

Technical data

	Page
Theoretical thrust table (1 to 6)	Ending 56
Cylinder bore size selection nomogram (7/8)	Ending 63
Required flow rate of cylinder during operation (9/10)	Ending 65
Allowable absorbed energy value (11/12)	Ending 67
Relation values between mounting dimensions and max. stroke (L) (13/14)	Ending 69
How to determine cylinder mounting (15)	Ending 71
Air compressor and air tank selection (16)	Ending 72
Commonly used dimension tolerance (17)	Ending 73
International System of Units (SI units)	Ending 74

Technical data 1

Theoretical thrust table (double acting)

(Unit: N)

Bore size (mm)	Compatible models	Operating direction	Push ←  Pull →											
			Working pressure MPa											
			0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø4	MDC2	Push	-	-	-	2.51	3.77	5.03	6.28	7.54	8.80	-	-	-
		Pull	-	-	-	1.88	2.83	3.77	4.71	5.65	6.60	-	-	-
ø4.5	LCM	Push	-	-	-	3.18	4.77	6.36	7.95	9.54	11.1	-	-	-
		Pull	-	-	-	2.55	3.83	5.11	6.38	7.66	8.93	-	-	-
ø6	SCPD3	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	22.6	25.4	28.3
		Pull	-	-	-	4.24	6.36	8.48	10.6	12.7	14.8	17.0	19.1	21.2
	MDC2	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	-	-	3.14	4.71	6.28	7.85	9.42	11.0	-	-	-
	MSD/MSD-K MSDG-L	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	22.6	25.4	28.3
		Pull	-	-	-	3.14	4.71	6.28	7.85	9.42	11.0	12.6	14.1	15.7
	MVC	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	-	-	3.14	4.71	6.28	7.85	9.42	11.0	-	-	-
	SMG	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	-	-	4.24	6.36	8.48	10.6	12.7	14.8	-	-	-
	MRL2/ MRL2-G	Push	-	-	-	-	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	-	-	-	8.48	11.3	14.1	17.0	19.8	-	-	-
	MRL2-W	Push	-	-	-	-	17.0	22.6	28.3	33.9	39.6	-	-	-
		Pull	-	-	-	-	17.0	22.6	28.3	33.9	39.6	-	-	-
	STM	Push	-	2.83	4.24	5.65	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	2.12	3.18	4.24	6.36	8.48	10.6	12.7	14.8	-	-	-
	STR2	Push	-	-	-	11.3	17.0	22.6	28.3	33.9	39.6	-	-	-
		Pull	-	-	-	6.28	9.42	12.6	15.7	18.8	22.0	-	-	-
	LCR	Push	-	-	8.0	11.0	17.0	23.0	28.0	34.0	40.0	-	-	-
		Pull	-	-	6.0	8.0	13.0	17.0	21.0	25.0	30.0	-	-	-
	LCG	Push	-	-	8.48	11.3	17.0	22.6	28.3	33.9	39.6	-	-	-
		Pull	-	-	6.36	8.48	12.7	17.0	21.2	25.4	29.7	-	-	-
	LCM	Push	-	-	-	5.65	8.48	11.3	14.1	17.0	19.8	-	-	-
		Pull	-	-	-	4.24	6.36	8.48	10.6	12.7	14.8	-	-	-
ø8	MDC2	Push	-	-	-	10.1	15.1	20.1	25.1	30.2	35.2	-	-	-
		Pull	-	-	-	6.13	9.19	12.3	15.3	18.4	21.4	-	-	-
	MSD/MSD-K MSDG-L	Push	-	-	-	10.1	15.1	20.1	25.1	30.2	35.2	40.2	45.2	50.3
		Pull	-	-	-	6.13	9.19	12.3	15.3	18.4	21.4	24.5	27.6	30.6
	LCR	Push	-	-	15.0	20.0	30.0	40.0	50.0	60.0	70.0	-	-	-
		Pull	-	-	11.0	15.0	23.0	30.0	38.0	45.0	53.0	-	-	-
	LCG	Push	-	-	15.1	20.1	30.2	40.2	50.3	60.3	70.4	-	-	-
		Pull	-	-	11.3	15.1	22.6	30.2	37.7	45.2	52.8	-	-	-
	LCM	Push	-	-	7.54	10.1	15.1	20.1	25.1	30.2	35.2	-	-	-
		Pull	-	-	6.48	8.64	13.0	17.3	21.6	25.9	30.2	-	-	-
ø10	STS/STL	Push	-	-	-	10.1	15.1	20.1	25.1	30.2	35.2	40.2	45.2	50.3
		Pull	-	-	-	7.54	11.3	15.1	18.8	22.6	26.4	30.2	33.9	37.7
	SCPD3	Push	-	7.85	11.8	15.7	23.6	31.4	39.3	47.1	55.0	62.8	70.7	78.5
		Pull	-	6.60	9.90	13.2	19.8	26.4	33.0	39.6	46.2	52.8	59.4	66.0
	MDC2	Push	-	7.85	11.8	15.7	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	5.03	7.54	10.1	15.1	20.1	25.1	30.2	35.2	-	-	-
	MVC	Push	-	7.85	11.8	15.7	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	5.03	7.54	10.1	15.1	20.1	25.1	30.2	35.2	-	-	-
	SMG	Push	-	7.85	11.8	15.7	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	6.60	9.90	13.2	19.8	26.4	33.0	39.6	46.2	-	-	-
	STM	Push	-	7.85	11.8	15.7	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	6.60	9.90	13.2	19.8	26.4	33.0	39.6	46.2	-	-	-
	MRL2/ MRL2-G	Push	-	-	-	-	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	-	-	-	23.6	31.4	39.3	47.1	55.0	-	-	-
ø12	MRL2-W	Push	-	-	-	-	47.1	62.8	78.5	94.2	1.10x10 ²	-	-	-
		Pull	-	-	-	-	47.1	62.8	78.5	94.2	1.10x10 ²	-	-	-
	MRG2	Push	-	-	-	-	23.6	31.4	39.3	47.1	55.0	-	-	-
		Pull	-	-	-	-	23.6	31.4	39.3	47.1	55.0	-	-	-
	STR2	Push	-	-	-	31.4	47.1	62.8	78.5	94.2	1.10x10 ²	-	-	-
		Pull	-	-	-	20.1	30.2	40.2	50.3	60.3	70.4	-	-	-
	UCA2	Push	-	-	-	20.1	30.2	40.2	50.3	60.3	70.4	80.4	90.5	1.01x10 ²
		Pull	-	-	-	20.1	30.2	40.2	50.3	60.3	70.4	80.4	90.5	1.01x10 ²
	MSD-K/ MSDG-L	Push	-	11.3	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
		Pull	-	8.48	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
	SSD2/SSD	Push	-	11.3	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
		Pull	-	8.48	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
	SSG	Push	-	-	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
		Pull	-	-	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
ø12	SRL3	Push	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-
		Pull	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-
	SRT	Push	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-
		Pull	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-
	LCW	Push	-	-	17.0	23.0	34.0	45.0	57.0	68.0	79.0	-	-	-
		Pull	-	-	13.0	17.0	25.0	34.0	42.0	51.0	59.0	-	-	-
	LCR	Push	-	-	34.0	45.0	68.0	90.0	1.13x10 ²	1.36x10 ²	1.58x10 ²	-	-	-
		Pull	-	-	25.0	34.0	51.0	68.0	85.0	1.02x10 ²	1.19x10 ²	-	-	-
	LCG	Push	-	-	33.9	45.2	67.9	90.5	1.13x10 ²	1.36x10 ²	1.58x10 ²	-	-	-
		Pull	-	-	25.4	33.9	50.9	67.9	84.8	1.02x10 ²	1.19x10 ²	-	-	-
	STS/STL	Push	-	-	-	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
		Pull	-	-	-	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
	STG	Push	-	-	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²
		Pull	-	-	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
Ending	SRG	Push	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-
		Pull	-	-	-	27.7	41.5	55.3	69.1	83.0	96.8	-	-	-

Theoretical thrust table (double acting)

(Unit: N)

			Push ← Pull → 												
Bore size (mm)	Compatible models	Operating direction	Working pressure MPa												
			0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
ø12	RCS2	Push	-	11.3	-	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02x10 ²	1.13x10 ²	
		Pull	-	8.5	-	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8	
ø16	SCPD3/ULKP	Push	-	20.1	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	18.1	27.2	36.3	54.4	72.6	90.7	1.09x10 ²	1.27x10 ²	1.45x10 ²	1.63x10 ²	1.81x10 ²	
	MSD-K/ MSDG-L	Push	-	20.1	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	15.1	22.6	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	SMG	Push	-	20.1	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
		Pull	-	17.3	25.9	34.6	51.8	69.1	86.4	1.04x10 ²	1.21x10 ²	-	-	-	
	STG	Push	-	-	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	-	22.6	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	MRL2/ MRL2-G	Push	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
		Pull	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
	MRL2-W	Push	-	-	-	80.4	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
		Pull	-	-	-	80.4	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
	MRG2	Push	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
		Pull	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
	STR2	Push	-	40.2	60.3	80.4	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
		Pull	-	24.5	36.8	49.0	73.5	98.0	1.23x10 ²	1.47x10 ²	1.72x10 ²	-	-	-	
	UCA2	Push	-	-	-	49.0	73.5	98.0	1.23x10 ²	1.47x10 ²	1.72x10 ²	1.96x10 ²	2.21x10 ²	2.45x10 ²	
		Pull	-	-	-	49.0	73.5	98.0	1.23x10 ²	1.47x10 ²	1.72x10 ²	1.96x10 ²	2.21x10 ²	2.45x10 ²	
	SSD2/SSD	Push	-	20.1	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	15.1	22.6	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	SSG	Push	-	-	30.2	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	-	22.6	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	SRL3	Push	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
		Pull	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
	SRT3	Push	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
		Pull	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
	LCW	Push	-	-	30.0	40.0	60.0	80.0	1.01x10 ²	1.21x10 ²	1.41x10 ²	-	-	-	
		Pull	-	-	26.0	35.0	52.0	69.0	86.0	1.04x10 ²	1.21x10 ²	-	-	-	
	LCR	Push	-	-	60.0	80.0	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
		Pull	-	-	52.0	69.0	1.04x10 ²	1.38x10 ²	1.73x10 ²	2.07x10 ²	2.42x10 ²	-	-	-	
	LCG	Push	-	-	60.3	80.4	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
		Pull	-	-	51.8	69.1	1.04x10 ²	1.38x10 ²	1.73x10 ²	2.07x10 ²	2.42x10 ²	-	-	-	
	STS/STL	Push	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	-	-	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	SRG3	Push	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
		Pull	-	-	-	43.2	64.8	86.4	1.08x10 ²	1.30x10 ²	1.51x10 ²	-	-	-	
	RCS2	Push	-	20.1	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	15.1	-	30.2	45.2	60.3	75.4	90.5	1.06x10 ²	1.21x10 ²	1.36x10 ²	1.51x10 ²	
	RCC2	Push	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
		Pull	-	-	-	24.5	36.8	49.0	61.3	73.5	85.8	98.0	1.10x10 ²	1.23x10 ²	
	ø20	CMK2/ULK/JSK2 HCA/HCM/SSD2/SSD	Push	-	31.4	47.1	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²
			Pull	-	23.6	35.3	47.1	70.7	94.2	1.18x10 ²	1.41x10 ²	1.65x10 ²	1.88x10 ²	2.12x10 ²	2.36x10 ²
		CMA2/JSM2	Push	-	31.4	47.1	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	-	-	-
			Pull	-	23.6	35.3	47.1	70.7	94.2	1.18x10 ²	1.41x10 ²	1.65x10 ²	-	-	-
		SSG	Push	-	-	47.1	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²
			Pull	-	-	35.3	47.1	70.7	94.2	1.18x10 ²	1.41x10 ²	1.65x10 ²	1.88x10 ²	2.12x10 ²	2.36x10 ²
		SMG	Push	-	31.4	47.1	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	-	-	-
			Pull	-	26.4	39.6	52.8	79.2	1.06x10 ²	1.32x10 ²	1.58x10 ²	1.85x10 ²	-	-	-
MRL2/ MRL2-G		Push	-	-	-	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	-	-	-	
		Pull	-	-	-	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	-	-	-	
MRL2-W		Push	-	-	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.14x10 ²	3.77x10 ²	4.40x10 ²	-	-	-	
		Pull	-	-	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.14x10 ²	3.77x10 ²	4.40x10 ²	-	-	-	
STR2		Push	-	62.8	94.2	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.14x10 ²	3.77x10 ²	4.40x10 ²	-	-	-	
		Pull	-	40.2	60.3	80.4	1.21x10 ²	1.61x10 ²	2.01x10 ²	2.41x10 ²	2.81x10 ²	-	-	-	
LCW		Push	-	-	47.0	63.0	94.0	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	-	-	-	
		Pull	-	-	40.0	53.0	79.0	1.06x10 ²	1.32x10 ²	1.58x10 ²	1.85x10 ²	-	-	-	
LCR		Push	-	-	94.0	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.14x10 ²	3.77x10 ²	4.40x10 ²	-	-	-	
		Pull	-	-	79.0	1.06x10 ²	1.58x10 ²	2.11x10 ²	2.64x10 ²	3.17x10 ²	3.69x10 ²	-	-	-	
LCG		Push	-	-	94.2	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.14x10 ²	3.77x10 ²	4.40x10 ²	-	-	-	
		Pull	-	-	79.2	1.06x10 ²	1.58x10 ²	2.11x10 ²	2.64x10 ²	3.17x10 ²	3.69x10 ²	-	-	-	
STG		Push	-	-	47.1	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²	
		Pull	-	-	35.3	47.1	70.7	94.2	1.18x10 ²	1.41x10 ²	1.65x10 ²	1.88x10 ²	2.12x10 ²	2.36x10 ²	
STS/STL		Push	-	-	-	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²	
		Pull	-	-	-	47.1	70.7	94.2	1.18x10 ²	1.41x10 ²	1.65x10 ²	1.88x10 ²	2.12x10 ²	2.36x10 ²	
STK/STK-M		Push	-	-	-	62.8	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²	
		Pull	-	-	-	40.2	60.3	80.4	1.01x10 ²	1.21x10 ²	1.41x10 ²	1.61x10 ²	1.81x10 ²	2.01x10 ²	
STK-Y1/STK-MY1		Push	-	-	-	-	94.2	1.26x10 ²	1.57x10 ²	1.88x10 ²	2.20x10 ²	2.51x10 ²	2.83x10 ²	3.14x10 ²	
		Pull	-	-	-	-	45.6	65.7	85.8	1.06x10 ²	1.26x10 ²	1.46x10 ²	1.66x10 ²	1.86x10 ²	
SRG3		Push	-	-	-	62.9	94.4	1.26x10 ²	1.57x10 ²	1.89x10 ²	2.20x10 ²	-	-	-	
		Pull	-	-	-	62.9									

Technical data 3

Theoretical thrust table (double acting)

(Unit: N)

