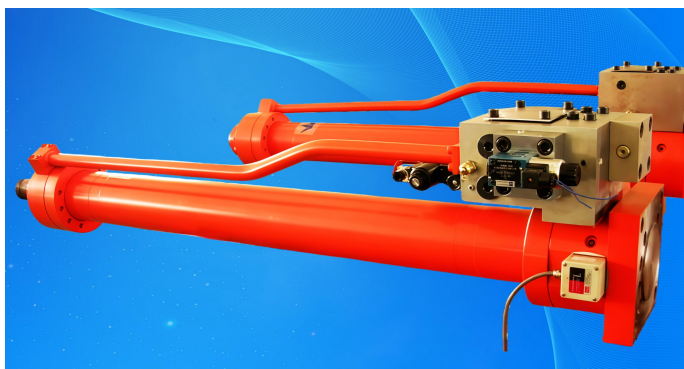


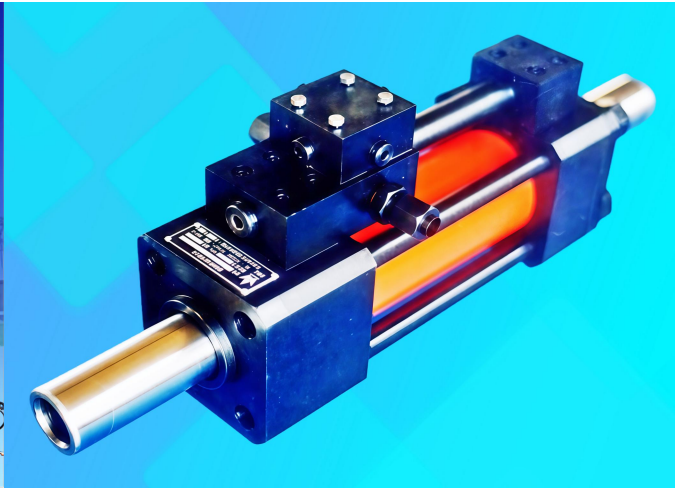
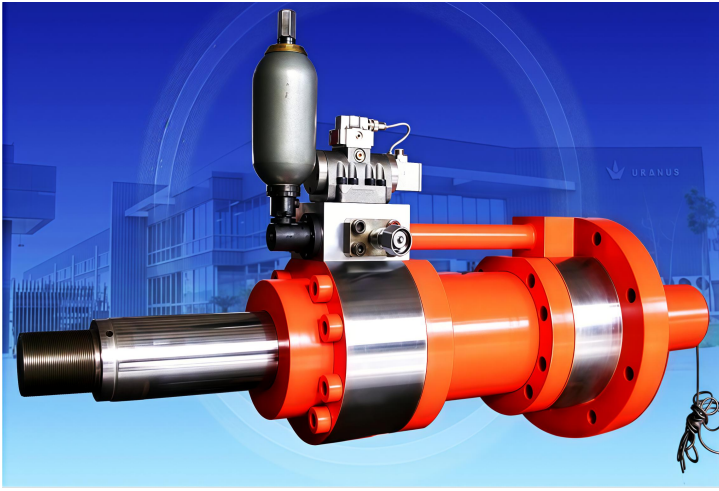
Photo of UY series 25Mpa
metallurgical and heavy duty machinery hydraulic cylinder



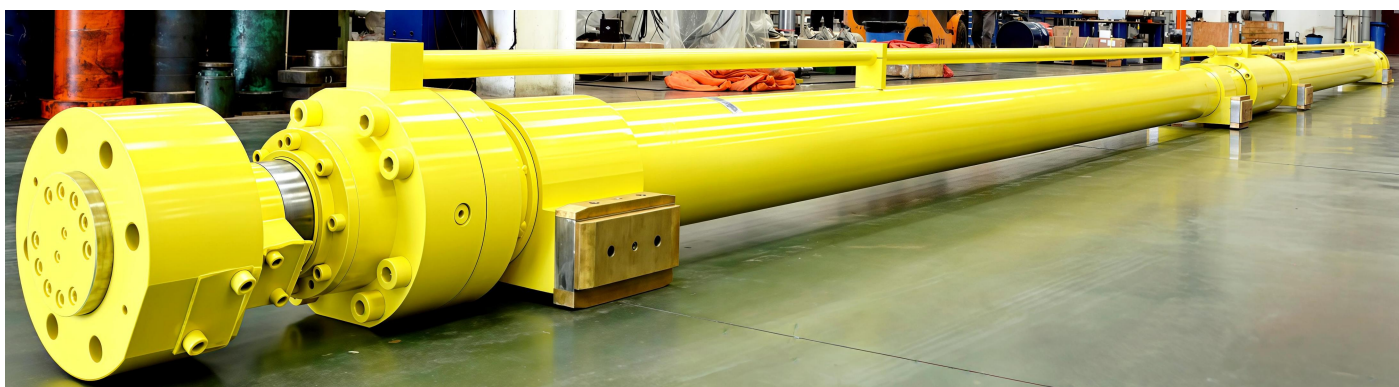
优瑞纳斯®
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ISO 9001
QUALITY SYSTEM
CERTIFIED BY DNV
挪威船级社质量体系认证













UY series 25Mpa
metal lurgical and heavy duty machinery
hydraulic cylinder



Resistant to impact
Vibration high reliability
and excellent cost-effectiveness

Tianjin Uranus Hydraulic Machinery Co., Ltd., China

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Product Performance Introduction

The UY series 25Mpa metallurgical and heavy machinery hydraulic cylinder is a series of products independently developed and designed by our company. This product has a reasonable structure, high safety factor, resistance to pressure impact, mechanical vibration, high reliability, long working life, and excellent cost-effectiveness: it has been highly praised by domestic and foreign users. Since its establishment, the company has provided hundreds of thousands of UY series hydraulic cylinders to domestic and foreign customers in the metallurgical and heavy machinery industries.

Technical parameters:

Work pressure: 25MPa Test pressure: 31.5MPa

Working medium: Mineral oil. If you need media such as ethylene glycol, emulsion, fatty acid ester, phosphate ester, water, etc., please provide written instructions when placing an order.

Working temperature: normal temperature -35°C ~ 80°C

Working speed: Universal $\leq 0.5\text{m/s}$

Cylinder diameter: 40~1000, piston rod diameter: 28~700, a total of 29 specifications

Structure type: single rod differential cylinder

Two terminal buffering: cylinder diameter ≤ 63 is gap buffering; Cylinder diameter >63 for adjustable buffer+quick start check valve(Also serving as an exhaust valve)

Installation methods: rear Clevis type, middle swing type, head swing type, front flange type, rear flange type, Foot Mounting

Rod end connection methods: external thread, Type I rod end earrings, internal thread, Type II rod end earrings

Following customer requirements:

Can provide: working pressure $>25\text{MPa}$; Working speed $>5\text{m/s}$; Special hydraulic cylinders with ambient temperatures below $-35\text{ }^{\circ}\text{C}$ and above $80\text{ }^{\circ}\text{C}$, dual output constant velocity hydraulic cylinders, proportional servo hydraulic cylinders, and high-frequency vibration hydraulic cylinders with hydrostatic bearings

Various valves and valve blocks can be installed: including servo valves, proportional valves, hydraulic control one-way valves, balance valves, one-way throttle valves, overflow valves, explosion-proof valves, etc.

Various switches can be installed: proximity switch, travel switch, magnetic switch.

Various sensors can be installed, including magnetic field sensors, magnetic ruler sensors, differential transformer sensors, inductive sensors, grating ruler sensors, and other displacement sensors, velocity sensors, pressure sensors, resistance to compression sensors, etc.

Can be equipped with safety and protective devices: hydraulic lock, mechanical lock, accordion type dust cover, sleeve type metal dust cover, heat shield, air-cooled sleeve, stainless steel water jacket, etc.

Special requirements for wear and corrosion resistance: The piston rod and cylinder inner wall can be plated with hard chromium, and the piston rod can be plated with trivalent and hexavalent double-layer chromium. It can be used for dehydrogenation and sealing treatment, and can provide ceramic, stainless steel or tungsten carbide coated piston rods, stainless steel piston rods,

stainless steel cylinder barrels or all stainless steel hydraulic cylinders;
All metal components of the hydraulic cylinder can undergo QPQ surface hardening
and anti-corrosion treatment.

