KIET®
凯恩特

Prefessional manufacturer of Hydraulic tool & equipment!

Jiangsu Canete Machinery Manufacturing Co., Ltd
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- Our products keep continuous renewing and improving,and we retain the right of amending parameter and design without advance notice.
- Product configuration and appearance colour in catalog may be different from the real object, everything in kind prevail.

Kiet official website

Kiet wechat account

PRODUCT CATALOG

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HYDRAULIC TOOL & EQUIPMENT CATALOG

Jiangsu Canete Machinery Manufacturing Co., Ltd
Jiangsu Feiyao Machinery Manufacturing Co., Ltd

KIET • Company introduction

Concentrate on the design and manufacture of hydraulic products, Jiangsu Canete Machinery Manufacturing Co., Ltd is a professional hydraulic manufacturer who integrates R&D, marketing, customer service and import & export.With strict and efficient manufacturing & operation system and perfect quality control and guarantee system, KIET provides a full range of engineering solutions for customers.

Relies on advanced research and application technology and with joint effort of domestic professionals, KIET has developed high-end hydraulic products (already has a number of invention patents) and capacity of customizing a variety of scientific and reasonable solutions in rich product lines. Through continual innovations in designs and applications, KIET provides high-quality hydraulic products for customers.

Based on the advanced computer control technology, in the past decades, KIET has been devoted itself to providing customers with engineering solutions in the heavy load, high precision control, multi logical action and multi-point control fields, etc., and offering safe & efficient equipments and services in all kinds of applications like multi point synchronous push, translation, lifting, stretching, walking, asymmetric component weighing, tension, space adjustment, intelligent walking, handling large equipment.

At present, the company's products have been widely used in many industries at home and abroad, such as the construction and maintenance of roads and bridges, installation and moving of offshore oil platform, historic buildings, sports gymnasiums, blast furnaces, power equipments and ocean shipping manufacturing.

The synchronous hydraulic lifting systems have made a great contribution to the bridge lifting and maintenance in China,which has won praise from numerous bridge construction enterprises!

Thanks for the support from clients

中国石油 · 中国石化 · 中国航天 CASC · 沙钢集团 · 鞍钢集团 ANSTEEL · 首钢集团 · 永钢集团 YONGGANG GROUP · 山东钢铁 SHAN STEEL · 河北钢铁集团 HBIS

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KIET • Certificates

KIGT 凯恩特®

Ingenuity for manufacturing
Serve for world

Attentions In Type Selection of Hydraulic Cylinder

Lifting Force Solutions

- Always choose a cylinder with extra 20% ~ 30% more capacity than required.
- Please use cylinders with sufficient lifting margin when combined to use several cylinders, which may possibly cause uneven load.

Stroke Solutions

- Please use cylinders with sufficient stroke margin.

Return-stroke Function

Single Acting

- **Spring return:** Piston rod retracts by built-in spring. When this kind of cylinder is used horizontally or the front end of the piston rod is provided with an accessory part, it will result in difficult return or no return.
- **Load (external force) return:** No spring. To get the piston rod return back, there must be “external force”.

Return speeds of above two return ways may be not same. No pulling force, the two types of cylinders can not be used to pull load.

Double Acting

- **Hydraulic return:** chosen when pulling force is necessary. Faster return can be achieved by hydraulic.
- **Used when reverse, horizontal use or front end of piston rod is provided with a subsidiary part.**
- **Pulling force is about 1/2 the lifting force. Please confirm with the specification sheet.**

Working Speed Range

- Capacity of cylinder and flow of pump station is different, the speed of cylinder is also different.
- Please consult our sales engineer about specific speed.

Use Frequency

- Please choose the RC or RR Series when the frequency of use is high.

Use Environment

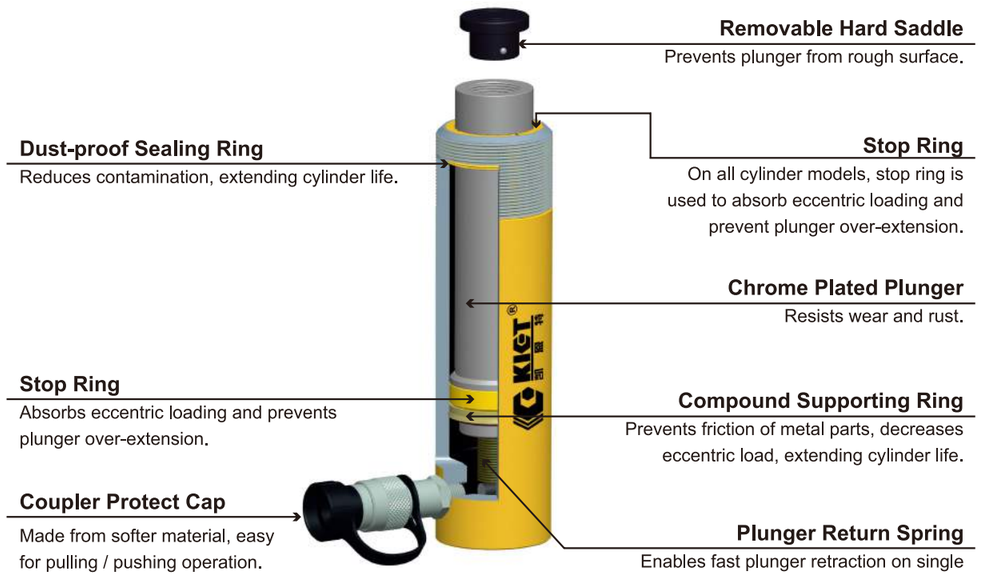
- Please use when ambient temperature is within -20℃ ~ +40℃.
- Cylinder sealing ring used when ambient temperature is within -25℃ ~ +80℃.

Allowable Transverse Load

- When cylinder takes all the load, please noted that don’t add oblique load and impact load, allowed transverse load (Don’t exceed 5% lifting load.).

Lifting Direction

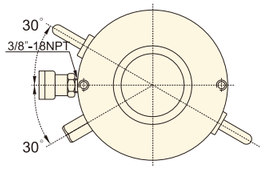
- Cylinder can be used "vertically, horizontally, obliquely, reversely", but must add load to the piston rod vertically.



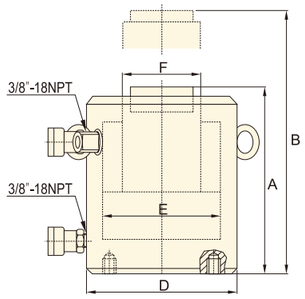
Double Acting High Tonnage Hydraulic Cylinder

Matched the use with solenoid directional valve and electric hydraulic pump station

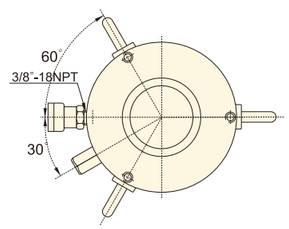
Matched the use with movable electric hydraulic pump

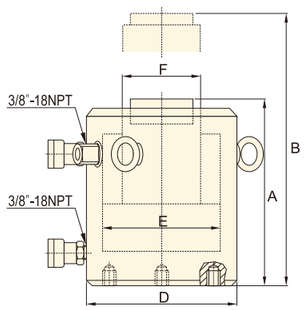


Matched the use with hand-operated direction valve and electric hydraulic pump station



KET-CLRG-502 ~ KET-CLRG-15012





KET-CLRG-2002 ~ KET-CLRG-100012

Product Descriptions

Double acting high tonnage hydraulic cylinders has the characteristics of large output, light weight and long distance operation in any space position. Matched use with electric hydraulic pump, can achieve lifting, pushing, pulling, squeezing, pressing and other operations.Widely used in transportation, railways, bridges, shipbuilding, construction, installation and maintenance of refinery equipment.

Most functions, most lifting endurance, especially designed for heavy load lifting, heavy weights and industrial production.

Product Features

- Double acting, hydraulic return, improve the lifting speed.
- Built-in safety valve prevents damage in case of over-pressurization.
- Baked enamel finish and plated pistons provide superior corrosion resistance.
- Plunger wiper reduces contamination, extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Maintenance and lifting of rotary kiln in cement plant.
- Bridge maintenance and replacement of rubber bearings.
- Installation and lifting of ship hull in shipbuilding plant.
- Testing of pile foundation in high rise building.
- Maintenance and lifting of diesel engine in shipbuilding plant.
- Foundation supporting of high rise building.
- Maintenance and lifting of transformer in thermal power plant.
- Foundation supporting in subway construction.
- Maintenance and lifting of coal mill in thermal power plant.
- Supporting large-scale press for large workpiece installation and disassembly.
- Maintenance and lifting of power shovel in thermal power plant.
- Lifting and installation of large cranes.

Double Acting High Tonnage Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)		Outside Diameter D (mm)	Plunger Diameter F (mm)	Weight (kg)
						Push	Pull			
KET-CLRG-502	50	70	166	50	77	385	192	130	70	17
KET-CLRG-504			216	100		770	385			20
KET-CLRG-506			266	150		1155	577			23
KET-CLRG-508			316	200		1540	770			27
KET-CLRG-5010			366	250		1924	962			31
KET-CLRG-5012			416	300		2309	1155			34
KET-CLRG-1002	100	70	183	50	132.7	664	309	165	95	29
KET-CLRG-1004			233	100		1327	619			34
KET-CLRG-1006			283	150		1991	928			40
KET-CLRG-1008			333	200		2655	1237			46
KET-CLRG-10010			383	250		3318	1546			52
KET-CLRG-10012			433	300		3982	1856			58
KET-CLRG-1502	150	70	200	50	198.6	993	482	205	114	39
KET-CLRG-1504			250	100		1986	965			52
KET-CLRG-1506			300	150		2978	1447			65
KET-CLRG-1508			350	200		3971	1930			78
KET-CLRG-15010			400	250		4964	2412			92
KET-CLRG-15012			450	300		5957	2895			105
KET-CLRG-2002	200	70	218	50	265.9	1330	635	235	133	55
KET-CLRG-2006			318	150		3989	1905			91
KET-CLRG-20012			468	300		7977	3809			146
KET-CLRG-2502	250	70	275	50	366.4	1832	763	275	165	89
KET-CLRG-2506			375	150		5497	2289			136
KET-CLRG-25012			525	300		10993	4578			207
KET-CLRG-3002	300	70	322	50	456.2	2281	757	310	197	184
KET-CLRG-3006			422	150		6843	2270			232
KET-CLRG-30012			572	300		13685	4541			303
KET-CLRG-4002	400	70	374	50	559.9	2800	967	365	216	270
KET-CLRG-4006			474	150		8399	2902			330
KET-CLRG-40012			624	300		16797	5804			421
KET-CLRG-5002	500	70	422	50	730.6	3653	1238	400	248	401
KET-CLRG-5006			522	150		10959	3713			480
KET-CLRG-50012			672	300		21918	7427			599
KET-CLRG-6002	600	70	433	50	855.3	4276	1477	430	267	474
KET-CLRG-6006			533	150		12829	4431			565
KET-CLRG-60012			683	300		25659	8862			701
KET-CLRG-8002	800	70	538	50	1176.3	5881	1935	510	317	741
KET-CLRG-8006			638	150		17644	5806			868
KET-CLRG-80012			788	300		35288	11611			1058
KET-CLRG-10002	1000	70	565	50	1465.7	7392	2709	560	343	1062
KET-CLRG-10006			665	150		21986	8126			1213
KET-CLRG-100012			815	300		43972	16252			1439

Double Acting High Tonnage Hydraulic Cylinder

Field Applications


▲ Synchronous lifting of Shanghai-Hangzhou high-speed rail to replace the rubber bearings.


▲ Synchronous lifting to replace the rubber bearings for highway bridge maintenance.


▲ Lifting and docking of urban viaduct.


▲ Synchronous lifting to replace the rubber bearings for bridge maintenance.


▲ Bridge maintenance and lifting.


▲ Synchronous lifting and maintenance of 5000T Port crane.


▲ Ship synchronous lifting and maintenance.


▲ Lifting and maintenance of rotary kiln in cement plant.


▲ Synchronous lifting and maintenance of coal mill in thermal power plant.


▲ Synchronous lifting and maintenance of sluice gate in hydropower station.


▲ Supporting the use of high tonnage press.


▲ Freeway synchronous falling beam.

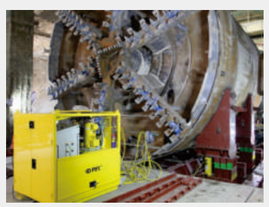

▲ Lifting and installation of large steel structure.


▲ Foundation supporting.

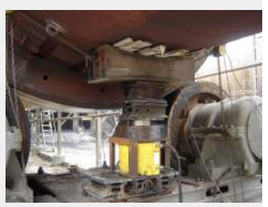

▲ Synchronous lifting and translation of blast furnace in steel corp.


▲ Loading test of high speed ballastless track.


▲ Sectional synchronous lifting and butt welding in shipyard.


▲ Synchronous lifting assembly of shield machine.


▲ Synchronous lifting and installing for offshore oil platform.

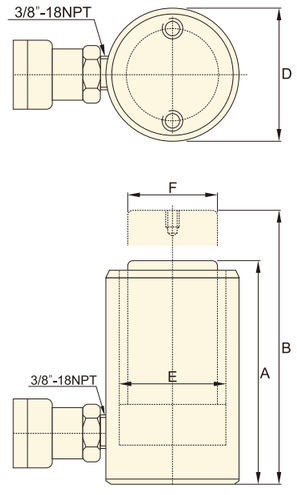

▲ 1000T lifting and maintenance of million tons of kiln in the Conch cement.

Double Acting Ultra High Pressure High Tonnage Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (L)	Outside Diameter D (mm)	Bore Diameter E (mm)	Adjusting Angle	Weight (kg)
KET-HCLRG-10040	100	200	160	40	50.3/0.22	0.2	118	80	3°	11.8
KET-HCLRG-10050			170	50		0.25				12.5
KET-HCLRG-10060			180	60		0.3				13.2
KET-HCLRG-10080			200	80		0.4				14.5
KET-HCLRG-100100			220	100		0.5				15.9
KET-HCLRG-100150			270	150		0.75				19.3
KET-HCLRG-20040	200	200	176	40	104/53.6	0.42	174	115	3°	28
KET-HCLRG-20055			191	55		0.50				29.7
KET-HCLRG-20070			206	70		0.73				32.3
KET-HCLRG-200100			236	100		1.04				36.6
KET-HCLRG-200150			286	150		1.56				43.8
KET-HCLRG-200200			336	200		2.1				51
KET-HCLRG-30040	300	200	197	40	154/75.4	0.62	198	140	3°	40.9
KET-HCLRG-30055			212	55		0.85				43.6
KET-HCLRG-30070			227	70		1.1				46.3
KET-HCLRG-300100			257	100		1.54				51.8
KET-HCLRG-300150			307	150		2.3/1.2				60.8
KET-HCLRG-300200			357	200		3.1/1.5				69.8
KET-HCLRG-40040	400	200	220	40	201/87.9	0.81/0.35	238	160	3°	66.2
KET-HCLRG-40055			235	55		1.11/0.48				70
KET-HCLRG-40070			250	70		1.41/0.61				74.4
KET-HCLRG-400100			280	100		2.01/0.88				82.6
KET-HCLRG-400150			330	150		3.1/1.32				96.2
KET-HCLRG-400200			380	200		4.1/1.76				109.8
KET-HCLRG-50050	500	200	262	50	254.4/100	1.27/0.5	256	180	3°	92.7
KET-HCLRG-50070			282	70		1.78/0.7				99
KET-HCLRG-500100			312	100		2.54/1				109
KET-HCLRG-500150			362	150		3.82/1.5				125
KET-HCLRG-500200			412	200		5.1/2				141
KET-HCLRG-90050	900	200	299	50	452/198	2.26/0.99	320	240	3°	154.3
KET-HCLRG-900100			349	100		4.52/1.98				178
KET-HCLRG-900150			399	150		6.8/2.98				201.6
KET-HCLRG-900200			449	200		9.04/3.96				225.3

Single Acting Low Height Hydraulic Cylinder



Product Descriptions

Single acting low height hydraulic cylinder is widely used in power station, ship manufacturing and maintenance, building, railway, mining, steel plant, cement plants, petrochemical and other industries.

Product Features

- Single acting, spring return.
- High strength alloy steel for durability.
- Lightweight, low profile design for use in confined spaces.
- Baked enamel finish for increased corrosion resistance.
- Grooved plunger ends require no saddle.
- Plunger wiper reduces contamination, extending cylinder life.
- Integral handle on KET-RCS-1002 for easy carrying.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Synchronous lifting to replace the rubber bearing for bridge maintenance.
- Synchronous lifting to replace the rubber bearing for high speed rail maintenance.
- Installation and adjustment of shipyard marine diesel engine.
- Synchronous lifting of steam turbine maintenance in thermal power plant.
- Simultaneous separation of speed reducer and roller press maintenance in cement plant.
- Lifting operation of large equipment installation and maintenance.
- Welding adjustment of locomotive manufacturing car body structure.

Field Applications

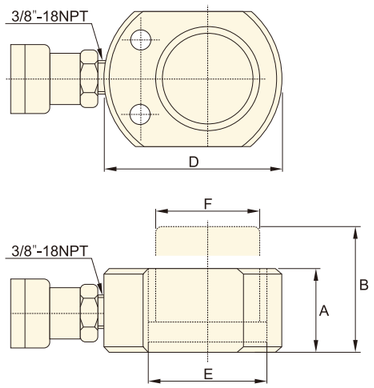
▲ Synchronous lifting of large objects.

▲ Synchronous lifting to replace the rubber bearing for highway bridge maintenance.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Bore Diameter E (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-RCS-101	10	70	88	38	14.5	55	126	69	42.9	38.1	4.1
KET-RCS-201	20	70	98	45	28.7	129	143	92	60.5	50.8	5.0
KET-RCS-302	30	70	117	62	42.1	261	179	101	73.2	66.5	6.8
KET-RCS-502	50	70	122	60	62.1	373	182	124	88.9	69.8	10.9
KET-RCS-1002	100	70	141	57	126.7	722	198	165	127	92.2	22.7
KET-RCS-1502	150	70	130	44	196	862	174	204	158	115	33.9
KET-RCS-2500	250	70	155	50	346	1730	205	275	210	185	63
KET-RCS-3000	300	70	200	60	433	2601	260	297	235	210	95

Single Acting Ultra Low Height Hydraulic Cylinder



Product Descriptions

Ultra low height hydraulic cylinder is widely used in synchronous lifting to replace the rubber bearing for bridge maintenance, synchronous lifting for large equipment maintenance, welding positioning of structural parts, assembly of equipment, piping flange tray separation and other application occasions, spring return design applys to place with a high degree of closure and maximum stroke is the primary factor.

Product Features

- Compact, flat design for where other cylinders will not fit.
- KET-RSM-750, 1000 and 1500 have handles for easy carrying.
- Mounting holes permit easy fixturing.
- High strength alloy steel for durability.
- Single acting, spring return.
- Hard chrome plated high-quality steel plungers.
- Built-in scraper seal reduces contamination, extending cylinder life.
- Baked enamel finish for increased corrosion resistance.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Synchronous lifting to replace the rubber bearing for bridge maintenance.
- Synchronous lifting to replace the rubber bearing for high speed rail maintenance.
- Fine tuning for synchronous lifting for urban viaduct construction.
- Fine tuning for marine diesel engine installation.
- Synchronous lifting of steam turbine, equipment maintenance in thermal power plant.
- Simultaneous separation of speed reducer and roller press maintenance in cement plant.
- Welding adjustment of locomotive manufacturing car body structure.
- Lifting operation of large equipment installation and maintenance.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Bore Diameter E (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-RSM-50	5	70	32	6	6.5	4	38	58×41	28.7	25.4	1.0
KET-RSM-100	10	70	43	12	14.5	18	55	82×55	42.9	38.1	1.4
KET-RSM-200	20	70	51	11	28.7	32	62	101×76	60.5	50.8	3.1
KET-RSM-300	30	70	58	13	42.1	55	71	117×95	73.2	63.4	4.5
KET-RSM-500	50	70	66	16	62.1	99	82	140×114	88.9	69.8	6.8
KET-RSM-750	75	70	79	16	102.6	164	95	165×139	114.3	82.6	11.3
KET-RSM-1000	100	70	85	20	132.7	253	105	178×160	130	100	16
KET-RSM-1500	150	70	100	18.5	201	371	118.5	216×191	160	115	26.5
KET-RSM-2000	200	70	105	16.5	283.4	467	121.5	264×250	190	160	39.5

Single Acting Ultra Low Height Hydraulic Cylinder

Field Applications

▲ Highway and bridge maintenance and synchronous lifting to replace rubber bearing.

▲ Highway and bridge maintenance synchronous lifting to replace rubber bearing.

▲ Synchronous lifting to the lifting plate of Shanghai highway bridge construction.

▲ Synchronous separation for repairing work of the eduction gear and roller press machine in cement mill.

▲ For the repairing and disassembly work of reduction gear in cement plant.

▲ Synchronous separation for rapairing the roller press and decelerator in the cement plant.

▼ The maintenance of steam turbine in thermal power plant.

▼ For the use of repairing wok of oil extraction machine in oil field.

Single Acting Hydraulic Cylinder

Product Descriptions

Single acting hydraulic cylinder with the most extensive range of stroke length and lifting capacity, is the best choice for maintenance, produce, manufacture, architecture and other operations. Neck thread can withstand full load, the unique double guide ring technology can easily absorb partial load, reduce wear, prolong service life. Outer ring thread, most models with plunger thread and bottom mounting hole, making use of positioning more convenient.

Product Features

- Single acting, heavy-duty return springs.
- High strength alloy steel for durability.
- Plated steel plungers.
- Stop ring to prevent the plunger over stroke, the piston top standard antiskid saddle.
- Collar threads, plunger threads and base mounting holes enable easy fixturing.
- Baked enamel finish for increased corrosion resistance.
- Removable strap handles for unobstructed fixturing.
- Plunger wiper reduces contamination, extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Shipyard hull welding and lifting.
- Lifting of equipment maintenance in thermal power plant.
- Lifting of equipment maintenance in steel mill.
- Synchronous lifting for ancient building maintenance and reinforcement.
- Supporting all kinds of hydraulic tools for bending, cutting, punching, pressing, etc.

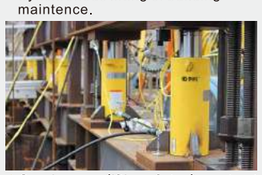
Field Applications

▲Lifting of reduction gears maintence in steel plant.

▲Synchronous lifting and translation of historic building.

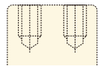
▲Synchronous lifting of building maintence.

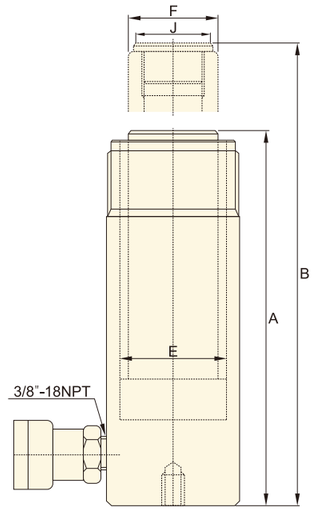
▲Supporting hydraulic pushing device pushing large-scale construction machinery track pin shaft.



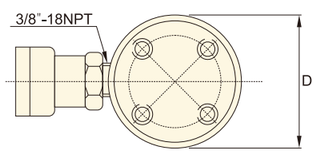
▲Synchronous lifting of steel construct fixing.

KET–RC–101 only





KET–RC–51 ~ KET–RC–5013



KET–RC–1006, KET–RC–10010

Single Acting Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Saddle Diameter J (mm)	Weight (kg)
KET-RC-51	5	70	110	25	6.5	16	135	38	25	1.0
KET-RC-53			165	76		50	241			1.5
KET-RC-55			215	127		83	342			1.9
KET-RC-57			273	177		115	450			2.4
KET-RC-59			323	232		151	555			2.8
KET-RC-101	10	70	89	26	14.5	38	115	57	-	1.8
KET-RC-102			121	54		78	175		35	2.3
KET-RC-104			171	105		152	276			3.3
KET-RC-106			247	156		226	403			4.4
KET-RC-108			298	203		294	501			5.4
KET-RC-1010			349	257		373	606			6.4
KET-RC-1012			400	304		441	704			6.8
KET-RC-1014			450	356		516	806			8.2
KET-RC-151	15	70	124	25	20.3	51	149	69	38	3.3
KET-RC-152			149	51		104	200			4.1
KET-RC-154			200	101		205	301			5.0
KET-RC-156			271	152		308	423			6.8
KET-RC-158			322	203		411	525			8.2
KET-RC-1510			373	254		516	627			9.5
KET-RC-1512			423	305		619	728			10.9
KET-RC-1514			474	356		723	830			11.8
KET-RC-251	25	70	139	26	33.2	86	165	85	50	5.9
KET-RC-252			165	50		166	215			6.4
KET-RC-254			215	102		339	317			8.2
KET-RC-256			273	158		525	431			10.0
KET-RC-258			323	210		697	533			12.2
KET-RC-2510			374	261		867	635			14.1
KET-RC-2512			425	311		1033	736			16.3
KET-RC-2514			476	362		1202	838			17.7
KET-RC-308	30	70	387	209	42.1	880	596	101	50	18.1
KET-RC-502	50	70	176	51	71.2	362	227	127	71	15.0
KET-RC-504			227	101		719	328			19.1
KET-RC-506			282	159		1131	441			23.1
KET-RC-5013			460	337		2399	797			37.6
KET-RC-756	75	70	285	156	102.6	1601	441	146	71	29.5
KET-RC-7513			492	333		3417	825			59.0
KET-RC-1006	100	70	357	168	133.3	2239	525	177	71	59.0
KET-RC-10010			449	260		3466	709			72.6

Ultra-thin Hydraulic Cylinder

Product Descriptions

Ultra-thin hydraulic cylinder with extremely low closed height, applys to limited space. It can be applied to replacing rubber bearings by synchronous lifting for expressway bridge maintenance, marine diesel engine maintenance and adjustment, wind power equipment maintenance and adjustment in power plant .

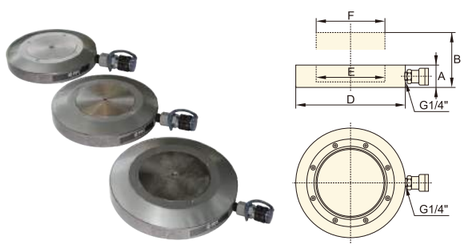
Product Features

- Dust-proof design, reduces contamination and extend cylinder life.
- Single-acting, load return.
- Working pressure: 70MPa.
- G1/4" coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Plunger Diameter (mm)	Coupler Height (mm)	Weight (kg)
KET-SLM-3515	35	70	35	15	50.2	75	150	80	17	5
KET-SLM-7015	70	70	35	15	103.8	156	185	115	17	7.5
KET-SLM-10015	100	70	41	15	153.8	231	210	140	19	11.2

Ultra High Pressure Ultra Low Height Hydraulic Cylinder



Product Descriptions

Ultra high pressure ultra low height hydraulic cylinder mainly used in space is very limited occasions, for example: replacing abutment for expressway bridge, shipbuilding plant marine engine adjustment, lifting of steam turbine maintenance in power plant and so on.

Product Features

- The top end is provided with an elastic sealing piece to avoid the impurity into the cylinder, extending cylinder life.
- Overload test pressure is 1.5 times higher than the rated working pressure.
- Top finite overflow port, When the plunger over stroke, automatic overflow, safe and convenient.
- Compared with the same kind cylinder, the same closed height, there is a longer lift stroke.
- G1/4" coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Plunger Diameter F (mm)	Coupler Height (mm)	Coupler Size	Weight (kg)
KET-STC-0510	5	150	30	10	3.46	3.5	60	21	14	G1/4"	0.17
KET-STC-01010	10	150	30	10	7.06	7.1	70	30	14	G1/4"	1.1
KET-STC-02510	25	150	30	10	17.34	17.3	90	47	14	G1/4"	1.5
KET-STC-05010	50	150	30	10	38.46	38.5	118	70	14	G1/4"	2.6
KET-STC-10010	100	150	33	10	69.36	69.4	152	94	14	G1/4"	4.3
KET-STC-15010	150	150	34	10	105.62	105.6	180	116	14	G1/4"	6.8
KET-STC-20010	200	150	35	10	136.77	136.8	204	132	14	G1/4"	9

Ultra High Pressure Ultra Low Height Hydraulic Cylinder

Product Descriptions

Ultra high pressure ultra low height hydraulic cylinder mainly used in space is very limited occasions, for example: Shipbuilding plant host adjustment, lifting of steam turbine maintenance in power plant and so on occasions.

Product Features

- The top end is provided with an elastic sealing piece to avoid the impurity into the cylinder, extending cylinder life.
- Top finite overflow port, when the plunger over stroke, automatic overflow, safe and convenient.
- Overload test pressure is 1.5 times higher than the rated working pressure.
- Compared with the same kind cylinder, the same closed height, there is a longer lift stroke.
- G1/4" coupler and dust cap included on all models.

Field Applications

▲Ship manufacturing, marine diesel engine maintenance and adjustment.

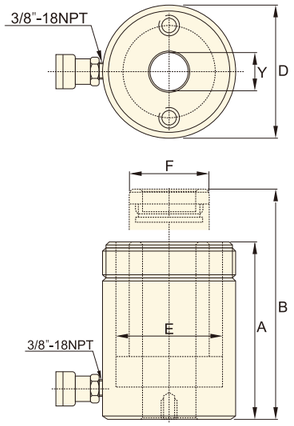
▲The field application of screw compressor maintenance.

▲The field application of screw compressor maintenance.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Outside Diameter D (mm)	Bore Diameter E (mm)	Coupler Size	Weight (kg)
KET-STC-5013	50	200	30	13	28.2	128	60	G1/4"	3.0
KET-STC-5018			35	18					3.6
KET-STC-10013	100	200	30	13	50.3	148	80	G1/4"	4.0
KET-STC-10018			35	18					4.8
KET-STC-15013	150	200	30	13	78.5	168	100	G1/4"	5.3
KET-STC-15018			35	18					6.2
KET-STC-2006	200	200	23	6	103.9	185	115	G1/4"	4.8
KET-STC-20013			30	13					6.4
KET-STC-20018			35	18					7.5
KET-STC-30013	300	200	35	13	153.9	210	140	G1/4"	8.6
KET-STC-30015			32	15					9.0
KET-STC-30018			35	18					9.4
KET-STC-40018	400	200	35	18	200.1	230	160	G1/4"	11.4

Single Acting Hollow Plunger Hydraulic Cylinder



Product Descriptions

Single acting hollow plunger hydraulic cylinder applys to processing, maintenance and traction work. The special design of the hollow piston rod makes the tow bar or cable can pass through the hydraulic cylinder to conduct lifting or jacking operation, commonly used in the work of backward traction and forward extrusion. Equipped with interchangeable steel reinforced piston base, can also be used for regular lifting operation.

Product Features

- Single-acting, spring return.
- Baked enamel finish for increased corrosion resistance.
- Hollow plunger design allows for both pull and push forces.
- Collar threads for easy fixturing.
- Built-in scraper seal reduces contamination, extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

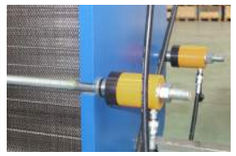
Industry Applications

- Heat exchanger assembling and compacting.
- Steel cable locking in bridge construction.
- Synchronous lifting of steel structure in gymnasium construction.
- Steel strand pre-tightening in bridge box girder prefabricating.

Field Applications


▲ Oil pipeline equipment maintenance in oil field.


▲ Press-mounting bearing in equipment manufacturing.


▲ Assembling and use of large heat exchanger.


▲ Synchronous lifting of large windmill.

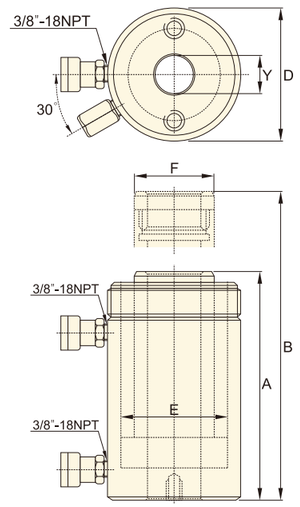

▲ Synchronous lifting of steel structure in gymnasium construction.


▲ Synchronous lifting of steel structure in gymnasium construction.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Central Hole Diameter Y (mm)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-RCH-120	13	70	55	8	17.9	19.6	14	69	35.1	1.5
KET-RCH-121			120	42			75			2.8
KET-RCH-123			184	76			136			4.4
KET-RCH-202	20	70	162	49	30.7	26.9	150	98	54.1	7.7
KET-RCH-206			306	155			476			14.1
KET-RCH-302	30	70	178	64	46.6	33.3	298	114	63.5	10.9
KET-RCH-306			330	155			722			21.8
KET-RCH-603	60	70	247	76	82.3	53.8	626	159	91.9	28.1
KET-RCH-606			323	153			1259			35.4
KET-RCH-1003	100	70	254	76	133.0	79.0	1011	212	127.0	63.0

Double Acting Heavy Duty Hollow Hydraulic Cylinder



Product Features

- Double acting design, hydraulic return, hollow plunger.
- Baked enamel finish for increased corrosion resistance; Chroming finish, extending the longevity of hollow plunger product.
- Built-in flood valve protect cylinder free from damage.
- Easier to install with outer ring of thread (part of model), convenient in construction connection usage.
- Hollow plunger allow two application of cylinder thrust and tension.
- Built-in scraper seal reduces contamination, extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Field Applications


▲ Matching with alternator the magnetic poles to suppress multi-function press machine which customized by Shanghai Electric Group.


▲ Synchronous tensioning of bridge construction.


▲ Matching big diameter pipe orifice adjustment of orifice calibration machine.


▲ Synchronous tensioning of high-speed rail box girder.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Capacity (kN)		Outside Diameter D (mm)	Plunger Diameter F (mm)	Central Hole Diameter Y (mm)	Weight (kg)
					Spread	Collapse				
KET-RRH-307	30	70	330	178	326	213	114	63.5	33.3	21
KET-RRH-3010			431	258						27
KET-RRH-603	60	70	247	89	576	380	159	91.9	53.8	28
KET-RRH-606			323	166						35
KET-RRH-6010			438	257						45
KET-RRH-1001	100	70	165	38	931	612	212	127	79.2	33
KET-RRH-1003			254	76						61
KET-RRH-1006			342	153						79
KET-RRH-10010			460	257						106
KET-RRH-1508	150	70	349	203	1429	718	247	152.4	79.2	111
KET-RRH-20010	200	70	523	250	2028	933	300	203	110	208
KET-RRH-20012			573	300						226
KET-RRH-60012	600	70	700	300	5982	2873	495	305	140	800

Single Acting Low Height High Tonnage Hydraulic Cylinder

Product Features

- Small size, can be operated in confined spaces.
- Overflow port functions as a stroke limiter.
- Built-in scraper seal reduces contamination, extending cylinder life.
- Interchangeable, hardened grooved saddles.
- Special treatment of cylinder surface for increased corrosion resistance.
- Single acting, load return.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Field Applications

▲ Synchronous pushing of blast furnace in steel plant.

