



MADE IN CHINA
V2020



*Professional manufacturer of
hydraulic bolting tools*



Pingyuan Jingke Hydraulic Co., Ltd



Company profile



PINGYUAN JINGKE HYDRAULIC CO., LTD (with the brand TorcStark in foreign market) was founded in 2005 with 15 million US dollars registered capital. Now the company covers an area of 20,000 sqm and has more than 150 employees.

TorcStark has developed many series of products, including hydraulic torque wrench, hydraulic bolt tensioner, hydraulic wrench pump, automatic wrench pump, hydraulic puller, PLC synchronous lifting system, 3D adjustment system, etc. TorcStark is devoted to providing perfect solutions for the tightening/loosening of kinds of bolts, movement and positioning of projects etc. The products are widely used in the bridges, subways, oil fields and wind farm installation and maintenance industry. TorcStark products can replace foreign brands in some fields especially in PLC synchronous lifting and wind turbine industry, they are already used in more than 170 wind farms of China market and won great reputation from customers.

TorcStark has professional R&D team, advanced production facilities, experienced engineers and strict ISO9001 quality management system, and has got many patents and CE certificate. Continuous innovations and scientific management guarantee the improvements of products quality. The pursuit of TorcStark is to achieve a triple-win situation of customer, seller and end user.



Improving Production

Technology Innovation

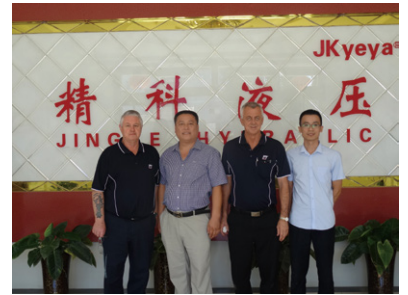
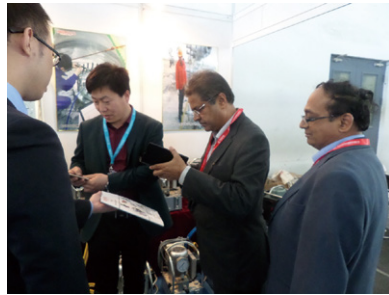
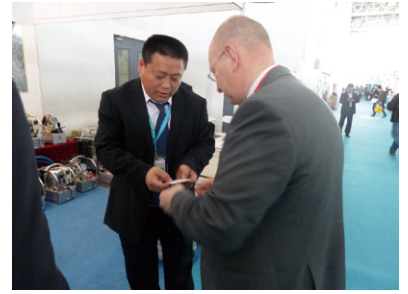


Advanced processing equipment

- Rigorous design concept
- Precision machining equipment
- Advanced production technology

Mass production, adequate inventory





Cooperation



EU CE certification,

ISO9001- 2008 certification, patent certificate



Directory

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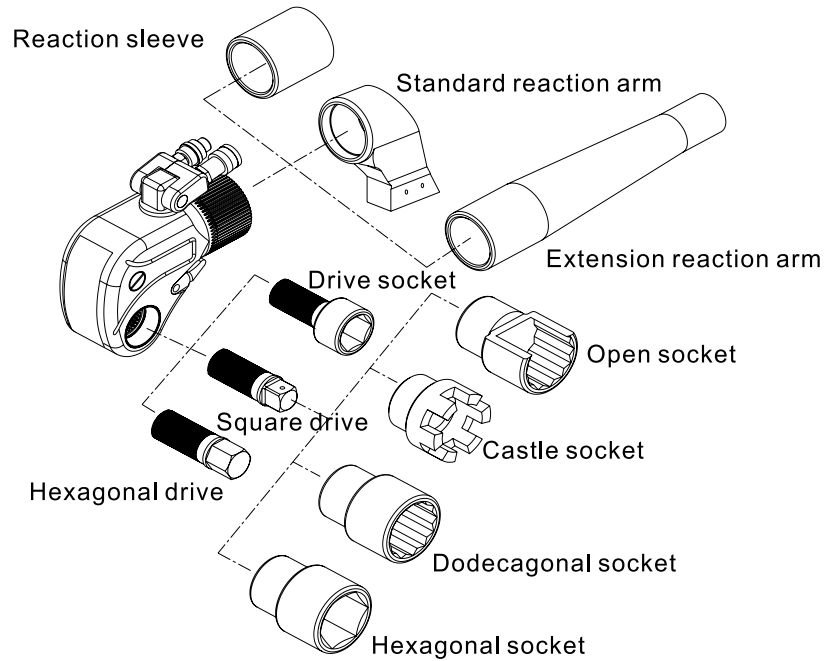
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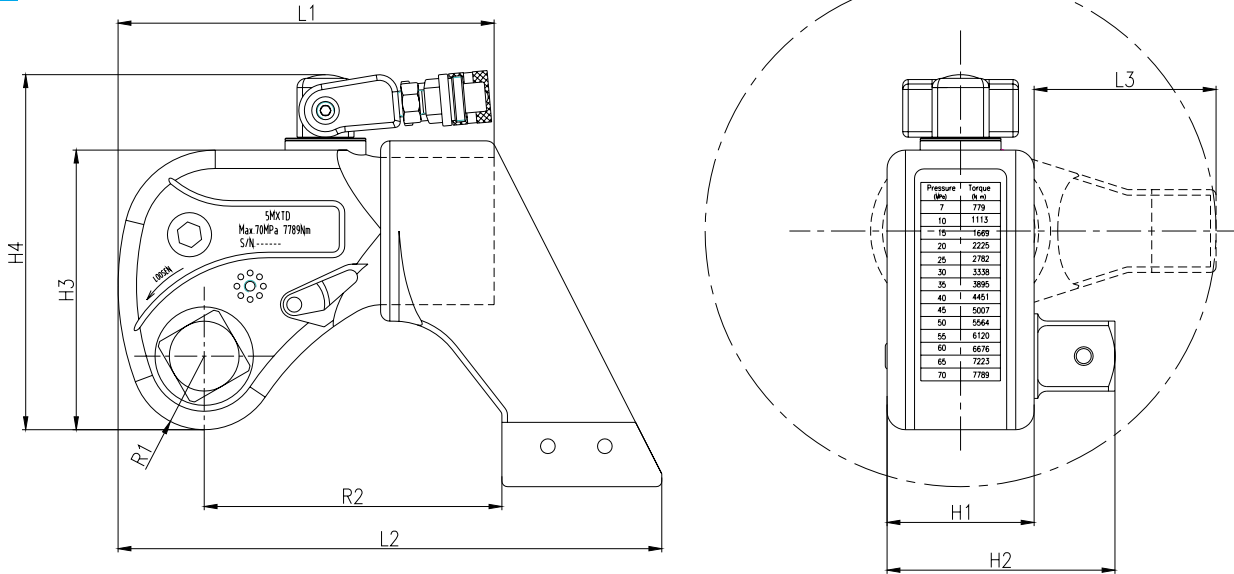
MXTD series - Square drive hydraulic torque wrench



- 70MPa max working pressure
- Torque accuracy up to $\pm 3\%$
- 12 models from 185Nm-150000Nm
- 360X180 degree swivel joint, no space limitation
- 360 degree reaction arm
- Al-Ti alloy material, integrated design
- Square drive and reaction arm can be customized.



Dimension



Technical parameters

Model	1MXTD	3MXTD	5MXTD	8MXTD	10MXTD	15MXTD	20MXTD	25MXTD	35MXTD	45MXTD	50MXTD	95MXTD
Torque (Nm)	185 1852	436 4364	779 7789	1072 10715	1553 15528	2050 20501	2617 26171	3493 34928	4963 49627	5912 59123	7032 70315	14085 140848
Weight (Kg)	2.7	4.8	8.8	12	14.5	19	25	37.5	44	63	89	220
L1 (mm)	138	168	207	226	250	281	304	331	390	412	418	520
L2 (mm)	194	244	296	326	366	402	442	483	558	570	596	758
L3 (mm)	63	79	99	110	120	132	146	158	177	188	195	246
H1 (mm)	50	70	80	90	100	112	120	138	150	163	166	210
H2 (mm)	73	99	124	133	146	165	183	202	219	229	236	307
H3 (mm)	96	125	152	170	186	208	226	250	282	288	300	415
H4 (mm)	140	165	193	211	227	249	267	291	323	332	366	473
R1 (mm)	26	34	40	46	50	56	60	66	77	80	82	115
R2 (mm)	107	132	162	178	199	218	240	260	298	303	325	400
Square Drive	3/4"	1"	1 1/2"	1 1/2"	1 1/2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"	4"



KLCD series - Low profile hydraulic torque wrench

- 70MPa max working pressure
- Torque repeatability up to 3%
- 11 models with the ranges from 237-85000Nm.
- 360x180 degree swivel joint, no space limitation.
- Integral design, high strength and high toughness.
- Al-Ti alloy material.
- Working head and supporting point are coaxial, perfect structure, long service life.
- One power head can match different working heads.

360°x180° swivel joint allows free operation with no space limitation.

The design of ratchet pawl overcomes the possibility of ratchet reversing, which improves work efficiency and torque accuracy.

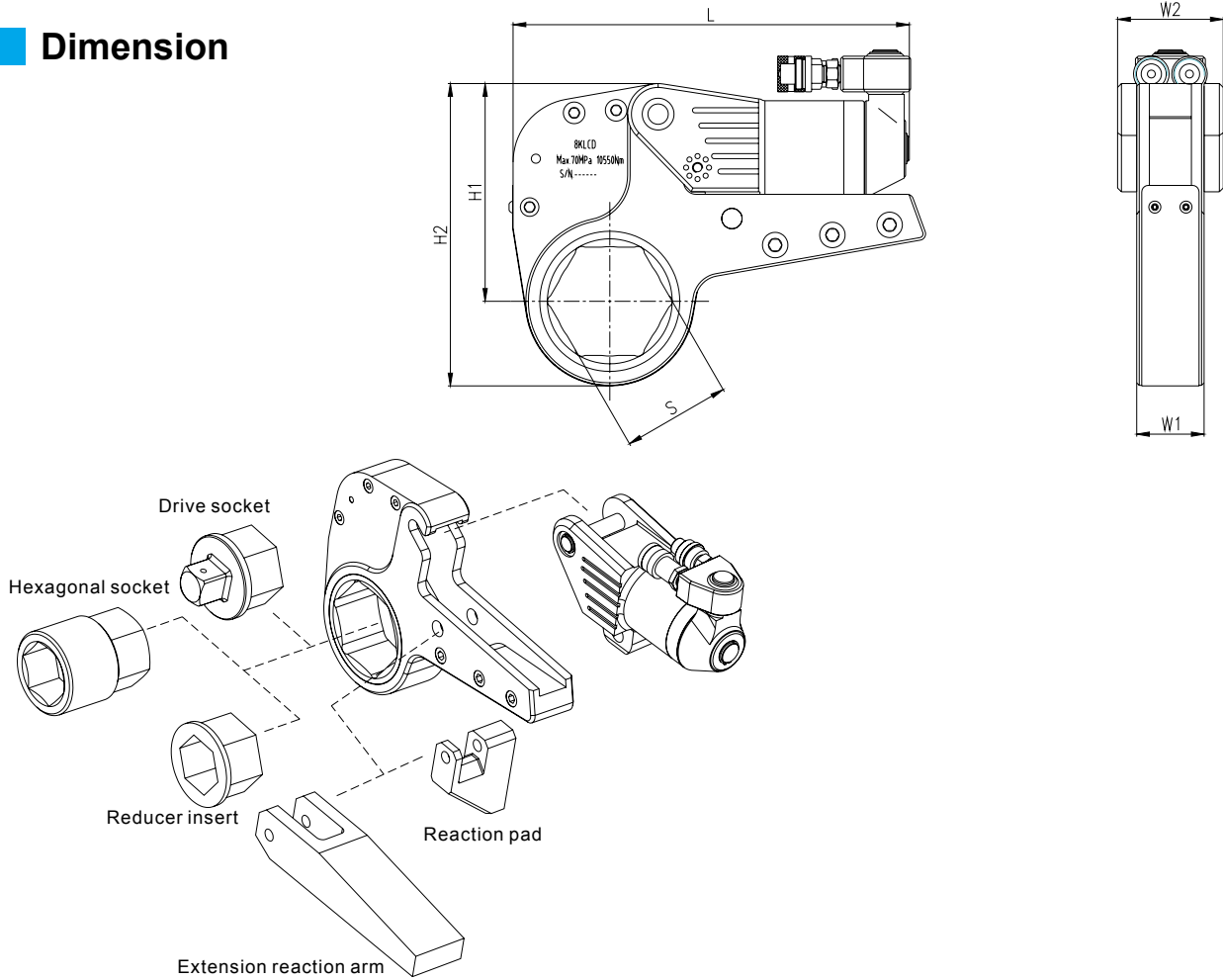


Integral lengthening design, longer arm and higher reliability.

Hollow design, the wrench works on nut directly, more accurate torque.



Dimension

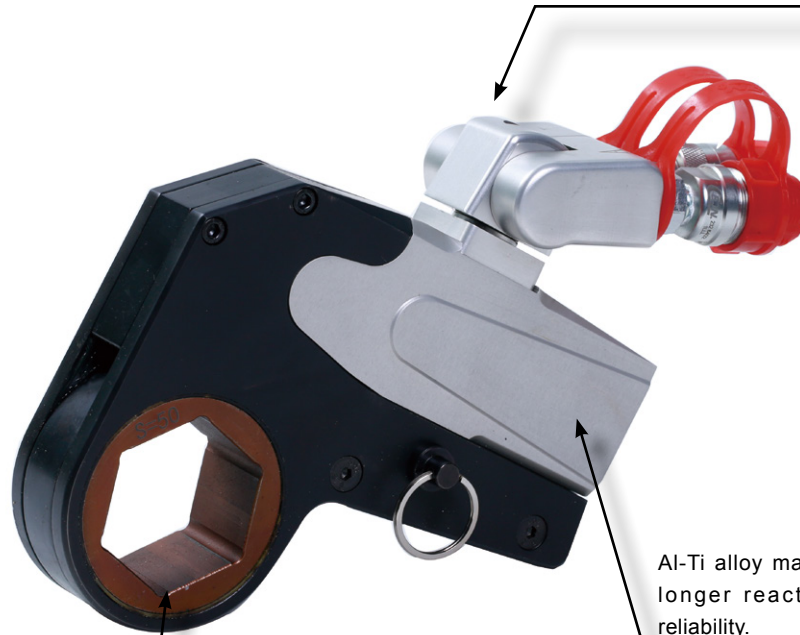


Technical parameters

Model	2KLCD	3KLCD	4KLCD	8KLCD	14KLCD	18KLCD	20KLCD	30KLCD	40KLCD	45KLCD	60KLCD
Torque (Nm)	237 2370	345 3446	546 5458	1055 10550	1848 18484	2481 24814	2909 29089	4231 42311	5209 52088	6057 60566	8415 84150
A/F (mm)	36-55	36-60	46-80	70-105	80-115	85-120	90-130	95-145	120-145	130-155	135-180
Power head Weight (kg)	0.8	0.8	1.9	4.2	6.8	8.1	10.5	12.7	15.2	16.3	23
Working head weight (kg)	1.5	1.7	3.6	7.6	12.2	19.3	22.3	32.3	47.5	58.7	75
L (mm)	192	218	266	324	382	404	427	479	479	486	514
H1 (mm)	105	118	139	171	205	229	240	268	285	311	336
H2 (mm)	147	156	167	198	231	255	265	289	302	352	375
W1 (mm)	32	32	42	53	64	68	70	85	98	105	117
W2 (mm)	50	50	66	83	99	105	110	132	148	160	177

WHCD series - Low profile hydraulic torque wrench

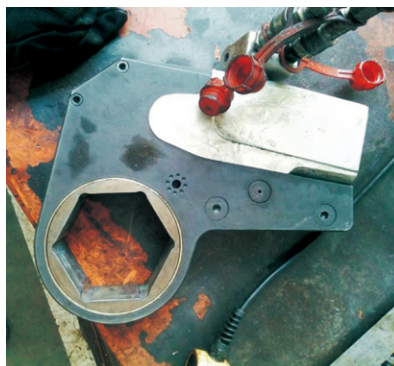
Flat cylinder design, suitable for different conditions. 360x180°swivel joint allows free operation without space limitation.



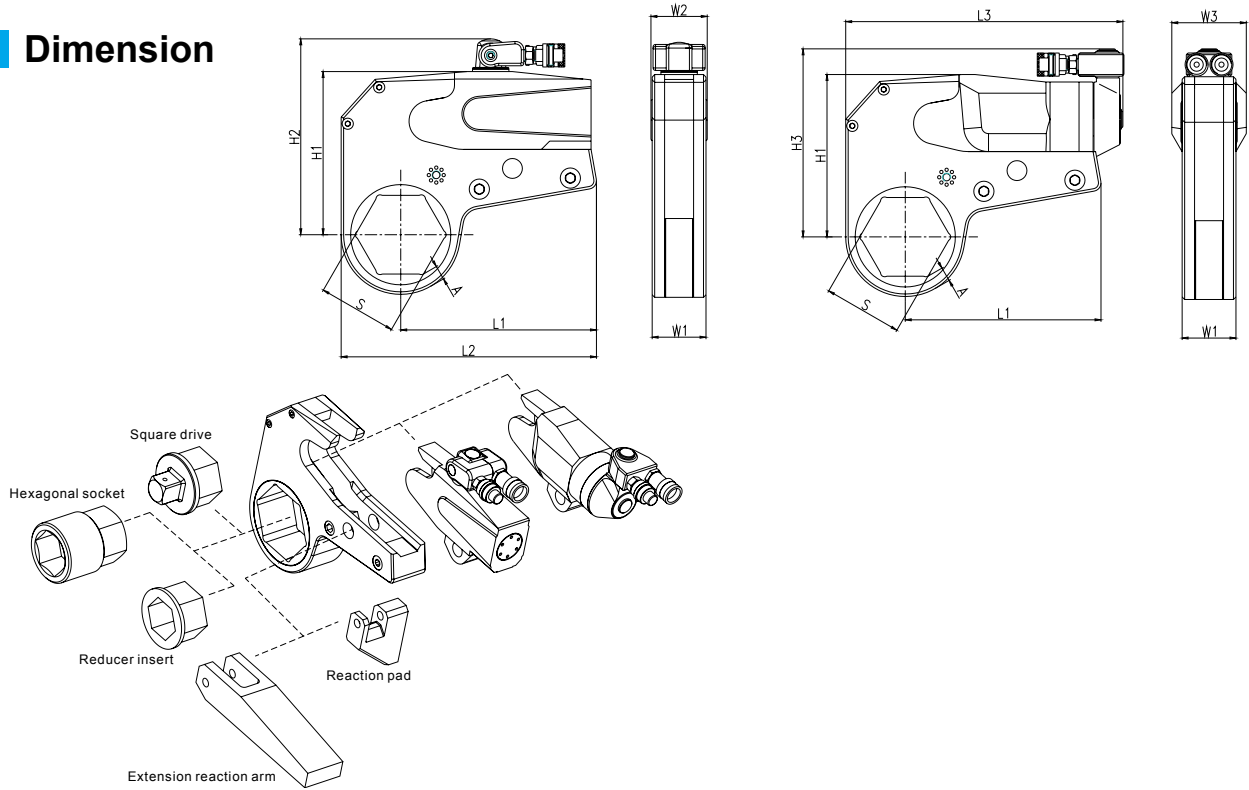
Al-Ti alloy material, integral design, longer reaction arm and higher reliability.