UY series 25Mpa metallurgical and heavy duty machinery hydraulic cylinder specifications and performance parameters

cylinder diameter	rod diameter	Push and pull forces under different work pressuresKN							
		10MPa		16MPa		21MPa		25MPa	
		push	pull	push	pull	push	pull	push	pull
40	28	12.57	6.41	20.11	10.26	26.4	13.46	31.43	16.03
50	36	19.63	9.46	31.41	15.14	41.22	19.87	49.08	23.65
63	45	31.17	15.27	49.87	24.43	65.46	32.07	77.93	38.18
80	56	50.27	25.64	80.43	41.02	105.57	53.84	125.68	64.1
90	63	63.62	32.45	101.79	51.92	133.6	68.15	159.05	81.13
100	70	78.54	40.06	125.66	64.1	164.93	84.13	196.35	100.15
110	80	95.03	44.76	152.05	71.62	199.56	94	237.58	111.9
125	90	122.72	59.1	196.35	94.56	257.71	124.11	306.8	147.75
140	100	153.94	75.4	246.3	120.64	323.27	158.34	384.85	188.5
150	105	176.71	90.12	282.74	144.19	371.09	189.25	441.78	225.3
160	110	201.06	106.03	321.7	169.65	422.23	222.66	502.65	265.08
180	125	254.47	131.75	407.15	210.8	534.39	276.68	636.18	329.38
200	140	314.16	160.23	502.66	256.37	659.74	336.48	785.4	400.58
220	160	380.13	179.08	608.21	286.53	798.27	376.07	950.33	447.7
250	180	490.87	236.41	785.39	378.26	1030.83	496.46	1227.18	591.03
280	200	615.75	301.6	985.2	482.56	1293.08	633.36	1539.38	754.0
320	220	804.25	424.13	1286.8	678.61	1688.93	890.67	2010.63	1060.32
360	250	1017.8	527.02	1628.61	843.23	2137.55	1106.7	2544.69	1317.54
400	280	1256.6	640.9	2010.62	1025.4	2638.94	1345.8	3141.59	1602.26
450	320	1590.4	786.18	2544.69	1257.8	3339.9	1650.9	3976.08	1965.45
500	360	1963.5	945.62	3141.6	1513.0	4123.35	1985.8	4908.75	2364.06
550	390	2375.8	1181.2	3801.33	1889.9	4989.24	2480.6	5939.58	2953.1
600	420	2827.4	1441.9	4523.89	2307.1	5937.6	3028.1	7068.58	3604.98
650	460	3318.3	1656.4	5309.3	2650.2	6968.45	3478.4	8295.78	4141.03
700	500	3848.4	1884.9	6157.52	3015.9	8081.75	3958.4	9621.13	4712.38
750	530	4417.8	2211.6	7068.58	3538.6	9277.51	4644.5	11044.6	5529.2
800	560	5026.5	2563.5	8042.48	4101.6	10555.7	5383.4	12566.3	6408.85
900	630	6361.7	3244.6	10178.7	5191.4	13359.6	6813.8	15904.3	8111.7
1000	700	7853.9	4005.5	12566.3	6408.8	16493.3	8411.6	19634.9	10013.8

Example of selection for cylinder diameter ϕ 40-400

UY ZB 11 ϕ 320 / 220 X 5000 X 2000

Uranus UY series metallurgical and heavy duty machinery hydraulic cylinder

Rear Clevis Mounting-----WE
Middle Swing Mounting-----ZB
Front Swing Mounting-----TB
Front Flange Mounting-----TF
Rear Flange Mounting-----WF
Foot Mounting-----JG

Connection method of piston rod end

-External thread-----10
-External thread with Type 1 rod end earring ---11
Internal thread-----20
Internal thread with Type 2 rod end earrings ---22

cylinder diameter D-----mm

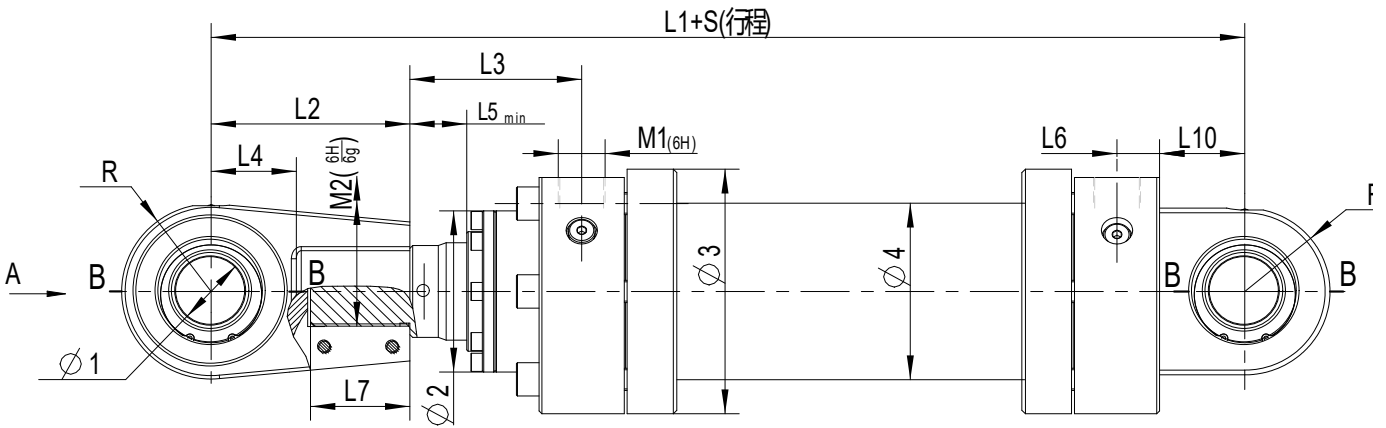
rod diameter d-----mm

stroke S-----mm

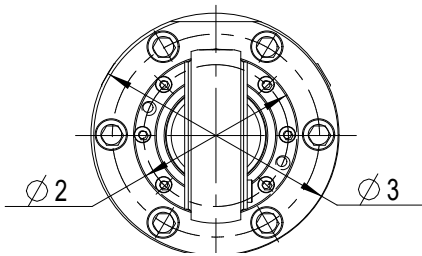
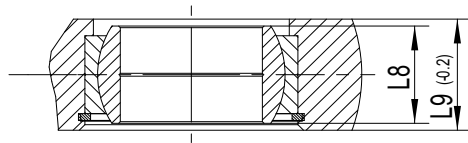
Central hinge axis position

Standard length $L_{13+1/2}$ stroke -----unmarked
User defined requirement length-----mm

WE Rear Clevis Mountin



A向

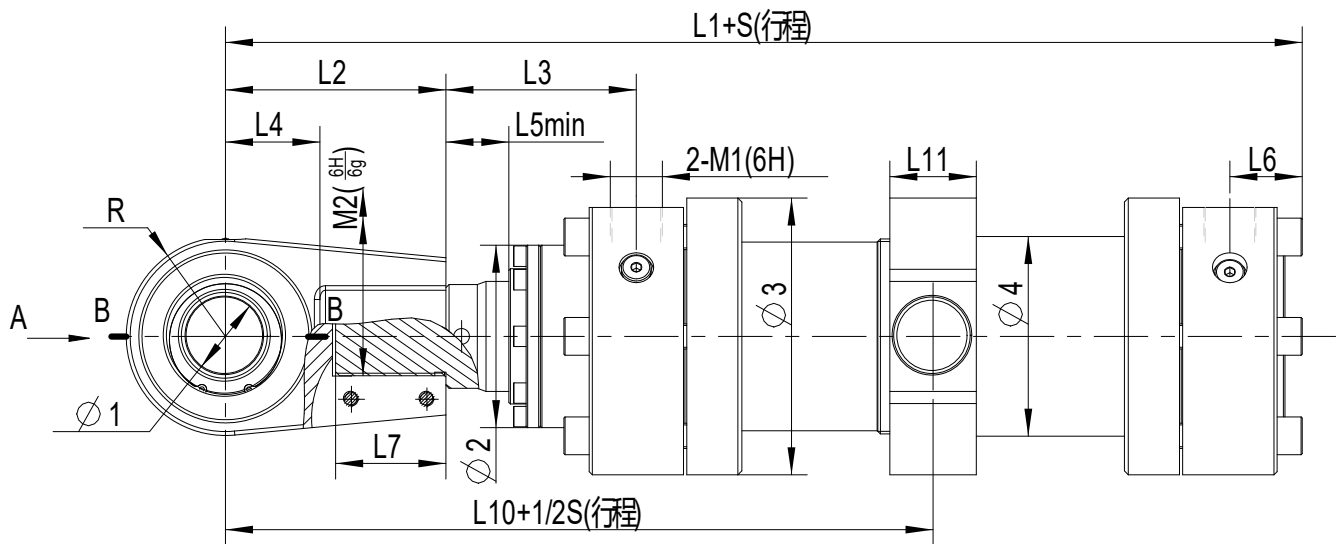

$$\frac{B-B}{2:1}$$


WE Rear Clevis Mounting

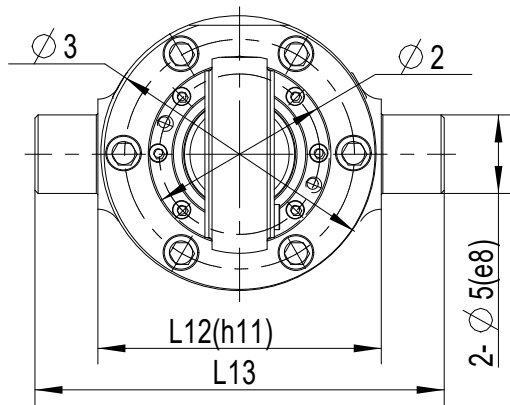
D	d	φ 1	φ 2	φ 3	φ 4	R	M1 (6H)	M2(6H/6g)	L1
40	22/28	25	58	90	58	30	M22x1.5	M18x2	330
50	28/36	30	70	108	70	34	M22x1.5	M24x2	372
63	36/45	35	80	126	83	42	M27x2	M30x2	406
80	45/56	40	98	152	108	50	M27x2	M39x3	455.5
100	56/70	50	116	176	127	63	M33x2	M50x3	528
125	70/90	60	146	220	159	70	M42x2	M64x3	593
140	90/100	70	165	246	178	83	M42x2	M80x3	668
160	100/110	80	184	272	194	95	M48x2	M90x3	745.5
180	110/125	90	204	300	219	113	M48x3	M100x3	830
200	125/140	100	228	330	245	125	M48x2	M110x3	910
220	140/160	110	255	365	270	142.5	M48x2	M120x3	990
250	160/180	120	280	410	299	160	M48x2	M140x4	1140
280	180/200	140	318	462	325	180	M48x2	M160x4	1240
320	200/220	160	385	525	375	200	M48x2	M180x4	1380
360	220/250	180	404	560	420	230	M48x2	M200x4	1532
400	250/280	200	469	625	470	260	M48x2	M220x4	1632