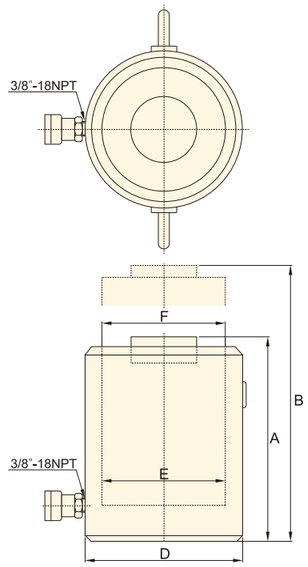
▲ Synchronous lifting maintenance of large equipment.

▲ Welding and lifting of steel structure.

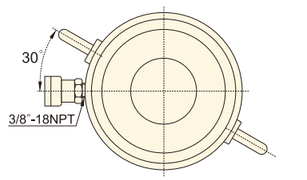
▲ Lifting and checking of 16000T press machine.

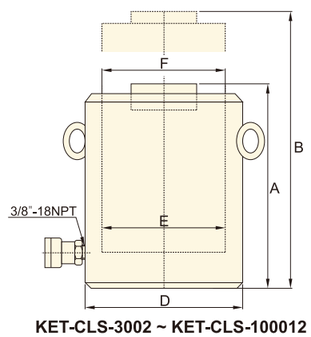
▲ Welding and lifting of shipyard's hull.

▲ Welding and lifting of large steel pipe structure.



KET-CLS-502 ~ KET-CLS-25012





KET-CLS-3002 ~ KET-CLS-100012

Single Acting Low Height High Tonnage Hydraulic Cylinder

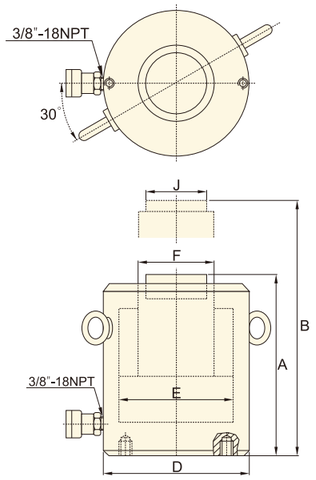
Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-CLS-502	50	70	128	50	70.9	355	178	125	95	14
KET-CLS-504			178	100		709	278			18
KET-CLS-506			228	150		1064	378			23
KET-CLS-508			278	200		1418	478			28
KET-CLS-5010			327	250		1773	578			33
KET-CLS-5012			378	300		2127	678			38
KET-CLS-1002	100	70	143	50	132.7	664	193	165	130	24
KET-CLS-1004			193	100		1327	293			32
KET-CLS-1006			243	150		1991	393			40
KET-CLS-1008			293	200		2654	493			49
KET-CLS-10010			343	250		3318	593			58
KET-CLS-10012			392	300		3981	693			66
KET-CLS-1502	150	70	165	50	198.6	993	215	205	160	43
KET-CLS-1504			215	100		1986	315			55
KET-CLS-1506			265	150		2979	415			69
KET-CLS-1508			315	200		3972	515			82
KET-CLS-15010			365	250		4965	615			95
KET-CLS-15012			414	300		5958	715			108
KET-CLS-2002	200	70	193	50	265.6	1330	243	235	185	66
KET-CLS-2006			293	150		3989	443			101
KET-CLS-20012			443	300		7977	743			154
KET-CLS-2502	250	70	193	50	366.1	1832	243	275	215	90
KET-CLS-2506			293	150		5496	443			137
KET-CLS-25012			443	300		10996	743			208
KET-CLS-3002	300	70	235	50	456.2	2281	285	310	240	137
KET-CLS-3006			335	150		6843	485			198
KET-CLS-30012			485	300		13710	785			288
KET-CLS-4002	400	70	265	50	559.9	2800	315	350	265	200
KET-CLS-4006			365	150		8399	515			275
KET-CLS-40012			515	300		16770	815			390
KET-CLS-5002	500	70	295	50	731.1	3656	345	400	305	289
KET-CLS-5006			395	150		10967	545			390
KET-CLS-50012			545	300		21900	845			540
KET-CLS-6002	600	70	310	50	854.8	4277	360	430	330	350
KET-CLS-6006			410	150		12830	560			465
KET-CLS-60012			560	300		25710	860			640
KET-CLS-8002	800	70	355	50	1176.9	5882	405	505	385	549
KET-CLS-8006			455	150		17645	605			709
KET-CLS-80012			605	300		35370	905			950
KET-CLS-10002	1000	70	385	50	1466.4	7329	435	560	430	729
KET-CLS-10006			485	150		21986	635			921
KET-CLS-100012			635	300		43950	935			1210

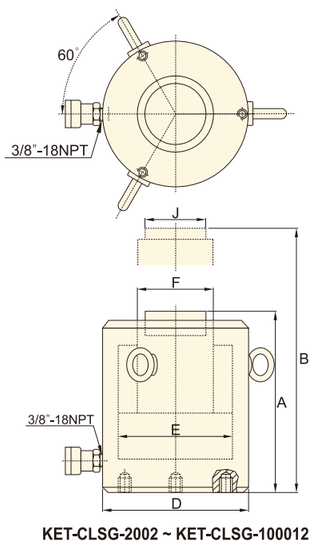
Single Acting High Tonnage Hydraulic Cylinder

Product Features

- Single acting, load return.
- Integral stop ring provides piston blow-out protection.
- Special bearing design withstands side-loads up to 10% of the rated load.
- Built-in scraper seal reduces contamination, extending cylinder life.
- Standard rigid deep groove saddle, can choose a 5 degree tilt saddle to adapt to component unevenly situation.
- Single acting design applys to working conditions of need connected common force.
- Single acting design does not apply to horizontal working conditions.
- 3/8 "- 18NPT coupler and dust cap included on all models.



KET-CLSG-502 ~ KET-CLSG-15012



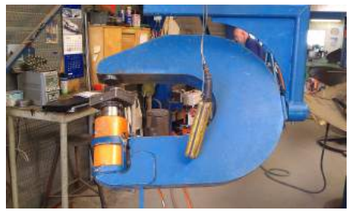
KET-CLSG-2002 ~ KET-CLSG-100012

Field Applications

▲ Synchronous lifting of hull in shipyard.

▲ Supporting use of all kinds of press machines.

▲ Propeller adjustment in shipbuilding plant.



▲ Propeller adjustment in shipbuilding plant.

▲ Synchronous locking of cable of cable-stayed bridge in bridge girder construction.

▲ Synchronous locking of cable of cable-stayed bridge in bridge girder construction.

▲ Synchronous lifting and moving of building.

▲ Synchronous lifting and moving of building.

Single Acting High Tonnage Hydraulic Cylinder

Technical Parameters

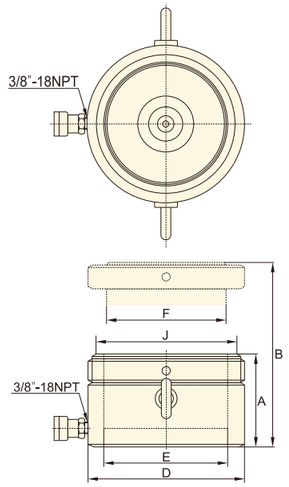
Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Plunger Diameter F (mm)	Saddle Diameter J (mm)	Weight (kg)
KET-CLSG-502	50	70	162	50	76.1	380	130	70	50	15
KET-CLSG-504			212	100		761				19
KET-CLSG-506			262	150		1141				23
KET-CLSG-508			312	200		1522				27
KET-CLSG-5010			362	250		1902				31
KET-CLSG-5012			412	300		2283				35
KET-CLSG-1002	100	70	182	50	133	665	165	95	75	28
KET-CLSG-1004			232	100		1331				34
KET-CLSG-1006			282	150		1996				40
KET-CLSG-1008			332	200		2662				46
KET-CLSG-10010			382	250		3327				53
KET-CLSG-10012			432	300		3993				59
KET-CLSG-1502	150	70	196	50	198	990	205	114	94	39
KET-CLSG-1504			246	100		1979				52
KET-CLSG-1506			296	150		2969				67
KET-CLSG-1508			346	200		3959				76
KET-CLSG-15010			396	250		4948				92
KET-CLSG-15012			446	300		5938				105
KET-CLSG-2002	200	70	216	50	266	1332	235	133	113	55
KET-CLSG-2006			316	150		3995				94
KET-CLSG-20012			466	300		7990				106
KET-CLSG-2502	250	70	235	50	366	1830	275	165	145	89
KET-CLSG-2506			335	150		5491				136
KET-CLSG-25012			485	300		10983				210
KET-CLSG-3002	300	70	312	50	457	2287	310	195	177	184
KET-CLSG-3006			412	150		6860				232
KET-CLSG-30012			562	300		13719				303
KET-CLSG-4002	400	70	375	50	560	3066	350	215	196	270
KET-CLSG-4006			475	150		9197				330
KET-CLSG-40012			625	300		18393				421
KET-CLSG-5002	500	70	419	50	730	3648	400	250	228	400
KET-CLSG-5006			519	150		10945				479
KET-CLSG-50012			669	300		21890				598
KET-CLSG-6002	600	70	429	50	856	4282	430	270	247	475
KET-CLSG-6006			529	150		12845				568
KET-CLSG-60012			679	300		25690				707
KET-CLSG-8002	800	70	474	50	1134	6087	510	320	297	741
KET-CLSG-8006			574	150		18260				868
KET-CLSG-80012			724	300		36521				1058
KET-CLSG-10002	1000	70	564	50	1464	7322	560	345	323	1055
KET-CLSG-10006			664	150		21966				1210
KET-CLSG-100012			814	300		43932				1442

Single Acting Ultra High Pressure High Tonnage Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (L)	Outside Diameter D (mm)	Bore Diameter E (mm)	Adjusting Angle	Weight (kg)
KET-HRC-100-40	100	200	215	40	50.24	0.2	118	80	3°	16.3
KET-HRC-100-50			225	50		0.25				17
KET-HRC-100-60			235	60		0.3				17.6
KET-HRC-100-80			255	80		0.4				19
KET-HRC-100-100			275	100		0.5				20.4
KET-HRC-100-150			325	150		0.75				23.8
KET-HRC-200-40	200	200	147	40	104	0.42	174	115	3°	24.7
KET-HRC-200-48			155	48		0.5				26
KET-HRC-200-55			162	55		0.57				27
KET-HRC-200-70			177	70		0.73				30
KET-HRC-200-100			207	100		1.04				34.9
KET-HRC-200-150			257	150		1.56				42.6
KET-HRC-300-40	300	200	157	40	154	0.62	198	140	3°	32.4
KET-HRC-300-55			172	55		0.85				35.4
KET-HRC-300-70			187	70		1.1				38.4
KET-HRC-300-100			217	100		1.54				44.4
KET-HRC-300-150			267	150		2.31				54.4
KET-HRC-400-40	400	200	160	40	201	0.8	238	160	3°	48
KET-HRC-400-55			175	55		1.1				52.5
KET-HRC-400-70			190	70		1.41				57
KET-HRC-400-100			220	100		2				66
KET-HRC-400-150			270	150		3				81

Single Acting Low Height Lock Nut Hydraulic Cylinder



Product Features

- Single acting design, load return.
- Suitable for lifting work which requires plunger extends for a long time.
- Mechanical nut support the load, can tighten the mechanical nut at any position in the stroke to make sure the operation safety.
- Ultra-thin design,suitable for highly limited space.
- Lateral load supported is equivalent 3% load capacity.
- Cylinder equip with spherical shell and the saddle to adapt component rough.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Bridge synchronous lifting to change rubber foundation.
- Installation for main engine fine tuning in shipyard.
- Power generation assembly lifting in power plant.
- Installation for diesel engine fine tuning in shipyard.
- Long-term support for large press machine.

Field Applications

▲ Bridge repairing and replacement of rubber bearings.

▲ Long time support for large equipment maintenance.

▲ Long-term lifting support for large transformer.

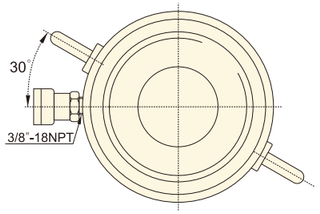
Technical Parameters

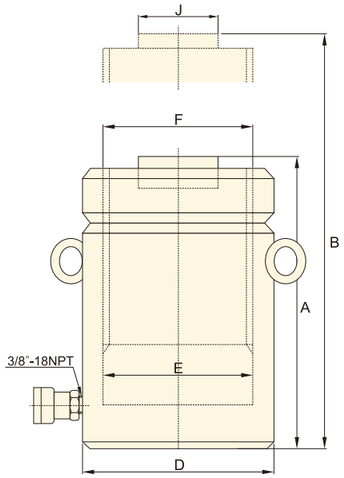
Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Weight (kg)
KET-CLP-602	60	70	125	50	86.6	432	175	140	15
KET-CLP-1002	100	70	137	50	146.8	734	187	175	26
KET-CLP-1602	160	70	148	45	231.3	1040	193	220	44
KET-CLP-2002	200	70	155	45	285.6	1285	200	245	57
KET-CLP-2502	260	70	159	45	366.8	1650	204	275	74
KET-CLP-4002	400	70	178	45	559.5	2517	223	350	134
KET-CLP-5002	520	70	192	45	730.6	3287	237	400	189

Ultra High Pressure Single Acting Mechanical Lock Nut Hydraulic Cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Outside Diameter D (mm)	Bore Diameter E (mm)	Adjusting Angle	Oil Capacity (L)	Weight (kg)
KET-HCLP-1002	100	200	137	50	50	118	80	5°	0.25	11
KET-HCLP-2002	200	200	148	50	103	174	115	5°	0.52	26
KET-HCLP-3002	300	200	160	50	154	198	140	5°	0.77	33
KET-HCLP-4002	400	200	178	50	200	238	160	5°	1.01	52
KET-HCLP-5002	500	200	180	50	254	256	180	5°	1.27	67
KET-HCLP-10002	1000	200	192	50	452	320	240	5°	2.26	108

Single Acting High Tonnage Lock Nut Hydraulic Cylinder





Product Features

- Single acting high tonnage lock nut hydraulic cylinder designed for use in confined space.
- Safe lock nut designed for mechanical load bearing.
- Single acting, load return.
- Baked enamel finish for increased corrosion resistance.
- Special synthetic coating for improved corrosion resistance and lower friction for smoother operation.
- Overflow port functions as a stroke limiter.
- Interchangeable, hardened grooved saddles are standard.
- Suitable for lifting work which requires plunger extends for a long time.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Matched the use with electric hydraulic pump

Industry Applications

- Synchronous lifting and replacement of rubber bearing in bridge maintenance.
- Lifting and maintenance in power generating equipment in power plant.
- Main engine assembly and fine tuning in shipyard.
- Diesel engine assembly and fine tuning in shipyard.
- Long-time support in press machine maintenance.

Field Applications

▲Used to support bridge for a long time in bridge construction.

▲Long time support large equipment in assembly.

▲Long time support large steel structure in welding.

▲Long time support structural component in bridge building.

Technical Parameters

Ultra high pressure single acting lock nut cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Weight (kg)
KET-HCL-502	50	200	181	50	76	85	6
KET-HCL-1002	100	200	206	50	50	100	10
KET-HCL-1004	100	200	261	100	50	100	13
KET-HCL-1006	100	200	311	150	50	100	15
KET-HCL-1502	150	200	230	50	68	127	18
KET-HCL-1506	150	200	333	150	68	127	24

Single Acting High Tonnage Lock Nut Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Bore Diameter E (mm)	Saddle Diameter J (mm)	Weight (kg)
KET-CLL-502	50	70	164	50	71.2	356	125	95	71	15
KET-CLL-504			214	100		712				20
KET-CLL-506			264	150		1068				25
KET-CLL-508			314	200		1424				30
KET-CLL-5010			364	250		1780				35
KET-CLL-5012			414	300		2136				40
KET-CLL-1002	100	70	187	50	133	665	165	130	71	30
KET-CLL-1004			237	100		1330				39
KET-CLL-1006			287	150		1995				48
KET-CLL-1008			337	200		2660				56
KET-CLL-10010			387	250		3325				64
KET-CLL-10012			437	300		3990				73
KET-CLL-1502	150	70	209	50	197.8	989	205	160	130	53
KET-CLL-1504			259	100		1978				66
KET-CLL-1506			309	150		2967				78
KET-CLL-1508			359	200		3956				92
KET-CLL-15010			409	250		4945				104
KET-CLL-15012			459	300		5934				117
KET-CLL-2002	200	70	243	50	266.2	1331	235	185	130	83
KET-CLL-2006			343	150		3993				117
KET-CLL-20012			493	300		7986				170
KET-CLL-2502	250	70	249	50	365.9	1830	275	215	150	116
KET-CLL-2506			349	150		5489				162
KET-CLL-25012			499	300		10977				234
KET-CLL-3002	300	70	295	50	457.1	2286	310	240	139	173
KET-CLL-3006			395	150		6857				233
KET-CLL-30012			545	300		13713				323
KET-CLL-4002	400	70	335	50	558.4	2792	350	265	159	250
KET-CLL-4006			435	150		8376				327
KET-CLL-40012			585	300		16752				441
KET-CLL-5002	500	70	375	50	729.3	3647	400	305	179	367
KET-CLL-5006			475	150		10940				466
KET-CLL-50012			625	300		21879				617
KET-CLL-6002	600	70	395	50	855.9	4280	430	330	194	446
KET-CLL-6006			495	150		12839				562
KET-CLL-60012			645	300		25677				737
KET-CLL-8002	800	70	455	50	1177.8	5889	505	385	224	709
KET-CLL-8006			555	150		17667				870
KET-CLL-80012			705	300		35334				1110
KET-CLL-10002	1000	70	495	50	1463.6	7318	560	430	249	949
KET-CLL-10006			595	150		21954				1141
KET-CLL-100012			745	300		43908				1430

Single Acting Multistage Hydraulic Cylinder

Product Descriptions

Single acting multistage hydraulic cylinder can be used in confined areas to carry out a long stroke lifting operation, separable structure, multistage lifting, single acting and load return.

Product Features

- Compact structure, wide range of uses; single acting ,load return; can not be used horizontally or reversely.
- Plunger seal groove size and tolerance in line with national standards GB/T2879-2005/ISO 5597:1987.
- The experimental method is in line with the national standard GB/T 15622-2005.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Field Applications

▲ Derailment lifting in position of molten iron transport vehicle in steel plant.

▲ Derailment lifting in position of coal carts in steel plant.

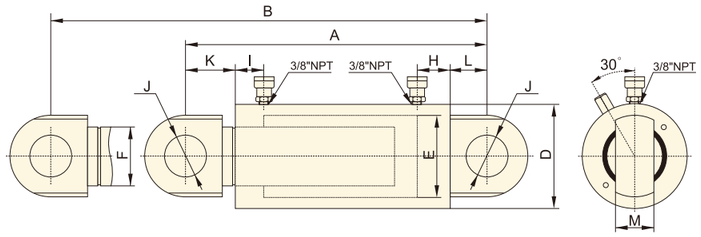
▲ Derailment lifting in position of train in cement plant.

▲ Derailment lifting in position of locomotive.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Stage number	Capacity at every stage (T)	Oil Capacity (cm^3)	Outside Diameter (mm)	Weight (kg)
KET-RCD-10A	10	70	250	270	Second stage	10	810	110	18
				135	First stage	30			
KET-RCD-10B	10	70	280	435	Third stage	10	2250	152	40
				290	Second stage	30			
				145	First stage	60			
KET-RCD-15A	15	70	280	300	Second stage	15	1308	125	28
				150	First stage	40			
KET-RCD-15B	15	70	320	500	Third stage	15	3543	165	50
				340	Second stage	40			
				170	First stage	80			
KET-RCD-30A	30	70	265	300	Second stage	30	2088	146	35
				150	First stage	60			
KET-RCD-30B	30	70	366	600	Third stage	30	6803	220	106
				400	Second stage	60			
				200	First stage	135			
KET-RCD-50A	50	70	280	300	Second stage	50	2087	175	52
				150	First stage	100			
KET-RCD-50B	50	70	390	600	Third stage	50	9000	230	130
				400	Second stage	100			
				200	First stage	190			

Double Acting High Tonnage Pull Hydraulic Cylinder



Matched the use with electric hydraulic pump

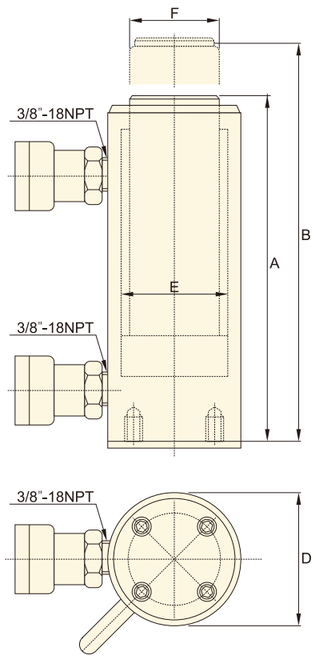
Product Features

- Double acting, hydraulic return.
- Pull type design, suitable for stretching and folding operation.
- Both ends with earrings, easy to connect with the object.
- Built in safety valve to prevent over pressure.
- Scraper seal reduces contamination, extending cylinder life.
- Optional lifting valve group, to ensure the safety and steady of lifting.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (mm^2)	Oil Capacity (mm^3)	Max. Load (kN)		Outside Diameter D (mm)	Weight (kg)
							Push	Pull		
KET-BRL-252	25	70	265	50	37.8	380	533	264	130	21.1
KET-BRL-254			315	100		761				24.8
KET-BRL-256			365	150		1141				28.5
KET-BRL-258			415	200		1522				32.2
KET-BRL-2510			465	250		1902				35.9
KET-BRL-2512			515	300		2283				40.5
KET-BRL-502	45	70	183	50	61.8	665	932	433	165	45.2
KET-BRL-504			233	100		1331				51.1
KET-BRL-506			283	150		1996				57.0
KET-BRL-508			333	200		2662				62.9
KET-BRL-5010			570	250		3327				68.8
KET-BRL-5012			433	300		3993				74.7
KET-BRL-702	70	70	200	50	95.3	990	1386	667	205	73.1
KET-BRL-704			250	100		1979				82.3
KET-BRL-706			300	150		2969				91.4
KET-BRL-708			350	200		3959				100.6
KET-BRL-7010			400	250		4948				109.7
KET-BRL-7012			450	300		5938				118.9
KET-BRL-1002	100	70	275	50	152	1830	2563	1064	275	162
KET-BRL-1006			375	150		5491				198
KET-BRL-10012			525	300		10983				251

Double Acting Hydraulic Cylinder



Product Descriptions

Double acting hydraulic cylinder is suitable for lifting operation of high tonnage equipment and lifting maintenance operations required precise control of load, also suitable for horizontal pushing operations.

Product Features

- Collar threads, plunger threads and base mounting holes for easy fixturing.
- Baked enamel finish for increased corrosion resistance.
- Removable hardened saddles protect plunger during lifting and pressing.
- Built-in safety valve prevents accidental over-pressurization.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Industry Applications

- Welding and lifting of ship hull.
- Equipment maintenance and lifting in steel plant.
- Equipment maintenance and lifting in thermal power plant.
- Maintenance and synchronous lifting of ancient buildings.
- Equipped with a variety of hydraulic tools to bending, cutting, punching, pressing and so on.

Field Applications


▲ Synchronous lifting and docking of shipbuilding.


▲ Synchronous lifting and maintenance of large equipment.


▲ Synchronous pushing in position of shield machine.


▲ Synchronous pushing in position of shield machine.


▲ Synchronous lifting and installation of steel structure.


▲ Synchronous lifting and maintenance of large mining machinery.

Double Acting Hydraulic Cylinder

Technical Parameters

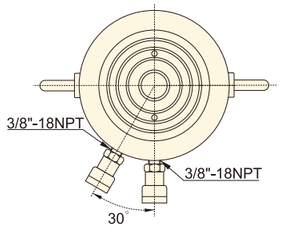
Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Max. Capacity (kN)		Effective Area (cm^2)		Oil Capacity (cm^3)		Extended Height B (mm)	Outside Diameter D (mm)	Weight (kg)
					Push	Pull	Push	Pull	Push	Pull			
KET-RR-1010	10	70	409	254	101	33	14.5	4.8	368	122	663	73	12
KET-RR-1012			457	305					442	147	762		14
KET-RR-308	30	70	387	209	295	53	42.1	19.1	879	400	596	101	18
KET-RR-3014			549	368					1549	703	917		29
KET-RR-506	50	70	331	156	498	103	71.2	21.5	1111	335	487	127	30
KET-RR-5013			509	334					2378	718	843		52
KET-RR-5020			733	511					3638	1099	1244		68
KET-RR-756	75	70	347	156	718	156	102.6	31.4	1601	490	503	146	44
KET-RR-7513			525	333					3417	1046	858		68
KET-RR-1006	95	70	357	168	933	435	133.3	62.2	2238	1045	525	177	61
KET-RR-10013			524	333					4439	2071	857		93
KET-RR-10018			687	460					6132	2861	1147		117
KET-RR-1502	140	70	196	57	1386	668	198.1	95.4	1129	544	253	203	49
KET-RR-1506			385	156					3090	1488	541		93
KET-RR-15013			582	333					6597	3177	915		124
KET-RR-15032			1116	815					16145	7775	1931		238
KET-RR-2006	200	70	430	152	1995	1017	285.0	145.3	4332	2209	582	247	147
KET-RR-20013			608	330					9405	4795	938		199
KET-RR-20018			765	457					13025	6640	1222		204
KET-RR-20024			917	610					17385	8863	1527		279
KET-RR-20036			1222	914					26049	13280	2136		383
KET-RR-20048			1527	1219					34741	17712	2746		483
KET-RR-3006	325	70	485	153	3201	1703	457.3	243.2	6997	3721	638	311	200
KET-RR-30012			638	305					13947	7418	943		312
KET-RR-30018			790	457					20889	11114	1247		385
KET-RR-30036			943	609					27850	14811	1552		469
KET-RR-30024			1247	915					41843	22253	2162		628
KET-RR-30048			1552	1219					55745	29646	2771		780
KET-RR-4006	440	70	528	152	4292	2297	613.1	328.1	9319	4987	690	358	303
KET-RR-40012			690	305					18700	10007	995		399
KET-RR-40018			843	457					28018	14995	1300		453
KET-RR-40024			995	610					37400	20014	1605		597
KET-RR-40036			1300	914					56037	29988	2214		792
KET-RR-40048			1605	1219					74737	39996	2824		980
KET-RR-5006	520	70	577	153	5108	2838	729.7	405.4	11164	6203	730	397	432
KET-RR-50012			730	305					22256	12365	1035		589
KET-RR-50018			882	457					33347	18526	1339		680
KET-RR-50024			1032	609					44440	24689	1644		816
KET-RR-50036			1339	915					66768	36973	2254		1002
KET-RR-50048			1644	1219					88951	49418	2863		1224

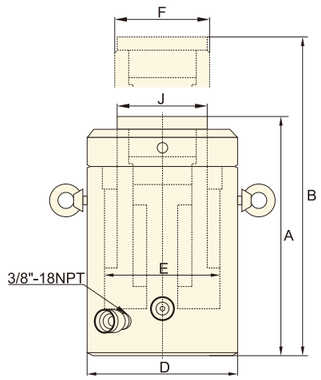
Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Weight (kg)
KET-HRR-305	30	200	275	125	31	85	8
KET-HRR-506	50	200	323	150	45	100	15
KET-HRR-1006	100	200	345	150	55	127	27
KET-HRR-2004	200	200	325	100	90	185	60
KET-HRR-2006	200	200	375	150	90	185	70

Double Acting Mechanical Lock Nut Hydraulic Cylinder

Product Features

- Double acting, hydraulic return.
- Mechanical nut locking, provides the most secure protection.
- Special bearing design withstands side-loads up to 10%.
- Built-in safety valve helps to prevent damage in case of accidental over-pressurization.
- Scraper seal design reduces contamination, extending cylinder life.
- Standard rigid deep groove saddle, can choose a 5 degree tilt saddle to adapt to component unevenly situation.
- Optional tube or plate hydraulic check valve or one-way throttle valve, to ensure the safety of the lifting and falling processes.
- 3/8 "- 18NPT coupler and dust cap included on all models.





Field Applications

▲ Long term supporting for bridge maintenance.

▲ Long term supporting for high-speed rail box girder prefabricating.

▲ Long term supporting for large-scale steel structure welding.

▲ Synchronous pushing of prefabricated beam in high speed rail construction.

▲ Synchronous lifting and transferring of high-speed rail box girder.

▲ Synchronous pushing of prefabricated beam in high speed rail construction.

Double Acting Mechanical Lock Nut Hydraulic Cylinder

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter D (mm)	Bore Diameter E (mm)	Saddle Diameter J (mm)	Weight (kg)
KET-CLLRS-502	50	70	232	50	74.8	374	140	104.8	80	31
KET-CLLRS-506			332	150		1122				48
KET-CLLRS-5012			482	300		2244				77
KET-CLLRS-1002	100	70	270	50	141.9	710	180	141.9	115	59
KET-CLLRS-1006			370	150		2129				86
KET-CLLRS-10012			520	300		4257				132
KET-CLLRS-1502	150	70	290	50	210.6	1053	205	171.5	130	80
KET-CLLRS-1506			390	150		3159				114
KET-CLLRS-15012			540	300		6318				170
KET-CLLRS-2002	200	70	300	50	286	1430	265	203.0	155	131
KET-CLLRS-2006			400	150		4290				183
KET-CLLRS-20012			550	300		8580				265
KET-CLLRS-2502	250	70	310	50	360.9	1805	285	228.6	180	156
KET-CLLRS-2506			410	150		5414				215
KET-CLLRS-25012			560	300		10827				307
KET-CLLRS-3002	300	70	330	50	428.7	2144	310	241.3	195	196
KET-CLLRS-3006			430	150		6431				264
KET-CLLRS-30012			580	300		12861				371
KET-CLLRS-4002	400	70	360	50	571.2	2856	360	279.4	225	286
KET-CLLRS-4006			460	150		8568				375
KET-CLLRS-40012			610	300		17136				514
KET-CLLRS-5002	500	70	395	50	715.6	3578	400	317.5	218	386
KET-CLLRS-5006			495	150		10734				501
KET-CLLRS-50012			645	300		21468				679
KET-CLLRS-6002	600	70	420	50	847.4	4237	440	342.9	228	495
KET-CLLRS-6006			520	150		12711				631
KET-CLLRS-60012			670	300		25422				841
KET-CLLRS-8002	800	70	470	50	1128	5640	505	387.4	296	727
KET-CLLRS-8006			570	150		16920				905
KET-CLLRS-80012			720	300		33840				1181
KET-CLLRS-10002	1000	70	525	50	1398	6990	560	431.8	298	999
KET-CLLRS-10006			625	150		20970				1219
KET-CLLRS-100012			775	300		41940				1559

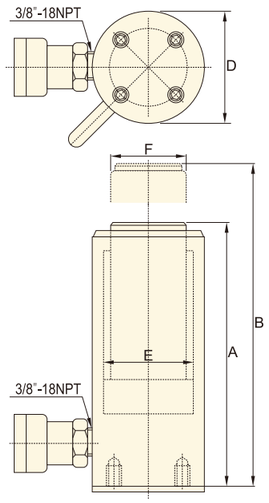
Single Acting Aluminum Hydraulic Cylinder

Product Descriptions

Hard-coat finish on all surfaces resists damage and extends cylinder life, steel base plate and saddle for protection against load-induced damage; Single acting, applicable to shipyards, steel plants, construction, power plants, oil gas fields and other industries.

Product Features

- Composite bearings prevent metal-to-metal contact, increasing cylinder life and resistance to side-loads.
- Hard-coat finish on all surfaces resist damage.
- Steel base plate and saddle for protection against load-induced damage.
- Integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity.
- High strength return spring for rapid cylinder retraction.
- Handles included on 50T, 100T, 150T model.
- 3/8 "- 18NPT coupler and dust cap included on all models.



Matched the use with lightweight hydraulic hand pump.

▲ Synchronous lifting and installation of large steel structure bridge.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Bore Diameter E (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-RAC-202	20	70	174	50	31.2	156	224	85	63	50	3.6
KET-RAC-204			224	100		312	324				4.1
KET-RAC-206			274	150		468	424				4.6
KET-RAC-302	30	70	181	50	44.2	221	231	100	75	60	4.5
KET-RAC-304			231	100		442	331				5.2
KET-RAC-306			281	150		663	431				5.9
KET-RAC-502	50	70	186	50	70.9	354	236	130	95	80	8.5
KET-RAC-504			236	100		709	336				9.8
KET-RAC-506			286	150		1063	436				11.1
KET-RAC-1004	100	70	271	100	143.1	1431	271	180	135	110	19.6
KET-RAC-1006			321	150		2147	471				21.9
KET-RAC-1008			371	200		2863	571				24.2
KET-RAC-1506	150	70	343	150	227	3405	493	230	170	140	33.3

Double Acting Aluminum Hydraulic Cylinder

Product Descriptions

Double acting aluminum hydraulic cylinders adopt latest alloy technology, hard-coat finish, seal design and supporting material, change your traditional view of cylinder. Aluminum is lightweight and easy to transport and locate, and has a high strength comparable to steel.

