

## BEVELLING CUTTERS AND TOOLS



## ACCURATE - EFFICIENT - EFFORTLESS



TEES

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# Ideally suited for welding preparation, chamfering and radii profiling

Welding metal is a skilled, physically demanding and time-consuming job. The quality of the weld preparation is key to ensure a strong weld. Similarly, the rounding of edges on metal has never been so important to ensure compliance with safety regulations.

You can now chamfer and round edges more **accurately** and more **efficiently** with the Karnasch Bevelling Cutters and Tools. Make an **accurate, precise** smooth angle or radius in just one simple **effortless** step.

#### **FEATURES & BENEFITS**

- Cutters can be used for bevelling and chamfering edges as well as rounding the edges with a perfect precise radius
- ✓ Cutters are applicable on Steel and Stainless-Steel applications
- Consistent results for angle or rounding applications, higher level of workpiece uniformity achievable
- Accurate and effortless process to create welding edges or machined chamfers
- Reduced vibration and noise levels compared to grinding or tools with inserts
- Reduction in air pollution and sparking around the working environment caused by 'fine dust particles'
- Reduced downtime when changing consumables compared to tools with inserts
- ✓ Minimal heat transmission into the workpiece
- Prevents discoloration and creates a clean surface that does not require additional treatment

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#### INDUSTRIES

- Welding
- Offshore
- Pipeline
- Shipbuilding
- Marine
- Steel construction
- Bridge building
- Vessel production
- Tank building

#### APPLICATIONS

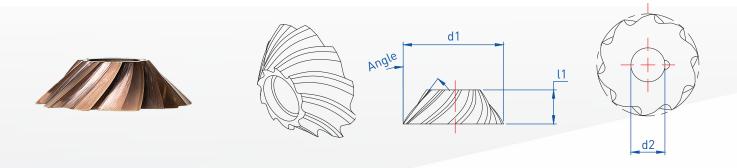


- Weld preparation
- Deburring
- Countersink connections
- Bevel heads are available with angles of 30° | 37.5° | 45°



- Paint / coating adhesion
- Smooth finish
- Cable feed
- Radius cutters are available with a radius (R=mm) of R2, R3, R4, R6, R8 cutters

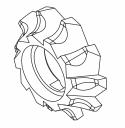
### **Angled Cutter Range**

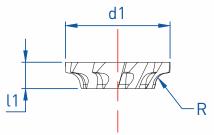


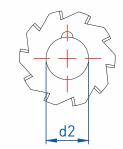
Material Code	Description	Angle	d1 (mm)	L1 (mm)	d2 (mm)
131000-010	30-08	30°	27.1	8.0	12.0
131000-020	30-12	30°	31.1	12.0	12.0
131000-030	37-08	37.5°	29.1	8.0	12.0
131000-040	37-12	37.5°	35.9	12.0	12.0
131000-050	45-06	45°	22.0	6.5	9.0
131000-060	45-08	45°	33.0	8.0	12.0
131000-070	45-12	45°	41.0	12.0	12.0

### **Radius Cutter Range**









Material Code	Description	Radius (R)	d1 (mm)	L1 (mm)	d2 (mm)
131010-010	R2-06	R2	22.0	6.5	9.0
131010-020	R2-08	R2	27.0	7.0	12.0
131010-030	R3-06	R3	22.0	6.5	9.0
131010-040	R3-08	R3	27.0	7.0	12.0
131010-050	R4-06	R4	23.0	6.5	9.0
131010-060	R4-08	R4	28.0	7.0	12.0
131010-070	R6-10	R6	33.0	10.0	12.0
131010-080	R8-12	R8	39.0	12.0	12.0

#### BENEFITS

- Solid carbide bevel heads for a long service life
- Concentricity improves lifetime of cutters
- Higher level of uniformity and fitting
- New: Tisinos<sup>®</sup> coating results in an increased cutter life and improved surface finish

#### APPLICATION MATERIALS

Steel		Stainless Steel	Non-Ferrous	
S235	S235 >S355 Plasma / Laser Cut		S304	
Excellent		Good	Not advisable	

## **Bevelling Air Tools**

Bevel faster with the range of Karnasch bevelling air tools. The tools have an excellent power to weight ratio, offering consistently high quality cutting with minimal physical effort.

The bevel can be adjusted to various depths easily and can be replaced very quickly.

For lighter bevelling and radius work, up to a depth of 6mm, Karnasch offers the P25-BT (130100) and SM16-BT (130110). Specially designed for quick rounding of small sheets, pipes and holes, with depth adjustments of 0.125mm increments, the tools are precise and easy to use.

Designed for heavy-duty bevelling up to a depth of 12mm or radius work up to 8mm, with depth adjustments of 0.25mm increments, the RA14-BT (130120) offers a powerful 1.5HP motor ensuring that even the most physically demanding and time-consuming work is completed more efficiently.