D	d	L2	L3	L4	L5 (min)	L6	L7	L8	L9(-0.2)	L10
40	22/28	65	88	30	28	23	30	20	27	33
50	28/36	80	93	35	32	24	40	22	27	38
63	36/45	95	96	40	33	25	50	25	35	45
80	45/56	115	106	50	37	27.5	58	28	37	53
100	56/70	140	121	60	40	30	70	35	44	60
125	70/90	160	142	70	48	32.5	80	44	55	70
140	90/100	185	154	85	48	35	86	49	65	85
160	100/110	210	170	100	51	40	100	55	66	100
180	110/125	250	178	110	51	45	120	60	72	110
200	125/140	280	196	120	56	50	140	70	80	120
220	140/160	310	237	130	57	55	160	70	80	130
250	160/180	360	272	150	65	60	180	85	95	150
280	180/200	400	290	170	65	70	200	90	100	170
320	200/220	460	338	200	65	80	220	105	120	200
360	220/250	480	360	220	65	90	240	105	120	230
400	250/280	520	380	240	65	100	260	110	130	260

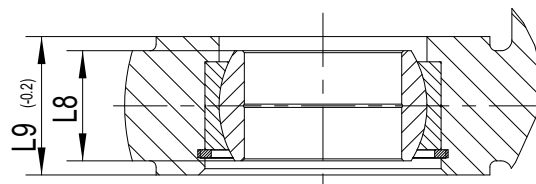
ZB Middle Swing Mounting



A向



B-B
2:1

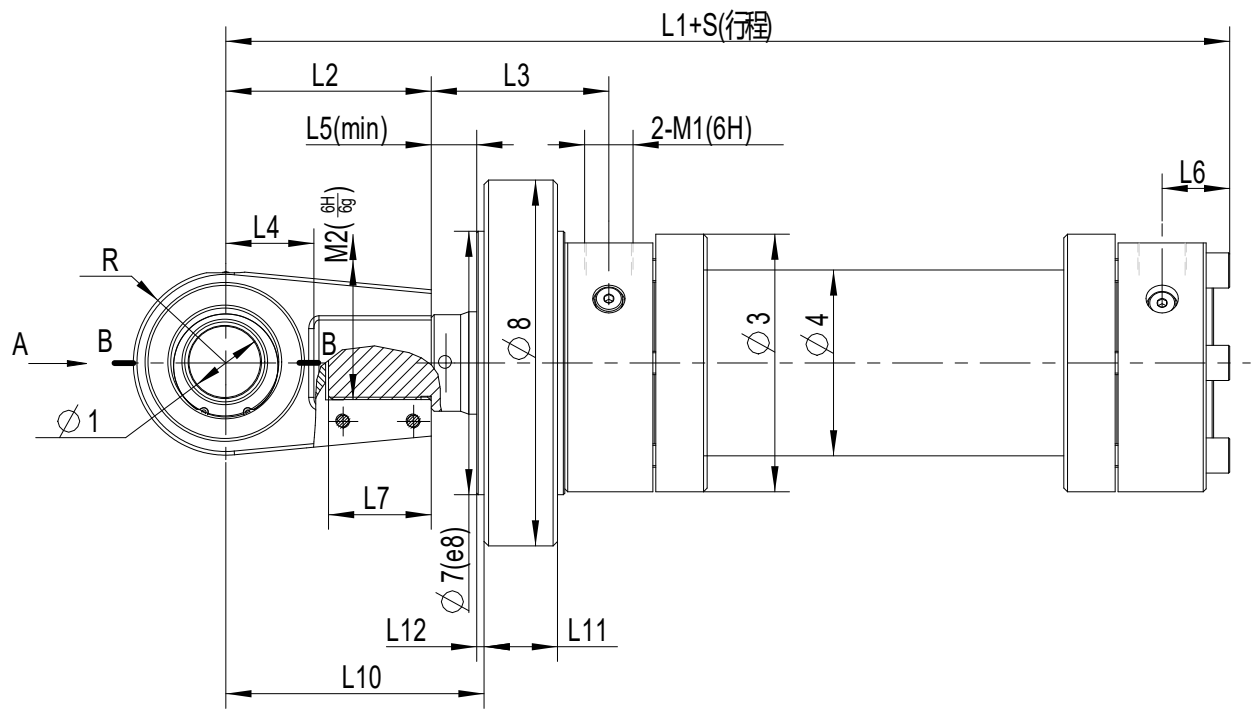


ZB Middle Swing Mounting

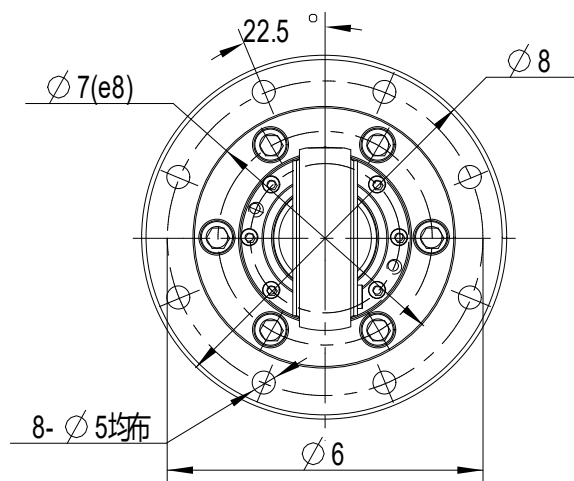
D	d	φ 1	φ 2	φ 3	φ 4	φ 5 (e8)	R	M1 (6H)	M2 (6H/6g)	L1	L2	L3	L4
40	22/28	25	58	90	58	25	30	M22x1.5	M18x2	305.5	65	87.5	30
50	28/36	30	70	108	70	30	34	M22x1.5	M24x2	344.5	80	92.5	35
63	36/45	35	80	126	83	35	42	M27x2	M30x2	373	95	96	40
80	45/56	40	98	152	108	40	50	M27x2	M39x3	417	115	105.5	50
100	56/70	50	116	176	127	50	63	M33x2	M50x3	484	140	121	60
125	70/90	60	146	220	159	60	70	M42x2	M64x3	543	160	141.5	70
140	90/100	70	165	246	178	70	83	M42x2	M80x3	605	185	154	85
160	100/110	80	184	272	194	80	95	M48x2	M90x3	669.5	210	169.5	100
180	110/125	90	204	300	219	90	113	M48x2	M100x3	744	250	178	110
200	125/140	100	228	330	245	100	125	M48x2	M110x3	820	280	196	120
220	140/160	110	255	365	270	120	142.5	M48x2	M120x3	890	310	237	130
250	160/180	120	280	410	299	140	160	M48x2	M140x4	1026	360	272	150
280	180/200	140	318	462	325	170	180	M48x2	M160x4	1112	400	290	170
320	200/220	160	385	525	375	200	200	M48x2	M180x4	1222	460	338	200
360	220/250	180	404	560	420	200	230	M48x2	M200x4	1350	480	360	220
400	250/280	200	469	625	470	200	260	M48x2	M220x4	1420	520	380	240

D	d	L5 min	L6	L7	L8	L9 (-0.2)	L10 (min)	L10 (std)	L10 (max)	L11	L12 (h11)	L13
40	22/28	27	31	30	20	27	211	212.5	215	30	95	135
50	28/36	32	34	40	22	27	235.5	240	247.5	35	115	165
63	36/45	33	37	50	25	35	263	260	264	40	135	195
80	45/56	37	42	58	28	37	302.5	291.5	293.5	45	155	255
100	56/70	40	46	70	35	44	355.5	349.5	343.5	55	180	260
125	70/90	48	53	90	44	55	408.5	373	383.5	65	225	325
140	90/100	48	57	86	49	65	458.5	418	428.5	75	250	370
160	100/110	51	64	100	55	66	516.5	460.5	468.5	90	275	415
180	110/125	51	69	120	60	72	580	518	523	100	310	470
200	125/140	56	80	140	70	80	638	573	578	110	350	530
220	140/160	57	85	160	70	80	729	636	573	130	390	590
250	160/180	65	96	180	85	95	839	725	723	150	440	660
280	180/200	65	112	200	90	100	922	787.5	768	180	500	760
320	200/220	65	122	220	105	120	1045	872.5	853	210	570	870
360	220/250	75	138	240	105	120	1112	973.5	950	220	580	920
400	250/280	75	148	260	110	130	1162	956	1010	220	640	1040