Product Features

- Composite bearings prevent metal-to-metal contact, increasing cylinder life and resistance to side-loads.
- Hard-coat finish on all surfaces resist damage.
- Handles included on 50T, 100T, 150T model.
- Steel base plate and saddle for protection against load-induced damage.
- Built-in safety valve prevents accidental over-pressurization.
- Special stroke can be customized according to customer's requirements.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Max. Capacity (kN) Push	Max. Capacity (kN) Pull	Effective Area (cm^2) Push	Effective Area (cm^2) Pull	Oil Capacity (cm^3) Push	Oil Capacity (cm^3) Pull	Outside Diameter (mm)	Weight (kg)
KET-RAR-202	20	70	189	50	218	130	31.2	18.6	156	93	113	7.4
KET-RAR-204			239	100					312	186		8
KET-RAR-206			289	150					468	279		8.6
KET-RAR-208			339	200					624	372		9.2
KET-RAR-2010			389	250					780	465		9.8
KET-RAR-302	30	70	201	50	309	179	44.2	24.5	221	123	125	8.6
KET-RAR-304			251	100					442	245		9.5
KET-RAR-306			301	150					663	368		10.4
KET-RAR-308			351	200					884	490		11.3
KET-RAR-3010			401	250					1105	613		12.2
KET-RAR-502	50	70	201	50	496	187	70.9	26.7	354	134	145	11.1
KET-RAR-504			251	100					709	267		12.7
KET-RAR-506			301	150					1063	401		14.3
KET-RAR-508			351	200					1417	534		15.9
KET-RAR-5010			401	250					1771	668		17.5
KET-RAR-1002	100	70	251	50	1002	557	143.1	79.5	715	398	185	16.4
KET-RAR-1004			301	100					1431	795		19.3
KET-RAR-1006			351	150					2147	1193		22.7
KET-RAR-1008			401	200					2863	1590		25.1
KET-RAR-10010			451	250					3578	1988		28
KET-RAR-1502	150	70	248	50	1589	924	227	132	1135	660	230	24.2
KET-RAR-1504			298	100					2270	1320		28.9
KET-RAR-1506			348	150					3405	1980		33.2
KET-RAR-1508			398	200					4540	2640		37.9
KET-RAR-15010			448	250					5675	330		42.6

Single Acting Aluminum Hollow Plunger Hydraulic Cylinder

Product Features

- Single acting aluminum hollow hydraulic jack is the preferred light cylinder for tensioning and testing.
- Hollow plunger design allows for both pull and push forces.
- Composite bearings increase cylinder life and side load resistance.
- Hard coat finish on all surfaces resists damage and extending cylinder life.
- Handles included on all models.
- Floating center tube increases seal life.
- Steel base plate and saddle for protection against load-induced damage.
- Integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity.
- High-strength return spring for rapid cylinder retraction.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Extended Height (mm)	Outside Diameter (mm)	Bore Diameter (mm)	Weight (kg)
KET-RACH-202	20	70	188	50	32.7	164	238	100	27	5.2
KET-RACH-204			251	100		327	351			6.1
KET-RACH-206			315	150		491	465			7.1
KET-RACH-208			378	200		654	578			8
KET-RACH-2010			442	250		818	692			9
KET-RACH-302	30	70	208	50	51.1	256	258	130	34	8
KET-RACH-304			267	100		511	367			9.5
KET-RACH-306			333	150		766	483			11.2
KET-RACH-308			395	200		1022	595			12.9
KET-RACH-3010			458	250		1277	708			14.5
KET-RACH-602	60	70	251	50	84.7	423	301	180	54	16.2
KET-RACH-604			315	100		847	415			19.5
KET-RACH-606			380	150		1270	530			22.8
KET-RACH-608			445	200		1694	645			26
KET-RACH-6010			510	250		2117	760			29.6
KET-RACH-1002	100	70	258	50	164.6	823	308	250	79	33.8
KET-RACH-1004			325	100		1646	425			39.8
KET-RACH-1006			391	150		2487	541			46.2
KET-RACH-1008			459	200		3291	659			52.2
KET-RACH-10010			527	250		4114	777			58.8
KET-RACH-1502	150	70	280	50	225.8	1129	330	275	79	48.9
KET-RACH-1504			360	100		2258	460			55.7
KET-RACH-1506			430	150		3387	580			63.0
KET-RACH-1508			500	200		4517	700			70.1
KET-RACH-15010			570	250		5646	820			77.2

Single Acting Aluminum Lock Nut Hydraulic Cylinder

Product Features

- Aluminum lock nut provides mechanical load holding for extended periods.
- Hardened steel stop ring increases cylinder life and resistance to side-loads of up to 5%.
- Composite bearings increase cylinder life and side load resistance.
- Handles included on all models.
- Steel base plate and saddle for protection against load-induced damage.
- Integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity.
- High-strength return spring for rapid cylinder retraction.
- Hard coat finish on all surfaces resists damage and extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Weight (kg)
KET-RACL-202	20	70	224	50	31.2	156	4
KET-RACL-204			274	100		312	4.6
KET-RACL-206			324	150		468	5.2
KET-RACL-208			374	200		624	5.8
KET-RACL-2010			424	250		780	6.4
KET-RACL-302	30	70	231	50	44.2	221	5.4
KET-RACL-304			281	100		442	6.1
KET-RACL-306			331	150		663	6.8
KET-RACL-308			381	200		884	7.5
KET-RACL-3010			431	250		1105	8.2
KET-RACL-502	50	70	236	50	70.9	354	9.3
KET-RACL-504			286	100		709	10.6
KET-RACL-506			336	150		1063	11.9
KET-RACL-508			386	200		1417	13.2
KET-RACL-5010			436	250		1771	14.5
KET-RACL-1002	100	70	296	50	143.1	716	21.9
KET-RACL-1004			346	100		1431	24.2
KET-RACL-1006			396	150		2147	26.5
KET-RACL-1008			446	200		2863	28.8
KET-RACL-10010			496	250		3578	31.1
KET-RACL-1502	150	70	323	50	227	1135	32.2
KET-RACL-1504			373	100		2270	36.2
KET-RACL-1506			423	150		3405	40.2
KET-RACL-1508			473	200		4540	44.2
KET-RACL-15010			523	250		5675	48.2

Ultra Low Height Mechanical Cylinder

Product Features

- Ultra low height mechanical cylinder's compact, flat design, used in confined spaces where most cylinders will not fit.
- Light, short, easy to carry, barrier-free working.
- High-strength alloy steel, extending service life and strength.
- Integrated screw hydraulic structure, no need additional hydraulic pump and hose.
- Lifting capacity: 5T-50T, Working stroke: 5mm-25mm.

Technical Parameters

Model	Capacity (T)	Stroke (mm)	Min. Height (mm)	Max. Height (mm)	Outside Diameter (mm)	Max. Length (mm)	Min. Length (mm)
KET-SMC-525	5	25	52	77	52	275	195
KET-SMC-1025	10	25	54	79	62	348	237
KET-SMC-2005	20	5	35	40	84	289	218
KET-SMC-3005	30	5	36	41	95	314	236
KET-SMC-5005	50	5	40	45	120	401	293

Ultra-thin Hydraulic Cylinder

Product Descriptions

Ultra-thin hydraulic cylinder is used in rubber bearings replacement of highway bridge, machinery, turbines, heavy structure and other docking operations.

Product Applications

- Synchronous lifting to replace the rubber bearings of bridge in maintenance.
- Lifting and maintenance of generating equipment in power plant.
- Shipyard marine diesel engine installation and fine-tuning, propeller pressure installation and disassembly.
- Installation and maintenance of all kinds of large equipment in small space.

Product Features

- Single acting, load return; Lightweight, small size, large bearing capacity, high performance, easy to operate.
- High strength alloy materials and the cylinder surface special coating, ensures increased cylinder life.
- Optional extension coupler and base plate, applicable to a variety of work conditions.
- Very small closed height, used in confined spaces.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Plunger Diameter (mm)	Coupler Height (mm)	Weight (kg)
KET-SSM-5	5	70	50	20	7.06	14.1	74	30	20	1.7
KET-SSM-10	10	70	50	20	14.51	29	87	43	20	2.3
KET-SSM-25	25	70	50	20	36.29	72.6	108	68	20	3.6
KET-SSM-50	50	70	50	20	70.84	141.7	139	95	20	6
KET-SSM-100	100	70	50	20	143.06	286.1	179	135	20	9.9
KET-SSM-150	150	70	50	20	213.72	427.4	216	165	20	14.4
KET-SSM-200	200	70	50	20	283.38	566.8	248	190	20	19

Servo Hydraulic Cylinder

Product Descriptions

Hydraulic synchronous lifting system is widely used in lifting old bridge field, accompanying hydraulic cylinder is developed based on controlling hazard of sudden failure in hydraulic lifting process. Keeping synchronous lifting with main cylinder in lifting process, supporting load safely when main cylinder or control system fails, pure mechanical supporting can be achieved after accompanying cylinder touches and supports component.

Product Features

- Equipped with stepper motor to accompany without any clearance, electrocutes speed adjustment;
- Avoid system damage caused by starting frequently;
- 5° anti-partial designed saddle, more applicable;
- Optimized hydraulic system integration makes construction more secure.

Field Applications

▲Synchronous lifting for increase the clearance of large bridge.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Outside Diameter D (mm)
KET-SDD-100	100	70	463	150	185
KET-SDD-200	200	70	470	150	250
KET-SDD-300	300	70	470	150	300
KET-SDD-400	400	70	500	150	360
KET-SDD-500	500	70	720	150	415

★Available to customize non-standard servo hydraulic clinder.

Jaw Type Hydraulic Cylinder

Product Descriptions

Jaw type hydraulic cylinder, hard chrome alloy steel principal axis, durable and not rust; claw is alloy steel molding in one integrally, strong structure; carbon steel base, automatic welding, stable quality; applys to level correction of heavy machinery and confined spaces where most other cylinders will not fit.

Technical Parameters

Model	Capacity (T)	Claw capacity (T)	Closed Height (mm)	Stroke (mm)	Maximum Height (mm)	Claw Height (mm)	Claw Size (mm)	Weight (kg)
KET-ZSD-5	5	2.5	240	110	350	16	70×55	12
KET-ZSD-10	10	5	282	147	387	22	98×55	20
KET-ZSD-20	20	10	310	152	462	25	123×63	31
KET-ZSD-30	30	15	330	155	485	28	149×60	42
KET-ZSD-50	50	25	370	155	525	40	190×75	85

Double Acting Multistage Hydraulic Cylinder

Product Descriptions

Double acting multistage hydraulic cylinders is low height ,long stroke, used for lifting in small space. Double acting hydraulic return, improving work efficiency. Except the quality characteristics and lifting capacity of the standard cylinder, it has very long stroke, can avoid the lifting, block up, and then lifting these repeated working process, save time and improve the lifting efficiency. In most applications, the user only needs to place a multistage cylinder to complete the lifting operation.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Weight (kg)
KET-RRD-265	First stage 265	70	530	First stage 270	First stage 379.9	First stage 10258.4	300	270
	Second stage 100			Second stage 290	Second stage 143.1	Second stage 4148.9		
KET-RRD-525	First stage 525	70	430	First stage 220	First stage 267.7	First stage 5889	415	410
	Second stage 265			Second stage 210	Second stage 379.9	Second stage 7978.7		
	Third stage 115			Third stage 220	Third stage 165	Third stage 3631		

Mobile Hydraulic Cylinder

Product Features

- Sturdy and lightweight load-bearing structure, large base supporting cylinder;
- Integrated design of cylinder and electric hydraulic pump station, easy to use and repair.
- Large diameter rubber wheel, used in a variety of work conditions, minimum turning radius;
- Hydraulic lifting valve group provides safety protection during the lifting process;
- Single person can push the equipment to move, forklift truck and crane can also be used for transportation;
- Control mode: button; wire-controlled handle; wireless remote control.

Field Applications

▲Synchronous lifting of large tank.

▲Synchronous lifting of large pressure vessel.

▲Locomotive repairing and lifting.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Lifting Speed (mm/min)		Maximum Height (mm)	Base Size (mm)	Wheel Diameter (mm)	Weight (kg)
					Load	No load				
KET-YDD-50	50	70	1020	600	55	430	1515	550×450	370	450
KET-YDD-150	150	70	1020	600	45	382	1515	550×450	370	510

3D Adjustment Hydraulic Cylinder

Product Descriptions

3D adjustment cylinders, large capacity, can adjust the capacity according to the actual need, Capacity range is 50T-1000T, 3D control x/y/z three directions, can achieve 1mm precision adjustment and positioning accuracy. Control system touch screen display operation with a convenient human-computer interaction interface, easy and quick operation. The control system is easy to disassemble and assemble, reducing the high altitude and offshore operations requirements. Hydraulic control system can use by manual or power supply, to adapt to any operating conditions.

3D adjustment of the hydraulic cylinder is a set hydraulic technology, mechanical technology, computer control technology, electrical technology in one. Through the PLC control of objects need to adjust the state into a computer program, and then send it to the hydraulic pump and control it. Hydraulic pump will pass the commands to more than three dimensional instructions to adjust the cylinder to achieve linkage synchronization. At the same time, the sensor feed back the actual working condition to the PLC controller. The computer will calculate the information and send an adjustment signal.

Field Applications

▲Synchronous pushing of large steel box culvert structure in high speed rail construction.

▲Synchronous pushing and installation of steel box girder in bridge construction.

▲Synchronous pushing and installation of steel box girder in bridge construction.

▲Synchronous pushing and installation of steel box girder in bridge construction.

Technical Parameters

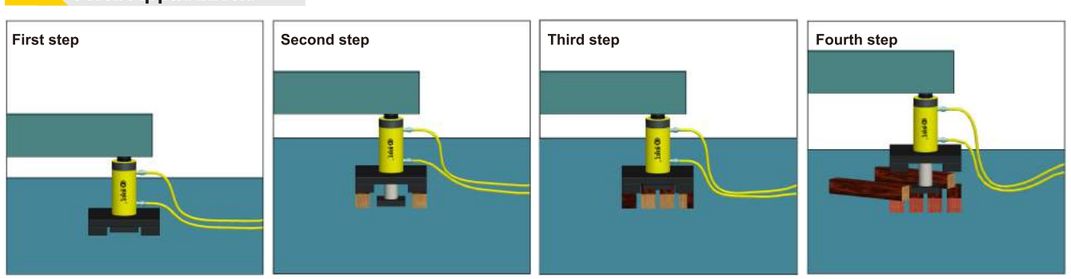
Model	Lifting Direction	Capacity (T)	Max. Working Pressure (MPa)	Stroke (mm)	Effective Area (cm^2)
KET-SWD-250	Vertical	250	70	200	36
	Horizonal	50		150	78
	Lengthways	50		150	78
KET-SWD-400	Vertical	400	70	200	572
	Horizonal	60		150	95
	Lengthways	60		150	95
KET-SWD-600	Vertical	600	70	200	855
	Horizonal	100		150	133
	Lengthways	100		150	133
KET-SWD-1000	Vertical	1000	70	200	1250
	Horizonal	200		150	283
	Lengthways	200		150	283

Stage-lift Hydraulic Cylinder

Product Features

- Stage-lift hydraulic cylinder break the limit of self stroke, meet large lifting height requirements through the layered lifting. Supporting the use with synchronous lifting hydraulic system to achieve high precision grading synchronous lifting, synchronous precision can reach 1%.
- Capacity from 50T to 1000T, large single point capacity.
- Double acting design, lifting valve group can be used to ensure the safety of lifting and lowering.
- Standard 5° ball type saddle to load uneven surface conditions.
- Optional high polymer synthetic block, light weight, high strength, reduce the labor intensity.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Field Applications



First step: Place the Stage-lift hydraulic cylinder on a solid base under load(Plunger retracts).

Second step: Lifting the load, insert 2 pieces of blocks under the base.

Third step: Plunger retracts, insert 2 pieces of blocks in the middle of the base to support the next lifting.

Fourth step: Lifting the load again, insert 2 pieces of blocks again under the base.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Tray Diameter (mm)	Saddle Diameter (mm)	Base Size (mm)	Weight (kg)
KET-RK-506	50	70	385	150	76.1	1141	650	125	250	228
KET-RK-5010			485	250		1902				236
KET-RK-1006	100	70	364	150	133.1	1996	650	160	250	256
KET-RK-10010			464	250		3327				270
KET-RK-1506	150	70	408	150	197.9	2969	800	200	340	502
KET-RK-15010			508	250		4948				522
KET-RK-2006	200	70	421	150	266.3	3995	800	230	340	569
KET-RK-20010			521	250		6658				585
KET-RK-2506	250	70	495	150	366.1	5491	800	270	340	689
KET-RK-25010			595	250		9152				725
KET-RK-3006	300	70	546	150	457.3	6860	1000	300	340	708
KET-RK-30010			646	250		11433				749

High-strength Synthetic Block

▲Welding and lifting for vessel body

▲Platform constructing for sea well drilling

Product Features

- Compressive strength:100-300MPa.
- Heap size:0-2000mm.
- Applicable temperature: -10℃~+80℃.
- Light weight, large capacity.
- Best bearing weight ratio.
- Standard size, module combination.
- Lightweight polymer composite materials, light weight, easy to carry and stack.
- Polymer composite material has good corrosion resistance.
- High compressive strength, applys to heavy load work conditions.
- Modular design, standard block, can be used for a variety of pile loading conditions through the combination.
- Handles included on all blocks.

Technical Parameters

Model	Compressive Strength (MPa)	Block Length (mm)	Block Width (mm)	Block Height (mm)	Material	Weight (kg)
KET-800-200	100	800	200	200	Alloy material	16
KET-1200-200	100	1200	200	200	Alloy material	20
KET-1200-150	100	1200	150	150	Alloy material	30
KET-1200-100	300	1200	100	100	Steel material	22

Conjoined Twin Hydraulic Cylinder

Product Descriptions

Conjoined twin hydraulic cylinder, innovative design, narrow twin hydraulic cylinder, lifting capacity 100x2=200Ton, suitable for special confined spaces, it can be customized according to customers requirements.

Mainly used in confined spaces, for example: marine diesel engine adjustment in shipyard, steam turbine overhaul in power plant and so on.

Conjoined twin hydraulic cylinder designed to be twin cylinders, to make the outside diameter of single cylinder down, and the output tonnage is constant. Conjoined twin hydraulic cylinder synchronous output, it is especially suitable for the lifting and pushing in confined spaces.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Outside Diameter (mm)	Plunger Diameter (mm)	Weight (kg)
KET-DC-10032	100×2	70	150	32	340×165	110	54
KET-DC-10050	100×2	70	165	50	340×165	110	65
KET-HDC-10050	100×2	200	250	50	330×134	66	87

Pull Hydraulic Cylinder

▲Lifting of propeller installation for shipyard.

▲Tension test.

Product Descriptions

Single acting pull hydraulic cylinder is used for adjustment posture of large steel structure assembly, welding and lifting weights, double acting, rapid retract and accuracy control the retraction distance.

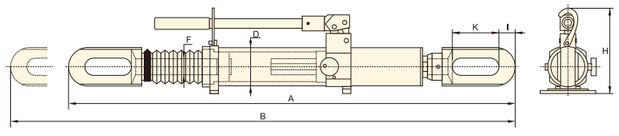
Product Features

- High strength alloy steel materials.
- Plunger limit structure to prevent the piston over-travel.
- Hard chrome plated high quality steel plungers; baked enamel finish for increased corrosion resistance.
- Scraper seal reduces contamination, extending cylinder life.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Oil Capacity (cm^3)	Outside Diameter (mm)	Weight (kg)
KET-BRC-25	2.5	70	264	127	45	48	1.8
KET-BRC-46	5	70	301	140	101	57	4.5
KET-BRC-106	10	70	289	151	228	85	9.5
KET-BRP-106A	10	70	587	151	227	85	15.9
KET-BRP-106B	10	70	541	151	227	85	13.2
KET-BRP-306	30	70	1085	155	722	136	48.1
KET-BRP-606	50	70	719	152	1155	140	53.5

Integrated Pull Hydraulic Cylinder



Product Features

- Integrated design, easy for field working.
- Equipped with earrings, easy to connect with objects.
- Pulling design for use in situation tension and closing required.
- High strength alloy steel, small in size and weight, easy to carry.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height A (mm)	Stroke (mm)	Max Capacity (kN)	Oil Capacity (cm^3)	Extended Height B (mm)	Outside Diameter D (mm)	Plunger Diameter F (mm)	Weight (kg)
KET-HPS-104	10	70	876	100	102	265	876	72	32	17
KET-HPS-204	20	70	1022	100	207	795	1122	95	41	32

Special Hydraulic Cylinder for Static Load Test

matched with movable electric hydraulic pump

Product Descriptions

Special hydraulic cylinder for static load test, matched use with electric hydraulic pump, displacement sensor, pressure sensor, data acquisition for high-rise building, bridge, wharf, pile foundation engineering testing, including Jiangsu in recent years to complete the dynamic test of pile foundation of Runyang Yangtze River bridge, Wuhan Junshan Yangtze bridge pile foundation dynamic testing, testing Zhejiang Jintang bridge pile foundation, Hubei Ehuang Yangtze River bridge pile integrity test, Hainan Petrochemical 300 thousand tons of oil wharf pile testing, the Guangdong Shantou Nan'ao bridge pile foundation test etc.

Field Applications

▲Bridge pile foundation detection.

▲Pile foundation detection of high-rise buildings.

▲Pile foundation detection of high-rise buildings.

▲Pile foundation detection of high-rise buildings.

▲Pile foundation detection of high-rise buildings.

▲Pile foundation detection of high-rise buildings.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Lifting Height (mm)	Closed Height (mm)	Distance Between Coupler and Bottom (mm)	Outside Diameter (mm)	Plunger Diameter (mm)	Bore Diameter (mm)	Mounting Holes (mm)		Weight (kg)
									Circumference	Diameter	
KET-JCD-50-125	50	70	125	263	52	132	70	100	70	M16	23
KET-JCD-50-160			160	298							25
KET-JCD-50-200			200	338							31
KET-JCD-100-125	100	70	125	291	54	172	100	140	110	M20	44
KET-JCD-100-160			160	326							49
KET-JCD-100-200			200	366							54
KET-JCD-200-125	200	70	125	321	61	244	150	200	160	M24	99
KET-JCD-200-160			160	356							107
KET-JCD-200-200			200	396							118
KET-JCD-300-200	300	70	200	427	74	315	180	250	220	M24	213
KET-JCD-500-200	500	70	200	475	93	395	250	320	280	M24	393
KET-JCD-600-200	600	70	200	536	115	450	280	360	300	M24	579
KET-JCD-800-200	800	70	200	577	149	550	320	400	380	M24	1068
KET-JCD-1000-200	1000	70	200	620	174	600	360	450	450	M24	1200

Single Acting Pancake Lock Nut Hydraulic Cylinder

Double Acting Lock Nut Hydraulic Cylinder

Single Acting Lock Nut Hydraulic Cylinder

Single Acting Lock Nut Ultra Low Height Hydraulic cylinder

Single Acting Two Stage Hydraulic Cylinder

Product Descriptions

Single acting pancake lock nut cylinders apply to use in compact constructions; safety locking nut design applys to mechanical load supporting, special load-bearing system design is capable of withstanding 3% side load, overflow port functions as a stroke limiter.

Product Features

- Single acting, load return, mechanical lock nut, ensure long time supporting safety.
- Load can be supported for a long time after the hydraulic pressure is released.
- A visible indicator to remind the operator at max. stroke.
- Overflow port limits the stroke to prevent the piston rod from over-travel.
- Overflow port functions as a stroke limiter, replaceable standard hard groove saddle.
- Special composite coating, reduce friction, corrosion resistance.
- Special bearing design withstands side-loads up to 5% of the rated load.
- 3/8 "- 18NPT coupler and dust cap included on all models.

Technical Parameters

Double Acting Lock Nut Hydraulic Cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Lock Nut Diameter (mm)	Plunger Diameter (mm)	Weight (kg)
KET-RRL-200-120	200	70	260	120	283.38	3400	245	320	130	130
KET-RRL-300-120	300	70	260	120	452.16	5426	320	400	240	226.7

Single Acting Lock Nut Hydraulic Cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Lock Nut Diameter (mm)	Plunger Diameter (mm)	Weight (kg)
KET-RCL-50-20	50	70	75	20	63.58	127.2	130	160	70	9
KET-RCL-50-60	50	70	122	60	63.58	381.5	130	160	70	14.5
KET-RCL100-20	100	70	86	20	132.66	265.4	170	200	90	17
KET-RCL-100-60	100	70	145	60	132.66	796	170	200	90	28

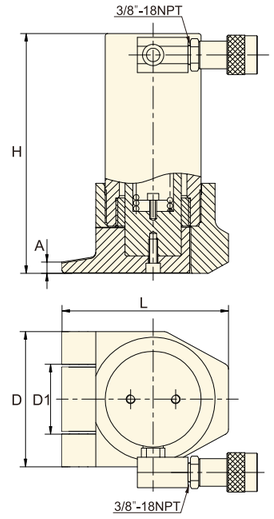
Single Acting Lock Nut Ultra Low Height Hydraulic cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Lock Nut Diameter (mm)	Plunger Diameter (mm)	Weight (kg)
KET-HRCL-100-10	100	70	45	10	143.06	143	170	198	135	9.5
KET-HRCL-150-24	150	70	54	24	213.72	513	215	245	165	18.2

Single Acting Two Stage Hydraulic Cylinder

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Effective Area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Weight (kg)
KET-RDL-80-25	First stage 80 Second stage 50	70	38	First stage 11 Second stage 14	First stage 113.04 Second stage 70.84	First stage 124.3 Second stage 99.2	175×203	7

Slotted Type Hydraulic Cylinder



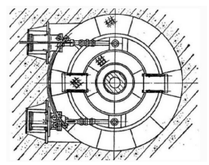
Product Descriptions

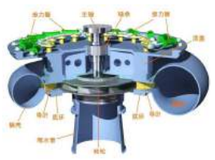
Slotted Type Hydraulic Cylinder is mainly used for highway and bridge shaft expansion joints, for the replacement of special-shaped steel and rubber seal with a modular combination of modular structure.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Stroke (mm)	Effective area (cm^2)	Oil Capacity (cm^3)	Outside Diameter (mm)	Plunger Diameter (mm)	Dimensions(mm)				
								H	D	D1	L	A
KET-KFD-10	10	70	105	13.8	145.4	57	1.8	208	110	57	109	10
KET-KFD-20	20	70	100	28.3	283	85	13	213	120	62	148	14

Hydraulic Servomotor





Product Features

- Hydraulic servomotor is mainly used in hydropower stations, used to adjust the position of the guide vane angle.
- Locking device and unlocking device.
- Cylinder Diameter: 200-800mm.
- Stroke: 200-1000mm.
- Working Pressure: 4-16MPa.

★**Design and producing according to the technical requirements of use unit.**

Field Applications

Hydraulic Cylinder for Special Projects

Product Descriptions

Hydraulic cylinder for special projects, including mechanical self-locking, hydraulic self-locking, horizontal, vertical and so on, now widely used in trenchless underground pipe lifting, lifting heavy objects constructions. And also can be used for pre-tensioning hydraulic equipment. For example: the underground pipeline pushing construction, bridge pre-tensioning, road construction box culvert pushing and correct construction. It is widely used in municipal, railway, bridge, road and underground water supply, drainage pipeline construction.

Field Applications

▲ Pipeline pushing project in city highway construction.

▲ Pipeline pushing project in expressway construction.

▲ Pipeline pushing project in high speed railway construction.

▲ Pipeline pushing project in railway construction.

▲ Box culvert pushing project in highway construction.

▲ Box culvert pushing project in highway construction.

▲ Synchronous pushing of box culvert in high speed railway construction.

▲ Box culvert pushing project in highway construction.

▲ Box culvert pushing project in highway construction.

▲ Synchronous pushing of box culvert in high speed railway construction.

▲ Synchronous lifting and maintenance of large mining machinery.

▲ Synchronous lifting and translation of ancient buildings.

Hydraulic Cylinder for Special Projects

Technical Parameters

Model	Push/Pull Capacity (T)	Max.Working Pressure (MPa)	Stroke (mm)	Bore Diameter (mm)	Plunger Diameter (mm)	Dimensions(mm)			Weight (kg)
						Min. Length	Width	Height	
KET-GCD-50-250	50/25	50	250	140	100	485	210	270	110
KET-GCD-50-500			500			735			160
KET-GCD-50-700			700			935			199
KET-GCD-50-1000			1000			1235			257
KET-GCD-100-250	100/50	50	250	180	120	581	240	320	162
KET-GCD-100-500			500			831			214
KET-GCD-100-700			700			1031			266
KET-GCD-100-1000			1000			1331			338
KET-GCD-100-1200			1200			1531			398
KET-GCD-100-1500			1500			1831			473
KET-GCD-200-250	200/100	50	250	240	160	640	310	400	306
KET-GCD-200-500			500			890			454
KET-GCD-200-700			700			1090			544
KET-GCD-200-1000			1000			1390			680
KET-GCD-200-1200			1200			1590			762
KET-GCD-200-1500			1500			1890			966
KET-GCD-200-2000			2000			2390			1216
KET-GCD-200-2500			2500			2890			1250
KET-GCD-300-250	300/150	50	250	300	200	689	370	480	508
KET-GCD-300-500			500			939			632
KET-GCD-300-700			700			1139			744
KET-GCD-300-1000			1000			1439			908
KET-GCD-300-1200			1200			1639			1016
KET-GCD-300-1500			1500			1939			1398
KET-GCD-300-2000			2000			2439			1580
KET-GCD-300-2500			2500			2939			2323
KET-GCD-400-500	400/200	50	500	320	220	955	420	520	780
KET-GCD-400-700			700			1155			1000
KET-GCD-400-1000			1000			1455			1220
KET-GCD-400-1200			1200			1655			1374
KET-GCD-500-250	500/250	50	250	360	250	715	460	560	726
KET-GCD-500-500			500			965			1034
KET-GCD-500-700			700			1165			1206
KET-GCD-500-1000			1000			1465			1482
KET-GCD-500-1200			1200			1665			1656
KET-GCD-500-1500			1500			1965			1888
KET-GCD-500-2000			2000			2465			2346
KET-GCD-500-2500			2500			2965			2803
KET-GCD-600-250	600/300	50	250	400	280	715	510	620	1214
KET-GCD-600-500			500			965			1547
KET-GCD-600-700			700			1165			1813
KET-GCD-600-1000			1000			1465			2212
KET-GCD-600-1500			1500			1965			2887
KET-GCD-600-2000			2000			2465			3552
KET-GCD-800-500	800/400	50	500	450	300	965	600	710	2090
KET-GCD-800-1000			1000			1465			2906

Long Stroke Hydraulic Cylinder

Matched the use with movable electric hydraulic pump

Product Descriptions

Long stroke hydraulic cylinder has the characteristic of long working stroke, large tonnage, suitable for horizontal lifting operations. At present, it is mainly matched use with synchronous lifting system for synchronous translation of ancient buildings and pushing project of underground pipeline (named hydraulic pipe pushing machine). Long stroke cylinders series are widely used in municipal, railway, bridge, highway, underground drainage projects and box culverts pushing projects of railway bridges.

Note: All kinds of stroke hydraulic cylinders can be customized according to field requirements.

- Supplying 20 pieces of 400T ×1600mm long stroke hydraulic cylinder and 5 pieces electric hydraulic cylinder for China Railway First Group.

Field Applications

▲ Synchronous pushing in position of shield machine.

▲ Lifting in position of molten iron in steel plant.

▲ Synchronous pushing and translation of ancient buildings.

▲ Lifting and maintenance of torpedo car.

▲ Pipeline pushing in trenchless underground.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Stroke (mm)	Dimensions (mm)	Weight (kg)
KET-CXC-200-150	200	31.5	150	290×513	238
KET-CXC-200-250			250	290×613	274
KET-CXC-200-350			350	290×713	309
KET-CXC-200-500			500	290×925	393
KET-CXC-200-800			800	290×1225	498
KET-CXC-200-1200			1200	290×1625	638
KET-CXC-300-250	300	31.5	250	370×786	527
KET-CXC-300-300			300	370×836	554
KET-CXC-300-500			500	370×1036	662
KET-CXC-300-700			700	370×1236	769
KET-CXC-300-1100			1100	370×1636	983
KET-CXC-300-1500			1500	370×2060	1217
KET-CXC-400-300	400	31.5	300	400×812	652
KET-CXC-400-500			500	400×1012	794
KET-CXC-400-700			700	400×1212	936
KET-CXC-400-1000			1000	400×1537	1173
KET-CXC-400-1100			1100	400×637	1245
KET-CXC-400-1500			1500	400×2096	1586

Tensioning Hydraulic Cylinder

Product Features

- Tensioning hydraulic cylinder, according to prestressed tension construction process and the design of the integrated numerical control cylinder, accepts computer commands and feeds back real-time tensioning data.
- Integrated displacement and force sensor control unit, independent high-precision force measurement unit, to achieve the accuracy control of force and displacement.
- 70Mpa working pressure, to achieve lightest weight of cylinder with the same tensioning force, reduce labor intensity.
- Standard safety valve, protects the cylinder from damage of overload and ensures safe and reliable use.
- Double acting, hydraulic return; baked enamel finish for increased corrosion resistance.
- Aluminum alloy handles, lifting eye and mounting base, convenient for field applications and carrying.
- 3/8 " '- 18NPT coupler and dust cap included on all models.

Field Applications

▲ Prestressed tensioning of high-speed rail box girder.

▲ Prestressed tensioning of high-speed rail box girder.

▲ Prestressed tensioning of high-speed rail box girder.

Technical Parameters

Model	Capacity (T)	Max. Working Pressure (MPa)	Closed Height (mm)	Stroke (mm)	Oil capacity (cm^3)		Extended Height (mm)	Outside Diameter (mm)	Plunger Diameter (mm)	Center Hole Diameter (mm)	Weight (kg)
					Stretch	Return					
KET-ZLD-28T	28	70	580	200	953	267	780	120	80	19	34
KET-ZLD-100T	100	70	447	200	2760	1490	647	205	133	78	74
KET-ZLD-150T	150	70	480	200	4360	1926	680	260	177.7	100	142
KET-ZLD-250T	250	70	535	200	7210	3850	735	340	215.9	125	270
KET-ZLD-400T	400	70	626	200	11980	5068	826	425	292.0	160	510
KET-ZLD-500T	500	70	662	200	14420	7734	862	480	317.5	190	661
KET-ZLD-650T	650	70	742	200	18530	7580	942	585	393.7	230	1068
KET-ZLD-900T	900	70	790	200	26220	11860	990	670	457	270	1405

Steel Strand Jack

Cases Introduction

- Lifting and installation of steel antenna in Guangzhou TV tower.
- Lifting and installation of large steel roof structure in Beijing Grand Theater.
- Lifting of chimney steel tube in thermal power plant in Taizhou, Jiangsu Province.
- Lifting of four hangar steel truss in Shanghai Pudong airport.
- Slipping of large steel roof in Nanjing Museum.
- Lifting of steel corridor structure in Chengdu Civic Center.
- Rapid lifting and installation of blast furnace shell in Anshan Steel.
- Lifting and installation of 800 tons gantry crane in Shanghai Waigaoqiao shipyard.
- Installation of 60 thousands tons oil press machine in Shanghai electric group.
- Protective demolition of urea plant in Jingmen Petrochemical General Factory, Hubei province.
- Slipping of steel roof in Wuhan Gymnasium, Hubei province.
- Synchronous lifting and installation of Yangtze River bridge steel structure in Taizhou, Jiangsu Province.
- Synchronous lifting and installation of pressure vessels in Shanghai Gaoqiao Petrochemical.
- Synchronous lifting and installation of shield machine in Shanghai Construction Group.
- Wreck salvage in Shanghai bureau.
- Synchronous lifting and installation of power generation equipment in Shanghai Waigaoqiao Power Plant.

Product Descriptions

Hydraulic Synchronous Lifting System controls overall lifting and lowering by computer. Principles including flexible strand bearing load, lifting strand jack cluster, computer control, hydraulic synchronous lifting are adopted in technology, combined with modern construction, to achieve overall synchronous lifting and lowering components large in tonnage, span and area on the higher level.

