Twister



Pipe edge bevelling tool (Instructions valid for versions 2-4500, 2-3705 and 2-3000)



Dear Customer, Congratulations on your purchase of the Twister.

Instructions for use

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Destination

The Twister tool is a tool designed for machining pipe ends to prepare weld surfaces or deburring the pipe. The Twister is designed for use with N.KO Machines B15 Electra and B15 AIR machines. Alternatively B10 Electra. The Twister tool has been developed for machining iron, carbon structural steel, non-ferrous metals and plastics.

Safety Policy

Attention!

Please read the following instructions carefully to prevent personal injury or damage to property.

- Never attempt to work with the tool until you have thoroughly familiarized yourself with the way it
 works. If you are still in doubt after carefully and completely reading this manual, contact your
 supplier.
- Ensure that all technicians who are to use the tool and perform maintenance or adjustments are fully familiar with the manual and all relevant safety recommendations.
- The device must only be installed by authorized personnel in accordance with the instructions in this manual.
- Before starting work, the operator must ensure that all safety devices are operational and that all safety covers are fitted. It is forbidden to use the Twister without them!
- Never use the product for purposes other than those listed in the manual. Never process materials or workpieces other than those specified.
- Contact your supplier for permission before using the product for purposes other than those listed.
- Always wear personal protective equipment when working with the Twister. In particular, work gloves, steel-toed boots, safety glasses, work goggles or a shield and a safety helmet. It is strongly recommended to wear clothing with long sleeves and trousers.
- Never clean or adjust the Twister while it is mounted on the machine and the machine is connected to the power supply. Always perform these operations only when the Twister is removed from the machine or the machine is disconnected from the power supply. Only perform any manipulation of the cutting blades or mandrels when the Twister is removed from the machine or the machine is disconnected from the power supply.
- Do not attempt to repair or modify the instrument in any way. Otherwise the manufacturer disclaims liability for any damages. This will also void the warranty. Always contact an authorized service center or the supplier of the equipment if you have questions.

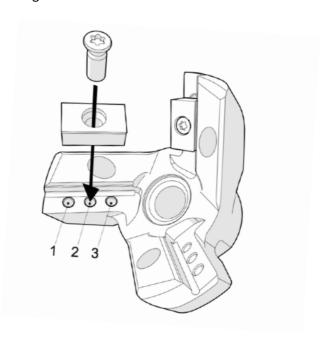
Technical data

Version version	2-3000	2-3705	2-4500
Minimum diameter of the pipe to be machined	19.5mm. (0.76")	19.5mm. (0.76")	19.5mm. (0.76")
Maximum diameter of pipe to be machined	70mm. (2.75")	66mm. (2.59")	60mm. (2.36")
Angle of collision	30 st.	37.5 st	45 st
Maximum bevel width capacity	10mm		
Number of cutting inserts	3	3	3
Number of mounting positions	3	3	3
Tool weight (fully assembled, including guide mandrel)	+/- 450g.	+/- 450g.	+/- 450g.
The package contains	 Twister tool fitted with cutting slices. Set of guide mandrels - 19mm (0.74"), 24mm (0.94"), 32mm (1.25"), 38mm (1.49"), 49mm (1.92"). Tools for the operator 		
Order No.	27200	27201	27202

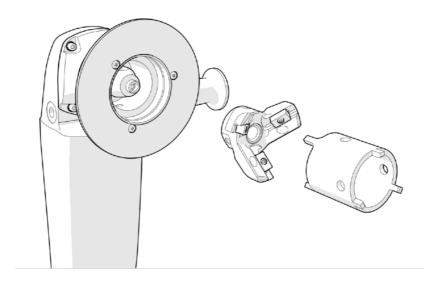
Build the tool

Twister tools are supplied in sets according to the working angle. Available in sets of 30 st. / 37.5 st. / 45 st. The tool is already factory fitted with cutting inserts Order No. 28015.