A 😂 CE 6.3 Bar Max

Adjustable flange can cater for various cut depths

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TOOL







130110 SM16-BT

130120

RA14-BT

#### **Bevelling Tool Specifications**

Model	P25-BT	SM16-BT	RA14-BT	
Product Code	130100	130110	130120	
Motor	Pneumatic	Pneumatic	Pneumatic	
Max. Depth (mm)	±3mm at 45°	6	12	
Air Pressure (bar)	6.3	6.3	6.3	
Air Consumption (m <sup>3</sup> /min)	0.63	0.62	1.13	
Power (W)	375	820	1100	
Max Speed (rpm)	25,000	16,000	9,000	
Weight (kg)	1.07	1.33	4.40	
For Radius (mm)	R2   R3   R4	R2   R3   R4	R2   R3   R4   R6   R8	
For Bevels	45°	45°	30°   37.5°   45°	
Min Opening for Bevelling (mm)	22	22	41	
Min Opening for Rounding (mm)	16	16	22	



#### • Spindle Lock Button

Allowing for a quicker cutter change

#### • Flange Plate

Nitride hardened, scratch resistant flanges for improved sliding capability



130100

P25-BT

#### BENEFITS

- Concentricity for a smoother cut increasing the lifetime of the cutter
- Reduced vibration results in improved operator comfort
- Spindle lock button allows for quick and easy cutter replacement
- Nitride hardened (QPQ), scratch-resistant flanges for improved sliding capability

## **Bevelling Electric Tools**

Designed for heavy-duty bevelling up to a depth of 12mm and radius work up to 8mm, the Karnasch electric machines are versatile, compact and powerful, offering consistently high quality cutting with minimal physical effort.

Available in 120 volt the 130200 is fitted with a UK 3-Pin Industrial Plug, and the 230 volt 130210 is fitted with a 2-Pin EU Plug, both delivering an impressive 1.53kW of power.

When coupled with the unique design of the Karnasch bevel heads you can chamfer and round more quickly compared to other conventional methods. The bevel head can be easily adjusted to various depths by adjusting the flange head height in increments of 0.25mm and can also be replaced very quickly. The flange head design includes a nitride hardened flange plate for improved sliding capability.

#### Variable Speed o-

#### Flange Plate

-

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Nitride hardened, scratch resistant flanges for improved sliding capability o



#### **Bevelling Tool Specifications**

Model			
Product Code	130200	130210	
Motor	Electric	Electric	
Max Bevel Depth (mm)	12	12	
Power (kW)	1.53	1.53	
Voltage (V)	120	230	
Plug Type	UK 3-Pin Industrial	EU 2-Pin	
Speed (rpm)	5000 - 10000	5000 - 10000	
Weight (kg)	4.5	4.5	
For Radius	R2   R3   R4   R6   R8	R2   R3   R4   R6   R8	
For Bevels	30°   37.5°   45°	30°   37.5°   45°	
Min. opening diameter for bevelling (mm)	41	41	
Min. opening diameter for rounding (mm)	22	22	



#### Spindle Lock Button

Allowing for a quicker cutter change

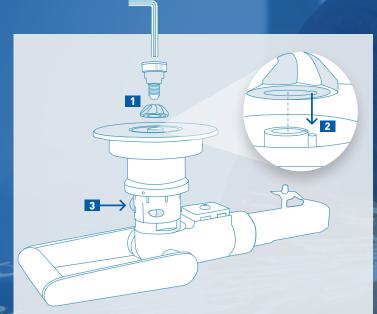
#### Flange Head

Adjustable flange can cater for various cut depths

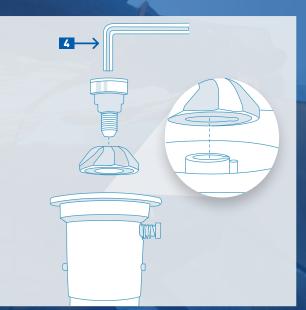
#### BENEFITS

- Powerful 1.53kW motor with variable speed
- Concentricity for a smoother cut increasing the lifetime of the cutter
- Reduced vibration results in improved operator comfort
- Spindle lock button allows for quick and easy cutter replacement
- Nitride hardened (QPQ), scratch-resistant flanges for improved sliding capability

## How-to Guide - Air Tool

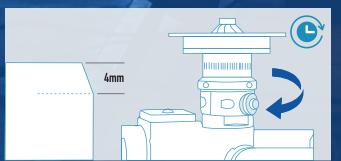


- 1 Place bevel cutter onto the adaptor
- **2** The pin on the adaptor should align with the pinhole on the cutter
- **3** Lock the spindle using the lock button



- 4 Tighten the guide bearing using the hex key provided
- **5** Complete a free run test of the tool
- 6 When changing to a new cutter always ensure you use a new bearing (supplied)





