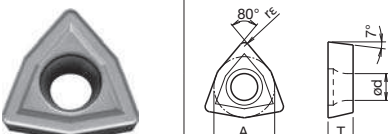
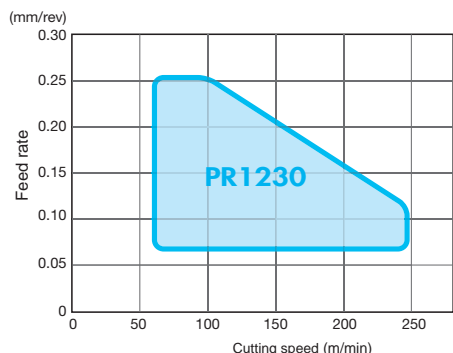


## Applicable Inserts

Shape	Description	Dimension (mm)				Angle (°)	MEGACOAT	Applicable Toolholder
		A	T	ød	rε			
	WCMT06T308	9.525	3.97	3.7	0.8	7°	<input type="checkbox"/>	S50-DRW...-06
	WCMT050308	7.94	3.18	3.2			<input type="checkbox"/>	(Custom-order toolholder)

\* WCMT050308 is for custom-order (ø22 or larger).

## Application Map (Carbon Steel / Alloy Steel)



## Recommended condition

Workpiece material	Cutting speed (m/min)	Feed rate (mm/rev)
Carbon steel (S45C)	80~200	0.07~0.25
Alloy steel (SCM435)	80~160	0.07~0.25
Mold steel (SKD11)	70~150	0.06~0.20
Gray cast iron (FC250)	100~240	0.07~0.30
Nodular cast iron (FCD400)	80~150	0.07~0.25

- Apply enough amount of coolant (internal supply).
- Feed rate should be calculated as single insert.

## Q&A

**Q-1**

Is it possible to use outer coolant?

**A-1**

Outer coolant is not recommended because the amount of chips will be enormous.  
Use internal coolant.  
See the graph of "Drilling diameter and coolant amount".

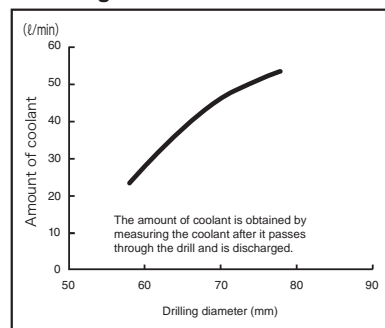
**Q-2**

What level of spindle output is required?

**A-2**

Higher output is preferable.  
What is important is enough torque rather than high spindle rate.  
See the examples of required power as below.

### ◆ Drilling diameter and coolant amount



Drilling Diameter	Workpiece Material	Machine	Condition	Spindle Power	Required Power
ø75 (2D)	SCM415	M/C	Vc=130m/min (n=550min <sup>-1</sup> ) f=0.12mm/rev (Vf=66mm/min)	22kW	60%
ø85 (2D)	SCM	M/C	Vc=150m/min (n=560min <sup>-1</sup> ) f=0.1mm/rev (Vf=56mm/min)	30kW	85%
ø94 (2D)	S45C	NC lathe	Vc=120m/min (n=410min <sup>-1</sup> ) f=0.1mm/rev (Vf=41mm/min)	20kW	100%
ø94 (2D)	SUS304	NC lathe	Vc=80m/min (n=270min <sup>-1</sup> ) f=0.2mm/rev (Vf=54mm/min)	20kW	40%

\* The required power was read on the load meter.

**Q-3**

The workpiece material is elastic and the chips are stretched and tangled. Is there any countermeasure?

**A-3**

When chips of elastic material are stretched and tangled, try "low rate + large feed", "high rate + small feed" or other settings.  
Chips are usually stretched well between the entrance and 10 mm inside, and not any more stretched further inside. Therefore changing the condition of entrance only will also be effective.  
• [Low rate + Large feed]  
This setting makes the chips thicker so that they easily break off.  
E.g. Vc=80 m/min, f=0.2 to 0.25 mm/rev

: Check Availability