Good head space and compact design, suitable for limited space.

- 70MPa max working pressure
- Torque repeatability up to 3%
- 10 models with the ranges from 233-140000Nm.
- 360x180 degree swivel joints allow free operation without space limitation.
- Al-Ti alloy material, integral design, longer reaction arm and higher reliability.
- Light weight
- Working head can be changed.



Dimension



Technical parameters

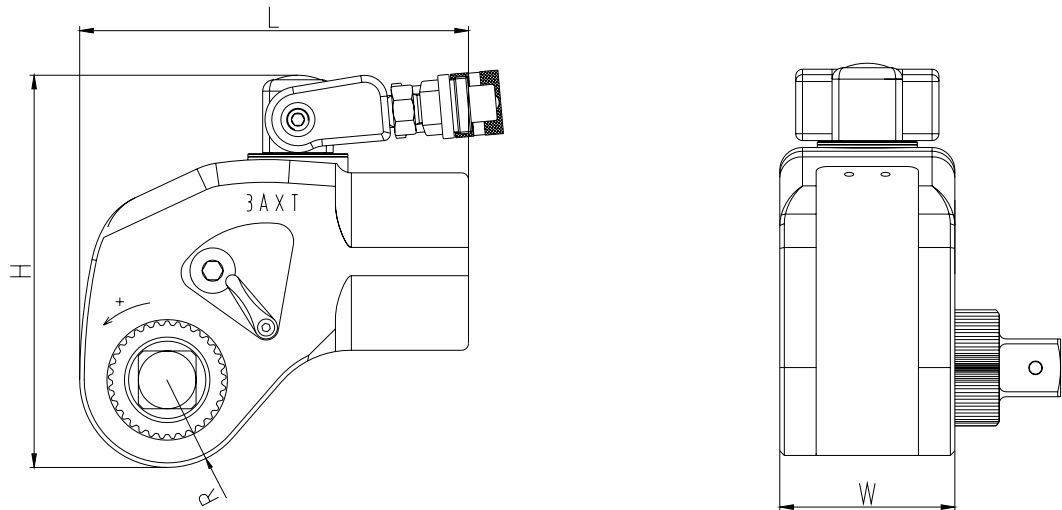
Model	1WHCD	3WHCD	4WHCD	6WHCD	8WHCD	15WHCD	25WHCD	35WHCD	50WHCD	95WHCD
Torque (Nm)	233 2326	345 3446	540 5399	769 7691	1212 12116	1992 19919	3363 33629	5385 53851	7522 75221	13946 139463
A/F (mm)	36-60	41-60	46-80	55-85	70-105	80-115	90-130	120-145	130-180	155-190
Weight (kg)	2.1	3.7	4.5	7.5	8.9	17.3	25.2	35.5	47.8	204
L1 (mm)	120.5	144	156	179	207	237	273	338	382	492
L2 (mm)	156	185	202	232	270	309	361	447	517	665
L3 (mm)	191	223	232	256	291	335	383	456	539	670
H1 (mm)	100	113	119	145	168	197	230	280	320	400
H2 (mm)	144.5	156	161	187	210	237	272	345	383	458
H3 (mm)	142	148	152	179	200	227	255	294	400	425
W1 (mm)	34	36	42	45	53	64	70	84	94	160
W2 (mm)	36	38	46	49	57	68	79	92	102	168
W3 (mm)	50	55	60	65	75	90	100	118	140	180
A (mm)	8.3	9.5	11.7	12.8	14.2	18.2	21.3	24.8	30.5	61.7

AXT series - Front square drive hydraulic torque wrench



- 70MPa max working pressure
- Torque repeatability up to $\pm 3\%$
- Front reaction arm, smaller longitudinal size, more suitable for narrow space.
- Reaction arm and square drive are coaxial, better adaptability.
- Wide ranges from 179-19000Nm.
- 360 degree swivel joint, free operation, no space limitation.
- Al-Ti alloy material, high strength
- Reaction arm can be customized.

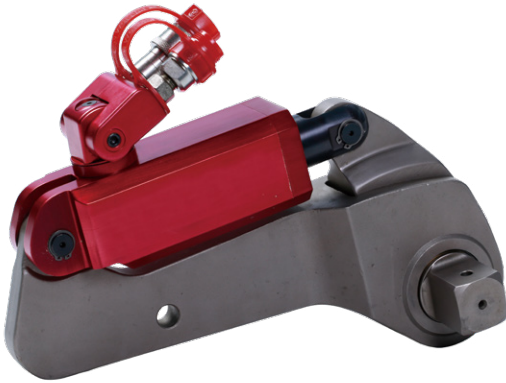
Dimension



Technical parameters

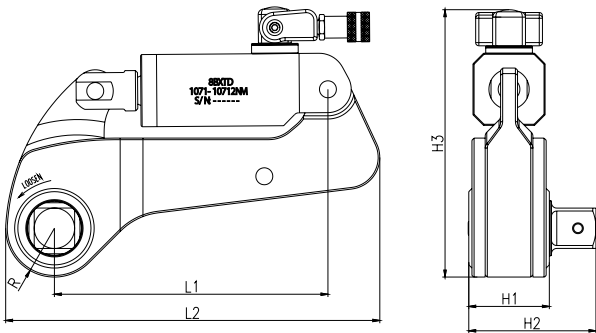
Model	1AXT	3AXT	5AXT	8AXT	10AXT	15AXT
Torque (Nm)	179 1788	406 4062	733 7325	1003 10033	1513 15133	1904 19041
Precision	+/-3%	+/-3%	+/-3%	+/-3%	+/-3%	+/-3%
Weight (Kg)	2.4	5.1	8.4	10.3	14.6	17.8
R (mm)	29.5	38.5	47.5	54.5	62.5	64.5
L (mm)	133	171	210	238	266	296
H (mm)	135	172	205	232	253	255
W (mm)	57	77	88	100	111	120
Square Drive	3/4"	1"	1 1/2"	1 1/2"	1 1/2"	2"

BXTD series - Square drive hydraulic torque wrench



- Max working pressure 70MPa
- Small precise ratchet design, no trigger button, avoid getting stuck caused by bolt reversing.
- 360X180 degree swivel joint, free operation.
- Few transmission parts, simple structure, easy maintenance.
- Compact integrated reaction arm, little unbalance load, more durable.
- Al-Ti alloy cylinder, high strength
- Perfect combination of Al-Ti alloy and alloy steel.
- Torque repeatability up to 3%
- Square drive can be changed and customized.
- Especially suitable for bolt tightening of water turbine rotor etc.

Dimension



Technical parameters

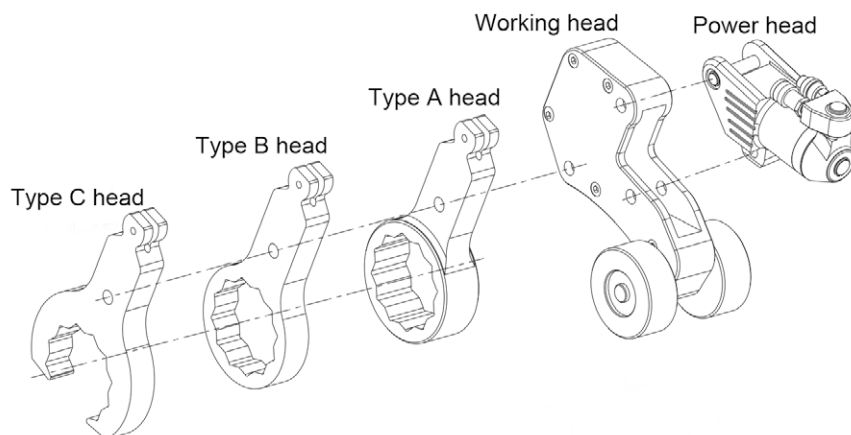
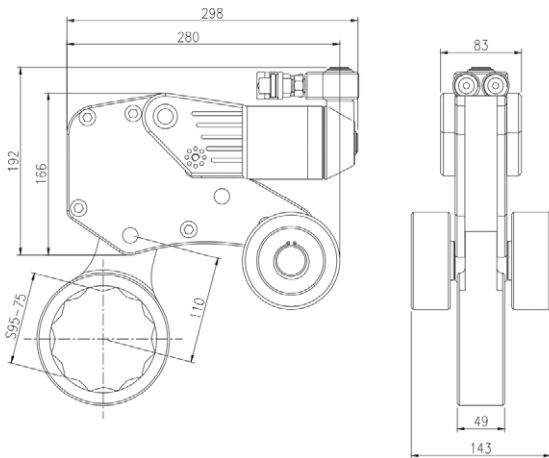
Model	3BXTD	8BXTD	10BXTD	15BXTD	20BXTD	25BXTD	45BXTD	60BXTD	85BXTD	120BXTD
Torque (Nm)	485 4847	1071 10712	1512 15121	2013 20130	2909 29089	3679 36795	6058 60582	8440 84403	12017 120176	15936 159355
Weight (Kg)	6.2	12.7	18.5	25	31.5	40.4	56	68	115	163
L1 (mm)	210	258	279	318	340	350	380	422	452	510
L2 (mm)	281	353	385	435	452	472	525	573	660	770
H1 (mm)	55	76	81	88	95	103	112	135	175	235
H2 (mm)	84	120	124	140.5	160	168	182	217	280	352
H3 (mm)	200	255	278	292	313	335	386	403	450	520
R (mm)	35	46	50	56	63	70	80	85	110	125
Square Drive	1"	1 1/2"	1 1/2"	2"	2 1/2"	2 1/2"	2 1/2"	3"	3 1/2"	4"

CLCD fork-wheel-type torque wrench



- It solves the problems of small distance between bolts and pipelines, and limited space in height.
- Applicable to match normal API flanges.
- Small head radius, suitable for small space
- Made of high strength alloy steel, more durable.
- The power head is interchangeable with KLCD series.
- Attention: Run the pump as return direction to take wrench down when every cycle is finished, then reposition.
- This model does not have retaining function.

Dimension



Technical parameters

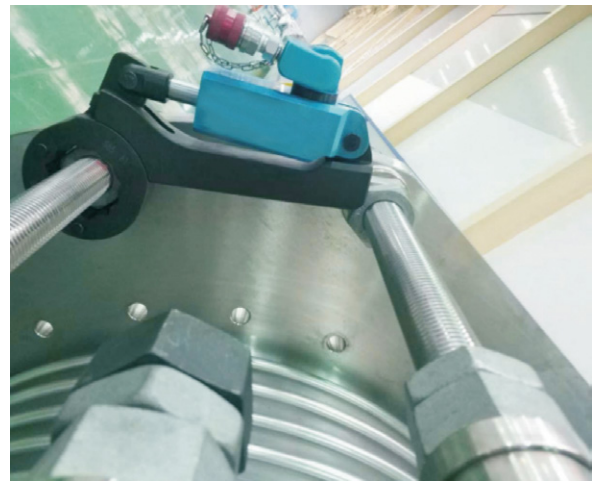
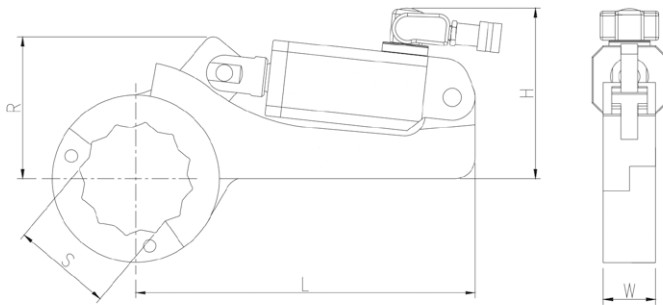
Model	Max working pressure	Max torque	Nut range
8CLCD	50MPa	11550Nm	75-95mm

JND split type hydraulic wrench



- Applicable to piercing nut working condition
- Especially used for steam turbine shaft tightening
- Small head radius, detachable head
- Pin and shaft combination, easy to detach or combine.
- Made of high strength alloy steel, very durable
- Attention: Run the pump as return direction to take wrench down when every cycle is finished, then reposition.
- This model does not have retaining function.

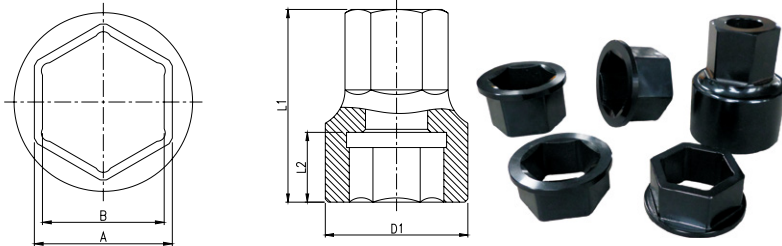
Dimension



Technical parameters

Model	3JND	8JND	14JND	20JND	30JND	35JND
Torque (Nm)	522 5215	1158 11583	1852 18522	2713 27135	4320 43200	5183 51835
Weight (Kg)	9	11	19	23	31	66
L (mm)	300	325	350	366	410	490
H (mm)	160	163	211	225	254	320
W (mm)	45	50	55	60	75	95
R (mm)	130	136	162	188	235	260
S (mm)	50-85	85-115	90-135	95-145	135-200	155-230

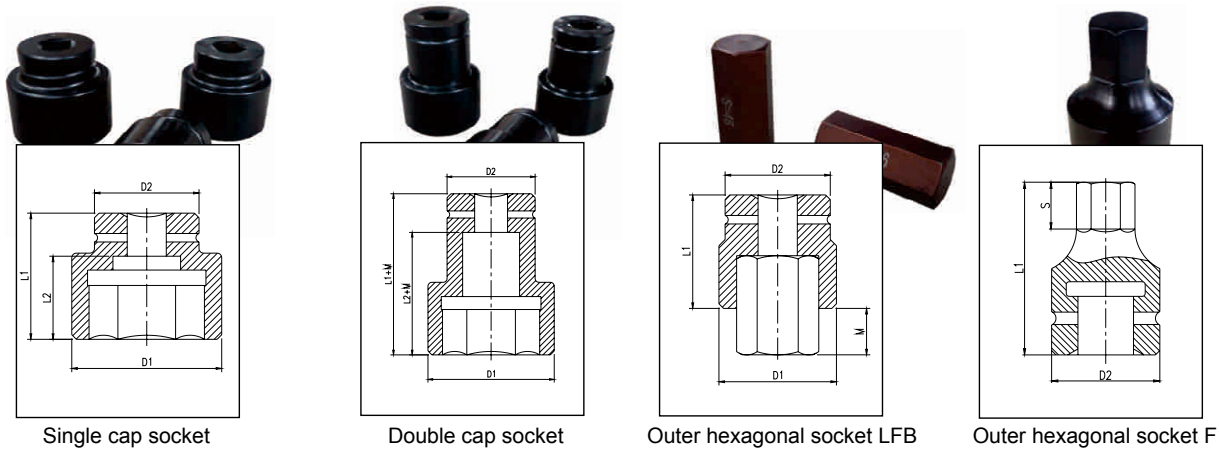
Sockets for low profile torque wrench



- Made of high strength Cr Mo alloy steel.
- Pass standard heat treatment process, making the socket safe, reliable and durable.
- KLCD series sockets can also be used for WHCD series.
- Non-standard sockets can be customized.