Product Features

- No restrict in weight, span or area by extended combination of lifting equipment.
- As long as there is a reasonable load-bearing hanging point, lifting height is not restricted.
- Lifting anchor possesses reverse movement self-locking function, which makes the lifting process safe and the component can be locked reliably at any position for a long time during the lifting process.
- Small in size and weight, large in capacity, suitable for use in confined spaces or lifting high tonnage components indoor.
- High automation, easy and flexible operation, good security, high reliability, wide application, versatility.

Technical Service

As a high-tech professional company, we are committed to providing the existing mature, safe and super large components hydraulic synchronous lifting system, sliding system, and a series of construction technology and related professional equipment for customer service which is used to solve the problem that the conventional method is difficult to solve during the installation and construction of the projects.

For different form requirements of customers and projects, we can also provide software, hardware and on-site technical guidance services and other flexible service modes.

Our company has participated in various types of large-scale construction projects in various sectors, has a wealth of practical experience and professional technical service personnel. If you have a requirement of installation scheme design, lifting and installation of special equipment (components), we are undoubtedly the most ideal partner.

Technical Parameters

Model	Capacity (T)	Cylinder Diameter (mm)	Cylinder Height (mm)	Quantity of Steel Strand (pieces)	Diameter of Steel Strand (mm)	Stroke (kg)
KET-TSD-100	100	400	1350	9	155	500
KET-TSD-200A	200	490	1650	18	170	950
KET-TSD-200B	200	510	1700	19	190	1000
KET-TSD-250	250	560	1720	25	250	1200
KET-TSD-350A	350	635	1770	31	260	1900
KET-TSD-350B	350	635	2650	31	260	2800

Steel Strand Jack

Field Applications


▲Wreck salvage.


▲Synchronous lifting and installation of offshore oil drilling platform.


▲Synchronous lifting and installation of pressure vessel installation in refinery.


▲Synchronous lifting and installation of air corridor.


▲Synchronous lifting and installation of highway corridor.


▲Synchronous lifting of blast furnace in steel plant.


▲Synchronous lifting and installation of steel structure bridge.


▲Synchronous lifting and installation of large bridge structure.


▲Bridge twist.


▲Synchronous lifting and installation of petrochemical pressure vessel in Jiujiang, Jiangxi province.


▲Synchronous lifting and installation of stadium dome.


▲Synchronous lifting and installation of large steel structure workshop.

Basic System Set-ups

1 Cylinder
Applies hydraulic force.

2 Cylinder Base Plate
For applications like lifting where additional cylinder stability is required.

3 Pump
Provides hydraulic flow.

4 Hose
Transport hydraulic fluid.

5 Male Coupler
For quick connection of the hose to system components.

6 Female Coupler
For quick connection of the hose end to system components.

7 Gauge
To monitor pressure of the hydraulic circuit.

8 Gauge Adaptor
For quick and easy gauge installation.

9 Swivel Connector
Allows proper alignment of valves and/or gauge. Used when units being connected cannot be rotated.

10 Auto-Damper Valve V-10
Used to protect gauge from damage due to sudden pressure pulses in the system. Needs no adjustment and allows correct positioning of gauge, prior to tightening.

11 4-way Directional Control Valve
Controls the direction of hydraulic fluid in a double-acting system.

12 3-ways directional Control Valve
Controls the direction of hydraulic fluid in a single-acting system.

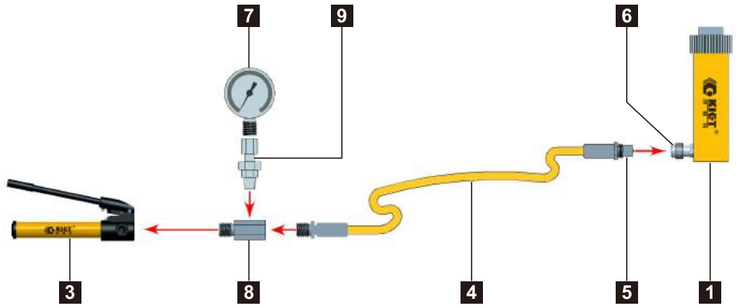
13 Safety Holding Valve
Controls load descent in lifting applications.

14 Manifold
Allows distribution of hydraulic fluid from one power source to several cylinders.

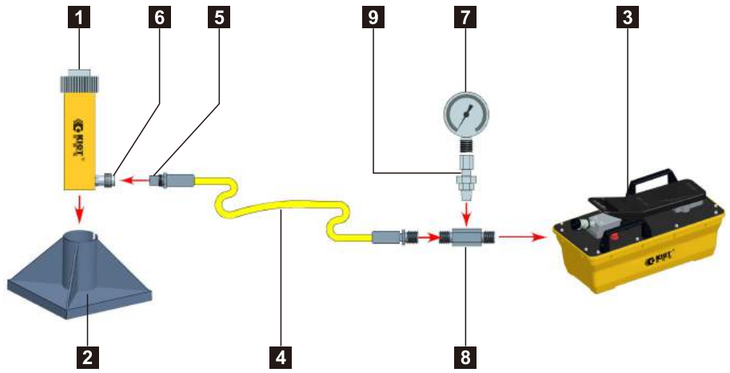
15 Needle Valve
Regulates the flow of hydraulic fluid to or from the cylinders.

Single-acting push application,such as in a press.

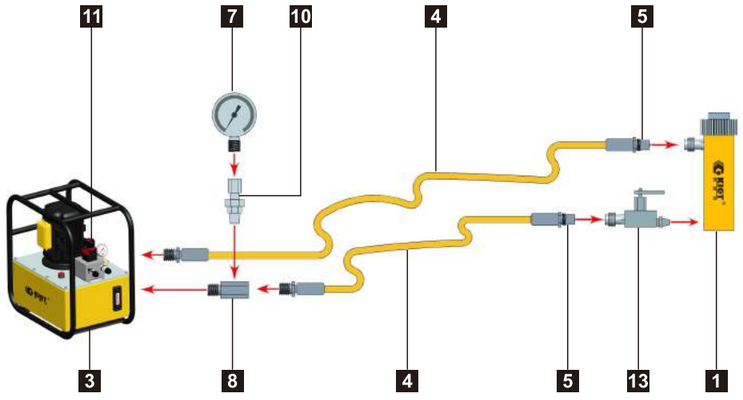
The hand pump offers controlled cylinder advance, but may require many hand pump strokes in longer stroke applications when the cylinder capacity is 25 ton or above.



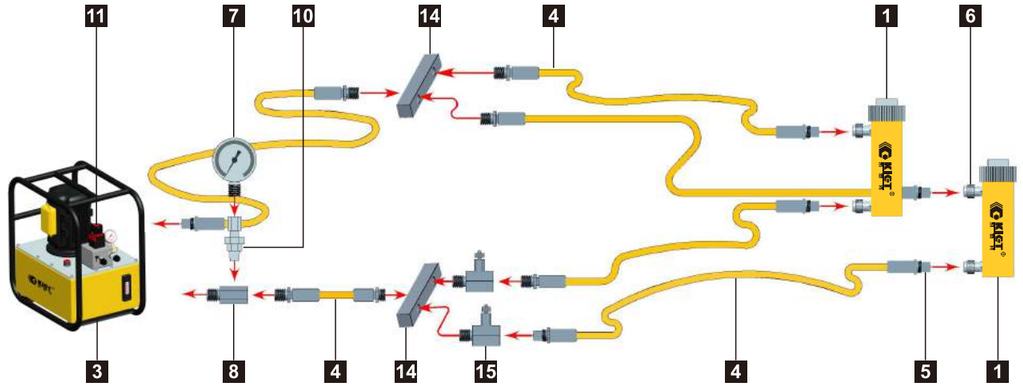
Single-acting cylinder with longer stroke used for lifting applications.



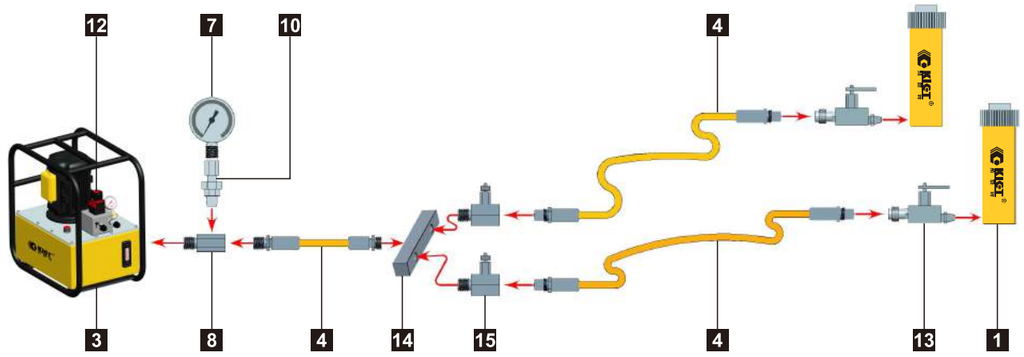
Double-acting cylinder set-up used fro lifting applications where a slow controlled descent of the load must be maintained.



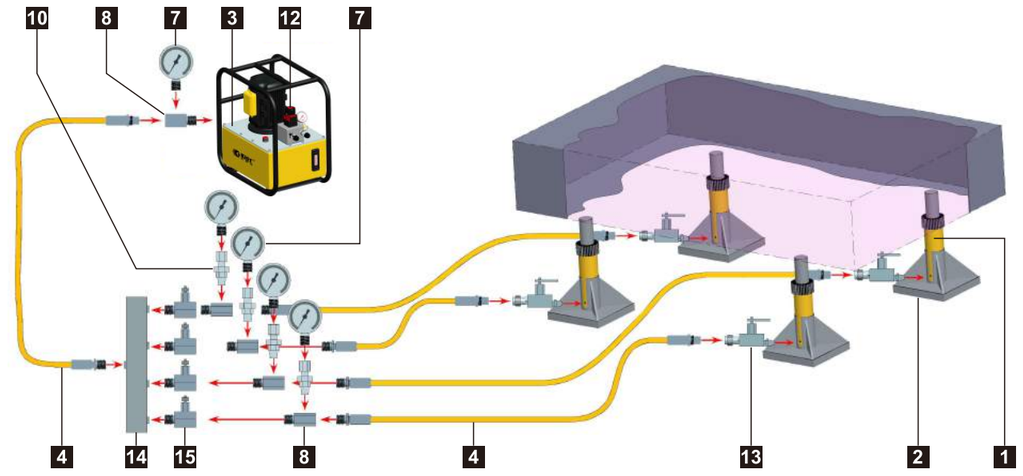
Double-acting cylinder set-up used in a push/pull application.



Two point lifting set-up using single-acting cylinders.



Four point lifting set-up, using single-acting cylinders and directional control valves.



PLC Synchronous Lifting System Brief Introduction

Why choosing PLC synchronous lifting system?

To achieve the synchronous lifting requirement for large buildings, the semi-automatic hydraulic lifting systems were widely used in the past. But with increasing of the weight and volume of the large building, more complex structure, nonuniform loads, these require the more higher synchronous precision and more control points. That means the hydraulic lifting systems must can reach the multi-point synchronous lifting with the high precision, but how to achieve that has become a difficult problem.

The feature of PLC synchronous hydraulic lifting system lies in it can achieve multi-point synchronous lifting with the high precision.

System Features

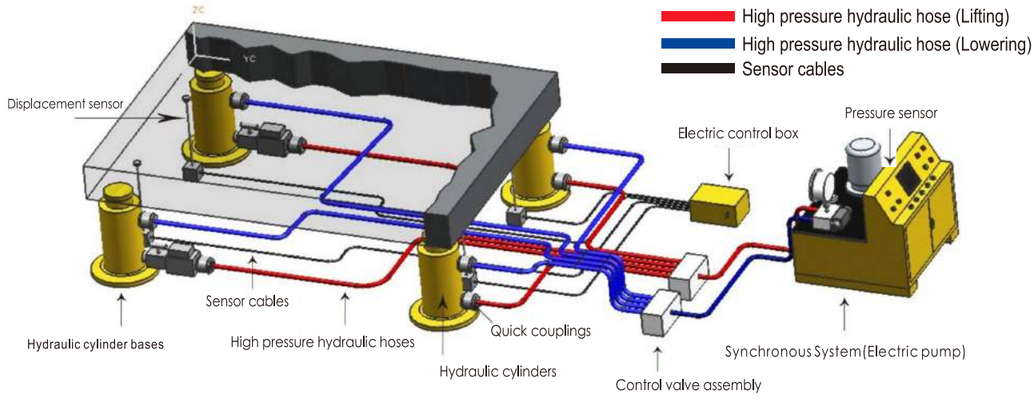
- Variable frequency, pulse width speed adjusting closed loop control, high speed reaching, low speed lifting. The lifting speed can be controlled.
- Advanced Oil feeding with speed regulation, heavy load preferential declining hydraulic circuit.
- Not only keeping the precisely synchronous when lifting, the same as declining with load.
- Multi-point synchronous, and in this condition, except keeping the position synchronous, the load in every point can be adjusted.
- The points can be: 4,8,12,16,24,40,80 to infinite.
- Operation mode: button and touch screen combination or button and Industrial computer combination.
- The main console using industrial computer, concise interface easy operation. Strong stability makes it can be used to kinds of Industrial environment.
- Lifting data can be imported into the equipment database one time, for checking, printing, Download.
- The system with function of " automatically being Zero position" through one button. No matter how complex of the foundation, all jacks can reach to the foundation at same time.
- Telecommunication bus form networks, one telecommunication bus connect with Central synchronization Console and PLC substation of many pumps using fast-inserting way, to achieve the purpose of passing information.
- This systems can work with the most of KIET standard hydraulic jacks together, the sing acting jacks and double acting jacks both can be chose.
- Good quality, flexible configuration, high cost performance.

System Description

PLC multi-point synchronous hydraulic lifting system is consisted by 5 parts: hydraulic pump, PLC computer control system, hydraulic terminal, displacement and pressure detection and human-machine interface operation system. This system integrates the hydraulic lifting system, PLC signal processing, displacement detection, analysis of bridge structures, and construction technology as a whole advanced system. The core is that based on the analysis of bridge structures and conclusion of construction technology, according bridge features to design the PLC signal processing and hydraulic system. Inputting the displacement signals and outputting oil control information of hydraulic system. Using terminal cylinder groups to achieve the purpose of lifting bridge with safety and high efficiency. The precision error no more than ±0.5mm.

System Application

- Replacement of rubber support of the bridge in highway.
- Overpass elevation in highway.
- Bridge maintenance
- Ancient buildings lifting and horizontal movement.
- Tunnel support, structure testing.
- Large equipment horizontal movement.
- Lifting and weighting of oil platforms
- Lifting and lowering of heavy equipment
- Lifting ship, propeller assembling or host installation



PLC Single Acting Pulse-Width Control Synchronous Lifting System

Product Descriptions

This system is hydraulic driven and automatically controlled by pressure and displacement closed-loop, the system is widely applied in rubber support replacement of expressway , lifting of flyovers and river bridges, rectification of heavy equipment.

The components and principle of the system

This system was composed by high pressure hydraulic pump, hydraulic control Valve Group, hydraulic cylinders, displacement detection devices, pressure detection devices, one set electrical control system.

The flow of the pump in this system is controlled by changing the the switch frequency of the on-off valve, that means the output flow of pump was adjustable. And equipped with the suitable electric control devices to form the pressure and displacement closed-loop. Then, every cylinder can be precisely controlled to achieve synchronous lifting and keep balanced load when in weighting process.

Specification

- Displacement Precision≦±0.2mm.
- Working Voltage: AC380V/50Hz (Three-phase-Five-wire system).
- Max Pressure: 700bar.
- Control Pattern: PWM(Pulse Width Modulation).
- Operation Interface: Human-Computer.
- Alarm device: Alarm running light.

Equipped with supper low height cylinders, Been applied in rubber support replacement of expressway.

Parameter Selection Table

Model	Points	Synchronous Precision (mm)	Motor Power (KW)	Voltage (AC/V)	Working Pressure (MPa)	Flow (L)	Oil Tank Capacity (L)	Weight (kg)	Dimensions (mm)
KET-SMTB-4	4-point synchronization	≤±0.5	2.2	380	70	2	130	220	760×870×1210
KET-SMTB-8	8-point synchronization	≤±0.5	2.2	380	70	2	130	240	760×870×1210
KET-SMTB-12	12-point synchronization	≤±0.5	2.2	380	70	2	130	260	760×870×1210
KET-SMTB-16	16-point synchronization	≤±0.5	5.5	380	70	5	200	380	1100×960×1130
KET-SMTB-24	24-point synchronization	≤±0.5	5.5	380	70	5	200	432	1100×960×1130

PLC Single Acting Pulse-Width Control Synchronous Lifting System

The components parts and the characteristic

No.	Main Products	Pictures	Functions and Features
1	Hydraulic pump station		Hydraulic power pack (The main equipment of this system, to release instruction and collect the information. Supplying the hydraulic oil for the whole system, Using PWM signals control high frequency solenoid valve to execute orders.)
2	Hydraulic cylinders		Hydraulic cylinder (Main executive components, lifting or declining according to the system instruction. The capacity of signal set is 50T-1000T.)
3	Stroke sensors		Displacement sensor (Measure the lifting or declining height of cylinders.)
4	Pressure sensors		Pressure sensor (Measure the pressure in real-time with high precision.)
5	Hydraulic hose		Hydraulic hose (Connecting the cylinders with pumps,Conveying hydraulic oil, high safety, fast-inserting.)
6	Communication bus		Telecommunication bus (One telecommunication bus connect with Central synchronization Console and PLC substation of many pumps using fast-inserting way.)
7	Sensor cable		Sensor cable (Connecting the senors with PLC control box.)
8	PLC Master control system		PLC main control system (Connecting pumps and PLC control box.)

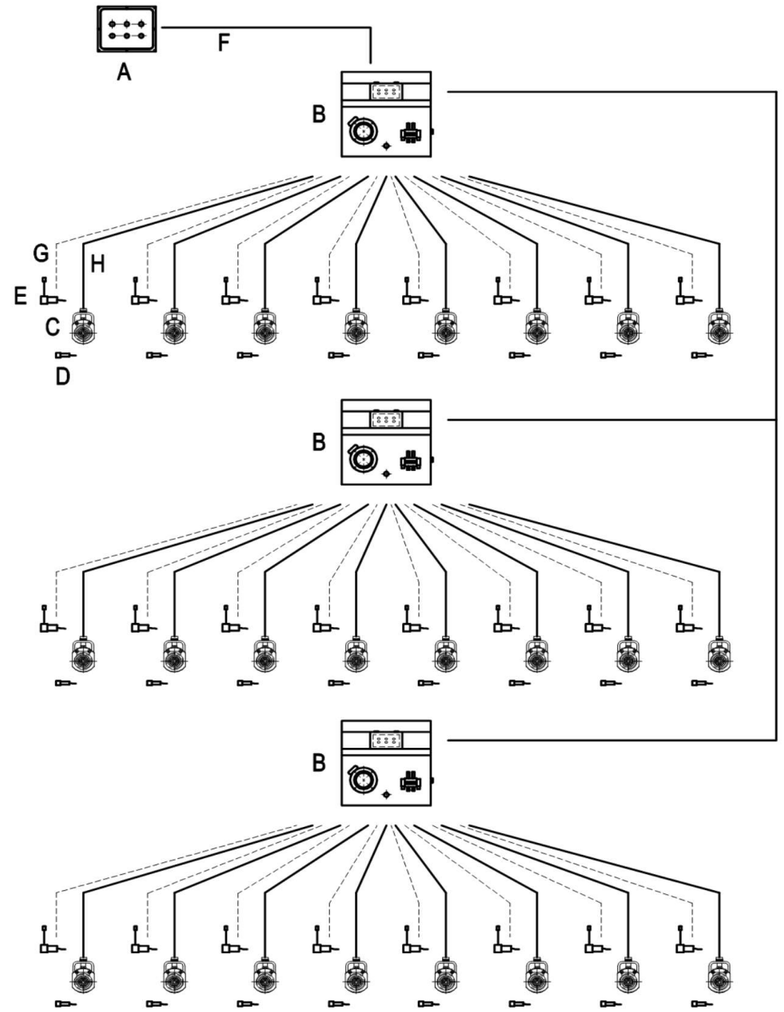
PLC Single Acting Pulse-Width Control Synchronous Lifting System

Structure Descriptions

The plunger pump is used in this system, with the two-way shut-off valve in this pump, that can make sure cylinders in oil feeding speed control situation both in lifting and declining process, and relieve the influence the hydraulic impact on the synchronization accuracy when the cylinders in lifting switch process. Same times, the balance valve can lock the cylinders without leakage, that can make sure the cylinders wouldn't decline and the load wouldn't lose control when unexpected power failure happened. There are pressure transmitter detection devices and displacement detection devices in this system. When the cylinders being moved, the pressure detection devices can accurately measure the load on cylinders in real-time, the displacement detection devices can measure the cylinders' displacement in real-time.

The features of electrical control system is the controller made up of Siemens PLC, the pressure sensor and displacement sensor of each cylinder pass the the signal to PLC for monitor. The valve groups are driven and the hydraulic oil were output to hydraulic cylinders to make them lifting according to the order from the main console. PLC keep correcting the displacement error and load balance by the value of pressure and displacement.

When one group system can not meet the requirement, multi-group connection can be chosen as follow:



A) PLC main control system
B) Hydraulic power pack
C) Hydraulic cylinder
D) Pressure sensor
E) Displacement sensor
F) Telecommunication bus
G) Displacement sensor cable
H) Hydraulic hose

PLC Double Acting Pulse-Width Control Synchronous Lifting System

Product Descriptions

This system is hydraulic driven and automatically controlled by pressure and displacement closed-loop, the system is widely applied in rubber support replacement of expressway , lifting of flyovers and river bridges, rectification of heavy equipment.

The components and principle of the system

This system is composed by high pressure hydraulic pump, hydraulic control Valve Group, hydraulic cylinders, displacement detection devices, pressure detection devices, one set electrical control system.

The flow of the pump in this system is controlled by changing the the switch frequency of the on-off valve, that means the output flow of pump is adjustable. And equipped with the suitable electric control devices to form the pressure and displacement closed-loop. Then, every cylinder can be precisely controlled to achieve synchronous lifting and keep load balance when in weighting process.

Specification

- Displacement Precision≦±0.5mm.
- Working Voltage: AC380V/50Hz (Three-phase-Five-wire system).
- Max Pressure: 700bar.
- Control Pattern: PWM(Pulse Width Modulation).
- Operation Interface: Human-Computer.
- Alarm device: Alarm running light.

Structure Descriptions

The plunger pump is used in this system, with the balance valve in this pump, that can make sure cylinders in oil feeding speed control situation both in lifting and declining process, and relieve the influence the hydraulic impact on the synchronization accuracy when the cylinders in lifting switch process. Same times, the balance valve can lock the cylinders without leakage, that

can make sure the cylinders wouldn't decline and the load wouldn't lose control when unexpected power failure happened.

There are pressure transmitter detection devices and displacement detection devices in this system. When the cylinders being moved, the pressure detection devices can accurately measure the load on cylinders in real-time, the displacement detection devices can measure the cylinders' displacement in real-time.

The features of electrical control system is the controller made up of Siemens PLC, the pressure sensor and displacement sensor of each cylinder pass the the signal to PLC for monitor. The valve groups are driven and the hydraulic oil were output to hydraulic cylinders to make them lifting according to the order from the main console. PLC keep correcting the displacement error and load balance by the value of pressure and displacement.

Parameter Selection Table

Model	Points	Synchronous Precision (mm)	Motor Power (KW)	Voltage (AC/V)	Working Pressure (MPa)	Flow (L)	Oil Tank Capacity (L)	Weight (kg)	Dimensions (mm)
KET-DMTB-4	4-point synchronization	≤±0.5	2.2	380	70	2	130	220	760×870×1210
KET-DMTB-8	8-point synchronization	≤±0.5	2.2	380	70	2	130	240	760×870×1210
KET-DMTB-12	12-point synchronization	≤±0.5	2.2	380	70	2	130	260	760×870×1210
KET-DMTB-16	16-point synchronization	≤±0.5	5.5	380	70	5	200	380	1100×960×1130
KET-DMTB-24	24-point synchronization	≤±0.5	5.5	380	70	5	200	432	1100×960×1130

PLC Double Acting Frequency Conversion Control Synchronous Lifting System

Product Descriptions

This system is hydraulic driven and automatically controlled by pressure and displacement closed-loop. It can achieve heavy load weighing, synchronous pushing, synchronous lifting and

declining, equal ratio slop adjustment lifting, automatic stabilizing pressure etc.

The frequency conversion speeders control motor of the oil pumps, by adjusting the frequency of power supply to change the motor speed, then, the flow of the pumps is adjustable. In addition,

Equipped with electrical control and detection systems, then, every cylinder can be precisely controlled to achieve synchronous lifting.

Components of the systems (based on 4 points variable frequency systems)

This system is composed by 4 sets pumps, 4 sets frequency conversion speed regulating devices, 4 sets control valve groups, electrical control systems, and displacement sensors etc.

Specification

- Displacement Precision≦±0.3mm.
- Working Voltage: AC380V/50Hz (Three-phase-Five-wire system).
- Control voltage: DC24V.
- Pressure: 700bar.
- Control Pattern: frequency conversion speed regulating.
- Operation Interface: Human-Computer.
- Alarm device: Alarm running light.
- Pressure sensor: input DC24V, range: 0-70MPa, output 4-20mA.
- Displacement sensor: input DC24V, range: 0-1000mm, Push-pull output (A,B phrase).

Double Acting Frequency Conversion Selection Table

Model	Points	Synchronous Precision (mm)	Motor Power (KW)	Voltage (AC/V)	Working Pressure (MPa)	Flow (L)	Oil Tank Capacity (L)	Weight (kg)	Dimensions (mm)
KET-DBTB-2A	2-point synchronization	≤±0.2	1.1	380	70	2×1	130	180	760×820×1150
KET-DBTB-2B	2-point synchronization	≤±0.2	2.2	380	70	2×2	130	240	760×820×1150
KET-DBTB-2C	2-point synchronization	≤±0.2	5.5	380	70	2×5	250	300	960×880×1170
KET-DBTB-4A	4-point synchronization	≤±0.2	1.1	380	70	4×1	200	350	1100×875×1160
KET-DBTB-4B	4-point synchronization	≤±0.2	2.2	380	70	4×2	250	430	1200×820×1120
KET-DBTB-4C	4-point synchronization	≤±0.2	5.5	380	70	4×5	500	550	1100×960×1130

PLC Double Acting Frequency Conversion Control Synchronous Lifting System

Main Principle

Due to the surface of the work pieces is not always smooth, to make sure the balance load on every cylinder, before synchronous lifting, the first step is that make the cylinder touch the surface of the work pieces evenly, and every touch point as the base. Hence, the systems have

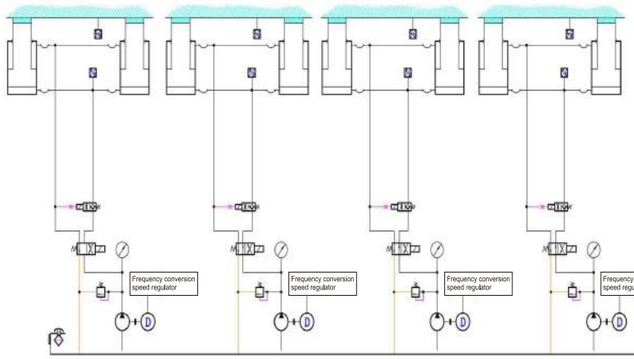
attached function which is started before synchronous lifting. All cylinders keeping lifting at same time, and stopped once the top of cylinders touched the work pieces. And then, the pressure of every cylinder is raised to 5MPa (the pressure for attaching can be set), then, every cylinder stopped again, here, the points every cylinder being is their zero points.

4 sets displacement detection devices in this system are put on suitable place in control points.

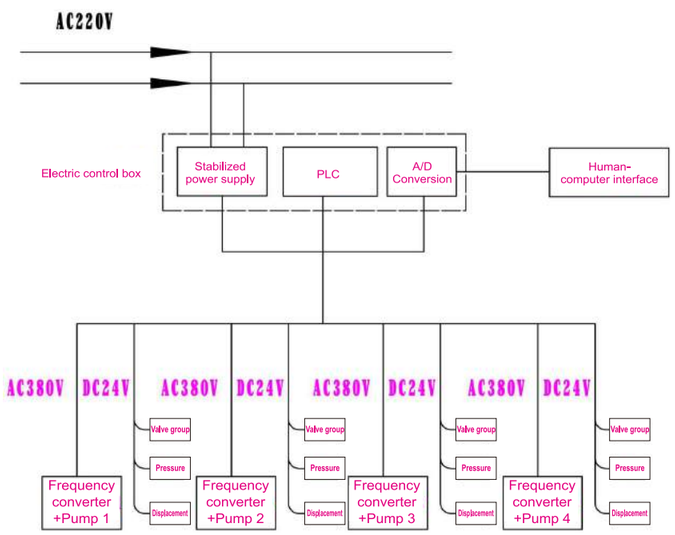
When cylinders are lifting, the displacement sensor can precisely measure the displacement of the cylinders in real-time. And there are the pressure sensors in oil inlet of the cylinder, that can measure the load on every cylinder. Also there is a balance valve, that can make sure cylinders in oil feeding speed regulation situation both in lifting and declining process. Same times, the balance valve is reliable in keeping pressure, that can make sure the cylinders wouldn't decline and the load wouldn't lose control when unexpected power failure happened. This systems suitable for high tonnage long stroke the cylinders, special with fast lifting speed.

Electronic control system is the key point to achieve synchronous lifting. it based on the closed-loop control system theory, make displacement signal of the heavy as controlled parameters, the pressure signal in the cylinder as the reference, through senors to collect these signals and pass them to controllers. The controllers operate these signals and compare them with allowable difference. when finding they are more than allowable difference in some points, the controllers sent the signals to make the transducers in these points close the hydraulic pumps, then, the cylinders would stop lifting. Equally, when the signals feedback that the cylinders lagged in the stopped points, the controllers sent the signals to make the transducers in these points open the hydraulic pumps, then, the cylinders would start lifting again. That means the whole system achieve the synchronous through precisely control lifting in every points.

When the errors in some points can not be corrected, the controllers would issue the system-error alarm and signals, to make transducers in very points close the pumps, then, all the cylinders would stop lifting. Until the errors are corrected and getting the restart order from operator, the systems would recover work again.



Hydraulic Scheme of Four Points Synchronous System



Electrical Scheme of Four Points Synchronous System

PLC Synchronous Hydraulic Lifting System Field Application

Field Applications


▲ Synchronous lifting of high-speed rail pile foundation.


▲ Synchronous lifting of high-speed rail pile foundation.


▲ Synchronous lifting of high-speed rail pile foundation.


▲ Replacement of highway bridge rubber bearings.


▲ Synchronous lifting and translation of historic buildings.


▲ Synchronous lifting and raising of inland river bridge.


▲ Synchronous lifting assembly of large steel construction.


▲ Synchronous lifting assembly of shield tunneling machine.


▲ Synchronous lifting and rectification of ancient tower.


▲ Synchronous falling beam in expressway.


▲ Synchronous falling beam in expressway.


▲ Synchronous lifting and valve repairing in hydropower station.


▲ Loading test of high-speed rail ballastless track.


▲ Loading test of high-speed rail ballastless track.


▲ Synchronous lifting and maintenance of 5000T crane barge.


▲ Ship maintenance and synchronous lifting.


▲ Synchronous lifting and maintenance of large engineering machinery.


▲ Synchronous lifting and maintenance of large mining machinery.


▲ Synchronous lifting and installation of coal mill in thermal power plant.


▲ Synchronous lifting and weighing of drilling platform.

PLC Multi-point Proportional Pressure Regulator Hydraulic Control System

With the development of modern metropolis, high-rise buildings and underground transportation and other large buildings also followed, density between buildings is also getting higher and higher, which causes difficulty in deep foundation pit construction. Internal supporting is always used in foundation pit construction. In the process of excavation and construction of foundation pit, difficult construction technology and much uncertain factors, steel support is prone to plastic deformation under the environmental conditions such as temperature changing. Taking pit follow-up construction and conservation into account, the axial capacity will be a significant attenuation with the passage of time, then resulting in deformation of the pit side wall. Damage to the adjacent buildings or support off and other major accidents will be caused when the deformation increase to some degree. In order to meet the higher standards of safe construction requirements, our company designed and developed the PLC proportional pressure hydraulic control system. According to the requirements, the support force is always kept within a reasonable range through automatically compensate and control the axial force, which can reduce the construction risk and enhance the safety of construction.

Our PLC proportional pressure hydraulic control system combines the modern mechanical, electrical and hydraulic integration of automatic control technology, computer information processing technology and visual monitoring system and other high-tech means to monitor the axial force 24 hours in full day, based on data measured by highly precised sensor, timely compensate support force to achieve the purpose of controlling the deformation of the foundation pit support system. The real-time monitoring and control of the steel support axial force is achieved by using the adaptive support system, which solves the harsh deformation requirements and technical problems which can not be controlled by the conventional construction method, so that the project is always in a state of controllable and known, has good social benefits, economic benefits and environmental protection benefits. Therefore, the system is bound to become a common method in foundation pit construction and can be widely used.

Product Descriptions

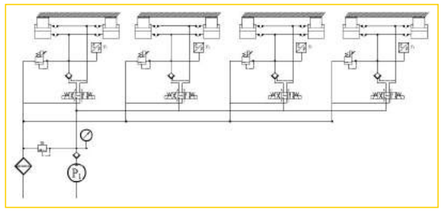
PLC proportional pressure regulator hydraulic control system is mainly used in situation where both loading force and unloading force require to be linearly tunable. The system uses high pressure proportional overflow valve for pressure control, control accuracy up to ± 0.5MPa. The automatic compensation of internal support of the foundation pit steel in the soft soil area is the typical application of the system and has been widely used in many fields such as high-speed rail ballastless track experiment and steel structure loading and unloading experiment.

Brief introduction of function

The application of automatic compensation for internal steel force of foundation pit in soft soil area can realize the function of real-time data acquisition, display and internal force alarm setting, pressure curve, report production / printing, historical data storage and so on, and control jack pressure based on actual needs to control the displacement of the situation. And intelligent construction of complex deep foundation pit in soft soil area can be achieved, to enhance the scientific and technological content and the effect of construction of foundation pit supporting structure, reduce the deformation of supporting structure during excavation of the foundation pit, and reach the purpose of improving core competitiveness of enterprises in scientific and technological innovation.