			Push ←  Pull →											
Bore size (mm)	Compatible models	Operating direction	Working pressure MPa											
			0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø25	CMK2/UJK/JSK2 HCA/HCM/SSD2/SSD	Push	-	49.1	73.6	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	37.8	56.7	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
	SSG	Push	-	-	73.6	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	-	56.7	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
	SMG	Push	-	49.1	73.6	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	-	-	-
		Pull	-	41.2	61.9	82.5	1.24x10 ²	1.65x10 ²	2.06x10 ²	2.47x10 ²	2.89x10 ²	-	-	-
	MRL2/ MRL2-G	Push	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	-	-	-
		Pull	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	-	-	-
	MRL2-W	Push	-	-	-	1.96x10 ²	2.95x10 ²	3.93x10 ²	4.91x10 ²	5.89x10 ²	6.87x10 ²	-	-	-
		Pull	-	-	-	1.96x10 ²	2.95x10 ²	3.93x10 ²	4.91x10 ²	5.89x10 ²	6.87x10 ²	-	-	-
	MRG2	Push	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	-	-	-
		Pull	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	-	-	-
	LCR	Push	-	-	1.47x10 ²	1.96x10 ²	2.95x10 ²	3.93x10 ²	4.91x10 ²	5.89x10 ²	6.87x10 ²	-	-	-
		Pull	-	-	1.24x10 ²	1.65x10 ²	2.47x10 ²	3.30x10 ²	4.12x10 ²	4.95x10 ²	5.77x10 ²	-	-	-
	LCG	Push	-	-	1.47x10 ²	1.96x10 ²	2.95x10 ²	3.93x10 ²	4.91x10 ²	5.89x10 ²	6.87x10 ²	-	-	-
		Pull	-	-	1.24x10 ²	1.65x10 ²	2.47x10 ²	3.30x10 ²	4.12x10 ²	4.95x10 ²	5.77x10 ²	-	-	-
	LCX	Push	-	-	74	99	1.48x10 ²	1.97x10 ²	2.46x10 ²	2.96x10 ²	3.45x10 ²	-	-	-
		Pull	-	-	57	76	1.14x10 ²	1.52x10 ²	1.90x10 ²	2.28x10 ²	2.66x10 ²	-	-	-
	STG	Push	-	-	73.6	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	-	56.7	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
	STS/STL	Push	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	-	-	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
	STR2	Push	-	98.2	1.47x10 ²	1.96x10 ²	2.95x10 ²	3.93x10 ²	4.91x10 ²	5.89x10 ²	6.87x10 ²	-	-	-
		Pull	-	67.4	1.01x10 ²	1.35x10 ²	2.02x10 ²	2.70x10 ²	3.37x10 ²	4.04x10 ²	4.72x10 ²	-	-	-
	UCA2	Push	-	67.4	1.01x10 ²	1.35x10 ²	2.02x10 ²	2.70x10 ²	3.37x10 ²	4.04x10 ²	4.72x10 ²	5.39x10 ²	6.06x10 ²	6.74x10 ²
		Pull	-	67.4	1.01x10 ²	1.35x10 ²	2.02x10 ²	2.70x10 ²	3.37x10 ²	4.04x10 ²	4.72x10 ²	5.39x10 ²	6.06x10 ²	6.74x10 ²
	SRG3	Push	-	54.2	81.4	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
		Pull	-	54.2	81.4	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
	SRM3	Push	-	-	-	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
		Pull	-	-	-	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
	SCM	Push	-	49.1	73.6	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	41.2	61.9	82.5	1.24x10 ²	1.65x10 ²	2.06x10 ²	2.47x10 ²	2.89x10 ²	3.30x10 ²	3.71x10 ²	4.12x10 ²
	SRL3	Push	-	54.2	81.4	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
		Pull	-	54.2	81.4	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
	SRT3	Push	-	-	-	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
		Pull	-	-	-	1.08x10 ²	1.63x10 ²	2.17x10 ²	2.71x10 ²	3.25x10 ²	3.80x10 ²	-	-	-
	FCD	Push	-	49.3	73.9	98.5	1.48x10 ²	1.97x10 ²	2.46x10 ²	2.96x10 ²	3.45x10 ²	-	-	-
		Pull	-	37.9	56.9	75.9	1.14x10 ²	1.52x10 ²	1.90x10 ²	2.28x10 ²	2.66x10 ²	-	-	-
	UFCD	Push	-	-	-	98.5	1.48x10 ²	1.97x10 ²	2.46x10 ²	2.96x10 ²	3.45x10 ²	-	-	-
		Pull	-	-	-	75.9	1.14x10 ²	1.52x10 ²	1.90x10 ²	2.28x10 ²	2.66x10 ²	-	-	-
	RCS2	Push	-	49.1	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	37.8	-	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
	RCC2	Push	-	-	-	98.2	1.47x10 ²	1.96x10 ²	2.45x10 ²	2.95x10 ²	3.44x10 ²	3.93x10 ²	4.42x10 ²	4.91x10 ²
		Pull	-	-	-	75.6	1.13x10 ²	1.51x10 ²	1.89x10 ²	2.27x10 ²	2.64x10 ²	3.02x10 ²	3.40x10 ²	3.78x10 ²
ø30	CMA2/JSM2	Push	-	70.7	1.06x10 ²	1.41x10 ²	2.12x10 ²	2.83x10 ²	3.53x10 ²	4.24x10 ²	4.95x10 ²	-	-	-
		Pull	-	59.4	89.1	1.19x10 ²	1.78x10 ²	2.38x10 ²	2.97x10 ²	3.56x10 ²	4.16x10 ²	-	-	-
	MFC-BS	Push	-	-	-	1.41x10 ²	2.12x10 ²	2.83x10 ²	3.53x10 ²	4.24x10 ²	4.95x10 ²	5.65x10 ²	6.36x10 ²	7.07x10 ²
Pull	-	-	-	1.19x10 ²	1.78x10 ²	2.38x10 ²	2.97x10 ²	3.56x10 ²	4.16x10 ²	4.75x10 ²	5.34x10 ²	5.94x10 ²		
ø32	SCG	Push	40.2	80.4	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	34.6	69.1	1.04x10 ²	1.38x10 ²	2.07x10 ²	2.76x10 ²	3.46x10 ²	4.15x10 ²	4.84x10 ²	5.53x10 ²	6.22x10 ²	6.91x10 ²
	SSD2/SSD	Push	-	80.4	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	60.3	90.5	1.21x10 ²	1.81x10 ²	2.41x10 ²	3.02x10 ²	3.62x10 ²	4.22x10 ²	4.83x10 ²	5.43x10 ²	6.03x10 ²
	SSG	Push	-	80.4	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	60.3	90.5	1.21x10 ²	1.81x10 ²	2.41x10 ²	3.02x10 ²	3.62x10 ²	4.22x10 ²	4.83x10 ²	5.43x10 ²	6.03x10 ²
	CMK2/UJK/JSK2 CAC-N/HCA/HCM/SCM	Push	-	80.4	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	69.1	1.04x10 ²	1.38x10 ²	2.07x10 ²	2.76x10 ²	3.46x10 ²	4.15x10 ²	4.84x10 ²	5.53x10 ²	6.22x10 ²	6.91x10 ²
	CAC-N	Push	-	-	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	-	1.04x10 ²	1.38x10 ²	2.07x10 ²	2.76x10 ²	3.46x10 ²	4.15x10 ²	4.84x10 ²	5.53x10 ²	6.22x10 ²	6.91x10 ²
	SMG	Push	-	80.4	1.21x10 ²	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	-	-	-
		Pull	-	69.1	1.04x10 ²	1.38x10 ²	2.07x10 ²	2.76x10 ²	3.46x10 ²	4.15x10 ²	4.84x10 ²	-	-	-
	MRL2/ MRL2-G	Push	-	-	-	1.61x10 ²	2.41x10 ^{2</}							

Theoretical thrust table (double acting)

(Unit: N)

			Push ← Pull →											
Bore size (mm)	Compatible models	Operating direction	Working pressure MPa											
			0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø32	SRM3	Push	-	-	-	1.63x10 ²	2.44x10 ²	3.26x10 ²	4.07x10 ²	4.88x10 ²	5.70x10 ²	-	-	-
		Pull	-	-	-	1.63x10 ²	2.44x10 ²	3.26x10 ²	4.07x10 ²	4.88x10 ²	5.70x10 ²	-	-	-
	SRT3	Push	-	-	-	1.63x10 ²	2.44x10 ²	3.26x10 ²	4.07x10 ²	4.88x10 ²	5.70x10 ²	-	-	-
		Pull	-	-	-	1.63x10 ²	2.44x10 ²	3.26x10 ²	4.07x10 ²	4.88x10 ²	5.70x10 ²	-	-	-
	STR2	Push	-	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.83x10 ²	6.43x10 ²	8.04x10 ²	9.65x10 ²	1.13x10 ³	-	-	-
		Pull	-	1.21x10 ²	1.81x10 ²	2.41x10 ²	3.62x10 ²	4.83x10 ²	6.03x10 ²	7.24x10 ²	8.44x10 ²	-	-	-
	RCS2	Push	-	80.4	-	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	60.3	-	1.21x10 ²	1.81x10 ²	2.41x10 ²	3.02x10 ²	3.62x10 ²	4.22x10 ²	4.83x10 ²	5.43x10 ²	6.03x10 ²
	RCC2	Push	-	-	-	1.61x10 ²	2.41x10 ²	3.22x10 ²	4.02x10 ²	4.83x10 ²	5.63x10 ²	6.43x10 ²	7.24x10 ²	8.04x10 ²
		Pull	-	-	-	1.21x10 ²	1.81x10 ²	2.41x10 ²	3.02x10 ²	3.62x10 ²	4.22x10 ²	4.83x10 ²	5.43x10 ²	6.03x10 ²
ø40	SCG/JSG	Push	62.8	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	52.8	1.06x10 ²	1.58x10 ²	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
	SCA2/JSC3/HCA/HCM SCM/SSD2/SSD/USC	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.06x10 ²	1.58x10 ²	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
	SSG	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.06x10 ²	1.58x10 ²	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
	CMK2/ULK/CAC-N CKV2/JSK2	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.10x10 ²	1.65x10 ²	2.21x10 ²	3.31x10 ²	4.41x10 ²	5.51x10 ²	6.62x10 ²	7.72x10 ²	8.82x10 ²	9.92x10 ²	1.10x10 ³
	CAC-N	Push	-	-	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	-	1.65x10 ²	2.21x10 ²	3.31x10 ²	4.41x10 ²	5.51x10 ²	6.62x10 ²	7.72x10 ²	8.82x10 ²	9.92x10 ²	1.10x10 ³
	CMA2/JSM2	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	-	-	-
		Pull	-	1.10x10 ²	1.65x10 ²	2.21x10 ²	3.31x10 ²	4.41x10 ²	5.51x10 ²	6.62x10 ²	7.72x10 ²	-	-	-
	SRL3	Push	-	1.27x10 ²	1.90x10 ²	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
		Pull	-	1.27x10 ²	1.90x10 ²	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
	FCD	Push	-	1.29x10 ²	1.94x10 ²	2.58x10 ²	3.87x10 ²	5.16x10 ²	6.45x10 ²	7.75x10 ²	9.04x10 ²	-	-	-
		Pull	-	1.09x10 ²	1.63x10 ²	2.18x10 ²	3.27x10 ²	4.36x10 ²	5.45x10 ²	6.54x10 ²	7.63x10 ²	-	-	-
	STG	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.06x10 ²	1.58x10 ²	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
	STS/STL	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.06x10 ²	1.58x10 ²	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
STK/STK-M	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³	
	Pull	-	76.6	1.15x10 ²	1.53x10 ²	2.30x10 ²	3.06x10 ²	3.83x10 ²	4.59x10 ²	5.36x10 ²	6.13x10 ²	6.89x10 ²	7.66x10 ²	
STK-Y1/ STK-MY1	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³	
	Pull	-	32.2	70.5	1.09x10 ²	1.85x10 ²	2.62x10 ²	3.38x10 ²	4.15x10 ²	4.92x10 ²	5.68x10 ²	6.45x10 ²	7.21x10 ²	
UFCD	Push	-	-	-	2.58x10 ²	3.87x10 ²	5.16x10 ²	6.45x10 ²	7.75x10 ²	9.04x10 ²	-	-	-	
	Pull	-	-	-	2.18x10 ²	3.27x10 ²	4.36x10 ²	5.45x10 ²	6.54x10 ²	7.63x10 ²	-	-	-	
MFC-BS	Push	-	-	-	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³	
	Pull	-	-	-	2.21x10 ²	3.31x10 ²	4.41x10 ²	5.51x10 ²	6.62x10 ²	7.72x10 ²	8.82x10 ²	9.92x10 ²	1.10x10 ³	
ø50	SRM3	Push	-	-	-	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
		Pull	-	-	-	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
	SRT3	Push	-	-	-	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
		Pull	-	-	-	2.53x10 ²	3.80x10 ²	5.06x10 ²	6.33x10 ²	7.60x10 ²	8.86x10 ²	-	-	-
	CAC4/UCAC2	Push	-	1.26x10 ²	1.88x10 ²	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	94.2	1.41x10 ²	1.88x10 ²	2.83x10 ²	3.77x10 ²	4.71x10 ²	5.65x10 ²	6.60x10 ²	7.54x10 ²	8.48x10 ²	9.42x10 ²
	RCS2	Push	-	1.26x10 ²	-	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	1.06x10 ²	-	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.44x10 ²	9.50x10 ²	1.06x10 ³
	RCC2	Push	-	-	-	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	-	-	2.11x10 ²	3.17x10 ²	4.22x10 ²	5.28x10 ²	6.33x10 ²	7.39x10 ²	8.45x10 ²	9.50x10 ²	1.06x10 ³
	GLC	Push	-	-	-	2.51x10 ²	3.77x10 ²	5.03x10 ²	6.28x10 ²	7.54x10 ²	8.80x10 ²	1.01x10 ³	1.13x10 ³	1.26x10 ³
		Pull	-	-	-	1.53x10 ²	2.30x10 ²	3.06x10 ²	3.83x10 ²	4.59x10 ²	5.36x10 ²	6.13x10 ²	6.89x10 ²	7.66x10 ²
	SCG/JSG	Push	98.2	1.96x10 ²	2.95x10 ²	3.93x10 ²	5.89x10 ²	7.85x10 ²	9.82x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³	1.96x10 ³
		Pull	82.5	1.65x10 ²	2.47x10 ²	3.30x10 ²	4.95x10 ²	6.60x10 ²	8.25x10 ²	9.90x10 ²	1.15x10 ³	1.32x10 ³	1.48x10 ³	1.65x10 ³
	SCA2/JSC3/HCA/HCM SCM/SSD2/SSD/USC	Push	-	1.96x10 ²	2.95x10 ²	3.93x10 ²	5.89x10 ²	7.85x10 ²	9.82x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³	1.96x10 ³
		Pull	-	1.65x10 ²	2.47x10 ²	3.30x10 ²	4.95x10 ²	6.60x10 ²	8.25x10 ²	9.90x10 ²	1.15x10 ³	1.32x10 ³	1	

Theoretical thrust table (double acting)

(Unit: N)

		Operating direction	Push ←  Pull →											
Bore size (mm)	Compatible models		Working pressure MPa											
			0.05	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø50	GLC	Push	-	-	-	3.93x10 ²	5.89x10 ²	7.85x10 ²	9.82x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³	1.96x10 ³
		Pull	-	-	-	2.00x10 ²	3.00x10 ²	4.01x10 ²	5.01x10 ²	6.01x10 ²	7.01x10 ²	8.01x10 ²	9.01x10 ²	1.00x10 ³
ø63	SCG/JSG	Push	1.56x10 ²	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	1.40x10 ²	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	SCA2/JSC3/HCA/HCM SCM/SSD2/SSD/USC	Push	-	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	SSG	Push	-	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	SRL3	Push	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
		Pull	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
	FCD	Push	-	3.18x10 ²	4.77x10 ²	6.36x10 ²	9.53x10 ²	1.27x10 ³	1.59x10 ³	1.91x10 ³	2.22x10 ³	-	-	-
		Pull	-	2.86x10 ²	4.30x10 ²	5.73x10 ²	8.59x10 ²	1.15x10 ³	1.43x10 ³	1.72x10 ³	2.00x10 ³	-	-	-
	STG	Push	-	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	STS/STL	Push	-	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	UFCD	Push	-	-	-	6.36x10 ²	9.53x10 ²	1.27x10 ³	1.59x10 ³	1.91x10 ³	2.22x10 ³	-	-	-
		Pull	-	-	-	5.73x10 ²	8.59x10 ²	1.15x10 ³	1.43x10 ³	1.72x10 ³	2.00x10 ³	-	-	-
	MFC-BS	Push	-	-	-	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	-	-	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	SRM3	Push	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
		Pull	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
	SRT3	Push	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
		Pull	-	3.14x10 ²	4.70x10 ²	6.27x10 ²	9.41x10 ²	1.25x10 ³	1.57x10 ³	1.88x10 ³	2.20x10 ³	-	-	-
	CAC4/UCAC2	Push	-	3.12x10 ²	4.68x10 ²	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	2.80x10 ²	4.20x10 ²	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	1.96x10 ³	2.24x10 ³	2.52x10 ³	2.80x10 ³
	RCS2	Push	-	3.12x10 ²	-	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	-	-	-	-
		Pull	-	2.80x10 ²	-	5.61x10 ²	8.41x10 ²	1.12x10 ³	1.40x10 ³	1.68x10 ³	-	-	-	-
	RCC2	Push	-	-	-	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	-	-	5.25x10 ²	7.88x10 ²	1.05x10 ³	1.31x10 ³	1.58x10 ³	1.84x10 ³	2.10x10 ³	2.36x10 ³	2.63x10 ³
	GLC	Push	-	-	-	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	3.12x10 ³
		Pull	-	-	-	3.72x10 ²	5.58x10 ²	7.44x10 ²	9.30x10 ²	1.12x10 ³	1.30x10 ³	1.49x10 ³	1.67x10 ³	1.86x10 ³
ø75	CAV2/COV2	Push	-	-	-	8.84x10 ²	1.33x10 ³	1.77x10 ³	2.21x10 ³	2.65x10 ³	3.09x10 ³	-	-	-
		Pull	-	-	-	7.85x10 ²	1.18x10 ³	1.57x10 ³	1.96x10 ³	2.36x10 ³	2.75x10 ³	-	-	-
ø80	SCG/JSG	Push	2.51x10 ²	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	2.27x10 ²	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	SCA2/JSC3/HCA SCM/SSD2/SSD/USC	Push	-	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	SSG	Push	-	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	SRL3	Push	-	5.06x10 ²	7.60x10 ²	1.01x10 ³	1.52x10 ³	2.03x10 ³	2.53x10 ³	3.04x10 ³	3.54x10 ³	-	-	-
		Pull	-	5.06x10 ²	7.60x10 ²	1.01x10 ³	1.52x10 ³	2.03x10 ³	2.53x10 ³	3.04x10 ³	3.54x10 ³	-	-	-
	STG	Push	-	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	STS/STL	Push	-	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	MFC-BS	Push	-	-	-	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	-	-	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	CAC4	Push	-	5.03x10 ²	7.54x10 ²	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	4.54x10 ²	6.80x10 ²	9.07x10 ²	1.36x10 ³	1.81x10 ³	2.27x10 ³	2.72x10 ³	3.17x10 ³	3.63x10 ³	4.08x10 ³	4.54x10 ³
	GLC	Push	-	-	-	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	5.03x10 ³
		Pull	-	-	-	6.13x10 ²	9.19x10 ²	1.23x10 ³	1.53x10 ³	1.84x10 ³	2.14x10 ³	2.45x10 ³	2.76x10 ³	3.06x10 ³
ø100	CAV2/COV2	Push	-	-	-	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.50x10 ³	-	-	-
		Pull	-	-	-	1.47x10 ³	2.21x10 ³	2.95x10 ³	3.68x10 ³	4.42x10 ³	5.15x10 ³	-	-	-
	SCG/JSG	Push	3.93x10 ²	7.85x10 ²	1.18x10 ³	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.50x10 ³	6.28x10 ³	7.07x10 ³	7.85x

