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MXTD 系列 - 驱动扭矩扳手

MXTD series-drive torque wrench



- ✧ 航空铝钛合金材料。一体式设计保证了其广泛的适用性。
Aircraft aluminum titanium alloy and integrated design ensure its wide applicability.
- ✧ 最大工作压力为 70MPa。采用先进的精密棘轮驱动，输出扭矩重复精度高达 $\pm 3\%$ 。
The maximum working pressure is 70MPa, with advanced precision ratchet drive, the output torque repeatability is as high as $\pm 3\%$.
- ✧ $360^\circ \times 180^\circ$ 可旋转油管接头，使用范围广。
 $360^\circ \times 180^\circ$ rotatable oil pipe joint, wide range of use.
- ✧ 扳机式锁扣可将 360° 微调式反力臂放置在任何支点上。
The trigger button can place the 360° fine-tuning reaction arm on any point.
- ✧ 直推式驱动轴设计，能够快速切换拧紧和拆卸状态。
The design of the direct drive shaft can quickly switch the tightening and dismantling state.
- ✧ 锁扣式驱动轴可根据客户要求定做。
Lock drive shaft can be customized according to customer requirements.
- ✧ 扭矩从 185 到 150000Nm 共 12 个型号，规格最全，螺栓覆盖最广的产品。
The torque from 185 to 150000Nm has 12 models, the most complete specifications, and the most widely covered products.

MXTD 系列是巨邦公司着力投放国际市场的一款专业级别的液压扭矩扳手。铝钛合金的航空材料制造，重量轻，强度高；MXTD 系列扭矩扳手规格齐全，从 185-70315N 共 11 个标准型号，并且最大扭矩可延伸至 150000Nm；螺栓涵盖范围广，体现出巨邦公司多年从事螺栓紧固服务的扎实基础与专业精神。

The MXTD series is a professional hydraulic torque wrench designed by JUBANG company. Aircraft aluminum titanium alloy precision material, light weight, high strength, MXTD series torque wrench covers from 185-70315Nm altogether 11 standard models, and the maximum torque can be extended to 150,000 Nm. It covers a wide range, reflecting JUBANG company for many years engaged in bolt fastening service solid foundation and professional spirit.

细节描述

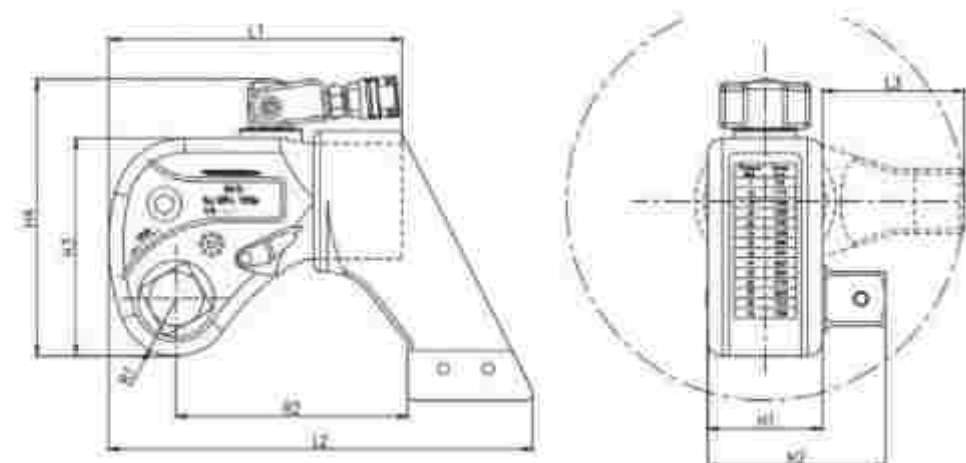


MXTD 系列 - 驱动扭矩扳手

MXTD series-drive torque wrench

外型尺寸

Outer size



MXTD 系列液压扭矩扳手选型表

Type selection table of MXTD series hydraulic torque wrench

型号 Model	18KTD	38KTD	58KTD	88KTD	108KTD	158KTD	208KTD	258KTD	358KTD	458KTD	508KTD	958KTD
扭矩 (Nm) Torque	185	435	779	1072	1553	2050	2617	3493	4963	5912	7032	14085
重量 (Kg) Weight	2.7	4.8	6.6	12	14.5	19	25	37.5	44	63	89	155
L1	138	168	207	226	250	281	304	331	390	412	418	520
L2	194	244	296	326	366	402	442	483	558	570	596	758
L3	63	79	99	110	120	122	146	158	177	188	195	246
H1	50	70	80	90	100	112	120	138	150	163	166	210
H2	73	99	124	133	143	165	183	202	219	229	236	307
H3	96	125	152	170	186	208	226	250	282	288	300	415
H4	140	165	193	211	227	249	267	291	323	332	366	473
H5	26	34	40	46	50	55	60	66	77	80	82	115
H2	107	132	162	178	199	218	240	260	298	303	325	400
方榫 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"

特别注意:

Particular attention:

产品的选型依据螺栓规格及拆卸扭矩而定，扭矩值会因螺栓直径、材质、工况及设备制造厂要求而有所不同。

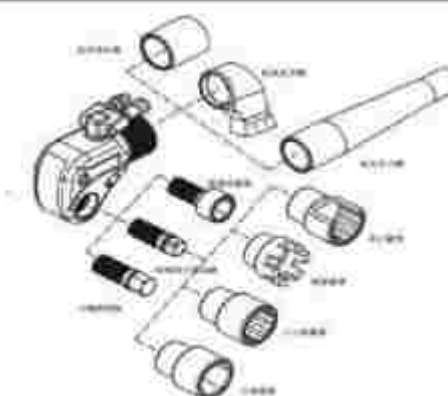
The selection of products depends on bolt tightening and dismantling torque values, which vary according to bolt diameter, material, operating conditions and equipment manufacturer requirements.

表中参数的变更，恕不另行通知。

The parameters of the table are subject to any change without notice.

可根据需要定制特殊规格的驱动轴及反作用力臂。

Custom specifications of driving shaft and reaction arm can be customized according to need.



KLCD 系列 - 中空扭矩扳手 KLCD Series-hollow torque wrench

- ✧ 航空铝钛合金材料，一体成型机身高强度、高韧性。
Aerospace aluminum titanium alloy, integrated molding body, high strength, high toughness.
- ✧ 精准的止回犁子结构，克服螺栓扭转向弹导致工具逆转现象。
Precision check button structure to overcome the reverse phenomenon caused by bolt torsion springback.
- ✧ 360° x 180° 可旋转油管接头，无使用空间限制，一体式加长设计，力臂更长，更轻便。
360° x 180° Rotatable tubing joint, no space restriction, integrated lengthening design, longer force arm, more portable.
- ✧ 工作头与反力支点同轴，完善的受力结构设计，提高使用寿命。
The working head and the reaction fulcrum are coaxial, and the perfect force structure design improves the service life.
- ✧ 扭矩恒定输出，扭矩重复精度 ±3%。
Torque constant output, torque repeatability accuracy ±3%.
- ✧ 可以更换的多种工作头，反力臂也可根据现场空间定制。
A variety of working heads can be replaced, and the reaction arm can also be customized according to the site space.

油管旋转接头 360° X 270°，操作自由，无空间使用限制。
Hose rotary joint 360° X 270° designed, free operation, no restriction on space use.

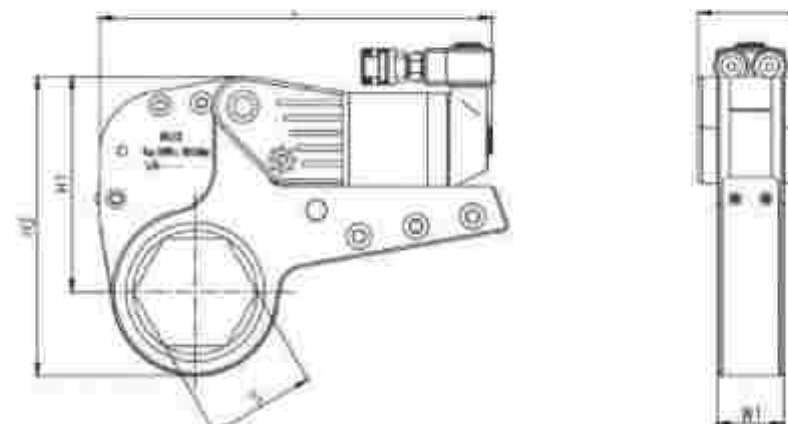
止退棘爪设计，克服扳手棘轮逆转，提高工作效率及扭矩精度。
The check pawl is designed to overcome the backlash of the wrench, improving work efficiency and torque accuracy.

一体式加长设计，支撑力臂更长，可靠性更高。
The integral lengthening design has longer supporting force arm and higher reliability.

中空设计，扳手直接作用于螺母，扭矩更准，使用更便捷。
Hollow design, wrench directly acting on nut, more accurate torque, more convenient to use.

KLCD 系列 - 中空扭矩扳手 KLCD Series-hollow torque wrench

外型尺寸 Outer size



KLCD 系列液压扭矩扳手选型表 Type selection table of KLCD series hydraulic torque wrench

型号 Model	2KLCD	3KLCD	4KLCD	6KLCD	14KLCD	16KLCD	20KLCD	30KLCD	40KLCD	45KLCD	60KLCD
扭矩 Torque Nm	227 2370	345 3446	546 5458	1055 10550	1846 18484	2481 24614	2909 29089	4231 42311	5209 52088	6057 60566	8415 84150
螺母范围 Nuts Range S	30-55	35-60	40-80	70-105	80-115	85-120	90-130	95-145	120-145	130-155	135-180
动力头重量 Weight of Power Head Kg	0.8	0.8	1.9	4.2	6.8	8.1	10.6	12.7	15.2	16.3	23
工作头重量 Weight of Working Head Kg	1.5	1.7	3.6	7.6	12.2	19.3	22.3	32.3	47.5	50.7	75
L	192	218	266	324	382	404	427	479	479	486	514
H1	106	118	139	171	206	229	240	268	286	311	336
H2	147	166	167	198	231	255	265	289	302	352	375
W1	32	32	42	53	64	68	70	85	98	106	117
W2	50	50	66	83	99	105	110	132	148	160	177

选择变径套筒，见第 11 页。
Select diameter sleeve, see page 11.

特别注意：
Particular attention:

产品的选取依据螺栓规格及拆卸扭矩值而定，扭矩值会因螺栓直径、材质、工況及设备制造商要求而有所不同。
The selection of products depends on bolt specification and disassembly torque value, which may vary according to bolt diameter, material, operating conditions and equipment manufacturer requirements.

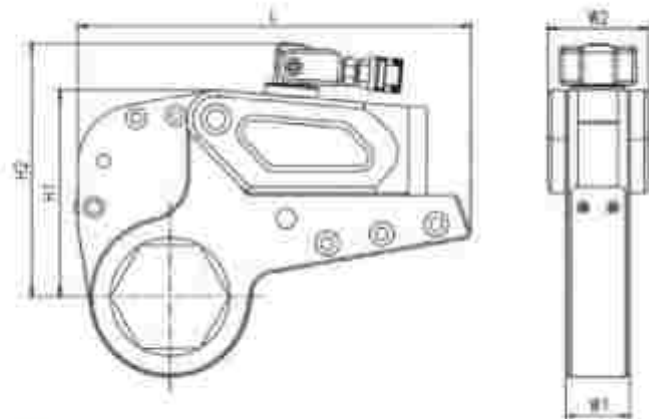
表中参数的变更，恕不另行通知。
The parameters of the table are subject to any change without notice.



XLCD 系列 - 中空扭矩扳手 XLCD Series-hollow torque wrench



- ✦ 航空铝钛合金材料，一体成型机，身高强度、高刚性。
Aircraft aluminum titanium alloy, integrated molding body, high strength, high rigidity.
- ✦ 精准的止回楔子结构，克服螺栓扭转回弹导致工具逆转现象。
Precision check wedge structure to overcome tool reverse phenomenon caused by bolt torsion rebound.
- ✦ 360° × 180° 可旋转油管接头，无使用空间限制，一体式加长设计，力臂更长，更轻便。
360° × 180° rotatable tubing joint, no space restriction, one-piece lengthening design, longer force arm, more portable.
- ✦ 工作头与反力支点同轴，完善的受力结构设计，提高使用寿命。
The working head and the reaction fulcrum are coaxial, and the perfect force structure design improves the service life.
- ✦ 扭矩恒定输出，扭矩重复精度 ±3%。
Torque constant output, torque repeatability accuracy ±3%.
- ✦ 可以更换的多种工作头，反力臂也可根据现场空间定制。
A variety of working heads can be replaced, and the reaction arm can also be customized according to the site space.

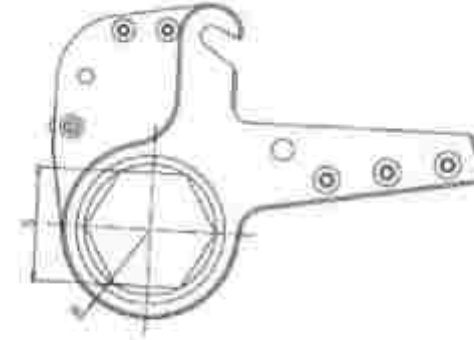


XLCD 系列液压扭矩扳手选型表
Type selection table of XLCD series hydraulic torque wrench

型号 Model	2XLCD	4XLCD	8XLCD	14XLCD	18XLCD	20XLCD	30XLCD	40XLCD	45XLCD	60XLCD
扭矩 Nm	237	546	1055	1848	2481	2909	4231	5209	6057	8415
螺母范围 Nuts Range S	36-55	46-82	70-105	80-115	85-120	90-130	95-145	120-145	130-155	135-180
动力头重量 Weight of Power Head Kg	0.6	1.9	4.2	6.6	8.1	10.5	12.7	15.2	16.3	23
工作头重量 Weight of Working Head Kg	1.7	3.6	7.6	12.2	19.3	22.3	32.3	47.5	58.7	75
L	161	266	324	382	434	427	479	479	486	514
H1	102	139	171	205	229	240	266	285	311	336
H2	184	167	198	231	255	268	289	302	352	375
W1	32	42	53	64	68	70	85	98	108	117
W2	50	66	83	99	106	110	132	148	160	177

KLCD/XLCD- 空工作头系列选型表

Type selection table of KLCD/XLCD type working head series



KLCD 工作头也适用于 XLCD 工作头
KLCD working head is also suitable for XLCD working head

每个型号的 KLCD 中空扭矩扳动手头都有一整套的工作头与之对应，涵盖该型号的动力头所能提供所有尺寸的螺栓。在选择工作头时，注意螺栓与障碍物的距离要大于工作头的操作半径。同时也要注意螺栓与螺栓之间是否有足够空间，下表操作半径 R 能帮助您选择到合适的工作头。

Each type of KLCD hollow torque wrench power head has a set of working heads corresponding to it. Covering the type of power head can provide all the size of bolts. When selecting the working head, please pay attention to the distance between bolts and obstacles, make it more than the operating radius of the working head. Also pay attention to whether there is enough space between bolts and bolts. The operating radius R in the table below can help you choose the right working head.

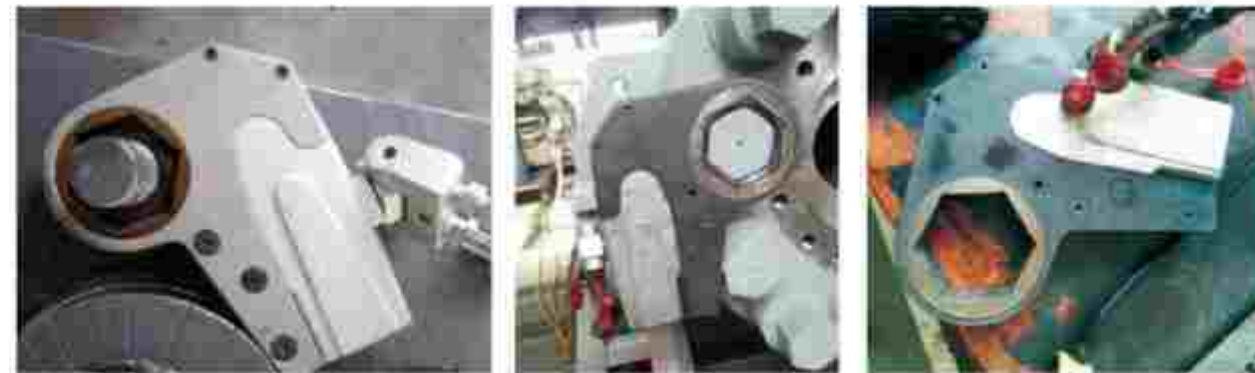
扳手型号 Wrench model	工作头型号 Working head type				扳手型号 Wrench model	工作头型号 Working head type			
	工作头型号 Working head type	螺栓 Bolt M	螺母对边 The edge of the nut S	操作半径 Operating radius R		工作头型号 Working head type	螺栓 Bolt M	螺母对边 The edge of the nut S	操作半径 Operating radius R
3KLCD	2KLCD-36	M24	S=36	R=31	18KLCD	18KLCD-85	M56	S=85	R=73
	2KLCD-41	M27	S=41	R=34		18KLCD-90	M60	S=90	R=75
	2KLCD-46	M30	S=46	R=37		18KLCD-95	M64	S=95	R=77
	2KLCD-50	M33	S=50	R=40		18KLCD-100	M68	S=100	R=77
	2KLCD-55	M36	S=55	R=43		18KLCD-105	M72	S=105	R=83
	2KLCD-60	M39	S=60	R=46		18KLCD-110	M76	S=110	R=83
4KLCD	4KLCD-46	M30	S=46	R=42	20KLCD	18KLCD-115	M80	S=115	R=88
	4KLCD-50	M33	S=50	R=44		18KLCD-120	M85	S=120	R=93
	4KLCD-55	M36	S=55	R=46		20KLCD-90	M60	S=90	R=77
	4KLCD-60	M39	S=60	R=50		20KLCD-95	M64	S=95	R=80
	4KLCD-65	M42	S=65	R=53		20KLCD-100	M68	S=100	R=80
	4KLCD-70	M45	S=70	R=56		20KLCD-105	M72	S=105	R=85
8KLCD	4KLCD-75	M48	S=75	R=59		20KLCD-110	M76	S=110	R=85
	4KLCD-80	M52	S=80	R=62		20KLCD-115	M80	S=115	R=90
	8KLCD-70	M45	S=70	R=58		20KLCD-120	M85	S=120	R=95
	8KLCD-75	M48	S=75	R=60		20KLCD-130	M90	S=130	R=102
	8KLCD-80	M52	S=80	R=63	30KLCD	30KLCD-95	M64	S=95	R=83
	8KLCD-85	M56	S=85	R=65		30KLCD-100	M68	S=100	R=83
14KLCD	8KLCD-90	M60	S=90	R=68		30KLCD-105	M72	S=105	R=89
	8KLCD-95	M64	S=95	R=71		30KLCD-110	M76	S=110	R=89
	8KLCD-100	M68	S=100	R=75		30KLCD-115	M80	S=115	R=94
	8KLCD-105	M72	S=105	R=78		30KLCD-120	M85	S=120	R=98
	14KLCD-80	M52	S=80	R=67		30KLCD-130	M90	S=130	R=104
	14KLCD-85	M56	S=85	R=69		30KLCD-145	M100	S=145	R=114
14KLCD	14KLCD-90	M60	S=90	R=72		30KLCD-150	M105	S=150	R=116
	14KLCD-95	M64	S=95	R=76		30KLCD-155	M110	S=155	R=116
	14KLCD-100	M68	S=100	R=78		30KLCD-165	M115	S=165	R=128
	14KLCD-105	M72	S=105	R=81					
	14KLCD-110	M76	S=110	R=85					
	14KLCD-115	M80	S=115	R=87					

注：我们可以根据客户要求定制特殊工作头
Note: we can customize the special working head according to customer's requirements.

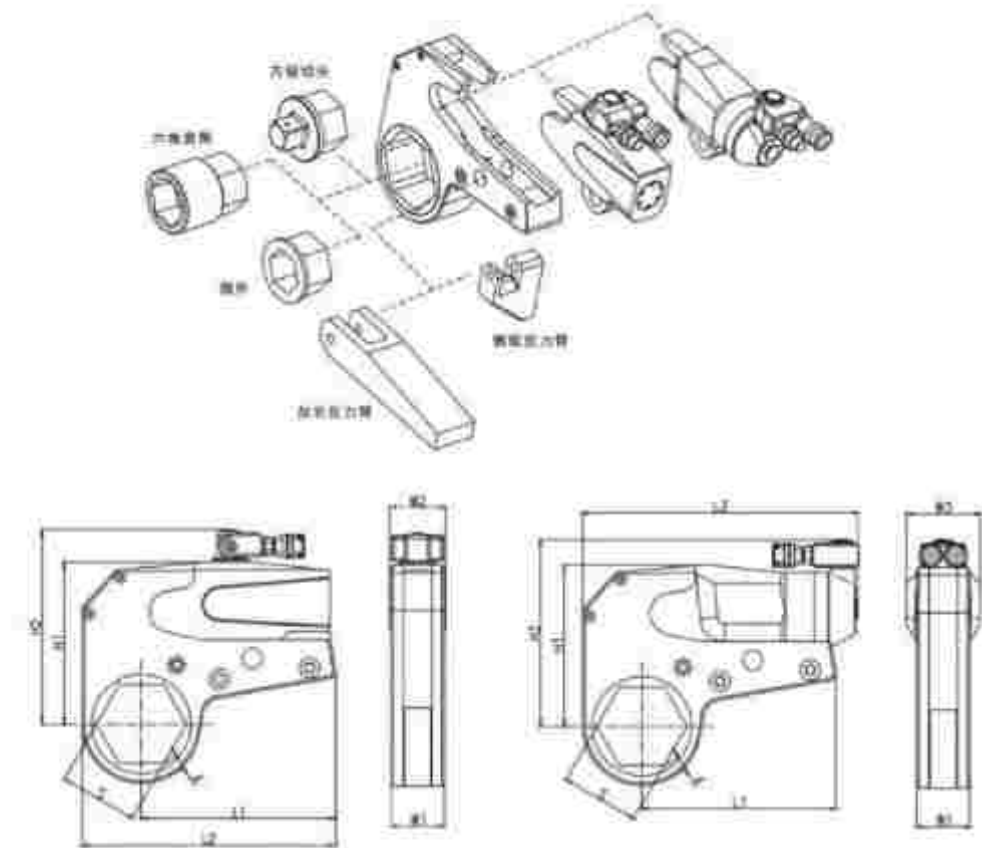
WHCD 系列—中空型扭矩扳手 WHCD Series-hollow torque wrench



- 传承十几年的技术与制造工艺。
More than ten years of technology and manufacturing technology.
- 全流线外形，融合当代工业设计新潮，刚柔兼济。
The whole streamline shape is integrated with the new trend of modern industrial design.
- 最大工作压力 70MPa。
The maximum working pressure is 70MPa.
- 从 255-140000Nm 共 10 个型号，螺栓覆盖面最广的产品。
From 255 to 140000Nm, there are 10 models with the most extensive coverage of bolts.
- 该中空型液压扳手，最大扭矩可延至 140000Nm。
The maximum torque of the hollow hydraulic wrench can be extended to 140000Nm.
- 扭矩恒定输出，重复精度 ±3%。
Constant torque output, repeatability accuracy ±3%.
- 重量更轻。
Lighter weight.
- 可以更换的多种工作头选择。
Multiple head selections can be replaced.
- 可根据工况定制扳手，生产周期短。
The wrench can be customized according to the working conditions, and the production cycle is short.