Main working principle:

- The working pressure of the pump is automatically set by the high pressure proportional overflow valve, and tested by the pressure sensor, to form the closed loop control to ensure the continuous adjustable and control precision of the jack pressure.
- The electrical system is automatically controlled by PLC controller. The operation panel is equipped with a colorful touch screen to display and set the working pressure, overload alarm and system working condition.
- The host computer system has functions including input / output / display / operation / modification / storage / printing.
- When the power is off, the entire electronic control system is uninterruptedly powered by the backup UPS to ensure system security.
- In the jack lifting process, lock the mechanical self-locking device at any time to ensure that support does not fail in the case of sudden failure of the automatic control system.



4 - point proportional pressure regulator hydraulic schematic diagram

Technical Parameters

Model	Points	Control Accuracy (MPa)	Motor Power (KW)	Voltage (AC/V)	Working Pressure (MPa)	System Maximum Pressure (MPa)	Flow (L/Min)	Working Medium	Control Mode
KET-DPR-4	4	±0.5	7.5	380	28	35	15	YB-N46 anti-wear hydraulic oil	proportional pressure control

Field Applications

PLC Multi-point Alternation Lifting Hydraulic Control System

In the general building (such as bridges, etc.) lifting process, support bracket system is equipped below the jack and the servo, including steel support, steel block and leveling steel plate. The jack provides initiative force, servo device can only take pressure passively or impose smaller initiative force. When the jack finishes lifting in a stroke, the servo device has been followed up, but in the process of lowering beam, upper load is transferred from the jack to the servo, a certain amount compression deformation happens to the support bracket system under the servo. This deformation is related to the composition of the lower support bracket system, the gap between the flat steel plate has the greatest impact, and the influence of the gap between each section and between the steel blocks is the second. In the course of practice, The amount of compression under the device is different. This is bound to produce heavy stress on the upper heavy load, while uneven force in each support, resulting in adverse effects. In the event of jack failure, the upper heavy load falls, due to the existence of support compression and the resulting gap, and the difference between the support points, the consequences will be unimaginable, so there is a huge security risk.

Product Descriptions

Through accumulated experience for many years in the field of hydraulic synchronization technology, from the point of view of safety and construction period of the construction site, on the basis of the ordinary frequency conversion control system, our company has successfully developed the high intelligent PLC alternation control system. The system has multi-point conventional synchronous jacking control function, multi-point bit alternation synchronous jacking control function, multi-point space three-dimensional adjustment control function, multi-point and other proportional slope lifting control function.

System Composition

The system is composed of two high-pressure oil pumps, two low-pressure oil pumps, two sets of frequency control device, six sets of valve group, pressure sensor, displacement sensor, a set of intelligent electronic control system.

Technical Parameters

- Power Supply: AC380V/50Hz (3 Phase).
- Control supply: DC24V.
- System pressure: high pressure 70MPa, low pressure 20MPa.
- System flow: high pressure 4L / Min, low pressure 7.9L / Min.
- Motor power: 5.5KW * 2, 3KW * 2.
- Display accuracy: 1%.
- Control accuracy: ≦±0.3mm.
- Control Mode: Frequency conversion.
- Operating Interface: Human-computer interface.
- Alarm device: Alarm lamp.
- Pressure sensor: Input DC24V, Rang 0-70Mpa, Output 4-20mA.
- Stroke sensor: Input DC24V, Rang 0-1000mm, Push-pull output (A, B phase).

Brief introduction of function

Safety in building lifting is ensured by setting two sets of jacks which can provide initiative force at the bottom of the building, and the jacks are controlled by the console-controlled hydraulic pump station to drive alternately, meanwhile during the jacking of a set of jacks, steel supporting pad is set to the bottom of the jack to eliminate the height difference between the various support points.

Detailed steps as follow:

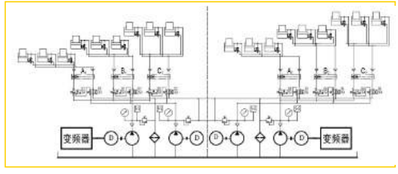
A. Install two sets of jacks at the bottom of the roof to be lifted, pistons of which are facing downwards, and set steel supporting blocks equal in height;

B. Set a plurality of displacement sensors on the building to measure the lifting height of the building in real time;

C. Control the hydraulic pump station through the console to drive the first group of jacks to lift the building for a stroke and pad the corresponding height of the steel support pad at the lower end of the piston of the second group;

D. Control the hydraulic pump station through the console to drive the second group of jacks to lift the building for a stroke, while controlling the first group of jacks to retract, and pad the corresponding height of the steel support pad after full retraction of the first group of jack

E. Repeat steps C, D for repeated alternation lifting until the building is raised to the design height.



Hydraulic schematic diagram

Double Acting Frequency Conversion Selection Table

Model	Points	Control Accuracy (mm)	Motor Power (KW)	Voltage (AC/V)	System Pressure (MPa)	High Pressure Flow (L/Min)	Low Pressure Flow (L/Min)
KET-DJTB-2	2	≤±0.3	5.5	380	70	4	7.9

PLC Multi-point Synchronous Hydraulic Lifting System

PLC portal low pressure multi-point synchronous hydraulic lifting system

PLC portal high pressure multi-point synchronous hydraulic lifting system

Product Descriptions

PLC portal low pressure multi-point synchronous hydraulic lifting system

This system is hydraulic driven and automatically controlled by pressure and displacement closed-loop, the system is widely applied in rubber support replacement of expressway , lifting of flyovers and river bridges, rectification of heavy equipment.

PLC portal high pressure multi-point synchronous hydraulic lifting system

Our company successfully develop the synchronous hydraulic lifting system for bridge based on learning the latest technology of international similar products and our so many years rich experience in hydraulic field. According to our hydraulic products application experience in highway and bridge, we get the conclusion this system is suitable for highway and bridge maintenance and can fill in gaps of similar products.

Field Applications

▲ Synchronous lifting and replacement of highway bridge rubber bearings.

▲ Synchronous translation of historic buildings.

Technical Parameters

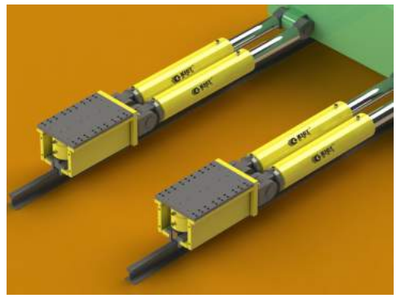
PLC portal low pressure multi-point synchronous hydraulic lifting system

Model	Synchronous Precision (mm)	Voltage	Max.working Pressure (MPa)	Operating Mode	Control Model	Control Points	Points Extended
KET-LDXT-4	≤±0.5	AC380V/50Hz (Three-phase-Five-wire system)	35	Button operating and touch screen operating	Pulse Width-Modulation	Four points synchronization	Support network communication and points extended

PLC portal high pressure multi-point synchronous hydraulic lifting system

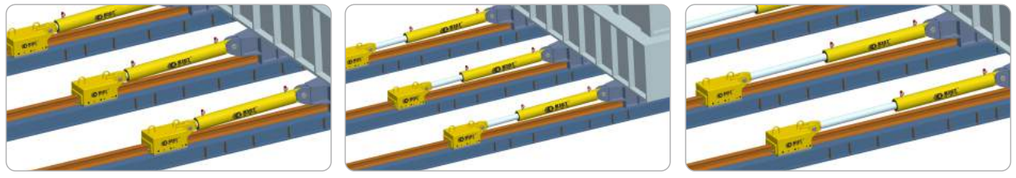
Model	Synchronous Precision (mm)	Voltage	Max.working Pressure (MPa)	Operating Mode	Control Model	Control Points	Points Extended
KET-HDXT-8	≤±0.5	AC380V/50Hz (Three-phase-Five-wire system)	70	Button operating and touch screen operating	Pulse Width-Modulation	Eight points synchronization	Support network communication and points extended

Synchronous Hydraulic Sliding System



Product Descriptions

This system is composed by hydraulic crawler (include hydraulic cylinders and Wedge locking structure), hydraulic power system, computer control system and sensors etc. The basic working principle: the locking structures in the crawlers clip on the tracks, according to the orders from the computer control system, the two pulling cylinders alternately stretch out and draw back, that makes the large equipment forward synchronously. The highlights of this system are small volume, lightweight, high capacity, reliable and safe, easy to operating etc.



Pulling process

Field Applications

▲ Synchronous pushing of blast furnace in steel plant.

▲ Synchronous pushing and installations of waiting room steel structure in railway station.

▲ Synchronous pushing and overhauling of pressure vessel in oil refinery.

▲ Synchronous pushing of ship body in shipyard.

▲ Synchronous pushing in position of large gymnasium dome.

▲ Synchronous pushing andinstallations of steel box girder in bridge construction.

▲ Synchronous pushing and installations of steel box girder in bridge construction.

▲ Synchronous pushing andinstallations of steel box girder in bridge construction.

Technical Parameters

Model	Capacity (T)	Working Pressure (MPa)	Stroke (mm)	Clamping Force (KN)
KET-HYD-60	60	31.5	600	897
KET-HYD-110	110	31.5	800	1668
KET-HYD-200	200	31.5	1000	2976
KET-HYD-300	300	31.5	1250	4636
KET-HYD-450	450	31.5	1500	6675

Intelligent Tensioning Hydraulic Control System

Product Descriptions

Intelligent tensioning hydraulic system is mainly used in bridge intelligent tensioning project. Hydraulic system equipped with displacement sensor and force sensors form a closed-loop control system. The intelligent tensioning can be realized by operating control device to carry out accurate and effective tensioning construction. It can store and process the data, has strong anti-interference ability, and can guarantee the prestressed tensioning construction quality effectively. The control system monitors the tensioning value and steel strand elongation of each tensioning device in real time, analyzing and judging in real time, adjusting the working parameters of frequency conversion motor in real time and high speed adjustment of the oil pump motor speed in real time to achieve the accurate control of tensioning force and loading speed. This system also automatically adjusts the tension process according to the preset force value and the tension step.

Prestressed computer numerical control precision tensioning equipment is mainly composed of computer synchronous control station, synchronous hydraulic sub-stations, tensioning hydraulic cylinders, pressure sensors and hydraulic system accessories, large diameter high strength finish-rolling screw and nut etc. This equipment has 4 synchronous points, displacement synchronous tensioning precision 1mm, force synchronous tensioning precision 0.5%. This device has the advantages of high precision dual control of force and displacement, humanized touch screen human-machine interface, tensioning data saving, printing and transmission.

Field Applications

▲ Prestressed tensioning of high-speed rail box girder.

Technical Parameters

Model	Tensioning Technology	Quantity Of Cylinder	Data Management Function	Screen Features	Voltage (V)	Dimensions(mm)		Weight(kg)	
						Cabinet Type	Portable	Cabinet Type	Portable
KET-HZF-4A	Post tensioning	4	Data management of tensioning process	5' touch screen	220	800×680×1500	550×436×287	100	15
KET-HZF-4B		4	Database management of whole process	10' touch screen					16
KET-HZF-8A		8	Data management of tensioning process						
KET-HZF-8B		8	Database management of whole process						
KET-HZF-20A		20	Data management of tensioning process						
KET-HZF-20B		20	Database management of whole process						
KET-XZF-4A	Pre tensioning	4	Data management of tensioning process	5' touch screen	220	800×680×1500	550×436×287	100	15
KET-XZF-4B		4	Database management of whole process	10' touch screen					16
KET-XZF-8A		8	Data management of tensioning process						
KET-XZF-8B		8	Database management of whole process						
KET-XZF-20A		20	Data management of tensioning process						
KET-XZF-20B		20	Database management of whole process						

Equipment standard models default to be portable, model code of cabinet is to add "G" letters to suffix. Example: model of portable 4-point tension control console is KET-HZF-4A, model of cabinet tension control console is KET-HZF-4AG.

Intelligent Support Axial Force Hydraulic System

Product Descriptions

Steel support axial force servo hydraulic system is a complete set of safety solutions for foundation pit engineering which has the characteristics of 24 hours real-time monitoring, low pressure automatic compensation, high pressure automatic alarm and multiple security protection. Applicable to the project of strictly controlling the deformation of foundation pit.

This system is composed of several distributed numerical control hydraulic pump stations. Every NC hydraulic pump station is controlled independently and not affected each other. Every NC hydraulic pump station has 4 independent oil passage, which can realize the independent control of 4 hydraulic cylinders. CNC oil pump built-in pressure and displacement sensor, achieves the dual control of pressure and stroke.

Product Features

- NC hydraulic pump station is small in size, light in weight and convenient in layout. Distributed structure greatly shortens the hose connection between pump station and support equipment, system assembly is more convenient and quick.
- Self locking and alarming for abnormal states, such as low pressure automatic compensation, high pressure, etc. provide full range of multiple security protection including dual control of pressure and displacement.
- NC pump stations are independent from each other, the relative concentration of large pumping station, to avoid oil leakage or explosion due to a single tube and the impact of other oil, while avoiding the pump head hydraulic power failure caused the paralysis of the whole system dilemma, the greatest degree of dispersion of systemic risk, improve the reliability of the whole system.
- Monitoring data can be outputted through the electronic control system network, while equipped with dedicated data acquisition industrial computer monitoring, to achieve 24 hours online monitoring.
- Lifting data can be imported into the equipment database at once. Lifting results are automatically recorded in the database, which can be printed and downloaded.

Field Applications

▲ Subway tunnel supporting.

▲ Subway tunnel supporting.

▲ High-rise buildings foundation supporting.

▲ Subway tunnel supporting.

Square Drive Hydraulic Torque Wrench

Product Features

- Patented integrated body design, more sturdy and durable.
- Rotary-return mechanism design, never-jam mechanism.
- Hands-free operation, making the use more safety.
- Slim nose radius and 360°×180° swivel hose connection allow easier positioning in confined space.
- High repeatability, with accuracy ±3%.
- 360°reaction arm, makes the wrench get better supporting.
- Standard working pressure: 70MPa.

Field Applications

▲ Assembly of wind turbine hub.

▲ Bolt tightening of high pressure pipe flange in steel plant.

▲ Bolt pre-tightening of high pressure pipe flange in Chemical plant.

▲ Bolt tightening of pressure vessel in oil refinery.

▲ Bolt disassembly of high pressure water pump in thermal power plant.

▲ Bolt disassembly of turbine in thermal power plant.

Technical parameters

Model	Torque Range (Nm)	Driving Square (in)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L1 (mm)	L2 (mm)	R1 (mm)	Weight (kg)
KET-1MXTA	183-1837	¾	50	72	90	131	125	189	26	2
KET-3MXTA	451-4512	1	68	95	123	176	160	242	35	4.4
KET-5MXTA	752-7528	1-½	80	122	149	198	204	264	42	7.5
KET-8MXTA	1078-10780	1-½	90	130	167	216	222	293	47	9
KET-10MXTA	1551-15516	1-½	100	142	186	231	243	369	53	13
KET-20MXTA	2666-26664	2-½	120	183	220	269	310	386	64	23
KET-25MXTA	3472-34725	2-½	137	200	247	296	330	406	66	31
KET-35MXTA	4866-48666	2-½	147	218	276	331	353	539	75	43

Square Drive Hydraulic Torque Wrench

Supporting accessories

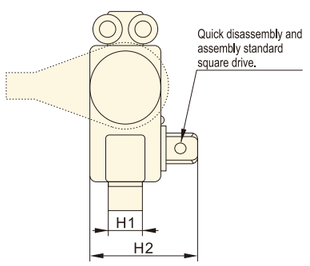
Square drive

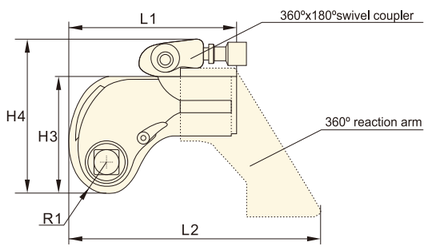
Hexagon drive

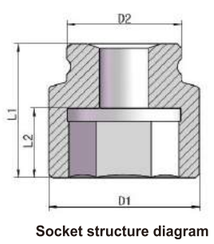
Square socket

Hexagon socket

Socket







Socket structure diagram

Socket Selection Table

Socket Model	Wrench Model	Square Size	Bolt Diameter (mm)	Width Across Flats (mm)	L1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)
KET-MX-75-24	KET-1MXTA	3/4"	M16	24	54	32	40	40
KET-MX-75-27			M18	27	54	32	42	42
KET-MX-75-30			M20	30	54	33	46	44
KET-MX-75-34			M22	34	54	32	48	44
KET-MX-75-36			M24	36	57	32	53	44
KET-MX-75-41			M27	41	58	33	60	44
KET-MX-75-46			M30	46	63	38	66	44
KET-MX-75-50			M33	50	65	40	71	44
KET-MX-75-55			M36	55	70	45	77	54
KET-MX-100-30	KET-3MXTA	1"	M20	30	59	32	54	54
KET-MX-100-34			M22	34	59	32	58	58
KET-MX-100-36			M24	36	62	32	59	59
KET-MX-100-41			M27	41	65	38	67	54
KET-MX-100-46			M30	46	65	38	74	54
KET-MX-100-50			M33	50	70	43	79	60
KET-MX-100-55			M36	55	80	52	84	60
KET-MX-100-60			M39	60	85	57	89	60
KET-MX-100-65			M42	65	85	58	98	70
KET-MX-100-70			M45	70	90	62	104	70
KET-MX-100-75			M48	75	95	65	108	70

Square Drive Hydraulic Torque Wrench

Socket Selection Table

Socket Model	Wrench Model	Square Size	Bolt Diameter (mm)	Width Across Flats (mm)	L1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)
KET-MX-150-36	KET-5MXTA KET-8MXTA KET-10MXTA	1-1/2"	M24	36	85	44	74	74
KET-MX-150-41			M27	41	85	44	74	74
KET-MX-150-46			M30	46	85	44	74	74
KET-MX-150-50			M33	50	90	45	79	79
KET-MX-150-55			M36	55	90	45	84	84
KET-MX-150-60			M39	60	100	45	94	94
KET-MX-150-65			M42	65	100	45	98	80
KET-MX-150-70			M45	70	105	50	104	80
KET-MX-150-75			M48	75	110	50	118	85
KET-MX-150-80			M52	80	115	55	118	90
KET-MX-150-85			M56	85	125	60	128	90
KET-MX-150-90			M60	90	125	60	139	90
KET-MX-150-95			M64	95	130	65	139	90
KET-MX-150-100			M68	100	135	70	144	90
KET-MX-150-105			M72	105	135	70	149	90
KET-MX-150-110			M76	110	135	70	158	90
KET-MX-150-115			M80	115	135	70	159	90
KET-MX-150-120			M85	120	135	70	168	95
KET-MX-150-130			M90	130	155	93	189	95
KET-MX-250-55	KET-20MXTA KET-25MXTA KET-35MXTA	2-1/2"	M36	55	100	57	86	114
KET-MX-250-60			M39	60	100	52	119	119
KET-MX-250-65			M42	65	100	52	119	119
KET-MX-250-70			M45	70	120	67	128	128
KET-MX-250-75			M48	75	120	67	128	128
KET-MX-250-80			M52	80	130	71	128	128
KET-MX-250-85			M56	85	130	71	129	129
KET-MX-250-90			M60	90	140	73	139	139
KET-MX-250-95			M64	95	140	73	139	139
KET-MX-250-100			M68	100	140	81	148	130
KET-MX-250-105			M72	105	150	89	149	130
KET-MX-250-110			M76	110	150	90	158	130
KET-MX-250-115			M80	115	150	98	168	130
KET-MX-250-120			M85	120	150	98	178	130
KET-MX-250-130			M90	130	170	98	188	130
KET-MX-250-135			M95	135	170	114	198	130
KET-MX-250-145			M100	145	170	122	210	152
KET-MX-250-150			M105	150	190	140	216	152
KET-MX-250-155			M110	155	190	140	229	152
KET-MX-250-165			M115	165	190	140	241	152

Hollow Hydraulic Torque Wrench

Product Features

- High strength aluminum titanium alloy material body, light weight, large torque-to-weight ratio.
- Rough tooth structure, sturdy and durable.
- Output accuracy ±3%.
- Compact corner radius, more suitable for the confined areas.
- Special surface anti-corrosion treatment, suitable for use in harsh environments.

Field Applications

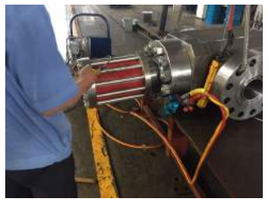

▲Bolt tightening of large equipment in confined space.


▲Bolt tightening of pressure vessel in paper mill.


▲Bolt tightening of pipeline flange in refinery.


▲Bolt tightening of natural gas pipeline flange.


▲Bolt tightening of valve maintenance.


▲Bolt tightening of nuclear power valve repairing.


▲Bolt disassembly of valve maintenance.


▲Bolt tightening of large valve.


▲Bolt tightening of grinding roller in cement plant.


▲Bolt tightening of cement plant equipment in confined areas.


▲Bolt disassembly of large water pump maintenance.


▲Torque testing.

Technical Parameters

Model	Metric Bolt Size (mm)	Metric Nut Size (mm)	Min. Torque (Nm)	Max. Torque (Nm)	Working Pressure (MPa)	Power Head Weight (kg)	Working Head Weight (kg)
KET-2XLCT	16-36	24-55	232	2328	70	0.9	1.5
KET-4XLCT	24-42	36-65	585	5858	70	1.7	3.4
KET-8XLCT	30-64	46-90	1094	10941	70	3	6.3
KET-14XLCT	33-76	50-115	1852	18521	70	4.6	11.4
KET-30XLCT	76-115	110-155	4188	41882	70	10.4	20.5

Steel Square Drive Hydraulic Torque Wrench

Product Features

- 360° click on, multi-position reaction arm
- Push button square drive release to quickly reverse the square drive for tightening and loosening
- Compact, high strength uni-body construction for a small operating radius
- Lightweight, ergonomic design for easy handling and an easy fit, even in applications where access is limited.
- Fast operation due to the large nut rotation per wrench cycle and rapid return stroke,high efficiency
- All wrenches are nickel-plated for excellent corrosion protection and improved durability in harsh environments.
- Minimum number of moving parts
- Maintenance is simple and convenient, no special tools required.
- Constant torque output provides high accuracy across the full stroke.
- Fast operation due to the large nut rotation per wrench cycle and rapid return stroke.
- In-line reaction foot ensures accuracy by reducing internal deflections.

Technical parameters

Model	Socket Size		Square Drive	Optional Socket Size		Working Pressure	Max. Torque @70Mpa	
	(inch)	(mm)	(inch)	(inch)	(mm)	(MPa)	(Ft.lbs)	(Nm)
KET-S-1500	⅝-1 ¼	16-36	¾	1 1/16 -2	24-55	70	1400	1898
KET-S-3000	⅝-1 ¾	22-48	1	1 1/16 -2 ¾	34-75	70	3200	4339
KET-S-6000	1-2	27-56	1 ½	1 ⅝-3 ⅛	41-85	70	6010	8144
KET-S-11000	1 ⅜-2 ¾	36-72	1 ½	2 3/16-4 ⅛	55-105	70	11000	14914
KET-S-25000	1 ⅝-3 ¼	42-95	2 ½	2 9/16 -5	65-135	70	25140	34014

Steel Hollow Hydraulic Torque Wrench

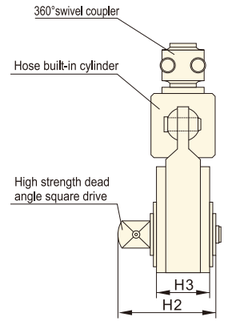
Product Features

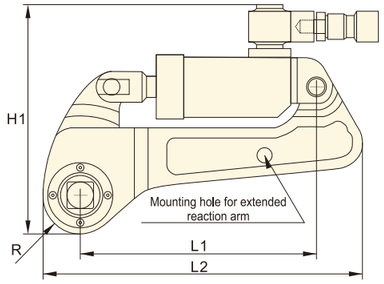
- Cylinders and low profile cassettes have been engineered to give ultra slim, compact low clearance tooling with a small nose radius.
- High efficiency, fast operation due to the large nut rotation per wrench cycle (30 degree rotation angle) and rapid return stroke.
- All wrenches are nickel-plated for excellent corrosion protection and improved durability in harsh environments.
- All wrenches are fitted with bronze bushings to ensure the ratchet will never seize in the sideplates, thus eliminating costly repairs.
- Constant torque output provides high accuracy across the full stroke.
- In-line reaction foot ensures accuracy by reducing internal deflections.

Technical Parameters

Model	Optional Hexagon Heads		Max. Torque @700bar		Min. Torque		Weight without Drive box (kg)
	(inch)	(mm)	(Ft.lbs)	(Nm)	(Ft.lbs)	(Nm)	
KET-W-2000	1 ⅛ -2 3/16	30-55	2000	2712	200	271	1.4
KET-W-4000	1 5/16 -2 9/16	36-65	4000	5423	400	542	2.0
KET-W-8000	1 ⅞ -2 15/16	50-75	8000	10846	800	1084	3.0
KET-W-15000	2 7/16 -4 ⅝	65-115	15000	20337	1500	2033	5.0
KET-W-22000	2 15/16 -5 ⅜	75-130	22500	30510	2250	3050	7.7
KET-W-35000	3 ⅛-6 ⅛	80-155	35000	47454	3500	4745	11.4

Large Torque Square Drive Hydraulic Torque Wrench





Product Features

- High torque hydraulic wrench with high technology aerospace materials, aluminum and titanium alloy and special alloy steel.
- 360° quick coupling, no space limited.
- Direct push type square drive reversing, simple and quickly.
- Precision ratchet, the accuracy is as high as ±3%.
- Can be equipped with large size and long sockets to adapt to different requirements of work conditions.
- Ultra large torque design, up to 180677Nm, greater torque can be customized.
- Standard working pressure: 70MPa.

Select the correct torque wrench:

A principle should be determined before selecting torque wrench, loosening torque equals about 1.5-2 times of tightening torque.

▲ Blot tightening of pipeline flange in West-East natural gas transmission project.

▲ Bolt tightening of oilfield equipment.

One driving one

Special High Pressure Hose for Hydraulic Torque Wrench

Technical Parameters

Model	Max. Torque (Nm)	Min. Torque (Nm)	Square Drive (in)	L1 (mm)	L2 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	R (mm)	Weight (kg)
KET-DNB-5	4992	499	1	211	289	204	91	50	35	7
KET-DNB-10	11775	1178	1-½	256	355	251	125	69	45	14
KET-DNB-20	19413	1941	2	274	389	285	141	78	54	19
KET-DNB-30	38100	3810	2-½	329	473	332	174	96	70	37
KET-DNB-50	57488	5749	2-½	370	542	382	179	101	80	53
KET-DNB-110	103670	10367	3-¼	430	624	430	227	124	94	91
KET-DNB-120	120323	12032	3-½	447	655	453	240	132	102	122
KET-DNB-180	180677	18068	4	505	758	513	270	150	124	175

Note: Various specifications of reaction arm, square drive and sockets can be customized.

Split Type Hydraulic Torque Wrench

Product Descriptions

When the split type hydraulic torque wrench encounters a problem of an axis, a rod or a pipe through in the center of nut, it still can solve easily.Unique "split type" design can reverse any size or any type of fastening nuts, provide unprecedented speed, accuracy and safety.

"Split type" design allows the tool to be set on various types of axes, rods and tubes in one minute. It can tighten or remove the bolts easily for only a few seconds.

Product Features

- Unique double-sided swivel joint design, applicable to more occasions.
- Corrosion resistant nickel coating on all exposed parts.
- Each wrench is tested and calibrated to ±3% accuracy.
- Standard working pressure: 70MPa.

One driving one

Special High Pressure Hose for Hydraulic Torque Wrench

Technical Parameters

Model	Max. Torque (Nm)	Length (mm)	Height (mm)	Width (mm)	Radial Clearance (mm)	Axial Clearance (mm)	Split Range (mm)	Weight (kg)
KET-KBS-10	11390	271	178	50	127	99	85-117	2.1
KET-KBS-20	27256	357	232	50	187	127	117-152	4.8
KET-KBS-30	43392	406	256	50	224	171	152-210	7.2

Automatic Vehicle Hydraulic Torque Wrench

Product Descriptions

The fully automatic vehicle hydraulic torque wrench is designed specially for the assembly and disassembly of turbine runner blade bolt in hydraulic power plant. It replaces the manual tap wrench, driving traction and other installation and disassembly modes. Reduce the labor intensity and eliminate the hidden danger, to achieve the purpose of fast, light and flexible disassembly. Fully automatic vehicle hydraulic torque wrench is a special hydraulic equipment for tightening and loosening bolts. It has the characteristic of fully closed overall frame structure, torque accuracy ±3%, 360 degree swivel quick coupler, double acting, high speed, high degree of rotation angle and so on .

Technical Parameters

Model	Motor Power (KW)	Travel Speed (m/min)	Battery Power (Ah、V)	Displacement Stroke of Mobile Station (mm)	Lifting Height of Mobile Support Platform (mm)	Swing Angle of Mobile Support Platform
KET-QZD-11000	0.75	0-80	120、24	0-500	0-700	±15°

Model	Hydraulic Motor Torque (N.m)	Hydraulic Wrench Torque (N.m)	Motor Power	Working Pressure (MPa)	Dimensions (mm)
KET-QZD-11000	465	110000	380V/50Hz 3KW 1400rpm	low pressure: 20 high pressure: 70	2170×1560×870

Special Hydraulic Torque Wrench for Hydraulic Sleeper Releasing Machine

Product Descriptions

Hydraulic sleeper releasing machine put forward a new concept of sleeper stress releasing.This device releases sleeper reinforcement stress stably and slowly by loosening the upper nut on the sleeper dies to solve a long-standing sleeper releasing problem in the sleeper production industry. All the processes is safe and reliable. Small size, single operator follows the production line.The application of the releasing machine in the production line improves qualified rate of sleeper production which has been unanimously praised by Inspection Department of the Ministry of Railways. (hydraulic sleeper releasing machine need to use with the 40-50KG level balancer. Convenient and rapid operation. Specific conditions can contact with KIET engineer).

Product Features

- Optional manual and remote control mode
- Using pure German accessories, ultra-high pressure design, small size, light weight, long life, continuous operation for a long time and digital control
- Only needs 15-30 minutes to achieve stress release in the sleeper moulds.
- Standard working pressure: 70MPa.

One driving one

Special High Pressure Hose for Hydraulic Torque Wrench

Field Applications

▲ Bolt tightening in sleeper factory

Technical Parameters

Special Hydraulic Torque Wrench for Hydraulic Sleeper Releasing Machine

Model	Max. Torque (Nm)	Min. Torque (Nm)	Bolt Size (mm)	Working Pressure (MPa)	Weight (kg)
KET-GBS-60	31099	4316	M60/S95	70	47

Special Electric Hydraulic Pump for Hydraulic Sleeper Releasing Machine

Model	System Pressure (MPa)	Working Pressure (MPa)	Max. Flow (L/min)	Motor Power (KW)	Voltage (V)	Dimensions (mm)	Weight (kg)
KET-GZB-70	70	40-50	2	2.2	220	640×440×574	47

Special Electric Hydraulic Pump for Torque Wrench



Product Features

- Small size, light weight.
- Original imported Germany HAWE relief valve can adjust the pressure, accurate torque settings, high repetition accuracy. HAWE solenoid valve, plunger and other major components, guaranteed quality.
- Power unit use the industry's leading technology of permanent magnet brushless motor design.
- Supporting the use of 2 or 4 hydraulic torque wrenches at the same time, improve work efficiency and high tightening precision.
- Available length of hydraulic hose, 6 meters, 9 meters, 12 meters and other specifications.

HAWE Solenoid Valve

One driving one

One driving two

One driving four

Technical Parameters

Model	Tank Capacity (L)	Motor Power (KW)	Voltage	Flow (L/min)	Max. Working Pressure (MPa)	Dimensions (L × W × H) (mm)	Standard Length of Remote Line (m)	Weight (kg)	Oil Distributor (台)
KET-BSB-2W	8	2.2	220V/50Z	2	70	430×330×540	6	43	2
KET-BSB-2Y	8	2.2	220V/50Z	2	70	430×330×540	6	43	2
KET-BSB-4W	8	2.2	220V/50Z	2	70	430×330×540	6	48	4
KET-BSB-4Y	8	2.2	220V/50Z	2	70	430×330×540	6	48	4

Special Dual Motor Electric Hydraulic Pump for Torque Wrench

Product Features

- Special dual electric hydraulic pump for torque wrench uses a unique dual motor design, greater driving power, faster and compact structure;
- High power brushless motor, maintenance free and long service life;
- High performance cooler, fan will start automatically at the temperature of 35 to ensure the long operating time;
- Four synchronous operations, suitable for high load working of equipment bolts synchronous tightening;
- Easy to use with wheel and frame arm.

Technical Parameters

Model	Tank Capacity (L)	Motor Power (KW)	Voltage	Flow (L/min)	Working Pressure (MPa)	Dimensions (L x W x H) (mm)	Standard Length of Remote Line (m)	Weight (kg)	Oil Distributing Valve	Automatic Heating
KET-SDW-2	20	1.1-2	220V/50Z Single-phase	16L(0-6.5MPa) 3.6L(6.5-32MPa) 1.7L(32-70MPa)	70	400×350×400	6	45	2	/
KET-SDY-2	20	1.1-2	220V/50Z Single-phase	16L(0-6.5MPa) 3.6L(6.5-32MPa) 1.7L(32-70MPa)	70	400×350×400	6	45	2	Yes
KET-SDW-4	20	1.1-2	220V/50Z Single-phase	16L(0-6.5MPa) 3.6L(6.5-32MPa) 1.7L(32-70MPa)	70	400×350×400	6	45	4	/
KET-SDY-4	20	1.1-2	220V/50Z Single-phase	16L(0-6.5MPa) 3.6L(6.5-32MPa) 1.7L(32-70MPa)	70	400×350×400	6	45	4	Yes

Special Pneumatic Pump for Hydraulic Torque Wrench

Product Descriptions

Special pneumatic pump for wrenches uses air source as power, explosion-proof, safe, unheated, and can work for a long time. The maximum working pressure is 70Mpa. Running more stable, lower noise, the accurate pressure setting, higher accuracy; Operate multiple hydraulic torque wrenches at the same time.

Product Features

- External release valve protection tool.
- Four distribution valves allow as many as 4 hydraulic wrenches to use at the same time;
- Large flow, high speed and light weight.
- Supporting dual hydraulic hose, hose coupler thread is NPT1/4", the two ends of the hose with a pair of quick male and female coupling.

