

Reduction ratios

EN

Nominal reduction

The ratios listed on the data sheets are rounded nominal values only. The exact ratio for each reduction gearhead can be calculated by means of the applicable stage ratio.

Absolute reduction

The reduction as an exact ratio of two integral numbers. This allows the calculation to the full decimals.

Calculated reduction

The calculated reduction ratio is shown with maximum six decimals.

Continuous output speed, max $v_{c\ max}$ [mm/s]

Designates the maximum permissible continuous linear speed of the screw nut.

Peak output speed, max $v_{p\ max}$ [mm/s]

Designates the maximum permissible peak linear speed of the screw nut.

Continuous axial force, avg. $F_{m\ max}$ [N]

Designates the maximum recommended average axial output force during continuous operation.

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Linear Actuators reduction ratios

Linear Actuators 22L ... SB

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c,max}$ [mm/s]	Peak output speed, max $v_{p,max}$ [mm/s]	Cont. axial force, avg. $F_{m,max}$ [N]
1:1	1,0	1 / 1	120.00	150.00	84
3:1	3,000	3 / 1	100.00	122.22	90
3,6:1	3,625	29 / 8	83.33	101.85	95
4,5:1	4,500	9 / 2	66.67	81.48	103
6,6:1	6,600	33 / 5	45.45	55.56	117
9:1	9,000	9 / 1	37.04	44.44	125
11:1	10,875	87 / 8	36.36	45.45	126
14:1	13,500	27 / 2	28.57	35.71	136
16:1	16,313	261 / 16	25.00	31.25	142
20:1	19,800	99 / 5	20.00	25.00	153
24:1	23,925	957 / 40	16.67	20.83	163
30:1	29,700	297 / 10	13.33	16.67	176
41:1	40,500	81 / 2	12.20	16.26	181
44:1	43,560	1089 / 25	9.09	11.36	200
49:1	48,938	783 / 16	10.20	13.61	192
59:1	59,400	297 / 5	8.47	11.30	204
72:1	71,775	2871 / 40	6.94	9.26	218
89:1	89,100	891 / 10	5.62	7.49	234
108:1	107,663	8613 / 80	4.63	6.17	250
131:1	130,680	3267 / 25	3.82	5.09	267
158:1	157,905	31581 / 200	3.16	4.22	284
178:1	178,200	891 / 5	2.81	3.75	295
196:1	196,020	9801 / 50	2.55	3.40	305
215:1	215,325	8613 / 40	2.33	3.10	314
267:1	267,300	2673 / 10	1.87	2.50	338
323:1	322,988	25839 / 80	1.55	2.06	360
401:1	400,950	8019 / 20	1.25	1.66	387
474:1	473,715	94743 / 200	1.05	1.41	409
588:1	588,060	29403 / 50	0.85	1.13	440
711:1	710,573	284229 / 400	0.58	0.77	499
862:1	862,488	107811 / 125	0.70	0.94	468
1042:1	1042,173	1042173 / 1000	0.48	0.64	532
1294:1	1293,732	323433 / 250	0.39	0.52	572

Linear Actuators 22L ... PB

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c,max}$ [mm/s]	Peak output speed, max $v_{p,max}$ [mm/s]	Cont. axial force, avg. $F_{m,max}$ [N]
1:1	1,0	1 / 1	120.00	150.00	84
3:1	3,000	3 / 1	100.00	122.22	90
3,6:1	3,625	29 / 8	83.33	101.85	95
4,5:1	4,500	9 / 2	66.67	81.48	103
6,6:1	6,600	33 / 5	45.45	55.56	117
9:1	9,000	9 / 1	37.04	44.44	125
11:1	10,875	87 / 8	36.36	45.45	126
14:1	13,500	27 / 2	28.57	35.71	136
16:1	16,313	261 / 16	25.00	31.25	142
20:1	19,800	99 / 5	20.00	25.00	153
24:1	23,925	957 / 40	16.67	20.83	163
30:1	29,700	297 / 10	13.33	16.67	176
41:1	40,500	81 / 2	12.20	16.26	181
44:1	43,560	1089 / 25	9.09	11.36	200
49:1	48,938	783 / 16	10.20	13.61	192
59:1	59,400	297 / 5	8.47	11.30	204
72:1	71,775	2871 / 40	6.94	9.26	218
89:1	89,100	891 / 10	5.62	7.49	234
108:1	107,663	8613 / 80	4.63	6.17	250
131:1	130,680	3267 / 25	3.82	5.09	267
158:1	157,905	31581 / 200	3.16	4.22	284
178:1	178,200	891 / 5	2.81	3.75	295
196:1	196,020	9801 / 50	2.55	3.40	305
215:1	215,325	8613 / 40	2.33	3.10	314
267:1	267,300	2673 / 10	1.87	2.50	338
323:1	322,988	25839 / 80	1.55	2.06	360
401:1	400,950	8019 / 20	1.25	1.66	387
474:1	473,715	94743 / 200	1.05	1.41	409
588:1	588,060	29403 / 50	0.85	1.13	440
711:1	710,573	284229 / 400	0.58	0.77	499
862:1	862,488	107811 / 125	0.70	0.94	468
1042:1	1042,173	1042173 / 1000	0.48	0.64	532
1294:1	1293,732	323433 / 250	0.39	0.52	572