Wrench model	Working head type	A/F	Specifications of variable sockets							
			Model	A/B	Model	A/B	Model	A/B	Model	A/B
3KLCD	2KLCD-36	S=36	2K3630	36/30	2K3627	36/27	2K3624	36/24		
	2KLCD-41	S=41	2K4136	41/36	2K4134	41/34	2K4130	41/30	2K4127	41/27
	2KLCD-46	S=46	2K4641	46/41	2K4636	46/36	2K4634	46/34	2K4630	46/30
	2KLCD-50	S=50	2K5046	50/46	2K5041	50/41	2K5036	50/36	2K5034	50/34
	2KLCD-55	S=55	2K5550	55/50	2K5546	55/46	2K5541	55/41	2K5536	55/36
4KLCD	2KLCD-60	S=60	2K6055	60/55	2K6050	60/50	2K6046	60/46	2K6041	60/41
	4KLCD-46	S=46	4K4641	46/41	4K4636	46/36	4K4634	46/34		
	4KLCD-50	S=50	4K5041	50/41	4K5036	50/36	4K5034	50/34		
	4KLCD-55	S=55	4K5546	55/46	4K5541	55/41	4K5536	55/36	4K5534	55/34
	4KLCD-60	S=60	4K6050	60/50	4K6046	60/46	4K6041	60/41	4K6036	60/36
	4KLCD-65	S=65	4K6555	65/55	4K6550	65/50	4K6546	65/46	4K6541	65/41
	4KLCD-70	S=70	4K7060	70/60	4K7055	70/55	4K7050	70/50	4K7046	70/46
	4KLCD-75	S=75	4K7565	75/65	4K7560	75/60	4K7555	75/55	4K7550	75/50
8KLCD	4KLCD-80	S=80	4K8070	80/70	4K8065	80/65	4K8060	80/60	4K8055	80/55
	8KLCD-70	S=70	8K7060	70/60	8K7055	70/55	8K7050	70/50		
	8KLCD-75	S=75	8K7565	75/65	8K7560	75/60	8K7555	75/55	8K7550	75/50
	8KLCD-80	S=80	8K8070	80/70	8K8065	80/65	8K8060	80/60	8K8055	80/55
	8KLCD-85	S=85	8K8575	85/75	8K8570	85/70	8K8565	85/65	8K8560	85/60
	8KLCD-90	S=90	8K9080	90/80	8K9075	90/75	8K9070	90/70	8K9065	90/65
	8KLCD-95	S=95	8K9585	95/85	8K9580	95/80	8K9575	95/75	8K9570	95/70
	8KLCD-100	S=100	8K10090	100/90	8K10085	100/85	8K10080	100/80	8K10075	100/75
14KLCD	8KLCD-105	S=105	8K10595	105/95	8K10590	105/90	8K10585	105/85	8K10580	105/80
	14KLCD-80	S=80	14K8070	80/70	14K8065	80/65	14K8060	80/60		
	14KLCD-85	S=85	14K8575	85/75	14K8570	85/70	14K8565	85/65	14K8560	85/60
	14KLCD-90	S=90	14K9080	90/80	14K9075	90/75	14K9070	90/70	14K9065	90/65
	14KLCD-95	S=95	14K9585	95/85	14K9580	95/80	14K9575	95/75	14K9570	95/70
	14KLCD-100	S=100	14K10090	100/90	14K10085	100/85	14K10080	100/80	14K10075	100/75
	14KLCD-105	S=105	14K10595	105/95	14K10590	105/90	14K10585	105/85	14K10580	105/80
	14KLCD-110	S=110	14K110100	110/100	14K11095	110/95	14K11090	110/90	14K11085	110/85
18KLCD	14KLCD-115	S=115	14K115105	115/105	14K115100	115/100	14K11595	115/95	14K11590	115/90
	18KLCD-85	S=85	18K8575	85/75	18K8570	85/70	18K8565	85/65		
	18KLCD-90	S=90	18K9080	90/80	18K9075	90/75	18K9070	90/70	18K9065	90/65
	18KLCD-95	S=95	18K9585	95/85	18K9580	95/80	18K9575	95/75	18K9570	95/70
	18KLCD-100	S=100	18K10090	100/90	18K10085	100/85	18K10080	100/80	18K10075	100/75
	18KLCD-105	S=105	18K10595	105/95	18K10590	105/90	18K10585	105/85	18K10580	105/80
	18KLCD-110	S=110	18K110100	110/100	18K11095	110/95	18K11090	110/90	18K11085	110/85
	18KLCD-115	S=115	18K115105	115/105	18K115100	115/100	18K11595	115/95	18K11590	115/90
20KLCD	18KLCD-120	S=120	18K120110	120/110	18K120105	120/105	18K120100	120/100	18K12095	120/95
	20KLCD-90	S=90	20K9080	90/80	20K9075	90/75	20K9070	90/70		
	20KLCD-95	S=95	20K9585	95/85	20K9580	95/80	20K9575	95/75	20K9570	95/70
	20KLCD-100	S=100	20K10090	100/90	20K10085	100/85	20K10080	100/80	20K10075	100/75
	20KLCD-105	S=105	20K10595	105/95	20K10590	105/90	20K10585	105/85	20K10580	105/80
	20KLCD-110	S=110	20K110100	110/100	20K11095	110/95	20K11090	110/90	20K11085	110/85
	20KLCD-115	S=115	20K115105	115/105	20K115100	115/100	20K11595	115/95	20K11590	115/90
	20KLCD-120	S=120	20K120110	120/110	20K120105	120/105	20K120100	120/100	20K12095	120/95
30KLCD	20KLCD-130	S=130	20K130120	130/120	20K130115	130/115	20K130110	130/110	20K130105	130/105
	30KLCD-95	S=95	30K9585	95/85	30K9580	95/80	30K9575	95/75		
	30KLCD-100	S=100	30K10090	100/90	30K10085	100/85	30K10080	100/80	30K10075	100/75
	30KLCD-105	S=105	30K10595	105/95	30K10590	105/90	30K10585	105/85	30K10580	105/80
	30KLCD-110	S=110	30K110100	110/100	30K11095	110/95	30K11090	110/90	30K11085	110/85
	30KLCD-115	S=115	30K115105	115/105	30K115100	115/100	30K11595	115/95	30K11590	115/90
	30KLCD-120	S=120	30K120110	120/110	30K120105	120/105	30K120100	120/100	30K12095	120/95
	30KLCD-130	S=130	30K130120	130/120	30K130115	130/115	30K130110	130/110	30K130105	130/105
	30KLCD-145	S=145	30K145135	145/135	30K145130	145/130	30K145120	145/120	30K145115	145/115
	30KLCD-150	S=150	30K150135	150/135	30K150130	150/130	30K150120	150/120	30K150115	150/115
30KLCD-155	S=155	30K155145	155/145	30K155135	155/135	30K155130	155/130	30K155120	155/120	

Sockets for square drive torque wrench



- Made of high strength Cr Mo alloy steel.
 - Pass standard heat treatment process, making the socket safe, reliable and durable.
 - Non-standard sockets can be customized.
- Heavy duty socket standard DIN3121/3129.

Bolt specification		3/4" (19×19)				1" (25.4×25.4)				1-1/2" (38×38)				2" (51×51)				2-1/2" (64×64)				
Diameter	A/F	D1	D2	L1	L2	D1	D2	L1	L2	D1	D2	L1	L2	D1	D2	L1	L2	D1	D2	L1	L2	
M16	24	42	42	50	27																	
M20	30	48	44	54	31																	
M22	34	52	44	54	31	52	52	58	30													
M24	36	54	44	57	34	55	55	61	33	74	74	76	34									
M27	41	60	44	60	37	63	55	64	36	74	74	79	37									
M30	46	66	44	68	45	70	58	68	40	74	74	82	40									
M33	50	71	44	70	47	75	64	71	43	81	81	85	43									
M36	55					81	66	76	48	87	87	90	48	100	100	97	48	115	115	118	54	
M39	60					87	66	79	51	87	87	93	51	103	103	100	51	115	115	118	54	
M42	65					92	68	82	54	97	87	96	54	105	105	104	54	120	120	118	54	
M45	70					97	75	85	57	102	87	99	57	112	112	107	57	120	120	121	57	
M48	75					102	75	91	63	112	87	105	63	119	119	113	63	128	128	127	63	
M52	80					108	75	95	67	118	95	109	67	123	123	117	67	130	130	131	67	
M56	85					116	78	99	71	123	95	114	72	127	127	122	72	132	132	136	72	
M60	90									128	98	118	76	132	115	126	76	139	139	140	76	
M64	95									133	98	124	82	138	115	132	82	145	145	145	82	
M68	100									139	102	128	86	138	115	136	86	153	142	150	86	
M72	105									145	102	132	90	148	115	140	90	160	142	154	90	
M76	110									150	105	136	94	154	120	146	96	166	142	160	96	
M80	115									155	110	150	105	159	120	150	100	173	142	164	100	
M85	120													165	125	155	105	180	142	169	105	
M90	130													177	125	160	110	190	160	174	110	
M95	135													182	130	165	115	195	160	179	115	
M100	145													194	135	175	125	210	160	189	125	
M105	150																	215	170	200	130	
M110	155																	223	170	210	135	
M115	165																	230	170	220	140	
M120	175																	240	170	235	155	

The chart of max recommended torque for bolts

Strength grade		4.8		6.8		8.8		10.9		12.9	
Min breaking strength		400MPa		600MPa		800MPa		1000MPa		1200MPa	
Material		General structural steel		Mechanical construction steel		Chrome molybdenum alloy steel		Ni-Cr-Mo alloy steel		Ni-Cr-Mo alloy steel	
Bolt	A/F	Torque value		Torque value				Torque value		Torque value	
M	S	KGM	NM	KGM	NM	KGM	NM	KGM	NM	KGM	NM
16	24	9	87	13	131	18	174	25	245	30	294
18	27	13	128	20	192	26	256	37	360	44	432
20	30	17	170	26	256	35	341	49	479	59	575
22	34	24	232	36	348	47	465	69	653	80	784
24	36	30	294	45	442	60	589	84	828	101	994
27	41	44	432	66	647	88	863	124	1214	149	1457
30	46	60	585	89	877	119	1171	168	1646	201	1975
33	50	81	796	122	1195	162	1593	228	2240	274	2688
36	55	104	1023	157	1535	209	2046	294	2878	352	3453
39	60	135	1324	203	1986	270	2649	380	3725	456	4469
42	65	167	1638	251	2457	334	3277	470	4608	564	5529
45	70	209	2045	313	3068	417	4090	587	5752	704	6903
48	75	251	2461	376	3691	502	4921	706	6921	847	8305
52	80	325	3181	487	4771	649	6362	913	8946	1095	10736
56	85	404	3956	605	5934	807	7912	1135	11127	1362	13352
60	90	504	4932	755	7398	1006	9864	1415	13871	1698	16645
64	95	608	5960	912	8940	1216	11920	1710	16762	2052	20115
68	100	738	7230	1107	10845	1475	14460	2075	20335	2450	24401
72	105	885	8669	1327	13003	1769	17337	2488	24381	2985	29257
76	110	1050	10287	1574	15430	2099	20573	2952	28931		34717
80	115	1234	12094	1851	18141	2468	24188	3471	34014		40815
85	120	1493	14636	2240	21953	2987	29271		41163		49395
90	130	1787	17510	2680	26266	3573	35021		49248		59098
100	145	2484	24341	3726	36512		48683		68460		82152
110	155	3342	32751		49126		65501		92111		110533
120	175	4378	42902		64354		85805		120663		144795
125	180		48683		73024		97366		136920		164304

Attention:

The data in the chart is measured under 60% yield limit of the bolt, the recommended tightening torque is 70-80% of above data.

For example, for M52 grade 8.8 bolt, the tightening torque is $6362 \times (70-80)\% = 4453-5090\text{Nm}$.

The loosening torque should be 1.5-2.5 times of tightening torque.

MSD series Multi-stage hydraulic bolt tensioner



•This series tensioners are suitable for many brands of wind turbines, such as Vestas, Gamesa, Gold Wind, Shanghai Electric, Dongfang Electric and so on. For different kinds of wind turbines and bolts in different positions, Torcstark has the suitable model to match.

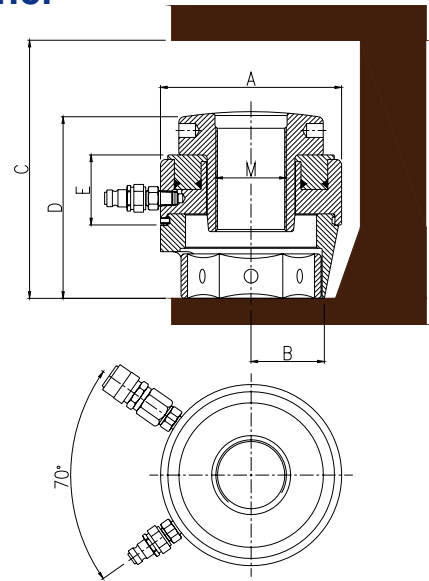
•Maximum working pressure 150Mpa

Specially for wind power industry

Model	Bolt size M	A/F S(mm)	Tensile Force (KN)	Cylinder area mm ²	Stroke mm	Outside diameter mm	Collapsed height mm	Max pressure MPa
MSD30.2.74	30X3.5	46	520	3855	8	74	218	135
MSD36.2.87	36X4	55	724	4827	10	87	263	150
MSD36.2.75	36X4	55	452	3016	8	75	201	150
MSD36.3.75	36X4	55	678	4524	8	75	255	150
MSD36C.2.96	36X4	55	670	4963	10	96	213	135
MSD36JG.2.82	36X4	55	667	4943	10	82	405	135
MSD39.2.94	39X4	60	870	5802	10	94	257	150
MSD42.2.108	42X4.5	65	1058	7057	10	108	292	150
MSD42.3.100	42X4.5	65	1190	8817	10	100	338	135
MSD48.2.122	48X5	75	1478	9858	12	122	324	150
NSD48.2.131	48X5	75	1539	10261	12	131	338	150
MSD56.2.138	56X5.5	85	1734	12847	12	138	372	135
MSD56L.2.141	56X5.5	85	1547	11459	10	141	285	135
MSD64.2.150	64X6	95	2011	14901	15	150	421	135
MSD64L.2.151	64X6	95	1839	12265	10	151	321	150



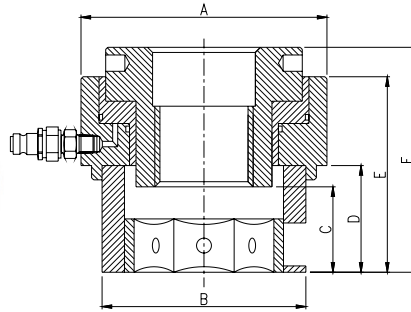
HLD series Single stage hydraulic bolt tensioner



- Maximum working pressure 150Mpa
- Compact design and easy maintenance
- Small size and light weight
- Easy to replace the rod
- Commonly used in petrochemical industry

Model	Bolt diameter		Max load	Oil pressure area	Weight	A	B	C	D	E	F
	Inch	mm									
HLD1		16	226	1506	3.5	73	24	110	74	45	49
	3/4	18	226	1506	3.5	73	24	110	74	45	49
		20	226	1506	3.5	73.5	27	110	74	45	49.5
	7/8	22	226	1506	3	73.5	27	115	74	45	53
	1	24	226	1506	3	73.5	30	125	78	45	58.5
	1 1/8	27	226	1506	3	73.5	32	130	78	45	63.5
HLD2		30	455	3031	5	102	30	150	90	54	69
	1 1/4	33	455	3031	5	102	34	150	90	54	72
	1 3/8	36	455	3031	5	102	36	160	95	54	78
	1 1/2	39	455	3031	5	102	38	170	100	54	80
HLD3	1 1/2	39	803	5357	9	133	42	175	95	56	83.5
	1 5/8	42	803	5357	9	133	42	185	100	56	92.5
	1 3/4	45	803	5357	9	133	44	195	103	56	98
	1 7/8	48	803	5357	9	133	46	205	107	56	101
	2	52	803	5357	9	133	48	210	112	56	106
HLD4	1 7/8	48	1288	8591	15	163	50	205	105	58	108
	2	52	1288	8591	15	163	52	215	108	58	108
	2 1/4	56	1288	8591	15	163	54	235	117	58	118.5
		60	1288	8591	15	163	54	238	120	58	127
	2 1/2	64	1288	8591	15	163	58	254	129	58	130.5
HLD5	2 1/2	64	1978	13188	25	193	64	254	125	60	130.5
		68	1978	13188	25	193	72	258	130	60	138
	2 3/4	72	1978	13188	25	193	72	258	130	60	143
	3	76	1978	13188	25	193	74	258	141	60	153
HLD6	3	76	2717	18114	44	233	76	260	146	64	153
		80	2717	18114	44	233	76	264	146	64	155.5
	3 1/4	85	2717	18114	44	233	78	272	148	64	165.5
	3 1/2	90	2717	18114	44	233	78	280	154	64	174.5
	3 3/4	95	2717	18114	40.5	233	99	300	168	64	189.5
	4	100	2717	18114	40.5	233	105	305	172	64	200

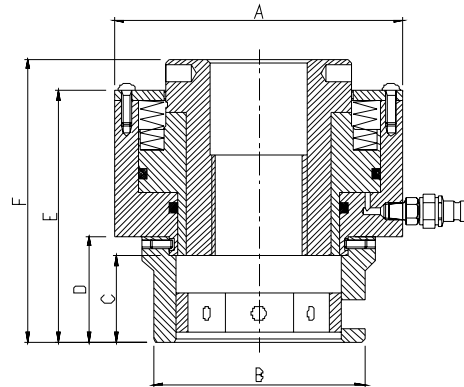
DLD series Simple type hydraulic bolt tensioner



- Maximum working pressure 150Mpa
- Mechanical return
- Replaceable tensioning rod
- Red overstroke warning line
- Polishing surface treatment

Model	Bolt size mm	Max load KN	Dimension (mm)						Stroke mm	Weight Kg
			A	B	C	D	E	F		
DLD0	M 20	338	85	55	23	25	74	86	8	3.5
	M 22			59	25	27	76	88		
	M 24			66	27	29	78	90		
DLD1	M 24	486	109	66	27	29	90	105	8	5.5
	M 27			72	30	32	93	108		
	M 30			78	33	35	96	111		
	M 33			85	36	38	99	114		
	M 36			90	39	41	102	117		
DLD2	M 33	814	132	85	36	44	111	127	8	8
	M 36			94	39	47	116	130		
	M 39			98	42	50	119	133		
	M 42			105	45	53	122	136		
DLD3	M 39	989	150	98	41	51	122	135	10	12
	M 42			105	44	54	125	138		
	M 45			110	47	57	128	141		
	M 48			125	50	60	131	144		
DLD4	M 52	1413	174	132	53	56	132	145	10	17
	M 56			135	59	60	136	149		
DLD5	M 56	1649	198	135	59	60	138	154	12	21
	M 60			144	63	65	143	159		
	M 64			150	67	69	147	163		
	M 68			158	71	74	152	168		
DLD6	M 72	2131	222	165	75	77	167	185	12	26
	M 76			170	79	81	175	193		
DLD7	M 76	2544	252	170	79	81	167	197	12	32
	M 80			175	83	85	172	201		
	M 85			185	88	90	176	206		
	M 90			205	93	95	181	211		
DLD8	M 95	3101	282	215	98	100	189	224	12	38
	M 100			235	103	105	194	229		
DLD9	M 105	3793	318	240	108	110	203	238	12	52
	M 110			250	113	115	208	243		
	M 115			260	118	120	213	248		
DLD10	M 115	4936	360	260	120	120	261	297	15	87
	M 120			270	125	125	266	302		
	M 125			285	140	130	271	307		

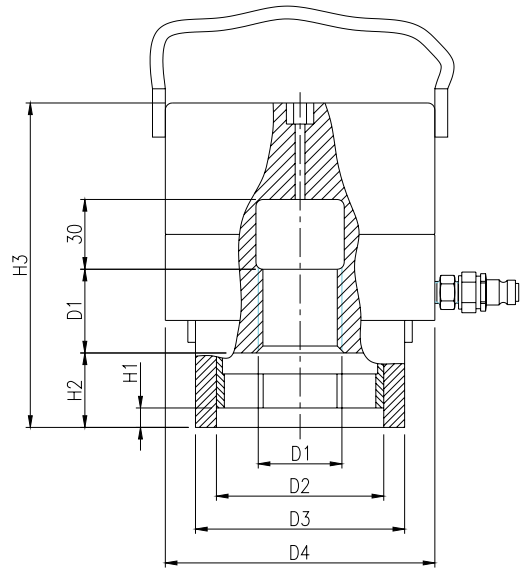
TSD series-Single stage hydraulic bolt tensioner



- Maximum working pressure 150Mpa
- Automatic return mechanism design
- Red overstroke warning line to ensure operator safety.
- One tensioner can be used for different size bolts, but the rod and bushing must be changed.