WHCD 系列—中空型扭矩扳手 WHCD Series-hollow torque wrench



WHCD 系列液压扭矩扳手选型表
Type selection table of WHCD series hydraulic torque wrench

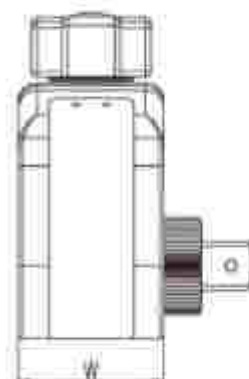
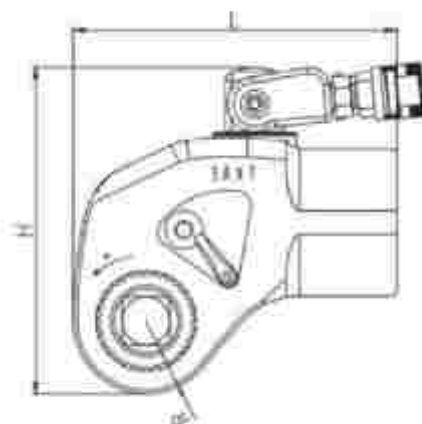
型号 Model	1WHCD	3WHCD	4WHCD	6WHCD	8WHCD	15WHCD	25WHCD	35WHCD	50WHCD	95WHCD
扭矩 Torque (Nm)	233 2326	345 3446	540 5399	769 7691	1212 12116	1992 19919	3363 33629	5385 53851	7522 75221	13946 139463
重量 Weight (Kg)	2.1	3.7	4.5	7.5	8.9	17.3	25.2	35.5	47.8	204
L1	120.5	144	156	179	207	237	273	338	382	492
L2	156	185	202	232	270	309	361	447	517	666
L3	191	223	232	256	291	335	382	456	539	670
H1	100	113	119	145	168	197	230	280	320	400
H2	144.5	156	161	187	210	237	272	345	383	458
H3	143	148	152	179	200	227	255	294	400	425
W1	34	36	42	45	53	64	70	84	94	160
W2	36	38	46	49	57	68	79	92	102	166
W3	59	55	60	66	75	90	100	118	140	180
A	8.3	9.5	11.7	12.8	14.2	16.2	21.3	24.8	30.5	61.7

ATX 系列—前置式驱动液压扳手

ATX series - front drive hydraulic wrench



- ★ 超高强度合金制造，一体成型机身，外形小巧。
It is made of super high strength alloy and has a body shape.
- ★ 改变传统后置式反力臂，纵向尺寸小，更适用于狭小空间。
Changing the traditional rear reaction arm, with smaller longitudinal dimensions, is more suitable for narrow space.
- ★ 反作用力臂与方驱同轴，无偏载反力臂与机身可 360° 微调。
The reaction arm is coaxial with the square drive, and the reaction arm and the housing can be fine-tuned at 360° degrees without bias load, so it is more suitable for working conditions.
- ★ 精确的止回板机，克服螺栓扭转回弹，迅速提升螺栓紧固速度。
Precise check trigger to overcome bolt torsion springback and quickly increase bolt fastening speed.
- ★ 油管旋转接头 360°X180° 操作自由，无空间限制。
Hosing rotary joint 360° X180° free operation, no space restriction.
- ★ 反力臂可根据工况定制，生产周期短。
The counter arm can be customized according to the working conditions and the production cycle is short.
- ★ 也可升级为后置式反力臂。
It can also be upgraded to a rear reaction arm.



ATX 系列液压扭矩扳手选型表

Type selection table of ATX series hydraulic torque wrench

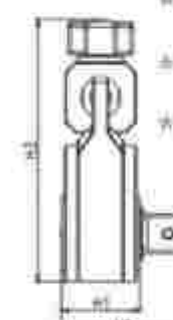
型号 Model	1ATX	3ATX	5ATX	8ATX	10ATX	15ATX
扭矩 Torque (Nm)	179 1788	406 4062	733 7325	1003 10033	1513 15133	1904 19041
精度 Precision	±3%	±3%	±3%	±3%	±3%	±3%
重量 Weight (Kg)	2.4	5.1	8.4	10.3	14.6	17.8
最大拉动力 Maximum Tensile Force (kN)	400	787	1029	1441	1588	2034
R	29.5	38.5	47.5	54.5	62.5	64.5
L	133	171	210	238	266	296
H	135	172	205	232	253	255
W	57	77	88	100	111	120
方驱 Square Drive	3/4"	1"	1-1/2"	1-1/2"	1-1/2"	2"

BXTD 系列—驱动式液压扭矩扳手

BXTD series - driving hydraulic torque wrench



- ★ 全流线外形，融合当代工业设计新潮，铝钛合金与合金钢的完美结合。
The full streamline shape combines modern industrial design with the perfect combination of aluminum alloy and alloy steel.
- ★ 铝钛合金油缸，强度高、韧性好。
The aluminum alloy cylinder has high strength and high toughness.
- ★ 最大工作压力 70MPa。
Maximum working pressure 70MPa.
- ★ 精密细小棘轮设计，无止回结构，不会因螺栓扭转而卡死。
This precision small ratchet design has no stop structure and will not be stuck due to bolt twisting.
- ★ 油管旋转接头 360°X180°，无空间限制，操作自由。
Hosing rotary joint 360° X180° free operation, no space restriction.
- ★ 传动部件少，机构简单，易保养，维护成本低廉。
The transmission parts are few, the mechanism is simple, the maintenance is easy, and the maintenance cost is low.
- ★ 紧凑的一体式反作用力臂设计，扳手偏载小，更加耐用。
The compact integrated counterforce arm is designed with low bias and longer durability.
- ★ 从 485-280000Nm 共 13 个型号，是市面上同类产品型号最全，螺栓覆盖面最广的产品。
From 485 to 280000Nm, there are 13 models which is the most complete type of similar products on the market, both cover the widest range of products.
- ★ 尤其是水轮机转子等大扭矩预紧螺栓最合适的选择。
Especially the most suitable choice for large torque pre-tightening bolts, such as turbine rotors.
- ★ 扭矩恒定输出，重复精度 ±3%。
Constant torque output, repeatability accuracy ±3%.
- ★ 可以更换多种驱动轴，可根据现场空间，定制加长反作用力臂。
A variety of driving shafts can be replaced, and the lengthening reaction force arm can be customized according to the field space.



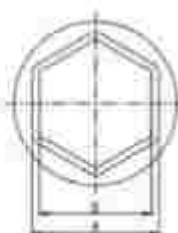
BXTD 系列液压扭矩扳手选型表

Type selection table of BXTD series hydraulic torque wrench

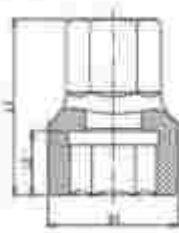
型号 Model	3BXTD	8BXTD	10BXTD	15BXTD	20BXTD	25BXTD	45BXTD	60BXTD	85BXTD	120BXTD
扭矩 Torque (Nm)	485 4847	1071 10712	1512 15121	2013 20130	2909 29089	3679 36795	6058 60582	8440 84403	12017 120176	15936 159355
重量 Weight (Kg)	6.2	12.7	18.5	25	31.5	40.4	56	68	115	163
L1	210	258	279	318	340	350	380	422	452	510
L2	381	353	385	435	452	472	525	572	660	770
H1	55	76	81	88	95	103	112	135	175	235
H2	84	120	124	140.5	160	166	182	217	280	352
H3	200	255	278	292	313	335	386	403	450	520
R	35	46	50	56	63	70	80	85	110	125
方驱 Square Drive	1"	1-1/2"	1-1/2"	2"	2-1/2"	2-1/2"	3-1/2"	3"	3-1/2"	4"

中空型扳手专用变径套筒

Various Diameter Sockets Designed For Hollow Wrench



套筒-K型
Sleeve-K type



嘉蘭-LBK 型
Galan-LBK type



- 高强度铬钼合金钢制造
Manufactured of high strength Cr-Mo alloy steel
- 采用标准热处理工艺，安全可靠，经久耐用。
The standard heat treatment process is safe, reliable and durable
- KLCD 系列变径套同样适用于 XLCD/DLCD/WHCD 系列扳手。
KLCD series adjustable products are also suitable for XLCD/DLCD/WHCD series wrenches.
- 标准为公制套筒尺寸，可定制英制变径套或各种非标变径套。
The standard is metric socket size, and can be made into English standard adjustable sockets or various non-standard

驱动型液压扳手套筒

Driving Hydraulic Wrench Sockets



車帽套開-D



双帽套閥-D
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外六角套筒-LFB



外六角套間 -F

- | | |
|---|--|
| <p>高强度铬钼合金钢制造。
Manufacture of high strength Cr-Mo alloy steel</p> <p>采用标准热处理工艺, 安全可靠 经久耐用。
The standard heat treatment process is safe, reliable and durable</p> <p>标准为公制套筒尺寸, 可定制英制套筒或各种非标套
The standard is metric coupling size, and can be made into British or various non-</p> | <p>筒。
The size is standard metric size, and can be made into British or various non-</p> <p>standard size</p> <p>重量套筒标准 DIN3121/3129。
Heavy walled standard DIN3121/3129</p> |
|---|--|

[illegible]

轴承型号 Whorl model	工作轴型号 Working head type	通轴对边 Right side	定 号 数 量 格 式 号 Specification and type of variable element					
			型号 Model	A/B	型号 Model	A/B	型号 Model	A/B
3KLC0	3KLC0-26	2-26	2K3630	26/29	2K3637	26/27	2K3624	26/24
	2KLC0-41	2-41	2K4128	41/35	2K4124	41/34	2K4120	41/27
	2KLC0-46	2-46	2K4641	46/41	2K4636	46/36	2K4634	46/30
	2KLC0-50	2-50	2K5046	50/46	2K5041	50/41	2K5034	50/34
	2KLC0-55	2-55	2K5550	55/50	2K5546	55/46	2K5541	55/36
	2KLC0-60	2-60	2K6055	60/55	2K6050	60/50	2K6055	60/47
4KLC0	4KLC0-66	2-66	4K6641	66/61	4K6636	66/36	4K6634	66/34
	4KLC0-70	2-70	4K7041	70/61	4K7036	70/36	4K7034	70/34
	4KLC0-75	2-75	4K7546	75/65	4K7541	75/41	4K7536	75/36
	4KLC0-80	2-80	4K8050	80/70	4K8046	80/46	4K8041	80/38
	4KLC0-85	2-85	4K8555	85/75	4K8550	85/50	4K8546	85/38
	4KLC0-90	2-90	4K9060	90/80	4K9055	90/55	4K9050	90/38
5KLC0	5KLC0-95	2-95	5K9565	95/85	5K9560	95/60	5K9555	95/34
	5KLC0-100	2-100	5K10070	100/90	5K10065	100/65	5K10060	100/34
	5KLC0-105	2-105	5K10575	105/95	5K10570	105/70	5K10565	105/35
	5KLC0-110	2-110	5K11080	110/100	5K11075	110/75	5K11070	110/35
	5KLC0-115	2-115	5K11585	115/105	5K11580	115/80	5K11575	115/35
	5KLC0-120	2-120	5K12090	120/110	5K12085	120/85	5K12080	120/35
14KLC0	14KLC0-65	2-65	14K6570	65/75	14K6570	65/75	14K6565	65/65
	14KLC0-70	2-70	14K7075	70/80	14K7075	70/75	14K7070	70/65
	14KLC0-75	2-75	14K7580	75/85	14K7580	75/80	14K7575	75/70
	14KLC0-80	2-80	14K8085	80/90	14K8085	80/85	14K8080	80/75
	14KLC0-85	2-85	14K8590	85/95	14K8590	85/90	14K8585	85/80
	14KLC0-90	2-90	14K9095	90/100	14K9095	90/95	14K9090	90/85
18KLC0	18KLC0-95	2-95	18K95100	95/105	18K95100	95/100	18K9595	95/90
	18KLC0-100	2-100	18K100105	100/110	18K100105	100/105	18K100100	100/95
	18KLC0-105	2-105	18K105110	105/115	18K105110	105/110	18K105105	105/100
	18KLC0-110	2-110	18K110115	110/120	18K110115	110/115	18K110110	110/105
	18KLC0-115	2-115	18K115120	115/125	18K115120	115/120	18K115115	115/110
	18KLC0-120	2-120	18K120125	120/130	18K120125	120/125	18K120120	120/115
20KLC0	20KLC0-95	2-95	20K95100	95/105	20K95100	95/100	20K9595	95/90
	20KLC0-100	2-100	20K100105	100/110	20K100105	100/105	20K100100	100/95
	20KLC0-105	2-105	20K105110	105/115	20K105110	105/110	20K105105	105/100
	20KLC0-110	2-110	20K110115	110/120	20K110115	110/115	20K110110	110/105
	20KLC0-115	2-115	20K115120	115/125	20K115120	115/120	20K115115	115/110
	20KLC0-120	2-120	20K120125	120/130	20K120125	120/125	20K120120	120/115
30KLC0	30KLC0-125	2-125	30K125130	125/135	30K125130	125/130	30K125125	125/125
	30KLC0-130	2-130	30K130135	130/140	30K130135	130/135	30K130130	130/135
	30KLC0-135	2-135	30K135140	135/145	30K135140	135/140	30K135135	135/140
	30KLC0-140	2-140	30K140145	140/150	30K140145	140/150	30K140140	140/145
	30KLC0-145	2-145	30K145150	145/155	30K145150	145/155	30K145150	145/155
	30KLC0-150	2-150	30K150155	150/160	30K150155	150/160	30K150155	150/155

液压扭矩扳手的选择 Selection of hydraulic torque wrench

一、扭矩的确认

1. Confirmation of torque

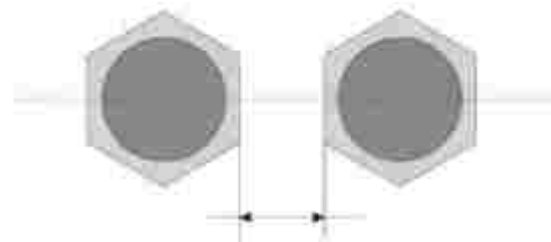
参考图纸要求找出螺栓的扭矩值为多少，对螺栓所需扭矩不清楚，请参照“螺栓及螺母最大扭矩推荐值”查找相应的扭矩值。
Reference paper requires to find out the value of bolt torque, if bolt torque is not clear, please refer to the "bolt and nut maximum torque recommended value" to find the corresponding torque value.

二、空间的考虑

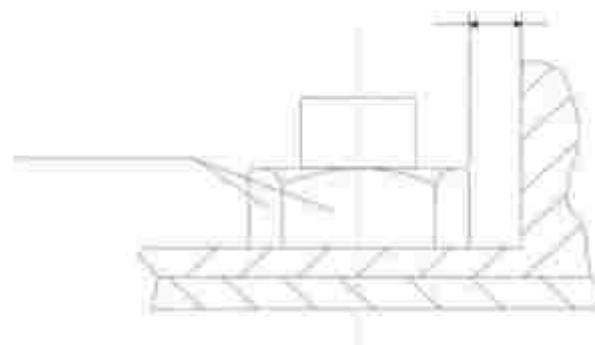
2. Space consideration

由于使用现场按位位置的限制，注意选择扳手使用空间的位置。如图
Due to the restriction on the position of the bolt, choose the location of the wrench's space. As a picture.

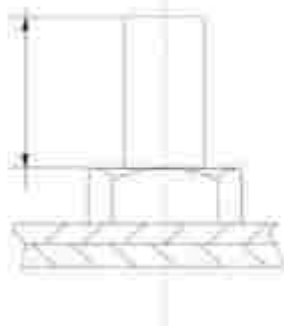
1. 螺栓间距小
Small bolt spacing



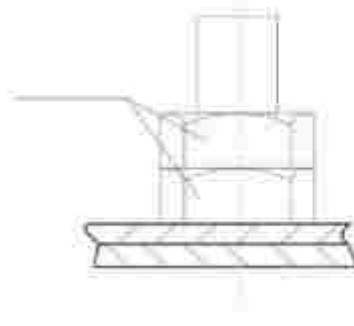
2. 螺栓（螺母）与设备板壁太过于接近
The bolt (nut) is too close to the equipment wall



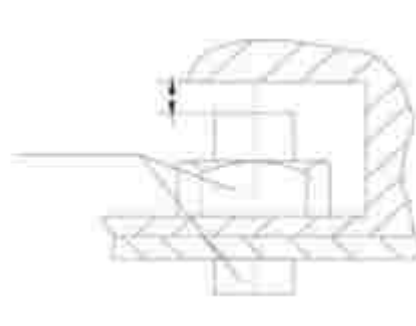
3. 螺栓太长
The bolt is too long



4. 螺栓有双螺母
Bolt has double nuts



5. 高度空间矮小
Short height space



以上的情况，驱动型无法工作时就需要选中空液压扳手，他独特之处在于可将扳手分为两部分：工作头部分和动力头部分，同型号动力头不变，工作头在该型号范围内，可通过更换工作头来实现拆装大小不同规格的螺栓。另外，也可以在一个规格中加装垫块改变其六角对边大小来实现拆装不同规格的螺栓。

In the above case, when the driving type can not work, A needs to select the hollow hydraulic wrench. Its unique feature is that the wrench can be divided into two parts: the working head and the power head. For the same type of power head is unchanged, the working head in this type of range can be replaced by the working head to achieve the disassembly of bolts of different sizes. It can also be installed in a specification to change the hexagonal diagonal size to achieve the disassembly of bolts of different specifications.

螺栓及螺母最大扭矩推荐值 Recommended values of maximum torque for bolts

强度等级 Strength grade		4.8		6.8		8.8		10.9		12.9	
最小抗拉强度 Minimum tensile strength		400 MPa		600 MPa		800 MPa		1000 MPa		1200 MPa	
材 质 Material of material		一般构造用钢 General structural steel		机械构造用钢 Mechanically constructed steel		铸钢合金钢 Cast alloy steel		铸钢合金钢 Cast alloy steel		铸钢合金钢 Cast alloy steel	
螺栓 Bolt	螺母对边 The edge of the nut	扭矩值 Torque value		扭矩值 Torque value		扭矩值 Torque value		扭矩值 Torque value		扭矩值 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	28	256	37	360	44	432
20	30	17	170	26	256	35	341	49	479	59	575
22	34	24	232	38	368	47	465	69	653	80	784
24	36	30	294	45	443	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	793	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	4093	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	758	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	20325	2450	24401
72	105	885	8669	1327	13003	1769	17337	2488	24381	2945	29257
76	110	1050	10287	1574	15430	2099	20573	2952	28931		34717
80	115	1234	12094	1851	18141	2468	24188	3471	34014		40615
85	120	1493	14638	2240	21953	2987	29271		41163		49395
90	130	1787	17510	2680	26266	3573	35021		49248		59098
100	145	2484	24341	3726	36512		48583		68460		82152
110	155	3342	32751		48126		65561		92111		110533
120	175	4376	42902		64354		85805		120603		144795
125	180		48663		73024		97266		136920		164304



上表中螺栓预紧扭矩数据仅作参考使用
The data of bolt pre-tightening torque in the above table are for reference only.



螺栓预紧扭矩值首先应依据机械设备设计所需扭矩为准
The pre-tightening torque of bolts should be based on the torque required for mechanical equipment design.

注：表中数值为螺栓达到屈服极限的 60% 时所测定，建议预紧扭矩值为：表中数据 × (70-80)%。
Note: The value of the table is 60% of the yield limit of the bolt. It is suggested that the value of pre-tightening torque should be the data in the table × (70-80)%.

例如：M52、8.8 级螺栓，则预紧扭矩为：6382 × (70-80)% = 4467-5099 Nm。
For example: M52, 8.8 grade bolt, pre-tightening torque is 6382 × (70-80)% = 4467-5099 Nm.

选择扳手前应确认一个原则，即拆松螺母的扭矩是预紧扭矩的 1.5-2.5 倍。
A principle should be confirmed before choosing the wrench, that is, the torque of loosening nut is 1.5-2.5 times of pre-tightening torque.

TSD 系列 - 单级液压螺栓拉伸器

TSD series - single stage hydraulic bolt tensioner



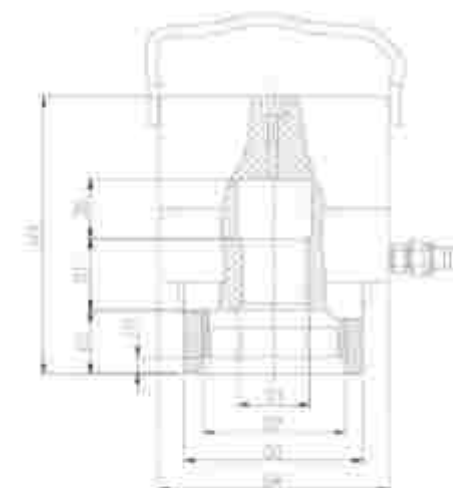
- ※ 最高使用压力: 150MPa
Maximum service pressure: 150MPa
- ※ 自动回程机构设计
Design of automatic return mechanism
- ※ 超行程红色警戒指示线, 确保操作者安全。
Safety red warning line to ensure operator safety.