Linear Actuators reduction ratios

Linear Actuators 22L ... ML

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c \max}$ [mm/s]	Peak output speed, max $v_{p \max}$ [mm/s]	Cont. axial force, avg. $F_{m \max}$ [N]
1:1	1,0	1 / 1	40.00	83.33	34
3:1	3,000	3 / 1	36.67	61.11	37
3,6:1	3,625	29 / 8	33.33	50.93	41
4,5:1	4,500	9 / 2	30.00	40.74	46
6,6:1	6,600	33 / 5	22.73	27.78	58
9:1	9,000	9 / 1	18.52	22.22	73
11:1	10,875	87 / 8	18.18	22.73	75
14:1	13,500	27 / 2	14.29	17.86	96
16:1	16,313	261 / 16	12.50	15.63	110
20:1	19,800	99 / 5	10.00	12.50	139
24:1	23,925	957 / 40	8.33	10.42	167
30:1	29,700	297 / 10	6.67	8.33	208
41:1	40,500	81 / 2	6.10	8.13	220
44:1	43,560	1089 / 25	4.55	5.68	298
49:1	48,938	783 / 16	5.10	6.80	265
59:1	59,400	297 / 5	4.24	5.65	325
72:1	71,775	2871 / 40	3.47	4.63	380
89:1	89,100	891 / 10	2.81	3.75	425
108:1	107,663	8613 / 80	2.31	3.09	425
131:1	130,680	3267 / 25	1.91	2.54	425
158:1	157,905	31581 / 200	1.58	2.11	425
178:1	178,200	891 / 5	1.40	1.87	425
196:1	196,020	9801 / 50	1.28	1.70	425
215:1	215,325	8613 / 40	1.16	1.55	425
267:1	267,300	2673 / 10	0.94	1.25	425
323:1	322,988	25839 / 80	0.77	1.03	425
401:1	400,950	8019 / 20	0.62	0.83	425
474:1	473,715	94743 / 200	0.53	0.70	425
588:1	588,060	29403 / 50	0.43	0.57	425
711:1	710,573	284229 / 400	0.29	0.39	425
862:1	862,488	107811 / 125	0.35	0.47	425
1042:1	1042,173	1042173 / 1000	0.24	0.32	425
1294:1	1293,732	323433 / 250	0.19	0.26	425