Model	Bolt size mm	Max load KN	Dimension (mm)						Stroke mm	Weight Kg
			A	B	C	D	E	F		
TSD0	M 20	307	109	55	23	25	111	128	8	5
	M 22			60	25	27	113	130		
	M 24			66	27	29	115	132		
TSD1	M 24	486	109	74	27	29	120	138	8	7
	M 27			77	30	32	123	141		
	M 30			80	33	35	126	144		
	M 33			85	36	38	129	147		
	M 36			90	39	41	132	150		
TSD2	M 33	814	132	90	36	44	135	150	8	10
	M 36			96	39	47	138	153		
	M 39			98	42	50	141	156		
	M 42			105	45	53	144	159		
TSD3	M 39	989	150	110	42	42	136	150	10	15
	M 42			113	45	45	140	155		
	M 45			114	50	50	144	161		
	M 48			118	52	52	146	163		
TSD4	M 52	1413	174	132	55	56	154	174	10	20
	M 56			135	59	60	158	178		
TSD5	M 56	1649	198	135	59	60	161	179	12	25
	M 60			143	64	64	165	183		
	M 64			150	68	68	169	187		
	M 68			158	72	72	173	191		
TSD6	M 72	2131	222	165	76	76	184	207	12	35
	M 76			170	80	80	188	211		
TSD7	M 76	2544	252	170	80	80	194	221	12	50
	M 80			175	85	85	197	224		
	M 85			190	90	88	199	226		
	M 90			205	95	95	209	236		
TSD8	M 95	3101	282	215	100	100	214	243	12	65
	M 100			235	105	105	219	248		
TSD9	M 105	3793	318	240	110	110	224	254	12	85
	M 110			248	115	118	234	264		
	M 115			260	120	120	234	264		
TSD10	M 115	4936	360	260	120	120	261	297	12	110
	M 120			270	125	125	266	302		
	M 125			286	140	130	271	307		

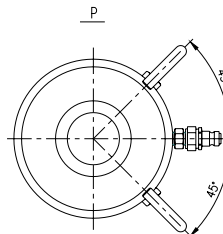
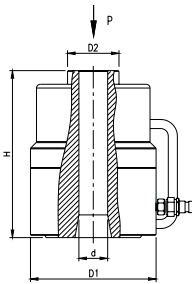
ESD series-Single stage hydraulic bolt tensioner



- Maximum working pressure 150Mpa.
- Mainly used for 10.9 grade high strength bolts.
- Automatic return mechanism design, labor intensity is greatly reduced.
- Red overstroke warning line to ensure operator's safety.

Model	Thread D1	A/F	Tensile Force	D2	D3	D4	H1	H2	H3
	mm	S	KN	mm	mm	mm	mm	mm	mm
ESD 20	M 20×2.5	30	200	42	52	65	6	19	94
ESD 24	M 24×3	36	290	49	60	78	8	22	102
ESD 27	M 27×3	41	380	55	67	86	10	25	108
ESD 30	M 30×3.5	46	460	61	74	97	12	27	106
ESD 33	M 33×3.5	50	570	66	81	107	14	29	114
ESD 36	M 36×4	55	670	71	90	117	16	32	118
ESD 39	M 39×4	60	800	77	96	127	18	34	125
ESD 42	M 42×4.5	65	920	83	102	137	20	37	134
ESD 45	M 45×4.5	70	1080	89	110	148	22	39	135
ESD 48	M 48×5	75	1220	94	116	158	24	42	140
ESD 52	M 52×5	80	1450	102	128	169	28	46	151
ESD 56	M 56×5.5	85	1680	106	135	179	31	49	158
ESD 60	M 60×5.5	90	2010	114	142	199	34	52	167
ESD 64	M 64×6	95	2210	120	151	211	37	55	172
ESD 68	M 68×6	100	2600	124	155	228	40	58	180
ESD 72	M 72×6	105	2880	130	168	238	44	62	186
ESD 76	M 76×6	110	3320	139	180	259	48	66	197
ESD 80	M 80×6	115	3610	142	188	267	50	68	202
ESD 90	M 90×6	130	4650	160	210	300	58	77	220
ESD 100	M 100×6	145	5830	178	237	340	66	85	240

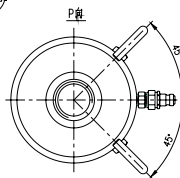
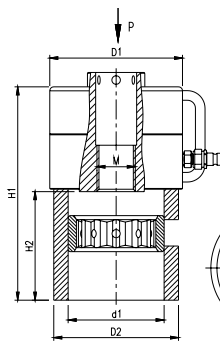
ZLD series-hydraulic bolt tensioner specially for bridge



- Maximum working pressure 150Mpa
- Automatic return mechanism design.
- Red overstroke warning line to ensure operator safety.
- Polishing surface treatment
- High pressure, light weight

Model	Tensile Force KN	Bolt size	Dimension (mm)				Stroke mm	Pressure MPa	Weight Kg
			D1	D2	d	H			
ZLD30	422	M30	94	47	32	210	40	150	8.5
ZLD33	500	M33	101	51	35	210	40	150	10.1
ZLD36	594	M36	109	56	38	210	40	150	12.7
ZLD39	727	M39	121	61	42	210	40	150	14.4
ZLD42	866	M42	132	66	44	210	40	150	16.4
ZLD45	922	M45	138	71	47	210	40	150	18
ZLD48	1027	M48	147	76	50	210	40	150	21
ZLD52	1354	M52	166	81	54	210	40	150	25
ZLD56	1413	M56	171	86	58	277	40	150	32
ZLD60	1688	M60	185	91	52	277	40	150	39
ZLD64	1830	M64	193	96	66	277	40	150	48

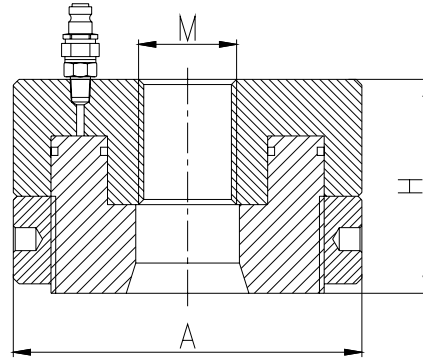
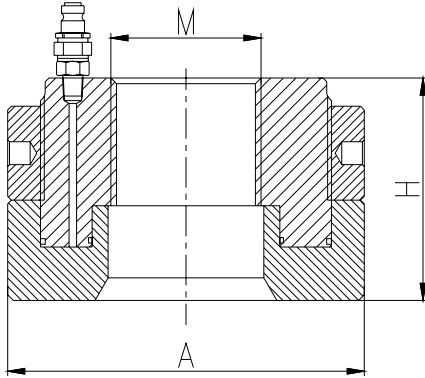
SJD series-hydraulic bolt tensioner for bridge lock clamping



- Maximum working pressure 150Mpa
- Automatic return mechanism design.
- Red overstroke warning line to ensure operator safety.
- Polishing surface treatment
- High pressure, light weight
- One tensioner can be used for different size bolts.

Model	Tensile Force KN	Bolt size	Dimension (mm)				Stroke mm	Pressure MPa	Weight Kg
			D1	D2	d	H			
SLD30	422	M30	94	86	270	120	20	150	8.2
SLD33	500	M33	101	92	273	122	20	150	12
SLD36	594	M36	109	100	276	127	20	150	15
SLD39	727	M39	121	108	279	130	20	150	22
SLD42	866	M42	132	117	283	133	20	150	24
SLD45	922	M45	138	122	285	139	20	150	27
SLD48	1027	M48	147	136	292	145	20	150	31
SLD52	1354	M52	166	156	303	153	20	150	38
SLD56	1413	M56	171	160	322	155	20	150	47
SLD60	1688	M60	185	172	354	155	20	150	51
SLD64	1830	M64	193	180	368	155	20	150	62

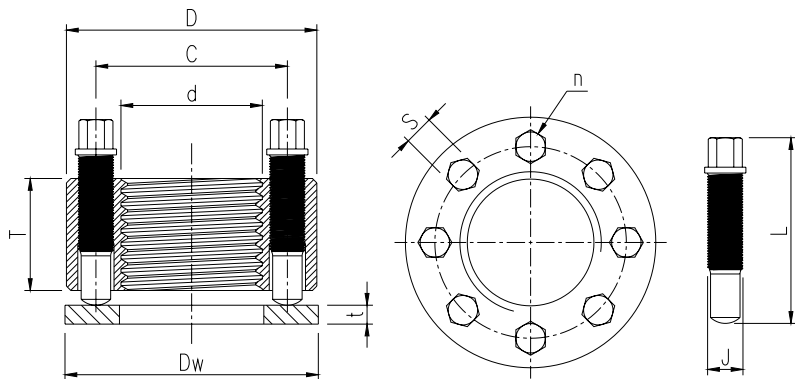
DN/HN series-Hydraulic Nut



- Maximum working pressure 150Mpa.
- The preload can be accurately set, the precision is up to $\pm 3\%$.
- Adopt no-torque design to avoid the influence of friction, bolt distortion, bolt pre-tightening force and other factors, so the bolt is to be tightened by pure tension force.
- Particularly suitable for heavy-duty vibration mechanical fastening.
- With stroke indicator, it is allowed to observe, measure and control the tensioner during operation.

Model		Bolt size	Outside diameter	Height	Action area	Max force	Stroke	Weight
Top ring hydraulic nut	Bottom ring hydraulic nut	M	A(mm)	H(mm)	cm ²	KN	mm	Kg
DN30	HN30	30	75	61	17.3	259	6	0.9
DN33	HN33	33	83	64	22.5	338	6	1.1
DN36	HN36	36	88	67	24.5	368	6	1.3
DN39	HN39	39	94	70	26.5	397	6	1.5
DN42	HN42	42	100	73	28.5	427	6	1.9
DN45	HN45	45	106	77	32.4	486	6	2.4
DN48	HN48	48	118	80	40	600	6	2.8
DN52	HN52	52	123	84	42.4	636	8	3.6
DN56	HN56	56	135	88	53.6	804	8	4.9
DN60	HN60	60	147	93	65.9	989	8	5.6
DN64	HN64	64	153	99	69.1	1036	8	6.7
DN68	HN68	68	159	105	72.4	1086	8	8.8
DN72	HN72	72	170	109	86.5	1298	10	9.7
DN76	HN76	76	176	117	90.1	1351	10	11.7
DN80	HN80	80	194	124	106	1590	10	14.9
DN85	HN85	85	200	130	113.9	1708	10	16.4
DN90	HN90	90	212	140	131.7	1976	10	19.6
DN95	HN95	95	223	148	150.7	2261	10	23.4
DN100	HN100	100	236	154	163.3	2450	15	28.5

CY series-Super Nut



- Operating temperature -60 ~ 200 degree
- Bolt stress under standard load 410-890MPa
- CY series super nuts are suitable for high strength machine tightening and all working conditions of big size hexagonal nuts.
- Application: low temperature bolt, compressor, pump, high pressure flange, reduction gearbox, gearbox, split gear, crushing machine, military machine, etc.

Model	Bolt size	Nut			Push bolt				Gasket		Standard product		Weight Kg
		Outside diameter D(mm)	Thickness T(mm)	Center distance C(mm)	Length L(mm)	Number n	Diameter J(mm)	A/F S(mm)	Outside diameter Dw(mm)	Thickness t(mm)	Tightening force KN	Torque Nm	
CY-M20	M20	37	17	29	30	8	M6X0.75	5	38	3.3	144	15	0.14
CY-M24	M24	47	24	35	40	6	M8X1	6	48	4.8	216	36	0.3
CY-M27	M27	50	24	39	40	8	M8X1	6	51	4.8	288	36	0.32
CY-M30	M30	53	24	41	40	8	M8X1	6	54	4.8	288	36	0.32
CY-M33	M33	62	32	48	52	6	M10X1.25	8	63	4.8	344	42	0.54
CY-M36	M36	66	32	51	52	8	M10X1.25	8	67	4.8	459	42	0.68
CY-M39	M39	71	32	54	52	10	M10X1.25	8	72	4.8	574	42	0.77
CY-M42	M42	75	32	56	52	12	M10X1.25	8	77	4.8	688	42	0.86
CY-M45	M45	81	38	62	62	8	M12X1.25	10	83	6.4	700	132	1.22
CY-M48	M48	85	38	65	62	10	M12X1.25	10	87	6.4	874	132	1.32
CY-M52	M52	94	38	70	62	12	M12X1.25	10	96	6.4	1049	132	1.63
CY-M56	M56	97	38	76	62	12	M12X1.25	10	99	6.4	1049	132	1.68
CY-M60	M60	107	58	83	91	8	M16X1.5	14	109	6.4	1228	315	3.2
CY-M64	M64	113	58	87	91	10	M16X1.5	14	115	8	1589	315	3.5
CY-M72	M72	119	58	94	91	12	M16X1.5	14	121	8	1906	315	3.6
CY-M80	M80	132	61	103	91	16	M16X1.5	14	134	8	2542	315	4.5
CY-M90	M90	145	61	113	91	16	M16X1.5	14	147	8	2542	315	5.4
CY-M100	M100	157	61	123	91	16	M16X1.5	14	159	8	2542	315	6.4
CY-M110	M110	177	61	133	91	20	M16X1.5	14	179	8	3177	315	8.2
CY-M120	M120	189	81	149	113	18	M20X1.5	17	191	10	4739	647	11.8
CY-M140	M140	215	94	169	126	22	M20X1.5	17	217	10	5792	647	17.2
CY-M160	M160	226	107	189	139	24	M20X1.5	17	228	10	6318	647	19.5



The chart of recommended bolt tightening force

The datas are mainly suitable for bolt tensioner and hydraulic nut.

Strength grade		4.8	6.8	8.8	10.9	12.9
Min breaking strength		400MPa	600MPa	800MPa	1000MPa	1200MPa
Material		General structural steel	Mechanical construction steel	Chrome molybdenum alloy steel	Ni-Cr-Mo alloy steel	Ni-Cr-Mo alloy steel
Bolt M	A/F S	Tightening Force (KN)				
16	24	30	45	60	85	102
18	27	37	55	74	104	125
20	30	47	71	94	132	159
22	34	58	87	117	164	197
24	36	68	102	135	190	228
27	41	88	132	176	248	298
30	46	108	161	215	303	363
33	50	133	200	266	375	449
36	55	157	235	314	441	529
39	60	187	281	375	527	632
42	65	215	323	430	605	726
45	70	251	376	502	705	846
48	75	283	424	566	796	955
52	80	338	506	675	949	1139
56	85	390	585	780	1096	1315
60	90	454	680	907	1275	1531
64	95	514	771	1028	1445	1734
68	100	587	880	1173	1650	1980
72	105	664	996	1329	1868	2242
76	110	747	1120	1494	2100	2520
80	115	834	1251	1668	2346	2815
85	120	950	1425	1900	2672	3206
90	130	1073	1610	2147	3019	3623
100	145	1343	2014	2686	3777	4533
110	155	1643	2464	3285	4620	5544
120	175	1973	2959	3945	5548	6657
125	180	2149	3223	4298	6043	7252

Attention:

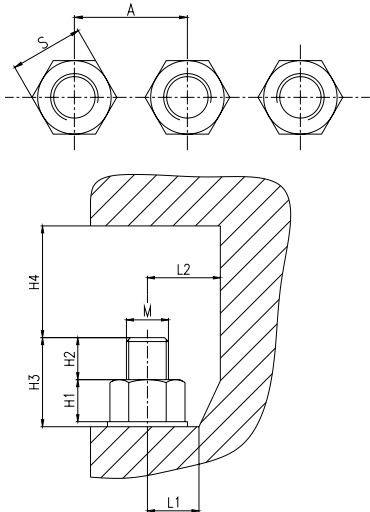
The data in the chart is measured under 60% yield limit of the bolt, the recommended tightening torque is 70-80% of above data.

For example, for M42 grade 10.8 bolt, the tightening torque is $605 \times (70-80)\% = 423.5-484\text{KN}$.

Space considerations

Use hydraulic wrench.

