



Special,

for materials with a high rigidity (e.g. stainless steel, alloy-carbon steel)



Standard. for mild steel



Special, for weak Materials (e.g. Aluminum, Plastics)

for drills (HSS and solid carbide) diameter 7 – 20 mm (option ø 3 – 8 mm and ø 20 – 30 mm) with $90^{\circ} - 140^{\circ}$ tip angle

quick, simply, exactly, opportunity

Specifications for EASY-POINT-GRINDER EPG-1

Tip-angle step less adjustable between	90° – 140°
Standard collet-set for drills diameter	7 – 20 mm
Optional collet-set for drills diameter	3 – 8 mm
Optional collet-set for drills diameter	20 – 30 mm
CBN-grinding wheel for HSS drills	Ø 118 mm
Opt. DIAMOND-grinding wheel for carbide drills	Ø 118 mm
Brush-less electrical motor	250 Watt
Spindle speed	2900 RPM
Electrical input specifications	230 Volt 50 Hz
Weight	ca. 22 Kg / 45 lbs

Re-sharpen your drills according to your materials and your machining conditions!

How to re-sharpen your drills on the all new easy-point-grinder EPG1



The clamping system

Choose the corresponding collet (1) for your drill. Place the collet in a 45° angle in the collet-chuck-screw (2). Screw on the collet-chuck-nut (3).



Stop block Line up bracket Flat surface lined up with 2 dowels



clamping-screw





Flat surface lined up with 2 dowels

Clamp the drill and line it up

Insert the assembled collet-chuck into the line-up station. Rotate the collet-chuck to position the flat surface of the collet-chuck-nut parallel to the two dowel-pins and the line-up station, thus to allow the collet-chuck to fully insert the line-up station. Adjust the setup-screw (4) to match the web-thickness of the drill to be re-sharpened (estimated or measured with a caliper) For this rotate the setup-screw clock-wise until it stops. Turning counter-clock-wise you can now adjust the correct web-thickness. Insert the drill to be re-sharpened from the back into the precision collet. Rotate the collet-chuck-screw clock-wise until its nearly clamped but still able to be turned. Now slip the drill forward to touch the stop-block and rotate the drill clock-wise to line it up against the line-up bracket. To finish this operation, clamp the drill while rotating the collet-chuck-screw clock-wise.

Setting the tip-angle

Loosen the clamping-screw above the tip-angle-scale (counter clockwise) about half a turn. Adjust the machine to the necessary tip-angle. Tip-angle data can be found in the specification sheets of your drills. Tighten the clamping-screw above the tip-angle-scale (clockwise). No excessive torque is needed!

General-rules: Materials with higher rigidity can be machined better with drills ground with a bigger tipangle and vise versa.

Grinding of the drill (cutting-lip and tip-angle)

Put on your safety-glasses. Switch the machine on.

Slide the collet-chuck into the grinding-station. Rotate the collet-chuck to position the flat surface of the collet-chuck-nut parallel to the two dowel-pins and the line-up station, thus allowing the collet-chuck to be fully inserted into the grinding-station. Slowly move the collet-chuck forward against the rotating grinding-wheel while rotating it clockwise and counter clockwise between the two stops inside the grinding-station. After you reached the final axial position, rotate the collet-chuck a few more times. You will hear the grinding noise decrease. Retract the collet-chuck out of the grinding-station until you can rotate it 180° and grind the second cutting-lip.

Web-thinning

Swivel the transparent safety-guard out of the way. Slide the collet-chuck into the web-thinning-station. Rotate the collet-chuck to position the flat surface of the collet-chuck-nut parallel to the two dowel-pins and the line-up station, thus allowing the collet-chuck to be fully inserted into the web-thinning-station. Slowly move the collet-chuck forward against the rotating grinding-wheel while rotating it clockwise and counter clockwise between the two stops inside the web-thinning station. After you reached the final axial position rotate the collet-chuck a few more times. You will hear the grinding noise decrease. Retract the colletchuck out of the web-thinning-station until you can rotate it 180°. Now you are ready to grind the second web-thinning. With the setup-screw (5), you can adjust the depth of the web-thinning.

General-rules: Materials with lower rigidity can be machined better with drills having a deeper web-thinning. (see frontpage)

berger technologie GmbH

BERGER technologie GmbH C.F.L. Lohnerstrasse 28E CH-3645 Gwatt / Thun Phone + 41 (0) 33 336 15 66 Fax +41 (0) 33 336 16 66 Mail info@bergertech.ch www.bergertech.ch