- ※ 不同规格的螺栓可以使用同一台拉伸器预紧或拆松, 但必须更换拉伸头和接套。
The bolts of different specifications can be pre-tensioned or loosened by the same tensioner, but the stretching head and the sockets must be replaced.

型号 Model	适用螺栓 Fit Bolt	最大负载 Max Load (KN)	尺寸 size (mm)						行程 Stroke (mm)	重量 Weight (Kg)
			A	B	C	D	E	F		
TSD0	M20	307	109	55	23	25	111	129	8	5
	M22			60	25	27	113	130		
	M24			65	27	29	115	132		
TSD1	M24	486	109	74	27	29	120	138	8	7
	M27			77	30	32	123	141		
	M30			80	32	35	126	144		
	M33			85	35	38	129	147		
	M36			90	39	41	132	150		
TSD2	M33	814	122	90	36	44	135	159	8	10
	M36			96	39	47	138	163		
	M39			98	42	50	141	166		
	M42			105	45	53	144	169		
	M45			110	48	56	147	172		
TSD3	M42	999	150	113	45	55	140	165	10	15
	M45			114	50	59	144	169		
	M48			118	52	62	146	171		
	M52			132	55	65	154	174		
TSD4	M56	1413	174	135	59	69	156	178	10	20
	M60			136	59	69	161	179		
	M64			143	64	74	165	183		
	M68			150	68	78	169	187		
TSD5	M68	1549	198	158	72	82	173	191	12	25
	M72			165	76	86	184	207		
	M76			170	80	90	188	211		
	M80			175	85	95	194	221		
TSD6	M76	2131	222	175	85	95	197	224	12	35
	M80			180	90	100	201	228		
	M85			185	95	105	205	232		
	M90			190	100	110	209	236		
TSD7	M90	2544	252	205	95	105	209	236	12	50
	M95			215	100	110	214	243		
	M100			235	105	115	219	248		
	M105			240	110	120	224	254		
TSD8	M105	3101	282	248	115	125	234	264	12	85
	M110			258	120	130	239	269		
	M115			268	125	135	244	274		
	M120			278	130	140	249	279		
TSD9	M115	3793	318	260	120	130	234	264	12	110
	M120			270	125	135	239	269		
	M125			280	130	140	244	274		
	M130			290	135	145	249	279		

ESD 系列 - 单级液压螺栓拉伸器

ESD series - single stage hydraulic bolt tensioner



- ※ 主要用于 10.9 级高强度螺栓。
It is mainly used for 10.9 grade high strength bolts.
- ※ 自动快速回程机构设计, 大大减轻劳动强度。
The design of automatic quick return mechanism greatly reduces labor intensity.

- ※ 超行程红色警戒指示线, 三级安全保护, 确保操作者安全。
Super stroke red warning line, three-level safety protection to ensure operator safety.

型号 Model	螺栓 D1 Thread D1	螺母对边 Nut to the flange	拉伸力 Tension Force	D2	D3	D4	H1	H2	H3
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

注: 上表所示螺栓拉伸器是为拆装高强度 10.9 级螺栓, 并根据伸长率 0.2 的 90% 设计的; 若需要更高的拉伸力, 则使用表中螺栓拉伸头同样螺栓尺寸邻近的下一个较大的油缸 (例如对 M42 来说, 用 ESD45 来代替 ESD42)。或进行特殊设计。以上单级拉伸器是本公司产品中很少一部分, 90% 以上的拉伸器根据工况都需要专门特殊设计, 我们有多年成熟的设计和现场使用经验, 为你定做最符合工况的产品; 详情请与本公司联系。

Note: The bolt tensioner shown in the above table is for disassembling high-strength 10.9 bolts and designed according to 90% of the elongation rate of 0.2. If higher tension force is required, the same bolt tensioning head in the table is used. The next larger cylinder adjacent to the thread size (for example, ESD45 instead of ESD42 for M42) or specially designed. The above single-stage tensioner is a small part of the company's products. More than 90% of the tensioners need special design according to the working conditions. We have many years of mature design and field experience, and we can customize the most suitable products for any working conditions - please contact us for details.

HLD 系列 - 单级液压螺栓拉伸器

HLD series - single stage hydraulic bolt tensioner



- A 使用最大压力: 150MPa
Use a maximum pressure of 150 MPa.
- B 结构紧凑, 维护简单。
Compact and easy to maintain.
- C 体积小, 重量轻。
Small size and light weight.
- D 更换拉杆方便
Easy to replace the bar.
- E 适用于石化行业工况
Commonly used in petrochemical industry conditions.

型号 Model	螺栓直径 Bolt Diameter	最大载荷 Maximum Load	油压面积 Oil Pressure Area	重量 Weight	A	B	C	D	E	F
	(inch)	mm	KN	kg	mm	mm	mm	mm	mm	mm
HLD1	1/4	16	226	1506	3.5	73	24	110	74	45
	3/8	18	226	1506	3.5	73	24	110	74	45
	1/2	20	226	1506	3.5	73.5	27	110	74	45
	3/4	22	226	1506	3	73.5	27	115	74	45
	1	24	226	1506	3	73.5	30	125	78	45
	1 1/8	27	226	1506	3	73.5	32	130	78	45
HLD2	1 1/4	30	455	3031	5	102	30	150	90	54
	1 3/8	33	455	3031	5	102	34	160	90	54
	1 1/2	36	455	3031	5	102	36	160	90	54
	1 5/8	39	455	3031	5	102	38	170	100	54
	2	42	455	3031	5	102	40	170	100	54
HLD3	2 1/4	45	803	5357	9	133	42	175	95	56
	2 3/8	48	803	5357	9	133	44	185	100	56
	2 1/2	50	803	5357	9	133	46	195	103	56
	2 5/8	52	803	5357	9	133	48	205	107	56
	3	55	803	5357	9	133	50	210	112	56
HLD4	3 1/4	60	1288	8591	15	163	50	205	105	58
	3 1/2	62	1288	8591	15	163	52	215	108	58
	3 3/4	64	1288	8591	15	163	54	225	117	58
	3 5/8	66	1288	8591	15	163	56	235	120	58
	4	68	1288	8591	15	163	58	245	129	58
HLD5	4 1/4	72	1978	13188	25	193	64	254	125	60
	4 1/2	74	1978	13188	25	193	66	265	130	60
	4 3/4	76	1978	13188	25	193	68	275	135	60
	5	78	1978	13188	25	193	70	285	140	60

风电专用系列 - 螺栓超张拉

HLD series - single stage hydraulic bolt tensioner

风电专用

Special for wind power



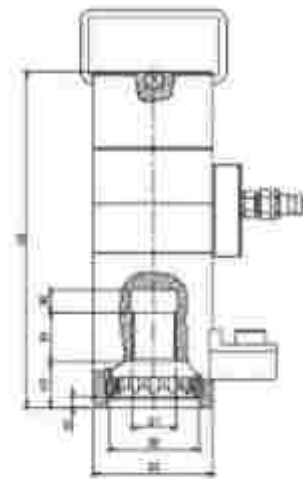
- ★ 精科液压风电专用拉伸器, 是本公司主力投放风电市场的液压拉伸器, 具有轻便、快捷、高效、准确等优点。
Precision Hydraulic Wind Power Special Tensioner is the main hydraulic tensioner which we put into the wind power market by the our company. It is portable, fast, efficient and accurate.
- ★ 该系列拉伸器适用于各种机型的螺丝工况, 例如: 金风、上海电气、东方电气、重庆海装、远景能源、维斯塔斯、歌美飒等风机; 针对不同型号风机、不同位置螺栓, 精科都有针对性的拉伸器与之匹配。
The series of tensioners are suitable for various types of screw working conditions, such as: Goldwind, Shanghai Electric, Dongfang Electric, Chongqing Haizhuang,远景能源, Vestas, Gamesa and other wind turbines, for different types of wind turbines.

型号 Model	螺栓规格 Bolt Specification	螺母对边 The Edge of The Nut	拉伸力 Tensile Force	油缸面积 Oil Cylinder Area	行程 Stroke	油缸外径 Outer Diameter of Oil Cylinder	本高 Height	最大压力 Maximum Pressure
MSD30, 2.74	30×3.5	46	520	3855	8	74	218	135
MSD36, 2.87	36×4	55	724	4827	10	87	263	150
MSD36, 2.75	36×4	55	482	3016	8	75	201	150
MSD36, 3.75	36×4	55	678	4524	8	75	255	150
MSD36, 2.96	36×4	55	670	4963	10	96	213	135
MSD36, 2.82	36×4	55	667	4943	10	82	405	135
MSD39, 2.94	39×4	60	670	5802	10	94	257	150
MSD42, 2.108	42×4.5	65	1058	7057	10	108	292	150
MSD42, 3.100	42×4.5	65	1190	8017	10	100	338	135
MSD48, 2.122	48×5	75	1478	9858	12	122	324	150
MSD48, 2.131	48×5	75	1539	10261	12	131	338	150
MSD56, 2.138	56×5.5	80	1734	12847	12	138	372	135
MSD56, 2.141	56×5.5	80	1547	11459	10	141	285	135
MSD64, 2.150	64×6	95	2011	14991	15	150	421	135
MSD64, 2.151	64×6	95	1839	12365	10	151	321	150



MSD 系列 - 多级液压螺栓拉伸器

MSD Series - Multi-stage Hydraulic Bolt Tensioner



可选附件:

Optional accessories:

安全保护罩。

Safety protection cover.

带弹簧的旋转落罩套。

Rotating collar with spring.

可选表面镀锌涂层。

Optional surface nickel plated coating.

分配器接头。

Distributor connector.

螺杆伸长测量杆。

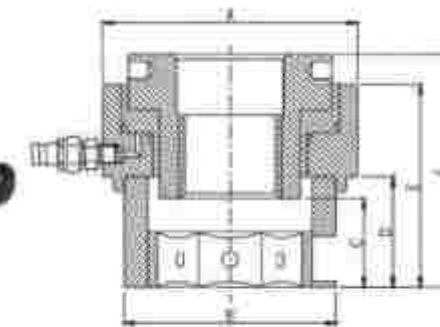
Screw extension measuring rod.

- ✱ 主要用于 10.9 级高强度螺栓。
It is mainly used for 10.9 grade high-strength bolts.
- ✱ 最高使用压力: 150MPa。
Maximum operating pressure: 150MPa.
- ✱ 自动快速回程机构设计, 大大减轻劳动强度。
The design of automatic quick return mechanism greatly reduces labor intensity.

✱ 超行程红色警戒指示线, 三级安全保护, 确保操作者安全。
Over-travel red warning line, three-level safety protection, to ensure operator safety.

DLD 系列 - 简易型螺栓拉伸器

DLD series - simple bolt tensioner



- ✱ 最高使用压力 150MPa。
The highest operating pressure is 150MPa.
- ✱ 超行程红色警戒指示线。
Over-travel red warning line.
- ✱ 机械式复位。
Mechanical reduction.
- ✱ 可更换的拉伸头。
Replaceable drawing head.
- ✱ 抛光表面处理 (发黑处理)。
Polishing surface treatment (blacking).

型号 Model	螺纹 Thread Ø1	螺母对边 The Edge Of The Nut S	拉伸力 Tensile Force KN	D2 mm	D3 mm	H1 mm	H2 mm	H3 mm
MSD 20	M 20×2.5	30	200	44	59	6	19	182
MSD 24	M 24×3	36	290	51	65	8	24	188
MSD 27	M 27×3	41	380	56	73	10	25	192
MSD 30	M 30×3.5	46	460	62	79	12	27	198
MSD 33	M 33×3.5	50	570	67	84	14	29	240
MSD 36	M 36×4	55	670	72	90	16	32	248
MSD 39	M 39×4	60	800	78	98	18	34	253
MSD 42	M 42×4.5	65	920	84	107	20	37	256
MSD 45	M 45×4.5	70	1080	90	112	22	39	260
MSD 48	M 48×5	75	1220	95	123	24	42	268
MSD 52	M 52×5	80	1450	103	129	28	46	288
MSD 56	M 56×5.5	85	1680	107	136	31	49	308
MSD 60	M 60×5.5	90	2010	115	146	34	52	330
MSD 64	M 64×6	95	2210	121	155	37	55	346
MSD 68	M 68×6	100	2600	127	164	40	58	356
MSD 72	M 72×6	105	2880	131	177	44	62	378
MSD 76	M 76×6	110	3320	137	183	46	66	385
MSD 80	M 80×6	115	3610	143	203	50	68	414
MSD 90	M 90×6	130	4650	161	232	58	77	446
MSD 100	M 100×6	145	5830	179	252	66	85	487

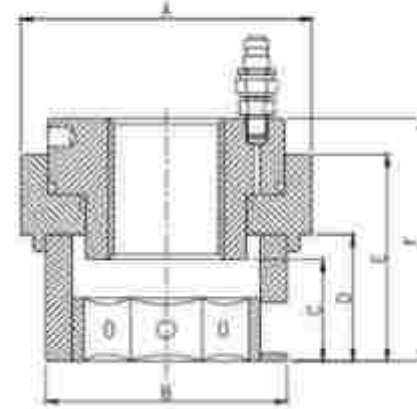
注: 上表所示螺栓拉伸器是为拆装高强度 10.9 级螺栓, 并根据伸长极限 0.2 的 90% 设计的; 若需要更高的拉伸力, 则使用表中螺栓拉伸头同样螺纹尺寸邻近的下一个较大的油缸 (例如对 M42 来说, 用 MSD45 来代替 MSD42) 或进行特殊设计。以上单级拉伸器是本公司产品中很少一部分, 90% 以上的拉伸器根据工况都需要专门特器设计, 我们有多年成熟的设计和现场使用经验, 为你定做最适合工况的产品; 详情请与本公司联系。

Note: The bolt tensioner shown above is designed to disassemble and assemble high strength 10.9 bolts according to 90% of the elongation limit of 0.2. If higher tensile force is required, the next larger cylinder with the same thread size of the bolt tensioner head in the table (for example, for M42, MSD45 is used instead of MSD42) or special design is used. The above single-stage tensioner is a very small part of our products, more than 90% of the tensioner according to the working conditions need special design, we have many years of mature design and field experience to customized for you.

型号 Model	适用螺栓 Applicable Bolt	最大负载 Maximum Load KN	尺寸 Size mm						行程 Stroke mm	重量 Weight kg
			A	B	C	D	E	F		
DLD0	M 20	338	85	55	23	25	24	86	8	3.5
	M 22			59	25	27	26	88		
	M 24			65	27	29	28	90		
DLD1	M 24	466	109	66	27	29	28	105	8	5.8
	M 27			72	30	32	31	108		
	M 30			78	33	35	34	111		
	M 33			85	36	38	37	114		
	M 36			90	39	41	40	117		
DLD2	M 33	814	132	85	36	44	43	127	8	8
	M 36			94	39	47	46	130		
	M 39			98	42	50	49	133		
	M 42			105	45	53	52	136		
DLD3	M 39	969	150	98	41	51	50	135	10	12
	M 42			105	44	54	53	138		
	M 45			110	47	57	56	141		
	M 48			125	50	60	59	144		
DLD4	M 52	1413	174	132	53	66	65	145	10	17
	M 56			135	59	60	59	149		
DLD5	M 56	1689	198	135	59	60	59	154	12	21
	M 60			144	63	65	64	159		
	M 64			150	67	69	68	163		
	M 68			158	71	74	73	168		
DLD6	M 72	2131	222	165	70	77	76	185	12	26
	M 76			170	79	81	80	193		
DLD7	M 76	2544	252	170	79	81	80	197	12	37
	M 80			175	83	85	84	201		
	M 85			185	88	90	89	206		
	M 90			205	93	95	94	211		
DLD8	M 95	3101	282	215	98	100	99	224	12	38
	M 100			235	103	105	104	229		
DLD9	M 105	3793	318	240	108	110	109	236	12	52
	M 110			250	113	115	114	240		
	M 115			26	118	120	119	248		
DLD10	M 115	4935	360	260	120	120	119	297	15	87
	M 120			270	125	125	124	302		
	M 125			285	140	130	129	307		

PLD 系列 - 紧凑型螺栓拉伸器

PLD series - compact bolt tensioner



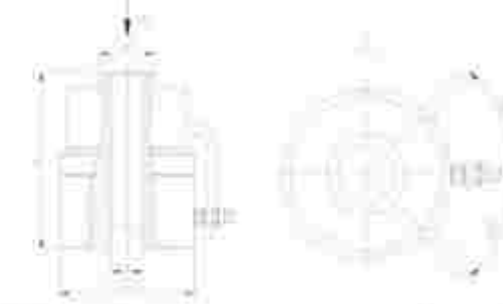
- ★ 最大使用压力 150MPa。
The maximum operating pressure is 150MPa.
- ★ 机械式复位。
Mechanical return.
- ★ 红色行程指示线。
Red travel indicator.

- ★ 磨光表面处理（发黑处理）。
Polishing surface treatment (blackening).
- ★ 配减少，结构简单，维护成本低廉。
The structure is simple, and the maintenance cost is low.

型号 Model	适用螺栓 Applicable Bolt	最大负荷 Maximum Load kN	尺寸 (mm)						行程 Stroke mm	重量 Weight kg
			A	B	C	D	E	F		
PLD20	M20	212	66	55	23	25	71	80	10	1.5
PLD22	M22	279	72	59	25	27	75	86		1.7
PLD24	M24	327	78	66	27	29	77	88		2.1
PLD27	M27	388	84	72	30	31	83	93		2.5
PLD30	M30	454	90	73	33	34	86	96		3
PLD33	M33	512	102	86	36	37	91	103	12	4
PLD36	M36	768	114	89	43	40	98	109		5
PLD39	M39	821	120	98	42	43	101	112		5.5
PLD42	M42	874	126	105	45	46	104	116		6.5
PLD45	M45	957	132	110	48	49	112	124		7.5
PLD48	M48	1119	114	125	51	52	116	129		9.5
PLD52	M52	1328	156	130	55	56	120	134		11
PLD56	M56	1393	162	135	59	60	129	145		13
PLD60	M60	1457	168	144	64	64	136	154		15
PLD64	M64	1695	180	155	67	68	140	157		17
PLD68	M68	1837	192	170	72	72	144	162	15	19.5
PLD72	M72	2226	204	185	76	76	148	166		23.5
PLD76	M76	2518	216	172	80	80	156	174		25.5
PLD80	M80	2827	228	183	81	85	157	175		28.5
PLD85	M85	3254	246	188	90	90	166	187		35
PLD90	M90	3604	258	208	95	95	175	198		42
PLD95	M95	3973	270	220	100	100	190	218		52
PLD100	M100	4476	288	238	105	105	195	223		60

ZLD 系列 - 桥梁专用拉伸器

ZLD series - special tensioner for bridge

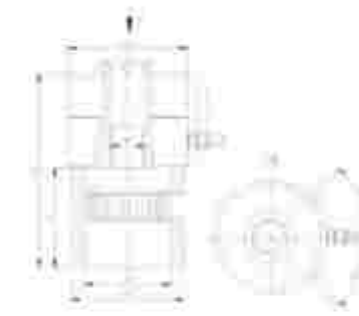


- ★ 自动快速回程机构设计。
Automatic quick return mechanism design.
- ★ 超行程红色警戒指示线。
Over travel red warning line.
- ★ 磨光表面处理（发黑处理）。
Polishing surface treatment (blackening).
- ★ 工作压力高，重量轻。
High working pressure and light weight.

型号 Model	拉伸力 Tensile Force kN	螺纹规格 Thread Specification M	尺寸 size (mm)				行程 Stroke mm	工作压力 Working Pressure MPa	重量 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	12.2
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	1689	M60	189	91	62	277	40	150	39
ZLD64	1830	M64	193	96	66	277	40	150	48

SJD 系列 - 桥梁锁夹螺栓预紧器

SJD series - bridge lock bolt clamp pretensioner

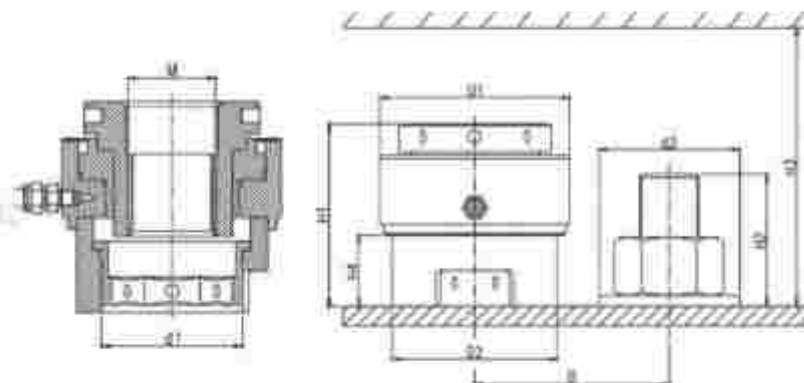


- ★ 自动快速回程机构设计。
Automatic quick return mechanism design.
- ★ 超行程红色警戒指示线。
Over travel red warning line.
- ★ 磨光表面处理（发黑处理）。
Polishing surface treatment (blackening).
- ★ 工作压力高，重量轻。
High working pressure and light weight.
- ★ 不同规格的螺栓可以使用同一台拉伸器预紧或拆松。
Different sizes of bolts can be tightened or loosened by using the same tensioner.