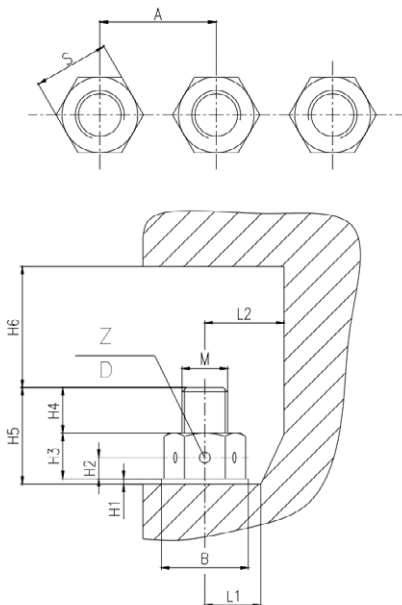
- You should know the working conditions of hydraulic wrench.
- Hexagon nut (octagonal nut)
- Inner hex bolts
- Castle nut



Hydraulic wrench working condition questionnaire - Please fill in the details			
Bolt size	M	mm	
A/F	S	mm	
Distance between nuts	A	mm	
Nut thickness	H1	mm	
Length of screw over nut	H2	mm	
Total length of screw	H3	mm	
Distance of screw from top barrier	H4	mm	
Distance of nut center from corner	L1	mm	
Distance of nut center from side wall	L2	mm	
Pretightening torque	T	Nm	

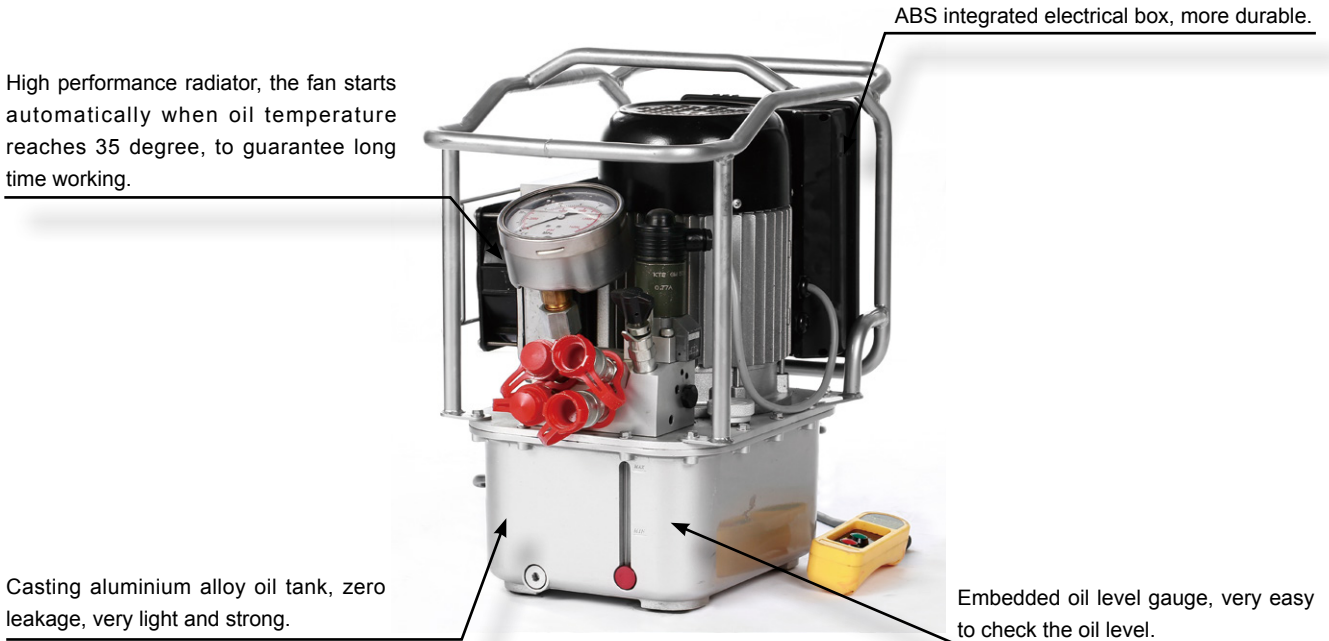
Use hydraulic tensioner.

- You should know the working conditions of hydraulic tensioner.
- screw extended nut length greater than 1 times screw diameter
- Round nut or hexagon nut



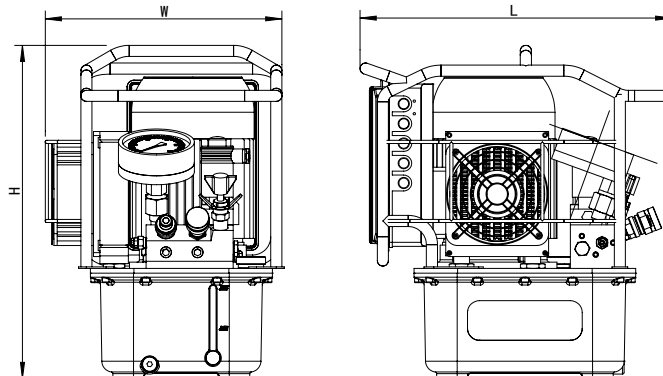
Hydraulic tension condition questionnaire - please fill in the details.			
Bolt size	M	mm	
Thread distance	P	mm	
Round nut diameter		mm	
A/F of hexagonal nut	S	mm	
Nut thickness	H3	mm	
Hole height of round nut	H2	mm	
Number of round nut holes	Z		
Hole diameter of round nut	D	mm	
Gasket diameter	B	mm	
Gasket thickness	H1	mm	
Distance between nuts	A	mm	
Length of screw over nut	H4	mm	
Total length of screw	H5	mm	
Distance of screw from top barrier	H6	mm	
Distance of nut center from corner	L1	mm	
Distance of nut center from side wall	L2	mm	
Tensile force	F	KN	

SP304 series - NEW style electric pump for hydraulic wrench



- High efficiency 3 speed flow pressure design, perfect simulation of manual operation, fast speed when light load, low speed when heavy load, the bolt tightening is more precise.
- It can drive 2 hydraulic wrenches simultaneously or 4 if requested.
- Al-Ti alloy pump body, light weight and easy to carry.
- 40-700 bar adjustable output pressure.
- Brushless high power motor, easy maintenance and long life, with starting capacitor, able to start with load, simple operation.

Dimension



Technical parameters

Model	Output port	Power	Pressure(MPa)			Flow(L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Medium	Low	High	Medium	Low			
SP304-2	4X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	26
SP304-4	8X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	26

DP304 series - High flow 3 speed hydraulic pump

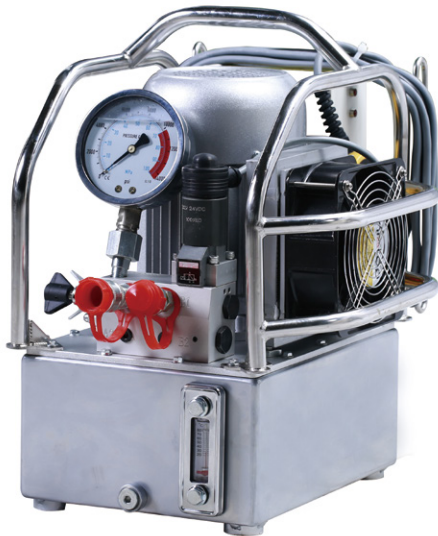


- Dual motor 3 speed, higher flow and higher efficiency.
- It can drive 4 hydraulic wrenches simultaneously or 8 with distributor.
- Al-Ti alloy pump body.
- 40-700 bar adjustable output pressure.
- Brushless high power motor, easy maintenance and long life, with starting capacitor, able to start with load, simple operation.
- High performance radiator, the fan starts automatically when oil temperature reaches 35 degree.

Technical parameters

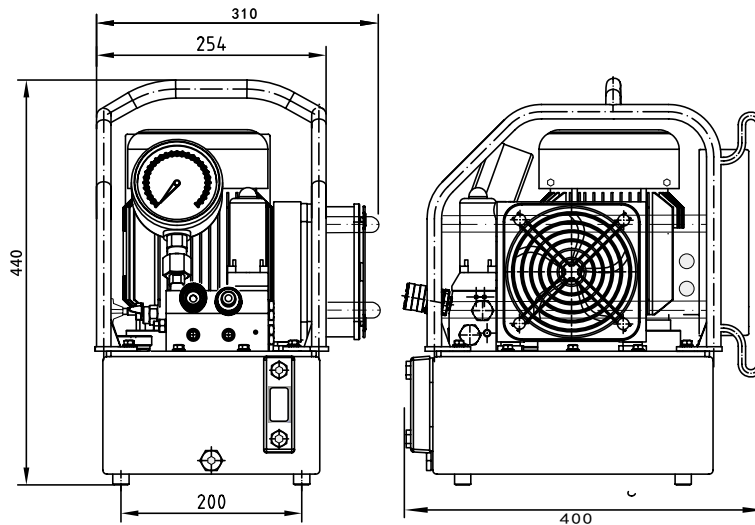
Model	Output port	Power	Pressure(MPa)			Flow (L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Medium	Low	High	Medium	Low			
DP220-4	8X1/4 NPT	220V 1.1KW	70	32	6	1.6	3.2	15	14	550*400*570	61
DP220-8	16X1/4 NPT	220V 1.1KW									
DP380-4	8X1/4 NPT	380V 1.1KW									
DP380-8	16X1/4 NPT	380V 1.1KW									

EMP304 - 3 speed hydraulic wrench pump



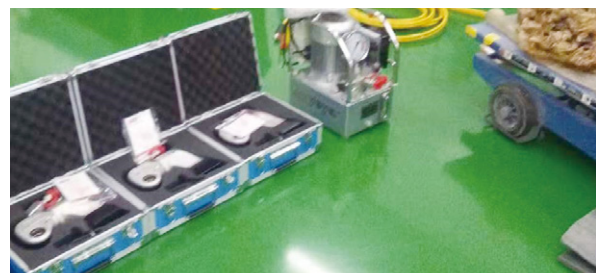
- High efficiency 3 speed flow pressure design, perfect simulation of manual operation, fast speed when light load, low speed when heavy load, the bolt tightening is more precise.
- It can drive 2 hydraulic wrenches simultaneously or 4 if requested.
- Al-Ti alloy pump body, light weight and easy to carry.
- 40-700 bar adjustable output pressure.
- Brushless high power motor, easy maintenance and long life, with starting capacitor, able to start with load, simple operation.
- High performance radiator, the fan starts automatically when oil temperature reaches 35 degree.

Dimension



Technical parameters

Model	Output port	Power	Pressure(MPa)			Flow(L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Medium	Low	High	Medium	Low			
EMP304-2	4X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	27
EMP304-4	8X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	27.5



EMP204 series - 2 speed hydraulic wrench pump

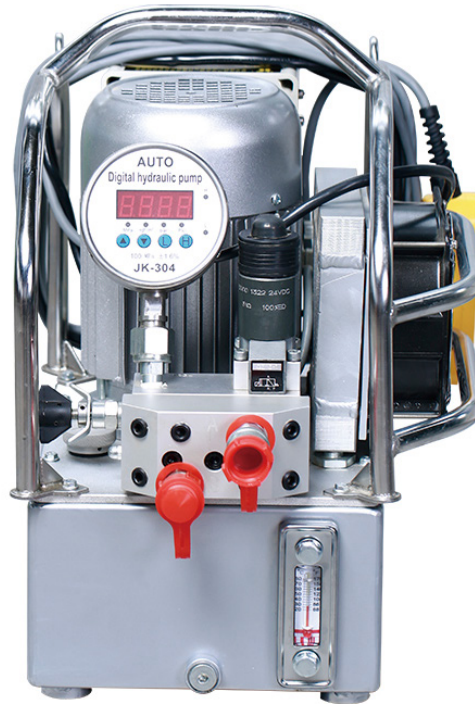


- Adopt standard slide valve, stable reversing and good versatility.
- 2 speed flow design, switch flow automatically.
- Al-Ti alloy pump body, light weight and easy to carry.
- Brushless high power motor, easy maintenance and long life.
- High performance radiator, the fan starts automatically when oil temperature reaches 35 degree, to guarantee long time working.
- The electrical box adopts integrated circuit, able to match hydraulic wrench, hydraulic plier etc.

Technical parameters

Model	Output port	Power	Pressure(MPa)		Flow(L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
EMP204X-2	4X1/4 NPT	220V 1.1KW	70	6	0.8	6	7.6	394*300*420	27
EMP204X-4	8X1/4 NPT	220V 1.1KW	70	6	0.8	6	7.6	394*300*420	27.5
EMP204-1	2X1/4 NPT	220V 1.5KW	70	6	1.1	6	8	450*325*540	36
EMP204-2	4X1/4 NPT	220V 1.5KW	70	6	1.1	6	8	450*325*540	36.5
EMP204-4	8X1/4 NPT	220V 1.5KW	70	6	1.1	6	8	450*325*540	37
EMP204-380-1	2X1/4 NPT	380V 1.5KW	70	6	1.1	6	8	450*325*540	36
EMP204-380-2	4X1/4 NPT	380V 1.5KW	70	6	1.1	6	8	450*325*540	36.5
EMP204-380-4	8X1/4 NPT	380V 1.5KW	70	6	1.1	6	8	450*325*540	37

AMP304 series - Automatic hydraulic wrench pump



- Integrated circuit control makes it possible to automatically control temperature, automatically stop if no operation after 30s, automatically relief pressure protect the motor and alarm when overload.
 - 1.1KW brushless AC motor, high power, free maintenance, long life, long time continuous working.
 - Ergonomically designed remote handle, comfortable and durable.
 - Solenoid pilot operated valve reverses quickly, pressure relief when shutdown, with starting capacitor, can start with pressure.
 - Plug-in hydraulic valve, easy repair and low repair cost.
 - Multifunctional digital pressure gauge can switch between MPa, KG, bar and PSI.
-
- Intelligent one-touch operation, only need press the start button, it will tighten and loose automatically, operator can finish the task very quickly.
 - High efficiency 3 speed flow pressure design, perfect simulation of manual operation, fast speed when light load, low speed when heavy load, the bolt tightening is more precise.
 - Realize the reversing by pressure numerical signal from integrated circuit and digital pressure gauge, quick response and high efficiency.
 - Brushless high power motor, easy maintenance and long life, with starting capacitor, able to start with load, simple operation.
 - The reversing valve is controlled by pressure gauge after setting pressure, making regulating valve on OFF position and extend the lifetime greatly.
 - Fast speed, high efficiency, 30% higher than normal automatic pump.
 - High performance radiator, the fan starts automatically when oil temperature reaches 35 degree, to guarantee long time working.

■ Technical parameters

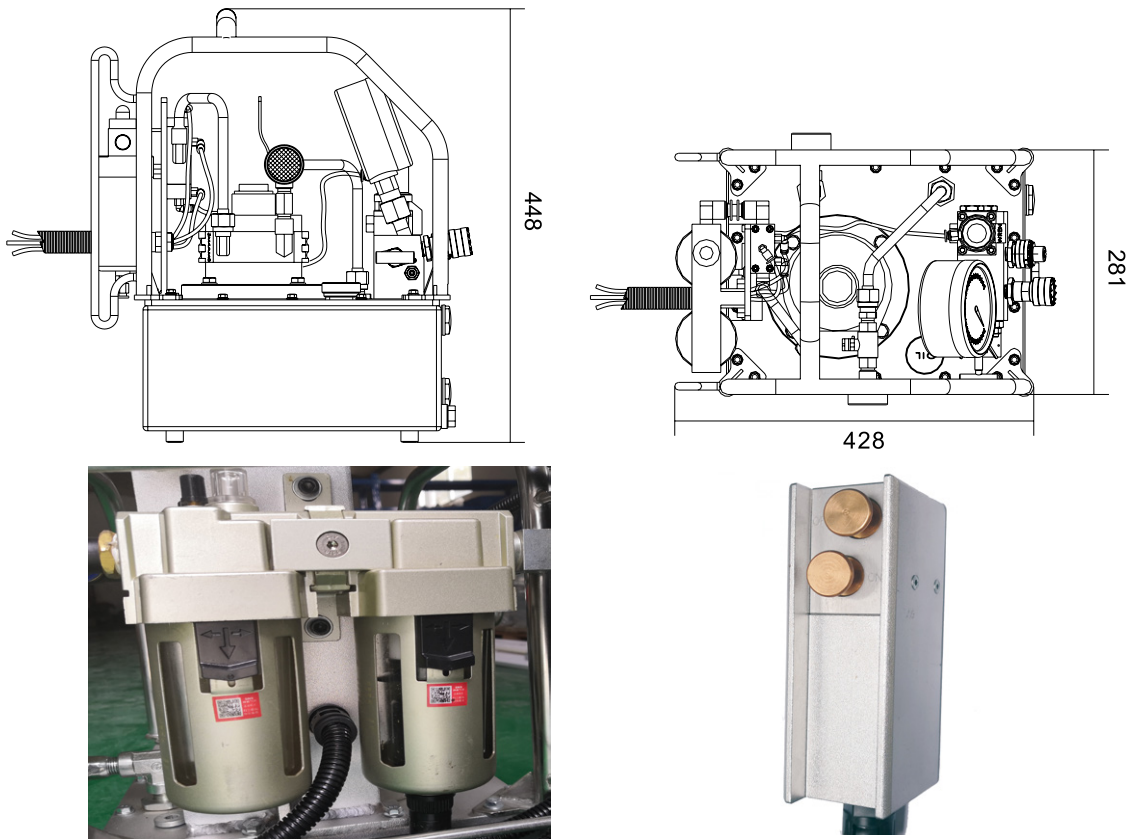
Model	Output port	Power	Pressure(MPa)			Flow(L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Medium	Low	High	Medium	Low			
AMP304-2	4X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	28
AMP304-4	8X1/4 NPT	220V 1.1KW	70	32	6	0.8	1.6	8	7.6	394*300*420	28.5

QMP304 - Pneumatic pump for hydraulic wrench

- Use compressed air as the power source, applicable to coal mine etc, with advantages of anti-explosion, safety, no heat and long time working.
- High performance pneumatic reversing valve, safe and reliable, stable performance.
- Al-Ti alloy pump body, light weight, easy to carry.
- It can drive 2 hydraulic wrenches simultaneously or 4 if requested.
- 4-70MPa adjustable pressure.
- Use 4-8 bar air pressure.
- It can be customized as requested.
- The pressure can be released after pressing the button when the pump stops working.
- Steel frame can protect the pump body and makes it easy to carry.
- Aluminium explosion-proof handle, solid and reliable.



