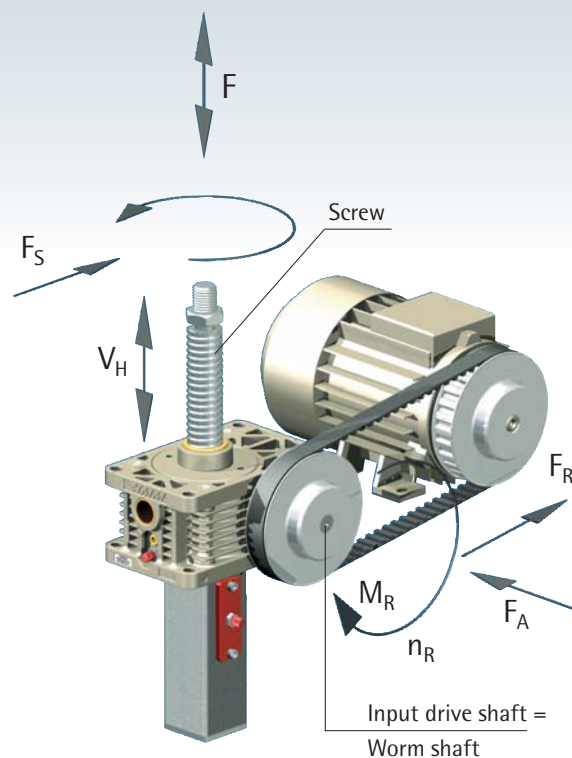


maximum forces / torques

Loading definitions:

- F - Lifting load tensile and/or compressive
- F_S - Lateral loads on the screw
- v_H - Lifting speed of the screw
(or nut if the R version)
- F_A - Axial load on the input shaft
- F_R - Radial load on the input shaft
- M_R - Input torque
- n_R - Input speed



Lateral forces on the lifting screw

The maximum permissible lateral forces are shown in the table on the right. Lateral forces should generally be taken by linear guides. The guide bushing in the gearbox functions only as a secondary guide. The maximum lateral forces actually occurring must be less than the values shown in the table!

CAUTION: only applies to static forces.

maximum lateral force F_S [N] (only static)

extended screw length in mm

Z	100	200	300	400	500	600	700	800	900	1000	1200	1500	2000	2500	3000
5	360	160	100	70	55	45	38	32	28	25	20	18	12	-	-
10	600	280	180	130	100	80	70	60	50	47	40	30	20	15	-
25	900	470	300	240	180	150	130	110	100	90	70	60	45	35	30
35	1300	700	450	360	270	220	190	160	150	130	100	90	60	50	40
50	3000	2000	1300	900	700	600	500	420	380	330	280	230	160	130	100
100	5000	4000	3000	2300	1800	1500	1300	1100	950	850	700	600	400	350	250
150	5500	5000	3900	2800	2300	1800	1500	1300	1200	1000	850	750	500	400	350
250	9000	9000	6500	4900	3800	3000	2500	2200	2000	1900	1450	1250	900	760	660
350	15000	13000	12000	10000	8800	7000	6000	5500	4800	4300	3500	3000	2000	1600	1400
500	29000	29000	29000	29000	29000	24000	20000	17000	15000	14000	12000	9000	7000	5600	4900
750	34800	34800	34800	34800	34800	28800	24000	20400	18000	16800	14400	10800	8400	6720	5880
1000	46000	46000	39000	36000	32000	30000	25000	29000	25000	23500	20000	17000	12000	10000	8000

Radial load on the input shaft

Make sure that the radial forces arising where chain or belt drives are used do not exceed the values stated in the table alongside.

maximum radial load on the input shaft F_R [N]

	Z-5	Z-10	Z-25	Z-35	Z-50	Z-100	Z-150	Z-250	Z-350	Z-500	Z-750	Z-1000
F_R max.	110	190	260	260	420	650	670	1100	1400	2600	3000	3400