型号 Model	拉伸力 Tensile Force kN	螺纹规格 Thread Specification M	尺寸 size (mm)				行程 Stroke mm	工作压力 Working Pressure MPa	重量 Weight kg
			D1	D2	d	H			
SJD30	422	M30	94	86	270	120	20	150	11.2
SJD33	500	M33	101	92	273	122	20	150	12
SJD36	594	M36	109	100	276	127	20	150	15
SJD39	727	M39	121	108	279	130	20	150	22
SJD42	866	M42	132	117	283	133	20	150	24
SJD45	922	M45	138	122	286	139	20	150	27
SJD48	1027	M48	147	136	292	145	20	150	31
SJD52	1354	M52	166	156	303	153	20	150	38
SJD56	1413	M56	171	160	322	155	20	150	47
SJD60	1689	M60	186	172	354	155	20	150	51
SJD64	1830	M64	193	180	366	155	20	150	62

YLD 系列 - 单级矮型螺栓拉伸器

YLD series - single stage low bolt tensioner



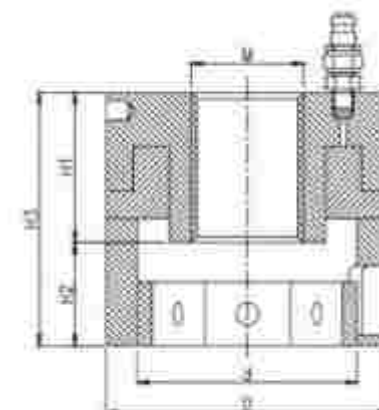
■ 执行机械标准:GB/T 6390-2007
Implementation of mechanical standard: GB/T 6390-2007

■ 注:工作压力 80MPa, 机械式回位。
Note: working pressure 80MPa, mechanical return.

型号 Model	螺纹规格 Thread	拉伸力 Tensile Force kN	尺寸 Size (mm)									活塞 Piston		重量 Weight Kg
			D1	D2	d1	d2	H1	H2	H3	H4	R	面积 The Measure Of Area cm²	行程 Stroke mm	
YLD1	M20×2.5	298	97	84	60	35	95	38	130	30	50+d2/2	37	6	2.8
	M22×2.5		97	84	60	45	95	42	130	30	50+d2/2	37		3.8
	M24×3		97	84	60	45	95	46	130	30	50+d2/2	37		2.8
	M27×2		97	84	60	45	95	52	130	30	50+d2/2	37		2.8
YLD2	M24×3	440	114	98	72	45	108	46	150	26	58+d2/2	55	8	4.2
	M27×3		114	98	72	45	108	52	150	26	58+d2/2	55		4.2
	M30×3.5		114	98	72	55	108	57	150	26	58+d2/2	55		4.2
	M33×3.5		114	98	72	55	108	63	150	26	58+d2/2	55		4.2
YLD3	M36×4	664	145	122	92	65	142	69	190	46	74+d2/2	83	8	8.1
	M39×4		145	122	92	65	142	74	190	46	74+d2/2	83		8.1
	M42×4.5		145	122	92	75	142	80	190	46	74+d2/2	83		8.1
	M45×4.5		145	122	92	75	142	86	190	46	74+d2/2	83		8.1
YLD4	M45×4.5	1080	180	155	117	75	200	86	255	75	92+d2/2	135	12	20
	M48×5		180	155	117	90	200	92	255	75	92+d2/2	135		20
	M52×5		180	155	117	90	200	99	255	75	92+d2/2	135		20
	M56×5.5		180	155	117	100	200	107	255	75	92+d2/2	135		20
YLD5	M60×5.5	1440	250	220	156	100	265	114	340	95	127+d2/2	180	15	48
	M64×6		250	220	156	110	265	122	340	95	127+d2/2	180		48
	M68×6		250	220	156	110	265	130	340	95	127+d2/2	180		48
	M72×6		250	220	156	120	265	137	340	95	127+d2/2	180		48
	M76×6		250	220	156	140	265	145	340	95	127+d2/2	180		48
	M80×6		250	220	156	140	265	152	340	95	127+d2/2	180		48

YLP 系列 - 普通型螺栓拉伸器

YLP series - General bolt tensioner



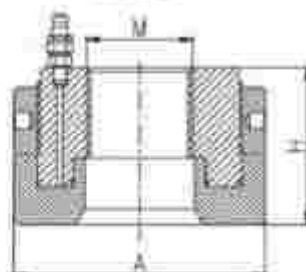
■ 执行机械标准:GB/T 6390-2007
Implementation of mechanical standard: GB/T 6390-2007

■ 注:工作压力 80MPa, 机械式回位。
Note: working pressure 80MPa, mechanical return.

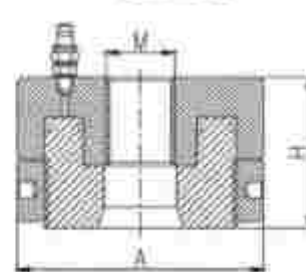
型号 Model	螺纹规格 Thread	拉伸力 Tensile Force kN	尺寸 Size (mm)					活塞 Piston	
			D	d	H1	H2	H3	面积 The Measure Of Area cm ²	行程 Stroke mm
YLP01	M30×3.5	125	70	54	70	26	96	15.7	5
YLP02	M33×3.5	140	76	60	72	28	103	17.3	5
YLP03	M36×4	150	83	66	74	30	109	18.9	5
YLP04	M39×4	195	88	72	75	32	112	24.5	5
YLP05	M42×4.2	210	94	77	76	34	116	26.5	5
YLP06	M45×4.5	230	100	83	78	38	124	28.5	5
YLP07	M48×5	280	105	89	80	40	129	35.3	5
YLP08	M52×5	300	112	94	82	45	134	37.6	5
YLP09	M56×5.5	385	124	100	84	48	145	48	5
YLP10	M60×5.5	480	136	106	86	51	154	59.7	5
YLP11	M64×6	505	142	112	88	53	151	62.9	5
YLP12	M68×6	610	153	118	90	58	162	76	5
YLP13	M72×6	720	165	124	92	62	166	90.3	5
YLP14	M76×6	755	171	130	95	64	174	94.3	5
YLP15	M80×6	880	183	136	105	68	175	110	5
YLP16	M85×6	1020	195	143	110	72	189	127.2	5
YLP17	M90×6	1165	207	146	115	74	195	145.5	5
YLP18	M95×6	1320	218	157	120	80	218	166	5
YLP19	M100×6	1365	224	164	125	84	223	170.5	5W
YLP20	M105×6	1580	228	175	135	88		197.3	5
YLP21	M110×6	1760	254	181	145	95		220	5
YLP22	M115×6	1800	260	188	150	98		225	5
YLP23	M120×6	1910	271	194	165	100		238.8	5
YLP24	M125×6	1960	277	198	175	105		245	5
YLP25	M130×6	2165	289	210	185	110		270.4	5

DN/HN 系列 - 液压螺母

DN/HN series - hydraulic nut



顶环液压螺母
Top ring hydraulic nut



底环液压螺母
Bottom ring hydraulic nut

- 简单、快捷、精确
Simple, quick and accurate
- 采用无转矩设计，避免摩擦、螺栓扭曲、螺栓预紧力等因素的影响，使被紧固螺栓受纯拉伸力。
The torque-free design is adopted to avoid the influence of friction, bolt twist, bolt pre-tensioning force, so that the fastened bolt is subjected to pure tensile force.
- 特别适合于重负荷震动机械紧固。
Especially suitable for heavy load vibration machinery fastening.

- 带有行程指示器，允许在操作过程中观察、测量和控制拉伸量。
With stroke indicator, it is allowed to observe, measure and control drawing amount during operation.
- 可以精确设定预载荷，精度高达 $\pm 3\%$ 。
The pre-load can be accurately set, and the accuracy is as high as $\pm 3\%$.
- 最大工作压力：150MPa
Maximum working pressure: 150MPa

型号 Model		螺纹规格 Thread Specification	外径 External Diameter	高度 Height	作用面积 Area Of Action	最大出力 Maximum Force	行程 Stroke	重量 Weight
顶环液压螺母 Top Ring Hydraulic Nut	底环液压螺母 Bottom Ring Hydraulic Nut	M	A	H	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	72	28.5	427	6	1.9
DN45	HN45	45	106	77	32.4	485	6	2.4
DN48	HN48	48	118	80	4	600	6	2.8
DN52	HN52	52	123	84	42.4	635	8	3.6
DN55	HN55	55	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	26.5

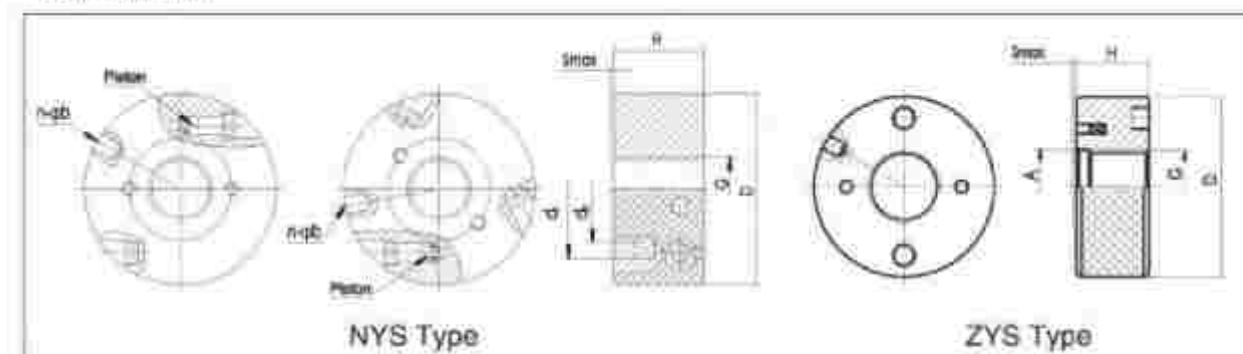
NMS系列 - 黄油液压螺母

NMS series - hydraulic nut

- 使用手动内六角扳手驱动
Activated by a hand-hold hex wrench.
- 表面镀黑处理，最高温度120℃
Durable black-zinc finish for 120°C max.
- 可以选择不锈钢、铝合金、镀锌或镀铬以增强产品防腐性
Optional stainless steel, aluminum, zinc-plating or chromium plating for corrosion resistance.
- 清洁，高效
Clean, efficient
- 密封油脂型，无需向外排压
A sealed grease system without pressure release to atmosphere.



技术参数 Technical parameter



型号 Part No	螺纹规格 Thread Specification	最大外径 Outside Diameter D	高度 Height H	压力环外径 Outer Diameter Of Pressure Ring d1	压力环内径 Inner Diameter Of Pressure Ring d2	行程 Stroke	最大推力 Max Cylinder Capacity Advance KN
NMS100	M100*3	160	45	140	120	2	40.8
NMS110	M110*3	170	48	150	130	2	44.0
NMS120	M120*3	180	45	155	140	2	34.7
NMS130	M130*3	185	45	170	150	2	50.2
NMS140	M140*3	225	50	200	180	2	59.7
NMS150	M150*3	240	53	200	180	2	59.7
NMS160	M160*3	250	53	210	180	2	62.8
NMS170	M170*3	280	60	220	200	2	65.9
NMS180	M180*3	285	60	250	230	2	75.4
NMS190	M190*3	285	60	250	230	2	75.4
NMS200	M200*3	295	60	250	230	2	75.4
NMS210	M210*3	295	65	270	250	2	81.8
NMS220	M220*3	300	65	270	250	2	81.8
NMS230	M230*3	320	65	280	260	2	84.9
NMS240	M240*3	330	65	300	260	2	91.1
NMS250	M250*3	340	65	300	280	2	91.1
NMS260	M260*3	350	65	330	300	2	148.4
NMS270	M270*3	360	65	330	300	2	148.4

DN/HN 系列 - 液压螺母

DN/HN series - hydraulic nut



型号 Model	规格 Specification	外径 Outside diameter	压环外径 Outer diameter of pressure ring	压环内径 Inner diameter of pressure ring	油缸厚度 Cylinder height	压环厚度 Ring height	行程 Stroke	有效面积 Cylinder Effective Area	最大推力 Maximum Cylinder Capacity	重量 Weight
	mm	mm	mm	mm	mm	mm	mm	cm ²	KN	kg
HMV 100	M100×1.5	114	104	50.5	38	4	5	29	290	3.10
HMV 110	M105×2	120	109	55.5	38	4	5	31.5	315	3.15
HMV 120	M110×2	126	115	60.5	38	6	6	33	330	3.30
HMV 130	M115×2	130	121	65.5	38	6	5	36	360	3.30
HMV 140	M120×2	136	127	70.5	38	6	5	38	380	3.30
HMV 150	M125×2	140	132	75.5	38	5	5	40	400	3.40
HMV 160	M130×2	146	137	80.5	38	5	5	41	420	3.70
HMV 170	M135×2	150	142	85.5	38	5	5	44	440	3.75
HMV 180	M140×2	156	147	90.5	38	5	5	47	470	4.30
HMV 190	M145×2	162	152	95.5	38	5	5	49	490	4.30
HMV 200	M150×2	166	156	100.5	38	6	5	51	510	4.40
HMV 210	M155×2	172	163	105.5	38	6	5	53	530	4.45
HMV 220	M160×2	178	169	110.5	38	6	5	55	560	4.95
HMV 230	M165×2	182	174	115.5	38	6	5	58	580	5.30
HMV 240	M170×2	186	179	120.5	38	6	5	60	600	5.35
HMV 250	M175×2	192	184	125.5	38	6	5	62	620	5.35
HMV 260	M180×2	198	190	130.5	38	6	5	64	640	5.45
HMV 270	M185×2	204	195	135.5	38	6	5	66	660	5.90
HMV 280	M190×2	208	200	140.5	38	7	5	68	680	6.30
HMV 290	M195×2	214	206	145.5	38	7	5	73	730	6.50
HMV 300	M200×2	220	211	150.5	38	7	5	75	750	6.50
HMV 310	M205×2	226	216	155.5	38	7	5	81	810	6.95
HMV 320	M210×2	232	224	160.5	40	7	6	86	860	7.30
HMV 330	M215×2	236	229	165.5	40	7	6	89	890	7.90
HMV 340	M220×2	244	236	170.5	41	7	6	94	940	8.40
HMV 350	M225×2	250	247	180.5	41	7	6	100	1000	9.15
HMV 360	M230×2	256	253	185.5	42	8	7	115	1150	18.50
HMV 380	M240×2	262	261	205	43	8	8	125	1200	11.50
HMV 410	T×205×4	286	276	207	43	8	8	138	1300	12.00
HMV 420	T×210×4	294	282	212	44	8	9	134	1340	12.50
HMV 430	T×215×4	300	287	217	44	8	9	137	1370	13.00
HMV 440	T×220×4	306	293	222	44	9	9	146	1440	13.50
HMV 450	T×225×4	312	300	227	45	8	9	152	1520	14.00
HMV 460	T×230×4	318	305	232	45	8	9	155	1550	15.00
HMV 470	T×235×4	326	311	236	46	8	10	160	1600	16.00
HMV 480	T×240×4	330	316	242	46	9	10	166	1650	16.50
HMV 490	T×250×4	342	329	250	46	9	10	176	1760	17.50
HMV 510	T×260×4	356	341	262	47	9	11	188	1880	18.50
HMV 540	T×270×4	368	352	272	48	9	12	199	1990	20.50
HMV 560	T×280×4	380	363	282	48	9	12	211	2130	22.00

续表

continued

型号 Model	规格 Specification	外径 Outside diameter	压环外径 Outer diameter of pressure ring	压环内径 Inner diameter of pressure ring	油缸厚度 Cylinder height	压环厚度 Ring height	行程 Stroke	有效面积 Cylinder Effective Area	最大推力 Maximum Cylinder Capacity	重量 Weight
	mm	mm	mm	mm	mm	mm	mm	cm ²	KN	kg
HMV 580	T×290×4	396	375	293	49	9	13	224	2240	22.50
HMV 600	T×300×4	404	386	302	51	10	14	236	2360	25.50
HMV 620	T×310×5	416	397	312	52	10	14	249	2490	27.00
HMV 640	T×320×5	428	409	323	53	10	14	260	2600	29.00
HMV 660	T×330×5	438	419	332	53	10	14	270	2700	30.00
HMV 680	T×340×5	450	430	342	54	10	14	284	2840	31.50
HMV 700	T×345×5	456	435	347	54	10	14	294	2940	32.50
HMV 720	T×350×5	464	442	352	56	10	14	299	2990	35.00
HMV 730	T×360×5	472	455	360	56	10	15	312	3120	35.50
HMV 750	T×365×5	482	460	367	57	11	15	317	3170	38.50
HMV 760	T×370×5	486	466	372	57	11	16	328	3280	39.00
HMV 780	T×380×5	498	476	382	58	11	16	335	3350	42.50
HMV 790	T×385×5	504	482	387	58	11	16	347	3470	41.00
HMV 800	T×390×5	522	499	402	60	11	17	357	3670	45.50
HMV 820	T×400×5	534	510	412	61	11	17	382	3820	48.00
HMV 840	T×420×5	546	522	422	61	11	17	400	4000	56.00
HMV 860	T×430×5	556	532	432	62	11	17	408	4080	52.50
HMV 880	T×440×5	566	543	442	62	12	17	425	4250	54.00
HMV 900	T×450×5	580	554	452	64	12	17	441	4410	57.50
HMV 920	T×460×5	590	565	462	64	12	17	453	4510	60.00
HMV 940	T×470×5	602	576	472	65	12	18	469	4690	62.00
HMV 960	T×480×5	612	587	482	65	12	19	486	4860	63.00
HMV 980	T×490×5	624	597	492	66	12	19	495	4950	66.00
HMV 1000	T×500×5	636	609	502	67	12	19	515	5150	70.00
HMV 1020	T×510×6	648	624	512	68	12	20	533	5330	74.00
HMV 1040	T×520×6	658	634	522	68	13	20	543	5430	75.00
HMV 1060	T×530×6	670	645	532	69	13	21	562	5620	79.00
HMV 1080	T×540×6	682	657	542	69	12	21	582	5820	81.00
HMV 1100	T×550×6	693	667	552	70	12	21	592	5920	84.00
HMV 1120	T×560×6	704	678	562	71	13	22	612	6120	88.00
HMV 1140	T×570×6	716	689	572	72	12	23	632	6320	91.00
HMV 1160	T×580×6	726	699	582	72	13	23	642	6420	94.00
HMV 1180	T×600×6	748	721	602	73	13	23	673	6730	100.0
HMV 1200	T×630×6	782	754	632	74	14	23	729	7290	110.0
HMV 1250	T×650×6	804	775	653	75	14	23	762	7620	115.0
HMV 1300	T×670×6	826	796	673	76	14	24	795	7950	120.0
HMV 1350	T×690×6	848	819	693	77	14	25	842	8420	127.0
HMV 1400	T×710×7	870	840	713	78	15	25	877	8770	135.0
HMV 1500	T×750×7	912	883	752	79	15	25	952	9520	146.0
HMV 1600	T×800×7	966	956	802	80	16	25	1039	10390	161.0
HMV 1700	T×850×7	1020	990	857	83	16	26	1146	11460	181.0
HMV 1800	T×900×7	1076	1043	902	86	17	30	1241	12410	205.0
HMV 1900	T×950×8	1126	1097	952	86	17	30	1357	13570	218.0
HMV 2000	T×1000×8	1180	1150	1002	88	17	34	1458	14580	239.0

螺栓预紧力推荐表

Recommended form of bolt preload

下表数据主要适用于螺栓拉伸器、液压螺母的选择

The data in the following table are mainly applicable to the selection of bolt tensioner and hydraulic nut.

强度等级 Strength Grade	4.8	5.8	8.8	10.9	12.9
最小屈服强度 Minimum Yielding Strength	400MPa	500MPa	800MPa	1000MPa	1200MPa
材质 Texture Of Material	一般结构用钢 General structural steels	机械结构用钢 Mechanically constructed steel	镍钼合金钢 Molybdenum alloy steel	镍钼合金钢 Nickel molybdenum alloy steel	镍钼合金钢 Nickel molybdenum alloy steel
螺栓 Bolt	螺母对边 The Edge Of The Nut	预紧力 Pretightening Force KN			
16	24	30	45	60	85
18	27	37	55	74	104
20	30	47	71	94	132
22	34	58	87	117	164
24	36	68	102	135	190
27	41	88	132	176	248
30	46	109	161	215	303
33	50	133	200	266	375
36	55	157	235	314	441
39	60	187	281	375	527
42	65	215	323	430	605
45	70	251	376	502	705
48	75	283	424	566	796
52	80	338	506	675	949
56	85	390	585	780	1096
60	90	454	680	907	1275
64	95	514	771	1028	1445
68	100	587	880	1173	1650
72	105	664	995	1329	1868
76	110	747	1120	1494	2100
80	115	834	1251	1668	2346
85	120	950	1425	1900	2672
90	130	1073	1610	2147	3019
100	145	1343	2014	2686	3777
110	155	1543	2464	3285	4620
120	175	1973	2959	3945	5548
125	180	2149	3223	4298	6042



上表中螺栓拉伸力数据仅作参考使用。
The bolt tensile force data in the table above are for reference only.



螺栓拉伸力值首先应依据机械设备设计所需扭矩为准。
The bolt tensile force should first be based on the torque required by mechanical equipment design.

注：上表中数值为螺栓达到屈服极限的 60% 时所测定。

Note: the value in the above table is determined when the bolt reaches 60% of the yield limit.

建议螺栓预紧力为：表中数值 × (70-80) %

The recommended bolt tightening force is: data in table (70-80)%.

例如：M42 10.8 级螺栓，则预紧力为 605 × (70-80) % = 423.5-484KN

For example: M42 grade 10.8 bolts, pretightening force is 605 × (70-80)% = 423.5-484KN.

空间的考虑

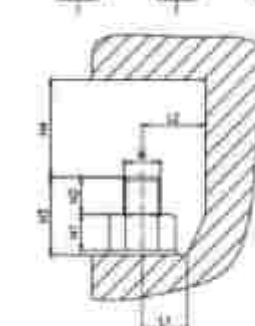
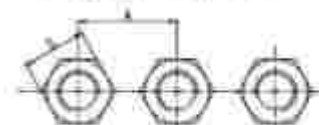
Space considerations

一、使用液压扳手工况

1. Use hydraulic wrench.

您应该了解液压扳手的使用条件
You should know the working conditions of hydraulic wrench.

六角形螺母（八角螺母）
Hexagon nut (octagonal nut)



Hexagon nut (octagonal nut)

内六角螺栓

Inner hex bolt

城堡型螺母

Castle nut

液压扳手工况调查表 - 请填写详细

Hydraulic wrench working condition questionnaire - please fill in the details.