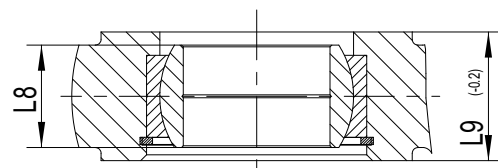
TF Front Flange Mounting



A向



B-B
2:1

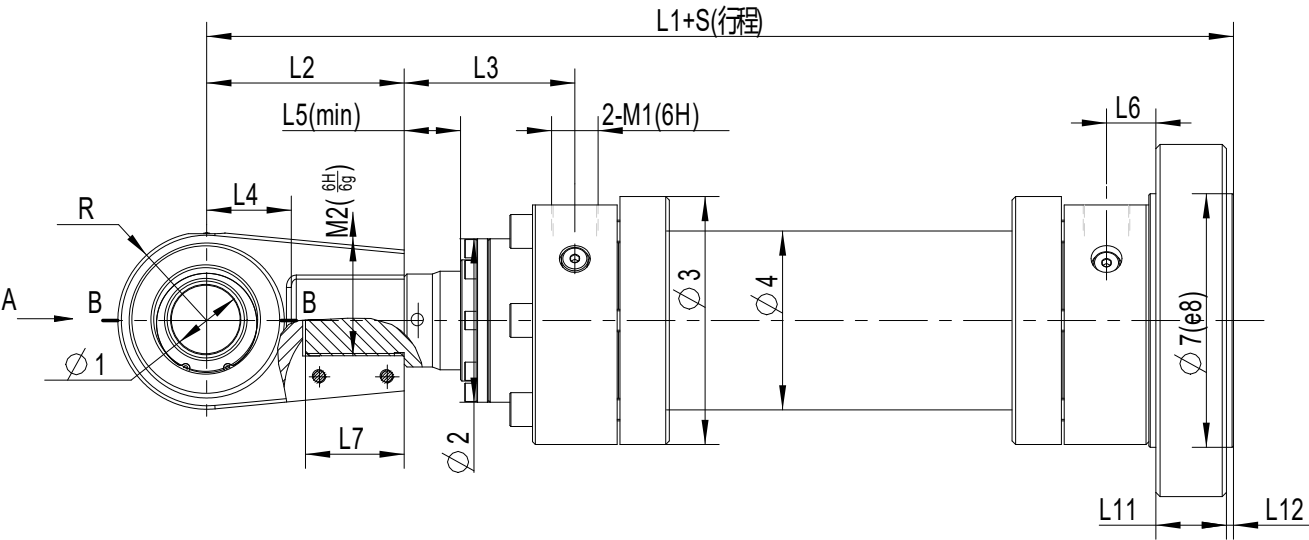


TF Front Flange Mounting

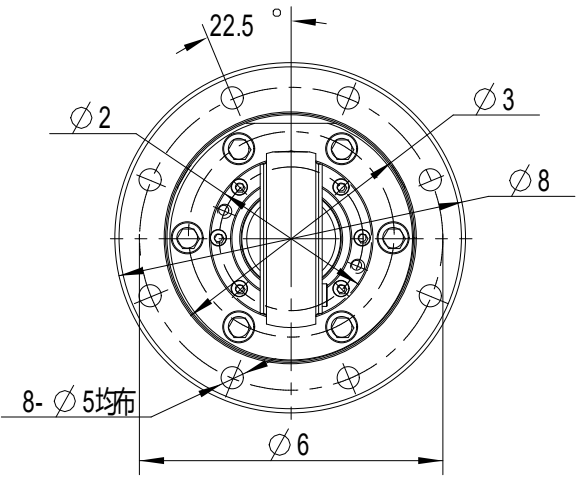
D	d	φ 1	φ 3	φ 4	φ 5	φ 6	φ 7 (e8)	φ 8	R	M1 (6H)	M2 (6H /6g)	L1
40	22/28	25	90	58	8.4	110	90	130	30	M22x1.5	M18x2	305.5
50	28/36	30	108	70	10.5	135	110	160	34	M22x1.5	M24x2	344.5
63	36/45	35	126	83	13	155	130	180	42	M27x2	M30x2	373
80	45/56	40	152	108	15	180	150	210	50	M27x2	M39x3	417
100	56/70	50	176	127	17	215	180	250	63	M33x2	M50x3	484
125	70/90	60	220	159	21	260	220	300	70	M42x2	M64x3	543
140	90/100	70	246	178	23	290	245	335	83	M42x2	M80x3	605
160	100/110	80	272	194	25	330	280	380	95	M48x2	M90x3	669.5
180	110/125	90	300	219	28	365	310	420	113	M48x2	M100x3	744
200	125/140	100	330	245	31	400	340	460	125	M48x2	M110x3	820
220	140/160	110	365	270	37	450	380	520	142.5	M48x2	M120x3	890
250	160/180	120	410	299	37	500	430	570	160	M48x2	M140x4	1026
280	180/200	140	462	325	43	570	480	660	180	M48x2	M160x4	1112
320	200/220	160	525	375	50	650	550	750	200	M48x2	M180x4	1222
360	220/250	180	560	420	50	650	560	780	230	M48x2	M200x4	1350
400	250/280	200	625	470	52	730	640	820	260	M48x2	M220x4	1420

D	d	L2	L3	L4	L5 min	L6	L7	L8	L9 (-0.2)	L10	L11	L12
40	22/28	65	88	30	23.5	31	30	20	27	94.5	30	5
50	28/36	80	93	35	23.5	34	40	22	27	108.5	35	5
63	36/45	95	96	40	21	37	50	25	35	121	40	5
80	45/56	115	106	50	28	42	58	28	37	148	45	5
100	56/70	140	121	60	31	46	70	35	44	176	50	5
125	70/90	160	142	70	34	53	80	44	55	204	55	10
140	90/100	185	154	85	39	57	86	49	65	234	60	10
160	100/110	210	170	100	39.5	64	100	55	66	259.5	70	10
180	110/125	250	178	110	33	69	120	60	72	293	80	10
200	125/140	280	196	120	36	80	140	70	80	326	90	10
220	140/160	310	237	130	62	85	160	70	80	382	100	10
250	160/180	360	272	150	65	96	180	85	95	450	110	10
280	180/200	400	290	170	65	112	200	90	100	490	120	10
320	200/220	460	338	200	65	122	220	105	120	578	130	10
360	220/250	480	360	220	75	138	240	105	120	620	130	10
400	250/280	520	380	240	75	148	260	110	130	650	150	10

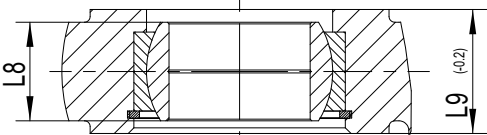
WF Rear Flange Mounting



A向



B-B
2:1

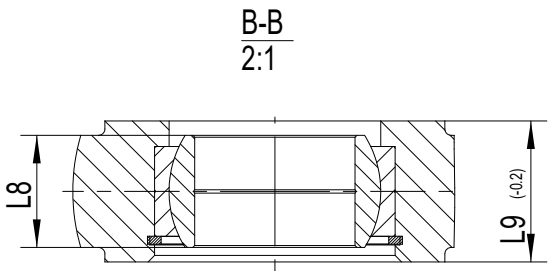
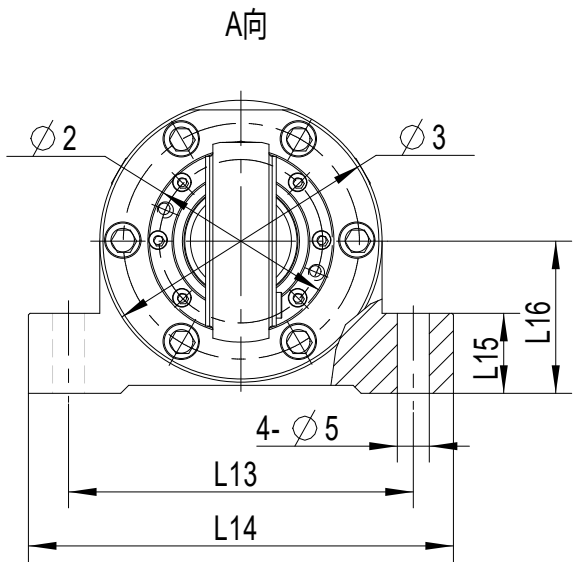
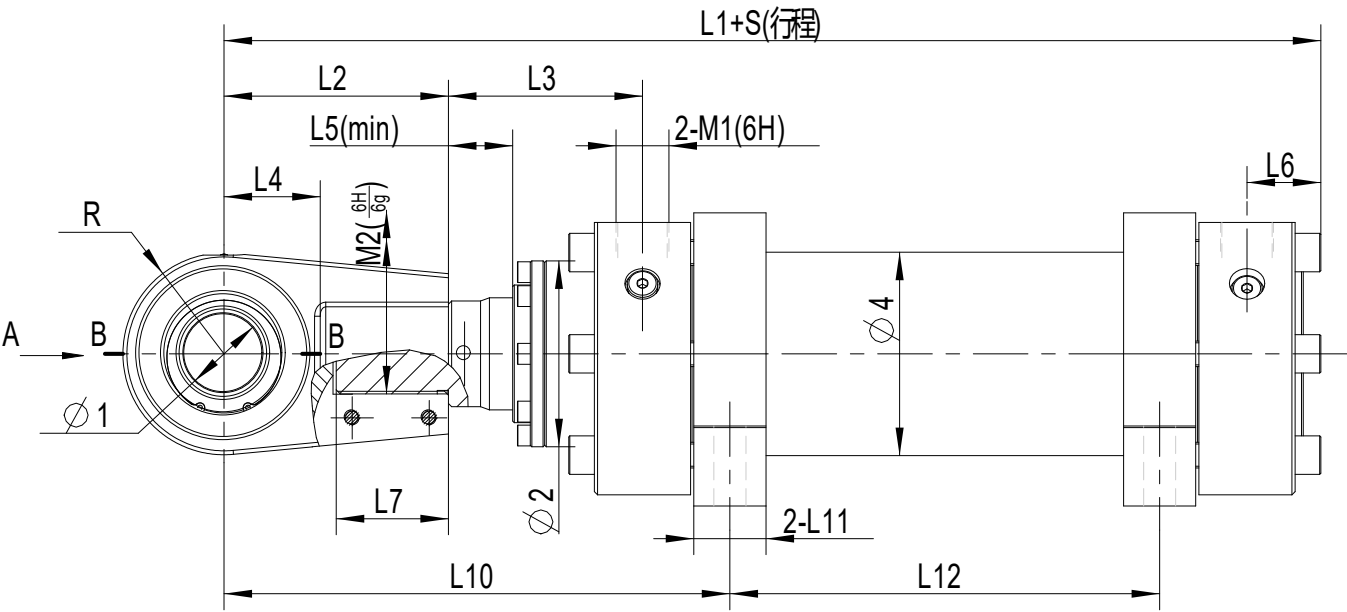


