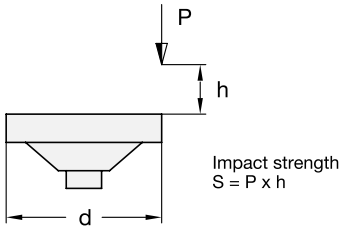
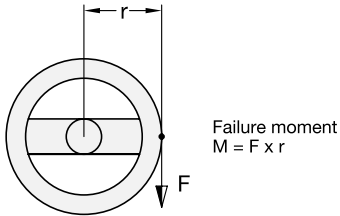


# Strength values of plastic handwheels

in ascending order of the standard numbers



Impact strength  
 $S = P \times h$



Failure moment  
 $M = F \times r$

An extensive series of tests has been carried out to determine the strength values of the plastic handwheels listed below. The results provide information on the impact strength and the torque at which the handwheels break. With a maximum known transmitted torque, the safety factor can be determined.

The impact strength S is determined as shown in the outline drawing opposite:

The handwheel is firmly clamped at its steel hub. A cylindrical steel element rounded at the tip (0.680 kg in weight) repeatedly hits the wheel rim, with the height of fall h increasing by 0.1 m after every fall. Failure occurs at the listed S values.

The details given on strength are non-binding guide values without any liability. In general, they do not constitute a warranty of quality. The user must determine from case to case if a product is suitable for the intended purpose or use.

Disc handwheels GN 520 / GN 520.6										
d in mm	50	63	80	100	125	150	175	200	250	300
S in J	3	4	8	11	14	19	27	36	40	48
M in Nm	55	75	90	150	300	300	500	700	1300	1500

Handwheels with retractable handle GN 520.3										
d in mm	100	125	150	175	200	250				
S in J	20	28	30	40	42	46				
M in Nm	240	450	480	730	1060	1700				

Disc handwheels GN 521										
d in mm	80	100	125	150	175	200	250	300		
S in J	6	13	25	26	26	27	30	30		
M in Nm	34	60	125	180	195	320	500	500		

Handwheels with retractable handle GN 521.3										
d in mm	80	100	125	150	175	200	250	300		
S in J	6	14	14	15	20	27	30	30		
M in Nm	34	60	125	180	195	320	500	500		

Spoked handwheels GN 522 / Handwheels with retractable handle GN 522.3										
d in mm	80	100	125	160	200	250	300	375		
S in J	5	7	10	15	24	28	36	40		
M in Nm	32	54	94	185	300	420	480	480		

Disc handwheels GN 524 / Handwheels with retractable handle GN 524.3										
d in mm	100	125	160	200						
S in J	21	23	25	35						
M in Nm	180	200	400	600						

Spoked handwheels GN 555										
d in mm	100	125	140	160	200	250	300			
S in J	5	8	12	12	16	19	33			
M in Nm	67	120	165	165	300	405	800			