螺栓规格	M	mm	
螺母对边	S	mm	
螺母间距	A	mm	
螺母厚度	H1	mm	
螺杆伸出长度	H2	mm	
螺杆总伸出长度	H3	mm	
螺杆距离障碍物	H4	mm	
螺母中心距离尖角	L1	mm	
螺母中心距离侧壁	L2	mm	
预紧扭矩	T	mm	

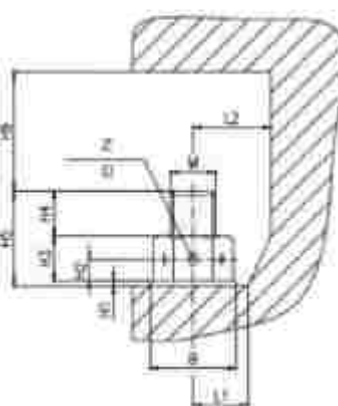
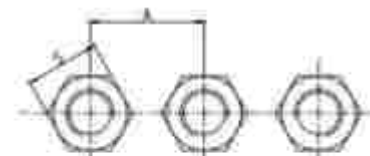
二、使用液压拉伸器工况

2. Use hydraulic tensioner.

您应该了解液压拉伸器的使用条件
You should know the working conditions of hydraulic tensioner.

螺杆伸出螺母长度 ≥ 1 倍螺杆直径
Screw extended nut length greater than 1 times screw diameter

圆形螺母或六角形螺母
Round nut or hexagon nut



液压拉伸器工况调查表 - 请填写详细

Hydraulic tensioner working condition questionnaire - please fill in the details.

螺栓规格	M	mm	
牙距	P	mm	
圆形螺母直径		mm	
六角螺母对边	S		
螺母厚度	H1	mm	
圆形螺母孔径高度	H2	mm	
圆形螺母孔径数量	Z	mm	
圆形螺母孔径直径	D	mm	
垫片直径	B	mm	
垫片厚度	H1	mm	
螺母间距	A	mm	
螺杆伸出长度	H4	mm	
螺杆总伸出长度	H5	mm	
螺杆距离障碍物	H6	mm	
螺母中心距离尖角	L1	mm	
螺母中心距离侧壁	L2	mm	
预紧扭矩	T	mm	

SP304 系列 - 液压扳手专用电动泵

SP304 series - special electric pump for hydraulic wrench

高性能散热器，油温达 35℃ 时风扇启动，确保长时间不间断。
High performance radiator, oil temperature up to 35 degrees, the fan will start, ensure long time.

工程塑料一体成型电器盒，更加耐用。
Engineering plastics integrated forming electrical box is more durable.

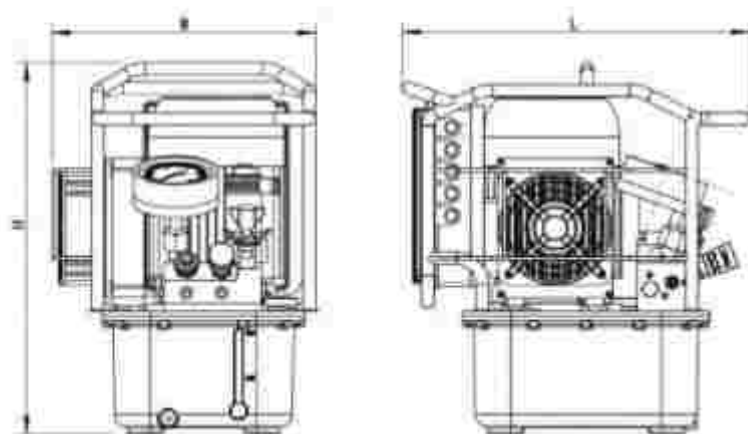
铸造铝合金油箱，油液零泄露，更加轻便，坚固。
Casting aluminum alloy tank, zero leakage of oil, more light and strong.

嵌入式油位计，油位刻度线指示，查看油位更加方便快捷。
The embedded oil level gauge and the oil level indicator line indicate that the oil level is more convenient and fast.

- ※ 高效率的三级流量压力设计，完美模拟人工操作，实现快速轻负载，慢速重负载，螺栓预紧更加精准。
Efficient three-stage flow pressure design, perfect simulation of manual operation, fast light load and slow heavy load, bolt pre-tightening more accurate.
- ※ 标准配置同时带动两台液压扳手（另可配置同时带动 4 台液压扳手）。
This standard configuration also drives two hydraulic wrenches at the same time (another 4 hydraulic wrenches can be configured at the same time).
- ※ 铝钛合金制造泵体，质量小，携带轻便。
Aluminum titanium alloy pump body, small quality, easy to carry.
- ※ 在 40 ~ 700bar 范围内自由调整输出压力。
Adjust output pressure freely in the range of 40 to 700bar.
- ※ 无碳刷大功率电机，维护方便，寿命长，电机配有启动电容，可带载启动，操作更简洁。
Brushless high-power motor, easy maintenance, long life, motor with starting capacitor can start with load, more concise operation.

外型尺寸

Outer size



技术参数

technical parameter

型号 Model	进出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure			流量 (L/min) Flow			油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High	中压 Medium	低压 Low	高压 High Pressure	中压 Medium	低压 Low			
SP304-2	A	220V/1.1KW	70	32	6	0.8	1.4	8	7.0	394x300x420	26
SP304-4	B	220V/1.1KW	70	32	6	0.8	1.6	8	7.0	394x300x420	26

DSB/DZB系列-电动液压泵站

DSB/DZB Series-Electric Hydraulic Pump Station



- ※ DZB系列电动油泵是由高压柱塞泵、低压齿轮泵、控制阀、换向阀、油箱、电机、仪表等组成的液压动力装置，配有三位四通手动换向阀。
DZB series electric pump is hydraulic power equipment includes high-pressure plunger pump, low-pressure gear pump, control valve, reversing valve, fuel tank, motor, meter etc.
- ※ DSB系列电动油泵为单出口口，内有高低压泵，当油缸无负载时，高低压泵同时供油，快速省时。当油缸有负载时，低压泵自动卸荷，仅高压泵供油，适用于单作用油缸或打压试验，手动卸荷，可实现停机保压。
DSB series electric pump with single fuel outlet high-low pump inside. High-low pump supplies oil while cylinder not loading it's rapid and saving time. When cylinder is loading low pressure pump unloads automatically only high pressure pump supplies oil, it applies to single acting cylinder and pressure test, manually unloading, realize low pressure while working.

技术参数

technical parameter

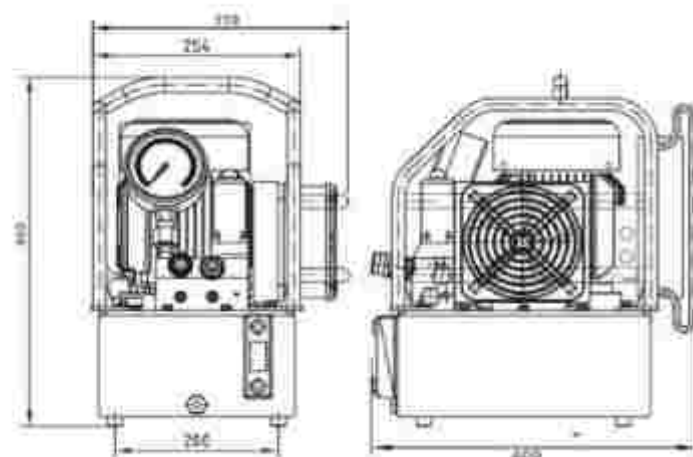
型号 Model	额定压力 Rated pressure		额定流量 Rated flow		电机功率 Motor power	油箱容积 Fuel tank capacity
	高压压力 High pressure	低压压力 Low pressure	高压流量 Flow under high pressure	低压流量 Flow under low pressure		
DSB/DZB 1/2-4B	80MPa	6.3MPa	0.1L/min	2.4L/min	1.5KW	1HL
DSB/DZB 1/2-6B	80MPa	4MPa	0.1L/min	0.1L/min	3KW	4HL
DSB/DZB 1/2-4B	80MPa	6.3MPa	0.1L/min	2.4L/min	0.75KW	1HL
DSB/DZB 1/2-6B	80MPa	4MPa	1.1L/min	0.1L/min	1.5KW	20/30/50L
DSB/DZB 1/2-6B	80MPa	4MPa	0.4L/min	0.1L/min	2.2KW	40/50L
DSB/DZB 1/2-6B	80MPa	4MPa	2.0L/min	0.1L/min	3KW	80/100L
DSB/DZB 1/2-6B	80MPa	4MPa	4.0L/min	0.1L/min	4KW	90/100L
DSB/DZB 1/2-6B	80MPa	4MPa	6.0L/min	0.1L/min	5.5KW	90/100L
DSB/DZB 1/2-6B	80MPa	4MPa	7.0L/min	0.1L/min	7.5KW	90/100L
DSB/DZB 1/2-6B	80MPa	4MPa	11L/min	0.1L/min	11KW	200/300L
DSB/DZB 1/2-6B	80MPa	4MPa	15L/min	0.1L/min	15KW	200/300L

EMP304 - 液压扳手三级泵

EMP304 - hydraulic wrench three stage pump

- ★ 高效率的三级流量压力设计，完美模拟人工操作，实现快速轻负载，慢速重负载，螺栓预紧更加精准。
Efficient three-stage flow pressure design, perfect simulation of manual operation, fast light load, slow heavy load, bolt pre-tightening more accurate.
- ★ 标准配置同时带动两台液压扳手（另可配置同时带动4台液压扳手）。
The standard configuration can drive two hydraulic wrenches at the same time (another 4 hydraulic wrenches can be configured at the same time).
- ★ 铝钛合金制造泵体，质量小，携带轻便。
Aluminum titanium alloy pump body, small quality, portable.
- ★ 在 40 ~ 700bar 范围内自由调整输出压力。
Adjust output pressure freely in the range of 40 ~ 700bar.
- ★ 无碳刷大功率电机，维护方便，寿命长，电机配有启动电容，可带载启动，操作更简洁。
Brushless high-power motor, easy maintenance, long life, motor with starting capacitor, can start with load, more concise operation.
- ★ 高性能散热器，油温达到 35℃ 时风扇启动。
High performance radiator, when the oil temperature reaches 35 degrees, the fan starts.

外型尺寸 Outer size



技术参数 Technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure			流量 (L/min) Flow			油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High	中压 Medium	低压 Low	高压 High	中压 Medium	低压 Low			
EMP304-2	4×1/4 NPT	220V/1.1KW	70	32	6	0.8	1.6	8	7.6	294x300x420	27
EMP304-4	8×1/4 NPT	220V/1.1KW	70	32	6	0.8	1.6	8	7.6	294x300x420	27.5



JKQ304 液压扭矩扳手气动泵

JKQ304- Hydraulic Torque Wrench Pneumatic pump

使用抗裂型压力表，分辨率高，重复精度高，耐冲击，故障率低。
The use of anti-crack pressure gauge has high resolution, high repeatability, impact resistance and low failure rate.

进口气动换向阀，安全防爆换向平稳，冲击性小，零泄漏。
Imported pneumatic reversing valve, safe explosion-proof reversing is smooth, small impact, zero leakage.

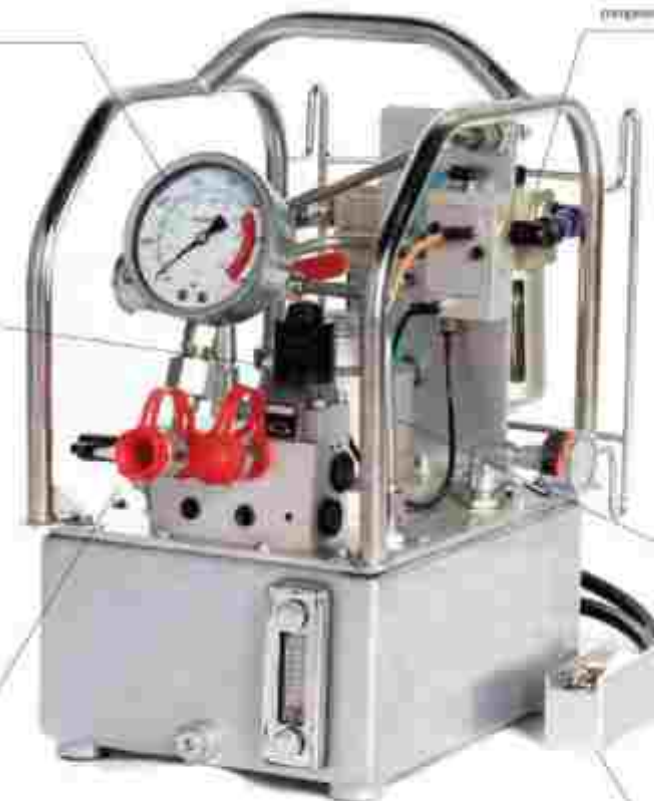
进口气动换向阀，安全防爆换向平稳，冲击性小，零泄漏。
Imported pneumatic reversing valve, safe explosion-proof reversing is smooth, small impact, zero leakage.

插装式溢流阀设计，性能稳定，噪音低，维修方便，维护费用低。
The cartridge relief valve is designed with stable performance, low noise, easy maintenance and low maintenance cost.

配有气源过滤器、气动减压阀，油雾器能提供清洁润滑的压缩空气。
Equipped with air source filter, pressure-reducing valve and oil mist can provide clean and lubricated compressed air.

采用进口气动马达，稳定好，寿命长，质量轻，耗气量少。
The imported pneumatic motor has good stability, long life, light weight and less gas consumption.

铝制防爆手柄，坚实可靠。
Aluminum explosion-proof handle, solid and reliable.



铝制防爆手柄，坚实可靠。
Aluminum explosion-proof handle, solid and reliable.



气源过滤器
Air source filter

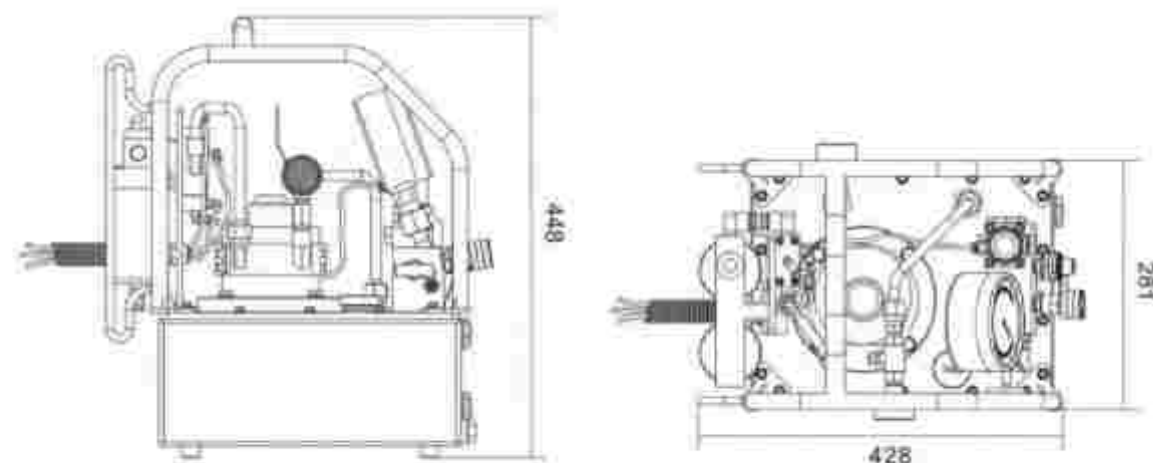
JKQ304 液压扭矩扳手气动泵

JKQ304- Hydraulic Torque Wrench Pneumatic pump

- 利用压缩空气作为动力源，一般使用在防爆、煤矿等应用场合，具有防爆、安全、不发热，能长时间连续工作等优点；
Compressed air as a power source is generally used in explosion-proof, coal mine and other applications, with explosion-proof, safe, non-heating, long-term continuous work and other advantages.
- 使用高性能气动换向阀，安全可靠，性能稳定。
The use of high performance pneumatic reversing valve, safe and reliable, stable performance.
- 泵站采用铝钛合金制作，重量轻便，携带方便；
The pump station is made of aluminum titanium alloy, with light weight and convenient portability.
- 可同时驱动两台液压扳手（也可根据客户要求定做同时驱动四套液压扳手）；
It can drive two hydraulic wrenches at the same time (also can drive four sets of hydraulic wrenches according to customer requirements).
- 压力从 4-70MPa 可连续调节；
The pressure can be adjusted continuously from 4 to 70MPa.
- 使用气源压力需要满足 4-8bar 的要求；
The use of gas source pressure needs to meet the requirements of 4-8bar.
- 可根据用户需求提供不同规格气动液压泵的定制；
According to the needs of users, we can provide customized specifications for pneumatic pumps with different specifications.
- 系统压力释放按钮，可以在液压泵停止工作情况下释放压力；
The system pressure release button can release pressure when the hydraulic pump stops working.
- 钢制经书结构保护架，能保护机身又方便搬运。
The steel structure protection rack can protect the body and facilitate handling.

外型尺寸

Outer size



技术参数

Technical parameter

型号 Model	气源参数 Gas Source Parameters			工作压力 (MPa) Working Pressure			流量 (L/min) Flow			油箱容积 Tank Volume (L)	外型尺寸 Outer Size (mm)	参考重量 Reference Weight (KG)
	气压 Pressure (bar)	额定功率 Rated Power (kW)	耗气量 Air (m³/min)	高压 High	中压 Medium	低压 Low	高压 High	中压 Medium	低压 Low			
QMP304	4-8	1.3	134	70	32	6	0.8	1.6	8	7.6	428x261x448	21

AMP304 系列 - 液压扳手自动泵

AMP304 series - hydraulic wrench automatic pump

一键式操作，速度快，结构紧凑重量轻
One-button operation, fast speed, compact structure and light weight



1.1KW 无碳刷交流电机，功率大，免维护，寿命长，能长时间连续工作。
1.1KW brushless AC motor has high power, no maintenance, long life, and can work continuously for a long time.

电磁先导阀快速换向，关机自动泄压，配有启动电容，能带压启动。
The electromagnetic pilot valve can switch quickly, equipped with starting capacitor and can start with pressure.

多功能数显式压力表可切换多种压力显示方式可在 MPa, Kg, bar, PSI 相互切换，满足不同情况下对压力数值的读取。
Multifunctional digital pressure gauge can switch various pressure display modes, 0.1MPa switch between MPa, Kg, bar and PSI to satisfy the reading of pressure values under different conditions.

智能化一键式操作，只需要按下启动按钮即可实现螺栓的紧固和拆松，操作人员可快速完成紧固 / 拆松任务。
Intelligent one-button operation, only need to press the start button to tighten and loosen the bolt, the operator can quickly complete the tightening/loosening task.

高效率的三级流量压力设计，完美模拟人工操作，实现快速轻负载、慢速重负载，螺栓预紧更加精准。
Efficient three-stage flow pressure design, perfect simulation of manual operation, fast light load, slow heavy load, bolt pre-tightening more accurate.

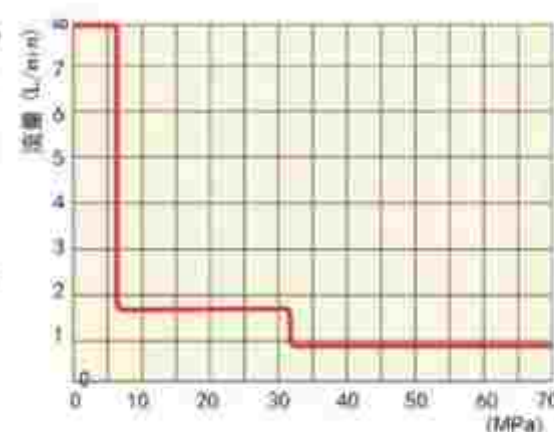
集成电路与数显压力表通过压力数值信号来实现换向，响应速度快，工作效率高。
The integrated circuit and the digital pressure gauge realize the conversion through the pressure numerical signal, which has fast response speed and high working efficiency.

无碳刷大功率电机，维护方便，寿命长，电机配有启动电容，可带载启动，操作更简洁。
Brushless high power motor, easy maintenance, long life, motor with starting capacitor, can start with load, more concise operation.

设定压力后，压力表控制换向阀，使调压阀经常处于关闭状态，寿命大为延长。
After setting the pressure, the pressure gauge controls the reversing valve, so that the pressure regulating valve is often closed and the service life is greatly prolonged.

速度高，效率高，比普通自动泵效率提高 30% 以上。
The efficiency is higher and the efficiency is more than 30% higher than that of the ordinary automatic pump.

高性能散热器，油温达 80℃ 时风扇启动，确保长时间不间断工作。
High performance radiator, when the oil temperature reaches 80 degrees, the wind fan starts to ensure that it works continuously for a long time.



AMP304 电动液压扳手自动泵流量图
Flow chart of AMP304 series hydraulic wrench automatic pump

技术参数

technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure			流量 (L/min) Flow			油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	中压 Medium Pressure	低压 Low Pressure	高压 High Pressure	中压 Medium Pressure	低压 Low Pressure			
AMP304-2	4×1/4 NPT	220V/1.1KW	70	32	6	0.8	1.6	8	7.6	394x300x420	28
AMP304-4	8×1/4 NPT	220V/1.1KW	70	32	6	0.8	1.6	8	7.6	394x300x420	28.5

EMP204 系列 - 液压扳手二级泵

EMP204 series - hydraulic spanner two stage pump



EPS200 系列 - 超高压电动泵

EPS200 series ultra high voltage electric pump



静音型
Mute

- ★ 选用标准滑阀，换向平稳，通用性好。
The standard slide valve is selected, with stable commutation and good versatility.
- ★ 两级压力流量设计，两种输出流量自动切换。
Two-stage pressure flow design, two output flow automatic switching.
- ★ 泵站采用铝镁合金制作，重量轻、携带方便。
The pump station is made of aluminum magnesium alloy, with light weight and convenient portability.
- ★ 无碳刷大功率电机，维护方便，寿命长。
Brushless high power motor has convenient maintenance and long service life.
- ★ 高性能散热器，油温达 35℃ 时风扇自动启动，确保长时间不间断工作。
High performance radiator, when the oil temperature reaches 35 degrees, the fan starts automatically, so that it can work without interruption for a long time.
- ★ 电控箱采用集成电路，可配液压缸、扳手、液压钳等液压机具使用。
The electric control box adopts integrated circuits, and can be equipped with hydraulic machines, such as hydraulic cylinders, wrenches, hydraulic tongs, etc.