Technical Parameters

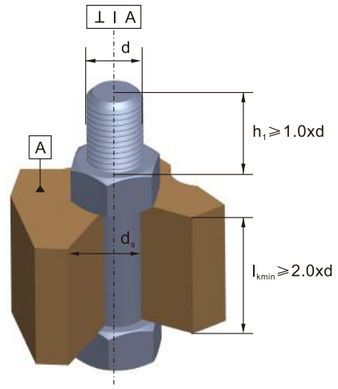
Model	Tank Capacity (L)	Input Air Source	Flow (L/min)	Working Pressure (MPa)	Dimensions (mm)	Standard Length of Remote Line (m)	Weight (kg)	Matched Number of Wrenches (pieces)
KET-QDB-2	8	Pressure: 0.5-0.7MPa Pneumatic Capacity: 2.2m³/min	2	70	281×428×445	6	20	2
KET-QDB-4	8	Pressure: 0.5-0.7MPa Pneumatic Capacity: 2.2m³/min	2	70	281×428×445	6	20	4

Brief Introduction of Bolt Tensioner

Design Suggestions for Bolt Connections

Benefits of using the tensioning method, the most effective way to determine the design parameters:

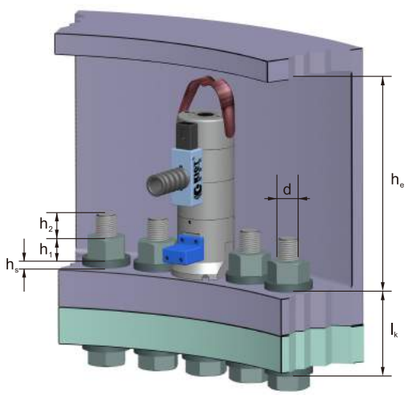
- Reduce the using of gasket. If the pressure is too high, it can not avoid the use of washers. Select larger gasket to allow the BTC to support on the gasket;
- According to the required pre-tightening force, thread protrusion and the diameter of the external screw thread of the screw thread should be greater than (1.0h2>=1.0xd);
- It is recommended to consider the screw tooth of the bolt(Proposed according to the design of the second part of the DIN2510);
- The ratio between the angle length IK and the external thread diameter should be greater than 2.0(IK>=2.0Xd);
- At the time of the maximum yield point F2.0, the pre-tightening force FVM may not extend the bolt load;
- The perpendicularity between the bolt and the support surface(Tolerance is 1), In addition, it is recommended to use universal gasket;
- Consider the position tolerance and shape tolerance of the fasteners and other components;
- Check the pressure in the supporting surface PG;
- Please consider the surface material or coating that may affect the tensioning results.

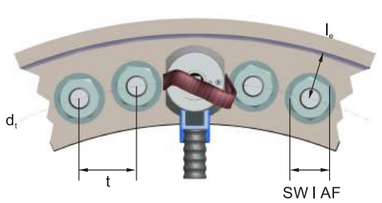


Technical Requirements for the Use of Bolt Tensioner

Conditions for selecting appropriate tensioner:

- Bolt diameter D, pitch P, bolt grade;
- Required pre-tightening force FM;
- Size of fastening piece(hs,h1,h2)and angle length lk ;
- Peripheral dimensions of bolted connections(le,t,dt,he).





Notes

- F_M Pre-tightening force (remnant)
- F_{VM} Pre-tightening force (initial) = Tensioner Force
- $F_{0.2}$ Bolt load in Max. yield point(no shearing force)
- d Bolt diameter = Thread diameter
- P Bolt pitch
- SW I A/F Width across flats
- h_1 Nut height
- h_2 Upper thread projecting amount
- h_S Gasket height
- h_e Space heigh
- H_1 Tensioner height
- D_3 Tensioner diameter
- l_e Radial distance
- l_k Angle length
- t Bolt distance
- d_t Pitch circle diameter
- n_S Bolt number
- d_s Stress surface diameter
- P_G Surface pressure

Brief Introduction of Bolt Tensioner

Yield strength and pre-tightening

Design parameters

- In order to use the tensioner, we propose that the screw thread protruding above the nut is prominent in the diameter of the external thread of the 1.0x bolt D(According to the required pre-tightening force)
- According to experience, the ratio between the screw diameter (d) and the included angle length (IK) of the screw bolt can be recommended as follows: IK min. ratio 1:2.5.

Definition of pre-tightening force

- The required pre-tighten force is usually determined by the design of the bolted connections, the design of the bolt connection is recommended to use the German VDI 2230 as the standard;
- The following pre-tightening force is suggested based on the use of the yield strength of 90% for expansion bolts and stud bolts(Rp0.2).

Bolt grade DIN EN ISO 898–1		6.8		8.8		10.9		12.9	
Yield Strength Rp0.2（N/mm²）		480		660		940		1100	
Thread Size DIN2510	Width Across Flats A/F	F_{VS}(kN)	F_{VD}(kN)	F_{VS}(kN)	F_{VD}(kN)	F_{VS}(kN)	F_{VD}(kN)	F_{VS}(kN)	F_{VD}(kN)
M16x2	24	64	49	88	67	125	96	146	112
M20X2.5	30	100	76	138	105	196	150	230	175
M22X2.5	34	125	92	172	127	245	181	286	212
M24X3	36	145	110	199	151	284	215	332	252
M27X3	41	190	143	261	196	372	279	435	327
M30X3.5	46	232	179	319	247	454	351	532	411
M33X3.5	50	288	221	397	303	565	432	661	506
M36X4	55	340	257	467	353	665	502	779	588
M39X4	60	407	316	560	434	797	618	933	723
M42X4.5	65	468	358	643	493	916	702	1072	821
M45X4.5	70	546	428	751	588	1070	837	1252	980
M48X5	75	616	477	847	656	1207	934	1412	1093
M52X5	80	737	570	1014	784	1444	1117	1689	1307
M56X5.5	85	852	657	1171	903	1666	1286	1951	1505
M60X5.5	90	993	766	1365	1053	1944	1499	2275	1754
M64X6	95	1123	882	1544	1213	2198	1728	2573	2022
M68X6	100	1284	1006	1766	1386	2515	1974	2943	2310
M72X6	105	1457	1161	2003	1597	2852	2274	3338	2661
M76X6	110	1640	1304	2255	1793	3211	2554	3758	2989
M80X6	115	1834	1478	2522	2032	3592	2894	4203	3387
M85X6	120	2092	1710	2876	2352	4097	3349	4794	3920
M90X6	130	2367	1909	3254	2624	4635	3738	5424	4374
M95X6	135	2659	2171	3656	2986	5207	4252	6093	4976
M100X6	145	2965	2394	4077	3292	5806	4688	6795	5486
M110X6	155	3631	2903	4992	3992	7110	5685	8320	6653
M120X6	170	4366	3530	6004	4854	8551	6913	10006	8090
M125X6	180	4590	3812	6311	5242	8989	7466	10519	8736
M130X6	185	4993	4218	6866	5800	9778	8261	11443	9667
M140X6	200	5850	4724	8044	6496	11457	9252	13407	10827
M150X6	210	6775	5472	9316	7526	13268	10717	15527	12541
M160X8	220	7761	6276	10671	8629	15199	12290	17786	14381
M170X8	230	8819	7134	12126	9809	17271	13970	20210	16348
M180X8	255	9947	8047	13677	11064	19479	15758	22795	18440

*Width across flats A/F from M16 to M688 on the basis of ISO4032, Width across flats A/F> M68 on the basis of DIN2510.

Using 90% yield strength to tighten and loosen the axle bolt. Pre-tightening the axle bolt F_{VS} Pre-tightening the axle bolt F_{VD}

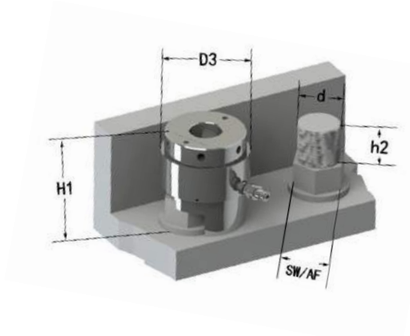
SES Series - Single stage Bolt Tensioner

Product Descriptions

- Flat design, applied to axial limited but radial without limitation working condition.
- Standard pre-tightening for 8.8 bolt grade ,also suitable for other bolt grade.
- The min. bolt projecting amount above nut =1.0x bolt diameter D (ultimately depends on the required tensioning force).
- For the six corners of the nut, heavy nut, ISO4032, DIN2510, EN14399 round nut, round nut and SV round nut.

Product Features

- Safety blowout prevention device.
- Self-return piston rod.
- Replace accessories according to the different thread and nut specifications.
- Optional measuring device of bolt tensioning amount.
- Gear direct-driving nut.
- Polished surface treatment.



Optional Products

- Counter.
- Chromium nickel surface coating.
- Swivel high pressure male/female coupler.
- Distributor coupler.
- Portable safety cover.
- Spring rotary sleeve.

▲ Flexible mounting

Application range of 8.8 grade SES single stage bolt - standard 150

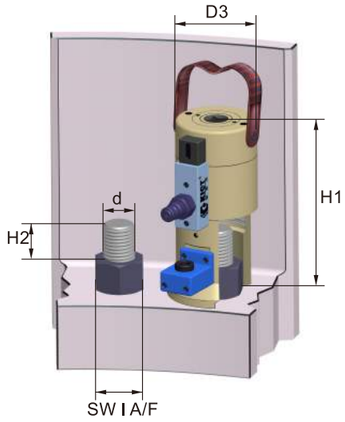
Model	Pre-tightening Force		Thread d		Width Across Flats A/F		Diameter D3		Height Hl	
	(kN)	(lbs)	(mm)	(")	(mm)	(")	(mm)	(")	(mm)	(")
KET-SES16-8.8	125.0	28101	M16x2	⅜	24	1 1/16	50.9	2.00	75.5	2.97
KET-SES20-8.8	150.0	33722	M20x2.5	¾	30	1 ¼	56.8	2.24	81.5	3.21
KET-SES22-8.8	150.0	33722	M22x2.5	1 3/16	34	1 7/16	60	2.36	81.2	3.20
KET-SES24-8.8	200.0	44962	M24x3	⅞	36	1 4/9	65.6	2.58	81.2	3.20
KET-SES27-8.8	260.0	58451	M27x3	1	41	1 5/8	73.0	2.87	84.0	3.31
KET-SES30-8.8	320.0	71939	M30x3.5	1 ⅛	46	1 4/5	82.0	3.23	90.0	3.54
KET-SES33-8.8	400.0	89924	M33x3.5	1 ¼	50	2	91.5	3.60	100.0	3.94
KET-SES36-8.8	470.0	105661	M36x4	1 ⅜	55	2 1/5	98.9	3.89	109.7	4.32
KET-SES39-8.8	560.0	125894	M39x4	1 ½	60	2 ⅜	108.0	4.25	109.0	4.29
KET-SES42-8.8	640.0	143878	M42x4.5	1 5/8	65	2 4/7	116.0	4.57	119.0	4.69
KET-SES45-8.8	750.0	168608	M45x4.5	1 ¾	70	2 ¾	123.0	4.84	119.0	4.69
KET-SES48-8.8	854.0	191988	M48x5	1 ⅞	75	3	132.0	5.20	127.0	5.00
KET-SES52-8.8	1016.0	228407	M52x5	2	80	3 ⅛	145.0	5.71	135.0	5.31
KET-SES56-8.8	1175.0	264152	M56x5.5	2 ¼	85	3 ½	155.5	6.12	145.0	5.71
KET-SES60-8.8	1400.0	314734	M60x5.5	2 ⅜	90	3 ¾	166.0	6.54	140.0	5.51
KET-SES64-8.8	1550.0	348456	M64x6	2 ½	95	3 ⅞	176.0	6.93	161.0	6.34
KET-SES68-8.8	1678.0	377231	M68x6	2 ¾	100	4 ¼	184.5	7.26	169.0	6.65
KET-SES72-8.8	1800.0	404658	M72x6	3	105	4 ⅝	191.0	7.52	181.0	7.13
KET-SES80-8.8	2350.0	528304	M80x6	3 ¼	115	5	215.0	8.46	193.0	7.60
KET-SES90-8.8	2450.0	550785	M90x6	3 ½	130	5 ⅜	225.9	8.89	198.0	7.80
KET-SES100-8.8	2750.0	618228	M100x6	4	145	6 ⅛	245.0	9.65	242.0	9.53

The technical parameters in the table are only the standard range. Non-standard bolt tensioner can be customized according to the requirement of the user unit.

MSK series - Multistage Cylinder Bolt Tensioner

Product Descriptions

- The compact design is used in working conditions of axial space unlimited, but both sides are limited.
- The min. upper thread projecting amount(h2) should be 1.0x bolt diameter D (according to the required pre-tightening force).
- Maximum working pressure 1800Bar/2250Bar.
- Used for hex nuts, heavy nuts, ISO4032, DIN 2510, EN14399 round nuts, round nuts and SV round nuts.



Product Features

- Safety blowout prevention device.
- The piston self-return.
- Replace accessories according to the different thread and nut specifications.
- Optional measuring device of bolt tensioning amount.
- Gear direct-drive nut.
- Rotary sleeve with spring.
- Over stroke limit.
- Operating hole.
- Safety handle.
- Counter.

Optional Products

- Chromium nickel surface coating.
- Safety measuring rod of thread projecting amount.
- Safety measuring rod for thread protruding height.
- Portable safety cover.
- Swivel high pressure male/female coupler.

▲ Flange connected by bolt

10.9 grade Bolt MS series - standard 180 and outside diameter compact type 225

Model	Pre-tightening Force		Thread d		Width Across Flats A/F		Diameter D3		AltitudeH1	
	(kN)	(lbs)	(mm)	(")	(mm)	(")	(mm)	(")	(mm)	(")
KET-MSK24-10.9	308.5	69354	M24	⅞	36	1 4/9	57.0	2.24	190.5	7.50
KET-MSK27-10.9	401.5	90261	M27	1	41	1 5/8	63.5	2.50	199.6	7.86
KET-MSK30-10.9	485.5	109152	M30	1 ⅛	46	1 4/5	70.0	2.76	202.7	7.98
KET-MSK33-10.9	606.3	136302	M33	1 ¼	50	2	78.3	3.08	224.6	8.84
KET-MSK36-10.9	708.3	159233	M36	1 ⅜	55	2 1/5	82.6	3.25	237.0	9.33
KET-MSK39-10.9	842.2	189335	M39	1 ½	60	2 ⅜	90.8	3.57	259.4	10.21
KET-MSK42-10.9	974.4	219044	M42	1 ⅝	65	2 4/7	98.0	3.86	263.0	10.35
KET-MSK45-10.9	1140.5	256396	M45	1 ¾	70	2 ¾	105.0	4.13	278.9	10.98
KET-MSK48-10.9	1288.4	289645	M48	1 ⅞	75	3	111.5	4.39	293.8	11.57
KET-MSK52-10.9	1529.7	343899	M52	2	80	3 ⅛	122.0	4.80	307.2	12.09
KET-MSK56-10.9	1785.0	401286	M56	2 ¼	85	3 ½	130.5	5.14	350.4	13.80
KET-MSK60-10.9	2125.8	477892	M60	2 ⅜	90	3 ¾	140.8	5.54	342.0	13.46
KET-MSK64-10.9	2336.8	525336	M64	2 ½	95	3 ⅞	147.8	5.82	352.4	13.87
KET-MSK68-10.9	2745.0	617103	M68	2 ¾	100	4 ¼	159.8	6.29	377.4	14.86
KET-MSK72-10.9	3041.0	683697	M72	3	105	4 ⅝	168.0	6.61	387.0	15.24

The technical parameters in the table are only the standard range. Non-standard bolt tensioner can be customized according to the requirement of the user unit.

Ultra high pressure Interchangeable Head Hydraulic Bolt Tensioner



Product Descriptions

Working pressure of ultra high pressure hydraulic bolt tensioner is 150/200MPa; Wear resistant cylinder, compact design, reliable performance and long service life; High accuracy, high speed, safe application; Reasonable and simple structure, easy maintenance and high strength alloy materials; Can be customized according to the actual working conditions.

Product Features

- Unique sealing design, piston / cylinder can be offset compensation.
- Plunger working stroke is 10mm.
- Built in stroke limit valve to prevent over stroke use.

Parts diagram


Tensioning head

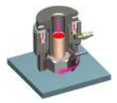
Cylinder


Supporting base

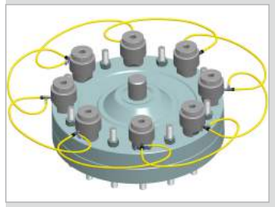

Dialing ring


Sealing ring


Deflector rod


Sectional view

Field Applications


▲Bolt synchronous pre-tightening of pipe flange bolt.


▲Bolt synchronous tensioning and pre-tightening in series.


▲Vertical mill foundation bolt pre-tightening in cement plant.


▲Pressure vessel bolt synchronous pre-tightening in refinery.


▲Pressure vessel bolt synchronous pre-tightening in chemical plant.

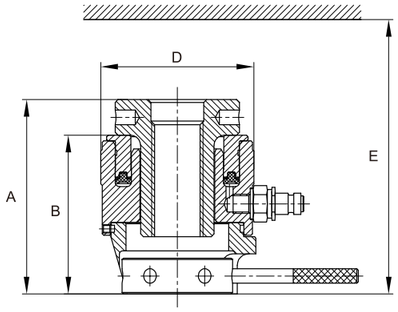

▲Bolt pre-tightening of large electric motor in thermal power plant.

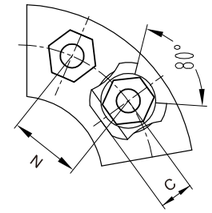

▲Bolt synchronous pre-tightening of pipe flange bolt.


▲Pressure vessel bolt synchronous pre-tightening in steel mill.

Ultra high pressure Interchangeable Head Hydraulic Bolt Tensioner

Technical Parameters





Model	Range	Thread Specification (mm)	Bolt Distance (mm)	Min. Height (mm)	Stroke (mm)	Strench Head Weight (kg)	Effective Area (mm^2)	Max. Load @1500Bar (kN)	Dimensions (mm) A	B	C	D	Weight (kg)
KET-GT1-LCB	M16-M30	M16 x 2	55	169	10	1.58	1495.4	224.3	135	113	27	86	3
		M18 x 2.5	56	165		1.51							
		M20 x 2.5	57	165		1.43							
		M24 x 3	59	164		1.31							
		M27 x 3	62	167		1.16							
		M30 x 3.5	65	170		1.01							
KET-GT2-LCB	M30-M39	M30 x 3.5	71	173	10	2.58	2677.2	401.5	136	111	35	107	4.1
		M33 x 3.5	74	174		2.37							
		M36 x 4	77	177		2.17							
		M39 x 4	80	180		1.93							
KET-GT3-LCB	M39-M52	M39 x 4	92	212	10	5.68	5127.1	768.9	160	126	46	138	7.0
		M42 x 4.5	96	215		5.35							
		M45 x 4.5	99	218		4.98							
		M48 x 5	105	216		4.66							
		M52 x 5	108	220		4.18							
KET-GT4-LCB	M52-M68	M52 x 5	118	240	10	10.74	9782.1	1466.9	180	141	62	174	12.2
		M56 x 5.5	121	244		10.10							
		M60 x 5.5	124	248		9.44							
		M64 x 6	127	252		8.78							
		M68 x 6	130	256		8.09							
KET-GT5-LCB	M68-M80	M68 x 6	145	278	10	17.28	15079.7	2261.4	202	157	78	210	18.7
		M72 x 6	149	282		16.39							
		M76 x 6	152	286		15.47							
		M80 x 6	162	293		14,55							
KET-GT6-LCB	M80-M95	M80 x 6	169	312	10	22.28	18972.1	2845.1	219	173	82	240	27.8
		M85 x 6	169	312		21.00							
		M90 x 6	178	317		19.35							
		M95 x 6	181	322		18.04							

Spring Return Hydraulic Bolt Tensioner

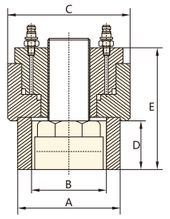
Product Features

- Stroke protection and spring return function.
- Misalignment compensation.
- Excellent sealing performance.
- Max. working pressure: 150MPa.
- Design weight including cylinder, supporting bridge, dialing ring and tensioning head.
- Stroke of all models is 10mm.
- Provide non - standard accessories according to customer requirements.

Technical Parameters

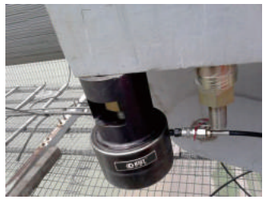
Model	Bolt size		Hydraulic Area		Max. Load			Weight (kg)
	Metric	Imperial	(in^2)	(mm^2)	(T)	(lbf)	(kN)	
KET-PS00	–	M16	1.48	954	14.40	32260	143.5	1.3
	3/4"	M18						
	–	M20						
	7/8"	M22						
KET-PS01	–	M24	2.95	1903	28.60	64071	285.0	3.5
	1"	M27						
	1-1/8"	M30						
KET-PS02	–	M24	4.74	3058	46.00	103030	458.3	5.5
	1"	M27						
	1-1/8"	M30						
	1-1/4"	M33						
	1-3/8"	M36						
KET-PS03	1-1/4"	M33	6.90	4452	67.02	150127	667.8	7.0
	1-3/8"	M36						
	1-1/2"	M39						
	1-5/8"	M42						
KET-PS04	1-1/2"	M39	10.41	6716	101.1	226450	1007.3	10.0
	1-5/8"	M42						
	1-3/4"	M45						
	1-7/8"	M48						
	2"	M52						
KET-PS05	2"	M52	13.45	8677	130.6	292521	1301.2	15.0
	2-1/4"	M56						
KET-PS06	2-1/4"	M56	15.71	10135	152.0	340473	1514.5	17.0
	-	M60						
	3-1/2"	M64						
	-	M68						
	2-3/4"	M72						
KET-PS07	2-3/4"	M72	21.67	13980	210.5	471492	2097.3	26.0
	3"	M76						
KET-PS08	3"	M76	25.49	16445	247.5	554379	2466.0	29.5
	-	M80						
	3-1/4"	M85						
	3-1/2"	M90						
KET-PS09	3-3/4"	M95	34.09	21991	331.0	741397	3297.9	38.0
	-	M100						
	4"	–						
KET-PS10	4-1/4"	M105	40.20	25935	389.9	873337	3884.83/4	49.0
	-	M110						
	-	M115						
	4-1/2"	-						

Integral Hydraulic Bolt Tensioner



Product Features

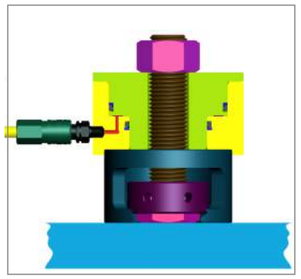
- Suitable for single specification bolt tensioning, light weight and high precision.
- Small size and compact design.
- Can be equipped with manual hydraulic pump, pneumatic hydraulic pump, multiple tensioners can be used simultaneously.
- Available range: ships, steel, petrochemical, electric power and other large equipment.
- Standard working pressure: 150MPa.



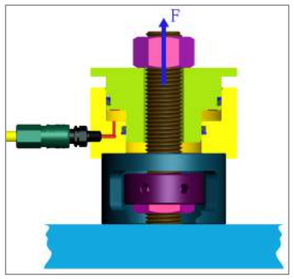
Technical Parameters

Model	Thread Specification		Stroke (mm)	Max. Tensioning Force (kN)	Dimensions (mm)				
	mm	Inch			A	B	C	D	E
KET-YLS-M16	M16	5/8	10	126	41	37	52	16	72
KET-YLS-M18	M18	45/64	10	172	46	40	62	18	76
KET-YLS-M20	M20	51/64	10	208	51	42	66	19	78
KET-YLS-M22	M22	7/8	10	264	51	45	72	20	86
KET-YLS-M24	M24	1	10	327	59	49	78	22	88
KET-YLS-M27	M27	1-1/8	10	448	65	55	88	25	93
KET-YLS-M30	M30	1-1/8	15	448	72	61	98	27	93
KET-YLS-M33	M33	1-1/4	15	679	76	66	108	29	103
KET-YLS-M36	M36	1-3/8	15	810	80	71	118	32	108
KET-YLS-M39	M39	1-1/2	15	810	89	77	118	34	112
KET-YLS-M42	M42	1-5/8	15	917	91	83	126	37	114
KET-YLS-M45	M45	1-3/4	15	952	94	89	130	39	118
KET-YLS-M48	M48	1-7/8	15	1151	102	94	142	42	122
KET-YLS-M52	M52	2	15	1277	110	102	148	46	124
KET-YLS-M56	M56	2-1/4	15	1455	119	106	160	49	138
KET-YLS-M60	M60	2-3/8	15	1455	131	114	160	52	142
KET-YLS-M64	M64	2-1/2	15	1794	131	120	178	55	151
KET-YLS-M68	M68	2-3/4	15	1794	146	124	178	58	159
KET-YLS-M72	M72	2-7/8	15	2116	146	130	192	62	173
KET-YLS-M76	M76	3	15	2579	161	135	215	65	177
KET-YLS-M80	M80	3-1/4	15	2579	161	142	215	68	197
KET-YLS-M85	M85	3-3/8	15	2963	175	150	230	72	202
KET-YLS-M90	M90	3-1/2	15	3506	177	160	230	77	218
KET-YLS-M95	M95	3-3/4	15	3951	202	170	285	80	225
KET-YLS-M100	M100	4	15	4573	212	178	285	85	225

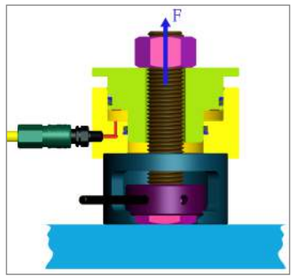
Hydraulic Bolts Tensioner on-site Condition Survey Table



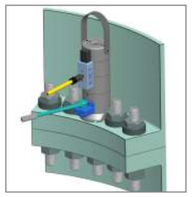
Installation

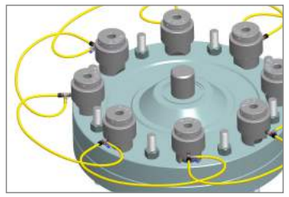


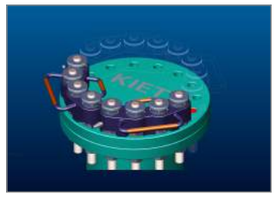
Tensioning

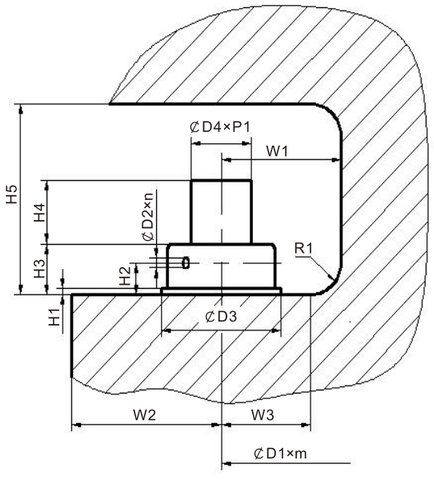


Fastening









Questionnaire

Description	Parameters in The Figure	Data
Thread and screw pitch	D4×P1	
Thread extended nut length	H4	
Nut thickness	H3	
Dimension of hexagonal nut across flats A / F		
Round nut outside diameter		
Dial hole height of round nut	H2	
Round nut dial hole diameter and quantity	D2×n	
Block thickness	H1	
Block diameter	D3	
Bolt distribution diameter and quantity	D1×m	
Distance of bolt center and equipment	W1	
Distance of bolt center and chamfer	W3	
Distance of bolt center and edge	W2	
Limit height	H5	
Expected tension		
Minimum distance of non-circumferential distribution bolts		

When the standard parts can not be used, please fill this form, our company suggest correct model for you or customize!

Special Hydraulic Locking Nut for Coal Mining Machine

Matched the use of ultra high pressure hydraulic hand pump

Matched the use of ultra high pressure electric hydraulic pump

Matched the use of ultra high pressure pneumatic hydraulic pump

Product Descriptions

Hydraulic nut as a new type of strong fastening hydraulic tools, has been widely used in metallurgy, power, petrochemical, mining machinery, mining machine, boring machine and other heavy machinery. Coal mining machine is the realization of coal production mechanization and modernization of the major large-scale equipment, the connection parts of the use of ultra-high pressure hydraulic nut locking. As a high reliability, reliable operation of the product, hydraulic nuts in foreign new coal mine has been widely used.

Underground assembly conditions are very poor, with a manual wrench to tighten the ordinary nut, bolt preload is often not up to preload requirements, combined with complex geological structure of coal, coal mining coal often encounter faults, rocks, and repeatedly bear impact load, Vibration frequency is very large, the working environment is very bad, resulting in the main parts of the shearer connection nut loosening, resulting in shearer transmission and other parts damage, seriously affecting production. Therefore, the bolt connection between the main parts of the coal mining machine must have high reliability.

At the connecting points of major parts, use hydraulic nut between major parts and bottom brackets.can realize the electric control box of the large coal mining machine, electric machine box, electric box and the middle box of reliable connection and ensure the shearer in normal work is not loose, to ensure the safety of the use of. At the same time, the use of high strength bolts to carry out sub connections, to strengthen the effect of fixed. This effectively solves the problem of loosening due to strong vibration during normal coal cutting and faulting, reduce the failure caused by vibration of shearer, improve the reliability of shearer, greatly simplifies the daily maintenance of shearer, greatly simplifies the daily maintenance of shearer, reducing the labor intensity of workers.

Product Features

- Replace MT / T913-2002, can be non-standard customized according to manufacturer.
- Each specification can be provided with a small diameter hydraulic nut which be aimed at the small pre-tightening force of the domestic part of the host plant and the narrow installation space requirements
- Each specification can be divided into the bottom ring arrangement type and top ring arrangement type.

Technical Parameters

Model	Bolt Size (mm)	Max. Initial Load (kN)	Hydraulic Area (mm^2)	Outside Diameter (mm)	Height (mm)
KET-CLM-M30	M16-M30	216.6	1571	74	66
KET-CLM-M39	M33-M39	349.4	2534	95	66
KET-CLM-M52	M42-M52	440.6	3195	108	74
KET-CLM-M56	M56	552.4	4006	118	78
KET-CLM-M64	M60-M64	617.3	4477	128	84
KET-CLM-M68	M68	777.1	5635	140	88
KET-CLM-M80	M72-M80	1040	7540	162	92
KET-CLM-M90	M80-M90	1462	10603	185	112
KET-CLM-M100	M90-M100	1625	11781	202	122
KET-CLM-M105	M100-M105	2079	15080	218	137
KET-CLM-M115	M110-M115	2209	16022	230	137
KET-CLM-M130	M120-M130	2339	16965	240	143
KET-CLM-M140	M140	3108	22541	276	153
KET-CLM-M150	M150	3412	24740	300	162

Upper Locking Type Hydraulic Nut

Matched the use of ultra high pressure hydraulic hand pump

Matched the use of ultra high pressure pneumatic hydraulic pump

Matched the use of ultra high pressure electric hydraulic pump

Product Descriptions

Hydraulic nut is an efficient, accurate and reliable bolt fastening tool. This nut is a permanent fixed hydraulic part and can replace the traditional nuts, no need to extend the stud, still can achieve the effect of fastening.

It provides a simple, safe and economical solution for the fastening of various vibration, rapid rotation, large power equipment and narrow space bolts. Over the years experience in shipbuilding, petrochemical, electric power, metallurgy, coal mining and heavy machinery and other industrial fields, it is proved that it is very reliable.

It can be specially designed and produced according to customer requirements.

Product Features

- Suitable for high temperature of 100℃.
- Provide special seal when temperature is higher than 100℃.
- Anti corrosion protective cap.
- Spherical washers can be used if the interface is not at right angles.
- Non-standard customization.

Technical Parameters

Model	Bolt Diameter		Working Pressure	Max. Load	Outside Diameter	Height	Stroke
	(inch)	(mm)	(MPa)	(KN)	(mm)	(mm)	(mm)
KET-SLM-M33	1 ¼	M33	150	216	74	64	6
KET-SLM-M36	1 ⅜	M36	150	246	80	71	4
KET-SLM-M39	1 ½	M39	150	296	87	75	4
KET-SLM-M42	1 ⅝	M42	150	340	94	81	6
KET-SLM-M45	1 ¾	M45	150	406	101	88	6
KET-SLM-M48	1 ⅞	M48	150	457	107	89	8
KET-SLM-M52	2	M52	150	553	117	96	8
KET-SLM-M56	2 ¼	M56	150	656	128	100	8
KET-SLM-M64	2 ½	M64	150	817	144	113	10
KET-SLM-M68	2 ¾	M68	150	1008	157	119	10
KET-SLM-M72	3	M72	150	1051	163	123	12
KET-SLM-M80	3 ¼	M80	150	1459	187	142	12
KET-SLM-M90	3 ½	M90	150	1727	207	158	12
KET-SLM-M95	3 ¾	M95	150	1965	219	166	12
KET-SLM-M100	4	M100	150	2233	234	172	15
KET-SLM-M110	4 ½	M110	150	2688	255	184	15
KET-SLM-M125	5	M125	150	3636	296	210	15
KET-SLM-M140	5 ½	M140	150	4371	328	238	15
KET-SLM-M150	6	M150	150	5268	356	255	18

Under Locking Type Hydraulic Nut

Product Features

- Suitable for high temperature of 100℃.
- Provide special seal when temperature is higher than 100℃.
- Anti corrosion protective cap.
- Spherical washers can be used if the interface is not at right angles.
- Non-standard customization.

Assorted Applications

▲ Million tons press machine.

▲ Nuclear power equipment.

▲ Opencast machine.

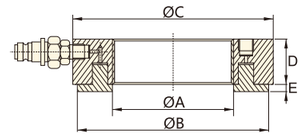
▲ Mineral processing equipment.

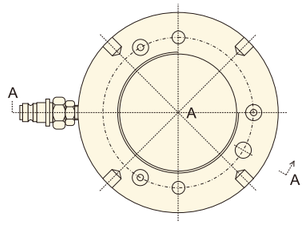
▲ Marine diesel.

Technical Parameters

Model	Bolt Diameter		Working Pressure	Max. Load	Outside Diameter	Height	Stroke
	(inch)	(mm)	(MPa)	(KN)	(mm)	(mm)	(mm)
KET-XLM-M33	1 ¼	M33	150	216	74	51	6
KET-XLM-M36	1 ⅜	M36	150	246	80	59	4
KET-XLM-M39	1 ½	M39	150	296	87	63	4
KET-XLM-M42	1 ⅝	M42	150	340	94	69	6
KET-XLM-M45	1 ¾	M45	150	406	101	76	6
KET-XLM-M48	1 ⅞	M48	150	457	107	77	8
KET-XLM-M52	2	M52	150	553	117	84	8
KET-XLM-M56	2 ¼	M56	150	656	128	88	8
KET-XLM-M64	2 ½	M64	150	817	144	99	10
KET-XLM-M68	2 ¾	M68	150	1008	157	105	10
KET-XLM-M72	3	M72	150	1051	163	109	12
KET-XLM-M80	3 ¼	M80	150	1459	187	124	12
KET-XLM-M90	3 ½	M90	150	1727	207	140	12
KET-XLM-M95	3 ¾	M95	150	1965	219	148	12
KET-XLM-M100	4	M100	150	2233	234	154	15
KET-XLM-M110	4 ½	M110	150	2688	255	166	15
KET-XLM-M125	5	M125	150	3636	295	192	15
KET-XLM-M140	5 ½	M140	150	4371	328	214	15
KET-XLM-M150	6	M150	150	5268	356	231	18

Special Hydraulic Nut for Bearing Assembling and Disassembling





Product Descriptions

It is the ultra high pressure tool commonly used for workpiece installation of bearing, flywheel propeller and etc. Smooth lifting, no impact, no damage to the workpiece and other characteristics in the process of pressing. Through the inner ring thread of the hydraulic nut, can be mounted on the shaft parts, the piston pushes the workpiece to the required installation position under the action of the 70MPa-150MPa pressure.

