

DRILLLINE Indexable head gundrill

TUNGGUN



**Drastically reduces tool changeover times !
Heads can be changed on the machine !**



- **Innovative gundrill with a replaceable drill head !**
- **Drill-heads available with chipbreakers and coated grades !**
- **Drill bodies are made-to-order !**

Applicable range

Drilling depth : L/D = 15 - 40
Tool diameter : $\varnothing 10.5 - \varnothing 16.1$ mm

Application

Deep drilling of automotive parts, general machining parts and die & mold

Chip control

Chips from P type head

Feed: $f = 0.03$ mm/rev



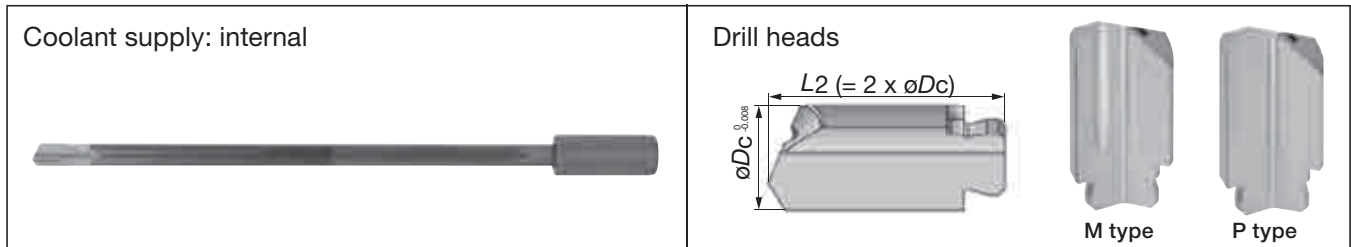
Chips from M type head

Feed: $f = 0.06$ mm/rev



Work material : S45C
Tool diameter : $\varnothing D_c = \varnothing 11$ mm
Cutting speed : $V_c = 70$ m/min

Excellent chip control !



Drill heads

| Cat. No | Stock | Tool dia. øDc (mm) | Head length L2 (mm) | Head type | Wrench |
|------------------|-------|-----------------------|------------------------|-----------|-----------|
| TGI105-P-G-KS15F | ● | 10.5 | 21 | P | K GDT-100 |
| TGI110-P-G-KS15F | ● | 11 | 22 | P | K GDT-110 |
| TGI115-P-G-KS15F | ● | 11.5 | 23 | P | |
| TGI120-P-G-KS15F | ● | 12 | 24 | P | K GDT-120 |
| TGI121-P-G-KS15F | ● | 12.1 | 24.2 | P | |
| TGI130-P-G-KS15F | ● | 13 | 26 | P | K GDT-130 |
| TGI140-P-G-KS15F | ● | 14 | 28 | P | K GDT-140 |
| TGI141-P-G-KS15F | ● | 14.1 | 28.2 | P | |
| TGI150-P-G-KS15F | ● | 15 | 30 | P | K GDT-150 |
| TGI160-P-G-KS15F | ● | 16 | 32 | P | |
| TGI161-P-G-KS15F | ● | 16.1 | 32.2 | P | |
| TGI110-M-G-KS15F | ● | 11 | 22 | M | |
| TGI115-M-G-KS15F | ● | 11.5 | 23 | M | K GDT-110 |
| TGI120-M-G-KS15F | ● | 12 | 24 | M | |
| TGI121-M-G-KS15F | ● | 12.1 | 24.2 | M | K GDT-120 |
| TGI140-M-G-KS15F | ● | 14 | 28 | M | |
| TGI141-M-G-KS15F | ● | 14.1 | 28.2 | M | K GDT-140 |
| TGI160-M-G-KS15F | ● | 16 | 32 | M | |
| TGI161-M-G-KS15F | ● | 16.1 | 32.2 | M | K GDT-150 |
| TGI110-P-G-AH725 | ★ | 11 | 22 | P | |
| TGI120-P-G-AH725 | ★ | 12 | 24 | P | K GDT-120 |
| TGI140-P-G-AH725 | ★ | 14 | 28 | P | K GDT-140 |

● : Stocked items

★ : Available in 2012

Drill body

* Drill body should be ordered depending on each application. When ordering, tool information such as drill diameter, overall length and type of driver must be specified.

Standard cutting condition

| Work material | Cutting speed Vc (m/min) | Feed <i>f</i> (mm/rev) | | |
|--|-----------------------------|------------------------|----------------|---------------|
| | | øDc (mm) | | |
| | | ø10.5 ~ ø11.69 | ø11.7 ~ ø13.19 | ø13.2 ~ ø16.1 |
| Carbon steel, free-cutting steel | 70 - 110 | 0.030 - 0.050 | 0.035 - 0.060 | 0.040 - 0.070 |
| Low alloy steel (less than 5% of alloying elements) | 50 - 110 | 0.030 - 0.050 | 0.035 - 0.060 | 0.040 - 0.070 |
| High alloy steel | 50 - 70 | 0.025 - 0.040 | 0.030 - 0.045 | 0.035 - 0.050 |
| Stainless steel | 40 - 80 | 0.025 - 0.040 | 0.030 - 0.045 | 0.035 - 0.050 |
| Cast iron | 70 - 115 | 0.040 - 0.100 | 0.050 - 0.120 | 0.060 - 0.140 |
| Aluminium alloy | 80 - 160 | 0.030 - 0.170 | 0.030 - 0.180 | 0.035 - 0.190 |
| Copper alloy | 80 - 180 | 0.020 - 0.130 | 0.030 - 0.160 | 0.040 - 0.180 |
| Titanium alloy | 25 - 60 | 0.025 - 0.030 | 0.030 - 0.035 | 0.030 - 0.040 |
| Hardened steel | 25 - 50 | 0.025 - 0.030 | 0.030 - 0.035 | 0.030 - 0.040 |

* When machining carbon steel or alloy steel with M type head, 20 - 30% higher feed can be applied.



Tungaloy Corporation

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