

Ohmura Technical Report

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Manufacturing thin/large diameter difficult-to-machine materials by vertical turret lathe

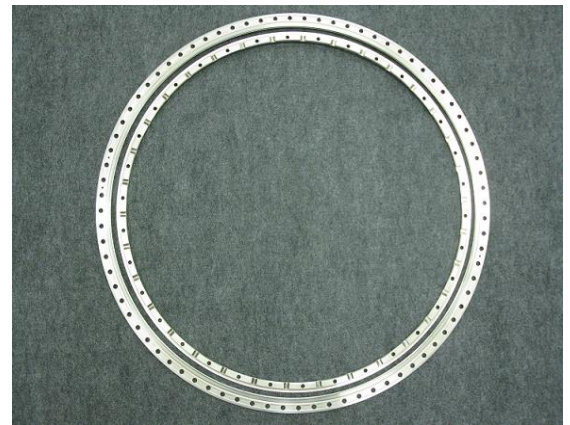
We at Ohmura have more than 40 years of experience and know-how in manufacturing less than 10 mm thick difficult-to-machine materials (such as AMS, Inconel or magnesium) with a large diameter of 600-900 mm!

Operators in action!



Why is it difficult?

- The tolerance is no different from the smaller workpieces.
- In proportion to the thinness, the workpiece deforms more easily.
- In proportion to the large diameter, the machining length becomes longer.
- The workpiece moves away easily during machining.
- Because of the internal stress, the workpiece deforms easily after machining.
- The difficult-to-machining material in itself is enough for intense abrasion of the cutting tools.



What is difficult?!

- To obtain flatness
- To measure
- To clamp without deform the workpiece
- To make a jig that will not deform the workpiece



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These are the vertical lathes of our company

Manually operated vertical lathe

- OM VT1-12
- Manufactured in 1970
- \varnothing 1200 mm machining ability



CNC vertical lathe

- OM Omega 50
- \varnothing 1000 mm machining ability



Highlight of the skills

- cut-off machining
- obtaining flatness
- measuring technique



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