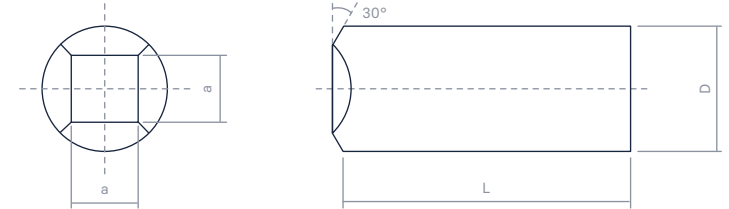


STANDARDS

Category of resistance according to EN ISO 23125 (lathes)

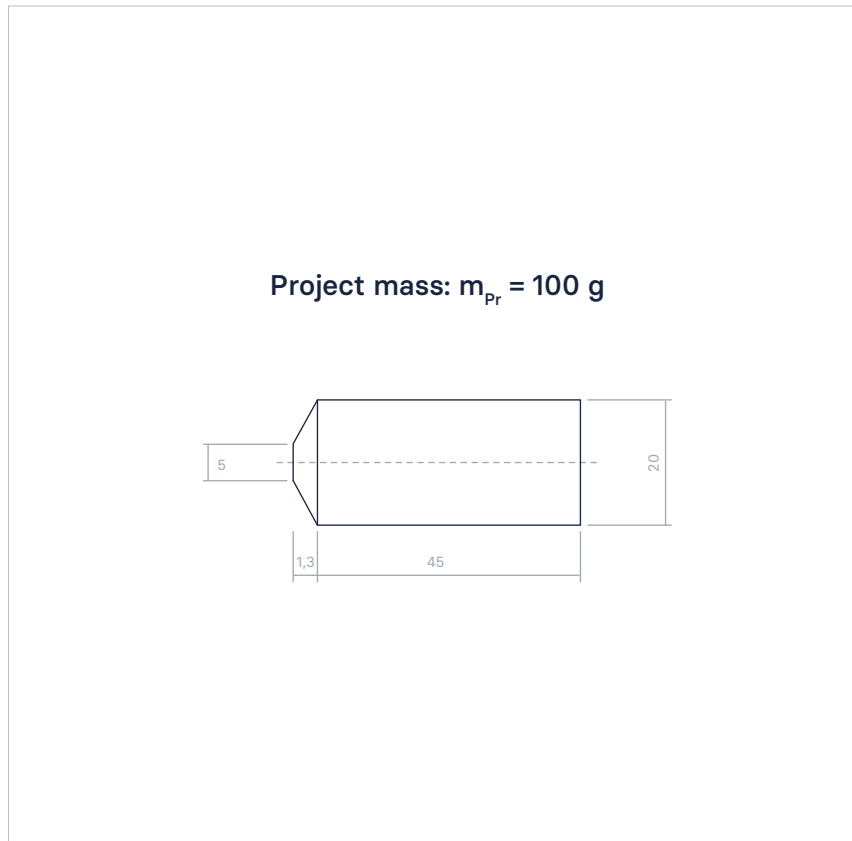


Category	Diameter of the chuck		Speed of rotation [m / s]	Dimension of bullet		Weight of bullet [kg]	Speed of impact [m / s]	Energy of impact [Nm / J]
	[> mm]	[< mm]		D * a [mm]	a * a [mm]			
A1	-	130	25	30 * 90	19 * 19	0,625	32	320
A2			40				50	781
A3			63				80	2000
B1	130	250	40	40 * 25	25 * 25	1,25	50	1552
B2			50				63	2480
B3			63				80	4000
C1	250	-	40	50 * 30	30 * 30	2,5	50	3124
C2			50				63	4960
C3			63				80	8000

S = 1.3

STANDARDS

Test condition according to DIN EN 12417 (machining centres)



Material	Thickness	Speed	Energy
	t [mm]	v [m/s]	E [Nm]
St 12.03	2		
	4	140	980
	6	180	1.620
Polycarbonate	6	100	500
	8	115	660
	12	150	1.125

Worst Case assumptions

$$E = 1/2 m_{pr} (B\pi n)^2$$

v_c	Highest cutting speed in m/s
B	Largest tool diameter in m
n	Highest spindle speed in s^{-1}