WF Rear Flange Mounting

D	d	Φ 1	Φ 2	Φ 3	Φ 4	Φ 5	Φ 6	Φ 7 (e8)	Φ 8	R	M1 (6H)	M2 (6H /6g)
40	22/28	25	58	90	58	8.4	110	90	130	30	M22x1.5	M18x2
50	28/36	30	70	108	70	10.5	135	110	160	34	M22x1.5	M24x2
63	36/45	35	80	126	83	13	135	130	180	42	M27x2	M30x2
80	45/56	40	98	152	108	15	180	150	210	50	M27x2	M39x3
100	56/70	50	116	176	127	17	215	180	250	63	M33x2	M50x3
125	70/90	60	146	220	159	21	260	220	300	70	M42x2	M64x3
140	90/100	70	165	246	178	23	290	245	335	83	M42x2	M80x3
160	100/110	80	184	272	194	25	330	280	380	95	M48x2	M90x3
180	110/125	90	204	300	219	28	365	310	420	113	M48x2	M100x3
200	125/140	100	228	330	245	31	400	340	460	125	M48x2	M110x3
220	140/160	110	255	365	270	37	450	380	520	142.5	M48x2	M120x3
250	160/180	120	280	410	299	37	500	430	570	160	M48x2	M140x4
280	180/200	140	318	462	325	43	570	480	660	180	M48x2	M160x4
320	200/220	160	385	525	375	50	650	550	750	200	M48x2	M180x4
360	220/250	180	404	560	420	50	650	560	780	230	M48x2	M200x4
400	250/280	200	469	625	470	52	730	640	820	260	M48x2	M220x4

D	d	L1	L2	L3	L4	L5 min	L6	L7	L8	L9 (-0.2)	L11	L12
40	22/28	337.5	65	88	30	27	28	30	20	27	30	5
50	28/36	379.5	80	93	35	32	29	40	22	27	35	5
63	36/45	411	95	96	40	33	30	50	25	35	40	5
80	45/56	458	115	106	50	37	33	58	28	37	45	5
100	56/70	528	140	121	60	40	35	70	35	44	50	5
125	70/90	598	160	142	70	33	43	80	44	55	55	10
140	90/100	663	185	154	85	48	45	86	49	65	60	10
160	100/110	735.5	210	170	100	51	50	100	55	66	70	10
180	110/125	820	250	178	110	51	55	120	60	72	80	10
200	125/140	800	280	196	120	56	60	140	70	80	90	10
220	140/160	980	310	237	130	57	65	160	70	80	100	10
250	160/180	1120	360	272	150	65	70	180	85	95	110	10
280	180/200	1210	400	290	170	65	80	200	90	100	120	10
320	200/220	1330	460	338	200	65	90	220	105	120	130	10
360	220/250	1452	480	360	220	75	100	240	105	120	130	10
400	250/280	1542	520	380	240	75	110	260	110	130	150	10

JG Foot Mounting



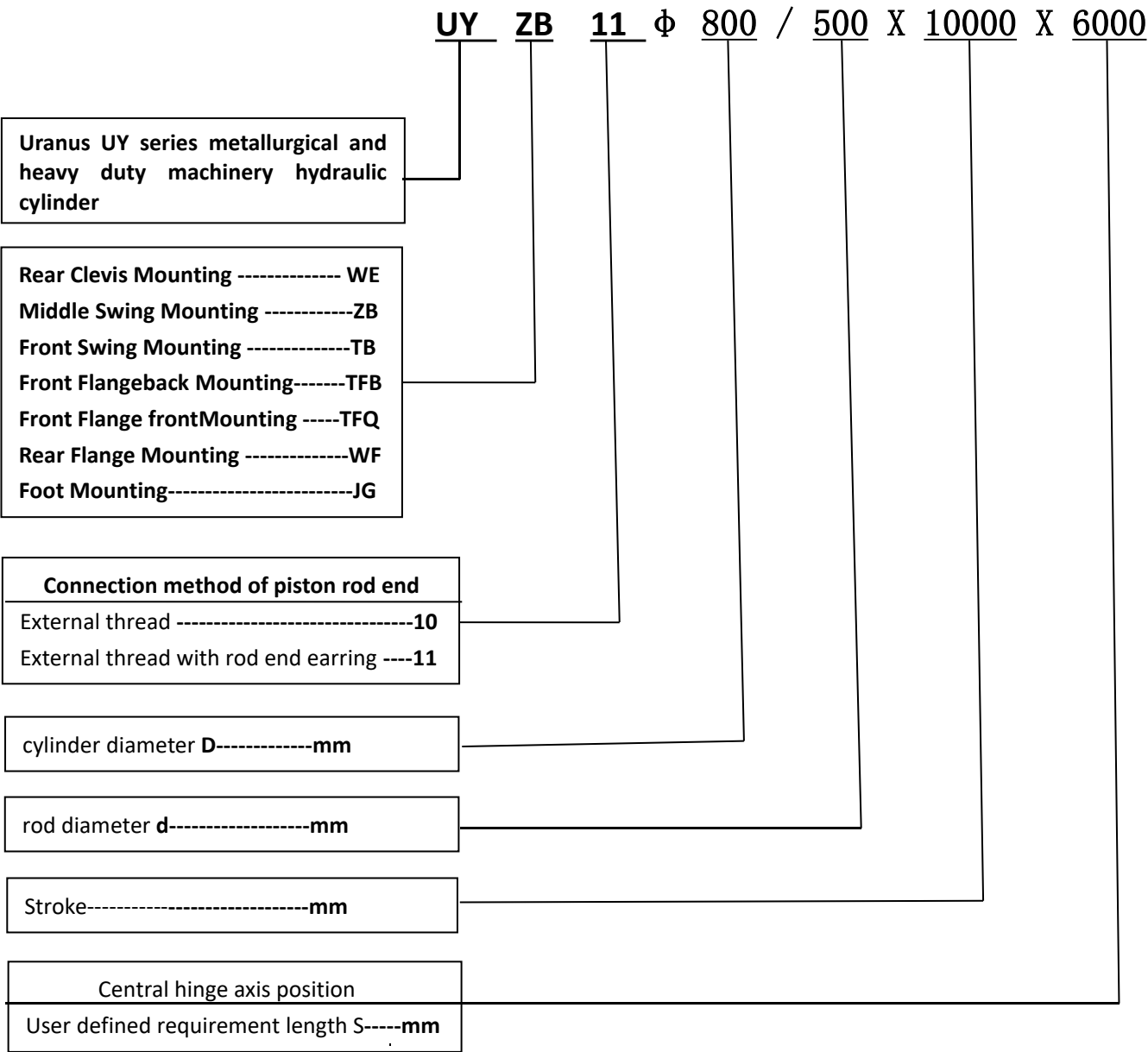
JG Foot Mounting

D	d	φ 1	φ 2	φ 3	φ 4	φ 5	R	M1 (6H)	M2 (6H/6g)
40	22/28	25	58	90	58	11	30	M22x1. 5	M18x2
50	28/36	30	70	108	70	13. 5	34	M22x1. 5	M24x2
63	36/45	35	80	126	83	15. 5	42	M27x2	M30x2
80	45/56	40	98	152	108	17. 5	50	M27x2	M39x3
100	56/70	50	116	176	127	20	63	M33x2	M50x3
125	70/90	60	146	220	159	24	70	M42x2	M64x3
140	90/100	70	165	246	178	26	83	M42x2	M80x3
160	100/110	80	184	272	194	30	95	M48x2	M90x3
180	110/125	90	204	300	219	33	113	M48x2	M100x3
200	125/140	100	228	330	245	39	125	M48x2	M110x3
220	140/160	110	255	365	270	45	142. 5	M48x2	M120x3
250	160/180	120	280	410	299	52	160	M48x2	M140x4
280	180/200	140	318	462	325	52	180	M48x2	M160x4
320	200/220	160	385	525	375	62	160	M48x2	M180x4
360	220/250	180	404	560	420	62	230	M48x2	M200x4
400	250/280	200	469	625	470	70	260	M48x2	M220x4

