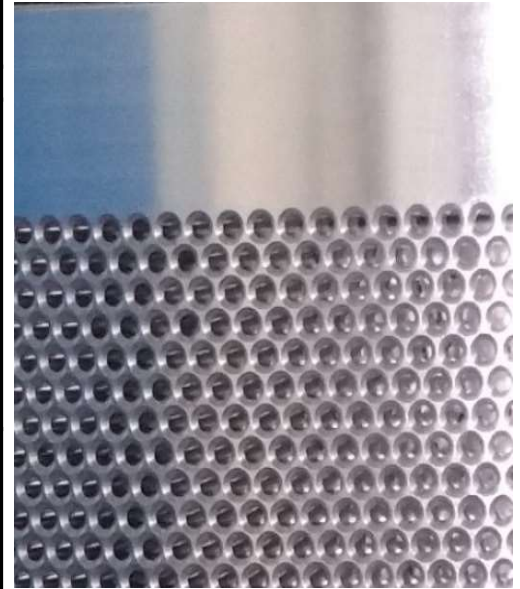




Drilling - Field Test Report

Test Summary Success[over 110%] (X) / Equal[100~110%] () / Failed[Under 100%] ()

| | | | | | |
|----------------------|--------------------|---------------------------------|--|---|---------------|
| Country | | Test Date | | Reporter | YG-1 Poland |
| Customer information | Company name | XXXX | | Workpiece information | |
| | Address | XXXX | | Material | X22Cr MoV12-1 |
| | Department | XXXX | | Size(mm) | |
| | Person in charge | Jakub Porajski from YG-1 Poland | | Hardness (HB) | |
| Machine information | Maker | | | Picture see RIGHT. The part are filters | |
| | Type | ECOCUT | | | |
| | Power (kW) | | | | |
| | Clamping Condition | Good | | | |
| | Machine Condition | Good | | | |
| Machning Method | Roughing () | | | | |
| | Semi-finishing () | | | | |
| | Finishing (X) | | | | |



| Cutting Tools | | YG-1 Tools | | YG-1 TOOL | | YG-1 TOOL | | YG-1 TOOL | |
|-------------------|------------------------|-------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|
| Inserts | Maker | YG-1 | | YG-1 | | YG-1 | | YG-1 | |
| | Designation / Grade | DH4521100 | TiAlN Coating | DGRS93316 | H COATING | DGRS93316 | H COATING | DGRS93316 | H COATING |
| Holder/Cutter | Maker | | | | | | | | |
| | Designation | DREAM DRILL | | DREAM DRILL HIGH FEED | | DREAM DRILL HIGH FEED | | DREAM DRILL HIGH FEED | |
| | Hole diameter | 10 | | 10 | | 10 | | 10 | |
| | No of cutting edges | 2 | | 3 | | 3 | | 3 | |
| Cutting Condition | Cutting speed (vc) | 63 | m/min | 63 | m/min | 63 | m/min | 63 | m/min |
| | RPM(n) | 2000 | min ⁻¹ | 2000 | min ⁻¹ | 2000 | min ⁻¹ | 2000 | min ⁻¹ |
| | Feedrate(fn)-Vf | 0,12 - 240 | mm/rev-mm/min | 0,2 - 400 | mm/rev-mm/min | 0,22 - 440 | mm/rev-mm/min | 0,22 - 440 | mm/rev-mm/min |
| | Depth of hole(ap) | 30 | mm | 30 | mm | 30 | mm | 30 | mm |
| | Coolant | yes | | yes | | yes | | yes | |
| | Contious or iterrupted | continous | | continous | | continous | | continous | |

Test Results

| | | | | | | | | |
|-----------------------|------|-----|-------------|-----|-------------|-----|-------------|-----|
| Machining time (min) | 150 | min | 90 | min | 82 | min | 82 | min |
| Number of holes (pcs) | 1200 | pcs | 1200 | pcs | 1200 | pcs | 1200 | pcs |
| Wear (um) | | um | see picture | um | see picture | um | see picture | um |
| Type of wear | | | see picture | | see picture | | see picture | |

| | | | | | |
|-----------------------|---------------|-------------|------------------|---------------------|-----------|
| Check criteria | | | | | |
| wear () | Toughness () | p formation | Cutting load () | Surface quality () | Other () |
| Other : | | | | | |

Total Results: POSITIVE

The complete filter was done with 1 tool, without burrs and good chip breakage. The result was definitely better than DREAM DRILL GENERAL. Because there is 1 more tooth, the power is a little bit higher and, in the middle of the filter, was some noise. but not risk and good machinability.

Conclusion

time recution from 40 to 45%. More productivity thanks to 1 more flute.