Dimension



Technical parameters

Model	Gas source			Pressure (MPa)			Flow (L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
	Pressure(bar)	Rated power (kw)	Air consumption (m3/h)	High	Medium	Low	High	Medium	Low			
QMP304	4-8	1.3	134	70	32	6	0.8	1.6	8	7.6	428*281*448	21

SP2004 series - ultra high pressure electric pump



- SP2004 is the updated version of EMP2004.
- The oil tank is updated into casting aluminium alloy.
- Pump is made of aircraft aluminium, smaller size and lighter weight.
- Max working pressure is 200MPa.
- High performance safety valve, stable pressure.
- High performance radiator can guarantee long time working.

Technical parameters

Model	Output port	Power	Pressure (MPa)		Flow (L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
SP2004	G1/4	220V 1.1KW	200	3	0.3	2.5	8	394*300*420	24

ISP2004 series - Intelligent electric pump for tensioner

- Max working pressure 200MPa.
- Applicable to bolt tensioner.
- Adopt Simens controller and human interface, stable performance.
- One-touch operation, just need input tensile force, easy operation.
- Automatic pressure compensation, eliminate pressure loss caused by mechanical deformation, making tensioning more accurate.
- Searchable operation records.
- Automatic pressure relief function.



Technical parameters

Model	Output port	Power	Pressure (MPa)		Flow (L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
ISP2004	G1/4	220V 1.1KW	200	3	0.3	2.5	8	400*380*600	55

EMP2004 series - Ultra high pressure electric pump

- Max working pressure 200MPa.
- Automatic switch between high and low pressure, high efficiency.
- Al-Ti alloy pump body, light weight.
- Brushless high power motor, easy maintenance and long life.
- Applicable to bolt tensioner in shipbuilding, wind power etc.
- Plug-in quick connector, easy operation.

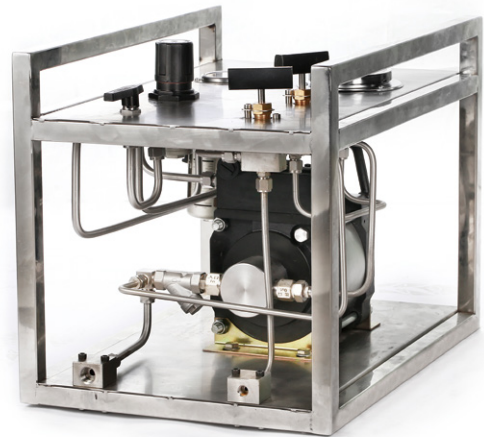


Technical parameters

Model	Output port	Power	Pressure(MPa)		Flow(L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
EMP2004	G1/4	220V 1.1KW	200	3	0.3	2.5	8	400*310*440	27

J series gas-liquid booster pump

- J series gas-liquid booster pump adopts single air-controlled unbalanced gas distribution valve to realize automatic reciprocating motion of the pump, and the air drive part is made of aluminum alloy.
- High pressure part is made of carbon steel or stainless steel depending on different materials. All the seals are imported products to ensure the performance of pump.
- The maximum drive pressure is 10 bar, it is suggested to be no more than 8 bar to guarantee the lifetime.



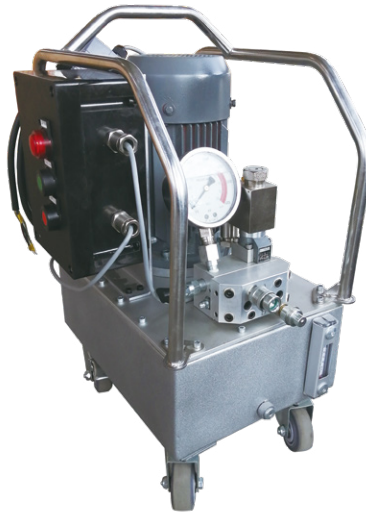
Technical parameters

Model	Output port	Supercharge ratio	Output pressure		Flow (L/min)	Weight (KG)
			bar	psi		
J80	G1/4	80:1	640	9280	2.44	25
J100	G1/4	100:1	800	11600	1.92	25
J130	G1/4	130:1	1040	15080	1.4	25
J175	G1/4	175:1	1400	20300	1.14	25
J255	G1/4	255:1	2040	25800	0.75	25
J400	G1/4	400:1	3200	46400	0.48	25

FB204 series Ultra high pressure electric pump



FBS manual reversing



FBD electromagnetic reversing



FBE automatic reversing

- Exd II BT4 three phase asynchronous motor, applicable to explosion proof occasions.
- The electrical control system adopts Exd II BT4 explosion proof magnetic starter, safe.
- External pressure regulating valve, 7-70MPa adjustable pressure.
- 3 stage plunger pump, high efficiency, low pressure fluctuation.
- Equipped with tubular protective frame, easy to move.

Technical parameters

Model	Output port	Power	Pressure(MPa)			Flow(L/min)			Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Medium	Low	High	Medium	Low			
FBS204-1	2X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBS204-2	4X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBS204-4	8X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBD204-1	2X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBD204-2	4X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBD204-4	8X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBE204-1	2X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBE204-2	4X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75
FBE204-4	8X1/4 NPT	380V 1.5KW	70		6	0.8		6	10	560*370*640	75

EMP204D / EMP204S hydraulic pump station



- 2 speed pressure, automatic switch of two output flows.
- Al-Ti alloy pump body, light weight.
- Brushless high power motor, easy maintenance and long life.
- Electrical control box adopts integrated circuit, applicable to hydraulic cylinder, hydraulic plier etc.
- Built-in check valve, suitable for long time pressure holding condition.
- Match single acting cylinder, double acting cylinder pump can be customized.

- Light weight and compact design, easy to move.
- 2 speed design, electromagnetic directional control, high flow at low pressure.
- Fast movement of hydraulic parts when no load, high efficiency.
- High pressure high flow, suitable for kinds of hydraulic devices.
- Equipped with tubular protective frame, easy to move.
- Able to customize different capacity oil tank for big ton cylinder.
- Built-in check valve, suitable for long time pressure holding condition.
- Match double acting cylinder.

Technical parameters

Model	Output port	Power	Pressure(MPa)		Flow(L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
EMP204D-220	1X3/8 NPT	220V 1.5KW	70	6	1.1	6	8	420*260*530	37
EMP204D-380	1X3/8 NPT	380V 1.5KW	70	6	1.1	6	8	420*260*530	37
EMP204S20-220	2X3/8 NPT	220V 1.5KW	70	6	1.1	6	20	680*570*645	57
EMP204S40-220	2X3/8 NPT	220V 1.5KW	70	6	1.1	6	40	680*570*645	57
EMP204S20-380	2X3/8 NPT	380V 1.5KW	70	6	1.1	6	20	680*570*645	57
EMP204S40-380	2X3/8 NPT	380V 1.5KW	70	6	1.1	6	40	680*570*645	57

EMP086 series - manual electric pump for hydraulic cylinder

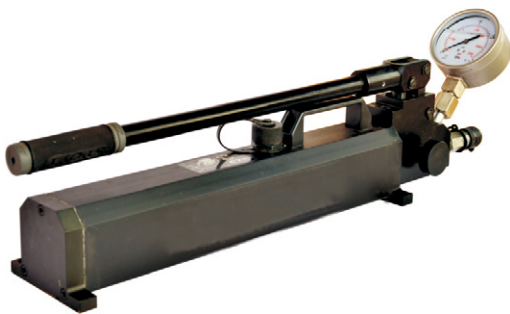


- Plastic spray coating, anti-corrosion, good stain resistance.
- Lightweight and compact design, easy to move.
- 2 speed pump, manual reversing control, high flow at low pressure.
- Fast response of hydraulic parts when no load, high efficiency.
- High flow at high pressure, applicable to kinds of hydraulic devices.
- Equipped with tubular protective frame, easy to move.
- Customizable oil tank as request. Single acting pump also available.

Technical parameters

Model	Output port	Power	Pressure(MPa)		Flow(L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
EMP086-220	2X3/8 NPT	220V 1.5KW	70	6	1.1	6	8	480*440*615	48
EMP086-380	4X3/8 NPT	380V 1.5KW	70	6	1.1	6	8	480*440*615	48

HP series - single acting aluminium high pressure manual pump



- Reasonable structure and design, beautiful, easy to carry.
- Double speed design, efficiency increases by 80%.
- Built-in safety valve for overload protection.
- Large capacity oil tank, applicable to different models of cylinders and tools.
- Al-Ti alloy pump body, light weight, high strength, anti-corrosion, shock resistance.
- Max working pressure 280MPa.
- Built-in precise high/low pressure switching valve, stable and reliable.

Technical parameters

Model	Output port	Pressure(MPa)		Flow(L/min)		Oil tank (cm ³)	Dimension (mm)	Weight (KG)
		High	Low	High	Low			
HP100	G1/4	70	2	1.2	24	2000	556*124*160	8.8
HP160	G1/4	100	2	1.2	24	2000	556*124*160	8.8
HP250	G1/4	250	2	1.2	24	2000	556*124*160	8.8
HP280	G1/4	280	2	1.2	24	2000	556*124*160	8.8

EPS150 series - Ultra high pressure electric pump



- Max working pressure 150MPa.
- Single acting high performance electric pump.
- Al-Ti alloy pump body, light weight.
- Brushless high power motor, easy maintenance, long life.
- Applicable to bolt tensioner in shipbuilding, wind power etc.
- Plug-in quick connector, easy operation.

Technical parameters

Model	Output port	Power	Pressure (MPa)	Flow (L/min)	Oil tank (L)	Dimension (mm)	Weight (KG)
EPS150-220	G1/4	220V 1.5KW	150	0.8	8	500*260*530	38
EPS150-380	G1/4	380V 1.5KW	150	0.8	8	500*260*530	38

ZMP2004 series - Automatic pressure relief pump



- Al-Ti alloy pump body, light weight, easy to carry.
- Brushless high power motor, easy maintenance and long life, with starting capacitor, able to start with load, simple operation.
- Applicable to bolt tensioner in shipbuild, wind power etc.
- Plug-in quick connector, easy operation.
- 2 speed flow design, automatic switch between high and low pressure, high efficiency, more accurate tensioning.
- High performance radiator ensures long time continuous working.

Technical parameters

Model	Output port	Power	Pressure(MPa)		Flow(L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
			High	Low	High	Low			
ZMP2004	G1/4	220V 1.1KW	200	3	0.3	2.5	8	400*310*440	26

PHG series gasoline engine hydraulic pump



- This is a reasonable choice when no power or compressed air at work site.
- Able to match single or double acting hydraulic tools, 70MPa external pressure regulating valve, adjustable between 7-70MPa.
- Equipped with preset one way valve for the engine and hydraulic pump, to prevent the pressure lose from forward position to holding position.
- The pump is driven by a 4 stroke 2.0KW HONDA engine, which has the lowest weighthorse-power and has forced air cooling function compared with normal gasoline engine.
- Equipped with tubular protective frame, easy to move.

Technical parameters

Model	Output port	Engine		Pressure (MPa)		Flow (L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
		Displacement (cm ³)	Speed (r/min)	High	Low	High	Low			
PHG120	M16X1.5	163	3000	70		1.1		40	540*430*500	54
PHG220	M16X1.5	163	3000	70	6	1.1	6	40	450*325*540	54

PEH series gasoline engine hydraulic pump

- As hydraulic power source, this pump mainly works together with professional break-in tools. Main features are compact structure, strong mobility, beautiful appearance, quick connection with tools, good engine cooling conditions.
- Two speed output pressure, switch automatically, high efficiency.
- It can move together with tools on connection status, low noise.



Technical parameters

Model	Output port	Engine		Pressure (MPa)		Flow (L/min)		Oil tank (L)	Dimension (mm)	Weight (KG)
		Displacement (cm ³)	Speed (r/min)	High	Low	High	Low			
PEH220	M16X1.5	86	3600	63	5	0.83	4	40	300*440*470	22

RMC series volume synchronous lifting system - economical



- Adopt double plunger pump system, fast leveling and stable lifting of heavy load.
- High precision up to 0.5mm, synchronous lifting and lowering are under control.
- Flexible control according to working condition, cylinder capacity and number, precision etc.
- Each control point is independent, able to control one or several of them separately.
- Module design, able to control 4, 8, 12 and 16 points, up to 99 points for online control.
- According to working condition, displacement sensor and pressure sensor are optional for real time monitoring.

Technical parameters

Model	Sync points	Rated pressure (MPa)	Rated flow (L/min)	Oil tank (L)	Power (380V 50Hz)	Weight (KG)
RMCD02D	2	70	0.5X2	100	1.5KW	125
RMCD02S	2	70	0.5X2	100	1.5KW	125
RMCD04D	4	70	0.5X4	100	2.2KW	125
RMCD04S	4	70	0.5X4	100	2.2KW	125
RMCD08D	8	70	0.5X8	100	5.5KW	125
RMCD08S	8	70	0.5X8	100	5.5KW	125
RMCD12D	12	70	0.5X12	100	11KW	150
RMCD12S	12	70	0.5X12	100	11KW	150

Rate flow can be customized as request.

Oil tank capacity can be customized as request.

Variable frequency motor with adjustable speed (VFDM) can be selected as request.



PMC series pulse width synchronous lifting system - practical

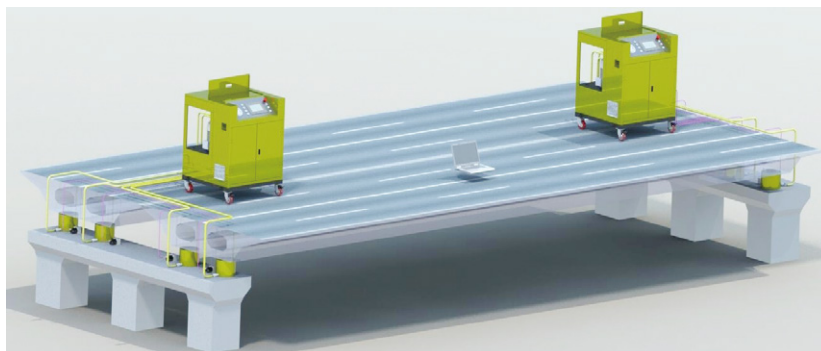


- Adopt double plunger pump system, fast leveling and stable lifting of heavy load.
- High precision up to 0.5mm, synchronous lifting and lowering are under control.
- Flexible control according to working condition, cylinder capacity and number, precision etc.
- Each control point is independent, able to control one or several of them separately.
- Module design, able to control 4, 8, 12 and 16 points, up to 99 points for online control.
- With data storage and recording function, easy to generate a report.
- Variable frequency drive motor(VFDM) and PLC device are optional, to ensure the accurate synchronization and flow control.
- Simple human interface, easy operation.

Technical parameters

Model	Sync points	Rated pressure (MPa)	Rated flow (L/min)		Oil tank (L)	Power (380V 50Hz)	Dimension (mm)	Weight (KG)
			70MPa	6MPa				
PMC04D	4	70	1.13	6	100	1.5KW	780*760*1080	125
PMC04S	4	70	1.13	6	100	1.5KW	780*760*1080	125
PMC08D	8	70	1.13	6	100	1.5KW	780*760*1080	125
PMC08S	8	70	1.13	6	100	1.5KW	780*760*1080	125
PMC12D	12	70	1.13	6	100	1.5KW	780*760*1080	125
PMC12S	12	70	1.13	6	100	1.5KW	780*760*1080	125
PMC16D	16	70	1.93	10	100	2.2KW	780*760*1080	150
PMC16S	16	70	1.93	10	100	2.2KW	780*760*1080	150

System connection schematic



FMCS series variable frequency synchronous control system



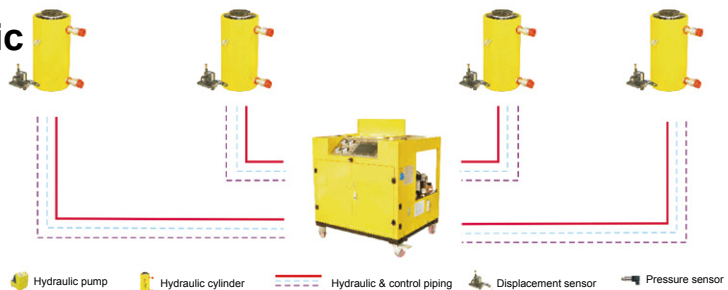
- Adopt double plunger pump system, achieve fast leveling and stable lifting of heavy load.
- Controlled by computer, no need human intervention, automatic testing of lifting status.
- High precision up to 0.1mm, synchronous lifting and lowering are under control.
- Each control point is independent, able to control one or several of them separately.
- Main components are from famous international brands, all seals are imported.
- Applicable to match single or double acting cylinder.

- Use quick connectors between hydraulic piping, cylinder and pump, easy operation.
- Displacement sensor and pressure sensor are optional for real time monitoring.
- VFDM technology adjusts flow by continuously changing motor speed, realizing true sense of continuous flow adjustment, so the stability and reliability are better than other similar systems.