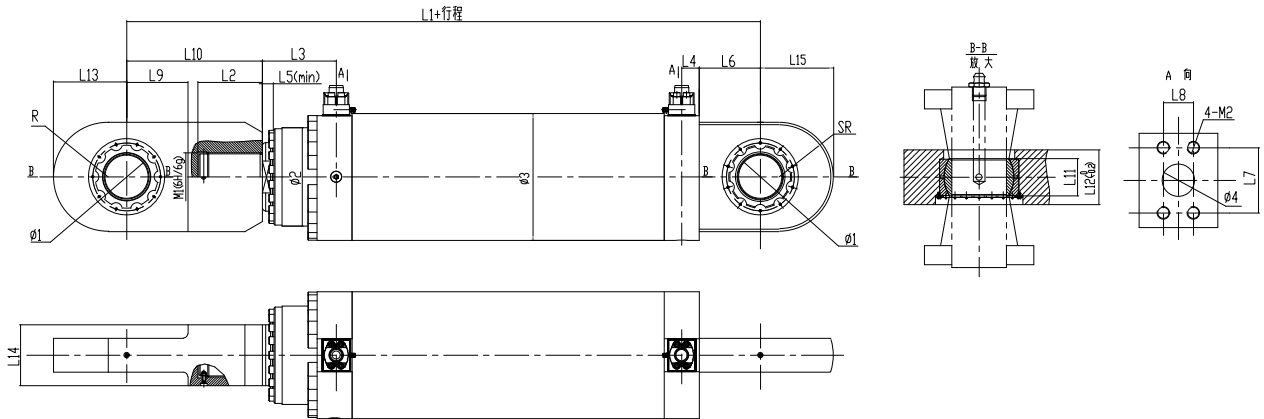
D	d	L1	L2	L3	L4	L5(min)	L6	L7	L8
40	22/28	305. 5	65	88	30	27	31	30	20
50	28/36	344. 5	80	93	35	32	34	40	22
63	36/45	373	95	96	40	33	37	50	25
80	45/56	417	155	106	50	37	41. 5	58	28
100	56/70	484	140	121	60	40	46	70	35
125	70/90	543	160	142	70	48	52. 5	80	44
140	90/100	605	185	154	85	48	57	86	49
160	100/110	669. 5	210	170	100	51	64	100	55
180	110/125	744	250	178	110	51	69	120	60
200	125/140	820	280	196	120	56	80	140	70
220	140/160	990	310	237	130	57	85	160	70
250	160/180	1026	360	272	150	65	96	180	85
280	180/200	1080	400	290	170	65	80	200	90
320	200/220	1222	460	338	200	65	122	220	105
360	220/250	1350	480	360	220	75	138	240	105
400	250/280	1420	520	380	240	75	148	260	110

D	d	L9	L10	L11	L12	L13	L14	L15	L16
40	22/28	27	188.5	25	49	115	145	25	50
50	28/36	27	213	30	57	140	175	30	60
63	36/45	35	235.5	35	56	160	200	35	70
80	45/56	37	270	40	56	185	230	40	80
100	56/70	44	315.5	45	68	215	265	50	95
125	70/90	55	363.5	55	65	260	315	60	115
140	90/100	65	406	60	75	295	355	65	130
160	100/110	66	454	65	77	335	400	70	145
180	110/125	72	510	70	83	376	445	80	160
200	125/140	80	563	80	90	410	500	90	175
220	140/160	80	639	90	74	460	560	100	195
250	160/180	95	734	100	94	520	630	110	220
280	180/200	100	797	110	96	570	680	120	245
320	200/220	120	910	120	78	660	800	140	280
360	220/250	120	962	120	138	695	835	150	310
400	250/280	130	1027	130	128	750	870	160	340

Example of selection for cylinder diameter ϕ 450-1000



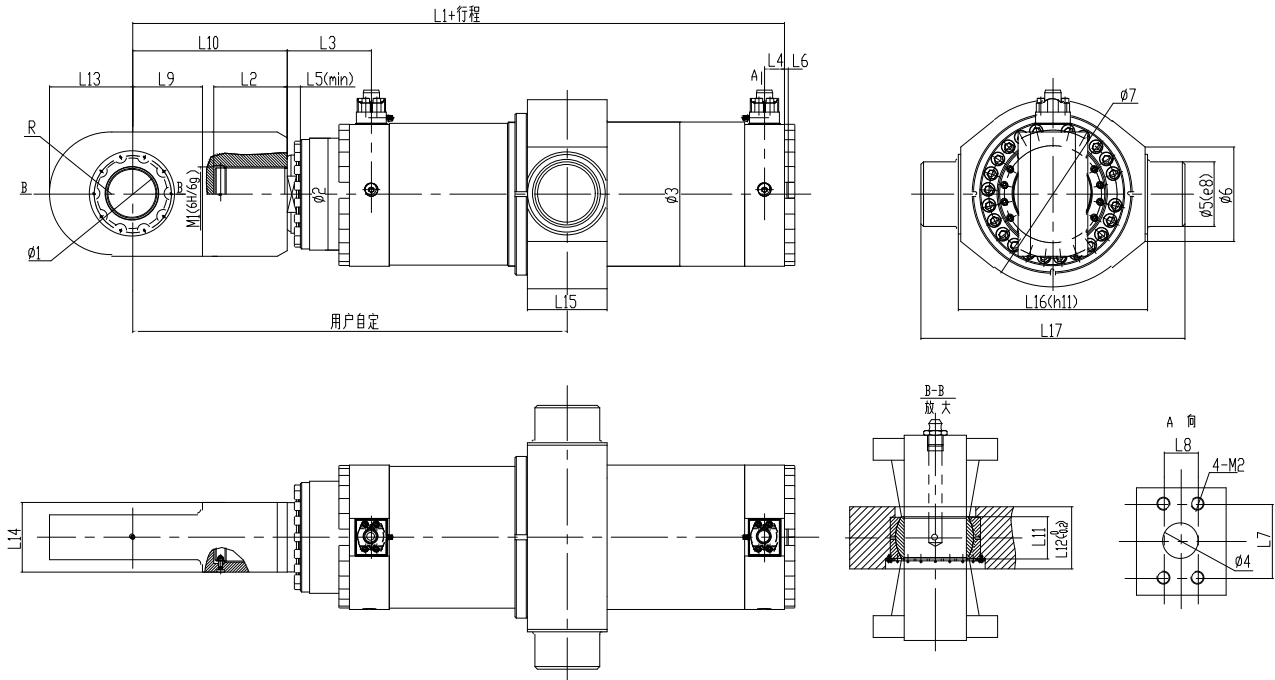
WE Rear Clevis Mounting



D	d	Ø1	Ø2	Ø3	Ø4	R	SR	M1	M2	L1	L2	L3
450	280/320	200	450	580	40	250	250	M200×4	M16×50	1897	295	338
500	320/360	220	500	640	40	280	280	M220×4	M16×50	2065	325	375
550	360/390	240	550	690	40	300	275	M250×4	M16×50	2326	345	425
600	390/420	260	600	760	40	330	290	M280×4	M16×50	2540	365	470
650	420/460	280	650	810	50	350	320	M310×4	M20×60	2753	395	505
700	460/500	300	700	870	50	370	330	M350×4	M20×60	2995	415	545
750	500/530	320	750	920	50	400	360	M370×4	M20×60	3205	435	568
800	530/560	340	800	1000	50	430	400	M400×4	M20×60	3495	460	630
900	560/630	380	900	1100	50	500	450	M440×4	M20×60	3755	500	700
1000	630/700	420	970	1200	50	550	500	M480×4	M20×60	3995	530	775

D	d	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
450	280/320	80	55	280	36.5	79.4	280	620	130	155	335	280	300
500	320/360	80	60	320	36.5	79.4	320	700	135	165	365	320	330
550	360/390	90	75	370	36.5	79.4	370	780	140	170	385	350	335
600	390/420	90	100	420	36.5	79.4	420	860	150	180	420	400	360
650	420/460	90	110	480	44.5	96.8	480	950	155	185	480	430	400
700	460/500	95	120	540	44.5	96.8	540	1040	165	195	540	450	420
750	500/530	95	125	600	44.5	96.8	600	1130	230	280	600	480	450
800	530/560	105	150	650	44.5	96.8	650	1210	243	300	650	500	500
900	560/630	105	175	700	44.5	96.8	700	1300	272	340	700	600	600
1000	630/700	105	200	750	44.5	96.8	750	1390	300	400	750	650	650