Theoretical thrust table (double acting)

(Unit: N)

	Bore size (mm)	Operating direction	Piston position	Push ← → Pull 								
				Working pressure MPa								
				0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
SHC	ø40	Push	Thrust	2.51x10 ²	3.76x10 ²	5.02x10 ²	6.28x10 ²	7.53x10 ²	8.79x10 ²	1.0x10 ³	1.13x10 ³	-
			Booster	5.2x10 ²	7.8x10 ²	1.04x10 ³	1.30x10 ³	1.56x10 ³	1.82x10 ³	2.08x10 ³	2.34x10 ³	-
		Pull	Thrust	1.28x10 ²	1.92x10 ²	2.56x10 ²	3.20x10 ²	3.84x10 ²	4.48x10 ²	5.12x10 ²	5.76x10 ²	-
			Booster	3.97x10 ²	5.96x10 ²	7.95x10 ²	9.94x10 ²	1.19x10 ³	1.39x10 ³	1.59x10 ³	1.79x10 ³	-
	ø50	Push	Thrust	3.92x10 ²	5.88x10 ²	7.85x10 ²	9.81x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³	-
			Booster	8.55x10 ²	1.28x10 ³	1.71x10 ³	2.14x10 ³	2.57x10 ³	2.99x10 ³	3.42x10 ³	3.85x10 ³	-
		Pull	Thrust	2.31x10 ²	3.47x10 ²	4.63x10 ²	5.79x10 ²	6.95x10 ²	8.11x10 ²	9.27x10 ²	1.04x10 ³	-
			Booster	6.94x10 ²	1.04x10 ³	1.39x10 ³	1.74x10 ³	2.08x10 ³	2.43x10 ³	2.78x10 ³	3.12x10 ³	-
	ø63	Push	Thrust	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	-
			Booster	1.26x10 ³	1.88x10 ³	2.51x10 ³	3.14x10 ³	3.77x10 ³	4.39x10 ³	5.02x10 ³	5.65x10 ³	-
		Pull	Thrust	3.72x10 ²	5.58x10 ²	7.44x10 ²	9.30x10 ²	1.12x10 ³	1.30x10 ³	1.49x10 ³	1.67x10 ³	-
			Booster	1.04x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.01x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	-
	ø80	Push	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	-
			Booster	1.88x10 ³	2.82x10 ³	3.77x10 ³	4.71x10 ³	5.65x10 ³	6.59x10 ³	7.53x10 ³	8.47x10 ³	-
		Pull	Thrust	6.12x10 ²	9.18x10 ²	1.23x10 ³	1.53x10 ³	1.84x10 ³	2.14x10 ³	2.45x10 ³	2.76x10 ³	-
			Booster	1.49x10 ³	2.24x10 ³	2.98x10 ³	3.73x10 ³	4.47x10 ³	5.22x10 ³	5.96x10 ³	6.71x10 ³	-
	ø100	Push	Thrust	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.5x10 ³	6.28x10 ³	7.07x10 ³	-
			Booster	2.91x10 ³	4.36x10 ³	5.81x10 ³	7.26x10 ³	8.72x10 ³	1.02x10 ⁴	1.16x10 ⁴	1.31x10 ⁴	-
		Pull	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	-
			Booster	2.34x10 ³	3.51x10 ³	4.68x10 ³	5.85x10 ³	7.02x10 ³	8.19x10 ³	9.36x10 ³	1.05x10 ⁴	-
SHC-K	ø40	Push	Thrust	2.51x10 ²	3.76x10 ²	5.02x10 ²	6.28x10 ²	7.53x10 ²	8.79x10 ²	1.0x10 ³	1.13x10 ³	-
			Booster	1.13x10 ³	1.70x10 ³	2.27x10 ³	2.83x10 ³	3.40x10 ³	3.97x10 ³	4.53x10 ³	5.10x10 ³	-
		Pull	Thrust	1.28x10 ²	1.92x10 ²	2.56x10 ²	3.20x10 ²	3.84x10 ²	4.48x10 ²	5.12x10 ²	5.76x10 ²	-
			Booster	1.01x10 ³	1.52x10 ³	2.02x10 ³	2.53x10 ³	3.03x10 ³	3.54x10 ³	4.04x10 ³	4.55x10 ³	-
	ø50	Push	Thrust	3.92x10 ²	5.88x10 ²	7.85x10 ²	9.81x10 ²	1.18x10 ³	1.37x10 ³	1.57x10 ³	1.77x10 ³	-
			Booster	1.80x10 ³	2.70x10 ³	3.60x10 ³	4.51x10 ³	5.41x10 ³	6.31x10 ³	7.21x10 ³	8.11x10 ³	-
		Pull	Thrust	2.31x10 ²	3.47x10 ²	4.63x10 ²	5.79x10 ²	6.95x10 ²	8.11x10 ²	9.27x10 ²	1.04x10 ³	-
			Booster	1.64x10 ³	2.46x10 ³	3.28x10 ³	4.10x10 ³	4.92x10 ³	5.75x10 ³	6.57x10 ³	7.39x10 ³	-
	ø63	Push	Thrust	6.23x10 ²	9.35x10 ²	1.25x10 ³	1.56x10 ³	1.87x10 ³	2.18x10 ³	2.49x10 ³	2.81x10 ³	-
			Booster	2.83x10 ³	4.24x10 ³	5.65x10 ³	7.07x10 ³	8.48x10 ³	9.89x10 ³	1.13x10 ⁴	1.27x10 ⁴	-
		Pull	Thrust	3.72x10 ²	5.58x10 ²	7.44x10 ²	9.30x10 ²	1.12x10 ³	1.30x10 ³	1.49x10 ³	1.67x10 ³	-
			Booster	2.58x10 ³	3.86x10 ³	5.15x10 ³	6.44x10 ³	7.73x10 ³	9.01x10 ³	1.03x10 ⁴	1.16x10 ⁴	-
	ø80	Push	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	-
			Booster	4.63x10 ³	6.95x10 ³	9.27x10 ³	1.16x10 ⁴	1.39x10 ⁴	1.62x10 ⁴	1.85x10 ⁴	2.09x10 ⁴	-
		Pull	Thrust	6.12x10 ²	9.18x10 ²	1.23x10 ³	1.53x10 ³	1.84x10 ³	2.14x10 ³	2.45x10 ³	2.76x10 ³	-
			Booster	4.24x10 ³	6.36x10 ³	8.48x10 ³	1.06x10 ⁴	1.27x10 ⁴	1.48x10 ⁴	1.70x10 ⁴	1.91x10 ⁴	-
	ø100	Push	Thrust	1.57x10 ³	2.36x10 ³	3.14x10 ³	3.93x10 ³	4.71x10 ³	5.50x10 ³	6.28x10 ³	7.07x10 ³	-
			Booster	7.29x10 ³	1.09x10 ⁴	1.46x10 ⁴	1.82x10 ⁴	2.19x10 ⁴	2.55x10 ⁴	2.91x10 ⁴	3.28x10 ⁴	-
		Pull	Thrust	1.01x10 ³	1.51x10 ³	2.01x10 ³	2.51x10 ³	3.02x10 ³	3.52x10 ³	4.02x10 ³	4.52x10 ³	-
			Booster	6.72x10 ³	1.01x10 ⁴	1.34x10 ⁴	1.68x10 ⁴	2.02x10 ⁴	2.35x10 ⁴	2.69x10 ⁴	3.02x10 ⁴	-

Note: When the booster section is pulled (backward), due to product structure, theoretical thrust is reduced to approximately 70%.

Theoretical thrust table (single acting push) Thrust during push

(Unit: N)

		Push ←								
Bore size (mm)	Compatible models	Working pressure MPa								
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø2.5	SCPS	-	-	0.793	1.28	1.78	2.27	2.76	3.25	3.74
ø4		-	-	2.19	3.44	4.70	5.96	7.21	8.47	9.73
ø6		-	4.8	7.6	10.4	13.3	16.1	18.9	21.7	24.6
ø10	SCPS3	8.2	16.1	23.9	31.8	39.6	47.5	55.3	63.2	71.0
ø16		25.3	45.4	65.5	85.6	105.7	125.8	145.9	166.1	186.2
ø6	MSD-X	-	3.58	6.41	9.24	12.1	14.9	17.7	20.5	23.4
ø8		-	8.22	13.2	18.3	23.3	28.3	33.4	38.4	43.4
ø6	SMG-X	-	4.68	7.51	10.3	13.2	16.0	-	-	-
ø10		7.71	15.6	23.4	31.3	39.1	47.0	-	-	-
ø16		24.2	44.3	64.4	84.5	1.05x10 ²	1.25x10 ²	-	-	-
ø20		43.8	75.2	1.07x10 ²	1.38x10 ²	1.69x10 ²	2.01x10 ²	-	-	-
ø25		73.2	1.22x10 ²	1.71x10 ²	2.20x10 ²	2.70x10 ²	3.19x10 ²	-	-	-
ø32		1.31x10 ²	2.11x10 ²	2.92x10 ²	3.72x10 ²	4.53x10 ²	5.33x10 ²	-	-	-
ø25	FCS	-	1.12x10 ²	1.62x10 ²	2.11x10 ²	2.60x10 ²	3.09x10 ²	-	-	-
ø32		-	1.85x10 ²	2.63x10 ²	3.41x10 ²	4.18x10 ²	4.96x10 ²	-	-	-
ø40		2.11x10 ²	3.40x10 ²	4.69x10 ²	5.98x10 ²	7.27x10 ²	8.56x10 ²	-	-	-
ø50		3.11x10 ²	5.05x10 ²	6.98x10 ²	8.91x10 ²	1.08x10 ³	1.28x10 ³	-	-	-
ø63	SSD2-X/ SSD-X	5.16x10 ²	8.34x10 ²	1.15x10 ³	1.47x10 ³	1.79x10 ³	2.10x10 ³	-	-	-
ø12		8.9	20.2	31.5	42.8	54.2	65.5	76.8	88.1	99.4
ø16		25.1	45.2	65.3	85.4	1.06x10 ²	1.26x10 ²	1.46x10 ²	1.66x10 ²	1.86x10 ²
ø20		38.8	70.2	1.02x10 ²	1.33x10 ²	1.64x10 ²	1.96x10 ²	2.27x10 ²	2.59x10 ²	2.90x10 ²
ø25		74.7	1.24x10 ²	1.73x10 ²	2.22x10 ²	2.71x10 ²	3.20x10 ²	3.69x10 ²	4.18x10 ²	4.67x10 ²
ø32		1.32x10 ²	2.13x10 ²	2.93x10 ²	3.74x10 ²	4.54x10 ²	5.34x10 ²	6.15x10 ²	6.95x10 ²	7.76x10 ²
ø40		2.13x10 ²	3.39x10 ²	4.64x10 ²	5.90x10 ²	7.16x10 ²	8.41x10 ²	9.67x10 ²	1.09x10 ³	1.22x10 ³
ø50		3.45x10 ²	5.41x10 ²	7.37x10 ²	9.34x10 ²	1.13x10 ³	1.33x10 ³	1.52x10 ³	1.72x10 ³	1.92x10 ³

Theoretical thrust table (single acting pull) Thrust during pull

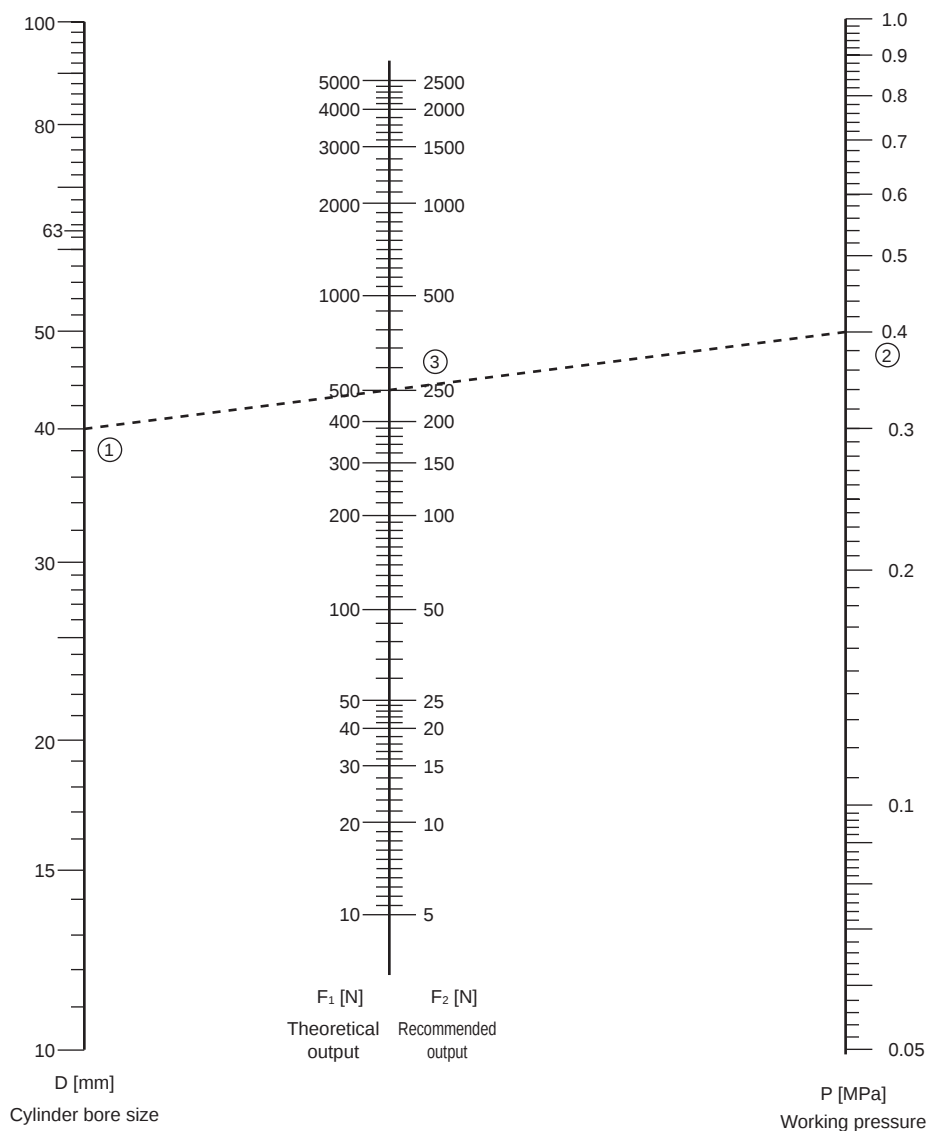
(Unit: N)