Linear Actuators reduction ratios

Linear Actuators 32L ... SB

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c\ max}$ [mm/s]	Peak output speed, max $v_{p\ max}$ [mm/s]	Cont. axial force, avg. $F_{m\ max}$ [N]
1:1	1,0	1 / 1	106.67	133.33	291
3:1	3,000	3 / 1	72.22	83.33	331
3,6:1	3,625	29 / 8	74.07	87.96	328
4,5:1	4,500	9 / 2	59.26	70.37	354
6,6:1	6,600	33 / 5	40.40	47.98	402
9:1	9,000	9 / 1	24.07	27.78	478
11:1	10,875	87 / 8	19.70	22.73	511
14:1	13,500	27 / 2	23.81	29.76	479
16:1	16,313	261 / 16	20.83	26.04	501
20:1	19,800	99 / 5	16.67	20.83	540
24:1	23,925	957 / 40	13.89	17.36	574
30:1	29,700	297 / 10	11.11	13.89	618
41:1	40,500	81 / 2	8.94	11.38	664
44:1	43,560	1089 / 25	7.58	9.47	702
49:1	48,938	783 / 16	7.48	9.52	705
59:1	59,400	297 / 5	6.21	7.91	750
72:1	71,775	2871 / 40	5.09	6.48	801
89:1	89,100	891 / 10	4.12	5.24	860
108:1	107,663	8613 / 80	3.40	4.32	917
131:1	130,680	3267 / 25	2.80	3.56	978
158:1	157,905	31581 / 200	2.32	2.95	1041
178:1	178,200	891 / 5	2.06	2.62	1084
196:1	196,020	9801 / 50	1.87	2.38	1119
215:1	215,325	8613 / 40	1.71	2.17	1154
267:1	267,300	2673 / 10	1.37	1.75	1240
323:1	322,988	25839 / 80	1.14	1.44	1322
401:1	400,950	8019 / 20	0.91	1.16	1421
474:1	473,715	94743 / 200	0.77	0.98	1502
588:1	588,060	29403 / 50	0.62	0.79	1614
711:1	710,573	284229 / 400	0.43	0.54	1833
862:1	862,488	107811 / 125	0.52	0.66	1719
1042:1	1042,173	1042173 / 1000	0.35	0.45	1920
1294:1	1293,732	323433 / 250	0.28	0.36	1920

Linear Actuators 32L ... PB

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c\ max}$ [mm/s]	Peak output speed, max $v_{p\ max}$ [mm/s]	Cont. axial force, avg. $F_{m\ max}$ [N]
1:1	1,0	1 / 1	106.67	133.33	291
3:1	3,000	3 / 1	72.22	83.33	331
3,6:1	3,625	29 / 8	74.07	87.96	328
4,5:1	4,500	9 / 2	59.26	70.37	354
6,6:1	6,600	33 / 5	40.40	47.98	402
9:1	9,000	9 / 1	24.07	27.78	478
11:1	10,875	87 / 8	19.70	22.73	511
14:1	13,500	27 / 2	23.81	29.76	479
16:1	16,313	261 / 16	20.83	26.04	501
20:1	19,800	99 / 5	16.67	20.83	540
24:1	23,925	957 / 40	13.89	17.36	574
30:1	29,700	297 / 10	11.11	13.89	618
41:1	40,500	81 / 2	8.94	11.38	664
44:1	43,560	1089 / 25	7.58	9.47	702
49:1	48,938	783 / 16	7.48	9.52	705
59:1	59,400	297 / 5	6.21	7.91	750
72:1	71,775	2871 / 40	5.09	6.48	801
89:1	89,100	891 / 10	4.12	5.24	860
108:1	107,663	8613 / 80	3.40	4.32	917
131:1	130,680	3267 / 25	2.80	3.56	978
158:1	157,905	31581 / 200	2.32	2.95	1041
178:1	178,200	891 / 5	2.06	2.62	1084
196:1	196,020	9801 / 50	1.87	2.38	1119
215:1	215,325	8613 / 40	1.71	2.17	1154
267:1	267,300	2673 / 10	1.37	1.75	1240
323:1	322,988	25839 / 80	1.14	1.44	1322
401:1	400,950	8019 / 20	0.91	1.16	1421
474:1	473,715	94743 / 200	0.77	0.98	1502
588:1	588,060	29403 / 50	0.62	0.79	1614
711:1	710,573	284229 / 400	0.43	0.54	1833
862:1	862,488	107811 / 125	0.52	0.66	1719
1042:1	1042,173	1042173 / 1000	0.35	0.45	1920
1294:1	1293,732	323433 / 250	0.28	0.36	1920