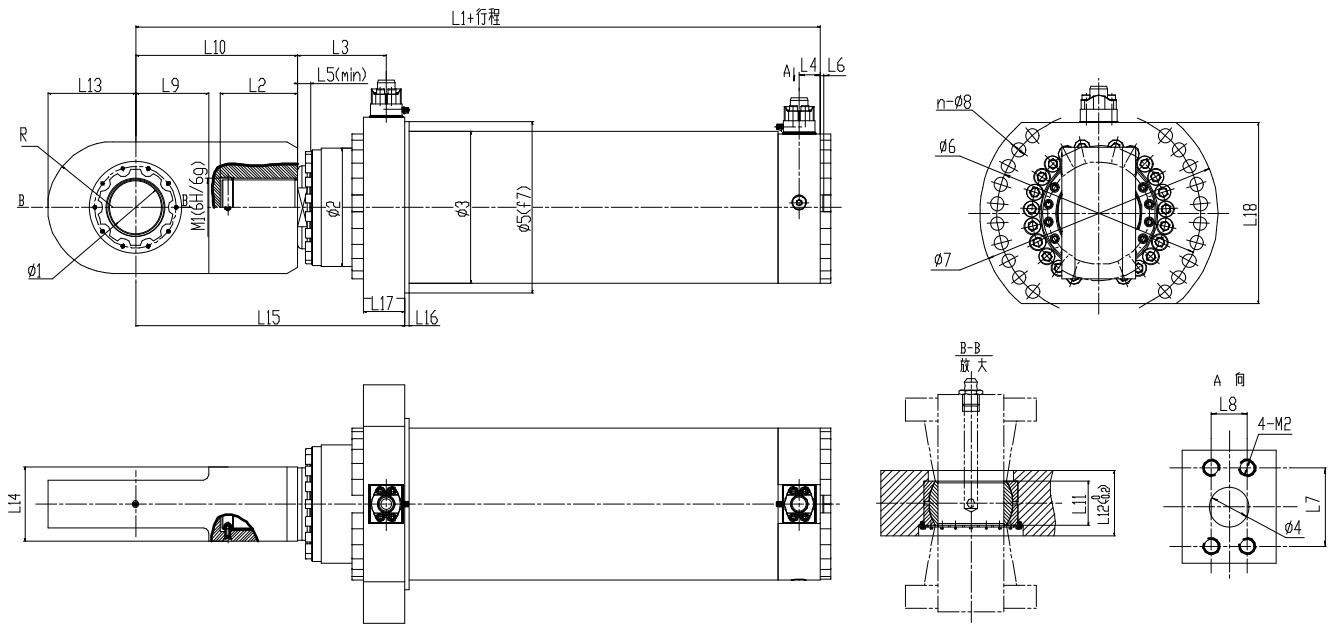
ZB Middle Swing Mounting



D	d	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	R	M1	M2	L1	L2	L3
450	280/320	200	450	580	40	260	320	760	250	M200×4	M16×50	1617	295	338
500	320/360	220	500	640	40	280	350	820	280	M220×4	M16×50	1745	325	375
550	360/390	240	550	690	40	300	400	880	300	M250×4	M16×50	1956	345	425
600	390/420	260	600	760	40	300	420	960	330	M280×4	M16×50	2120	365	470
650	420/460	280	650	810	50	340	450	1040	350	M310×4	M20×60	2273	395	505
700	460/500	300	700	870	50	360	480	1120	370	M350×4	M20×60	2455	415	545
750	500/530	320	750	920	50	360	500	1180	400	M370×4	M20×60	2605	435	568
800	530/560	340	800	1000	50	400	550	1250	430	M400×4	M20×60	2845	460	630
900	560/630	380	900	1100	50	460	600	1320	500	M440×4	M20×60	3055	500	700
1000	630/700	420	970	1200	50	560	650	1400	550	M480×4	M20×60	3245	530	775

D	d	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17
450	280/320	80	55	15	36.5	79.4	280	620	130	155	335	280	305	760	1060
500	320/360	80	60	15	36.5	79.4	320	700	135	165	365	320	330	820	1120
550	360/390	90	75	15	36.5	79.4	370	780	140	170	385	350	375	880	1180
600	390/420	90	100	15	36.5	79.4	420	860	150	180	420	400	400	960	1380
650	420/460	90	110	15	44.5	96.8	480	950	155	185	480	430	420	1040	1480
700	460/500	95	120	15	44.5	96.8	540	1040	165	195	540	450	450	1120	1600
750	500/530	95	125	15	44.5	96.8	600	1130	230	280	600	480	465	1180	1700
800	530/560	105	150	20	44.5	96.8	650	1210	243	300	650	500	510	1250	1850
900	560/630	105	175	20	44.5	96.8	700	1300	272	340	700	600	555	1320	1940
1000	630/700	105	200	20	44.5	96.8	750	1390	300	400	750	650	600	1400	2080

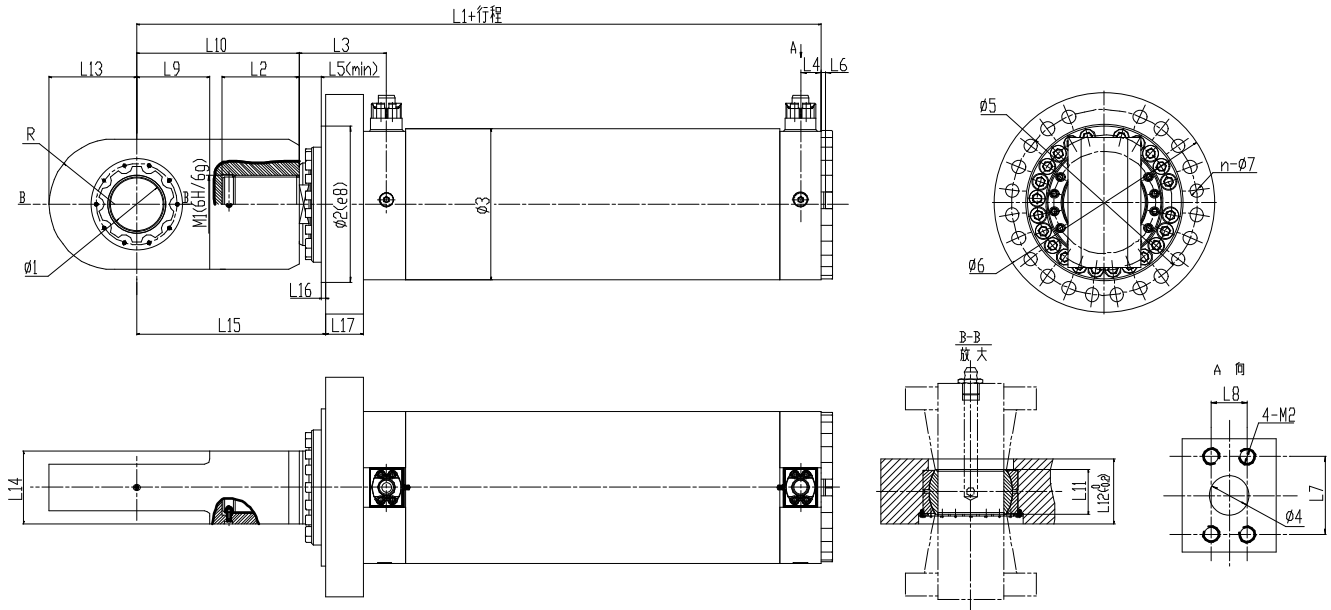
TFB Front Flangeback Mounting



D	d	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	n	R	M1	M2	L1	L2
450	280/320	200	450	580	40	650	780	910	52	20	250	M200×4	M16×50	1617	295
500	320/360	220	500	640	40	710	840	970	52	20	280	M220×4	M16×50	1745	325
550	360/390	240	550	690	40	790	920	1050	60	20	300	M250×4	M16×50	1956	345
600	390/420	260	600	760	40	850	980	1110	60	20	330	M280×4	M16×50	2120	365
650	420/460	280	650	810	50	880	990	1120	60	24	350	M310×4	M20×60	2273	395
700	460/500	300	700	870	50	960	1140	1300	60	24	370	M350×4	M20×60	2455	415
750	500/530	320	750	920	50	1005	1200	1360	60	28	400	M370×4	M20×60	2605	435
800	530/560	340	800	1000	50	1070	1280	1460	68	24	430	M400×4	M20×60	2845	460
900	560/630	380	900	1100	50	1190	1340	1520	68	28	500	M440×4	M20×60	3055	500
1000	630/700	420	970	1200	50	1280	1400	1600	68	34	550	M480×4	M20×60	3245	530

D	d	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18
450	280/320	338	80	55	15	36.5	79.4	280	620	130	155	335	280	1030	15	160	690
500	320/360	375	80	60	15	36.5	79.4	320	700	135	165	365	320	1160	15	160	760
550	360/390	425	90	75	15	36.5	79.4	370	780	140	170	385	350	1295	15	180	850
600	390/420	470	90	100	15	36.5	79.4	420	860	150	180	420	400	1420	15	180	900
650	420/460	505	90	110	15	44.5	96.8	480	950	155	185	480	430	1530	15	180	920
700	460/500	545	95	120	15	44.5	96.8	540	1040	165	195	540	450	1690	15	200	1040
750	500/530	568	95	125	15	44.5	96.8	600	1130	230	280	600	480	1795	15	200	1090
800	530/560	630	105	150	20	44.5	96.8	650	1210	243	300	650	500	1945	20	210	1170
900	560/630	700	105	175	20	44.5	96.8	700	1300	272	340	700	600	2110	20	210	1280
1000	630/700	775	105	200	20	44.5	96.8	750	1390	300	400	750	650	2270	20	210	1400

