

COATED GRADE FOR PIN MILLING CUTTER

PM series

Able to select the optimum grade according to your workpiece and grade resistance you need.

Highly wear- and shock resistant grade series , specially designed for pin milling cutters.

Features

For Steel

For Cast iron

When putting weight on wear resistance,

PM7200

1st Recommendation

PM7300

PM5100

When giving priority to fracture resistance,

PM7400

CVD coating, excelling in wear resistance.

Special carbide substrate for steel pin milling cutters, featuring extraordinary resistance to fracture and thermal shock.

PVD coating, exhibiting superior shock resistance.

Special carbide substrate for cast iron pin milling cutters, providing high hardness and wear resistance.

PM7300

PM5100

PM series

Application examples

Grade		PM7300	PM7300	PM7200
Tool		Internal pin milling cutter	Internal pin milling cutter	Internal pin milling cutter
Insert		Special type inserts	Special type inserts	Special type inserts
Workpiece		Internal pin milling 2,000cc L4 type crank shaft Carbon steel (JIS S45C)	Internal pin milling L4 type crank shaft Carbon steel (JIS S45C)	Internal pin milling 1,800cc L4 type crank shaft Carbon steel (JIS SV40C)
Component		Crank shaft	Crank shaft	Crank shaft
Cutting conditions	Cutting speed (m/min)	140	110	140
	Feed per tooth (mm/tooth)	0.45	0.40	0.16 – 0.44
	Depth of cut (mm)	2.0	4.0	–
Coolant		Dry cutting	Dry cutting	Dry cutting
Results				

Grade		PM7400	PM5100	PM5100
Tool		External pin milling cutter	Internal pin milling cutter	External pin milling cutter
Insert		Special type inserts	Special type inserts	Special type inserts
Workpiece		External pin milling 4,700cc V6 type crank shaft Forging (JIS SCM440)	Internal pin milling 4,700cc V8 type crank shaft Ductile cast iron	External pin milling 3,500cc V6 type crank shaft Ductile cast iron
Component		Crank shaft	Crank shaft	Crank shaft
Cutting conditions	Cutting speed (m/min)	140	150	140
	Feed per tooth (mm/tooth)	0.55	0.25 – 0.35	0.12 – 0.35
	Depth of cut (mm)	2.5	–	2.5
Coolant		Dry cutting	Dry cutting	Dry cutting
Results				

Note) The PM series will be produced to order.

For your safety

●Do not touch cutting or chips without wearing gloves. ●Use tools under recommended cutting conditions, and exchange tools before excessive wear occurs. ●Chips become extremely hot, scattered over and may be stretched. Ensure safety guards and goggles are used. ●In case of using non-water soluble oil, make sure to have a fire prevention countermeasure. ●Use the provided wrench spanner, and ensure the inserts and spare parts are damped securely.

MITSUBISHI MATERIALS CORPORATION



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(Tools specifications subject to change without notice.)