		Pull 																	
Bore size (mm)	Compatible models	Working pressure MPa																	
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0									
ø6	SCPH3	-	-	4.8	6.9	9.0	11.1	13.3	15.4	17.5									
ø10		5.7	12.3	18.9	25.5	32.1	38.7	45.3	51.9	58.5									
ø16		21.4	38.5	57.7	75.8	94.0	112.1	130.2	148.4	166.5									
ø6	MSD-Y	-	-	1.38	2.95	4.52	6.10	7.67	9.24	10.8									
ø8		-	2.33	5.39	8.46	11.5	14.6	17.6	20.7	23.8									
ø6	SMG-Y	-	2.56	4.68	6.80	8.92	11.0	-	-	-									
ø10		5.19	11.8	18.4	25.0	31.6	38.2	-	-	-									
ø16		18.6	35.8	53.1	70.4	87.7	1.05x10 ²	-	-	-									
ø20		33.8	60.2	86.6	1.13x10 ²	1.39x10 ²	1.66x10 ²	-	-	-									
ø25		57.5	98.7	1.40x10 ²	1.81x10 ²	2.22x10 ²	2.64x10 ²	-	-	-									
ø32		1.08x10 ²	1.77x10 ²	2.46x10 ²	3.16x10 ²	3.85x10 ²	4.54x10 ²	-	-	-									
ø25	FCH	-	78.5	1.16x10 ²	1.54x10 ²	1.92x10 ²	2.30x10 ²	-	-	-									
ø32		-	1.25x10 ²	1.83x10 ²	2.40x10 ²	2.98x10 ²	3.55x10 ²	-	-	-									
ø40		1.70x10 ²	2.79x10 ²	3.88x10 ²	4.97x10 ²	6.06x10 ²	7.15x10 ²	-	-	-									
ø50		2.49x10 ²	4.10x10 ²	5.72x10 ²	7.34x10 ²	8.96x10 ²	1.06x10 ³	-	-	-									
ø63		4.53x10 ²	7.39x10 ²	1.03x10 ³	1.31x10 ³	1.60x10 ³	1.88x10 ³	-	-	-									
ø20	STK-Y/ STK-MY	-	45.6	65.7	85.8	1.06x10 ²	1.26x10 ²	1.46x10 ²	1.66x10 ²	1.86x10 ²									
ø32		66.6	1.16x10 ²	1.65x10 ²	2.14x10 ²	2.63x10 ²	3.12x10 ²	3.61x10 ²	4.10x10 ²	4.59x10 ²									
ø40		1.09x10 ²	1.85x10 ²	2.62x10 ²	3.38x10 ²	4.15x10 ²	4.92x10 ²	5.68x10 ²	6.45x10 ²	7.21x10 ²									
ø50		1.67x10 ²	2.92x10 ²	4.18x10 ²	5.44x10 ²	6.69x10 ²	7.95x10 ²	9.21x10 ²	1.05x10 ³	1.17x10 ³									
		Stroke mm																	
		5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10
ø12	SSD2-Y/ SSD-Y	5.96	5.66	14.4	14.1	22.9	22.6	31.4	31.1	39.9	39.6	48.4	48.1	56.9	56.6	65.3	65.0	73.8	73.5
ø16		17.0	17.0	32.0	32.0	47.1	47.1	62.2	62.2	77.3	77.3	92.4	92.4	1.07x10 ²	1.07x10 ²	1.23x10 ²	1.23x10 ²	1.38x10 ²	1.38x10 ²
ø20		16.7	16.8	40.3	40.4	63.8	63.9	87.4	87.5	1.11x10 ²	1.11x10 ²	1.35x10 ²	1.35x10 ²	1.58x10 ²	1.58x10 ²	1.82x10 ²	1.82x10 ²	2.05x10 ²	2.05x10 ²
ø25		49.1	49.1	86.8	86.8	1.25x10 ²	1.25x10 ²	1.62x10 ²	1.62x10 ²	2.00x10 ²	2.00x10 ²	2.38x10 ²	2.38x10 ²	2.76x10 ²	2.76x10 ²	3.13x10 ²	3.13x10 ²	3.51x10 ²	3.51x10 ²
ø32		93.6	93.2	1.54x10 ²	1.54x10 ²	2.14x10 ²	2.14x10 ²	2.75x10 ²	2.74x10 ²	3.35x10 ²	3.35x10 ²	3.95x10 ²	3.95x10 ²	4.56x10 ²	4.55x10 ²	5.16x10 ²	5.15x10 ²	5.76x10 ²	5.76x10 ²
		Stroke mm																	
		10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20
ø40	SSD2-Y/ SSD-Y	1.78x10 ²	1.71x10 ²	2.84x10 ²	2.76x10 ²	3.89x10 ²	3.82x10 ²	4.95x10 ²	4.88x10 ²	6.00x10 ²	5.93x10 ²	7.06x10 ²	6.99x10 ²	8.11x10 ²	8.04x10 ²	9.17x10 ²	9.10x10 ²	1.02x10 ³	1.02x10 ³
ø50		2.46x10 ²	2.48x10 ²	4.11x10 ²	4.13x10 ²	5.75x10 ²	5.77x10 ²	7.40x10 ²	7.42x10 ²	9.05x10 ²	9.07x10 ²	1.07x10 ³	1.07x10 ³	1.24x10 ³	1.24x10 ³	1.40x10 ³	1.40x10 ³	1.57x10 ³	1.57x10 ³

Ending

Cylinder bore size selection nomogram

● In the case of 10 to 100 mm bore and rod push direction.



This nomogram was created according to the following formula.

$$F_1 = \frac{\pi}{4} \times D^2 / P$$

However, F₁: Theoretical output [N]

F₂: Recommended output (at 50% efficiency) [N]

D : Cylinder bore size [mm]

P : Operating pressure [MPa]

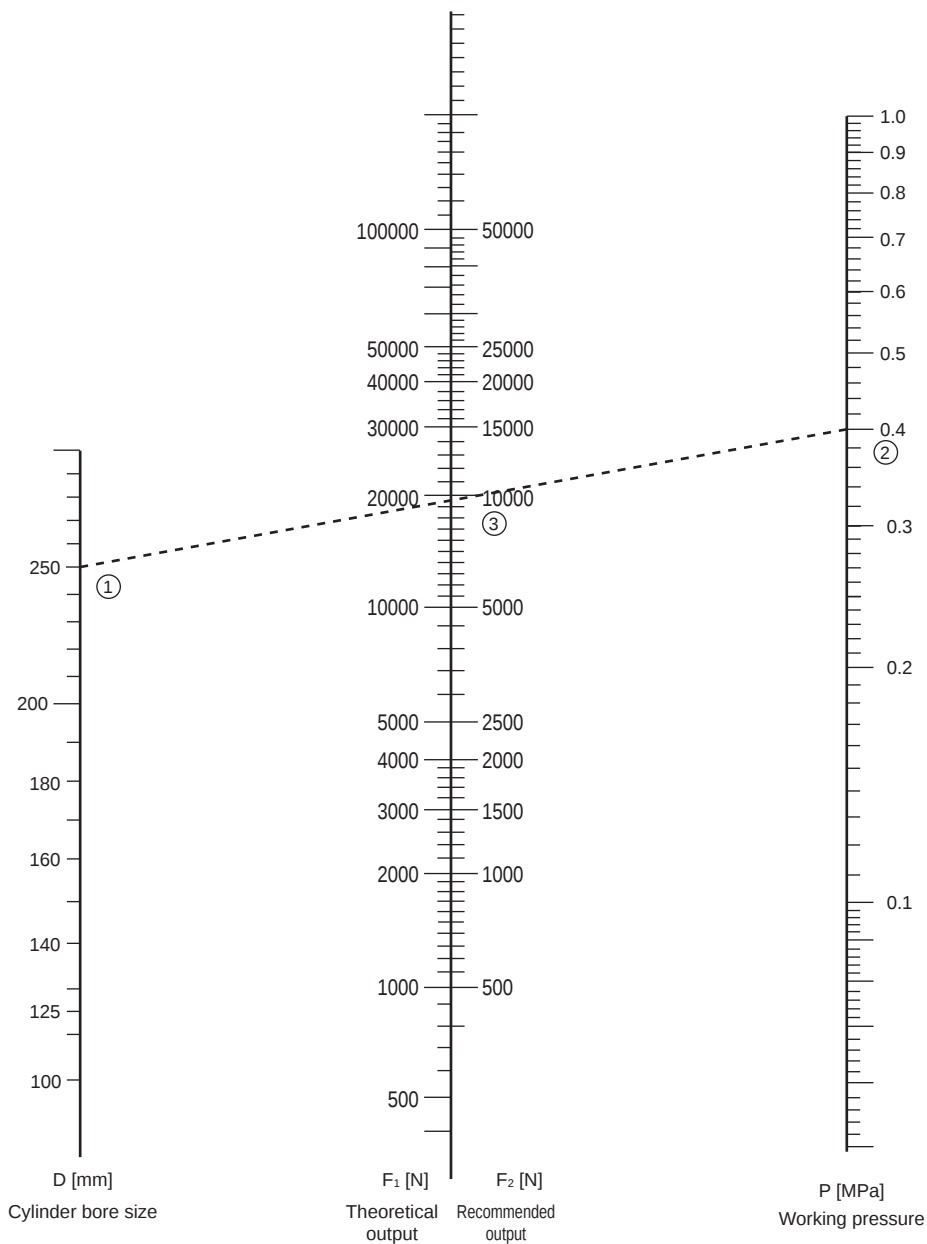
(Example) When operating a ø40 bore cylinder with 0.4 MPa pneumatic pressure, what is the theoretical output?

(Answer) Connect D and P to find the point on F; this leads to the theoretical output F ≈ 500 N.

Technical data 8

Cylinder bore size selection nomogram

● In the case of 100 to 250 mm bore and rod push direction.



This nomogram was created according to the following formula.

$$F_1 = \frac{\pi}{4} \times D^2 / P$$

However, F₁: Theoretical output [N]

F₂: Recommended output (at 50% efficiency) [N]

D: Cylinder bore size [mm]

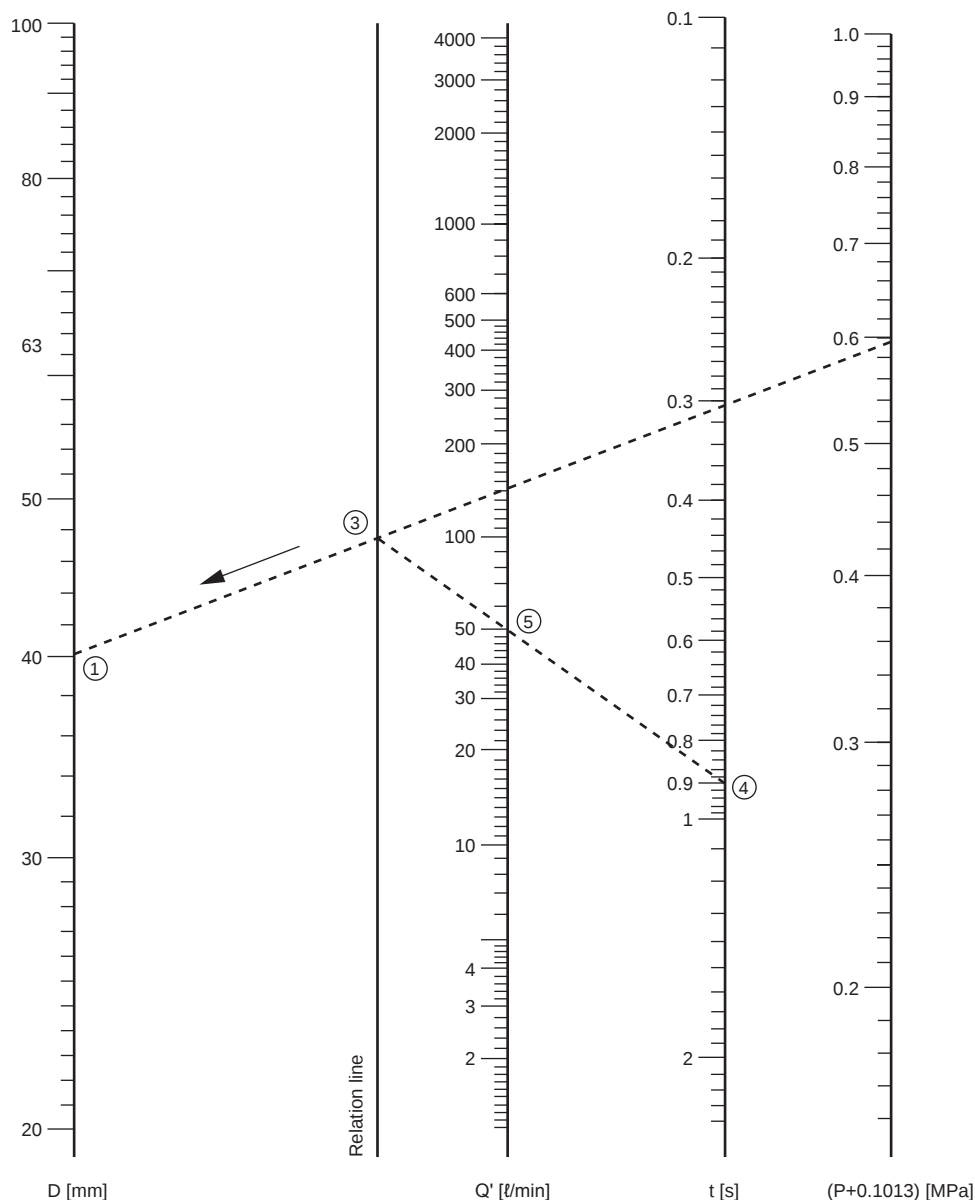
P: Operating pressure [MPa]

(Example) When operating a ø250 bore cylinder with 0.4 MPa pneumatic pressure, what is the theoretical output?

(Answer) Connect D and P to find the point on F₁; this leads to the theoretical output F ≈ 19000N.

Required flow rate of cylinder during operation (within bore size 100 mm)

● Q: Required flow rate $\ell/\text{min.}$ per stroke 100 mm



1. Required flow rate formula of cylinder during operation

The required flow rate means the instantaneous flow rate that flows during cylinder operation.

This is different from air consumption of cylinder. Do not confuse them.

$$Q = \frac{\pi}{4} \cdot D^2 \cdot \frac{L}{t} \cdot \frac{P+0.1013}{0.1013} \times 10^{-6} \times 60$$

Q: Flow rate [ℓ/min] (ANR)

D: Cylinder bore size [mm]

L: Stroke [mm]

t: Travel time of stroke [s]

P: Working pressure [MPa]

(Example 1 in above fig.) When operating a 40 mm bore cylinder with 0.5 MPa air pressure, and 0.9 s per 100 mm stroke, required flow is:

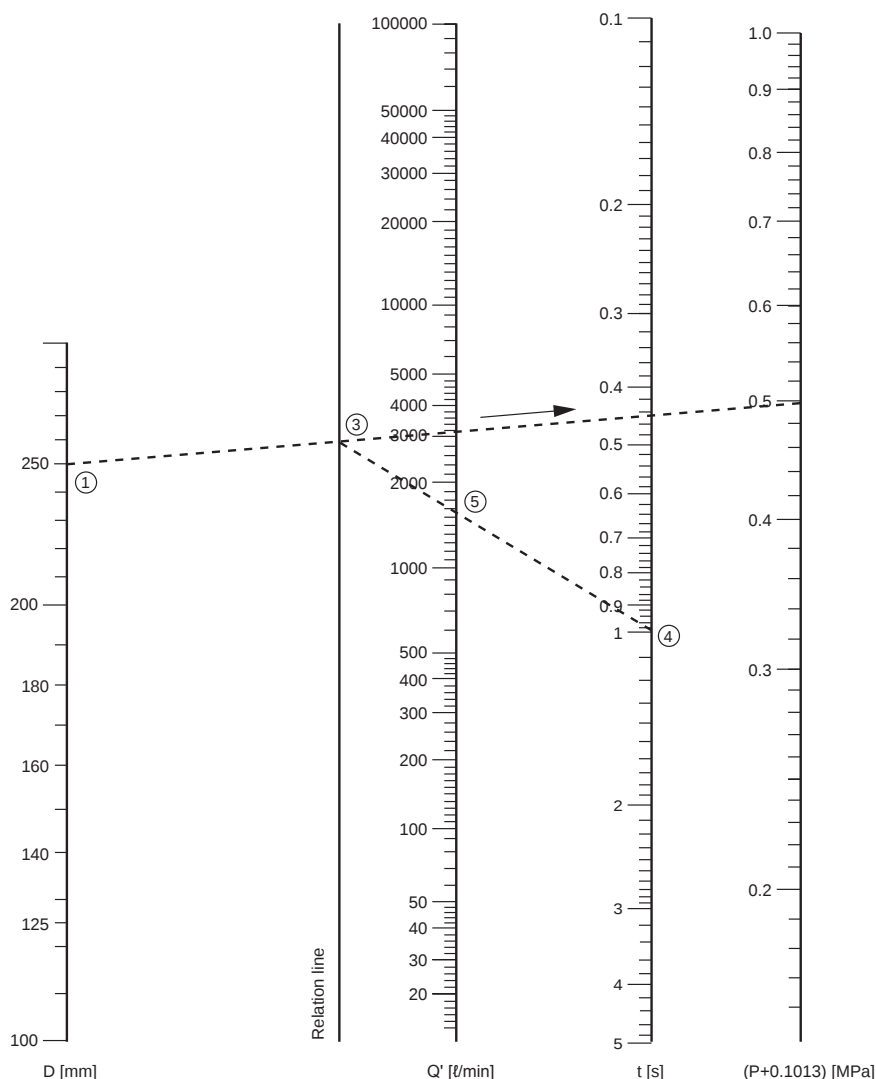
(Answer) Find the point on the relation line from D and $(P + 0.1013)$, then obtain $Q' = 50$ (ℓ/min) from the point on the relation line and t.

