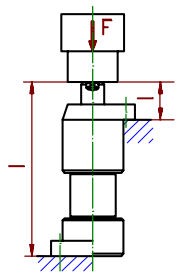
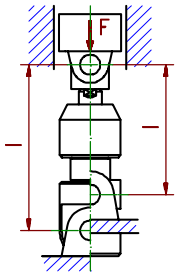
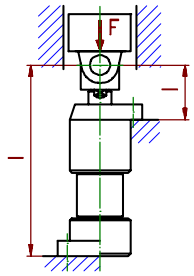
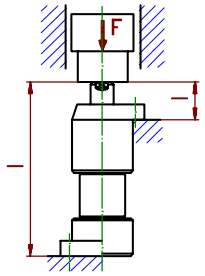
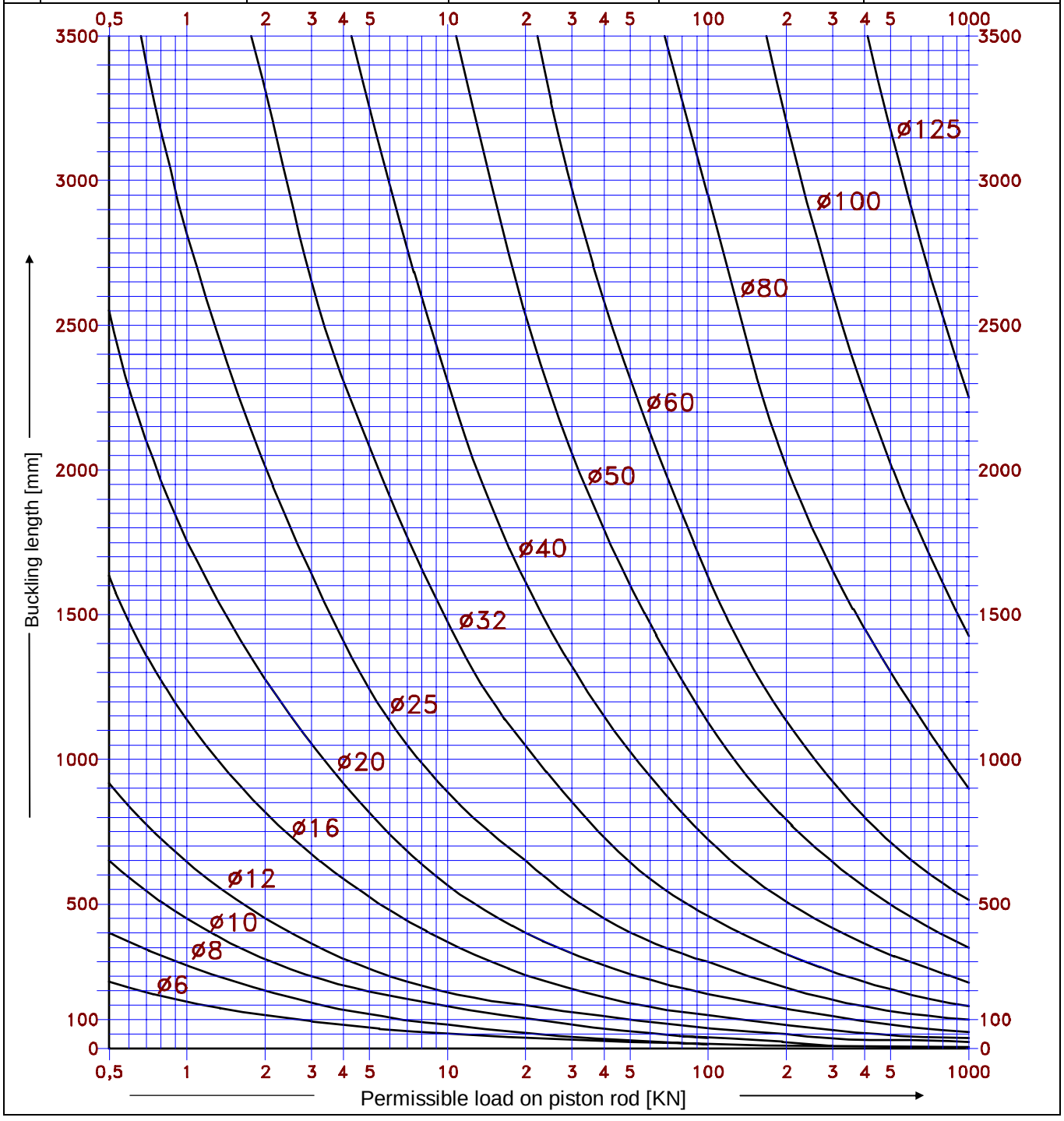
Load/buckling diagram

	Loading case according to Euler								Rule of thumb for calculation:
	Case 1		Case 2		Case 3		Case 4		
Type of installation									$l_{kmax} = 4{,}51 \cdot \sqrt{\frac{d^4}{F}}$ $d_{erf} = 0{,}471 \cdot \sqrt[4]{l_k^2 \cdot F}$ $F_{max} = 20{,}35 \cdot \frac{d^4}{l_k^2}$ Safety factor $\nu = 5$ $E = 210000\ N/mm^2$
Conf.	111-2 117	110-1 111/111-1 112/112-1	116 218 / 219 225	114/114-1 115	111-2 117	110-1 111/111-1 112/112-1	111-2 117	110-1 111/111-1 112/112-1	l_k buckling lgth [mm] d Rod-ø [mm] F piston force [KN]
	$l_k = 2 \cdot l$		$l_k = l$		$l_k = l \cdot \sqrt{0{,}5}$		$l_k = 0{,}5 \cdot l$		



Revision B * 15.11.1996 *K.E.

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