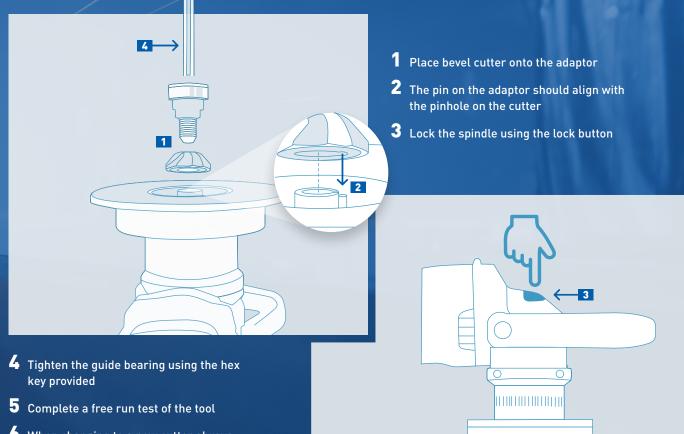
- ightarrow 1 click is equal to 0.25mm
- → Therefore, 1mm adjustment requires 4 clicks
- → Maximum single pass cut of up to 4mm

### **Straight Tools**

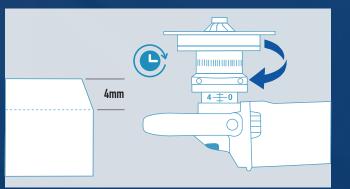


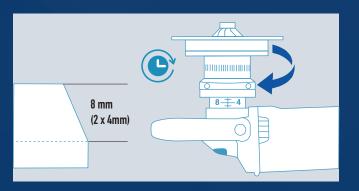
- ightarrow 1 click is equal to 0.125mm
- → Therefore, 1mm adjustment requires 8 clicks
- → Maximum single pass cut of up to 3mm

## How-to Guide - Electric Tool



6 When changing to a new cutter always ensure you use a new bearing (supplied)

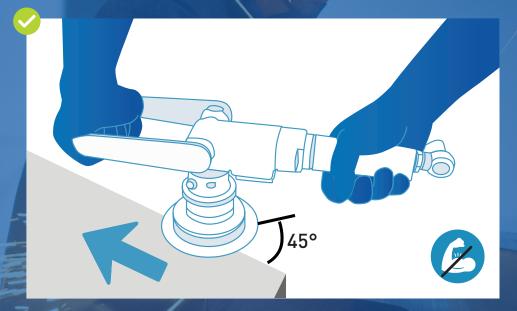




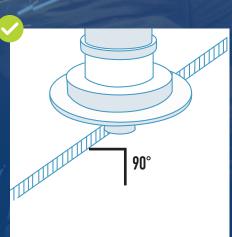
- $\rightarrow$  1 click is equal to 0.25mm
- → Therefore, 1mm adjustment requires 4 clicks
- → Maximum single pass cut of up to 4mm

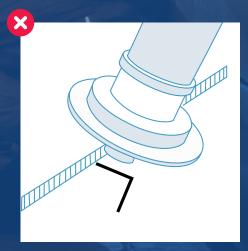


- → When bevelling, approach the workpiece at a 45° angle.
- → Ensure that the flange head is flat on the workpiece.
- ightarrow Do not use excessive force.



→ To ensure a precise, uniform and consistent cut, the flange head must be flat on the workpiece.





- → For internal grinding use the tool in a clockwise motion.
- → For external grinding use the tool in an anti-clockwise motion.





### Cutter and Tool Matrix

Bevel Head Description	Bevel Head Part Number	For Radius	For Chamfer	Bevel Tool Part Number	Replacement Guide Bearing Code
Karnasch Bevel Head 30-08	131000-010		30°	130120   130200   130210	801-058-00
Karnasch Bevel Head 30-12	131000-020		30°	130120   130200   130210	801-060-00
Karnasch Bevel Head 37-08	131000-030		37.5°	130120   130200   130210	801-058-00
Karnasch Bevel Head 37-12	131000-040		37.5°	130120   130200   130210	801-058-00
Karnasch Bevel Head 45-06	131000-050		45°	130100   130110	801-057-00
Karnasch Bevel Head 45-08	131000-060		45°	130120   130200   130210	801-058-00
Karnasch Bevel Head 45-12	131000-070		45°	130120   130200   130210	801-060-00
Karnasch Bevel Head R2-06	131010-010	R2		130100   130110	801-057-00
Karnasch Bevel Head R2-08	131010-020	R2		130120   130200   130210	801-059-00
Karnasch Bevel Head R3-06	131010-030	R3		130100   130110	801-057-00
Karnasch Bevel Head R3-08	131010-040	R3		130120   130200   130210	801-059-00
Karnasch Bevel Head R4-06	131010-050	R4		130100   130110	801-057-00
Karnasch Bevel Head R4-08	131010-060	R4		130120   130200   130210	801-059-00
Karnasch Bevel Head R6-10	131010-070	R6		130120   130200   130210	801-061-00
Karnasch Bevel Head R8-12	131010-080	R8		130120   130200   130210	801-061-00





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