Before use, it is necessary to adjust the position of the slice so that the cutting edge of the slice is safely in the area of the wall of the pipe to be machined. In other words, the radius of the working edge position relative to the axis of the Twister tool must be adjusted according to the radius of the pipe being machined. Use one of the three mounting holes in each arm of the Twister tool to set the correct slice position.



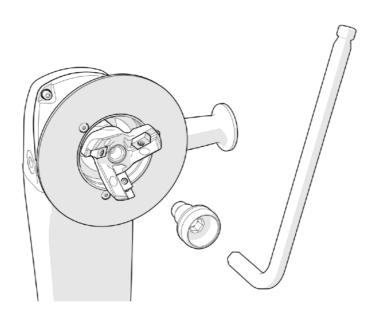
Now you have to mount the prepared tool on the B15 Electra, B15 AIR or alternatively on the B10 Electra. Screw the Twister tool onto the spindle of the machine and tighten sensitively with the supplied pipe wrench.



Before using the tool itself, it is still necessary to fit the tool with the correct guide mandrel. The main task of the guide mandrel is to stabilize the tool inside during machining. For this reason, always select the diameter of the guide mandrel closest to the smaller, inner diameter of the pipe to be machined. Guide mandrels are available with outer diameters of 19mm (0.74"), 24mm (0.94"), 32mm (1.25"), 38mm (1.49"), 49mm (1.92").

Fit a suitable mandrel into the threaded hole located in the axis of the tool. Tighten the guide mandrel properly with the included inbus wrench.

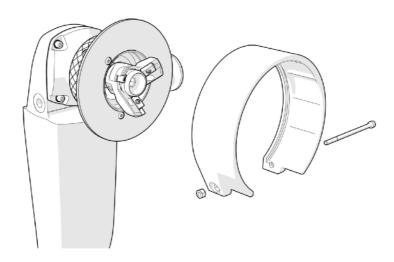
The manufacturer, N.KO Machines, also offers the production of custom-made mandrels, with working diameters made exactly according to the specific pipe to be machined. Ask your supplier.



Safety cover

The Twister must only be used with the safety cover. The safety cover is not included in the Twister kit. It must be purchased separately. The safety cover can be purchased under order number 27409 from your supplier. The safety cover protects the operator from flying splinters.

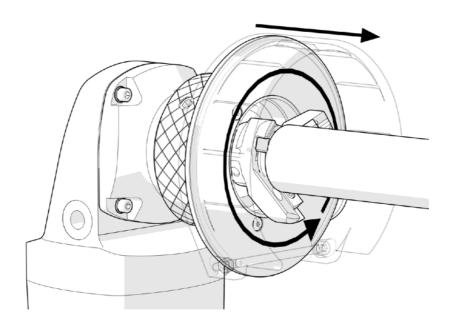
The safety cover is installed on the backing plate of the B15 ELECTRA, B15 AIR and B10 Electra. When installing the cover, open it slightly and place it on the backing plate as shown in the picture below. The gap in the cover must be in the down position. This is the point through which the chips fall out. Finally, we recommend securing the cover with a screw (screw not included with the cover).



Machining

The tube to be machined must be properly clamped, for example in a vice, so that machining is safe. The drive must be equipped with a side handle. Hold the drive with both hands! Place the machine with the Twister tool on the pipe so that the guide mandrel is partially inserted into the machined pipe, but the cutting slices are not yet touching the edge of the machined pipe. Now switch on the machine and wait until it reaches full speed. Then start machining by pushing the machine with the Twister tool towards the edge of the pipe to be machined.

ATTENTION! The axis of the Twister tool must be parallel to the axis of the pipe to be machined. Otherwise, the bevel will be uneven and the tool may jam on the pipe. This can be dangerous for the machine or for the operator. Keep the Twister tool pressed against the pipe until the desired machining is achieved. Then remove the machine with the Twister tool from the pipe to be machined and switch off the machine.



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