(Example 2 in figure at next page diag.) When operating a 250 mm bore cylinder with 0.4 MPa air pressure, and 1 s per 100 mm stroke, required flow is:

(Answer) Find the point on the relation line from D and $(P + 0.1013)$, then obtain $Q' = 1450$ (ℓ/min) from the point on the relation line and t.

Required flow rate of cylinder during operation (bore size 100 to 250 mm)

● Q: Required flow rate ℓ/min. per stroke 100 mm



2. Calculating the cylinder's air consumption (per hour)

Air consumption per hour is the amount of air consumed when the cylinder moves within a set time. This is the volume of air consumed by the cylinder and in piping between the cylinder and switching valve. This is not related to cylinder speed and differs from the air flow rate required during operation.

$$Q_T = (Q_1 + Q_2 + (2 \times Q_3)) \times n \text{ [for double acting cylinder]}$$

Q_T : Air consumption per one minute [ℓ/min] (ANR)

n : Operational cycle of cylinder for one minute [time/min]

Q_1 : Air consumption when pushed [ℓ] (ANR)

Q_2 : Air consumption when retracted [ℓ] (ANR)

Q_3 : Piping volume from directional switching valve to each cylinder port [ℓ] (ANR)

$$Q_1 = \frac{\pi}{4} D^2 \times L \times 10^{-6} \times \left(\frac{P+0.1013}{0.1013} \right)$$

$$Q_2 = \frac{\pi}{4} (D^2 - d^2) \times L \times 10^{-6} \times \left(\frac{P+0.1013}{0.1013} \right)$$

$$Q_3 = \frac{\pi}{4} d_3^2 \times L_3 \times 10^{-6} \times \left(\frac{P}{0.1013} \right)$$

D : Cylinder bore size [mm]

d : Piston rod O.D. [mm]

L : Cylinder stroke [mm]

L_3 : Pipe length from directional switching valve to cylinder port [mm]

d_3 : Pipe bore size from directional switching valve to cylinder port [mm]

P : Working pressure [MPa] (gauge pressure)

(1 ℓ = 1 dm³.)

(Example) Cylinder bore size 100 mm, rod diameter 30 mm, stroke 800 mm, working pressure 0.5 MPa, number of operations per minute 5 times

Piping bore size 7 mm, piping length 2000 mm

$$Q_1 = \frac{\pi}{4} \times 100^2 \times 800 \times 10^{-6} \times \left(\frac{0.5+0.1013}{0.1013} \right) = 37.3$$

$$Q_2 = \frac{\pi}{4} \times (100^2 - 30^2) \times 800 \times 10^{-6} \times \left(\frac{0.5+0.1013}{0.1013} \right) = 33.9$$

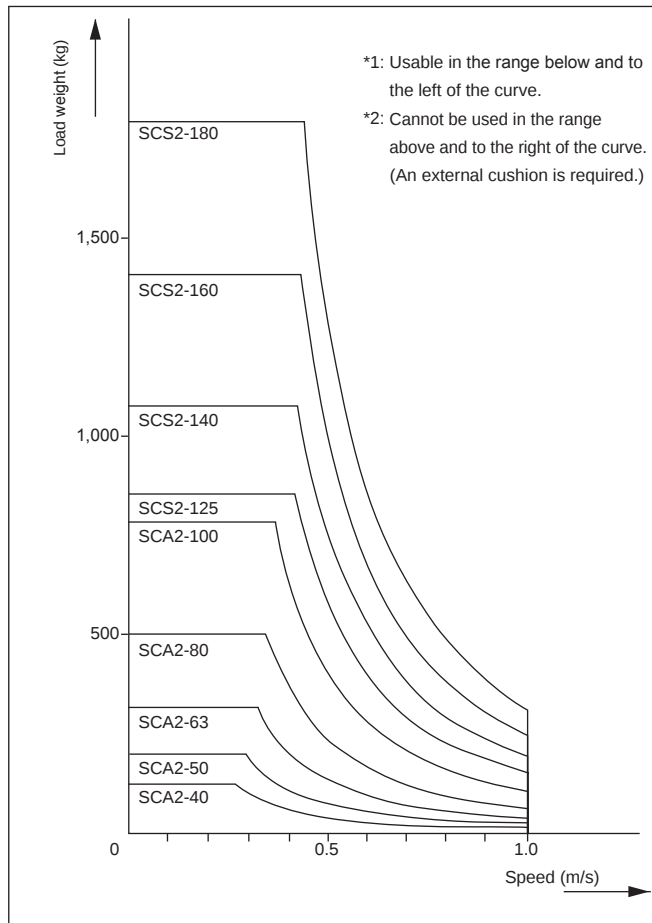
$$Q_3 = \frac{\pi}{4} \times 7^2 \times 2000 \times 10^{-6} \times \left(\frac{0.5}{0.1013} \right) = 0.4$$

$$Q_T = (37.3 + 33.9 + (2 \times 0.4)) \times 5 = 360$$

[ℓ/min] (ANR)

Allowable absorbed energy value: Cushioned

Cushioned allowable absorbed energy value graph



(Note)

Calculating kinetic energy

Average cylinder speed is obtained with $\mu a = \frac{L}{T}$.

μa : Average speed (m/s)
 L : Cylinder stroke (m)
 T : Operation time (s)

With respect to this, the cylinder speed just before rushing into the cushion can be obtained with the following simple formula.

$$\mu m = \frac{L}{T} \times (1 + 1.5 \times w)$$

μm : Speed just before rush into cushion (m/s)

w : Indicated decimal value of cylinder load factor (30% and 50% are 0.3 and 0.5 respectively.)

When calculating kinetic energy or using the graph, use this micron value as speed.

● Cushion

The purpose of the cushion is to absorb the piston's kinetic energy with air compressibility, preventing the piston and cover from colliding at the stroke end. Therefore, the cushion itself does not reduce the piston speed at the stroke end.

The table below shows the kinetic energy which can be absorbed by the cushion. If the kinetic energy exceeds these values, or if bouncing caused by the air compressibility is to be avoided, consider using another shock absorber.

$$\text{Kinetic energy (J)} = \frac{1}{2} \times \text{load weight (kg)} \times [\text{speed (m/s)}]^2$$

Cushioned absorbed energy

1.SCA2, JSC3

Bore size (mm)	Effective cushion length (mm)	Allowable absorbed energy (J)
ø40	14.6	4.29
ø50	16.6	8.37
ø63	16.6	15.8
ø80	20.6	27.9
ø100	23.6	49.8

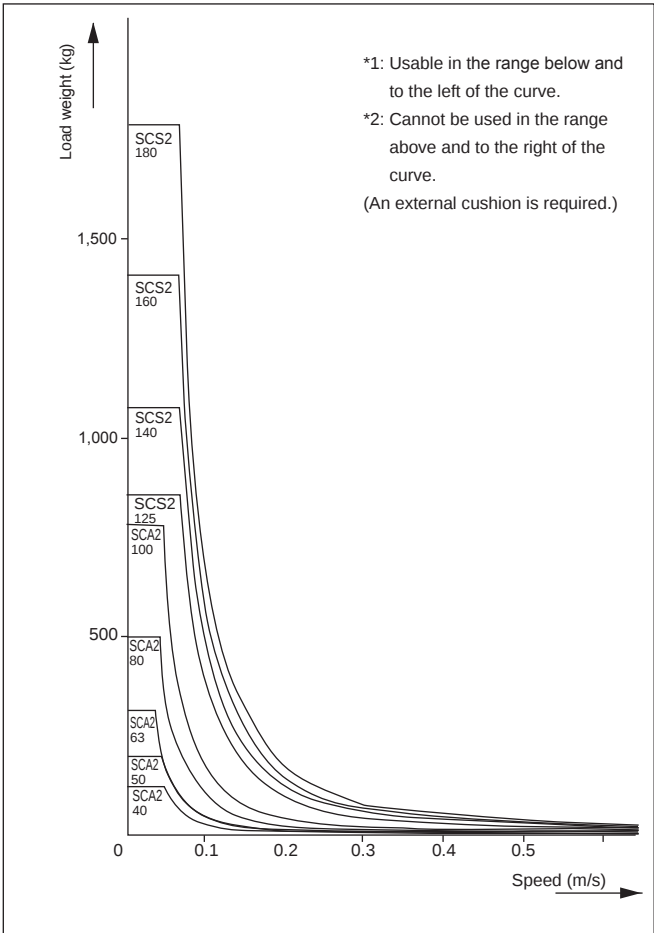
2.SCG, SCM, JSG

Bore size (mm)	Effective cushion length (mm)	Allowable absorbed energy (J)	Remarks
ø20	8.1	0.8	SCM only
ø25	8.1	1.2	
ø32	8.6	2.5	
ø40	8.6	3.7	
ø50	13.4	8.0	
ø63	13.4	14.4	
ø80	15.4	25.4	
ø100	15.4	45.6	

3.SCS2, JSC4

Bore size (mm)	Effective cushion length (mm)	Allowable absorbed energy (J)
ø125	21.6	63.5
ø140	21.6	91.5
ø160	21.6	116
ø180	21.6	152
ø200	26.6	233
ø250	26.6	362

Allowable absorbed energy value: Without cushion



1. Allowable absorbed energy without cushion
The allowable absorbed energy of each model is shown below.

Allowable absorbed energy without cushion Unit: J

Code	SCM	SCA2	SCS2	CAV2/COV2
Bore size (mm)	*1			
ø40	-	0.067	-	-
ø50	0.057	0.079	-	0.072
ø63	0.057	0.079	-	-
ø75	-	-	-	0.154
ø80	0.112	0.201	-	-
ø100	0.153	0.301	-	0.154
ø125	-	-	0.371	-
ø140	-	-	0.386	-
ø160	-	-	0.386	-
ø180	-	-	0.958	-
ø200	-	-	1.08	-
ø250	-	-	2.32	-

*1: Absorbed energy without cushion applies for cushion codes "R""H".

Allowable absorbed energy value: Without cushion

Relation between mounting dimensions and max. stroke (L)

1

For both ends pin joint

2

For rod end free

3

For rod end guide (pin joint)

4

For cylinder fixing rod end guide

Max. stroke

Pencil shaped cylinder SCP*3 Series			
D (mm)	ø6	ø10	ø16
F0 (N)			

5	570		
10	405	720	
30	230	415	650
50		320	500
100			355

CMA2/CMK2/JSM2 Series			
D (mm)	ø20	ø25/ø30/ø32	ø40
F0 (N)			
50	2020		
100	1440	2040	
200	1000	1440	2000
400		1000	1500
600			1160
800			980

SCG/SCA2/JSG/JSC3					
D (mm)	ø40	ø50	ø63	ø80	ø100
F0 (N)					
200	2600	4100			
400	1810	2900	2900		
600	1500	2400	2400	3600	
800	1280	2000	2000	3140	4500
1000		1820	1820	2800	4000
1500			1480	2300	3300
2000				1980	2840
2500				1760	2560
3000				1600	2300
3500					2140
4000					2000
5000					1800

SCS2						
D (mm)	ø125	ø140	ø160	ø180	ø200	ø250
F0 (N)						
1500	3700	3700				
2000	3200	3200				
2500	2900	2900	4600			
3000	2600	2600	4100	5300		
3500	2400	2400	3800	5000	5900	
4000	2300	2300	3600	4600	5600	
5000	2000	2000	3200	4100	5000	7400
6000	1900	1900	2900	3800	4600	6800
7000	1700	1700	2700	3500	4200	6200
8000		1600	2500	3300	3900	5800
9000		1500	2400	3100	3700	5500
10000			2300	2900	3500	5200
15000				2400	2900	4200
20000					2500	3600
25000						3300
30000						3000

JSC4				
D (mm)	ø125	ø140	ø160	ø180
F0 (N)				
1500	4600			
2000	3900	3900		
2500	3500	3500	4600	
3000	3200	3200	4100	5300
3500	3000	3000	3800	5000
4000	2800	2800	3600	4600
5000	2500	2500	3200	4100
6000	2300	2300	2900	3800
7000	2100	2100	2700	3500
8000		2000	2500	3300
9000		1880	2400	3100
10000			2300	2900
15000				2400

D: Cylinder bore size [mm]
F0: Load [N]
L: Max. stroke [mm]

Note
Values in table are calculated values. When exceeding the max. stroke specified for each model, consult with CKD.

Precautions when max. stroke is exceeded

⚠ CAUTION Note the following if the max. stroke on a model's specifications page is exceeded:

1. Min. working pressure

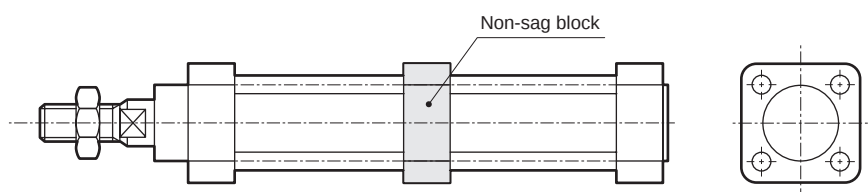
The starting pressure is larger since the piston rod sags inside the cylinder.

2. Piston rod buckling

An internal stopper enabled by contacting the piston with the cylinder cover should be used. When using with an external stopper, refer to "Technical data on the relation between mounting dimensions and max. stroke (L)" (Ending Page 69).

3. Tie rod reinforcement

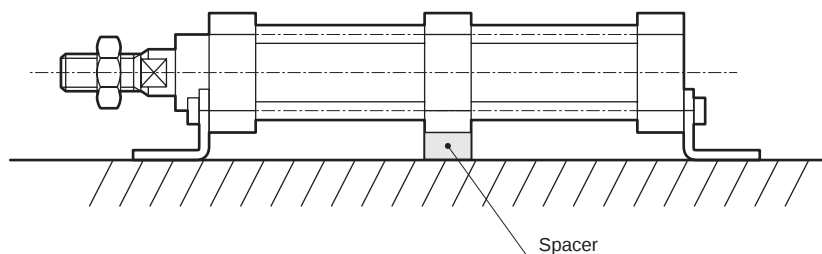
Insert a non-sag block to keep the tie rod from sagging and contacting the cylinder tube.



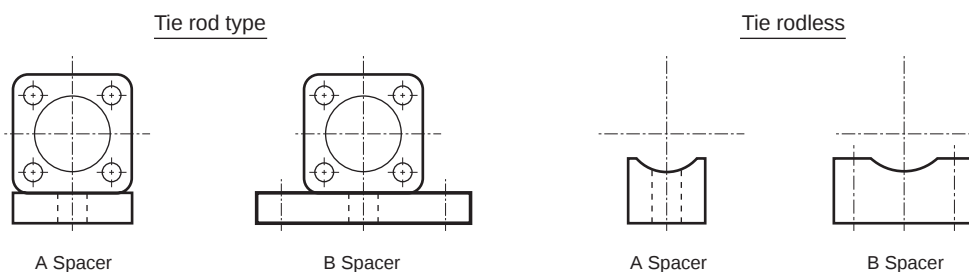
4. Preventing cylinder tube sag

When mounting horizontally, tubing sag must be prevented.

Installing a non-sag block for reinforcement of tie rod is recommended to minimize the sag.