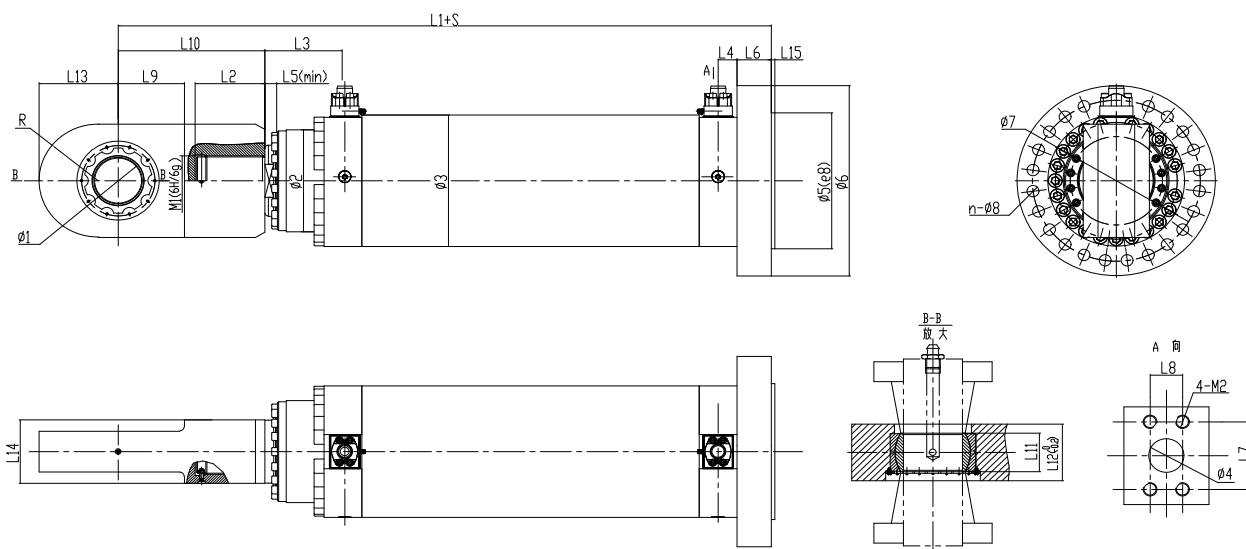
TFQFront Flange frontMounting



D	d	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	n	R	M1	M2	L1	L2	L3
450	280/320	200	600	580	40	720	840	52	22	250	M200×4	M16×50	1617	295	338
500	320/360	220	660	640	40	780	900	52	22	280	M220×4	M16×50	1745	325	375
550	360/390	240	720	690	40	845	970	60	28	300	M250×4	M16×50	1956	345	425
600	390/420	260	780	760	40	910	1040	60	28	330	M280×4	M16×50	2120	365	470
650	420/460	280	840	810	50	980	1120	60	28	350	M310×4	M20×60	2273	395	505
700	460/500	300	900	870	50	1050	1200	60	28	370	M350×4	M20×60	2455	415	545
750	500/530	320	960	920	50	1120	1280	60	30	400	M370×4	M20×60	2605	435	568
800	530/560	340	1040	1000	50	1210	1380	68	30	430	M400×4	M20×60	2845	460	630
900	560/630	380	1140	1100	50	1300	1460	68	30	500	M440×4	M20×60	3055	500	700
1000	630/700	420	1240	1200	50	1400	1560	68	34	550	M480×4	M20×60	3245	530	775

D	d	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17
450	280/320	80	55	15	36.5	79.4	280	620	130	155	335	280	725	15	145
500	320/360	80	60	15	36.5	79.4	320	700	135	165	365	320	826	15	170
550	360/390	90	75	15	36.5	79.4	370	780	140	170	385	350	920	15	195
600	390/420	90	100	15	36.5	79.4	420	860	150	180	420	400	1020	15	220
650	420/460	90	110	15	44.5	96.8	480	950	155	185	480	430	1130	15	240
700	460/500	95	120	15	44.5	96.8	540	1040	165	195	540	450	1229	15	255
750	500/530	95	125	15	44.5	96.8	600	1130	230	280	600	480	1321	15	280
800	530/560	105	150	20	44.5	96.8	650	1210	243	300	650	500	1436	20	300
900	560/630	105	175	20	44.5	96.8	700	1300	272	340	700	600	1550	20	345
1000	630/700	105	200	20	44.5	96.8	750	1390	300	400	750	650	1675	20	390

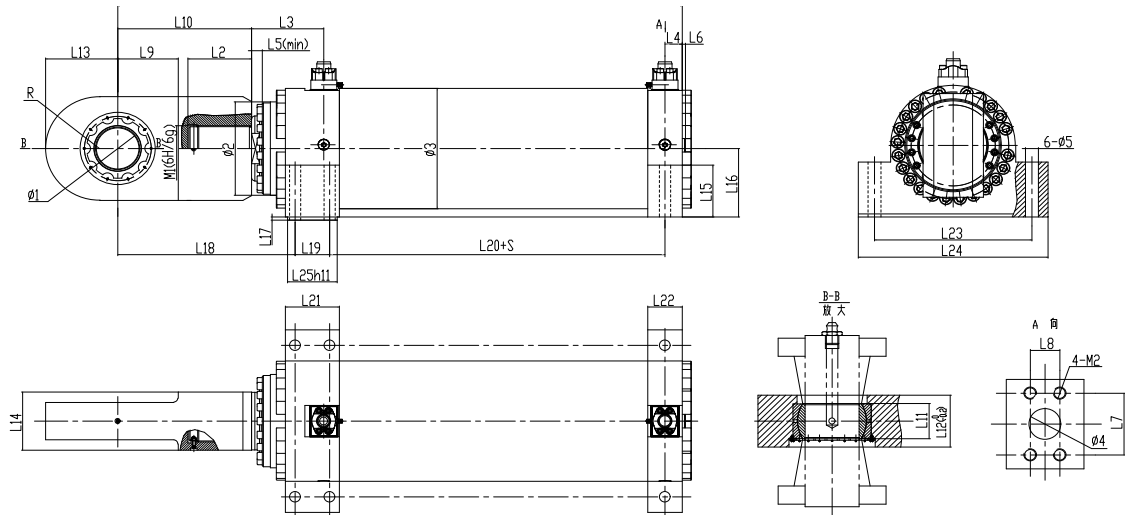
WFRear Flange Mounting



D	d	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	n	R	M1	M2	L1
450	280/320	200	450	580	40	600	840	720	52	22	250	M200×4	M16×50	1762
500	320/360	220	500	640	40	660	900	780	52	22	280	M220×4	M16×50	1915
550	360/390	240	550	690	40	720	970	845	60	28	300	M250×4	M16×50	2151
600	390/420	260	600	760	40	780	1040	910	60	28	330	M280×4	M16×50	2340
650	420/460	280	650	810	50	840	1120	980	60	28	350	M310×4	M20×60	2513
700	460/500	300	700	870	50	900	1200	1050	60	28	370	M350×4	M20×60	2710
750	500/530	320	750	920	50	960	1280	1120	60	30	400	M370×4	M20×60	2885
800	530/560	340	800	1000	50	1040	1380	1210	68	30	430	M400×4	M20×60	3145
900	560/630	380	900	1100	50	1140	1460	1300	68	30	500	M440×4	M20×60	3400
1000	630/700	420	970	1200	50	1240	1560	1400	68	34	550	M480×4	M20×60	3635

D	d	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
450	280/320	295	338	80	55	145	36.5	79.4	280	620	130	155	335	280	15
500	320/360	325	375	80	60	170	36.5	79.4	320	700	135	165	365	320	15
550	360/390	345	425	90	75	195	36.5	79.4	370	780	140	170	385	350	15
600	390/420	365	470	90	100	220	36.5	79.4	420	860	150	180	420	400	15
650	420/460	395	505	90	110	240	44.5	96.8	480	950	155	185	480	430	15
700	460/500	415	545	95	120	255	44.5	96.8	540	1040	165	195	540	450	15
750	500/530	435	568	95	125	280	44.5	96.8	600	1130	230	280	600	480	15
800	530/560	460	630	105	150	300	44.5	96.8	650	1210	243	300	650	500	20
900	560/630	500	700	105	175	345	44.5	96.8	700	1300	272	340	700	600	20

JGFoot Mounting



D	d	Ø1	Ø2	Ø3	Ø4	Ø5	R	M1	M2	L1	L2	L3	L4	L5	L6	L7
450	280/320	200	450	580	40	52	250	M200×4	M16×50	1617	295	338	80	55	15	36.5
500	320/360	220	500	640	40	52	280	M220×4	M16×50	1745	325	375	80	60	15	36.5
550	360/390	240	550	690	40	52	300	M250×4	M16×50	1956	345	425	90	75	15	36.5
600	390/420	260	600	760	40	60	330	M280×4	M16×50	2120	365	470	90	90	15	36.5
650	420/460	280	650	810	50	60	350	M310×4	M20×60	2273	395	505	90	110	15	44.5
700	460/500	300	700	870	50	60	370	M350×4	M20×60	2455	415	545	95	120	15	44.5
750	500/530	320	750	920	50	60	400	M370×4	M20×60	2605	435	568	95	125	15	44.5
800	530/560	340	800	1000	50	68	430	M400×4	M20×60	2845	460	630	105	150	20	44.5
900	560/630	380	900	1100	50	68	500	M440×4	M20×60	3055	500	700	105	175	20	44.5
1000	630/700	420	970	1200	50	68	550	M480×4	M20×60	3245	530	775	105	200	20	44.5

D	d	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21	L22	L23	L24	L25
450	280/320	79.4	280	620	130	155	335	280	250	330	15	825	160	550	250	160	730	880	230
500	320/360	79.4	320	700	135	165	365	320	270	360	15	940	170	555	260	160	790	940	240
550	360/390	79.4	370	780	140	170	385	350	280	405	15	1060	190	600	280	180	870	1030	260
600	390/420	79.4	420	860	150	180	420	400	340	430	20	1135	230	665	340	180	920	1080	310
650	420/460	96.8	480	950	155	185	480	430	350	465	20	1260	230	695	340	180	970	1130	310
700	460/500	96.8	540	1040	165	195	540	450	360	490	20	1390	240	730	350	190	1045	1220	320
750	500/530	96.8	600	1130	230	280	600	480	410	520	20	1500	240	770	350	190	1115	1265	320
800	530/560	96.8	650	1210	243	300	650	500	440	550	25	1645	250	845	380	210	1165	1330	340
900	560/630	96.8	700	1300	272	340	700	600	460	600	25	1770	270	910	400	210	1270	1440	360
1000	630/700	96.8	750	1390	300	400	750	650	480	650	25	1995	290	650	420	210	1340	1480	380

