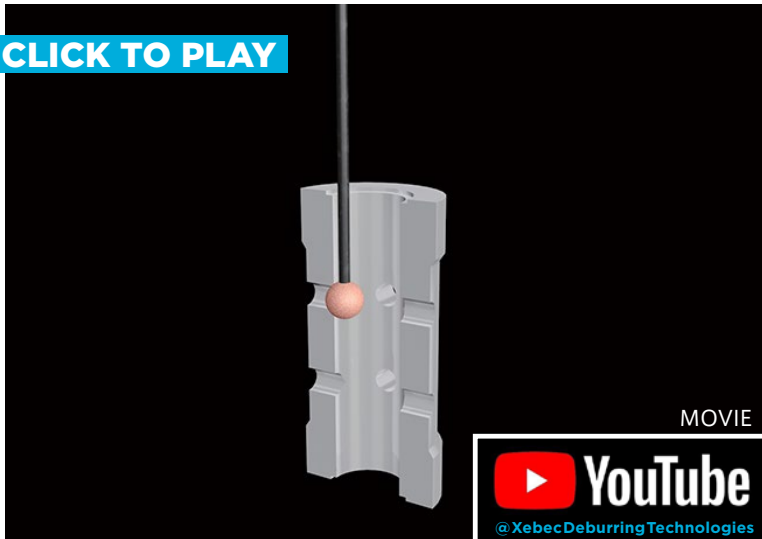


Hydraulic valve (Cross hole)



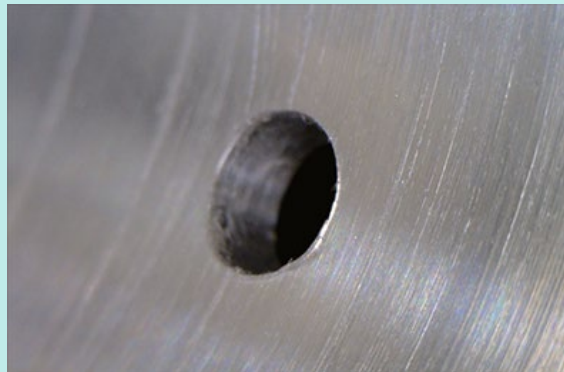
Workpiece information

Industry	General Machinery
Part name	Hydraulic valve (Cross hole)
Material type	Steel-based
Cutting process	Drilling

Processing conditions

Tool	XEBEC Stone Flexible Shaft Type (CH-PM-5R-C01)
Processing detail	Crosshole (blind hole) deburring after drilling process
Spindle Speed (min ⁻¹)	5,000-8,000
Table Feed (mm/min)	—
Depth of cut (mm)	0.5

Before



Tool Rubber wheel, carbide rotary bar on the rotating tool

Problem The shape of edge was damaged and secondary burrs generated by deburring.

After



Tool XEBEC Stone Flexible Shaft Type (CH-PM-5B)

Result Allows the tool to contact with bending the shaft softly (displacement of bending = 0.5mm approximately).

Enables to remove the burrs only with keeping the shape of the edge. Achieved good processing efficiency. The process used to cause tiredness for workers due to the long and narrow shape of workpiece.

Tool > XEBEC Stone™ Flexible Shaft

Flexible shaft allows soft contact with a workpiece and suppresses subtle vibration when being processed. Ideal for deburring the front and back of drilled holes both.