Technical parameters

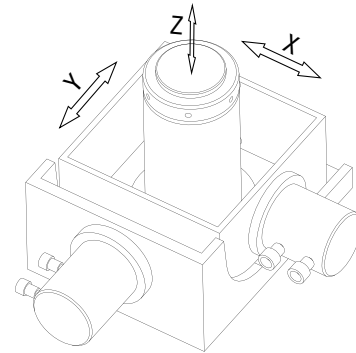
Model	Sync points	Rated pressure (MPa)	Rated flow (L/min)		Oil tank (L)	Power (380V 50Hz)	Dimension (mm)	Weight (KG)
			70MPa	6MPa				
FMCS02	2	70	2X1.13	2X6	100	1.5KW	1050*870*1080	125
FMCS04	4	70	4X1.13	4X6	100	1.5KW	1050*870*1080	125
FMCS08	8	70	8X1.13	8X6	100	1.5KW	1050*870*1080	125
FMCS12	12	70	12X1.13	12X6	100	1.5KW	1050*870*1080	125
FMCS16	16	70	16X1.13	16X6	100	1.5KW	1050*870*1080	125
FMCS20	20	70	20X1.13	20X6	100	1.5KW	1050*870*1080	125
FMCS24	24	70	24X1.13	24X6	100	1.5KW	1050*870*1080	150

System connection schematic

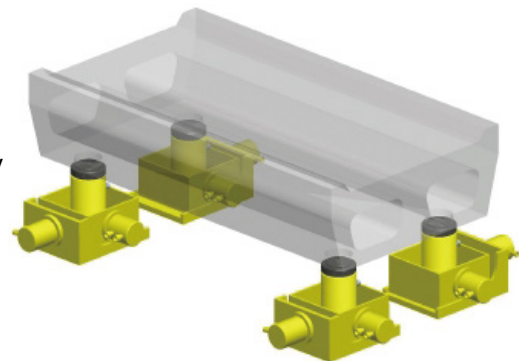


3DCS series three dimensional lifting system

This system is mainly used for low height short distance vertical displacement (Y), horizontal displacement (X) and longitudinal displacement (Z) in the fields of hull welding, railway bridge, highway bridge or similar beam type heavy load. The sliding friction pairs are made of cylinder base, stainless slide plate of vertical cylinder base and PTFE plate at the bottom of vertical cylinder base, low friction coefficient and stable movement.



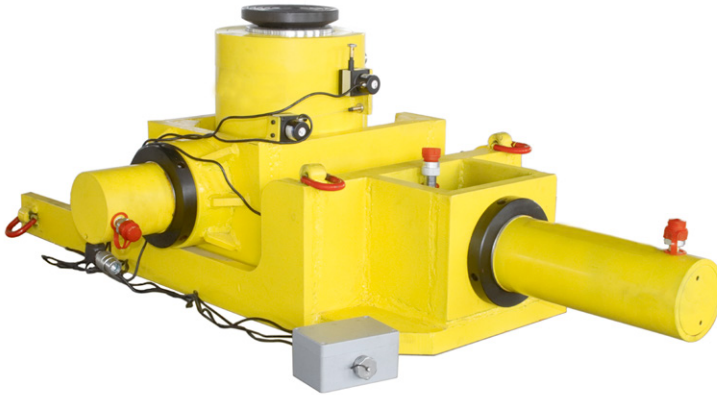
- Large loading capacity, capable of working for 100 ton to 6000 ton heavy load.
- High precision up to 0.5mm, synchronous lifting and lowering are under control.
- Flexible control according to working condition, cylinder capacity and number, precision etc.
- Each control point is independent, able to control one or several of them separately.
- Module design, able to control 4, 8, 12 and 16 points, up to 99 points for online control.
- With data storage and recording function, easy to generate a report.
- Simple human interface, easy operation, high level of automation.



Technical parameters

Model	Direction	Capacity (T)	Rated pressure (MPa)	Stroke (mm)	Effective area (cm ²)	Oil capacity (cm ³)	Weight (KG)
3DCS100	Y	100	70	200	132.7	2655	312
	X	30		100	42.1	400	
	Z	30		100	42.1	400	
3DCS200	Y	200	70	200	256.9	5318	519
	X	50		100	77	770	
	Z	50		100	77	770	
3DCS300	Y	300	70	200	456.2	9124	738
	X	75		100	102.6	1067	
	Z	75		100	102.6	1067	
3DCS500	Y	500	70	200	730.6	14612	1904
	X	150		100	198.6	1986	
	Z	150		100	198.6	1986	
3DCS800	Y	800	70	200	1176.3	23524	3858
	X	200		100	256.9	2660	
	Z	200		100	256.9	2660	
3DCS1000	Y	1000	70	200	1465.7	29316	5366
	X	300		100	456.2	4562	
	Z	300		100	456.2	4562	

Intelligent walking type lifting and pushing system



Walking type lifting and pushing cylinder is a professional adjusting equipment which is designed for 3D accurate positioning of large machinery. It can be used for multi pivots displacement control of railway, bridge or similar situations, to achieve accurate positioning of X axis adjustment, Y axis pushing and Z axis lifting. It has the features of high lifting load, high accuracy, easy operation and high level of automation.

Technical parameters

Model	Direction	Capacity (T)	Stroke (mm)	Rated pressure (MPa)	Effective area (cm ²)	Weight (KG)
3DCS-100W	Y	300	200	70	452	710
	X	50	100		78.5	
	Z	50	500		78.5	
3DCS-200W	Y	600	200	70	855	1280
	X	100	100		132.7	
	Z	100	500		132.7	

Application



Features

1. Specially designed for heavy duty components like bridge.
2. Computer controlled displacements of 3 directions, it can achieve X axis adjustment, Y axis pushing and Z axis lifting automatically.
3. Real time displacement and pressure monitoring, displacement synchronization accuracy is within 2mm.
4. Touch screen, friendly user interface, easy operation.
5. Standard module connection and communication cables connection, easy to manage on site.
6. Single hydraulic pump can match four sets walking type systems at most.
7. Use the combination of several hydraulic pumps and walking type systems, and portable electrical operation control device to achieve mu pivots lifting and pushing of long span heavy duty components.



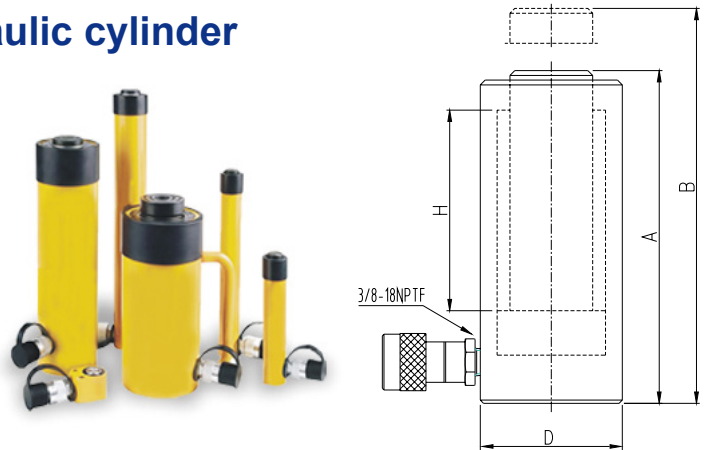
Technical parameters

Sync points	Model	Rated pressure (MPa)	Rated flow (L/min)		
2	3DCS-S2	70	2	4	2
4	3DCS-S4	70	2	8	2



RC series single acting hydraulic cylinder

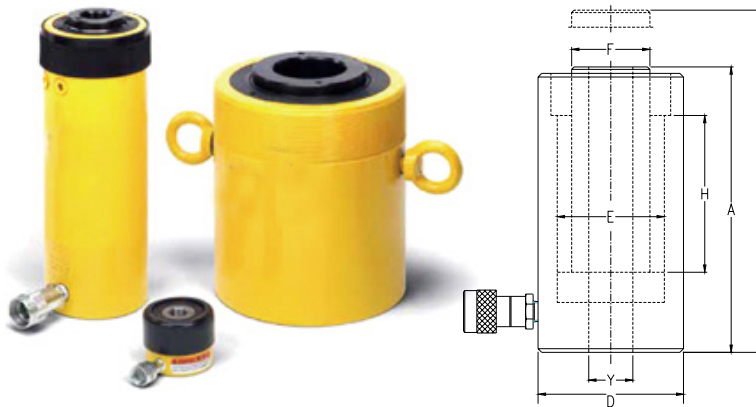
- Hard chrome plating piston, to avoid scratch and corrosion.
- Anti-corrosion painted surface.
- Dustproof ring extends the service life.
- Single acting, spring return



Technical parameters

Capacity ton(KN)	Stroke H(mm)	Model	Effective area (mm ²)	Oil capacity (mm ³)	Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Weight (kg)
5 (45)	16	RC05-16	6.5	10	41	57	38	1
	25	RC05-25		16	110	135		1.2
	76	RC05-76		50	165	241		1.5
	127	RC05-127		83	215	342		1.9
	177	RC05-177		115	273	450		2.4
	232	RC05-232		151	323	555		2.8
10 (101)	26	RC10-26	14.5	38	89	115	57	1.8
	54	RC10-54		78	121	175		2.3
	105	RC10-105		152	171	276		3.3
	156	RC10-156		226	247	403		4.4
	203	RC10-203		294	298	501		5.4
	257	RC10-257		373	349	606		6.4
	304	RC10-304		441	400	704		6.8
15 (142)	25	RC15-25	20.3	51	124	149	69	3.3
	51	RC15-51		104	149	200		4.1
	101	RC15-101		205	200	301		5
	152	RC15-152		308	271	423		6.8
	203	RC15-203		411	322	525		8.2
	254	RC15-254		516	373	627		9.5
	305	RC15-305		619	423	728		10.9
	356	RC15-356		723	474	830		11.8
25 (232)	26	RC25-26	33.2	86	139	165	85	5.9
	50	RC25-50		166	165	215		6.4
	102	RC25-102		339	215	317		8.2
	158	RC25-158		525	273	431		10
	210	RC25-210		697	323	533		12.2
	261	RC25-261		867	374	635		14.1
	311	RC25-311		1033	425	736		16.3
	362	RC25-362		1202	476	838		17.7
30 (295)	209	RC30-209	42.1	880	387	596	101	18.1
50 (498)	51	RC50-51	71.2	362	176	227	127	15
	101	RC50-101		719	227	328		19.1
	159	RC50-159		1131	282	441		23.1
	337	RC50-337		2399	460	797		37.6
75 (718)	156	RC75-156	102.6	1601	285	441	146	29.5
	333	RC75-333		3417	492	825		59
100 (933)	168	RC100-168	133.3	2239	357	525	177	59
	260	RC100-260		3466	449	709		72.6

RCH series single acting hollow cylinder

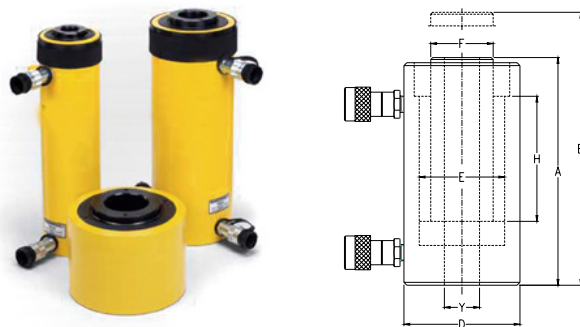


- Single acting, spring return.
- Anti-corrosion painted surface.
- Equipped with 3/8 NPT coupler and protection cap.
- Hard chrome plating piston, to avoid scratch and corrosion.

Technical parameters

Capacity ton(KN)	Stroke H(mm)	Model	Effective area (cm ²)	Oil capacity (cm ³)	Collapsed height (Amm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Hole diameter Y(mm)	Weight kg
13(125)	8	RCH13-8	17.9	14	55	63	69	54	35.1	19.6	1.5
	42	RCH13-42	17.9	75	120	162	69	54	35.1	19.6	2.8
	76	RCH13-76	17.9	136	184	260	69	54	35.1	19.6	4.4
20(215)	49	RCH20-49	30.7	150	162	211	98	73	54.1	26.9	7.7
	155	RCH20-55	30.7	476	306	461	98	73	54.1	26.9	14.1
30(326)	64	RCH30-64	46.6	298	178	242	114	89	63.5	33.3	10.9
	155	RCH30-155	46.6	722	330	485	114	89	63.5	33.3	21.8
60(576)	76	RCH60-76	82.3	626	247	323	159	124	91.9	53.8	28.1
	153	RCH60-153	82.3	1259	323	476	159	124	91.9	53.8	35.4
100(931)	76	RCH100-76	133.0	1011	254	330	212	165	127.0	79	63.0

RRH series double acting hollow cylinder



- Hollow plunger design, applicable to pushing or pulling.
- Anti-corrosion painted surface.
- Equipped with 3/8 NPT coupler and protection cap.
- Longer stroke can be customized as request.

Technical parameters

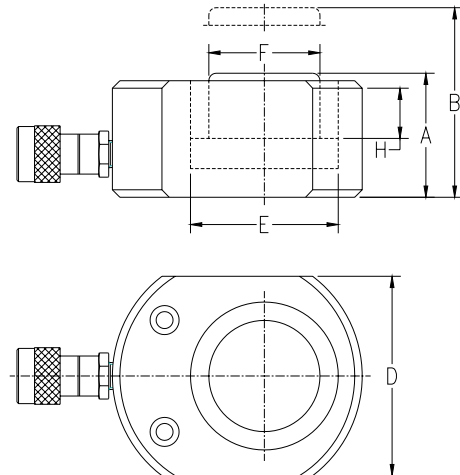
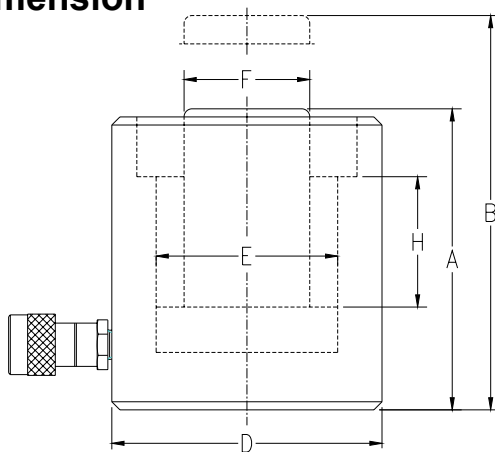
Capacity ton(KN)	Stroke H(mm)	Model	Cylinder max capacity(KN)		Effective area (cm ²)		Oil capacity (cm ³)		Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Hole diameter Y(mm)	Weight kg
			Advance	Retract	Advance	Retract	Advance	Retract							
30	178	RRH30-178	326	213	46.6	30.4	829	541	330	508	114	89	65	33.3	21
	258	RRH30-258	326	213	46.6	30.4	1202	784	431	689	114	89	65	33.3	27
60	89	RRH60-89	576	380	82.3	54.2	733	482	247	336	159	124	92	53.8	28
	166	RRH60-166	576	380	82.3	54.2	1366	900	323	489	159	124	92	53.8	35
	257	RRH60-257	576	380	82.3	54.2	2115	1393	438	695	159	124	92	53.8	45
100	38	RRH100-38	931	612	133	87.4	505	333	165	203	212	165	127	79.2	33
	76	RRH100-76	931	612	133	87.4	1011	666	254	330	212	165	127	79.2	61
	153	RRH100-153	931	612	133	87.4	2035	1337	342	495	212	165	127	79.2	79
	257	RRH100-257	931	612	133	87.4	3402	2246	460	717	212	165	127	79.2	106
150	76	RRH150-76	1429	718	204.1	102.6	4144	2083	349	552	247	190	152	79.2	111

RSM/RCS series Thin hydraulic cylinder



- Compact flat design, suitable for limited space operation.
- Hard chrome plating piston, to avoid scratch and corrosion.
- Anti-corrosion painted surface.
- Dustproof ring extends the service life.
- Spring return piston is optional.

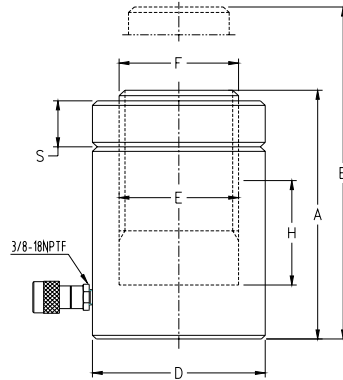
Dimension



Technical parameters

Capacity ton(KN)	Stroke H(mm)	Model	Effective area (cm ²)	Oil capacity (cm ³)	Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Weight (Kg)
5(45)	6	RSM5-6	6.5	4	32	38	58×41	28.7	19.5	1.0
10(101)	12	RSM10-12	14.5	18	42	54	82×55	42.9	21.5	1.4
20(201)	11	RSM20-11	28.7	32	51	62	101×76	60.5	27.5	3.1
30(295)	13	RSM30-13	42.1	55	58	71	117×95	73.2	39.5	4.5
50(435)	16	RSM50-16	62.2	99	66	82	140×114	89	44.5	6.8
75(714)	16	RSM75-16	102	164	79	95	165×139	114	62	11.3
100(886)	16	RSM100-16	126.6	203	85	101	178×153	127	65	14.5
150(1386)	16	RSM150-16	198.1	317	100	116	215×190	159	80	26.3
10(101)	38	RCS10-38	14.5	55	88	126	69	42.9	38.1	4.1
20(201)	45	RCS20-45	28.7	129	98	143	92	60.5	50.8	5.0
30(295)	62	RCS30-62	42.1	261	117	179	101	73.2	66.5	6.8
50(435)	60	RCS50-60	62.2	373	122	182	124	89	69.8	10.9
100(886)	57	RCS100-57	126.6	722	141	198	165	127	92.2	22.7

CLL series single acting lock nut cylinder

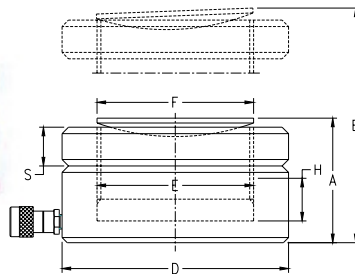
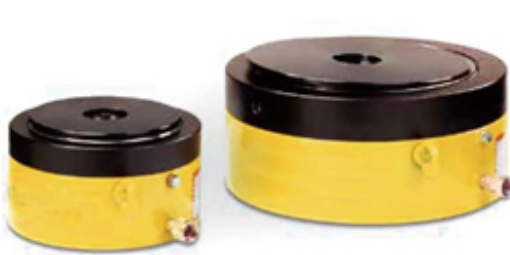


- Single acting, load return.
- Lock nut type, suitable for long time work.
- Overflow hole also has stroke limiting function.
- Cylinder can bear 5% lateral load.