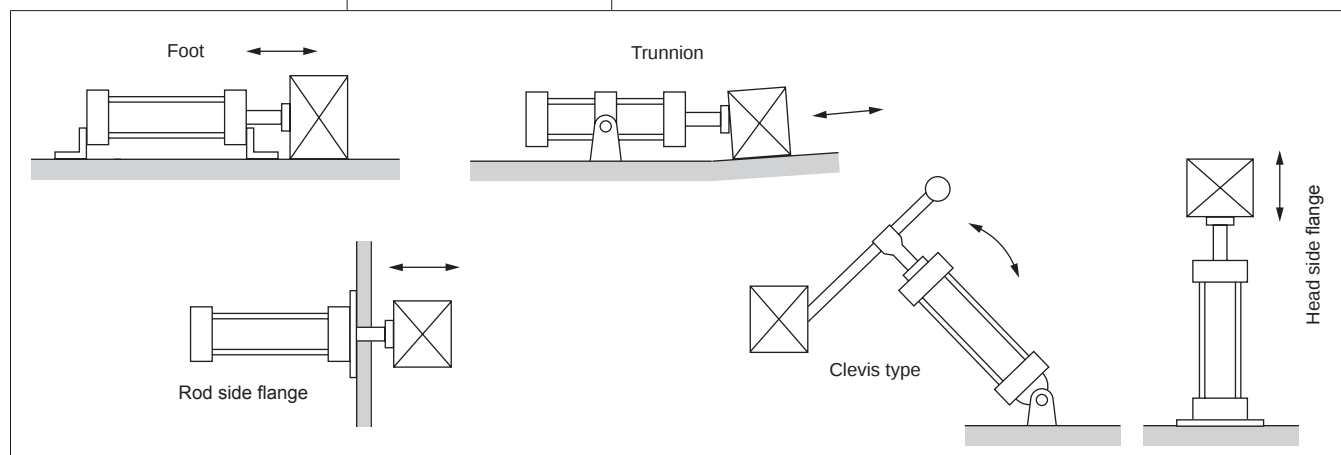
* The following spacers are available made to order.



How to determine cylinder mounting

The cylinder piston moves only in one direction. Select cylinder mounting according to the load movement direction shown below.

Load movement direction	Mounting	Caution
The load moves linearly during operation.	Foot Flange	Fix the cylinder body so that load and piston movement directions are parallel.
	Trunnion Clevis type	Use the mounting on the left if the stroke is long, or if the load and piston movement directions are not parallel and in the same direction. Check that lateral load is not applied to the piston rod or bushing.
During operation, the load oscillates within a flat area.	Trunnion Clevis type	Check that the oscillation direction of the clevis or trunnion supporting the cylinder is the same as the load oscillation direction. Also set the oscillation direction of the rod end bracket to the same direction. If a lateral load is applied to the bushing, keep the lateral load to within 1/20 of cylinder output.
During operation, the load oscillates in various directions.	Trunnion Clevis type	Use a knuckle to connect the rod and load. If a lateral load is applied to the bushing, keep the lateral load to within 1/20 of cylinder output.



Bellows max. operating ambient temperature

Code	Bellows material	Max. ambient temp.	Instantaneous max. temp.
J	Nylon tarpaulin	60°C	100°C
	Polyolefin elastomer	100°C	200°C
K	Neoprene sheet	100°C	200°C
L	Silicone rubber glass cloth	250°C	400°C

The instantaneous max. temperature is the temperature when sparks and cutting chips, etc., instantaneously contact the bellows.

Air compressor and air tank selection

When selecting a compressor and a tank, consider 10 to 20% leakage loss from actual air consumption due to pipe or switching valves.

Generally, piston displacement listed in compressor manufacturer catalog is the theoretical value. Considering volumetric efficiency, 70% of the theoretical value is the effective value.

Therefore, select a compressor whose piston displacement is double the air consumption.

Selecting air compressor for intermittent operation (actuation)

For intermittent operation, if an air tank is installed, even a small air compressor can manage large work projects.

Even if air consumption is high while the cylinder, etc., is operating, causing pressure to drop, install an air tank with a capacity to keep it from dropping to max. working pressure and install a compressor that replaces compressed air before the cylinder operates again.

Capacity of air tank

$$V_t = \frac{V_s}{(P_t - P_s) \times 10.2}$$

V_t : Tank capacity (ℓ)

V_s : Air consumption per cycle (ℓ) (ANR)

P_t : Tank pressure (MPa)

P_s : Max. working pressure

Certification of second class pressure vessel

According to regulations of the Ministry of Health, Labour and Welfare, the following cylinders should be certified by the Japan Boilers Association.

- (1) Cylinders with a rated pressure exceeding 0.2 MPa and cylinder capacity exceeding 0.04 m³.
- (2) Cylinders with a rated pressure exceeding 0.2 MPa, tube bore size exceeding 200 mm and length exceeding 1000 mm.

$$V = \frac{D^2 \times S \times 3.14}{4 \times 10^9}$$

V : Cylinder capacity (m³)

D : Bore size (mm)

S : Body length (cylinder tube length) (mm)

Japan Boiler Association homepage address

<http://www.jbanet.or.jp/>

Shaft tolerance

Basic dimensions (mm)		Shaft intersection range unit: μm									
Over	or less	d9	e8	e11	f7	f8	h6	h7	h8	h9	p6
-	3	-20	-14	-14	-6	-6	0	0	0	0	+12
		-45	-28	-74	-16	-20	-6	-10	-14	-25	+6
3	6	-30	-20	-20	-10	-10	0	0	0	0	+20
		-60	-38	-95	-22	-28	-8	-12	-18	-30	+12
6	10	-40	-25	-25	-13	-13	0	0	0	0	+24
		-76	-47	-115	-28	-35	-9	-15	-22	-36	+15
10	14	-50	-32	-32	-16	-16	0	0	0	0	+29
14	18	-93	-59	-142	-34	-43	-11	-18	-27	-43	+18
18	24	-65	-40	-40	-20	-20	0	0	0	0	+35
24	30	-117	-73	-170	-41	-53	-13	-21	-33	-52	+22
30	40	-80	-50	-50	-25	-25	0	0	0	0	+42
40	50	-142	-89	-210	-50	-64	-16	-25	-39	-62	+26
50	65	-100	-60	-60	-30	-30	0	0	0	0	+51
65	80	-174	-106	-250	-60	-76	-19	-30	-46	-74	+32
80	100	-120	-72	-72	-36	-36	0	0	0	0	+59
		-207	-126	-292	-71	-90	-22	-35	-54	-87	+37

Bore tolerance

Basic dimensions (mm)		Shaft intersection range unit: μm					
Over	or less	F7	H6	H7	H8	H9	H10
-	3	+16	+6	+10	+14	+25	+40
		+6	0	0	0	0	0
3	6	+22	+8	+12	+18	+30	+48
		+10	0	0	0	0	0
6	10	+28	+9	+15	+22	+36	+58
		+13	0	0	0	0	0
10	14	+34	+11	+18	+27	+43	+70
14	18	+16	0	0	0	0	0
18	24	+41	+13	+21	+33	+52	+84
24	30	+20	0	0	0	0	0
30	40	+50	+16	+25	+39	+62	+100
40	50	+25	0	0	0	0	0
50	65	+60	+19	+30	+46	+74	+120
65	80	+30	0	0	0	0	0
80	100	+71	+22	+35	+54	+87	+140
		+36	0	0	0	0	0

International System of Units (SI units)

■ Conversion of SI units and conventional units

SI units (International System of Units) are used in this catalog.
Conversion for SI and conventional units are shown below.

■ SI unit conversion table (SI units are indicated with bold line.)

Conversion example (for pressure) $1 \text{ kgf/cm}^2 \Rightarrow 9.80665 \times 10^{-2} \text{ MPa}$ $1 \text{ MPa} = 1.01972 \times 10 \text{ kgf/cm}^2$

● Force

N	dyn	kgf
1	1×10^5	1.01972×10^{-1}
1×10^{-5}	1	1.01972×10^{-6}
9.80665	9.80665×10^5	1

● Viscosity

Pa/s	cP	P
1	1×10^3	1×10
1×10^{-3}	1	1×10^{-2}
1×10^{-1}	1×10^2	1

Note: $1 \text{ P} = 1 \text{ dyn/s/cm}^2 = 1 \text{ g/cm/s}$,
 $1 \text{ Pa/s} = 1 \text{ N/s/m}^2$, $1 \text{ cP} = 1 \text{ mPa/s}$

● Stress

Pa or N/m ²	MPa or N/mm ²	kgf/mm ²	kgf/cm ²
1	1×10^{-6}	1.01972×10^{-7}	1.01972×10^{-5}
1×10^6	1	1.01972×10^{-1}	1.01972×10
9.80665×10^6	9.80665	1	1×10^2
9.80665×10^4	9.80665×10^{-2}	1×10^{-2}	1

Note: $1 \text{ Pa} = 1 \text{ N/m}^2$, $1 \text{ MPa} = 1 \text{ N/mm}^2$

● Kinematic viscosity

m ² /s	cSt	St
1	1×10^6	1×10^4
1×10^{-6}	1	1×10^{-2}
1×10^{-4}	1×10^2	1

Note: $1 \text{ St} = 1 \text{ cm}^2/\text{s}$, $1 \text{ cSt} = 1 \text{ mm}^2/\text{s}$

● Pressure

Pa	kPa	MPa	bar	kgf/cm ²	atm	mmH ₂ O or mmAq	mmHg or Torr
1	1×10^{-3}	1×10^{-6}	1×10^{-5}	1.01972×10^{-5}	9.86923×10^{-6}	1.01972×10^{-1}	7.50062×10^{-3}
1×10^3	1	1×10^{-3}	1×10^{-2}	1.01972×10^{-2}	9.86923×10^{-3}	1.01972×10^2	7.50062
1×10^6	1×10^3	1	1×10	1.01972×10	9.86923	1.01972×10^5	7.50062×10^3
1×10^5	1×10^2	1×10^{-1}	1	1.01972	9.86923×10^{-1}	1.01972×10^4	7.50062×10^2
9.80665×10^4	9.80665×10	9.80665×10^{-2}	9.80665×10^{-1}	1	9.67841×10^{-1}	1×10^4	7.35559×10^2
1.01325×10^5	1.01325×10^2	1.01325×10^{-1}	1.01325	1.03323	1	1.03323×10^4	7.60000×10^2
9.80665	9.80665×10^{-3}	9.80665×10^{-6}	9.80665×10^{-5}	1×10^{-4}	9.67841×10^{-5}	1	7.35559×10^{-2}
1.33322×10^2	1.33322×10^{-1}	1.33322×10^{-4}	1.33322×10^{-3}	1.35951×10^{-3}	1.31579×10^{-3}	1.35951×10	1

Note: $1 \text{ Pa} = 1 \text{ N/m}^2$

● Work/energy/quantity of heat

J	kW/h	kgf/m	kcal
1	2.77778×10^{-7}	1.01972×10^{-1}	2.38889×10^{-4}
3.600×10^6	1	3.67098×10^5	8.6000×10^2
9.80665	2.72407×10^{-6}	1	2.34270×10^{-3}
4.18605×10^3	1.16279×10^{-3}	4.26858×10^2	1

Note: $1 \text{ J} = 1 \text{ W/s}$, $1 \text{ J} = 1 \text{ N/m}$ $1 \text{ cal} = 4.18605 \text{ J}$ (according to the Measurement Act)

● Thermal conduction ratio

W/(m/k)	kcal/(h/m/°C)
1	8.6000×10^{-1}
1.16279	1

Note: $1 \text{ cal} = 4.18605 \text{ J}$ (according to the Measurement Act)

● Coefficient of heat transfer

W/(m ² /k)	kcal/(h/m ² /°C)
1	8.6000×10^{-1}
1.16279	1

Note: $1 \text{ cal} = 4.18605 \text{ J}$ (according to the Measurement Act)

● Specific heat

J/(kg/k)	kcal/(kg/°C) cal/(g/°C)
1	2.38889×10^{-4}
4.18605×10^3	1

Note: $1 \text{ cal} = 4.18605 \text{ J}$ (according to the Measurement Act)

● Power (power/motivity) heat flow

W	kgf/m/s	PS	kcal/h
1	1.01972×10^{-1}	1.35962×10^{-3}	8.6000×10^{-1}
9.80665	1	1.33333×10^{-2}	8.43371
7.355×10^2	7.5×10	1	6.32529×10^2
1.16279	1.18572×10^{-1}	1.58095×10^{-3}	1

Note: $1 \text{ W} = 1 \text{ J/s}$, PS: French horsepower

$1 \text{ PS} = 0.7355 \text{ kW}$ (according to the Act for Enforcement of the Measurement Act)

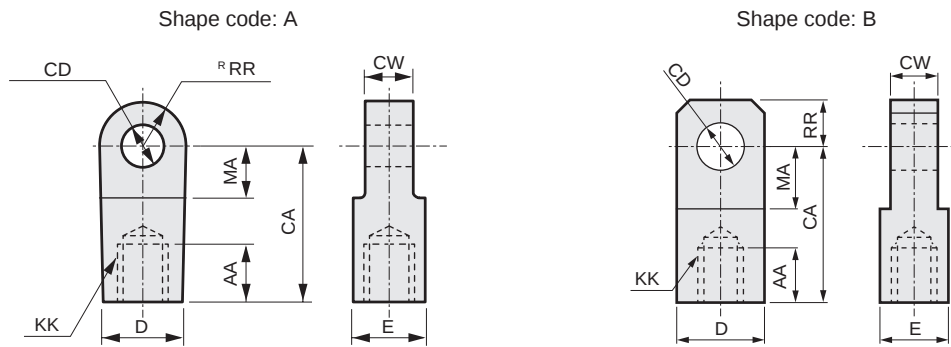
$1 \text{ cal} = 4.18605 \text{ J}$ (according to the Measurement Act)

Rod eye/clevis dimension list

	Page
Rod eye dimension list (by series)	Ending 76
Rod eye dimension list (by thread size)	Ending 78
Rod clevis dimension list (by series)	Ending 80
Rod clevis dimension list (by thread size)	Ending 82

Rod eye/clevis dimension list

Rod eye (by series)



Model	Shape code	Model No.	Applicable bore size (ø)	AA	CA	CD	CW	D	E	KK	MA	RR
CMK2	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	25, 32	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M12x1.5	16	12
CMA2	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	30	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M12x1.5	16	12
CKV2	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	25, 32	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M12x1.5	16	12
CAV2 COV2	A	CAV2-50-I	50	25	50	14 ^{H10}	20 ^{0/-0.3}	26	26	M16x1.5	20	15
		CAV2-75-I	75, 100	30	65	20 ^{H10}	28 ^{0/-0.3}	38	35	M22x1.5	28	22.5
HCA	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	25, 32	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
	A	S1-I-40	40	20	50	12 ^{H10}	18 ^{-0.1/-0.4}	(27)	27	M14x1.5	21	16
		S1-I-50	50	21	50	12 ^{H10}	18 ^{-0.1/-0.4}	(27)	27	M18x1.5	21	16
		S1-I-63	63	21	50	14 ^{H10}	20 ^{-0.1/-0.4}	(27)	27	M18x1.5	21	16
		S1-I-80	80	30	70	20 ^{H10}	28 ^{-0.1/-0.4}	(46)	41	M22x1.5	30	25
		S1-I-100	100	30	70	20 ^{H10}	28 ^{-0.1/-0.4}	(46)	41	M26x1.5	30	25
JSG	B	SCG-I-40	40	19	40	10 ^{H10}	14 ^{-0.1/-0.3}	ø22	ø22	M14x1.5	19	10
		SCG-I-50	50, 63	24	50	14 ^{H10}	20 ^{-0.1/-0.3}	ø28	ø28	M18x1.5	24	14
		SCG-I-80	80	26	60	22 ^{H10}	30 ^{-0.1/-0.3}	ø40	ø40	M22x1.5	34	20
		SCG-I-100	100	26	60	22 ^{H10}	30 ^{-0.1/-0.3}	ø40	ø40	M26x1.5	34	20
JSM2	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	30	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M12x1.5	16	12
JSK2	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1/-0.2}	19	19	M8x1.0	13	10
		M1-I-30	25, 32	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1/-0.2}	25	19	M12x1.5	16	12
JSC3	A	S1-I-40	40	20	50	12 ^{H10}	18 ^{-0.1/-0.4}	(27)	27	M14x1.5	21	16
		S1-I-50	50	21	50	12 ^{H10}	18 ^{-0.1/-0.4}	(27)	27	M18x1.5	21	16
		S1-I-63	63	21	50	14 ^{H10}	20 ^{-0.1/-0.4}	(27)	27	M18x1.5	21	16
		S1-I-80	80	30	70	20 ^{H10}	28 ^{-0.1/-0.4}	(46)	41	M22x1.5	30	25
		S1-I-100	100	30	70	20 ^{H10}	28 ^{-0.1/-0.4}	(46)	41	M26x1.5	30	25
JSC4	B	SCS2-125-I	125	50	85	25 ^{H10}	32 ^{-0.1/-0.4}	ø55	ø55	M30x1.5	32	27.5
		SCS2-140-I	140	50	90	28 ^{H10}	36 ^{-0.1/-0.4}	ø60	ø60	M30x1.5	35	30
		SCS2-160-I	160	60	105	32 ^{H10}	40 ^{-0.1/-0.4}	ø70	ø70	M36x1.5	40	35
		SCS2-180-I	180	65	115	40 ^{H10}	50 ^{-0.1/-0.4}	ø85	ø85	M40x1.5	47.5	42.5
SCP*3	B	P2-I-10	10	8	21	3.2 ^{H10}	3.1 ^{0/-0.1}	12	12	M4	9	7
		P2-I-16	16	8	25	5 ^{H10}	6.4 ^{0/-0.1}	12	12	M5	14	7