Linear Actuators reduction ratios

Linear Actuators 32L ... ML

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c,max}$ [mm/s]	Peak output speed, max $v_{p,max}$ [mm/s]	Cont. axial force, avg. $F_{m,max}$ [N]
1:1	1,0	1 / 1	33.50	83.33	54
3:1	3,000	3 / 1	31.60	41.67	57
3,6:1	3,625	29 / 8	29.60	43.98	60
4,5:1	4,500	9 / 2	27.50	35.19	65
6,6:1	6,600	33 / 5	20.20	23.99	89
9:1	9,000	9 / 1	12.04	13.89	150
11:1	10,875	87 / 8	9.85	11.36	180
14:1	13,500	27 / 2	11.90	14.88	150
16:1	16,313	261 / 16	10.42	13.02	173
20:1	19,800	99 / 5	8.33	10.42	217
24:1	23,925	957 / 40	6.94	8.68	258
30:1	29,700	297 / 10	5.56	6.94	325
41:1	40,500	81 / 2	4.47	5.69	402
44:1	43,560	1089 / 25	3.79	4.73	478
49:1	48,938	783 / 16	3.74	4.76	478
59:1	59,400	297 / 5	3.11	3.95	581
72:1	71,775	2871 / 40	2.55	3.24	706
89:1	89,100	891 / 10	2.06	2.62	880
108:1	107,663	8613 / 80	1.70	2.16	1064
131:1	130,680	3267 / 25	1.40	1.78	1292
158:1	157,905	31581 / 200	1.16	1.48	1550
178:1	178,200	891 / 5	1.03	1.31	1750
196:1	196,020	9801 / 50	0.94	1.19	1850
215:1	215,325	8613 / 40	0.85	1.09	1850
267:1	267,300	2673 / 10	0.69	0.87	1850
323:1	322,988	25839 / 80	0.57	0.72	1850
401:1	400,950	8019 / 20	0.46	0.58	1850
474:1	473,715	94743 / 200	0.39	0.49	1850
588:1	588,060	29403 / 50	0.31	0.40	1850
711:1	710,573	284229 / 400	0.21	0.27	1850
862:1	862,488	107811 / 125	0.26	0.33	1850
1042:1	1042,173	1042173 / 1000	0.18	0.22	1850
1294:1	1293,732	323433 / 250	0.14	0.18	1850

Linear Actuators 32L ... TL

Nominal reduction	Calculated reduction	Absolute reduction	Cont. output speed, max $v_{c,max}$ [mm/s]	Peak output speed, max $v_{p,max}$ [mm/s]	Cont. axial force, avg. $F_{m,max}$ [N]
1:1	1,0	1 / 1	66.67	166.67	103
3:1	3,000	3 / 1	63.33	83.33	108
3,6:1	3,625	29 / 8	60.20	87.96	114
4,5:1	4,500	9 / 2	56.67	70.37	121
6,6:1	6,600	33 / 5	40.40	47.98	170
9:1	9,000	9 / 1	24.07	27.78	286
11:1	10,875	87 / 8	19.70	22.73	348
14:1	13,500	27 / 2	23.81	29.76	287
16:1	16,313	261 / 16	20.83	26.04	329
20:1	19,800	99 / 5	16.67	20.83	412
24:1	23,925	957 / 40	13.89	17.36	492
30:1	29,700	297 / 10	11.11	13.89	620
41:1	40,500	81 / 2	8.94	11.38	760
44:1	43,560	1089 / 25	7.58	9.47	910
49:1	48,938	783 / 16	7.48	9.52	914
59:1	59,400	297 / 5	6.21	7.91	1106
72:1	71,775	2871 / 40	5.09	6.48	1348
89:1	89,100	891 / 10	4.12	5.24	1666
108:1	107,663	8613 / 80	3.40	4.32	1800
131:1	130,680	3267 / 25	2.80	3.56	1800
158:1	157,905	31581 / 200	2.32	2.95	1800
178:1	178,200	891 / 5	2.06	2.62	1800
196:1	196,020	9801 / 50	1.87	2.38	1800
215:1	215,325	8613 / 40	1.71	2.17	1800
267:1	267,300	2673 / 10	1.37	1.75	1800
323:1	322,988	25839 / 80	1.14	1.44	1800
401:1	400,950	8019 / 20	0.91	1.16	1800
474:1	473,715	94743 / 200	0.77	0.98	1800
588:1	588,060	29403 / 50	0.62	0.79	1800
711:1	710,573	284229 / 400	0.43	0.54	1800
862:1	862,488	107811 / 125	0.52	0.66	1800
1042:1	1042,173	1042173 / 1000	0.35	0.45	1800
1294:1	1293,732	323433 / 250	0.28	0.36	1800