Deep hole drilling excellence!

Machining data

<table>
<thead>
<tr>
<th>Material: Aluminium</th>
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<tbody>
<tr>
<td>Dc = 3 mm SC drill (4 mm shank)</td>
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<tr>
<td>Reduction sleeve HS 20/4.0 mm</td>
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<tr>
<td>N = 8 500 rpm</td>
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<tr>
<td>Vf = 0.127 mm/rev</td>
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<td>Drilling depth = 90 mm (30xD)</td>
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Collet chuck ER 32 | ETP ECOGRIP 20/ER32

TIR = 0.010 mm | TIR = 0.0025 mm

Setup time: 30 min. | Setup time: 5 min.

ETP ECOGRIP ER
- toolholder meeting the challenges of deep hole drilling.

Efficient production of deep holes can present workshops with a number of challenges. To produce a final product of great quality while keeping your costs under control, you must achieve accuracy, repeatability, a good surface finish as well as a reasonable and predictable tool life. Choosing the best drill for the job is one thing, selecting the best toolholder another.

Runout challenge

Deep-hole drilling challenges may include the evacuation of chips as well as correct choice of coolant. However the most important challenge of deep hole drilling is maintaining control of the runout, which increases with cutting tool length. A more accurate method of toolholding, using the adjustable ETP ECOGRIP ER holder can help you compensate for the increasing runout from longer tools.

Lowered production costs

Our customer manufacturing high quality valve components was faced with ever increasing cost due to breakage of expensive drills. Using an ER32/CAT40 collet holder in combination with a 3 mm SC drill with 30xD machining length resulted in bad runout values up to 10 microns.

After initial drill setting the runout would increase during turret tool changes. Also every time the drill had to be changed in the collet chuck, the setup process would start all over again, taking up to 30 min each time.

ETP ECOGRIP ER

With the introduction of the adjustable high precision tool holder from ETP, ECOGRIP ER, tool setup time and changes are now heavily reduced. Tools are set to 2.5 microns of runout within 5 minutes. Runout accuracy is maintained after several drill changes in the holder and after drilling over 2 000 holes.

With the help of the 3 adjustments screws in ETP ECOGRIP ER the tool runout can easily and accurately be set within a few minutes. The hydraulic centering and fastening helps to achieve perfect repeatability.

All in all allowing the customer to benefit from improved hole and part quality, eliminated drill breakages resulting in longer tool life, reduced set-up times and lowered production costs!

Benefits and features

- Compact holder design
- For long over-hang applications - possibility to dial in the requested TIR.
- Quick and Easy handling

3 mm SC Drill for aluminium, 30xD, - achieving runout of 0.0025 mm in combination with ETP ECOGRIP ER adjustable toolholder