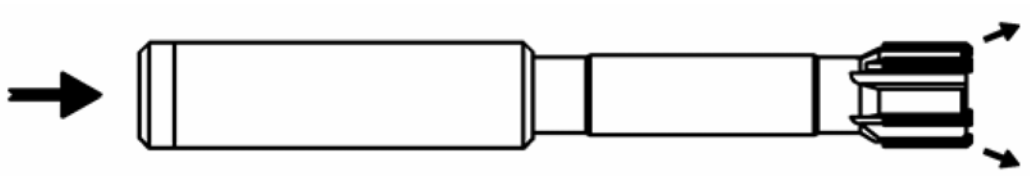


Valve block

Material: GGG60 (Ductile/Nodular Iron)
 Machine: Machining centre OKK HM600 horizontal
 Bore diameter: 35H5 (1.378" +0.0004"/-0.0")
 Bore length: 52mm, stepped through hole

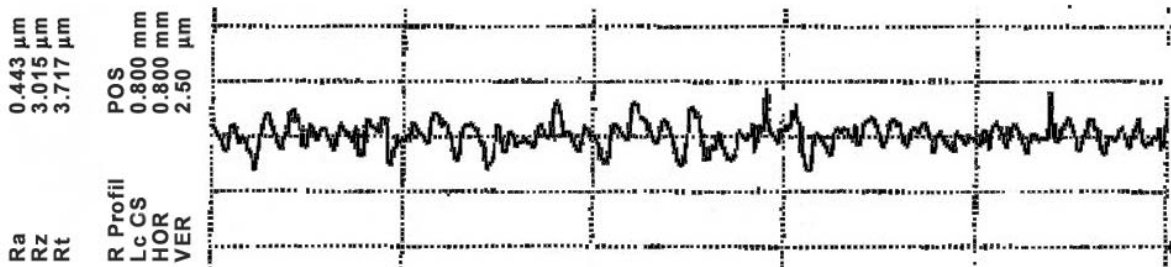
Diatool solution:

Tool: Type 3451 standard, expandable, short monoblock reamer with coolant feed for through holes
 Cutting material: Cermet tipped
 Bevel lead: 45°/8°
 Tool holder: Hydraulic chuck

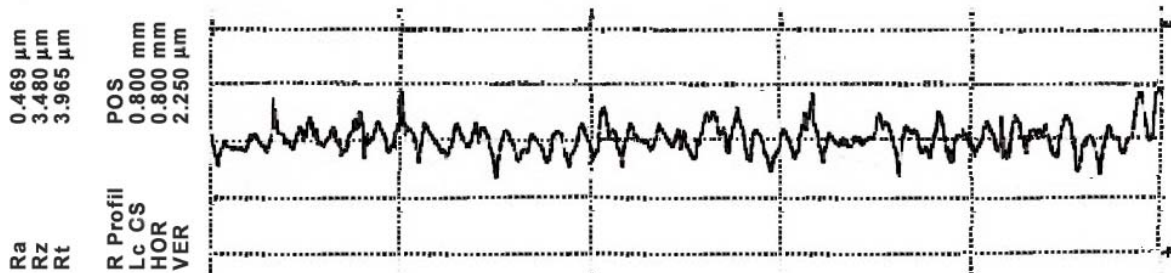


Cutting conditions and results:

Cutting data: V = 120 m/min. / 1091 rev./min.
 f = 0.8 mm/rev. / 873 mm/min.
 Coolant: Cutting oil
 Required surface finish: Ra 0.8µm
 Achieved surface finish after 90 holes: Ra 0.443µm



Achieved surface finish after 200 holes: Ra 0.469µm



Machining time achieved: 3.6 seconds per bore