技术参数

technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
EMP204X-3	4×1/4 NPT	220V/1.1KW	70	6	0.8	6	7.6	394×300×420	27
EMP204X-4	8×1/4 NPT	220V/1.1KW	70	6	0.8	6	7.6	394×300×420	27.5
EMP204-1	2×1/4 NPT	220V/1.5KW	70	6	1.1	6	8	450×325×540	36
EMP204-2	4×1/4 NPT	220V/1.5KW	70	6	1.1	6	8	450×325×540	36.5
EMP204-4	8×1/4 NPT	220V/1.5KW	70	6	1.1	6	8	450×325×540	37
EMP204-3B0-1	2×1/4 NPT	380V/1.5KW	70	6	1.1	6	8	450×325×540	36
EMP204-3B0-2	4×1/4 NPT	380V/1.5KW	70	6	1.1	6	8	450×325×540	36.5
EMP204-3B0-4	8×1/4 NPT	380V/1.5KW	70	6	1.1	6	8	450×325×540	37

外型尺寸

Outer size



技术参数

technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
EPS200	1/4×1.5	220V/0.45KW	200	3	0.1	2.0	4.5	394×300×420	17

- ★ 泵站最高使用压力 200MPa。
The maximum service pressure of pumping station is 200MPa.
- ★ 直流永磁电机，运行低噪音。
DC permanent magnet motor operates with low noise.
- ★ 体积小，便于携带。
Small size, easy to carry.
- ★ 适合于配套螺栓拉伸器、造船、风电等现场作业。
It is suitable for supporting bolt tensioner, shipbuilding, wind power and other field operations.
- ★ 高低压自动切换，工作效率更高。
High and low voltage automatic switching, higher efficiency.
- ★ 配有压力开关，是操作更加方便。
With pressure switch, it is more convenient to operate.

EPS150 系列 - 超高压电动泵

EPS150 series ultra high voltage electric pump



- ★ 泵站最高使用压力 150MPa。
The maximum service pressure of pumping station is 150MPa.
- ★ 单作用，高性能超高压电动泵。
Single acting high performance electric pump.
- ★ 泵体由铝钛合金制作，重量轻。
The pump body is made of aluminum titanium alloy with light weight.
- ★ 无碳刷大功率电机，维护方便，寿命长。
Brushless high power motor has convenient maintenance and long service life.
- ★ 适用于液压螺栓拉伸器，造船，风电等现场。
It is suitable for hydraulic bolt tensioner, shipbuilding, wind power and other fields.
- ★ 卡扣式快速接头，操作快捷、方便。
Pusher type quick connector is quick and convenient to operate.

技术参数 technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure	流量 (L/min) Flow	油箱容积 Tank Volume (L)	外形尺寸 Outer Size (mm)	参考重量 Reference Weight (KG)
EPS150-220	1/4 G	220V/1.5KW	150	0.8	8	500x260x530	38
EPS150-380	1/4 G	380V/1.5KW	150	0.8	8	500x260x530	38

EMP2004 系列 - 超高压电动泵

EMP2004 series ultra high voltage electric pump

风电专用
Special for wind power

- ★ 泵站最高使用压力 200MPa。
The maximum service pressure of pumping station is 200MPa.
- ★ 高低压自动切换，工作效率更高。
High and low voltage automatic switching, higher efficiency.
- ★ 泵体由铝钛合金制作，重量轻。
The pump body is made of aluminum titanium alloy with light weight.
- ★ 无碳刷大功率电机，维护方便，寿命长。
Brushless high power motor has convenient maintenance and long service life.
- ★ 适用于液压螺栓拉伸器，造船，风电等现场。
It is suitable for hydraulic bolt tensioner, shipbuilding, wind power and other fields.
- ★ 卡扣式快速接头，操作快捷、方便。
Pusher type quick connector is quick and convenient to operate.



技术参数 technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外形尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
EMP2004	G1/4	220V/1.1KW	200	3	0.3	2.5	8	400x310x440	27

SP2004 系列 - 超高压电动泵

SP200 series ultra high voltage electric pump



- ★ SP2004 是 EMP2004 系列升级为铸造铝合金油箱，泵体采用航空铝合金材料制作。体积更小，重量更轻，携带方便。
SP2004 is EMP2004 series upgraded to cast aluminum alloy tank, and the pump body is made of aviation aluminum alloy material. Smaller size, lighter weight and easy to carry.
- ★ 泵站最高使用压力 200MPa。
The maximum service pressure of pumping station is 200MPa.
- ★ 高性能安全阀，使压力更加稳定。
The high performance safety valve makes the pressure more stable.
- ★ 高性能散热器，可长保证长时间使用。
High performance radiator can be used for long time.

技术参数 technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外形尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
SP2004	G1/4	220V/1.1KW	200	3	0.3	2.5	8	394x300x420	24

PP系列 - 气液增压泵

PP series gas-liquid booster pump

- ★ PP系列气液增压泵采用单气控非平衡气体分配阀来实现泵的往复运动，泵体气动驱动部分全部采用铝合金制造。
PP series gas-liquid booster pump uses single gas control non-equilibrium gas distribution valve to realize the reciprocating motion of the pump. The pneumatic driving part of the pump body is all made of aluminum alloy.
- ★ 高压部分材质根据材质不同选用碳钢或不锈钢，泵的全套密封均为进口优质产品，从而保证泵的性能。
High pressure parts are made of carbon steel and stainless steel according to different materials. All the seals of the pump are imported high-quality products, so as to ensure the performance of the pump.
- ★ 最大驱动气压为 8 bar，为了保证寿命，建议使用气压 ≤ 6 bar。
The maximum actuation pressure is 8bar. To ensure its expectancy, it is recommended to use air pressure less than 6bar.



技术参数 technical parameter

型号 Model	最大工作压力 Max Pressure (Bar)	最大流量 Max Flow (L/min)	油箱容积 Oil Capacity (L)	空气出入口 Air access port	高压输出口 High Pressure Output Port	外形尺寸 Shape Size (mm)	重量 Weight (kg)
PP-1500	1500	0.25	0.5	1/28SP标准内螺纹	1/48SP标准内螺纹	340x320x380	16
PP-2250	2500	0.35	6	1/28SP标准内螺纹	1/48SP标准内螺纹	320x360x380	24
PP-2500	2500	0.35	6	1/28SP标准内螺纹	1/48SP标准内螺纹	350x360x380	24
PP-3500	2500	0.35	8	1/28SP标准内螺纹	1/48SP标准内螺纹	450x430x480	32

ISP2004 系列 - 智能拉伸电动泵

ISP2004 series - Intelligent stretching electric pump



- ★ 最高工作压力 200MPa。
The highest working hydraulic pressure is 200Mpa.
- ★ 可于螺栓拉伸器、张拉等工况。
It can be applied to bolt stretcher and tension.
- ★ 采用西门子控制器及人机界面，性能更稳定。
The performance of SIEMENS controller and human-machine interface is more stable.
- ★ 只需输入拉伸力，一键式操作，工作更快捷。
Just input tensile force, one button operation, work faster.
- ★ 自动补压功能，消除机械变形的压力损失，使拉伸更准确。
The automatic pressure compensation function eliminates the pressure loss caused by mechanical deformation. Make the drawing more accurate.
- ★ 操作记录数据可查询。
Operation record data can be querying.
- ★ 自动泄压功能。
Automatic pressure relief function.

技术参数

technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
ISP2004	G1/4	220V/1.1KW	200	3	0.3	2.5	8	400X380X600	55

ZMP2004 系列 - 自动卸压泵

ZMP2004 series - automatic pressure relief pump

- ★ 泵体由铝钛合金制作，重量轻，方便携带。
The pump body is made of aluminum titanium alloy, light weight and easy to carry.
- ★ 无碳刷大功率电机，维护方便，寿命长，电机配有启动电容，可带载启动，操作更简洁。
Brushless high power motor, easy maintenance, long life motor with starting capacitor, can start with load, more concise operation.
- ★ 适用于液压螺栓拉伸器，造船、风电等现场。
It is suitable for hydraulic bolt tensioner, shipbuilding, wind power and other fields.
- ★ 卡扣式快速接头，操作快捷、方便。
Push-button type quick connector is quick and convenient to operate.
- ★ 采用两级流量压力设计，高低压输出自动切换，工作效率高，螺栓预紧更加准确。
With two-stage flow and pressure design, the output of high and low pressure can be automatically switched, the working efficiency is high, and the bolt pre-tightening is more accurate.
- ★ 高性能散热装置，确保设备能长时间不间断的工作。
The high performance heat sink ensures that the equipment can work continuously for a long time.



型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
ZMP2004	G1/4	220V/1.1KW	200	3	0.3	2.5	8	400x310x440	26

FB204 系列 - 超高压电动泵

FB204 series ultra high voltage electric pump



FB2 手动换向
FB2 manual reversing



FB2 电磁换向
FB2 electromagnetic reversing



FB2 自动换向
FB2 automatic reversing

- ★ EX d II BT4 式三相异步电动机，安全，适合防爆场合。
EX D II BT4 three-phase asynchronous motor is safe and suitable for the condition of anti explosion.
 - ★ 电控系统采用 EX d II BT4 式防爆磁启动器，安全防爆。
The EX D II BT4 explosion-proof magnetic starter is adopted in the electric control system, which is safe and explosion-proof.
 - ★ 外置式调压阀，压力 7-70MPa 之间连续可调。
The external pressure regulating valve is continuously adjustable between pressure 7-70MPa.
 - ★ 柱塞泵选用三级柱塞泵，工作效率高，压力波动小。
Plunger pump uses three stage plunger pump, high efficiency and low pressure fluctuation.
- 泵装有管状可移动保护架，以防止泵被损坏移动方便
The pump is equipped with a tubular movable protector to prevent the pump from being damaged and easy to move.

技术参数

technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure			流量 (L/min) Flow			油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High	中压 Medium	低压 Low	高压 High	中压 Medium	低压 Low			
FB204-1	2×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FB204-2	4×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FB204-4	8×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FB204-1	2×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FB204-2	4×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FB204-4	8×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FBE204-1	2×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FBE204-2	4×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75
FBE204-4	8×1/4 NPT	380V/1.5KW	70	-	0	0.8	-	0	10	560x370x640	75

EMP204D/EMP204S 液压泵站

EMP204D/EMP204S hydraulic pumping station



EMP204D 液压泵站



EMP204S 液压泵站

- ★ 二级压力，二种输出流量自动切换。
Two level pressure, automatic switching of two output flows.
- ★ 泵体由铝钛合金制作，重量轻。
The pump body is made of aluminum titanium alloy with light weight.
- ★ 无碳刷大功率电机，维护方便，寿命长。
Brushless high power motor, easy maintenance and long life.
- ★ 电控箱采用集成电路，可配液压油缸、液压钳、等液压机具使用。
The electric control box adopts integrated circuits and can be equipped with hydraulic cylinders, hydraulic clamps and other hydraulic machines.
- ★ 内置液控单向阀适用于长时间保压工况。
Built-in hydraulic check valve is suitable for long time packing condition.
- ★ 适配单作用油缸使用，可定制双作用油缸使用。
The use of single acting oil cylinder can be customized for double acting cylinders.

- ★ 轻便紧凑型设计，整机重量轻便于移动。
Lightweight and compact design. This series machine is lightweight and portable.
- ★ 双级泵设计，电磁换向控制，低压大流量。
Two stage pump design, electromagnetically controlled valve control, low pressure and large flow rate.
- ★ 空载时执行液压件运动速度快，提高工作效率。
The speed of hydraulic parts is fast when empty, improve work efficiency.
- ★ 高压大流量，适合多种液压机具配套使用。
High pressure and large flow, suitable for all kinds of hydraulic machines.
- ★ 泵装有管状可移动保护架，以防止泵被损坏移动方便。
The pump is equipped with a tubular movable protector to prevent the pump from being damaged and easy to move.
- ★ 可根据客户要求定制不同规格的油箱，适用于大吨位液压油缸。
The tank can be customized according to customer needs, it is suitable for large storage hydraulic cylinder.
- ★ 内置液控单向阀适用于长时间保压工况。
Built-in hydraulic check valve is suitable for long time packing condition.
- ★ 适配双作用油缸使用。
Suitable for dual acting cylinders.

技术参数 technical parameter

型号 Model	输出口 Output Port	电源参数 Power Parameter	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外形尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
			高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
EMP204D-220	1×3/8 NPT	220V/1.5KW	70	6	1.1	6	8	420×260×530	37
EMP204D-380	1×3/8 NPT	380V/1.5KW	70	6	1.1	6	8	420×260×530	37
EMP204S20-220	2×3/8 NPT	220V/1.5KW	70	6	1.1	6	20	680×370×645	57
EMP204S40-220	2×3/8 NPT	220V/1.5KW	70	6	1.1	6	40	680×370×645	57
EMP204S20-380	2×3/8 NPT	220V/1.5KW	70	6	1.1	6	20	680×370×645	57
EMP204S40-380	2×3/8 NPT	220V/1.5KW	70	6	1.1	6	40	680×370×645	57

PHG 系列 - 汽油发动机液压泵

FB204 series ultra high voltage electric pump



- ★ 在工作现场无电源及压缩空气时，这是一个合理的选择。
This is a reasonable choice when there is no power supply and compressed air at work site.
- ★ 可操作单、双作用液压工具，工作压力可达 70MPa 外置式调压阀，压力 7-70MPa 之间连续可调。
Operating single-acting and double-acting hydraulic tools, the working pressure can reach 70 MPa external pressure regulating valve, and the pressure can be continuously adjusted between 7 and 70 MPa.
- ★ PHG 系列汽油发动机，液压泵均有预置单向阀，以防止由前推位置转向保压位置时的压力丢失。
PHG series gasoline engines and hydraulic pumps have pre-installed one-way valves to prevent pressure loss from the forward position to the holding position.
- ★ 泵由一个四冲程，2.0kW 的 HONDA 发动机所驱动，在所有汽油发动机中具有最低的重量马力比普通汽油机具有强制空气冷却功能。
Driven by a 4 stroke, 2.0kW HONDA engine, the pump has the lowest weight horsepower among all gasoline engines with forced air cooling function compared with ordinary gasoline engines.
- ★ PHG 系列泵装有管状可移动保护架，以防止泵被损坏移动方便。
PHG series pumps are equipped with tubular movable protector to prevent the pump from being damaged and easy to move.

技术参数 technical parameter

型号 Model	输出口 Output Port	发动机参数 Engine Parameters		工作压力 (MPa) Working Pressure		流量 (L/min) Flow		油箱容积 Tank Volume (L)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
		排量 Displacement (cc)	转速 Speed (r/min)	高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
PHG120	M16×1.5	163	3000	70	-	1.1	-	8	540×430×500	54
PHG220	M16×1.5	163	3000	70	6	1.1	6	8	540×430×500	54

HP 系列—单作用铝制高压手动泵

HP series - single acting aluminum high pressure manual pump

- ★ 合理的结构和外观设计，整体美观，便于携带。
The reasonable structure with appearance design are beautiful and easy to carry.
- ★ 双速设计，泵的工作效率提高 80%。
Double speed design, pump efficiency increased by 80%.
- ★ 内置安全阀，用于过载保护。
Built-in safety valve for overload protection.
- ★ 油箱容量大，可适用于多种型号的油缸或工具。
The tank has large capacity and can be applied to various types of cylinders or tools.
- ★ 铝钛合金材料制造，质量轻、强度高、耐腐蚀、抗冲击，能适合各种工作环境。
Aluminum titanium alloy material, light weight, high strength, corrosion resistance, impact resistance, can be suitable for various working environments.
- ★ 最大工作压力为 280MPa。
The maximum working pressure is 280MPa.
- ★ 内置精密高低压切换阀，性能稳定可靠。
Built-in precision high and low pressure switch valve, stable and reliable performance.



型号 Model	输出口 Output Port	工作压力 (MPa) Working Pressure		流量 (L/min) Flow		可用油量 Tank Volume (ML)	外型尺寸 Outer Size (L×W×H) (mm)	参考重量 Reference Weight (KG)
		高压 High Pressure	低压 Low Pressure	高压 High Pressure	低压 Low Pressure			
HP100	G1/4	100	2	1.1	6	8	556×124×160	8.8
HP160	G1/4	100	2	1.1	6	8	556×124×160	8.8
HP250	G1/4	250	2	1.1	6	8	556×124×160	8.8
HP280	G1/4	280	2	1.1	6	8	556×124×160	8.8

PMC 系列脉宽同步顶升系统 - 实用型

PMC series pulse width synchronous jacking system - practical

系统工作原理

Working principle of the system

PMC 系列 PLC 同步顶升系统是基于 PLC 控制技术, 通过传感器的反馈来控制升降及定位。控制过程无需考虑重物的中心分布, 适用于对大型、重载桥梁进行顶升作业, 特别适用于配套 RSM/RCS 超薄型千斤顶用于更换桥梁支座。

PMC series PLC synchronous jacking system is based on PLC control technology, which can control the lifting and positioning by the feedback of the sensor. The control process does not need to consider the center distribution of heavy objects. It is suitable for the lifting operation of large and heavy bridges. It is especially suitable for supporting RSM/RCS super thin jacks to replace the bridge support.

通过改变每个油缸的流量来调节千斤顶的顶升位移, 该系统保持了良好的位置控制。通过消除人为干涉, 同步升降维持了机构完整性, 提高了生产效率, 增强了升降动作的安全性。

By changing the flow of each cylinder to adjust the jacking displacement of the jack, the system maintains good position control. Through the elimination of human interference, the synchronous lifting and lowering maintain the integrity of the mechanism, improve the production efficiency, and enhance the safety of the lifting movement.

基于 PLC 控制的同步顶升系统减少了重量分布不均和不同顶升点间负载转移造成的折弯、扭曲和倾斜的危险。

The synchronous jacking system based on PLC reduces the risk of bending, twisting and tilting caused by uneven weight distribution and load transfer between different jacking points.

核心电气控制系统采用了德国西门子 PLC 可编程控制器, 结合了高性能位移传感器和压力传感器检测系统, 实现了压力控制和位移控制双重控制, 进而保证了千斤顶的精准控制和顶升过程安全控制。

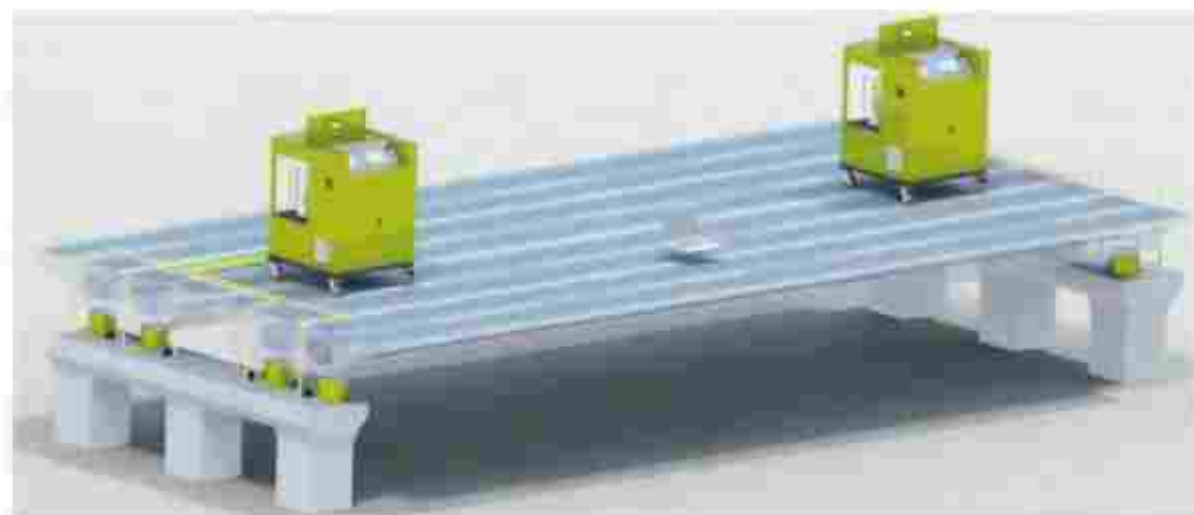
Core electrical control system uses German Siemens PLC programmable controller, combined with high-performance displacement sensor and pressure sensor detection system, realized the pressure control and displacement control dual control, thus ensuring the precision of the jack and jacking process safety control.

Control and displacement control dual control, thus ensuring the precision of the jack and jacking process safety control.



系统连接示意图

System connection schematic



PMC 系列脉宽同步顶升系统 - 实用型

PMC series pulse width synchronous jacking system - practical

系统特点

System features:

- 1. 采用了双柱塞泵动力系统, 实现了快速找平, 重载平稳顶升。
Double-plunger pump power system is adopted to achieve rapid leveling and heavy load leveling.
- 2. 控制精度高, 同步精料可以达到 0.5mm, 并且同步顶升和下降都可完全控制。
The control precision is high, the synchronous precision can reach 0.5mm, and the synchronous jacking and descending can be completely controlled.
- 3. 产品应用灵活, 可根据不同的使用工况、油缸吨位和数量、顶升精度进行灵活的联机控制。
The product is flexible and can be controlled flexibly according to different working conditions, oil cylinder tonnage and quantity and jacking accuracy.
- 4. 每个控制点相对独立, 可对一个或几个控制点单独调节, 控制点之间互不干涉。
Each control point is relatively independent and can be adjusted independently to one or several control points without interference between the control points.
- 5. 系统采用模块化设计, 可以控制 4、8、12、16, 并且可以联机控制扩展至 99 个点。
The system adopts modular design, which can control 4, 8, 12 and 16, and can be extended to 99 points online.
- 6. 具有数据存储和记录功能, 方便生成报表。
It has data storage and recording function to facilitate the generation of reports.
- 7. 可选配变频电机驱动 (VFD) 和 PLC 装置, 确保精确同步和流量控制。
Optional variable frequency motor drive (VFD) and PLC device to ensure accurate synchronization and flow control.
- 8. 简洁、直观的人机交互界面, 便于设置参数和操作。
Simple and intuitive human-computer interaction interface, easy to set parameters and operation.

