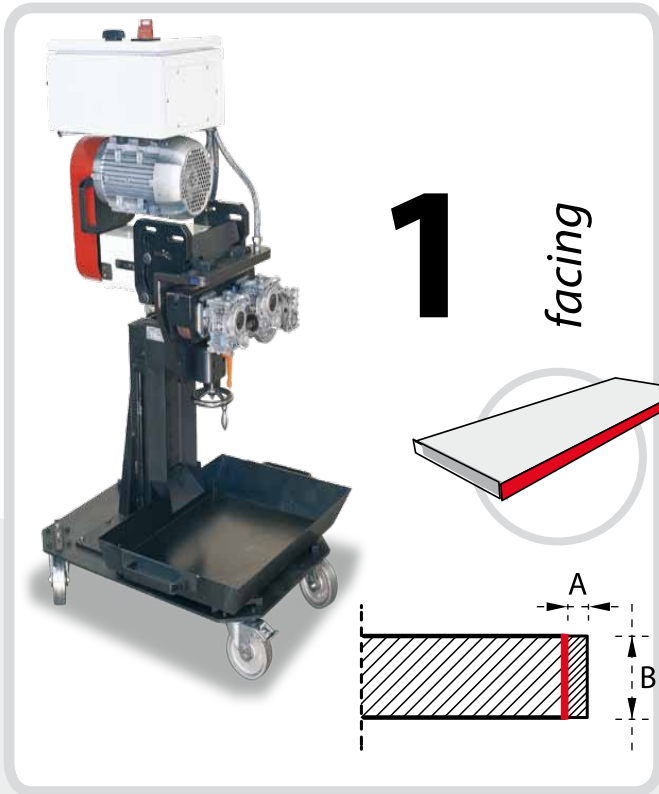


COMPACT EDGE

COMPACT EDGE  $\mathbf{\Psi}$ reverse

# Multi EDGE

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



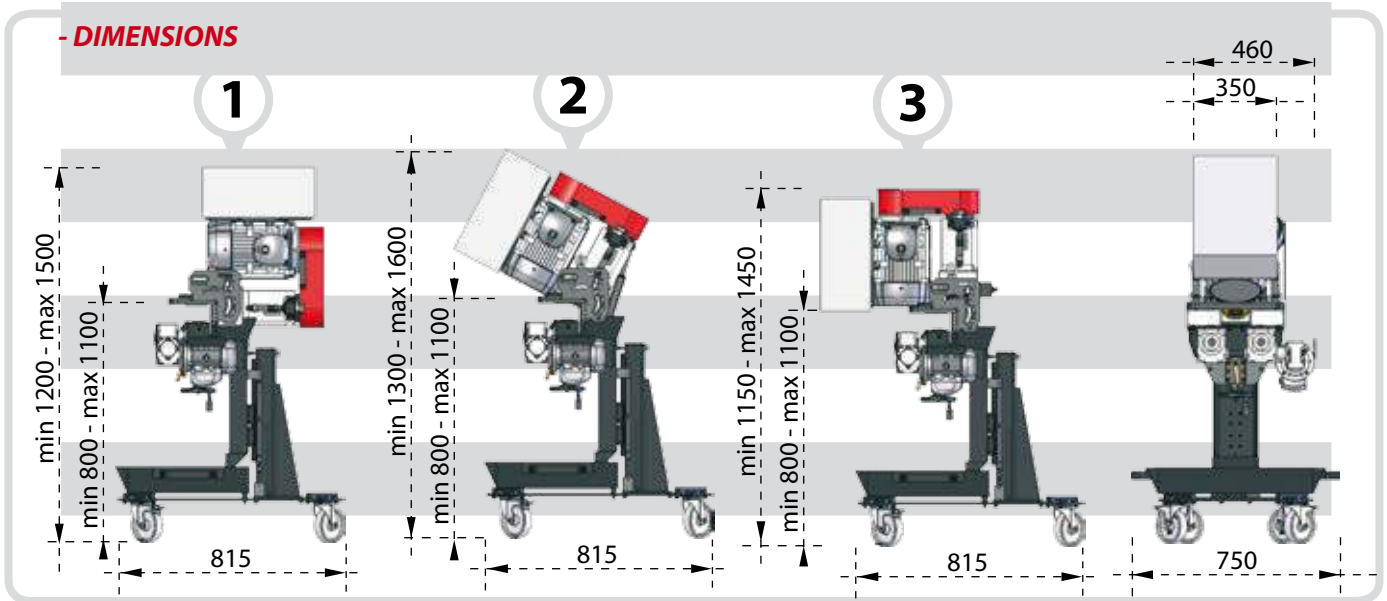
<b>1</b>	<b>FACING</b>
A	B
1 mm	Max 45 mm
<b>2</b>	<b>BEVELLING</b>
$\beta$	C
Min 15° Max 80°	40 mm
<b>3</b>	<b>CLAD REMOVAL</b>
D	E
Min 10mm Max 50mm	Max 10 mm

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

## - DIMENSIONS



# EDGE46 J

High speed Plate beveling machine with variable angle head



Range: 5/16" - 4 3/4" thickness (8-120mm)  
 Bevel Angle: from 15° to 60°  
 Materials: Any type of steel and aluminium  
 Power: Electric 3 phase



The Edge 46 High Speed plate beveling machine is the latest technology in portable plate edge beveling. The Edge 46 is the most powerful portable plate edge beveller in the world market place, capable of beveling plate thicknesses of up to 120mm with a maximum bevel width of an incredible 46mm - on any angle and any material!