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye/clevis dimension list

Rod eye (by series)

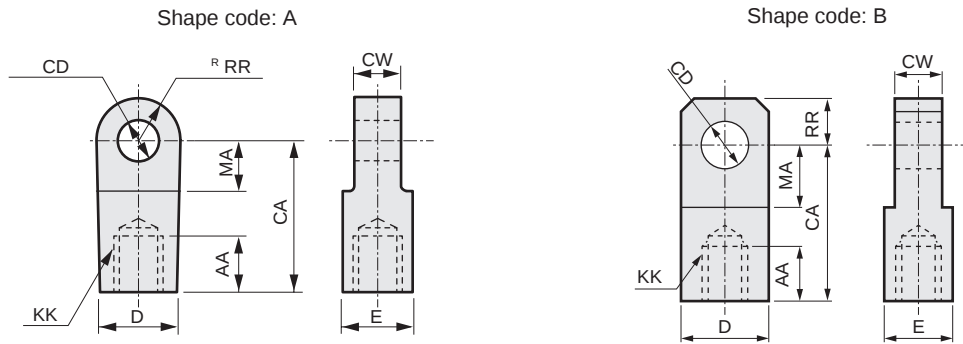
Model	Shape code	Model No.	Applicable bore size (ø)	AA	CA	CD	CW	D	E	KK	MA	RR
SCA2	A	S1-I-40	40	20	50	12 ^{H10}	18 ^{-0.1 -0.4}	(27)	27	M14x1.5	21	16
		S1-I-50	50	21	50	12 ^{H10}	18 ^{-0.1 -0.4}	(27)	27	M18x1.5	21	16
		S1-I-63	63	21	50	14 ^{H10}	20 ^{-0.1 -0.4}	(27)	27	M18x1.5	21	16
		S1-I-80	80	30	70	20 ^{H10}	28 ^{-0.1 -0.4}	(46)	41	M22x1.5	30	25
		S1-I-100	100	30	70	20 ^{H10}	28 ^{-0.1 -0.4}	(46)	41	M26x1.5	30	25
SCG	B	SCG-I-32	32	14	30	10 ^{H10}	14 ^{-0.1 -0.3}	ø20	ø20	M10x1.25	16	10
		SCG-I-40	40	19	40	10 ^{H10}	14 ^{-0.1 -0.3}	ø22	ø22	M14x1.5	19	10
		SCG-I-50	50, 63	24	50	14 ^{H10}	20 ^{-0.1 -0.3}	ø28	ø28	M18x1.5	24	14
		SCG-I-80	80	26	60	22 ^{H10}	30 ^{-0.1 -0.3}	ø40	ø40	M22x1.5	34	20
		SCG-I-100	100	26	60	22 ^{H10}	30 ^{-0.1 -0.3}	ø40	ø40	M26x1.5	34	20
SCS2	B	SCS2-125-I	125	50	85	25 ^{H10}	32 ^{-0.1 -0.4}	ø55	ø55	M30x1.5	32	27.5
		SCS2-140-I	140	50	90	28 ^{H10}	36 ^{-0.1 -0.4}	ø60	ø60	M30x1.5	35	30
		SCS2-160-I	160	60	105	32 ^{H10}	40 ^{-0.1 -0.4}	ø70	ø70	M36x1.5	40	35
		SCS2-180-I	180	65	115	40 ^{H10}	50 ^{-0.1 -0.4}	ø85	ø85	M40x1.5	47.5	42.5
		SCS2-200-I	200	75	125	40 ^{H10}	50 ^{-0.1 -0.4}	ø85	ø85	M45x1.5	47.5	42.5
		SCS2-250-I	250	88	150	50 ^{H10}	63 ^{-0.1 -0.4}	ø105	ø105	M56x2	57.5	52.5
SCM	B	SCM-I-20	20	8.5	25	8 ^{H10}	8 ^{-0.2 -0.4}	16	16	M8	11.5	9
		SCM-I-25	25, 32	10.5	30	10 ^{H10}	10 ^{-0.2 -0.4}	20	20	M10x1.25	14	11
	A	SCM-I-40	40	14	30	10 ^{H10}	18 ^{-0.3 -0.5}	22	22	M14x1.5	14	12
		SCM-I-50	50, 63	18	40	14 ^{H10}	22 ^{-0.3 -0.5}	28	28	M18x1.5	20	16
		SCM-I-80	80	21	50	18 ^{H10}	28 ^{-0.3 -0.5}	38	38	M22x1.5	27	21
		SCM-I-100	100	21	55	22 ^{H10}	32 ^{-0.3 -0.5}	44	44	M26x1.5	31	24
SSD2	B	SSD2-I-12	12	6	16	5 ^{H10}	5 ^{-0.2 -0.4}	10	10	M5x0.8	7	5.5
		SSD2-I-16	16	8	25	5 ^{H10}	6.5 ^{-0.2 -0.4}	12	12	M6x1	14	7
		SSD2-I-20	20	8.5	25	8 ^{H10}	8 ^{-0.2 -0.4}	16	16	M8x1.25	11.5	9
		SSD2-I-25	25	10.5	30	10 ^{H10}	10 ^{-0.2 -0.4}	20	20	M10x1.25	14	11
	A	SSD2-I-32	32, 40	14	30	10 ^{H10}	18 ^{-0.3 -0.5}	ø22	ø22	M14x1.5	14	12
		SSD2-I-50	50, 63	18	40	14 ^{H10}	22 ^{-0.3 -0.5}	ø28	ø28	M18x1.5	20	16
		SSD2-I-80	80	21	50	18 ^{H10}	28 ^{-0.3 -0.5}	ø38	ø38	M22x1.5	27	21
		SSD2-I-100	100	21	55	22 ^{H10}	32 ^{-0.3 -0.5}	ø44	ø44	M26x1.5	31	24
SSD	B	P2-I-16	12	8	25	5 ^{H10}	6.4 ^{-0 -0.1}	12	12	M5	14	10
	A	SSD-I-16	16	8	25	5 ^{H10}	6.5 ^{-0.1 -0.2}	12	12	M6	14	10
	B	SSD-I-20	20	13.5	30	10 ^{H10}	8 ^{-0.1 -0.2}	19	19	M8	13	10
		M1-I-30	25	14	36	12 ^{H10}	10 ^{-0.1 -0.2}	25	19	M10x1.25	16	12
	A	SSD-I-32	32	15	36	12 ^{H10}	10 ^{-0.1 -0.2}	25	19	M14	16	12
		SSD-I-40	40	20	50	12 ^{H10}	18 ^{-0.1 -0.4}	27	27	M14x1.5	21	16
		SSD-I-50	50	21	50	12 ^{H10}	18 ^{-0.1 -0.4}	27	27	M18x1.5	21	16
		SSD-I-63	63	21	50	14 ^{H10}	20 ^{-0.1 -0.4}	(27)	27	M18x1.5	21	16
		SSD-I-80	80	30	70	20 ^{H10}	28 ^{-0.1 -0.4}	46	41	M22x1.5	30	25
		SSD-I-100	100	30	70	20 ^{H10}	28 ^{-0.1 -0.4}	46	41	M26x1.5	30	25
	B	SCS-125-I	125, 140	50	85	25 ^{H10}	32 ^{-0.1 -0.4}	55	55	M30x1.5	32	27.5
		SCS-160-I	160	60	105	32 ^{H10}	40 ^{-0.1 -0.4}	70	70	M36x1.5	40	35
ULK	B	M1-I-20	20	14	30	10 ^{H10}	8 ^{-0.1 -0.2}	19	19	M8x1.0	13	10
		M1-I-30	25, 32	14	36	12 ^{H10}	10 ^{-0.1 -0.2}	25	19	M10x1.25	16	12
		M1-I-40	40	14	36	12 ^{H10}	10 ^{-0.1 -0.2}	25	19	M12x1.5	16	12

Rod eye dimension

Ending

Rod eye/clevis dimension list

Rod eye (by thread size)



Thread size KK	Model No.	Shape code	Compatible model	Applicable bore size (ø)	AA	CA	CD	CW	D	E	MA	RR
M4	P2-I-10	B	SCP*3	10	8	21	3.2 ^{H10}	3.1 ⁰ _{-0.1}	12	12	9	7
M5	P2-I-16	B	SCP*3	16	8	25	5 ^{H10}	6.4 ⁰ _{-0.1}	12	12	14	7
			SSD	12								
	SSD2-I-12	B	SSD2	12	6	16	5 ^{H10}	5 ^{-0.2} _{-0.4}	10	10	7	5.5
M6	SSD-I-16	A	SSD	16	8	25	5 ^{H10}	6.5 ^{-0.1} _{-0.2}	12	12	14	10
	SSD2-I-16	B	SSD2	16	8	25	5 ^{H10}	6.5 ^{-0.2} _{-0.4}	12	12	14	7
M8x1.0	M1-I-20	B	CKV2, CMA2, CMK2 HCA, JSK2, JSM2 ULK	20	14	30	10 ^{H10}	8 ^{-0.1} _{-0.2}	19	19	13	10
M8	SCM-I-20	B	SCM	20	8.5	25	8 ^{H10}	8 ^{-0.2} _{-0.4}	16	16	11.5	9
	SSD-I-20	B	SSD	20	13.5	30	10 ^{H10}	8 ^{-0.1} _{-0.2}	19	19	13	10
	SSD2-I-20	B	SSD2	20	8.5	25	8 ^{H10}	8 ^{-0.2} _{-0.4}	16	16	11.5	9
M10x1.25	SCG-I-32	B	SCG	32	14	30	10 ^{H10}	14 ^{-0.1} _{-0.3}	ø20	ø20	16	10
	M1-I-30	B	CMA2, CMK2, HCA JSK2, JSM2, ULK, SSD	25, 30, 32	14	36	12 ^{H10}	10 ^{-0.1} _{-0.2}	25	19	16	12
	SCM-I-25	B	SCM	25, 32	10.5	30	10 ^{H10}	10 ^{-0.2} _{-0.4}	20	20	14	11
	SSD2-I-25	B	SSD2	25	10.5	30	10 ^{H10}	10 ^{-0.2} _{-0.4}	20	20	14	11
M12x1.5	M1-I-40	B	CKV2, CMA2, CMK2 JSK2, JSM2, ULK	40	14	36	12 ^{H10}	10 ^{-0.1} _{-0.2}	25	19	16	12
M14x1.5	SCG-I-40	B	SCG, JSG	40	19	40	10 ^{H10}	14 ^{-0.1} _{-0.3}	ø22	ø22	19	10
	SSD2-I-32	A	SSD2	32, 40	14	30	10 ^{H10}	18 ^{-0.3} _{-0.5}	ø22	ø22	14	12
	S1-I-40	A	HCA, JSC3 SCA2, SSD	40	20	50	12 ^{H10}	18 ^{-0.1} _{-0.4}	(27)	27	21	16
	SCM-I-40	A	SCM	40	14	30	10 ^{H10}	18 ^{-0.3} _{-0.5}	22	22	14	12
M14	SSD-I-32	B	SSD	32	15	36	12	10 ^{-0.1} _{-0.2}	25	19	16	12
M16x1.5	CAV2-50-I	A	CAV2, COV2	50	25	50	14 ^{H10}	20 ⁰ _{-0.3}	26	26	20	15
M18x1.5	SCG-I-50	B	SCG, JSG	50, 63	24	50	14 ^{H10}	20 ^{-0.1} _{-0.3}	ø28	ø28	24	14
	SSD2-I-50	A	SSD2	50, 63	18	40	14 ^{H10}	22 ^{-0.3} _{-0.5}	ø28	ø28	20	16
	S1-I-50	A	HCA, JSC3, SCA2	50	21	50	12 ^{H10}	18 ^{-0.1} _{-0.4}	(27)	27	21	16
	SSD-I-50		SSD									
	S1-I-63	A	HCA, JSC3, SCA2	63	21	50	14 ^{H10}	20 ^{-0.1} _{-0.4}	(27)	27	21	16
	SSD-I-63		SSD									
M22x1.5	SCM-I-50	A	SCM	50, 63	18	40	14 ^{H10}	22 ^{-0.3} _{-0.5}	28	28	20	16
	SCG-I-80	B	SCG, JSG	80	26	60	22 ^{H10}	30 ^{-0.1} _{-0.3}	ø40	ø40	34	20
	CAV2-75-I	A	CAV2, COV2	75, 100	30	65	20 ^{H10}	28 ⁰ _{-0.3}	38	35	28	22.5
	S1-I-80	A	HCA, JSC3, SCA2	80	30	70	20 ^{H10}	28 ^{-0.1} _{-0.4}	(46)	41	30	25
	SSD-I-80		SSD									
	SCM-I-80	A	SCM	80	21	50	18 ^{H10}	28 ^{-0.3} _{-0.5}	38	38	27	21
M26x1.5	SSD2-I-80	A	SSD2	80	21	50	18 ^{H10}	28 ^{-0.3} _{-0.5}	ø38	ø38	27	21
	SCG-I-100	B	SCG, JSG	100	26	60	22 ^{H10}	30 ^{-0.1} _{-0.3}	ø40	ø40	34	20
	S1-I-100	A	HCA, JSC3, SCA2	100	30	70	20 ^{H10}	28 ^{-0.1} _{-0.4}	(46)	41	30	25
	SSD-I-100		SSD									
	SCM-I-100	A	SCM	100	21	55	22 ^{H10}	32 ^{-0.3} _{-0.5}	44	44	31	24

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye/clevis dimension list

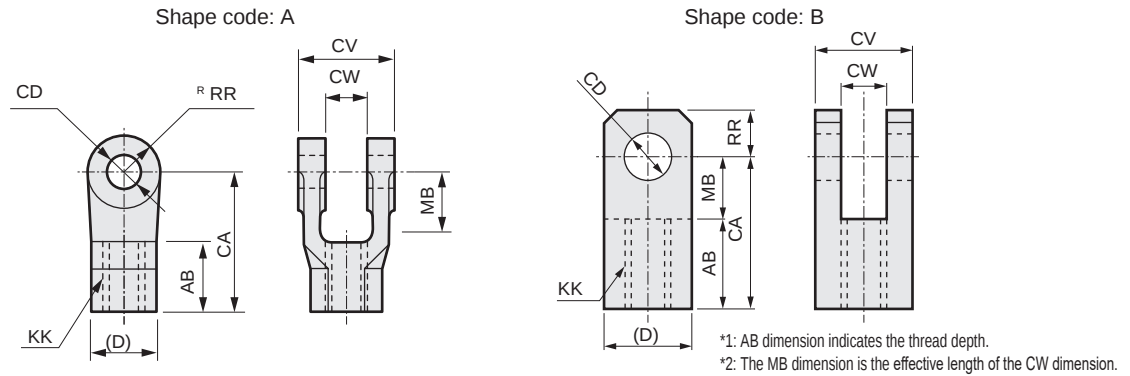
Rod eye (by thread size)