系统参数

System parameter

同步点数 Sync Points	型 号 Model	额定压力 Nominal Pressure	额定流量 L/min Nominal Capacity		油箱容量 Oil Tank	电机参数 (380V, 50Hz)	外形尺寸 (LxWxD) mm	重量 Weight (kg)
		MPa	70 MPa	6 MPa	L			
4	PMC04B	70	1.13	6	100	1.5KW	780×760×1080	125
4	PMC04S	70	1.13	6	100	1.5KW	780×760×1080	125
6	PMC06B	70	1.13	6	100	1.5KW	780×760×1080	125
8	PMC08S	70	1.13	6	100	1.5KW	780×760×1080	125
12	PMC12B	70	1.13	6	100	1.5KW	780×760×1080	125
12	PMC12S	70	1.13	6	100	1.5KW	780×760×1080	125
16	PMC16B	70	1.93	10	100	2.2KW	780×760×1080	150
16	PMC16S	70	1.93	10	100	2.2KW	780×760×1080	150

工程案例

Project case



FMCS 系列变频同步控制系统

FMCS series Variable frequency synchronization control system

系统工作原理

Working principle of the system

FMCS 系列变频同步控制系统是一种闭环控制系统，是基于变频控制技术 (VFDM) 与传感器技术来控制千斤顶升降及准确定位。控制过程无需考虑重物的中心分布，适用于对大型、重载结构进行整体顶升作业。

FMCS series variable frequency synchronization control system is a closed-loop control system, which is based on the variable frequency control technology (VFDM) and sensor technology to control the lifting and accurate positioning of the jack. The control process does not need to consider the center distribution of heavy objects, which is suitable for the overall lifting operation of large and heavy load structures.

VFDM 技术实现了真正意义上的连续流量调节，通过连续改变电机的转速来调节流量的大小，因此变频控制技术在平稳性和可靠性方面要高于同类型的其他系统。

VFDM technology realizes continuous flow regulation in real time, which can adjust the flow rate by continuously changing the speed of the motor. Therefore, frequency conversion control technology is higher in stability and reliability than other systems of the same type.

每个控制点兼有压力和位移双重控制系统，可实现同步升降、同步顶推、重载称重、等比例升降、姿态调整等多种功能。基于 PLC 控制的同步顶升系统减少了重量分布不均和不同顶升点间负载转移造成的折弯、扭曲和倾斜的危险。

Each control point has dual pressure and displacement control system, which can realize synchronous lifting, synchronous pushing, heavy load weighing, etc. The synchronous lifting system based on PLC reduces the risk of bending, twisting and tilting caused by uneven weight distribution and load transfer between different lifting points.

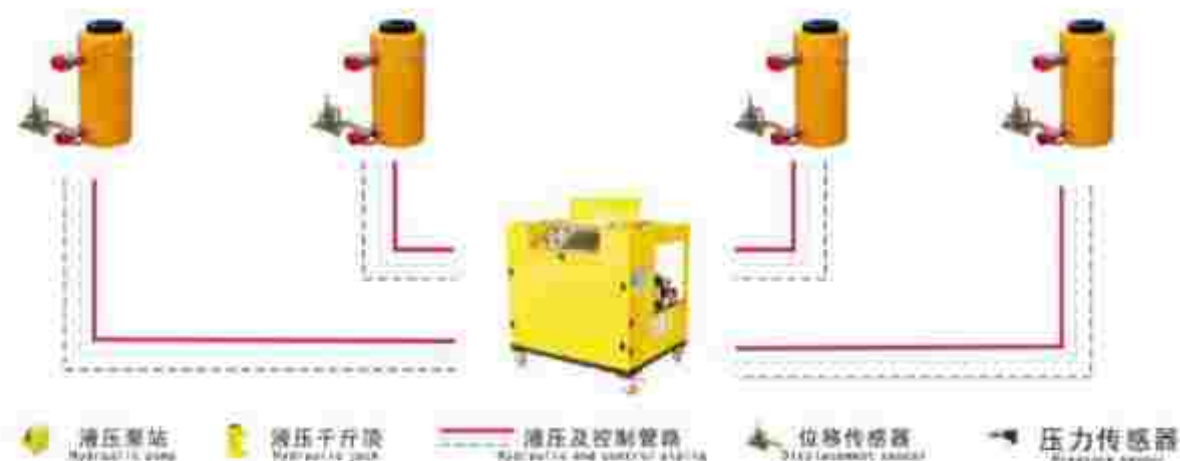


控制阀组
Control valve group



系统连接示意图

Schematic diagram of system connection



FMCS 系列变频同步控制系统

FMCS series Variable frequency synchronization control system

系统特点

System features

- ★ 采用双泵系统，实现了高速置零，平稳顶升的功能。
The double pump system is adopted to achieve the function of high speed zeroing and smooth lifting.
- ★ 完全计算机控制，顶升过程无需人工干涉，系统自动检测顶升状态并能根据顶升情况给出。
Complete computer control, lifting process without manual interference, the system automatically detects the lifting status and can be given according to the lifting situation.
- ★ 同步控制精度可以达到 0.1mm，同步顶升和同步下降都完全可控。
The accuracy of synchronous control can reach 0.1mm, and synchronous lifting and synchronous descent are completely controllable.
- ★ 每个控制点油路相对独立，系统压力可以单独调节互不干涉。
Each control point is relatively independent and the system pressure can be adjusted independently of each other.
- ★ 系统主要部件均选用知名国际品牌，密封件全部采用进口密封。
The main components of the system are famous international brands, and all seals are imported seals.
- ★ 适用性比较广泛，可配套使用单作用千斤顶或者双作用千斤顶。
It has wide applicability and can be matched with single acting jack or double acting jack.
- ★ 系统使用方便 液压管路与液压千斤顶以及液压泵站连接全部采用快插式接头。
The system is easy to use, and the connection between hydraulic pipeline and hydraulic jack and hydraulic pump group is all made of quick plug in joint.
- ★ 根据使用工况，可选用接入位移传感器和压力传感器，对系统工况进行实时监控。
According to the working condition, the displacement sensor and pressure sensor can be selected to monitor the working condition of the system in real time.

系统参数

System parameter

同步点数 Sync Points	型 号 Model	额定压力 Nominal Pressure	额定流量 L/min Nominal Capacity		油箱容积 Oil Tank	电液参数 (300v, 50Hz)	外形尺寸 (LxWxH) mm	重量 Weight (kg)
		Mpa	2x MPa	6 MPa	L			
2	FMCS-02	70	2x1.13	2x6	100	1.5KW	1050×870×1080	125
4	FMCS-04	70	4x1.13	4x6	100	1.5KW	1050×870×1080	125
8	FMCS-08	70	8x1.13	8x6	100	1.5KW	1050×870×1080	125
12	FMCS-12	70	12x1.13	12x6	100	1.5KW	1050×870×1080	125
16	FMCS-16	70	16x1.13	16x6	100	1.5KW	1050×870×1080	125
20	FMCS-20	70	20x1.13	20x6	100	1.5KW	1050×870×1080	125
24	FMCS-24	70	24x1.13	24x6	100	1.5KW	1050×870×1080	150

工程案例

Project case



3DCS 系列三维顶升系统

3DCS Intelligent three dimensional jacking system

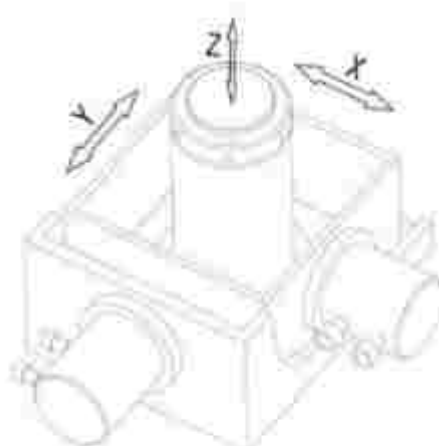
系统工作原理

Working principle of the system

三维调整液压系统主要由三维千斤顶、同步调整液压系统、位移检测系统以及管路附件组成。是一种起重位移的专用工具。三维千斤顶主要结构是由三个双作用超高压千斤顶、结构支撑体以及滑道组成。主顶升千斤顶配有液压安全阀用于保护负载。The three-dimensional adjustment hydraulic system is mainly composed of three-dimensional jack, synchronous adjustment hydraulic system, displacement detection system and pipeline accessories. It is a special tool for lifting displacement. The main structure of three-dimensional jack is composed of three double-acting ultra-high pressure jacks, structural support and sliding way. The main jack is equipped with a hydraulic safety valve to protect the load.

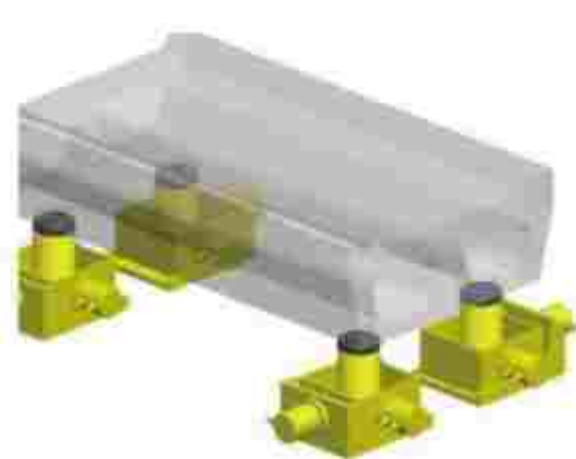
该产品主要用于船体焊接、铁路、公路的桥梁或类似梁式重物的位移作业。进行低高度、短距离的垂直方向(Y)横向(X)和纵向(Z)的位移。该产品的滑动摩擦副由千斤顶座、立式千斤顶座上的不锈钢滑板与立千斤顶座底部的聚四氟乙烯板组成。摩擦系数小且移动平稳。

This product is mainly used for the displacement of hull welding, railway, highway bridges or similar beam-type heavy objects, and for the vertical (Y) lateral (X) and vertical (Z) displacement of low altitude and short distance. The sliding friction pair of the product consists of a jack seat, a stainless steel sliding plate on the vertical jack seat and a PTFE plate at the bottom of the jack seat. The friction coefficient is small and the movement is stable.



顶升示意图

System connection schematic



系统特点

System features

- ★ 承载能力大，可调整 100 吨至 8000 吨的构件。
The load capacity is large, and the components can be adjusted from 100 tons to 8,000 tons.
- ★ 控制精度高，同步精度可以达到 0.5mm，并且同步顶升和下降都可完全控制。
The precision is high, the synchronous precision can reach 0.5mm, and the jacking and descending can be completely controlled.
- ★ 产品应用灵活，可根据不同的使用工况、油缸吨位和数量、顶升精度进行灵活的联机控制。
The product is flexible and can be controlled according to different conditions, cylinder tonnage and quantity, jacking accuracy.
- ★ 每个控制点相对独立，可对一个或几个控制点单独调节，控制点之间互不干涉。
Each control point is relatively independent and can be adjusted independently or several control points without interference.
- ★ 系统采用模块化设计，可以控制 4、8、12、16，并且可以联机控制扩展至 99 个点。
The system adopts modular design, which can control 4, 8, 12 and 16, and can be extended to 99 points online.
- ★ 具有数据储存和记录功能，方便生成报表。
It has data storage and recording function to facilitate the generation of reports.
- ★ 系统控制界面简洁，操作方便，自动化程度高。
The system control interface is simple, easy to operate and highly automatic.

系统参数

System parameter

型号 Model	顶升方向 Direction	承载能力 Capacity T (kN)	额定压力 Nominal Pressure Mpa	行程 Stroke mm	有效面积 Effective Area cm ²	液压油容量 Oil Capacity cm ³	重量 Weight (kg)
3DCS-100	垂直方向	100	70	200	132.7	2655	312
	横向方向	30		100	42.1	400	
	纵向方向	30		100	42.1	400	
3DCS-200	垂直方向	200	70	200	256.9	5318	519
	横向方向	50		100	77	770	
	纵向方向	50		100	77	770	
3DCS-300	垂直方向	300	70	200	456.2	9124	738
	横向方向	75		100	102.6	1067	
	纵向方向	75		100	102.6	1067	
3DCS-500	垂直方向	500	70	200	720.6	14612	1904
	横向方向	150		100	198.6	1986	
	纵向方向	150		100	198.6	1986	
3DCS-800	垂直方向	800	70	200	1176.3	23534	3858
	横向方向	200		100	256.9	2660	
	纵向方向	200		100	256.9	2660	
3DCS-1000	垂直方向	1000	70	200	1466.7	29316	5366
	横向方向	300		100	456.2	4562	
	纵向方向	300		100	456.2	4562	

工程案例

Project case



RMCD 系列容积同步顶升系统 - 经济型

RMC series volume synchronous jacking system - economical

系统工作原理

Working principle of the system

RMCD 系列容积同步顶升系统是基于“等容积”控制原理，即在相同的时间内给每个控制点输出相同量的液压油来实现同步控制的目的。控制过程无需考虑重物的中心分布。特别适用于小型千斤顶，RSM/RCS 超薄型千斤顶。

The RMC series volume synchronous jacking system is based on the principle of "equal volume" control, which is to output the same amount of hydraulic oil to each control point at the same time to achieve the purpose of synchronous control. The control process does not need to consider the center distribution of heavy objects, especially for small jacks, RSM/RCS super thin jacks.

容积同步采用开环控制实现同步，所以在造型和高精密制造方面提出了很高的要求。但是由于其操作简单，易于连接，系统稳定，精度高等优点，现今被广泛使用在一些要求高精度、高效率的施工现场。

The RMC series volume synchronous jacking system is based on the principle of "equal volume" control, which is to output the same amount of hydraulic oil to each control point at the same time to achieve the purpose of synchronous control. The control process does not need to consider the center distribution of heavy objects, especially for small jacks, RSM/RCS super thin jacks.



系统参数

System parameter

同步点数 Sync Points	型号 Model	额定压力 Nominal Pressure	额定流量 Nominal Capacity	油箱容积 Oil Tank	电源参数 (380V, 50Hz)	重量 Weight
		Mpa	L/min	L		(kg)
2	PMCD02D	70	0.5x2	100	1.5KW	125
2	PMCD02S	70	0.5x2	100	1.5KW	125
4	PMCD04D	70	0.5x4	100	2.2KW	125
4	PMCD04S	70	0.5x4	100	2.2KW	125
8	PMCD08D	70	0.5x8	100	5.5KW	125
8	PMCD08S	70	0.5x8	100	5.5KW	125
12	PMCD12D	70	0.5x12	100	11KW	150
12	PMCD12S	70	0.5x12	100	11KW	150

液压千斤顶的选用

Selection of hydraulic jack

一、力的选择

The choice of the force

工作时需要多大吨位的千斤顶，千斤顶在考虑密封的阻抗损失和千斤顶与活塞之间的支撑阻抗损失后，其力为额定值的 94%-95%，当千斤顶需要连续运行时，推荐选用的千斤顶吨位高一些，通常按额定值的 70%-80% 计算。

The load of jack is 94-95% of the rated load after considering the sealing frictional loss and the support frictional loss between the jack and piston. When the jack needs to run continuously, the

recommended load of the jack is higher, usually 70%-80% of the rated load is calculated.

二、行程的选择

Travel choice

如果空间足够大，请选择行程比实际所需行程长的千斤顶，以提高系统的可扩展能力、可靠性和耐用度。

If the space is enough, select a jack with a stroke longer than required to improve the system's scalability, reliability, and durability.

三、类型的选择

Type selection

千斤顶基本上分为两类：单作用（弹簧复位或负载复位）和双作用，CLL 和 DS 型千斤顶没有弹簧复位功能，只能通过负载或重力收缩。

Jacks can be divided into two types: single action (spring reset or load reset) and double action. CLL and DS jacks have no spring reset function and can only shrink through load or gravity.

四、数量的选择

Quantity selection

是否需要多个千斤顶同步操作。

Whether multiple jacks are required to operate synchronously.

五、安装和运行时的警告及注意事项

Warning and precautions for installation

1. 确保载荷作用在千斤顶中心且其方向沿千斤顶方向。
Make sure that the load act on the center of the jack and its direction is along the jack.
2. 允许的偏心载荷必须是在千斤顶技术要求之内。
Allowable eccentric loads must be within the technical requirements of the jacks.
3. 通过把法兰安装在顶推螺栓上，来安装千斤顶。
Install the jack by attaching the flange to the push thread.
4. 连接快速接头时，必须接通、螺纹旋紧，两端面贴合。
When connecting the quick joint, it must be connected and screwed tightly and the two ends meet.
5. 避免千斤顶活塞过度伸展。
Avoid jacking piston overextension.
6. 严禁千斤顶在载荷下时松开油泵接口。
It is strictly forbidden to remove the oil pump interface when the jack is under load.
7. 请远离热、火、雨、海水、潮湿等。
Keep away from heat, fire, rain, sea water, humidity, etc.
8. 有任何漏油 / 渗油的现象时，立即检查。
Check immediately if there is any leakage.
9. 当拉力端管接头完全堵塞时，禁止运作双作用千斤顶。如果装有自封式管接头的千斤顶突然停止运行，则最大的可能就是管接头松动导致油路不通。
Double-acting jacks are not allowed to operate when the tension end pipe joint is completely blocked. If the jack equipped with the self-sealing pipe joint stops running suddenly, the biggest possibility is that the pipe joint becomes loose and the oil road is blocked.

六、非标千斤顶与特殊千斤顶

Non-standard jacks and special jacks

可根据您的要求定制非标千斤顶，或者 1000 吨以上的千斤顶。

Can be customized according to your requirements, or more than 1000 tons of jacks.

1. 需要多大吨位力？

How much tonnage do you need?

2. 所需行程和本体高度？

Required stroke and body height?

3. 是否所有底座、顶部或者底部螺栓均需要？

Are all bottom, neck, or base threads required?

4. 所要求的使用频率和条件？

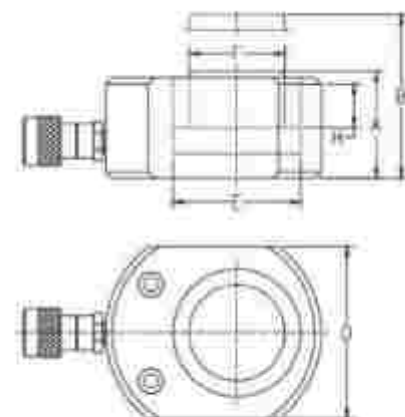
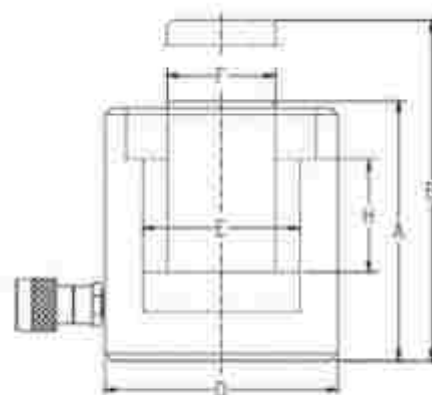
Required frequency and conditions of use?

RSM/RCS 系列—薄型液压油缸

RSM/RCS series Thin hydraulic cylinder



- ★ 紧凑的扁平设计，适用于狭小空间作业。
Compact flat design for small space operation.
- ★ 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chrome plated piston, prevent scratches and corrosion.
- ★ 烤漆表面耐腐蚀等恶劣环境。
Baking varnish surface, Corrosion resistant.
- ★ 防尘圈设计延长使用寿命。
Dustproof circle design extends service life.
- ★ 可选用弹簧复位活塞。
Spring reset piston can be selected.



参数表
Parameter table

承载能力 Capacity ton (Kgf)	行程 Stroke (mm)	型号 Model	有效面积 Effective Area (cm ²)	液压油容量 Oil Capacity (cm ³)	本体高度 A Height (mm)	伸长高度 B Extended Height (mm)	外径 D Outside Diameter (mm)	缸筒内径 E Cylinder Diameter (mm)	柱塞直径 F Plunger Diameter (mm)	重量 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	72.2	39.5	4.5
50 (450)	16	RSM50-16	62.3	99	66	82	140×114	89	44.5	6.8
75 (714)	16	RSM75-16	102	164	79	95	165×139	114	62	11.2
100 (880)	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	158	80	26.2
10 (101)	38	RCS10-38	14.5	55	98	126	69	42.9	38.1	4.1
20 (201)	45	RCS20-45	28.7	129	98	143	92	60.5	50.8	5.6
30 (295)	62	RCS30-62	42.1	261	117	179	101	72.2	66.5	6.8
50 (450)	60	RCS50-60	62.3	373	122	182	124	89	89.8	10.9

RC 系列—单作用液压油缸

RC series single acting cylinder

- ★ 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chrome plated piston, prevent scratches and corrosion.
- ★ 烤漆表面耐腐蚀等恶劣环境。
Baking varnish surface, Corrosion resistant.
- ★ 防尘圈设计延长使用寿命。
Dustproof circle design extends service life.
- ★ 单作用，弹簧复位。
Single acting, spring reset.

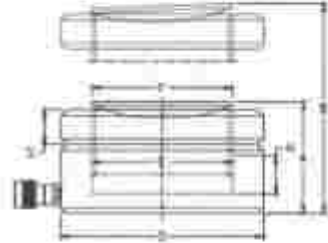


参数表
Parameter table

承载能力 Capacity ton (Kgf)	行程 Stroke (mm)	型号 Model	有效面积 Effective Area (cm ²)	液压油容量 Oil Capacity (cm ³)	本体高度 A Height (mm)	伸长高度 B Extended Height (mm)	外径 D Outside Diameter (mm)	重量 Weight (kg)
5 (45)	16	RC05-16	6.5	12	41	57	38	1
	15	RC05-15		16	110	135		1.2
	76	RC05-76		50	165	241		1.5
	127	RC05-127		83	215	347		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	59	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
	356	RC10-356		516	450	806		8.2
15 (142)	26	RC15-26	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	166	215		6.4
	102	RC25-102		336	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	777		27.6
75 (718)	156	RC75-156	102.6	1601	286	441	146	29.5
	333	RC75-333		3417	492	825		59

CLP 系列—薄型自锁式液压油缸

CLP series thin self-locking cylinder



- ★ 薄型油缸结构紧凑。
Thin cylinder structure compact.
- ★ 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chrome plated piston, prevent scratches and corrosion.
- ★ 安全的螺母锁定设计适合机械负载支撑。
Secure nut locking design for mechanical load support.
- ★ 可承受额定负荷 3% 的偏载而不产生挤压损伤。
Can withstand 3% of the rated load offset.