Technical parameters

Capacity ton(KN)	Stroke H(mm)	Model	Effective area cm ²	Oil capacity cm ³	Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Nut height S(mm)	Weight (kg)
50 (496)	50	CLL50-50	70.9	355	164	214	125	95	Tr95×4	38	15
	100	CLL50-100	70.9	709	214	314	125	95	Tr95×4	38	20
	150	CLL50-150	70.9	1064	264	414	125	95	Tr95×4	38	25
	200	CLL50-200	70.9	1418	314	514	125	95	Tr95×4	38	30
	250	CLL50-250	70.9	1773	364	614	125	95	Tr95×4	38	35
100 (929)	300	CLL50-300	70.9	2127	414	714	125	95	Tr95×4	38	40
	50	CLL100-50	132.7	664	187	237	165	130	Tr130×6	45	30
	100	CLL100-100	132.7	1327	237	337	165	130	Tr130×6	45	39
	150	CLL100-150	132.7	1991	287	437	165	130	Tr130×6	45	48
	200	CLL100-200	132.7	2654	337	537	165	130	Tr130×6	45	56
150 (1406)	250	CLL100-250	132.7	3318	387	637	165	130	Tr130×6	45	64
	300	CLL100-300	132.7	3981	437	737	165	130	Tr130×6	45	73
	50	CLL150-50	200.9	1005	209	259	207	160	Tr160×6	47	53
	100	CLL150-100	200.9	2010	259	359	207	160	Tr160×6	47	66
	150	CLL150-150	200.9	3014	309	459	207	160	Tr160×6	47	78
200 (1880)	200	CLL150-200	200.9	4019	359	559	207	160	Tr160×6	47	92
	250	CLL150-250	200.9	5024	409	659	207	160	Tr160×6	47	104
	300	CLL150-300	200.9	6029	459	759	207	160	Tr160×6	47	117
	50	CLL200-50	268.6	1343	243	293	237	185	Tr185×6	52	83
	100	CLL200-100	268.6	2687	293	393	237	185	Tr185×6	52	98
250 (2540)	150	CLL200-150	268.6	4030	343	493	237	185	Tr185×6	52	117
	300	CLL200-300	268.6	8060	493	793	237	185	Tr185×6	52	170
	50	CLL250-50	362.8	1814	249	299	275	215	Tr215×6	58	116
	100	CLL250-100	362.8	3629	299	399	275	215	Tr215×6	58	135
	150	CLL250-150	362.8	5443	349	499	275	215	Tr215×6	58	162
300 (3165)	300	CLL250-300	362.8	10886	499	799	275	215	Tr215×6	58	234
	50	CLL300-50	452.2	2261	295	345	310	240	Tr240×6	65	173
	100	CLL300-100	452.2	4522	345	445	310	240	Tr240×6	65	203
	150	CLL300-150	452.2	6782	395	545	310	240	Tr240×6	65	233
	300	CLL300-300	452.2	13565	545	845	310	240	Tr240×6	65	323
400 (3859)	50	CLL400-50	551.2	2756	335	385	350	265	Tr265×6	75	250
	100	CLL400-100	551.2	5513	385	485	350	265	Tr265×6	75	225
	150	CLL400-150	551.2	8269	435	585	350	265	Tr265×6	75	327
	300	CLL400-300	551.2	16538	585	885	350	265	Tr265×6	75	441
	500 (5118)	50	CLL500-50	731.1	3653	375	725	400	305	Tr305×6	85
100		CLL500-100	731.1	7302	425	825	400	305	Tr305×6	85	415
150		CLL500-150	731.1	10959	475	925	400	305	Tr305×6	85	466
300		CLL500-300	731.1	20930	625	1225	400	305	Tr305×6	85	617
600 (5984)		50	CLL600-50	854.8	4277	395	445	430	330	Tr330×6	95
	100	CLL600-100	854.8	8554	445	545	430	330	Tr330×6	95	505
	150	CLL600-150	854.8	12830	495	645	430	330	Tr330×6	95	562
	300	CLL600-300	854.8	25650	645	945	430	330	Tr330×6	95	737
	800 (8145)	50	CLL800-50	1163.5	5818	455	505	505	385	Tr385×6	105
100		CLL800-100	1163.5	11636	505	605	505	385	Tr385×6	105	789
150		CLL800-150	1163.5	17453	555	705	505	385	Tr385×6	105	870
300		CLL800-300	1163.5	34907	705	1005	505	385	Tr385×6	105	1110
1000 (10160)		50	CLL1000-50	1451.4	7257	495	545	560	430	Tr430×6	118
	150	CLL1000-150	1451.4	21772	595	745	560	430	Tr430×6	118	1141
	300	CLL1000-300	1451.4	73544	745	1045	560	430	Tr430×6	118	1430

CLP series thin lock nut hydraulic cylinder

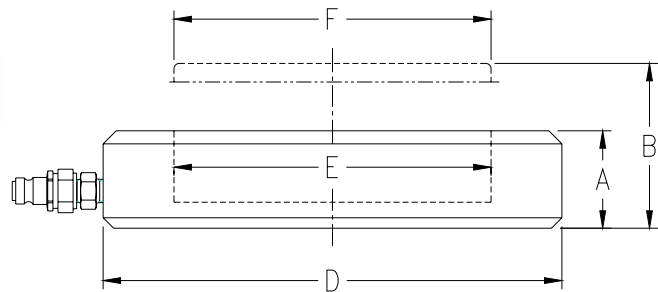


- Compact structure.
- Hard chrome plating piston, to avoid scratch and corrosion.
- Safe lock nut design, suitable for mechanical load support.
- Capable of bearing unbalance loading up to 3% of rated load, no crushing damage.

Technical parameters

Capacity ton(kN)	Stroke H(mm)	Model	Effective area (cm ²)	Oil capacity (cm ³)	Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Nut height S(mm)	Weight kg
50(606)	50	CLP50	86.6	432	125	175	140	105	Tr105×4	30	15
100(1001)	50	CLP100	143.1	715	137	187	175	135	Tr135×6	32	26
150(1588)	45	CLP150	226.8	1021	148	193	220	170	Tr170×6	42	44
200(2198)	45	CLP200	283.4	1275	155	200	245	190	Tr190×6	44	57
250(2540)	45	CLP250	362.9	1633	159	204	275	215	Tr215×6	46	74
400(3858)	45	CLP400	551.3	2481	178	223	350	265	Tr265×6	58	134
500(5111)	45	CLP500	730.2	3286	192	237	400	305	Tr305×6	65	189

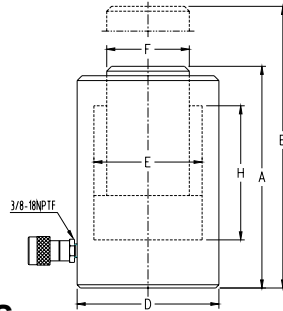
RTC series extra-high pressure thin jack



Technical parameters

Capacity ton(KN)	Stroke H(mm)	Model	Effective area (cm ²)	Oil capacity (cm ³)	Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Return	Weight kg
5	10	RTC05	3.46	34.6	30	35	60	21	Load return	0.67
10	10	RTC10	7.07	70.7	30	40	70	30	Load return	0.9
25	10	RTC25	17.34	173.4	30	40	90	47	Load return	1.49
50	10	RTC50	38.46	384.6	30	40	118	70	Load return	2.43
100	10	RTC100	69.36	693.6	33	43	152	94	Load return	3.81
150	10	RTC150	105.63	1056.3	34	44	180	116	Load return	5.88
200	10	RTC200	136.79	1367.9	35	45	204	132	Load return	8.15

DS series single acting high tonnage hydraulic cylinder

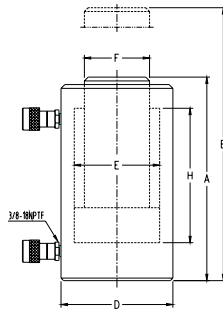


- Single acting, load return.
- Hard chrome plating piston, to avoid scratch and corrosion.
- Anti-corrosion painted surface.
- Dustproof ring extends the service life.
- Cylinder can bear 5% lateral load.

Technical parameters

Capacity ton(KN)	Stroke	Model	Effective area cm ²	Oil capacity cm ³	Collapsed height	Extended height	Outside diameter	Bore diameter	Plunger diameter	Weight
	H(mm)				A(mm)	B(mm)	D(mm)	E(mm)	F(mm)	kg
50	50	DS50-50	78.5	392.5	162	212	140	100	70	17
	100	DS50-100	78.5	785	212	312	140	100	70	21
	150	DS50-150	78.5	1177.5	262	412	140	100	70	27
	200	DS50-200	78.5	1570	312	512	140	100	70	32
	250	DS50-250	78.5	1962.5	362	612	140	100	70	36
100	300	DS50-300	78.5	2355	412	712	140	100	70	39
	50	DS100-50	153.9	769	182	232	180	140	100	32
	100	DS100-100	153.9	1539	232	332	180	140	100	40
	150	DS100-150	153.9	2308	282	432	180	140	100	48
	200	DS100-200	153.9	3077	332	532	180	140	100	56
150	250	DS100-250	153.9	3846	382	632	180	140	100	64
	300	DS100-300	153.9	4615	432	732	180	140	100	72
	50	DS150-50	201	1005	196	246	216	160	115	42
	100	DS150-100	201	2010	246	346	216	160	115	52
	150	DS150-150	201	3014	296	446	216	160	115	62
200	200	DS150-200	201	4019	346	546	216	160	115	72
	250	DS150-250	201	5024	396	646	216	160	115	72
	300	DS150-300	201	6029	446	746	216	160	115	91
	50	DS200-50	314	1570	216	266	268	200	150	62
	150	DS200-150	314	4710	316	466	268	200	150	92
250	200	DS200-200	314	6280	366	566	268	200	150	107
	300	DS200-300	314	9420	466	766	268	200	150	137
	100	DS250-100	363	3629	265	365	285	215	165	123
300	150	DS250-150	363	5443	335	485	285	215	165	141
	200	DS250-200	363	7257	385	585	285	215	165	159
	300	DS250-300	363	10886	485	785	285	215	165	195
400	100	DS300-100	452	4522	362	462	320	240	190	237
	150	DS300-150	452	6782	412	562	320	240	190	261
	200	DS300-200	452	9043	462	662	320	240	190	285
	300	DS300-300	452	13564	562	862	320	240	190	333
500	100	DS400-100	572	5723	425	525	367	270	220	293
	150	DS400-150	572	8584	475	625	367	270	220	332
	200	DS400-200	572	11445	525	725	367	270	220	362
	300	DS400-300	572	17168	625	925	367	270	220	421
600	100	DS500-100	707	7065	469	569	400	300	240	316
	150	DS500-150	707	10597	519	669	400	300	240	480
	200	DS500-200	707	14130	569	869	400	300	240	433
	300	DS500-300	707	21195	669	969	400	300	240	599
	500	DS500-500	707	35325	869	1369	400	300	240	782
800	100	DS600-100	855	8548	479	549	445	330	270	791
	150	DS600-150	855	12823	529	679	445	330	270	565
	200	DS600-200	855	17097	579	779	445	330	270	637
	300	DS600-300	855	25646	679	979	445	330	270	701
	500	DS600-500	855	42723	879	1379	445	330	270	815
1000	100	DS800-100	1194	11940	524	624	550	390	320	766
	150	DS800-150	1194	17910	574	724	550	390	320	868
	200	DS800-200	1194	23880	624	824	550	390	320	996
	300	DS800-300	1194	35820	724	1024	550	390	320	1058
	500	DS800-500	1194	59699	924	1424	550	390	320	1274
1000	100	DS1000-100	1451	14515	614	714	600	430	350	1022
	150	DS1000-150	1451	21772	664	814	600	430	350	1194
	200	DS1000-200	1451	29029	714	914	600	430	350	1267
	300	DS1000-300	1451	43544	814	1114	600	430	350	1486

DQ series double acting high tonnage hydraulic cylinder



- Double acting, hydraulic return, applicable for pushing and pulling.
- Hard chrome plating piston, to avoid scratch and corrosion.
- Anti-corrosion painted surface.
- Capable of bearing unbalance loading up to 5% of rated load, no crushing damage.
- Equipped with 3/8 NPT coupler and protection cap.

Capacity ton(KN)	Stroke H(mm)	Model	Effective area		Oil capacity		Collapsed height A(mm)	Extended height B(mm)	Outside diameter D(mm)	Bore diameter E(mm)	Plunger diameter F(mm)	Weight kg
			Advance cm2	Retract cm2	Advance cm3	Retract cm3						
50	50	DQ50 -50	78.5	40	392.5	200	193	243	140	100	70	18
	100	DQ50 -100	78.5	40	785	400	243	343	140	100	70	23
	150	DQ50 -150	78.5	40	1177.5	600	293	443	140	100	70	28
	200	DQ50 -200	78.5	40	1570	800	343	543	140	100	70	33
	250	DQ50 -250	78.5	40	1962.5	1000	393	643	140	100	70	38
	300	DQ50 -300	78.5	40	2355	1200	443	743	140	100	70	42
100	50	DQ100 -50	153.9	75.4	769	377	208	258	180	140	100	34
	100	DQ100 -100	153.9	75.4	1539	754	258	358	180	140	100	42
	150	DQ100 -150	153.9	75.4	2308	1131	308	458	180	140	100	50
	200	DQ100 -200	153.9	75.4	3077	1508	358	558	180	140	100	58
	250	DQ100 -250	153.9	75.4	3846	1885	408	658	180	140	100	66
	300	DQ100 -300	153.9	75.4	4615	2262	458	758	180	140	100	74
150	50	DQ150 -50	201	97.1	1005	486	237	287	216	160	115	47
	100	DQ150 -100	201	97.1	2010	971	287	337	216	160	115	57
	150	DQ150 -150	201	97.1	3014	1457	337	387	216	160	115	67
	200	DQ150 -200	201	97.1	4019	1943	387	437	216	160	115	77
	250	DQ150 -250	201	97.1	5024	2429	437	487	216	160	115	87
	300	DQ150 -300	201	97.1	6029	2914	487	537	216	160	115	97
200	50	DQ200 -50	314	137.4	1570	687	265	315	268	200	150	82
	150	DQ200 -150	314	137.4	4710	2061	365	515	268	200	150	112
	200	DQ200 -200	314	137.4	6280	2748	415	615	268	200	150	127
	300	DQ200 -300	314	137.4	9420	4122	515	815	268	200	150	157
	100	DQ250 -100	363	149	3629	1619	323	423	285	215	165	123
	150	DQ250 -150	363	149	5443	2429	373	523	285	215	165	141
250	200	DQ250 -200	363	149	7257	3238	423	623	285	215	165	159
	300	DQ250 -300	363	149	10886	4857	523	823	285	215	165	195
	100	DQ300 -100	452	168.8	4522	1687	345	445	320	240	190	237
	150	DQ300 -150	452	168.8	6782	2531	395	545	320	240	190	261
	200	DQ300 -200	452	168.8	9043	3375	445	645	320	240	190	285
	300	DQ300 -300	452	168.8	13564	5063	545	845	320	240	190	333
400	100	DQ400 -100	572	192	5723	1923	427	527	367	270	220	310
	150	DQ400 -150	572	192	8584	2885	477	627	367	270	220	342
	200	DQ400 -200	572	192	11445	3847	527	727	367	270	220	374
	300	DQ400 -300	572	192	17168	5770	627	927	367	270	220	438
	100	DQ500 -100	707	254	7065	2543	474	574	400	300	240	433
	150	DQ500 -150	707	254	10597	3815	524	674	400	300	240	478
500	200	DQ500 -200	707	254	14130	5087	574	774	400	300	240	521
	300	DQ500 -300	707	254	21195	7630	674	974	400	300	240	613
	500	DQ500 -500	707	254	35325	12717	874	1374	400	300	240	792
	100	DQ600 -100	855	283	8548	2826	484	584	445	330	270	550
	150	DQ600 -150	855	283	12823	4239	534	684	445	330	270	601
	200	DQ600 -200	855	283	17097	5652	584	784	445	330	270	668
600	300	DQ600 -300	855	283	25646	8478	684	984	445	330	270	711
	500	DQ600 -500	855	283	42723	14130	884	1384	445	330	270	904
	100	DQ800 -100	1194	390	11940	3901	539	639	550	390	320	872
	150	DQ800 -150	1194	390	17910	5852	589	739	550	390	320	988
	200	DQ800 -200	1194	390	23880	7803	639	839	550	390	320	1092
	300	DQ800 -300	1194	390	35820	11704	739	1039	550	390	320	1176
800	500	DQ800 -500	1194	390	59699	19507	939	1439	550	390	320	1355
	100	DQ1000 -100	1451	490	14515	4898	614	714	600	430	350	1105
	150	DQ1000 -150	1451	490	21772	7348	664	814	600	430	350	1210
	200	DQ1000 -200	1451	490	29029	9797	714	914	600	430	350	1315
	300	DQ1000 -300	1451	490	43544	14695	814	1114	600	430	350	1528
	100	DQ1500 -100	2205	949	22050	9491	835	935	790	530	400	3070
1500	200	DQ1500 -200	2205	949	44101	18981	935	1135	790	530	400	3550
	300	DQ1500 -300	2205	949	66151	28472	1035	1335	790	530	400	3940
	500	DQ1500 -500	2205	949	110252	47453	1235	1735	790	530	400	5450
	100	DQ2000 -100	2921	11123	29210	11124	953	1053	910	610	480	4790
	200	DQ2000 -200	2921	11123	58420	22247	1053	1253	910	610	480	5210
	300	DQ2000 -300	2921	11123	87630	33371	1153	1453	910	610	480	5715
2000	500	DQ2000 -500	2921	11123	146050	55618	1353	1853	910	610	480	7820

Accessories



Common unit conversion

Torque

1Nm=0.737Ft.lb

1Ft.lb=1.356Nm

1kgm=7.233Ft.lb=9.8Nm

Weight

1Ton=9.8KN 1KN=0.102Ton

1N=0.102Kg 1Kg=9.8N

1Kg=2.204lb=9.8N

Length

1mm=0.039in 1in=25.4mm

1m=3.281Ft 1Ft=0.305m

Pressure

1MPa=1N/mm² 1MPa=10.2kg/cm²

1MPa=10bar 1MPa=145psi

1bar=14.5psi 1psi=0.069bar

Force

1Kg=2.2046lb

1lb=0.4536kg

1Ton=1000Kg

1KN=0.102Ton

Power

1HP=0.746KW

1KW=1.34HP

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