Thread size KK	Model No.	Shape code	Compatible model	Applicable bore size (ø)	AA	CA	CD	CW	D	E	MA	RR
M26x1.5	SSD2-I-100	A	SSD2	100	21	55	22 ^{H10}	32 ^{-0.3 -0.5}	ø44	ø44	31	24
M30x1.5	SCS2-125-I	B	JSC4, SCS2	125	50	85	25 ^{H10}	32 ^{-0.1 -0.4}	ø55	ø55	32	27.5
			SSD	125, 140								
	SCS2-140-I	B	JSC4, SCS2	140	50	90	28 ^{H10}	36 ^{-0.1 -0.4}	ø60	ø60	35	30
M36x1.5	SCS2-160-I	B	JSC4, SCS2, SSD	160	60	105	32 ^{H10}	40 ^{-0.1 -0.4}	ø70	ø70	40	35
M40x1.5	SCS2-180-I	B	JSC4, SCS2	180	65	115	40 ^{H10}	50 ^{-0.1 -0.4}	ø85	ø85	47.5	42.5
M45x1.5	SCS2-200-I	B	SCS2	200	75	125	40 ^{H10}	50 ^{-0.1 -0.4}	ø85	ø85	47.5	42.5
M56x2	SCS2-250-I	B	SCS2	250	88	150	50 ^{H10}	63 ^{-0.1 -0.4}	ø105	ø105	57.5	52.5

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye/clevis dimension list

Rod clevis (by series)



Model	Shape code	Model No.	Applicable bore size (ø)	AB	CA	CW	CD	CV	D	KK	MB	RR
CMK2	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	25, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12
CMA2	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	30	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12
CKV2	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	25, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12
CAV2 COV2	A	CAV2-50-Y	50	25	50	20 ^{+0.3 0}	14 ^{H10}	42	(23)	M16x1.5	18	15
		CAV2-75-Y	75, 100	30	65	28 ^{+0.3 0}	20 ^{H10}	60	(35)	M22x1.5	28	22.5
HCA	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	25, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
	A	S1-Y-40	40	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M14x1.5	19	16
		S1-Y-50	50	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M18x1.5	19	16
		S1-Y-63	63	24	50	20 ^{+0.4 +0.1}	14 ^{H10}	40	(27)	M18x1.5	19	16
		S1-Y-80	80	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M22x1.5	30	25
		S1-Y-100	100	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M26x1.5	30	25
JSG	A	SCG-Y-40	40	21	40	14 ^{+0.3 +0.1}	10 ^{H10}	28	(22)	M14x1.5	19	11
		SCG-Y-50	50, 63	26	50	20 ^{+0.3 +0.1}	14 ^{H10}	40	(28)	M18x1.5	24	14
		SCG-Y-80	80	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	M22x1.5	34	20
		SCG-Y-100	100	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	M26x1.5	34	20
JSM2	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	30	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12
JSK2	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	25, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12
JSC3	A	S1-Y-40	40	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M14x1.5	19	16
		S1-Y-50	50	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M18x1.5	19	16
		S1-Y-63	63	24	50	20 ^{+0.4 +0.1}	14 ^{H10}	40	(27)	M18x1.5	19	16
		S1-Y-80	80	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M22x1.5	30	25
		S1-Y-100	100	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M26x1.5	30	25
JSC4	A	SCS2-125-Y	125	50	85	32 ^{+0.4 +0.1}	25 ^{H10}	64	(46)	M30x1.5	35	27.5
		SCS2-140-Y	140	50	90	36 ^{+0.4 +0.1}	28 ^{H10}	72	(46)	M30x1.5	40	30
		SCS2-160-Y	160	60	105	40 ^{+0.4 +0.1}	32 ^{H10}	80	(55)	M36x1.5	45	35
		SCS2-180-Y	180	65	115	50 ^{+0.4 +0.1}	40 ^{H10}	100	(60)	M40x1.5	50	42.5
SCP*3	B	P2-Y-10	10	8	21	3.2 ^{+0.2 +0.1}	3.2 ^{H10}	12	12	M4	10	7
		P2-Y-16	16	11	21	6.5 ^{+0.2 +0.1}	5 ^{H10}	12	12	M5	10	7

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye/clevis dimension list

Rod clevis (by series)

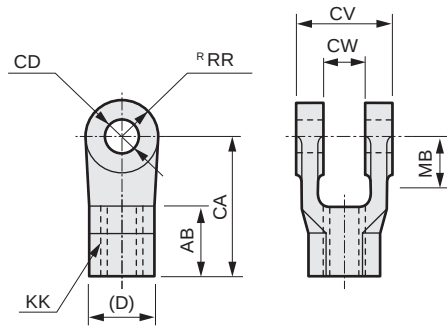
Model	Shape code	Model No.	Applicable bore size (ø)	AB	CA	CW	CD	CV	D	KK	MB	RR
SCG	A	SCG-Y-32	32	14	30	14 ^{+0.3 +0.1}	10 ^{H10}	28	(20)	M10x1.25	16	10
		SCG-Y-40	40	21	40	14 ^{+0.3 +0.1}	10 ^{H10}	28	(22)	M14x1.5	19	11
		SCG-Y-50	50, 63	26	50	20 ^{+0.3 +0.1}	14 ^{H10}	40	(28)	M18x1.5	24	14
		SCG-Y-80	80	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	M22x1.5	34	20
		SCG-Y-100	100	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	M26x1.5	34	20
SCA2	A	S1-Y-40	40	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M14x1.5	19	16
		S1-Y-50	50	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M18x1.5	19	16
		S1-Y-63	63	24	50	20 ^{+0.4 +0.1}	14 ^{H10}	40	(27)	M18x1.5	19	16
		S1-Y-80	80	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M22x1.5	30	25
		S1-Y-100	100	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M26x1.5	30	25
SCS2	A	SCS2-125-Y	125	50	85	32 ^{+0.4 +0.1}	25 ^{H10}	64	(46)	M30x1.5	35	27.5
		SCS2-140-Y	140	50	90	36 ^{+0.4 +0.1}	28 ^{H10}	72	(46)	M30x1.5	40	30
		SCS2-160-Y	160	60	105	40 ^{+0.4 +0.1}	32 ^{H10}	80	(55)	M36x1.5	45	35
		SCS2-180-Y	180	65	115	50 ^{+0.4 +0.1}	40 ^{H10}	100	(60)	M40x1.5	50	42.5
		SCS2-200-Y	200	75	125	50 ^{+0.4 +0.1}	40 ^{H10}	100	(70)	M45x1.5	50	42.5
		SCS2-250-Y	250	88	150	63 ^{+0.4 +0.1}	50 ^{H10}	126	(85)	M56x2	62	52.5
SCM	B	SCM-Y-20	20	13.5	25	8 ^{+0.4 +0.2}	8 ^{H10}	16	16	M8	11.5	9
		SCM-Y-25	25, 32	16	30	10 ^{+0.4 +0.2}	10 ^{H10}	20	20	M10x1.25	14	11
	A	SCM-Y-40	40	16	30	18 ^{+0.5 +0.3}	10 ^{H10}	36	22	M14x1.5	14	12
		SCM-Y-50	50, 63	20	40	22 ^{+0.5 +0.3}	14 ^{H10}	44	28	M18x1.5	20	16
		SCM-Y-80	80	23	50	28 ^{+0.5 +0.3}	18 ^{H10}	56	38	M22x1.5	27	21
		SCM-Y-100	100	24	55	32 ^{+0.5 +0.3}	22 ^{H10}	64	44	M26x1.5	31	24
SSD	B	P2-Y-16	12	11	21	6.5 ^{+0.2 +0.1}	5 ^{H10}	12	12	M5	10	7
	A	SSD-Y-16	16	11	21	6.5 ^{+0.2 +0.1}	5 ^{H10}	12	12	M6	10	10
	B	SSD-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8	13	10
		M1-Y-30	25	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		SSD-Y-32	32	15	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M14	16	12
	A	SSD-Y-40	40	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M14x1.5	19	16
		SSD-Y-50	50	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	M18x1.5	19	16
		SSD-Y-63	63	24	50	20 ^{+0.4 +0.1}	14 ^{H10}	40	(27)	M18x1.5	19	16
		SSD-Y-80	80	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M22x1.5	30	25
		SSD-Y-100	100	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	M26x1.5	30	25
	B	SCS2-125-Y	125, 140	50	85	32 ^{+0.4 +0.1}	25 ^{H10}	64	(46)	M30x1.5	35	27.5
		SCS2-160-Y	160	60	105	40 ^{+0.4 +0.1}	32 ^{H10}	80	(55)	M36x1.5	45	35
SSD2	B	SSD2-Y-12	12	6	16	5 ^{+0.4 +0.2}	5 ^{H10}	10	10	M5x0.8	7	5.5
		SSD2-Y-16	16	11	21	6.5 ^{+0.4 +0.2}	5 ^{H10}	12	12	M6x1	10	7
		SSD2-Y-20	20	13.5	25	8 ^{+0.4 +0.2}	8 ^{H10}	16	16	M8x1.25	11.5	9
		SSD2-Y-25	25	16	30	10 ^{+0.4 +0.2}	10 ^{H10}	20	20	M10x1.25	14	11
	A	SSD2-Y-32	32, 40	16	30	18 ^{+0.5 +0.3}	10 ^{H10}	36	ø22	M14x1.5	14	12
		SSD2-Y-50	50, 63	20	40	22 ^{+0.5 +0.3}	14 ^{H10}	44	ø28	M18x1.5	20	16
		SSD2-Y-80	80	23	50	28 ^{+0.5 +0.3}	18 ^{H10}	56	ø38	M22x1.5	27	21
		SSD2-Y-100	100	24	55	32 ^{+0.5 +0.3}	22 ^{H10}	64	ø44	M26x1.5	31	24
ULK	B	M1-Y-20	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	M8x1.0	13	10
		M1-Y-30	25, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M10x1.25	16	12
		M1-Y-40	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	M12x1.5	16	12

Rod eye dimension

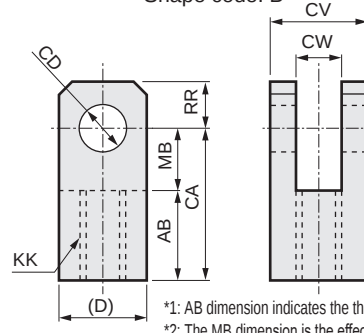
Ending

Rod eye/clevis dimension list

Rod clevis (by thread size) Shape code: A



Shape code: B



*1: AB dimension indicates the thread depth.

*2: The MB dimension is the effective length of the CW dimension.

Thread size KK	Model No.	Shape code	Compatible model	Applicable bore size (ø)	AB	CA	CW	CD	CV	D	MB	RR
M4	P2-Y-10	B	SCP*3	10	8	21	3.2 ^{+0.2 0}	3.2 ^{H10}	12	12	10	7
M5	P2-Y-16	B	SCP*3	16	11	21	6.5 ^{+0.2 0}	5 ^{H10}	12	12	10	7
			SSD	12								
M6	SSD2-Y-12	B	SSD2	12	6	16	5 ^{+0.4 +0.2}	5 ^{H10}	10	10	7	5.5
	SSD2-Y-16	A	SSD	16	11	21	6.5 ^{+0.2 +0.1}	5	12	12	10	10
	SSD2-Y-16	B	SSD2	16	11	21	6.5 ^{+0.4 +0.2}	5 ^{H10}	12	12	10	7
M8x1.0	M1-Y-20	B	CKV2, CMA2, CMK2 HCA, JSK2, JSM2 ULK	20	17	30	8 ^{+0.3 +0.1}	10 ^{H10}	19	19	13	10
M8	SCM-Y-20	B	SCM	20	13.5	25	8 ^{+0.4 +0.2}	8 ^{H10}	16	16	11.5	9
	SSD-Y-20	B	SSD	20	17	30	8 ^{+0.3 +0.1}	10	19	19	13	10
M8x1.25	SSD2-Y-20	B	SSD2	20	13.5	25	8 ^{+0.4 +0.2}	8 ^{H10}	16	16	11.5	9
M10x1.25	SCG-Y-32	A	SCG	32	14	30	14 ^{+0.3 +0.1}	10 ^{H10}	28	(20)	16	10
	M1-Y-30	B	CKV2, CMA2, CMK2 HCA, JSK2, JSM2 ULK, SSD	25, 30, 32	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	16	12
	SCM-Y-25	B	SCM	25, 32	16	30	10 ^{+0.4 +0.2}	10 ^{H10}	20	20	14	11
	SSD2-Y-25	B	SSD2	25	16	30	10 ^{+0.4 +0.2}	10 ^{H10}	20	20	14	11
M12x1.5	M1-Y-40	B	CKV2, CMA2, CMK2 JSK2, JSM2, ULK	40	20	36	10 ^{+0.3 +0.1}	12 ^{H10}	25	25	16	12
M14x1.5	SCG-Y-40	A	SCG, JSG	40	21	40	14 ^{+0.3 +0.1}	10 ^{H10}	28	(22)	19	11
	S1-Y-40	A	HCA, JSC3 SCA2, SSD	40	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	19	16
	SCM-Y-40	A	SCM	40	16	30	18 ^{+0.5 +0.3}	10 ^{H10}	36	22	14	12
M14	SSD-Y-32	B	SSD	32	15	36	10 ^{+0.3 +0.1}	12	25	25	16	12
M14x1.5	SSD2-Y-32	A	SSD2	32, 40	16	30	18 ^{+0.5 +0.3}	10 ^{H10}	36	ø22	14	12
M16x1.5	CAV2-50-Y	A	CAV2, COV	50	25	50	20 ^{+0.3 0}	14 ^{H10}	42	(23)	18	15
M18x1.5	SCG-Y-50	A	SCG, JSG	50, 63	26	50	20 ^{+0.3 +0.1}	14 ^{H10}	40	(28)	24	14
	S1-Y-50	A	HCA, JSC3, SCA2	50	24	50	18 ^{+0.4 +0.1}	12 ^{H10}	36	(27)	19	16
	SSD-Y-50		SSD									
	S1-Y-63	A	HCA, JSC3, SCA2	63	24	50	20 ^{+0.4 +0.1}	14 ^{H10}	40	(27)	19	16
	SSD-Y-63		SSD									
	SCM-Y-50	A	SCM	50, 63	20	40	22 ^{+0.5 +0.3}	14 ^{H10}	44	28	20	16
M22x1.5	SSD2-Y-50	A	SSD2	50, 63	20	40	22 ^{+0.5 +0.3}	14 ^{H10}	44	ø28	20	16
	SCG-Y-80	A	SCG, JSG	80	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	34	20
	CAV2-75-Y	A	CAV2, COV2	75, 100	30	65	28 ^{+0.3 0}	20 ^{H10}	60	(35)	28	22.5
	S1-Y-80	A	HCA, JSC3, SCA2	80	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	30	25
	SSD-Y-80		SSD									
	SCM-Y-80	A	SCM	80	23	50	28 ^{+0.5 +0.3}	18 ^{H10}	56	38	27	21
M26x1.5	SSD2-Y-80	A	SSD2	80	23	50	28 ^{+0.5 +0.3}	18 ^{H10}	56	ø38	27	21
	SCG-Y-100	A	SCG, JSG	100	31	65	30 ^{+0.3 +0.1}	22 ^{H10}	60	(40)	34	20
	S1-Y-100	A	HCA, JSC3, SCA2	100	35	70	28 ^{+0.4 +0.1}	20 ^{H10}	56	(41)	30	25
	SSD-Y-100		SSD									
	SCM-Y-100	A	SCM	100	24	55	32 ^{+0.5 +0.3}	22 ^{H10}	64	44	31	24

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye/clevis dimension list

Rod clevis (by thread size)

Thread size KK	Model No.	Shape code	Compatible model	Applicable bore size (ø)	AB	CA	CW	CD	CV	D	MB	RR
M26x1.5	SSD2-Y-100	A	SSD2	100	24	55	32 ^{+0.5 +0.3}	22 ^{H10}	64	ø44	31	24
M30x1.5	SCS2-125-Y	A	JSC4, SCS2	125	50	85	32 ^{+0.4 +0.1}	25 ^{+0.084 0}	64	(46)	35	27.5
			SSD	125, 140								
	SCS2-140-Y	A	JSC4, SCS2	140	50	90	36 ^{+0.4 +0.1}	28 ^{+0.084 0}	72	(46)	40	30
M36x1.5	SCS2-160-Y	A	JSC4, SCS2, SSD	160	60	105	40 ^{+0.4 +0.1}	32 ^{+0.100 0}	80	(55)	45	35
M40x1.5	SCS2-180-Y	A	JSC4, SCS2	180	65	115	50 ^{+0.4 +0.1}	40 ^{+0.100 0}	100	(60)	50	42.5
M45x1.5	SCS2-200-Y	A	SCS2	200	75	125	50 ^{+0.4 +0.1}	40 ^{+0.100 0}	100	(70)	50	42.5
M56x2	SCS2-250-Y	A	SCS2	250	88	150	63 ^{+0.4 +0.1}	50 ^{+0.100 0}	126	(85)	62	52.5

Note: The A and B figures are a guide only. For details, refer to the accessory and external dimensions of each model.

Rod eye dimension

Ending