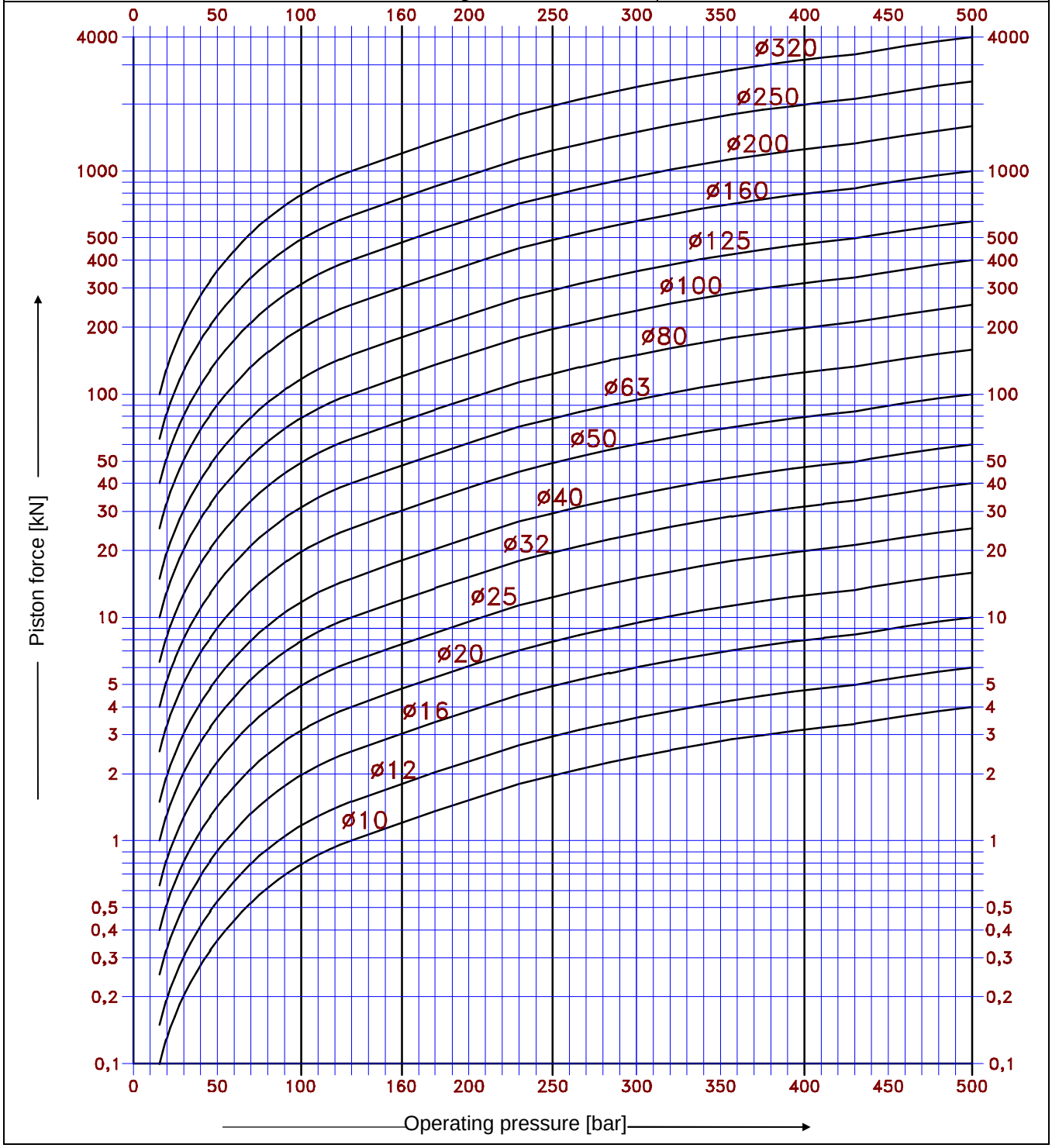
Hydraulic Block Cylinder HBZ 500

Piston force diagram

Formulas for calculation

• of piston force on piston side: (pushing)	$F = \frac{p \cdot D^2 \cdot p}{40000}$	F ... piston force [KN] p ... operating pressure [bar] D ... piston-ø [mm] d ... rod-ø [mm].
• of piston force on rod side: (pulling)	$F = \frac{p \cdot (D^2 - d^2) \cdot p}{40000}$	
• of the required piston -ø :	$D_{erf} = \sqrt{\frac{F \cdot 40000}{p \cdot p}}$	
• of required operating presssure:	$p_{erf} = \frac{F \cdot 40000}{p \cdot D^2}$	



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