Smooth weld ready bevels are achieved with minimum effort in the quickest possible times. There is no need to re-grind the bevel and no dust or fumes from the flame cutting. Also, due to the high speed bevel there is no thermal distortion, saving time and money.

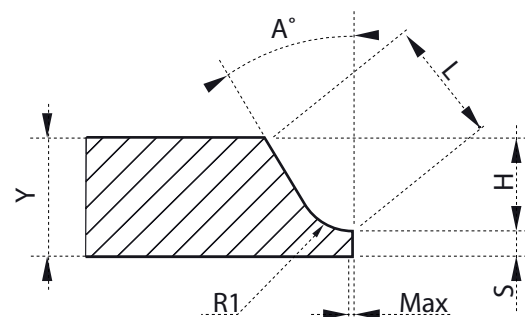
The Edge 46 has a unique design; special benefits and features include the variable angle bevel head from 15° to 60° this high speed, tipped insert, bevel head is powered by two 2.2KW 3 phase motors.

The Edge 46 is portable, it is easily manoeuvred on its 4 castor wheels, therefore eliminating the use of a crane or lifting device and for ease of set-up the Edge 46 is adjustable in height. All materials of plate can be machined, including Carbon steel, Stainless steel, Super Duplex and Aluminium.

The **Edge 46** produces bevels using an insert-type high speed milling head, enabling a high material removal rate, while keeping replacement consumable costs to a minimum. Beveling tips have 4 cutting edges and are available to machine all types of material.



The latest versions of the Edge46 can execute J bevels with various angles, by replacing the standard milling head with a head that accepts round inserts.

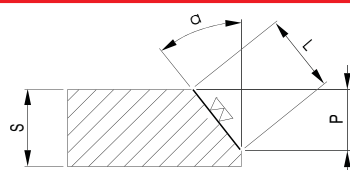


## Technical Features

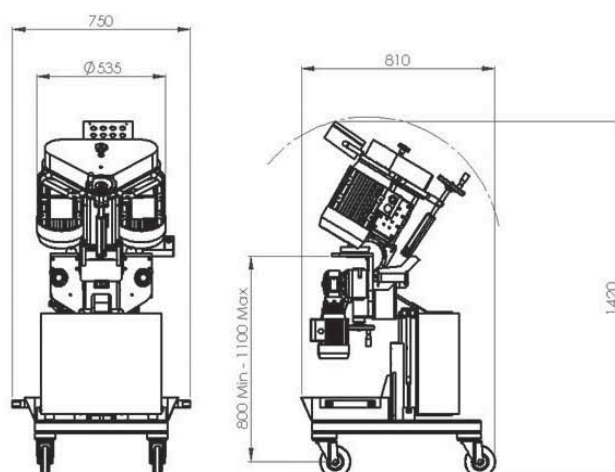
Power	Volts / Hz / Phase	380* / 50 / 3
Bevelling speed	Surface metres / min	2.4
Electric motor power	Kw	2.2
Plate thickness	Inches / Millimetres	¼" - 2 ⅜" / 6-60mm
Bevel angle	Degrees	15-60°
Weight	Kg	65

\*Different Voltage available on request

### BEVEL CHART



BEVEL ANGLE "A"	MAX PLATE W.T. "S"	MAX BEVEL SINGLE STEP "L"	MATERIAL REMOVAL RATE "Q"	MAX BEVEL PERFORMANCE "L" MAX "P" MAX
15°	60 mm	22 mm	664,9 g/1'	46 mm 44,5 mm
22,5°	60 mm	17,8 mm	659,5 g/1'	46 mm 42,5 mm
30°	60 mm	16 mm	652,6 g/1'	46 mm 39,8 mm
37°30'	60 mm	14,5 mm	597,8 g/1'	46 mm 36,5 mm
45°	60 mm	14 mm	577 g/1'	46 mm 32,5 mm
55°	60 mm	14,9 mm	614,1 g/1'	46 mm 26,4 mm
60°	60 mm	16,2 mm	624,4 g/1'	46 mm 23,1 mm



### Ordering Information

### Part No.

Edge46

ED46E00

Milling head

12-690-000-00003

Cutting inserts for Carbon Steel (Pk 10)

11-400-900-15045

Cutting inserts for Stainless Steel (Pk 10)

11-400-900-15080

Cutting inserts for other materials available on request







# GBC Rental

We are the leading supplier of rental pipework fabrication equipment and we have an unrivalled range and quantity of equipment available off the shelf; from pipe bevelling and cutting to tube pulling and expanding, including:

- Pipe and Plate Bevelling Machines
- Pipe Cutting Machines
- Pipe Clamps and Stands
- Bundle Pullers
- Tube Expanding Machines
- Rolling Motors for Tube Expanders
- Tube Pulling Machines
- Reciprocating Saws
- Orbital Pipe Saws
- Flange Facing Machines

Our hire fleet is constantly expanding and improving and is offered not only in the UK, but anywhere in the world.

CALL +44 (0) 1844 201 555 OR EMAIL [HIRE@GBC-UK.COM](mailto:HIRE@GBC-UK.COM)



GBC Industrial Tools Ltd  
7 Drakes Drive  
Crendon Business Park  
Long Crendon  
HP18 9FE

T: 01844 201 555  
F: 01844 201 454

[sales@gbc-uk.com](mailto:sales@gbc-uk.com)  
[www.gbc-uk.com](http://www.gbc-uk.com)