参数表
Parameter table

承载能力 Capacity (ton)	行程 Stroke (mm)	型号 Model	有效面积 Effective Area (cm ²)	液压油容量 Oil Capacity (cm ³)	本体高度 A Height (mm)	伸长高度 B Extended Height (mm)	外径 D Outside Diameter (mm)	油缸内径 E Cylinder Diameter (mm)	柱塞直径 F Plunger Diameter (mm)	自锁螺母高度 G Height of Lock Nut (mm)	重量 Weight (kg)
50 (506)	50	CLP50	85.6	432	125	175	140	105	T=105×4	30	15
100 (1001)	50	CLP100	1431	715	137	187	175	135	T=185×6	32	26
150 (1586)	45	CLP150	226.8	1021	148	193	220	170	T=170×6	42	44
200 (2198)	45	CLP200	283.4	1275	155	200	245	190	T=190×6	44	57
250 (2540)	45	CLP250	362.9	1633	159	204	275	215	T=215×6	46	74
400 (3856)	45	CLP400	551.3	2481	178	223	350	265	T=265×6	58	134
500 (5111)	45	CLP500	730.2	3286	192	237	400	305	T=305×6	65	189

RTC 系列—超高压薄型千斤顶

RTC series extra-high pressure thin jack



参数表
Parameter table

承载能力 Capacity (ton)	行程 Stroke (mm)	型号 Model	有效面积 Effective Area (cm ²)	液压油容量 Oil Capacity (cm ³)	本体高度 A Height (mm)	伸长高度 Extended Height (mm)	外径 D Outside Diameter (mm)	油缸内径 E Cylinder Diameter (mm)	回程 Return	重量 Weight (kg)
5	5	RTC5	3.46	34.6	30	35	60	21	自锁 Load	0.67
10	10	RTC10	7.07	70.7	30	40	70	30	负载 Load	0.9
25	10	RTC25	17.34	173.4	30	40	90	47	负载 Load	1.49
30	10	RTC30	38.46	384.6	30	40	118	79	负载 Load	2.42
100	10	RTC100	69.36	693.6	33	43	152	94	负载 Load	3.81
150	10	RTC150	105.63	1056.3	34	44	180	116	负载 Load	5.88
200	10	RTC200	136.79	1367.9	35	45	204	132	负载 Load	8.15

RCH 系列—单作用中空液压油缸

RCH series-Single acting hollow cylinder

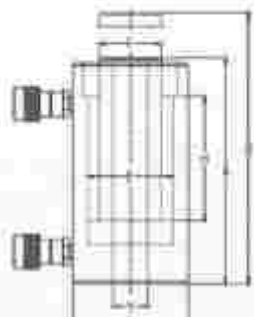


- ★ 单作用，弹簧复位。
Single acting, spring reset.
- ★ 烤漆表面耐腐蚀等恶劣环境。
Baking varnish surface, corrosion resistant.
- ★ 所有型号均配 3/8NPT 接头和护帽。
All models are available with 3/8NPT joint and hood.
- ★ 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chrome plated piston, prevent scratches and corrosion.

承载能力 Capacity (ton)	行程 Stroke (mm)	型号 Model	有效面积 Effective Area (cm ²)	液压油容量 Oil Capacity (cm ³)	本体高度 A Height (mm)	伸长高度 B Extended Height (mm)	外径 D Outside Diameter (mm)	油缸内径 E Cylinder Diameter (mm)	柱塞直径 F Plunger Diameter (mm)	中心孔径 Y Center Aperture (mm)	重量 Weight (kg)
12 (125)	8	RCH12-8	17.9	14	55	63	69	54	35.1	19.6	1.5
	42	RCH12-42	17.9	75	120	162	69	54	35.1	19.6	2.8
	76	RCH12-76	17.9	136	184	205	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	RCH20-155	30.7	476	305	441	98	73	54.1	26.9	14.1
	64	RCH20-64	48.6	298	178	242	114	89	63.5	33.3	10.9
30 (326)	155	RCH30-155	48.6	722	330	485	114	89	63.5	33.3	21.8
	76	RCH30-76	82.3	625	247	323	159	124	91.9	53.8	28.1
	153	RCH30-153	82.3	1289	323	476	159	124	91.9	53.8	35.4
100 (921)	76	RCH100-76	103.9	1011	254	330	212	165	127.0	79	63.0

RRH 系列—双作用中空液压油缸

RRH series-Double acting hollow cylinder

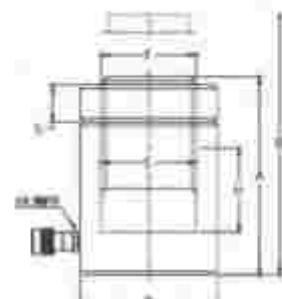


- ★ 中空柱塞设计，即可以用于推力，也可以用于拉力。
The hollow plunger design, push or pull force.
- ★ 烤漆表面耐腐蚀等恶劣环境。
Baking varnish surface, corrosion resistant.
- ★ 所有型号均配 3/8NPT 接头和护帽。
All models are available with 3/8NPT joint and hood.
- ★ 可根据客户要求定做加长行程千斤顶。
Customized according to customer requirements.

承载能力 Capacity (ton)	行程 H Stroke (mm)	型号 Model	油缸最大承载能力 (kN) Maximum Capacity		有效面积 (cm²) Effective Area		液压油容量 (L) Capacity (cm³)		本体高度 A Height (mm)	伸长高度 B Extended Height (mm)	外径 D Outside Diameter (mm)	油缸内径 E Cylinder Diameter (mm)	柱塞直径 F Plunger Diameter (mm)	中心孔径 Y Center Aperture (mm)	重量 Weight (kg)
			进程 Process	回程 Return	进程 Process	回程 Return	进程 Process	回程 Return							
30	178	RRH30-178	326	213	40.6	30.4	829	341	330	508	114	89	65	33.3	21.0
	258	RRH30-258	326	213	45.6	30.4	1203	784	421	609	114	89	65	33.3	27.0
60	89	RRH60-89	576	380	82.3	54.2	733	482	347	336	169	124	92	53.8	28.0
	166	RRH60-166	576	380	82.3	54.2	1366	900	323	489	159	124	92	53.8	35.0
	257	RRH60-257	576	380	82.3	54.2	2113	1292	438	695	189	124	92	53.8	46.0
100	38	RRH100-38	931	612	133.0	87.4	505	323	165	203	212	165	127	79.2	33.0
	76	RRH100-76	931	612	133.0	87.4	1011	646	254	330	212	165	127	79.2	61.0
	153	RRH100-153	931	612	133.0	87.4	2035	1337	342	495	212	165	127	79.2	79.0
	257	RRH100-257	931	612	133.0	87.4	3402	2246	460	717	212	165	127	79.2	106.0
150	76	RRH150-76	1429	718	204.1	102.6	4144	2033	349	552	247	190	152	79.2	111.0

CLL 系列—单作用螺母自锁液压油缸

CLL series-Single acting nut selflocking cylinder



- ★ 单作用，负载回位。
Single action, load return.
- ★ 自锁螺母，适用于长时间负载的作业。
Self-locking nut, suitable for long-term load work.
- ★ 溢流孔兼有限制行程功能。
The function of limiting travel.
- ★ 油缸可承受 5% 的侧向负荷。
It can withstand 5% lateral load.

承载能力 Capacity (+30%)	行程 Stroke H(mm)	型号 Model	有效面积 Effective Area cm ²	油缸容量 Oil Capacity cm ³	本体高度 Cylinder Height A(mm)	伸展高度 Extended Height B(mm)	伸出 伸出 Plunger P(mm)	油缸内径 Bore Diameter E(mm)	杆直径 Plunger Diameter F(mm)	螺母高度 Nut Height S (mm)	重量 Weight (kg)
50 (49A)	50	CLL50-50	70.9	355	154	214	125	95	175x4	38	15
	100	CLL50-100	70.9	709	214	314	125	95	175x4	38	20
	150	CLL50-150	70.9	1064	264	414	125	95	175x4	38	25
	200	CLL50-200	70.9	1419	314	514	125	95	175x4	38	30
	250	CLL50-250	70.9	1773	364	614	125	95	175x4	38	35
100 (99A)	300	CLL100-300	70.9	3127	414	714	125	95	175x4	38	40
	50	CLL100-50	132.7	664	187	237	165	130	175x6	45	30
	100	CLL100-100	132.7	1327	237	337	165	130	175x6	45	39
	150	CLL100-150	132.7	1991	287	437	165	130	175x6	45	48
	200	CLL100-200	132.7	2654	337	537	165	130	175x6	45	56
150 (149A)	250	CLL150-250	132.7	3318	387	637	165	130	175x6	45	64
	300	CLL150-300	132.7	3981	437	737	165	130	175x6	45	73
	50	CLL150-50	200.9	1005	239	299	207	160	175x6	47	53
	100	CLL150-100	200.9	2010	289	399	207	160	175x6	47	66
	150	CLL150-150	200.9	3014	339	499	207	160	175x6	47	79
200 (199A)	200	CLL200-200	200.9	4019	389	599	207	160	175x6	47	92
	250	CLL200-250	200.9	5024	439	699	207	160	175x6	47	104
	300	CLL200-300	200.9	6029	489	799	207	160	175x6	47	117
	50	CLL200-50	268.5	1343	243	303	237	180	175x6	52	63
	100	CLL200-100	268.5	2687	293	393	237	180	175x6	52	78
250 (249A)	150	CLL250-150	268.5	4030	343	493	237	180	175x6	52	117
	200	CLL250-200	268.5	5374	393	593	237	180	175x6	52	130
	50	CLL250-50	362.8	1814	247	307	275	215	175x6	58	116
	100	CLL250-100	362.8	3629	297	397	275	215	175x6	58	138
	150	CLL250-150	362.8	5443	347	497	275	215	175x6	58	162
300 (299A)	200	CLL300-200	362.8	6788	397	597	275	215	175x6	58	234
	50	CLL300-50	457.2	7341	295	345	310	240	175x6	65	172
	100	CLL300-100	457.2	14682	345	445	310	240	175x6	65	205
	150	CLL300-150	457.2	22023	395	545	310	240	175x6	65	238
	200	CLL300-200	457.2	29364	445	645	310	240	175x6	65	271
400 (399A)	50	CLL400-50	551.2	2754	235	285	350	260	175x6	75	250
	100	CLL400-100	551.2	5513	285	385	350	260	175x6	75	325
	150	CLL400-150	551.2	8271	335	485	350	260	175x6	75	401
	200	CLL400-200	551.2	11030	385	585	350	260	175x6	75	477
	50	CLL400-50	731.1	3053	375	725	400	305	175x6	85	367
500 (499A)	100	CLL500-100	731.1	7302	425	525	400	305	175x6	85	475
	150	CLL500-150	731.1	10954	475	625	400	305	175x6	85	566
	200	CLL500-200	731.1	14605	525	725	400	305	175x6	85	657
	50	CLL500-50	854.8	4277	395	445	430	333	175x6	95	448
	100	CLL500-100	854.8	8554	445	545	430	333	175x6	95	558
600 (599A)	150	CLL600-150	854.8	12830	495	545	430	333	175x6	95	567
	200	CLL600-200	854.8	17107	545	645	430	333	175x6	95	777
	50	CLL600-50	1163.5	5818	455	505	505	385	175x6	105	789
	100	CLL600-100	1163.5	11636	505	605	505	385	175x6	105	999
	150	CLL600-150	1163.5	17453	555	705	505	385	175x6	105	1209
800 (799A)	200	CLL800-200	1163.5	24907	705	1005	505	385	175x6	105	1519
	50	CLL800-50	1481.4	7257	495	545	540	420	175x6	118	949
	100	CLL800-100	1481.4	14514	595	645	540	420	175x6	118	1161
	200	CLL800-200	1481.4	29028	745	1045	540	420	175x6	118	1420

CLSG系列—单作用大吨位液压油缸

CLSG series - Single acting hydraulic cylinder

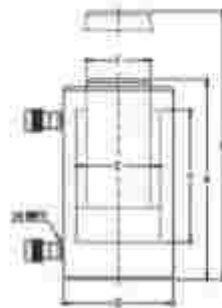


- ★ 单作用，负载回位。
Single action, load return.
- ★ 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chrome plated plunger, prevent scratches and corrosion.
- ★ 烤漆表面耐腐蚀等恶劣环境。
Baking varnish surface Corrosion resistant.
- ★ 防尘圈设计延长使用寿命。
Dustproof circle design extend service life.
- ★ 油缸可承受 5% 的侧向负荷。
It can withstand 5% lateral load.

型号 Model	承载能力 Capacity Ton (MT)	行程 L Stroke mm	有效面积 Active Area cm ²	缸筒容量 L Capacity cm ³	本体高度 A Height mm	伸展高度 B Max Height mm	伸出 Q.d Max mm	重量 Weight kg
CLSG-50	100(100)	50	77.2	385	162	212	130	17
CLSG-100		100	77.2	770	212	312	130	26
CLSG-150		150	77.2	1155	262	412	130	32
CLSG-200		200	77.2	1540	312	512	130	37
CLSG-250		250	77.2	1925	362	612	130	43
CLSG-300	150(150)	300	132.7	664	185	235	160	37
CLSG-350		350	132.7	1049	235	335	160	48
CLSG-400		400	132.7	1434	285	435	160	59
CLSG-450		450	132.7	1819	335	535	160	70
CLSG-500		500	132.7	2204	385	635	160	81
CLSG-600	200(200)	600	200.9	4019	389	599	207	92
CLSG-700		700	268.5	5374	439	699	207	104
CLSG-800		800	336.1	6729	489	799	207	117
CLSG-900		900	403.7	8084	539	899	207	130
CLSG-1000		1000	471.3	9439	589	999	207	143
CLSG-1200	250(250)	1200	551.2	11030	595	1105	240	172
CLSG-1400		1400	663.5	13235	645	1325	240	205
CLSG-1600		1600	775.8	15440	695	1545	240	238
CLSG-1800		1800	888.1	17645	745	1765	240	271
CLSG-2000		2000	1000.4	19850	795	1985	240	304
CLSG-2200	300(300)	2200	1112.7	22055	845	2205	275	367
CLSG-2400		2400	1225.0	24260	895	2425	275	430
CLSG-2600		2600	1337.3	26465	945	2645	275	493
CLSG-2800		2800	1449.6	28670	995	2865	275	556
CLSG-3000		3000	1561.9	30875	1045	3085	275	619
CLSG-3200	400(400)	3200	1674.2	33080	1095	3305	310	682
CLSG-3400		3400	1786.5	35285	1145	3525	310	745
CLSG-3600		3600	1898.8	37490	1195	3745	310	808
CLSG-3800		3800	2011.1	39695	1245	3965	310	871
CLSG-4000		4000	2123.4	41900	1295	4185	310	934
CLSG-4200	500(500)	4200	2235.7	44105	1345	4405	345	997
CLSG-4400		4400	2348.0	46310	1395	4625	345	1060
CLSG-4600		4600	2460.3	48515	1445	4845	345	1123
CLSG-4800		4800	2572.6	50720	1495	5065	345	1186
CLSG-5000		5000	2684.9	52925	1545	5285	345	1249
CLSG-5200	600(600)	5200	2797.2	55130	1595	5505	380	1312
CLSG-5400		5400	2909.5	57335	1645	5725	380	1375
CLSG-5600		5600	3021.8	59540	1695	5945	380	1438
CLSG-5800		5800	3134.1	61745	1745	6165	380	1501
CLSG-6000		6000	3246.4	63950	1795	6385	380	1564
CLSG-6200	700(700)	6200	3358.7	66155	1845	6605	415	1627
CLSG-6400		6400	3471.0	68360	1895	6825	415	1690
CLSG-6600		6600	3583.3	70565	1945	7045	415	1753
CLSG-6800		6800	3695.6	72770	1995	7265	415	1816
CLSG-7000		7000	3807.9	74975	2045	7485	415	1879
CLSG-7200	800(800)	7200	3920.2	77180	2095	7705	450	1942
CLSG-7400		7400	4032.5	79385	2145	7925	450	2005
CLSG-7600		7600	4144.8	81590	2195	8145	450	2068
CLSG-7800		7800	4257.1	83795	2245	8365	450	2131
CLSG-8000		8000	4369.4	85999	2295	8585	450	2194
CLSG-8200	900(900)	8200	4481.7	88204	2345	8815	485	2257
CLSG-8400		8400	4594.0	90409	2395	9035	485	2320
CLSG-8600		8600	4706.3	92614	2445	9255	485	2383
CLSG-8800		8800	4818.6	94819	2495	9475	485	2446
CLSG-9000		9000	4930.9	97024	2545	9695	485	2509
CLSG-9200	1000(1000)	9200	5043.2	99229	2595	9915	520	2572
CLSG-9400		9400	5155.5	101434	2645	10135	520	2635
CLSG-9600		9600	5267.8	103639	2695	10355	520	2698
CLSG-9800		9800	5380.1	105844	2745	10575	520	2761
CLSG-10000		10000	5492.4	108049	2795	10795	520	2824

FCD系列—双作用大吨位液压油缸

FCD series - Double acting cylinder



- 双作用，液压复位，可推拉应用。
Double action, hydraulic reset, can be pushed and pulled
- 千斤顶活塞镀铬，防止刮伤和腐蚀。
Chromed piston rod, prevent scratch and corrosion
- 烤漆表面耐腐蚀等恶劣环境。
Baking paint surface, Corrosion resistant
- 可承受额定负荷 5% 的偏载而不产生挤压损伤。
Can withstand 5% of the rated load off-load
- 所有型号均配 3/8NPT 接头和护帽
All models are available with 3/8NPT port and fount

型号 Model	吨位 Capacity(T)	油缸内径 E Inside (mm)	油缸外径 D Outside (mm)	活塞杆直径 F Diameter (mm)	行程 H Stroke (mm)	本体高度 A Height (mm)	伸縮高度 B Max Height (mm)	额定压力 Rated pressure	重量 Weight (kg)
FCD50-100	50	100	140	70	100	240	340	63	25
FCD50-160					160	300	460		30
FCD50-200					200	340	540		34
FCD50-250					250	390	640		38
FCD50-300					300	440	740		43
FCD50-400	100	140	180	100	400	540	940	63	52
FCD100-100					100	275	375		45
FCD100-160					160	335	495		54
FCD100-200					200	375	575		60
FCD100-250					250	425	675		68
FCD100-300	150	180	245	125	300	475	775	63	73
FCD100-400					400	575	975		87
FCD150-100					100	295	395		89
FCD150-160					160	345	505		106
FCD150-200					200	385	585		120
FCD150-250	200	200	273	150	250	435	685	63	139
FCD150-300					300	485	785		143
FCD150-400					400	585	985		169
FCD200-100					100	300	400		120
FCD200-160					160	360	520		130
FCD200-200	320	250	325	180	200	400	600	63	145
FCD200-250					250	450	700		160
FCD200-300					300	500	800		180
FCD200-400					400	600	1000		220
FCD320-100					100	310	410	63	170
FCD320-160	320	250	325	180	160	370	530		210
FCD320-200					200	410	610		205
FCD320-250					250	460	710		230
FCD320-300					300	510	810		250
FCD320-400					400	610	1010		300

型号 Model	吨位 Capacity(T)	油缸内径 E Inside (mm)	油缸外径 D Outside (mm)	活塞杆直径 F Diameter (mm)	行程 H Stroke (mm)	本体高度 A Height (mm)	伸縮高度 B Max Height (mm)	额定压力 Rated pressure	重量 Weight (kg)
FCD400-100	400	260	377	200	100	340	440	63	250
FCD400-160					160	400	560		280
FCD400-200					200	440	640		300
FCD400-250					250	490	740		330
FCD400-300					300	540	840		360
FCD400-400	500	320	426	250	400	640	1040	63	420
FCD500-100					100	380	480		260
FCD500-160					160	420	580		410
FCD500-200					200	460	660		436
FCD500-250					250	510	760		482
FCD500-300	630	360	490	280	300	560	860	63	540
FCD630-100					100	417	617		630
FCD630-160					160	477	677		645
FCD630-200					200	517	717		693
FCD630-250					250	567	817		751
FCD630-300	800	400	550	320	300	617	917	63	808
FCD800-100					100	717	1117		925
FCD800-200					200	867	1267		1038
FCD800-250					250	917	1317		1110
FCD800-300					300	967	1367		1257
FCD1000-100	1000	460	610	360	100	487	687	63	810
FCD1000-200					200	587	787		974
FCD1000-250					250	637	837		1058
FCD1000-300					300	687	887		1110
FCD1000-400					400	787	987		1257
FCD1200-100	1200	500	670	380	100	520	720	63	1337
FCD1200-200					200	620	820		1430
FCD1200-250					250	670	870		1522
FCD1200-300					300	720	920		1622
FCD1200-400					400	820	1020		1706
FCD1200-500	1500	560	750	400	100	640	840	63	1647
FCD1500-100					100	690	890		1752
FCD1500-200					200	740	940		1867
FCD1500-250					250	790	990		2069
FCD1500-300					300	840	1040		2140
FCD1600-100	2000	630	860	480	100	670	870	63	2163
FCD1600-200					200	720	920		2390
FCD1600-250					250	770	970		2642
FCD1600-300					300	820	1020		3088
FCD1600-400					400	920	1120		3264
FCD2000-100	3000	830	1160	600	100	720	920	63	3440
FCD2000-200					200	770	970		3794
FCD2000-250					250	820	1020		
FCD2000-300					300	870	1070		
FCD2000-400					400	920	1120		