The installation and dismounting on the tapered shaft and the bearing on the shaft sleeve is a difficult and time-consuming task. Using hydraulic nut, can obtain high pressure driving force required for mounting bearing, thus make the bearing assembly and disassembly more easily and quickly. All hydraulic nuts are equipped with ultra high pressure hydraulic pump and quick coupler.

Using the axial and radial oil injection two ways, without space restrictions.

Optional electric, pneumatic, manual hydraulic pump as a power source according to user requirements.

▲ Bearing installation of grinding roller maintenance in cement mill.

▲ Propeller installation in shipyard.

Technical Parameters

Model	Bolt Size (A)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Stroke (mm)	Area (mm^2)	Weight (kg)
KET-ZLM-M50×1.5	50×1.5	50.5	104	114	48	4	5	2900	2.7
KET-ZLM-M55×2	55×2	55.5	109	120	48	4	5	3150	2.75
KET-ZLM-M60×2	60×2	60.5	115	125	48	5	5	3300	2.8
KET-ZLM-M65×2	65×2	65.5	121	130	48	5	5	3600	3
KET-ZLM-M70×2	70×2	70.5	127	135	48	5	5	3800	3.2
KET-ZLM-M75×2	75×2	75.5	132	140	48	5	5	4000	3.4
KET-ZLM-M80×2	80×2	80.5	137	146	48	5	5	4200	3.7
KET-ZLM-M85×2	85×2	85.5	142	150	48	5	5	4400	3.75
KET-ZLM-M90×2	90×2	90.5	147	156	48	5	5	4700	4
KET-ZLM-M95×2	95×2	95.5	153	162	48	5	5	4900	4.3
KET-ZLM-M100×2	100×2	100.5	158	166	48	6	5	5100	4.4
KET-ZLM-M105×2	105×2	105.5	163	172	48	6	5	5300	4.65
KET-ZLM-M110×2	110×2	110.5	169	178	48	6	5	5600	4.95
KET-ZLM-M115×2	115×2	115.5	174	182	48	6	5	5800	5
KET-ZLM-M120×2	120×2	120.5	179	188	48	6	5	6000	5.25
KET-ZLM-M125×2	125×2	125.5	184	192	48	6	5	6200	5.35
KET-ZLM-M130×2	130×2	130.5	190	198	48	6	5	6400	5.65
KET-ZLM-M135×2	135×2	135.5	195	204	48	6	5	6600	5.9
KET-ZLM-M140×2	140×2	140.5	200	208	48	7	5	6800	6

Special Hydraulic Nut for Bearing Assembling and Disassembling

Model	Bolt Size (A)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Stroke (mm)	Area (mm^2)	Weight (kg)
KET-ZLM-M145×2	145×2	145.5	206	214	49	7	5	7300	6.5
KET-ZLM-M150×2	150×2	150.5	211	220	49	7	5	7500	6.6
KET-ZLM-M155×3	155×3	155.5	218	226	49	7	5	8100	6.95
KET-ZLM-M160×3	160×3	160.5	224	232	50	7	6	8600	7.6
KET-ZLM-M165×3	165×3	165.5	229	238	50	7	6	8900	7.9
KET-ZLM-M170×3	170×3	170.5	235	244	51	7	6	9400	8.4
KET-ZLM-M180×3	180×3	180.5	247	256	51	7	6	10300	9.15
KET-ZLM-M190×3	190×3	191	259	270	52	8	7	11500	10.5
KET-ZLM-M200×3	200×3	201	271	282	53	8	8	12500	11.5
KET-ZLM-Tr205×4	Tr205×4	207	276	288	53	8	8	12800	12
KET-ZLM-Tr210×4	Tr210×4	212	282	294	54	8	9	13400	12.5
KET-ZLM-Tr215×4	Tr215×4	217	287	300	54	8	9	13700	13
KET-ZLM-Tr220×4	Tr220×4	222	293	306	54	8	9	14400	13.5
KET-ZLM-Tr225×4	Tr225×4	227	300	312	55	8	9	15200	14.5
KET-ZLM-Tr230×4	Tr230×4	232	305	318	55	8	9	15500	14.5
KET-ZLM-Tr235×4	Tr235×4	237	311	326	56	8	10	16200	16
KET-ZLM-Tr240×4	Tr240×4	242	316	330	56	9	10	16500	16
KET-ZLM-Tr250×4	Tr250×4	252	329	342	56	9	10	17600	17.5
KET-ZLM-Tr260×4	Tr260×4	262	341	356	57	9	11	18800	19.5
KET-ZLM-Tr270×4	Tr270×4	272	352	368	58	9	12	19800	20.5
KET-ZLM-Tr280×4	Tr280×4	282	363	380	59	9	12	21100	22
KET-ZLM-Tr290×4	Tr290×4	292	375	390	59	9	13	22400	22.5
KET-ZLM-Tr300×4	Tr300×4	302	386	404	61	10	14	23600	25.5
KET-ZLM-Tr310×4	Tr310×4	312	397	416	62	10	14	24900	27
KET-ZLM-Tr320×4	Tr320×4	322	409	428	63	10	14	26300	29.5
KET-ZLM-Tr330×4	Tr330×4	332	419	438	63	10	14	27000	30
KET-ZLM-Tr340×4	Tr340×4	342	430	450	64	10	14	28400	31.5
KET-ZLM-Tr345×4	Tr345×4	347	436	456	64	10	14	29400	32.5
KET-ZLM-Tr350×4	Tr350×4	352	442	464	66	10	14	29900	35
KET-ZLM-Tr360×4	Tr360×4	362	455	472	66	11	15	31300	35.5
KET-ZLM-Tr365×4	Tr365×4	367	460	482	67	11	15	31700	38.5
KET-ZLM-Tr370×4	Tr370×4	372	466	486	67	11	16	32800	39
KET-ZLM-Tr380×4	Tr380×4	382	476	498	68	11	16	33500	40.5
KET-ZLM-Tr385×4	Tr385×4	387	483	504	68	11	16	34700	41
KET-ZLM-Tr400×4	Tr400×4	402	499	522	70	11	17	36700	45.5
KET-ZLM-Tr410×4	Tr410×4	412	510	534	71	11	17	38300	48
KET-ZLM-Tr420×4	Tr420×4	422	522	546	71	11	17	40000	50
KET-ZLM-Tr430×4	Tr430×4	432	532	556	72	12	17	40800	52.5
KET-ZLM-Tr440×4	Tr440×4	442	543	566	72	12	17	42500	54
KET-ZLM-Tr450×4	Tr450×4	452	554	580	74	12	17	44100	57.5
KET-ZLM-Tr460×4	Tr460×4	462	565	590	74	12	17	45100	60
KET-ZLM-Tr470×4	Tr470×4	472	576	602	75	12	18	46900	62
KET-ZLM-Tr480×4	Tr480×4	482	587	612	75	12	19	48600	63
KET-ZLM-Tr490×4	Tr490×4	492	597	624	76	12	19	49500	66
KET-ZLM-Tr500×4	Tr500×4	502	609	636	77	12	19	51500	70

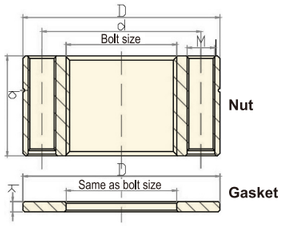
Super Nut

Product Descriptions

Super bolt is used together with multiple lifting screws to generate the required pre-tightening force so as to reach the purpose of tensioning the screw to fasten the workpiece.

Product Features

- Easy to use: get accurate pre-tightening force through the manual torque wrench.
- Suitable for different installation location, small space, explosion-proof and high temperature and other harsh environments.
- Simple structure and reusable.



Field Applications



Technical Parameters

Model	Bolt Specification	Dimensions				Lifting Bolt		8.8 Grade Bolt		10.9 Grade Bolt		Weight
		D	d	b	k	M	Quantity	Tightening Torque	Pre-tightening Force	Tightening Torque	Pre-tightening Force	
	(M)	(mm)	(mm)	(mm)	(mm)		(pc)	(N · M)	(N)	(N · M)	(N)	(kg)
KET-CLM-M24	24	52	39	24	4	M8×36	8	47	188200	82	244300	0.4
KET-CLM-M27	27	63	45	27	4	M10×45	8	60	238200	82	309200	0.7
KET-CLM-M30	30	65	48	30	4	M10×50	8	73	293700	82	381250	0.8
KET-CLM-M33	33	72	53	32	5	M12×50	8	89	355800	82	461880	1.0
KET-CLM-M36	36	78	58	34	5	M12×50	8	106	423430	82	549650	1.3
KET-CLM-M39	39	81	61	38	5	M12×56	10	99	496950	105	645100	1.6
KET-CLM-M42	42	92	72	40	5	M12×58	12	96	576350	125	748150	2.1
KET-CLM-M45	45	92	72	42	6	M12×60	12	110	661620	143	858850	2.2
KET-CLM-M48	48	100	75	45	6	M16×65	8	188	752780	244	977150	2.8
KET-CLM-M52	52	108	80	48	6	M16×65	8	221	883460	287	1146800	3.5
KET-CLM-M56	56	109	84	50	6	M16×70	10	205	1024600	266	1330000	3.7
KET-CLM-M60	60	113	88	55	6	M16×75	10	235	1176200	67	1526800	4.4
KET-CLM-M64	64	114	92	58	8	M16×80	10	268	1338270	347	1737180	4.7
KET-CLM-M68	68	122	96	60	8	M16×80	10	302	1510780	292	1961100	5.6
KET-CLM-M72	72	126	100	65	8	M16×85	12	282	1693750	366	2198350	6.5
KET-CLM-M76	76	129	104	68	8	M16×90	12	315	1887170	408	2449700	7.1
KET-CLM-M80	80	134	108	70	8	M16×90	12	349	2091000	452	2714300	7.9
KET-CLM-M90	90	156	130	78	8	M16×100	16	331	2646500	429	3435340	11.9
KET-CLM-M100	100	192	160	86	8	M20×110	16	502	3267250	651	4241160	19.8
KET-CLM-M110	110	224	192	95	10	M20×120	20	486	3953250	630	5131800	29.8
KET-CLM-M120	120	238	154/200	108	10	M20×130	24	482	4703700	453	6614950	38.2
KET-CLM-M140	140	268	174/236	126	12	M20×150	36	437	6403500	567	8311740	56.6
KET-CLM-M160	160	268	194/256	144	12	M20×165	36	570	8364100	741	15856600	74.6

Torque Multiplier


Product description

Torque multiplier is suitable for confined area and tightness of vibration machinery of heavy load, lightweight and convenient manual operation. The planetary gear structure produces a high torque output. Smallest tool diameter, the maximum torque output, interchangeable specifications of the sockets, for a variety of large diameter bolts and nuts. Reaction supporting foot can be customized according to the user's actual working conditions.With the use of torque wrenches for higher torque accuracy.

Product Features

- Sturdy and long service life; Drive ratio accuracy: +5%.
- Normal operation without power supply and small space, make sure the safety use at the same time.
- Each set of torque multiplier is equipped with the corresponding specifications sockets.
- Each set of torque multiplier is equipped with aluminum packing box, easy to carry on-site.

Technical Parameters

Model	Drive Ratio	Input Square (mm)	Output Square (mm)	Max. Torque (Nm)	Bolt Size (mm)	Width Across Flats (A/F) (mm)	Dimensions (mm)	Weight (kg)
KET-FDB-15	4. 8	12.7	25	1500	M20-30	S30-46	80×80×119	2. 6
KET-FDB-20	14	12.7	25	2000	M22-36	S32-55	74×74×147	3. 9
KET-FDB-35	17	12.7	30	3500	M30-45	S46-70	95×95×162	5. 5
KET-FDB-55	19	12.7	35	5500	M36-52	S55-80	105×105×190	7. 5
KET-FDB-75	22	12.7	40	7500	M42-60	S65-90	115×115×210	10
KET-FDB-100	61	12.7	50	10000	M52-72	S80-105	134×134×244	17
KET-FDB-150	74.8	12.7	55	15000	M60-80	S90-115	146×146×305	25
KET-FDB-200	96.8	12.7	60	20000	M72-95	S105-135	146×146×325	31

Pneumatic Impact Wrench


Special sleeve for pneumatic impact wrench.

Product Descriptions

Pneumatic impact wrench is a professional wrench for high strength and continuous demolition and installation of bolts.,product series, compact structure and low vibration, low noise to reduce the operator's fatigue. The machine torque large, light weight, the use of standard 6 bar air pressure for bolt removal and installation.

Product Features

- Industrial design, high torque, light weight.
- Innovative non-impact clutch system.
- Low noise and low vibration design.
- Use the standard 6 bar air pressure.

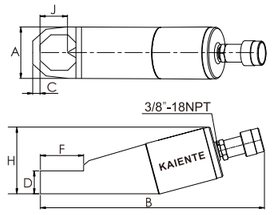
Industry Applications

- Disassembling and tightening of hydraulic turbine inspection bolts in hydropower station.
- Disassembling and tightening of turbine inspection bolts in thermal power plant.
- Disassembling and tightening of oil pipeline flange in refinery.
- Disassembling and tightening of steel plant high - line equipment bolts.
- Disassembling and tightening of cement mill bolt in cement plant.

Technical Parameters

Model	Bolt Size (mm)	Driving Square (mm)	Torque (Nm)	Air Consumption (L/S)	Weight (kg)
KET-BE-20	18-20	20×20	490	30	4.5
KET-BE-30	24-30	25×25	1605	40	7.4
KET-BE-42	32-42	30×30	4492	50	11.5
KET-BE-56	45-56	30×30	9880	60	15.5
KET-BE-72	58-72	45×45	18076	75	33
KET-BE-100	76-100	63.5×63.5	43576	90	88

Split Type Hydraulic Nut Splitter



Product Descriptions

Split type hydraulic nut splitter is used in industrial equipment in the open air, high temperature or corrosive environment, there rust corrosion killed, thread bump damage, etc. To remove the nut of the place, usually remove the rust nut is very difficult. The usual practice is to use (gas) welding nut and bolt together cutoff, but in some special circumstances, some prohibit welding operation. Such as coal mines, coal-fired power plant coal storage, pipeline and high-pressure high-temperature pipelines, etc., replace the nut bolt even more difficult.

Industry applications: metallurgy, electric power, petrochemical, paper mills, cement plants and other industries.




Technical Parameters

Model	Thread Diameter (mm)	Across Flats(A/F) (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg)
KET-NC-1319	6-12	10-19	40	200	6	19	28	48	1.2
KET-NC-1924	12-16	19-24	55	227	8	25	38	71	2.0
KET-NC-2432	16-22	24-32	66	260	10	31	49	76	3.0
KET-NC-3241	22-27	32-41	75	286	15	35	66	89	4.4
KET-NC-4150	27-33	41-50	96	325	21	45	73	109	8.2
KET-NC-5060	33-39	50-60	106	366	27	54	126	126	12
KET-NC-6075	39-48	60-75	156	367	27	75	110	180	34

Ultra High Pressure Hydraulic Nut Splitters

▲ Split anchor bolts rust nuts of large equipment.

Product Features

- Spring return or double acting hydraulic return.
- Three-blade blade design, a host machine can provide three blades.
- Interchangeable working head provides maximum nut adaptability.
- The extension distance of the blade is convenient for the preset, and ensures that the bolt is not damaged.
- Aluminum handle to make work more reliable, more convenient operation.
- Cylinder body nickel-plated treatment, protecting tools from corrosion and harsh environment.
- Built-in safety valve to provide overload protection.

Technical Parameters

Model	Width Across Flat (A/F) (mm)	Bolt size (mm)	Capacity (T)	Oil Capacity (cm^3)	Weight (kg)
KET-NS-70-80	70-80	M45-M52	100	377	37
KET-NS-70-85	70-85	M45-M56	100	377	37
KET-NS-70-95	70-95	M45-M64	100	377	38
KET-NS-70-105	70-105	M45-M72	100	377	39
KET-NS-110-115	110-115	M76-M80	200	819	69
KET-NS-110-130	110-130	M76-M90	200	819	71

Wire Carrier

Matched with hydraulic torque wrench.

Matched with pneumatic wrench.

Product Descriptions

Traditional solutions and shortcomings:
Using chain clamp or pipe tongs twisting manual rotating bolt, or double nut and tight, reverse remove loose the bolt with wrench, prone to bias load, damage the bolt; effective torque is small, not suitable for large bolts.

Working Principle

The wire carrier tightens the bolts with suitable nuts, through the pre-tightening of two nuts to achieve bolt tightening. To avoid the damage of bolt, then make the bolt be inserted or removed by hydraulic torque wrench or pneumatic wrench, achieving rapid and non destructive implanting or bolt removing working.

Product Features

- Solve the double-headed bolt disassembling and assembling problem quickly.
- Simple operation, operated by pneumatic impact wrench or hydraulic torque wrench.
- Unique design, protect thread.
- Suitable for metric M14-M160, imperial1/2 -7 bolts.

Model selection preparation

- Bolt size.
- Bolt material.
- Working space around the bolt.

Technical Parameters

Model	Bolt Diameter and Pitch (m×t)	Driving Square (s×s)	Power Source Rated Torque (NM)	Air Pressure (MPa)	Weight (kg)
KET-LSQ-M30	30×3.5	30×30	6370	0.63	9.0
KET-LSQ-M33	33×3.5	30×30	6370	0.63	9.2
KET-LSQ-M36	36×4	30×30	6370	0.63	9.6
KET-LSQ-M39	39×4	30×30	6370	0.63	10
KET-LSQ-M42	42×4.5	30×30	6370	0.63	10
KET-LSQ-M48	48×5	30×30	6370	0.63	10
KET-LSQ-M52	52×3	30×30	6370	0.63	11
KET-LSQ-M56	56×4	45×45	14700	0.63	11
KET-LSQ-M60A	60×4	45×45	14700	0.63	11
KET-LSQ-M64A	64×4	45×45	14700	0.63	13
KET-LSQ-M68A	68×4	45×45	14700	0.63	19
KET-LSQ-M72A	72×4	45×45	14700	0.63	21
KET-LSQ-M76A	76×4	45×45	14700	0.63	27
KET-LSQ-M60B	60×4	64×64	34300	0.63	11
KET-LSQ-M64B	64×4	64×64	34300	0.63	13
KET-LSQ-M68B	68×4	64×64	34300	0.63	19
KET-LSQ-M72B	72×4	64×64	34300	0.63	21
KET-LSQ-M76B	76×4	64×64	34300	0.63	27
KET-LSQ-M80	80×4	64×64	34300	0.63	28
KET-LSQ-M85	85×4	64×64	34300	0.63	28
KET-LSQ-M90	90×4	64×64	34300	0.63	33
KET-LSQ-M95	95×4	64×64	34300	0.63	38
KET-LSQ-M100	100×4	64×64	34300	0.63	43
KET-LSQ-M105	105×4	64×64	34300	0.63	49
KET-LSQ-M110	110×4	64×64	34300	0.63	54
KET-LSQ-M120	120×4	64×64	34300	0.63	60
KET-LSQ-M130	130×4	64×64	34300	0.63	65
KET-LSQ-M140	140×4	64×64	34300	0.63	72

Hydraulic Bolt Tools Reference Form

Bolt、nut pre-tightening torque reference form

Strength Degree		4.8		6.8		8.8		10.9		12.9	
Minimum Breaking Strength		392MPa		588MPa		784MPa		941MPa		1176MPa	
Material		General Structural Steel		Mechanical Structural Steel		Chrome Aluminum Alloy Steel		Nickel Chrome Aluminum Alloy Steel		Nickel Chrome Alloy Steel	
Bolt	Nut	Torque Capacity		Torque Capacity		Torque Capacity		Torque Capacity		Torque Capacity	
		KGM	Nm	KGM	Nm	KGM	Nm	KGM	Nm	KGM	Nm
M14	22mm	7	69	10	98	14	137	17	165	23	225
M16	24mm	10	98	14	137	21	206	25	247	36	363
M18	27mm	14	137	21	206	29	284	35	341	49	480
M20	30mm	18	176	28	296	41	402	58	569	69	480
M22	34mm	23	225	34	333	55	539	78	765	93	911
M24	36mm	32	314	48	470	70	686	100	981	120	1176
M27	41mm	45	441	65	637	105	1029	150	1472	180	1764
M30	46mm	60	588	90	882	125	1225	200	1962	240	2352
M33	50mm	75	735	115	1127	150	1470	210	2060	250	2450
M36	55mm	100	980	150	1470	180	1764	250	2453	300	2940
M39	60mm	120	1176	180	1764	220	2156	300	2943	370	3626
M42	65mm	155	1519	240	2352	280	2744	390	3826	470	4606
M45	70mm	180	1764	280	2744	320	3136	450	4415	550	5390
M48	75mm	230	2254	350	3430	400	3920	570	5592	680	6664
M52	80mm	280	2744	420	4116	480	4704	670	6573	850	8330
M56	85mm	360	3528	530	5149	610	5978	860	8437	1050	10290
M60	90mm	410	4018	610	5978	790	7742	1100	10791	1350	13230
M64	95mm	510	4998	760	7448	900	8820	1224	11998	1530	14994
M68	100mm	580	5684	870	8526	1100	10780	1392	13645	1740	17053
M72	105mm	660	6468	1000	9800	1290	12642	1584	15527	1980	19405
M76	110mm	750	7350	1100	10780	1500	14700	1800	17644	2250	22050
M80	115mm	830	8143	1250	12250	1850	18130	1992	19547	2489	24429
M85	120mm	900	8820	1400	13720	2250	22050	2160	21172	2699	26459
M90	130mm	1080	10584	1650	16170	2500	24500	2593	25407	3241	31752
M100	145mm	1400	13720	2050	20090	2800	27440	3361	32935	4200	41160
M110	155mm	1670	16366	2550	24990	3340	32732	4009	39287	5010	49098
M120	170mm	2030	19894	3050	29890	4060	39788	4873	47756	6090	59682

Common Unit Conversion Table

Bolt Specification

Bolt Size D (mm)	Outer Hexagonal Size S (mm)	Inner Hexagonal Size J (mm)
M10	17	8
M12	19	10
M14	22	12
M16	24	14
M18	27	14
M20	30	17
M22	32	17
M24	36	19
M27	41	19
M30	46	22
M33	50	24
M36	55	27
M39	60	27(30)
M42	65	32
M45	70	– –
M48	75	36
M52	80	36
M56	85	41
M60	90	46
M64	95	46
M68	100	50
M72	105	55
M76	110	60
M80	115	65
M85	120	70
M90	130	70(75)
M95	135	– –
M100	145	85
M105	150	– –
M110	155	– –
M115	165	– –
M120	170	– –
M125	180	– –
M130	185	– –
M140	200	– –
M150	210	– –

Common unit conversion table

Torque capacity

1 NM = 0.738 ibfft
1 ibfft = 1356 NM
1 NM = 0.1019 kgfcm
1 kgfcm = 0.0981 NM
1 ibfft = 0.1382 kgfm
1 kgfm = 7.2345 ibfft

Capacity

1 kg = 2.2046 bs
1 bs = 9.81N
1 N = 0.102 kg
1 ib = 0.4536 kgs
1 tonne = 1000 kgs
1 kN = 0.102 tonnes
1 tonne = 9.81 kN

Pressure

1 MPa = 1N/mm
1 bar = 1 kg/cm
1 psi = 1 ib/in
1 MPa = 10 bar
= 145 psi
1 psi = 0.069 bar

Length

1 m = 1000 mm
1 m = 3.28 ft
= 39.37 in
1 in = 25.4 mm
1 ft = 12 in
= 304.8 mm

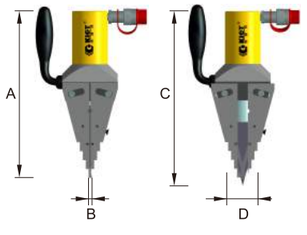
W\MW\GW energy conversion relationship

1 KW = 1000 W
1 MW = 1000 KW
1 GW = 1000 MW
10000 KW = 10 MW
1 Million KW = 1 GW

Volume

1 L = 1000 cm
1 L = 61 in
1 L = 0.26 U.S.GAL
= 0.22 UK.GAL
1 U.S.GAL = 3.785 L
1 UK.GAL = 4.546 L

Split Type Hydraulic Flange Spreaders



▲ Split hydraulic flange separator dimensions.

Product Descriptions

The split type hydraulic flange spreaders widely apply to petrochemical, metallurgical, electric power, paper mills and other industries, which are the most secure and ideal special hydraulic tools for liquid, gas transmission pipeline maintenance.

The design of the first step with interlocking, makes flange spreaders' work safer and simpler.

- For Pipeline commissioning, maintenance, testing and replacement of the valve change outs.
- Few moving parts mean durability and easy maintenance.
- Friction-free, smooth and parallel wedge movement eliminates flange damage and spreading arm failure.
- Hydraulic flange spreaders generally work in pairs and work more efficiently.
- Unique interlocking wedge design, first step can spread under full load.

Product Features

- Maximum spread can reach 65mm.
- The stepped blocks radius is 150mm, which can effectively get close to flange, so that each step can bear maximum load.
- The stepped blocks with forged alloy steel material, have longer life.
- Lightweight reinforced plastic steel handle design, convenient to carry.
- Unique interlocking structure, makes the spreader close to flange and avoid over spread when it is opened; and the hydraulic cylinder is automatic return when it is closed.

▲ separate pipeline flange to replace seals in refinery.

Technical Parameters

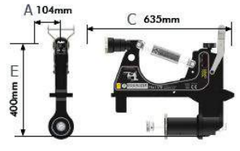
Model	Capacity (T)	Dimensions(mm) A	B	C	D	Weight (kg)	Remarks
KET-FSM-14T	14	290	6	328	61	9	1×split type hydraulic flange spreader, 1×stepped block,1×block, 1×hose, 1×hydraulic hand pump, 1×portable aluminum alloy tool box.
KET-FSM-28T	2×14	290	6	328	61	18	2×split type hydraulic flange spreaders, 2×stepped blocks, 2×blocks, 3×hoses, 1×hydraulic hand pump, 1×one-to-two distributing valve, 1×portable aluminum alloy tool box.

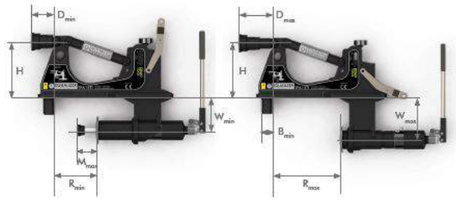
Integral Hydraulic Flange Alignment Tool

Product Descriptions

The integral hydraulic flange alignment tool is used to center and adjust large inner tube flange, especially helpful to solve the displacement of the bolt hole in the wind turbine tower structure.

During assembly or installation, hydraulic alignment tool can be used to adjust the tower part of the wind turbine, which helps to ensure that the bolt holes are aligned so that bolts can be inserted.





Technical Parameters

Model	Capacity (T)	A (mm)	C (mm)	E (mm)	B(mm) Min.	B(mm) Max.	M(mm) Min.	M(mm) Max.	R(mm) Min.	R(mm) Max.	D(mm) Min.	D(mm) Max.	W(mm) Min.	W(mm) Max.	H(mm) Min.	H(mm) Max.	Weight (kg)
KET-TFA15TI	15	104	635	40	45	-	0	65	150	250	83	123	120	163	200	-	21.5

Mini- gap Flange Spreaders

▲ Changing packing of pipeline flange plate.

Product Descriptions

Mini-gap flange spreaders with reversible leg design, provides a wider flange range of applications, and the guide rod through the flange hole design, improves the safety of operation.

Product Features

- Innovative reversible leg design provides wider range of applications.
- Unique double angled wedge produces more spreading force without reducing effective spreading distance.
- Rust-proof and lightweight, easy to carry.
- The tip clearance required is only 2mm.
- Robust but lightweight.
- Spreading force is 6.8T.

Field Applications

- Pipe commissioning.
- Pipe shutdowns maintenance.
- Flange removal and replacement.
- Pipe installation.
- Pipeline pressure testing.
- Valve replacement.

Technical Parameters

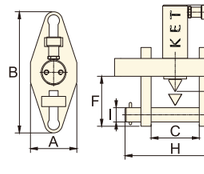
Model	Capacity (T)	Inserting Clearance (m)	Weight (kg)
KET-MG7TM	6.8	2	5

Split Type Hydraulic Flange Splitters

Product Descriptions

The Split Type Hydraulic Flange Splitters apply to petrochemical, metallurgical, electric power and other industries to maintain pipe and other large mechanical connection of the demolition and maintenance.

It's reversible leg design, provides a wider flange range of applications, and the guide rod through the flange hole design, improves the safety of operation. Suitable for small flange tip clearance situation. Lightweight, ergonomic design for ease to use, adjustment jaw width from 70mm to 216mm for a wide range of applications. Single acting, spring return of hydraulic cylinder, can use for flanges which thickness and maximum spread does not exceed 152.4mm and bolt size is not less than 20.7mm.



▲ Packing replacement of high pressure pipe flange in thermal power plant.

▲ Packing replacement of high pressure pipe flange in steel plant.

Technical Parameters

Model	Capacity (T)	Bolt Size (mm)	Flange Thickness (mm)	Stroke (mm)	Standard Wedge (mm)	Weight (kg)	Dimensions (mm) A	B	C Min.	C Max.	D	E	F	G	H	I
KET-FS-56	5	19-28	57	38	3-28	11.5	76	210	70	155	32	196	88	25	206	19
KET-FS-109	10	31-41	92	54	3-28	18.0	108	280	104	216	50	152	114	38	273	31

Mechanical Flange Spreaders

Product Descriptions

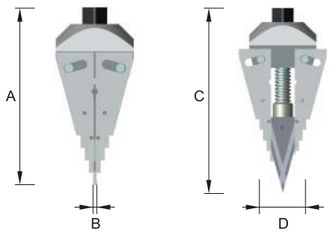
Mechanical wedge spreaders are recognized the safest flange separation tool on currently market, the design of the first step with interlocking, makes wedge spreaders' work safer and simpler.

Product Features

- Maximum spreading force is 6 ton.
- Minimum tip clearance required is only 6mm.
- each step spreading distance is 20mm.
- Maximum spreading distance is 60mm.
- Time-saving and high efficiency.
- Lightweight, easy to carry.
- Mechanical type automatic return design.
- Step distance is large to 15mm, which provides a large output from first step.
- The spreader close to flange when it is operated; unique design ensure to prevent over spread, manual return when it is closed.

Field Applications

- Pipe commissioning.
- Pipe shutdowns maintenance.
- Flange removal and replacement.
- Pipe installation.
- Pipeline pressure testing.
- Valve replacement.



▲ Mechanical flange separator size chart.

▲ Packing replacement of high pressure pipe flange in oil refinery.

▲ Seals replacement of oil pipe flange.

▲ Seals replacement of high pressure pipe flange in paper mill.

Technical Parameters

Model	Capacity (T)	Dimensions(mm) A	B	C	D	Weight (kg)	Remarks
KET-FSM-8T	8	275	6	290	61	6	1×mechanical flange spreader, 2×stepped blocks, 1×block, 1×ratchet spanner, 1×portable aluminum alloy tool box.
KET-FSM-16T	2×8	275	6	290	61	12	2×mechanical flange spreaders, 4×stepped blocks, 2×blocks, 2×ratchet spanners, 1×portable aluminum alloy tool box.

Model	Max. Seperating Force (T)	Tip Thickness (mm)	Max. Seperating Dimensions (mm)	Remarks
KET-FSM-14T	14	6	61	1×mechanical flange spreader, 2×stepped blocks, 1×block, 1×ratchet spanner, 1×portable aluminum alloy tool box.

Zero - gap Mechanical Flange Spreaders

▲ Pipe flange adjustment in chemical plant.

Products Description

The spreaders adopt unique expanding socket design, suitable for little or no access gap to split flange.

Unique expanding socket technology, can provide monitoring and control of the spreading force; the separation of the flange can be little gap, and even is the best tool for blind and iron plate flange which have no access gap.

Products Applications

- Pipe commissioning.
- Pipe shutdowns maintenance.
- Flange removal and replacement.
- Pipe installation.
- Pipeline pressure testing.
- Valve replacement.

Technical Parameters

Model	Capacity (T)	Separating Distance (mm)	Bolt Size (mm)	Weight (kg)
KET-ZG4TM	3.7	82	16-20	13
KET-ZG6TM	6	85	24-27	16
KET-ZG11TM	11	95	30-36	19

Zero - gap Hydraulic Flange Spreaders

▲ Separation of the flange in chemical plant.

Product Descriptions

The spreaders apply to unique expanding socket design, can provide monitoring and control of the spreading force; the separation of the flange can be little gap, and even is the best tool of blind and iron plate flange which have no access gap.

Product Features

- Unique expanding socket technology.
- Time-saving, simple operation.
- Little or no access gap required.
- Secure bolt-hole locking mechanism.
- The spreader series covers ANSI / DIN / SPO / ASME / API and BS flanges.

Technical Parameters

Model	Working Pressure (MPa)	Capacity (T)	Separating Distance (mm)	Hose Length (mm)	Weight (kg)
KET-ZG13TE	70	13	115	2	40
KET-ZG15TE	70	15	100	2	45

Zero - gap In-line Hydraulic Flange Spreaders

▲ Pipeline flange separation in refinery.

Product Descriptions

The spreaders adopt unique expanding socket design, can provide monitoring and control of the spreading force; the separation of the flange can be little gap, and even is the best tool of blind and iron plate flange which have no access gap.

Technical Parameters

Model	Working Pressure (MPa)	Capacity (T)	Hose Length (mm)	Weight (kg)
KET-ZG18TE	70	13	2	45
KET-ZG25TE	70	25	2	50

Mechanical Flange Alignment Tools


KET-FA1TM


KET-FA4TM

Product Descriptions

The mechanical flange alignment tools apply to middle size and low pressure flanges' alignment, which provide the simplest solution. The alignment tools provide a simple, safe and modern solution to the traditional vertical displacement and rotational misalignment, which can also reduce the risk and save cost. The simplest solution for small size, low pressure flange is provided.
The flange alignment tools apply to ANSI.API,BS and DIN flanges.

Technical Parameters

Model	Capacity (T)	Min. Bolt Hole Diameter (mm)	Max. Alignment Distance (mm)	Weight (kg)	Remarks
KET-FA1TM	1	16	26	1.6	1×mechanical flange alignment tool, 1×torque spanner (including 22mm socket), A rugged portable toolbox.
KET-FA4TM	4	24	113	8.6	

Hydraulic Flange Alignment Tools

Product Descriptions

The hydraulic flange alignment tools apply to large, high pressure flange. The alignment tools provide a simple, safe and modern solution to the vertical displacement and rotational misalignment of a conventional flange.

Product Features

- Suit for vertical displacement and rotational misalignment of flanges.
- Special for high pressure, large pipeline flanges.
- Appropriate for all horizontal and vertical pipeline flanges, including ANSI, API, BS , SPO and DIN flanges.
- Suit for most pipeline structure.
- The capacity is 9T.
- Portable and lightweight design, suit for confine space.
- No need for chains, pulleys or rigs.
- Time-saving, reduce cost, can be used continuously, safe operation.
- Rust protection, lightweight, no environmental pollution.
- Precise operation, lightweight, easy to carry.


▲ Petroleum pipeline flange adjustment.

Technical Parameters

Model	Capacity (T)	Working Pressure (MPa)	Accessories	Weight (kg)	Remarks
KET-FA9TE	9	70	Ratchet belt	27	One hydraulic flange dislocation corrector, one 2-meter pipeline, one manual hydraulic pump (including pressure gauge and table), one portable tool box.

Hydraulic Vertical Lifting Wedge Spreader

▲ Lifting large objects.

Product Descriptions

The hydraulic vertical lifting wedge spreader is suitable for narrow space, used for lifting and adjustment of large devices, providing lifting force up to 36 Ton, designed for vertical lifting or lowering.

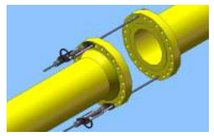
Product Features

- Requires very small access gap of only 9.5mm.
- Each lifting wedge includes a piece safety block.
- The lifting wedge generally works in pairs or several pieces and works more efficiently.
- Single-acting, spring return cylinder.
- Vertical lifting, large machinery installation, factory building maintenance, mechanical calibration, combination with the tackle is possible.
- 19mm lifting height of each step, single acting hydraulic cylinder, 18 ton lifting force, mechanical automatic return, interlocking first step, no environmental pollution.
- Each step can spread under full load.
- Suggest using two or more units at the same time, more efficient and safer.

Technical Parameters

Model	Capacity (T)	Inserting Clearance (mm)	Lifting Height at First Stage (mm)	Lifting Height at Second Stage (mm)	Max. lifting Distance (mm)	Weight (kg)
KET-VLW18TE	18	9.5	9.25-29.5	30.5-51.5	67.5	9.6

Hydraulic Flange Pulling Tool


▲ Steel high pressure pipe flange closed.


▲ Oil pipeline flange closed.

Product Descriptions

Hydraulic flange pulling tool is a simple and lightweight tool, which can pull flanges from a distance of 600mm down to 0mm with a force of 20T. Recommend using this tool in pairs.

Product Features

- Can be used for all vertical and horizontal flanges including ANSI, API, BS, DIN and SPO.
- Robust but lightweight.
- Quick and easy to use.
- Reduction in operator fatigue and pinch point.
- Controllable pulling for flange or any other heavy equipment.

Field Applications

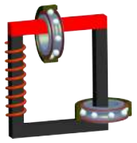
- Pipe commissioning.
- Pipe shutdowns maintenance.
- Flange removal and replacement.
- Pipe installation.
- Pipeline pressure testing.
- Valve replacement.

Technical Parameters

Model	Capacity (T)	Max. Pulling Distance (mm)	Min. Bolt Hole Diameter (mm)	Weight (kg)	Remarks
KET-FC10TE	10	600	22	40	2×flange pulling tools, 2×hoses, 1×hydraulic hand pump, 1×high strength plastic suitcase.

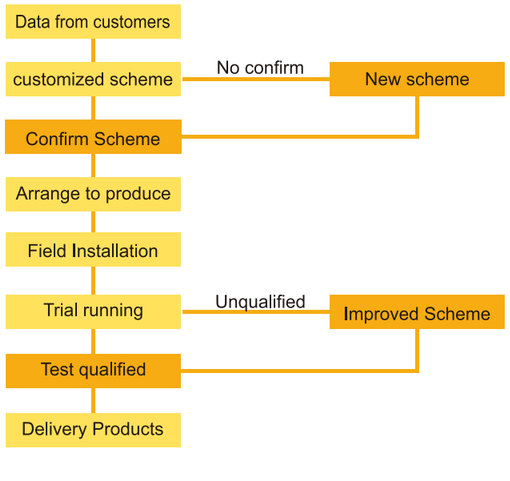
Brief Introduction of Bearing Induction Heater

Working principle of electromagnetic induction heater



The working principle of induction heater is similar to the transformer, the ration of voltage is inputted / outputted by the main coil (heater) and the secondary coil (to be heated work piece) of the same core (heating rod) is equal to the ration of coil turns, the principle of energy remain unchanged, the secondary coil (to be heated work piece) is formed by a few short circuit coil, so low voltage, large current. Large current through the secondary coil (to be heated work piece) generates mass heat energy, so as to achieve the heating of the work piece, while the heater and heating rod has been maintained at normal temperature state.

Custom Process



Technical Data Provided:

- Work-piece size.
- Work-piece material.
- Quality of work-piece.
- Photo and drawing of work-piece.
- Required heating temperature.
- Required heating time.
- Work with product line or not.
- Power.
- Need to move or not.
- Others requirement.

Plate Bearing Heaters

KET-RMD-12

KET-RMD-12P

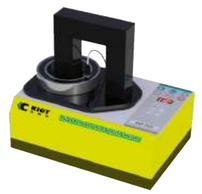
Product Features

- High performance plate bearing heater is a professional heating device, especially designed for pre-heating small bearings prior to mounting. Quick setting temperature, over temperature automatic protection, automatic heat preservation.
- Apply to heating design, manufacturing, installation, maintenance and other fields of heating tool.
- Integration of heating element and platform. Safe, reliable and convenient to use; allowing multiple work pieces to heat at the same time in a plate area.
- The Plate bearing heaters apply to heating conduction mode, the work piece away from the material, shape restrictions, safe and reliable, easy to use, can be a plurality of work-pieces to heat at same time, automatic control of heating process, with protective cover, and can protect the heating plate, improve the heating speed in the heating process.
- Heating plate integrated manufacturing (maximum temperature up to 350 degree), the service life is more than 10 times compare to others heating board(maximum temperature up to 200℃), with a higher heating temperature limitation, and the heating efficiency is higher.

Technical Parameters

Model	Voltage (V)	Frequency (HZ)	Heating Power (KW)	Heating Temperature (℃)	Control Accuracy (℃)	Temperature Fluctuation (℃)	Plate Size (mm)	Dimensions (mm)	Weight (kg)
KET-RMD-12	220	50	1.32	60-320(Customised according to special requestments)	±3	±4	390×190	400×220×145	6.5
KET-RMD-12P	110/220	50	1.32	30-350(Customised according to special requestments)	±3	±4	390×190	400×220×155	6.8

Bearing Induction Heaters



KET-RMD-22

KET-RMD-40

KET-RMD-100

KET-RMD-120
KET-RMD-150

Product Features

- Adopt electromagnetic induction heating mode, so that the work-piece is heated directly, heating more evenly, has constant temperature and timing two heating methods, with the characteristics of automatic heat preservation, manual/automatic demagnetization, over-heat protection and so on. Safe, convenient and quick operation.

KET-RMD-22 model

- Compact design, strong power, microcomputer control.
- Mainly used for bearing or circle metal work-piece weighing less than 12kg, equipped with four heating rods, total weight within 16kgs.

KET-RMD-40 model

- all size, intelligent control, strong power,microcomputer control;
- Intelligent adjustment of output power;
- Easy to heat 25kg bearing or other circle metal parts, equipped with 4 heating rods, the total weight is within 26kg.

KET-RMD-100 model

- Rotary heating rod, intelligent control, strong power, microcomputer control.
- In the operation process, only need to operate work-piece, because the heating rods do not need to be promoted manually, therefore avoids unnecessary operation, reduces possibility of work-pieces being polluted by dust, iron chips and so on.

KET-RMD-120 model

- Rotary heating rod, intelligent control, movable, microcomputer control.
- Generally used in the maintenance workshop and production field. It is easily to move and can be used to heat bearing within 350kg or other circle metal.

KET-RMD-150 model

- Rotary heating rod, intelligent control, movable, microcomputer control.
- Generally used in the maintenance workshop and production field. It is easily to move and can be used to heat bearing within 500kg or other circle metal.

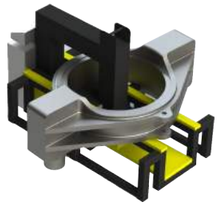
Technical Parameters

Model	Voltage (V)	Current (A)	Frequency (HZ)	Power (KW)	Dimensions (mm)	Weight (kg)	Working Range				
							Min. internal Diameter of Work-piece (mm)	Max. Diameter of Work-piece (mm)	Max. Width of Work-piece (mm)	Max. Weight of Work-piece (mm)	Max. Temperature (°)
KET-RMD-22	220	10	50/60	2.2	300×210×300	16.6	Hang: 15 Level: 60	220	Hang: 65 Level: 95	Bearing: 15 Others: 9	240
KET-RMD-40	220	18	50/60	4	480×270×340	27	Hang: 20 Level: 120	480	Hang: 130 Level: 175	Bearing: 50 Others: 35	240
KET-RMD-100	Two phase 380	25	50/60	10	540×330×500	85	Hang: 45 Level: 140	720	Hang: 195 Level: 215	Bearing: 150 Others: 100	240
KET-RMD-120	Two phase 380	30	50/60	12	920×450×930	180	Hang: 45 Level: 110	860	Hang: 295 Level: 305	Bearing: 350 Others: 240	240
KET-RMD-150	Two phase 380	38	50/60	15	1460×700×1100	275	Hang: 60 Level: 180	1020	Hang: 375 Level: 315	Bearing: 450 Others: 600	240

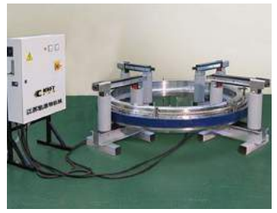
Bearing Induction Heater

KET–RMD–240

KET–RMD–400



KET–RMD–600



KET–RMD–800

Product Features

- Applying to electromagnetic induction heating mode, so that the work-piece is heated directly, heating more evenly.
- Has constant temperature and timing two heating methods, with automatic heat preservation, manual/automatic demagnetization characteristic and so on, safe, convenient and quick operation.
- Generally used in the maintenance workshop and production field.
- Be customized as per the requirement of customer.

KET-RMD-240 model

- Rotary heating rod, movable, microcomputer control.
- Easy to move, mainly used for heating the non-standard work piece which is quite width and large inner diameter.
- The heating work piece width up to 600mm.

KET-RMD-400 model

- Electric moving heating rod, turbine propulsion type, microcomputer control.
- Mainly used for the heating of the outer wheel of EMU and high-speed rail, bearing cover, wind power bearing seat and so on.
- The heating work piece width up to 500mm.

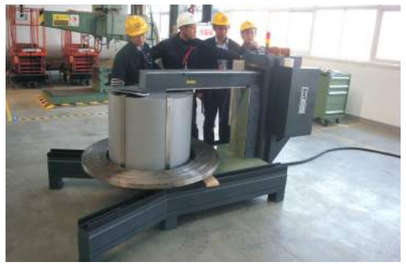
KET-RMD-600 model

- Mainly used for the heating bearing cover, wind power bearing seat and so on.
- The width of heating work piece is up to 400mm.

KET-RMD-800 model

- Two points temperature control, internal and external circles to be heated at same time.
- Mainly used for heating the PMSG main bearing (combined), pipe welding preheating.
- The diameter range of heating bearing is 1000-3000mm, heat and detect inner and outer circle temperature, evenly heated and expanded.

Field application



Technical Parameters

Model	Voltage (V)	Frequency (HZ)	Heating Power (KW)	Min. Internal Diameter (mm)	Max.Internal Diameter (mm)	Width of The Work-piece (mm)	Heating Rod Size (mm)
KET-RMD-240	380	50	24	145	1300	630	100×100×750
KET-RMD-400	Two phase 380		40	30	1500	500	150×150×800
KET-RMD-600	Two phase 380		60	200	1500	400	① 200×200×825 ② 140×140×825
KET-RMD-800	Three phase 380		80	1000	3000	400	/

Electromagnetic Induction Heater

KET–RMD–120P

KET–RMD–300P

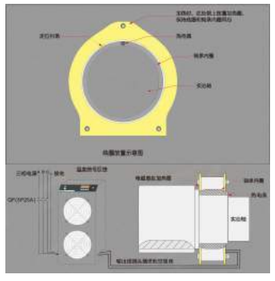
KET–RMD–500P

Product Features

- Using frequency conversion technology, faster heating rate, higher heating efficiency, power factor is 0.9, the conversion efficiency up to 95%.
- Change the heating coil is available; installation and removal just need one heater.

KET-RMD-120P model

- Small size, net weight is light(9kg). Suitable for fan site maintenance, easy to carry, large output power.



The device heating under the collar can be heated to 120 in 2 minutes, removal or installation requirements.

Model	Outside Diameter (mm)	Inside Diameter (mm)	Width (mm)
Shaft sleeve	242	220	192
Shaft sleeve	262	236	192
Shaft sleeve	222	200	270

Note: if use 30 KVA power frequency heater, heating time is about 5 minutes.

KET-RMD-300P model

- hree control ways: timing, constant temperature, constant temperature and timing at same time.
- Support 1-4 temperature monitoring and control, and can set the temperature difference between the maximum temperature point and the minimum temperature point, so that ensure the rapid heating and heated evenly of bearing.

The device heating under the collar can be heated to 120 in 5 minutes, removal or installation requirements.

Model	Outside Diameter (mm)	Inside Diameter (mm)	Width (mm)
Shaft sleeve	390	280	275
Shaft sleeve	330	230	206
Shaft sleeve	322	210	220

Note: if use 60 KVA power frequency heater, heating time of about 8 minutes.

Rotating frame heating of wind power generator:

Apply to frequency induction heater just need ten minutes to finish the heating, heating speed is rapid, high efficiency and energy conservation.

Electromagnetic Induction Heater

KET-RMD-500P model

- Three control ways: timing, constant temperature, constant temperature and timing at same time.
- Support 1-4 temperature monitoring and control, and can set the temperature difference between the maximum temperature point and the minimum temperature point, so that ensure the rapid heating and heated evenly of bearing.

The device heating under the collar can be heated to 120℃ in seven minutes, removal or installation requirements.

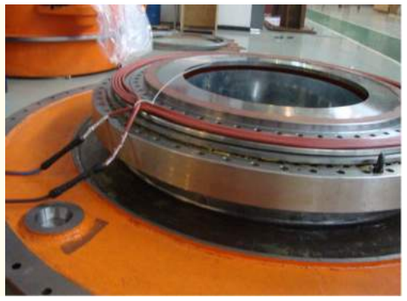
Name	Outside Diameter (mm)	Inside Diameter (mm)	Width (mm)
Axle sleeve	702	620	302.5

Note: if use 100 kva power frequency heater, heating time is about 9 minutes.

Main spindle on high power direct drive fan integrates roller, in general, need to center before heating and installation, that means keep the axis lines of two inner rings in one line, after centering need to tighten inner and outer rings of bearing, at this time, what differs from other general bearing is no clearance between the outer ring and the bearing, therefore heating bearing inner ring only is not enough to avoid stress damage. Heating inner ring and outer ring of bearing at the same time, to achieve being heated evenly, then damage can be avoid.

The device also supports removal function, the removal steps as follows:

- Heat upper inner ring of bearing , remove inner ring after heating is completed.
- Keep the outer ring, roller and lower inner ring integrated, continue to heat the lower inner ring.
- After lower inner ring heating is completed, remove the under inner ring by hydraulic cylinder or others assistant tools.



Technical Parameters

Model	Voltage (V)	Frequency (HZ)	Power (KW)	Heating Temperature (℃)	Control Cabinet Dimension (mm)	Standard coil size		
						Inside Diameter (mm)	Width (mm)	Remarks
KET-RMD-120P	Three phase 380	50	12	0-240	245×240×450	350	300	Can be customized according to customer requirement
KET-RMD-300P	Three phase 380	50	30/40 (Need reduce the rated power when altitude exceeds 1000m)	0-240	450×350×650	300	200	Can be customized according to customer requirement
KET-RMD-500P	Three phase 380	50	50	0-240	600×450×1200	800	800	Can be customized according to customer requirement

Stator Housing Heaters

Product Descriptions

The stator housing heater is specially designed for heating stator housing. Place the stator housing on the customized tray or bracket, press the start button, the work-piece sinks into the coil hole and get heated up. Stator housing of aluminum, cast iron or other metal material, weighing 30kg, can be heated 280℃ in two minutes, can be used continuously, very suitable for production line.

Use Case

An air-conditioning motor company in Zhuhai city which used the heaterto heat more than 20 kinds of different types of stator housing. Fast and controllable heating process, so that pressure-free installation can be guaranteed, greatly improving the installation efficiency and quality.

Technical Parameters

Model	Voltage (V)	Frequency (HZ)	Power (KW)	Heating Time (min)	Inner Diameter of Motor Housing (mm)
KET-RMD-8430	Two phase 380	50	30	2	150

Circulating Coil Heaters

Product Descriptions

Circulating coil heaters are designed for large work-pieces with small hole. The heaters are placed inside the work-piece holes, fast heating in several minutes and pressure-free installation can be achieved, suitable for large size work-piece which hole range from 50mm to 1500mm. Compared with the standard heater, circulating coil heater works without U core, without lifting large parts during use, as long as the heater be placed in the work piece hole. Therefore, this heater is suitable for heating large size housing(include more than one hole is ok) and gear with small inner diameter.

Product Features

- Automatic demagnetizing.
- Three control ways: timing, constant temperature, constant temperature and timing at same time.
- Multi-point temperature control, no external dissipating heat is required.
- Continuously working, suitable for large device's housing with small hole.

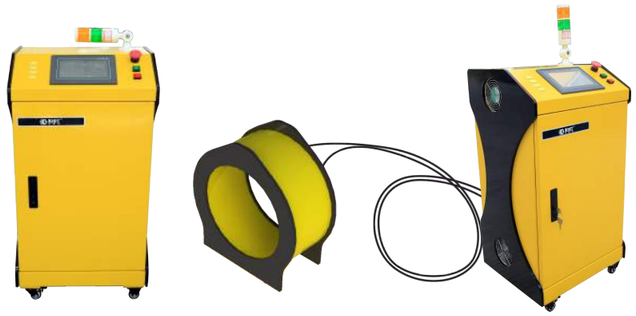
Use Case

Install 3 axles on a fan rotary frame in a gear company in Nanjing, in order to ensure the installation without pressure, rotary frame must be heated to 100℃. Simultaneously ensure the two bearings and rotary frame in planet gear to be heated evenly. This company chooses circulating coil heater and we specially designed 3 circulating coils according to work-piece condition. This work-piece can be heated to 100℃ in 15 minutes now.

Technical Parameters

Model	Voltage (V)	Frequency (HZ)	Power (KW)	Heating Time (min)	Quantity of Bearings	Inner Diameter of Motor Housing (mm)
KET-RMD-300P	Three phase 380	50	30	8	4	220

Bearing Dismounting Induction Heaters



▲ Bearing heating and disassembly for roll collar in steel plant.

▲ Bearing heating and disassembly for roll collar in steel plant.

▲ Bearing heating and disassembly for large gear case.

Product Descriptions

Bearing Dismounting Induction Heaters is a new generation of energy-saving induction heater, aims at dismounting bearing from shaft in railway locomotives, rolling mills, industrial and mining enterprise.

The equipment dismounts work-piece, such as bearing inner ring, stop ring, quake proof ring and so on, by heating. Ring work-piece expanded by heating, a gap is created between the inside of the ring work-piece and the spindle, then dismounting is the result. Meanwhile, bearing and spindle can be used next time without any damage. This is the general advanced heating dismounting way in the world.

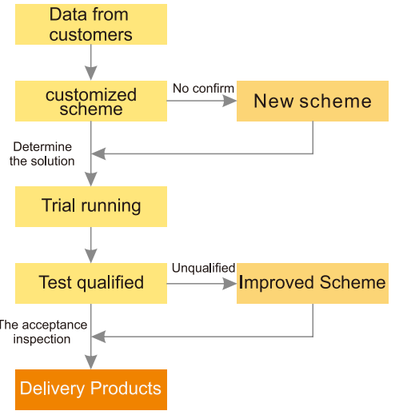
The device is composed of two parts: the electric control cabinet and the induction heating main engine. The maximum heating temperature is 300℃. It has the advantages of fast heating, simple operation, energy saving, time-saving and so on. It's trusted deeply by the railway road section, rolling enterprise.

Steel Enterprise dismounts a inner ring in 10 minutes, which diameter is 900mm and Length is 800mm, without damaging bearing and inner ring! After maintenance, inner ring dismounting equipment series can be used to mount inner ring to bearing, which greatly reduces maintenance period, improving maintenance quality and efficiency.

Product Features

- Bearing Dismounting Induction Heaters is composed of main control box, removal loop and other parts.
- Can remove bearing inner ring, stop ring, seal ring , gear, coupling,etc..
- Applying the principle of electromagnetic induction, the induction current is generated in the bearing inner ring, to get the goal of expansion by heat , and the clearance is generated at the matching point, to achieve the purpose of easy removing.
- Rapid, evenly, clear, no pollution and high quality heating, ensure the bearing is not damaged.
- Widely used in rolling mill, railway locomotive depot, port, dock, and other industrial and mining enterprises.

Custom Process



Technical Parameters

Name	Voltage (V)	Power (KW)	Control Cabinet Dimension (mm)	Standard Coil Size (mm)
Control cabinet	Three phase 380V (320~440V) /50Hz	30/40KW (Need reduce the rated power when altitude exceeds 1000m)	450×350×650	Coil inner diameter: 300 Width: 200

Bearing Exclusive Installation Tools

Light installation tools

Heavy installation tools

▲ Field application for bearing cold working tools.

Product Descriptions

Bearing Exclusive Installation Tools apply to the mounting and dismounting of ball bearings, the impact ring and the impact sleeve with precision fit, guarantee mounting bearings without damage. Adopting special treatment to prevent the bearing tilt, the impact force must be positioned in the bearing inner ring. When the bearing is installed on the bearing seat, the external force must be placed in the outer ring of the bearing. The mounting tools includes heavy type and light type. Heavy type is made from steel, light type adopts anti impact plastic, suitable for the aperture of 10-55mm bearing mounting, more than 300 kinds specifications can be mounting with the tool.

- Bearing dismounting tool series integrate a variety of guide bushing in different specifications, meeting the precision of various occasions.
- With 4 kinds of positioning blocks in different specifications in the set, supporting the use of the guide sleeve, ensures dismounting keep in even balance.
- Equipped with center rod with a thrust bearing and force nut, without additional auxiliary tools, easily dismount work-piece with hole.
- Suitable for dismounting all kinds of work-piece, such as bearings, gears, shaft sleeve, seals, etc.
- The tool can be used with the hydraulic press machine.

Product Features

- Mounting bearings, shaft sleeve, seals, pulley in cam safely, accurately, quickly, without hurting shaft, bearing seat or seal, and extending the service life of the bearing.
- The tool can prevent ball or roller from being transferred outside to protect bearing and bearing groove.
- Adopt plastic punch against shock to prevent friction between metal and protect shaft from damage.
- When temperature of work-piece is higher than 80℃, using the tool to mount bearings is forbidden.

Technical Parameters

Model	Applicable Shaft Diameter (mm)	Location Blocks (piece)	Center Screw	Guide Sleeve (Inside Diameter/Outside Diameter) (mm)
KET-ZGJ-72	34-72	4	M10, M12, M14, M16	34/44, 36/46, 38/48……72/82, total 20 pieces
KET-ZGJ-112	72-112	4	M10, M12, M14, M16, M20×2PCS	74/84, 76/86, /78/88……112/122, total 20 pieces

Standard Hydraulic Puller Sets

KET-BHP-1752
Hydraulic Puller Standard Sets

KET-BHP-152
Grip puller sets

KET-BHP-162
Cross bearing puller sets

Product Features

- Hydraulic puller sets are widely used in dismounting of bearings, gears, couplings, pulley, fringe wheels in metallurgy, electric power, petrochemical, paper mill, cement plant and large equipment maintenance field.
- Supplied with a full hydraulic set including pump, hose, cylinder, gauge and gauge adaptor.
- Standard hydraulic puller sets include grip puller sets, cross bearing puller sets, bearing cup puller sets and accessories.
- High quality, forged steel components provide superior reliability and service.
- Sets include speed crank and adjusting screw for fast contact to work before hydraulics are applied.

Technical Parameters

Model	Capacity	Included Hydraulic Parts			Included Pullers				Weight
	(T)	Hand Pump	Cylinder	Saddle	Grip Puller	Crossing Bearing Puller	Bearing Cup Puller	Bearing Puller	(kg)
KET-BHP-1752	8	P-142	RCH-121	-	BHP-1762	BHP-1772	BHP-180	BHP-181	37
KET-BHP-2751G	20	P-392	RCH-202	HP-2015	BHP-252	BHP-262	BHP-280	BHP-281	90
KET-BHP-3751G	30	P-392	RCH-302	HP-3015	BHP-352	BHP-362	BHP-380	BHP-381	172
KET-BHP-5751G	50	P-80	RCH-603	HP-5016	BHP-552	BHP-562	BHP-580	BHP-581	298

Model	Capacity	Included Hydraulic Parts			Grip Puller						
	(T)	Hand Pump	Cylinder	Saddle	Grip Puller	Max. Spread(mm)		Max. Spread(mm)		Jaw (mm)	Adjusting Screw(mm)	
						2 jaws	3 jaws	2 jaws	3 jaws	Width	Thread	Length
KET-BHP-152	8	P-142	RCH-121	-	BHP-1762	249	249	252	252	23	3/4"-16UNF	400
KET-BHP-251G	20	P-392	RCH-202	HP-2015	BHP-252	400	499	300	300	27	1"-8UNC	675
KET-BHP-351G	30	P-392	RCH-302	HP-3015	BHP-352	593	800	387	387	38	1 1/4"-7UNC	795
KET-BHP-551G	50	P-80	RCH-603	HP-5016	BHP-552	899	1100	700	700	39	1 5/8"-5.5UNC	975

Model	Capacity	Included Hydraulic Parts			Cross Bearing Puller				
	(T)	Hand Pump	Cylinder	Saddle	Grip Puller	Spread (mm)		Max. Reach (mm)	Adjusting Screw (mm)	
						Maximum	Minimum		Thread	Length
KET-BHP-162	8	P-142	RCH-121	-	BHP-1772	266	106	462	3/4"-16UNF	400
KET-BHP-261G	20	P-392	RCH-202	HP-2015	BHP-262	351	139	571	1"-8UNC	675
KET-BHP-361G	30	P-392	RCH-302	HP-3015	BHP-362	454	179	711	1 1/4"-7UNC	795
KET-BHP-561G	50	P-80	RCH-603	HP-5016	BHP-562	570	220	863	1 5/8"-5.5UNC	975

Model	Cross Bearing Puller								Weight
	Model Number	Leg (mm)				Upper Leg Ends Thread	Lower Leg Ends Thread	Bearing Cup Puller	Bearing Puller	(kg)
		Length	Length	Length	Length					
KET-BHP-162	BHP-1772	105	354	-	-	3/4"-16×25	5/8"-18×25	BHP-180	BHP-181	26
KET-BHP-261G	BHP-262	239	419	571	114	3/4"-16×25	5/8"-18×25	BHP-280	BHP-282	62
KET-BHP-361G	BHP-362	203	457	711	-	1-14×35	1-14×27	BHP-380	BHP-382	121
KET-BHP-561G	BHP-562	609	863	-	-	1 1/4"-12×38	1 1/4"-12×38	BHP-580	BHP-582	185

Mechanical Skid-resistant Gear Puller

Product Features

- Special "Safety Cage" system, can firmly fixed the work-piece with the good skid- resistant and safety.
- Self - centering, anti - eccentric load, ensures that the screw rod is always in the center of force and extends the service life.
- Through the T type handle and the safety cage to control the wheel quickly, it's more convenient to operate.
- Slim tapered jaws make it easier to work in narrow space.
- Trapezoidal screw thread rod to make it more labor saving in large torque.

▲ Workpiece disassembly.

▲ Bearing disassembly for mining machinery maintence.

Technical Parameters

Model	Quantity of Jaws	Capacity (T)	Spread(min.-max.) (mm)	Max.Reach (mm)	Center Bolt Diameter (mm)	Weight (kg)
KET-EP-104	3	5	12-127	101	14	1.8
KET-EP-106	3	10	12-178	152	16	3.6
KET-EP-108	3	17	19-304	203	20	6.4
KET-EP-110	3	20	25-381	245	20	7.3
KET-EP-113	3	30	63-457	304	29	20
KET-EP-116	3	40	76-635	355	31	30.8
KET-EP-204	2	2	12-127	101	14	1.4
KET-EP-206	2	6	12-178	152	16	3.2
KET-EP-208	2	12	19-304	203	20	5.4
KET-EP-210	2	14	25-381	245	20	5.9
KET-EP-213	2	25	63-457	304	29	17.2
KET-EP-216	2	35	76-635	355	31	25.8

Split-type Skid-resistant Hydraulic Gear Puller

Product Features

- Unique "Safety Cage" system, can firmly fixed the work-piece with the good skid-resistance and safety.
- Self - centering, anti - eccentric load, ensures that the screw rod is always in the center of force and extends the service life.
- Through the T type handle and the safety cage to control the wheel quickly, it's more convenient to operate.
- Slim tapered jaws make it easier to work in narrow space.
- NPT 3/8" quick coupling, can work with kinds of 700bar/10000psi power pack together.
- Slim tapered jaws make it easier to work in narrow space.

▲ Tyre bearing disassembly for large mining machinery.

▲ Gearing disassembly for large equipment maintence.

Technical Parameters

Model	Quantity of Jaws	Capacity (T)	Spread (min.-max.) (mm)	Max.Reach (mm)	Cylinder Stroke (mm)	Oil Capacity (cm^3)	Weight (kg)
KET-EPH-108	3	10	19-304	203	156	226	11
KET-EPH-110	3	15	25-381	245	254	516	23
KET-EPH-113	3	25	63-457	304	362	1202	48
KET-EPH-116	3	50	76-635	355	337	2399	91
KET-EPH-208	2	10	19-304	203	156	226	10
KET-EPH-210	2	15	25-381	245	254	516	22
KET-EPH-213	2	25	63-457	304	362	1202	44
KET-EPH-216	2	50	76-635	355	337	2399	87

Automatic Lifting Type Electric Hydraulic Gear Puller

Product Features

- Equipped with hydraulic automatic lifting system, can locate the puller accurately.
- Equipped with the single pump synchronous valve, just needs single person to operate. The jaws can be moved up and down to locate.
- Higher the pulling force, higher the tightening force of claws, no need extra chain to avoid the jaws skidding or the work-piece popped up.
- Move conveniently with the wheels.
- Widely used in dismantling large bearing, gears, couplings and other large work-pieces.

Technical Parameters

Model	Working Pressure (MPa)	Cylinder Capacity (T)	Cylinder Stroke (mm)	Spread Range (mm)	Reach (mm)	Centering Range (mm)	Motor Power (KW)	Voltage (V)
KET-DBL-50T	70	50	160	150-500	300	500-900	0.75	380
KET-DBL-100T	70	100	160	240-600	300	500-900	0.75	380
KET-DBL-200T	70	200	160	310-700	300	500-900	2.2	380
KET-DBL-300T	70	300	200	410-800	310	530-950	2.2	380
KET-DBL-400T	70	400	200	450-920	480	540-950	2.2	380
KET-DBL-500T	70	500	200	560-950	580	570-950	2.2	380

Pedal-type Electric Hydraulic Gear Puller

Product Features

- Equipped with pedal-lifting system, can locate the puller accurately.
- Single person to operate. Jaws can be moved up and down to make location.
- Higher the pulling force, higher the tightening force of claws, no need extra chain to avoid the jaws skidding or the work-piece popped up.
- Move conveniently with the wheels.
- Widely used in dismantling large bearing, gears, couplings and other large work-pieces.

Technical Parameters

Model	Working Pressure (MPa)	Capacity (T)	Working Stroke (mm)	Spread Range (mm)	Weight (kg)
KET-JBL-50T	70	50	160	500	225
KET-JBL-100T	70	100	160	600	326
KET-JBL-200T	70	200	160	600	500
KET-JBL-300T	70	320	200	800	700
KET-JBL-500T	70	500	200	900	980

Automatic Vehicle-mounted Hydraulic Gear Puller

50T Automatic Vehicle-mounted Hydraulic Gear Puller

100T Automatic Vehicle-mounted Hydraulic Gear Puller

Strengthened jaw for 100T、200T puller

200T Automatic Vehicle-mounted Hydraulic Gear Puller

Product Features

- Automatic vehicle-mounted hydraulic gear puller adopts double acting hydraulic cylinder parts, with high efficiency in dismantling the work-piece.
- Solenoid directional valve makes the operation more convenient.
- Mainly used to dismantle the large shaft type or hole type work work-piece.
- Move conveniently with the wheels, which also can be locked .
- High strength alloy steel jaws are anti-skid, 50T type with 3 jaws, 100T and 200T type with 2 jaws, equipped with chains to improve safety.
- Easy for locating through the screw rod to adjust the height, improving working efficiency.
- Solenoid directional valve was used to control opening and closing of the jaws. Just need operating one button box to finish the pulling works.(the lifting of the cylinder, the height adjustment of the puller, the opening and closing of the jaws.)
- Antiskid grabbers design to avoid the workpieces slide away.
- Two locking wheels on the vehicle to fix the the puller at job site.

▲ Gear disassembly for equipment maintence in thermal power plant.

▲ Large single pulley disassembly in thermal power plant.

▲ Bearing disassembly for large electrical machinery maintence.

How to choose the appropriate hydraulic puller

- Measure the out diameter of the work-piece, the thickness of the work-piece, the distance of the work-piece in the shaft.
- In case the working space is enough, it's much better to choose the 3 jaws pullers to get more reliable clamping force and more uniform pulling force.
- Choose the puller with the appropriate specification (if the capacity of the puller already reached the max and the work-piece wasn't dismantled, please choose the puller with higher capacity).
- Generally, the calculation of the pulling force as follows, when the inner diameter of the work-piece was 1inch (25,4mm), the capacity of the puller should be 7-10Ton. For example, if inner diameter of the work-piece was 2inch(50.8mm), the capacity should be 14-20T.
- If you can not make sure the Model No., please contact with KIET engineers.

Technical Parameters

Model	Working Pressure (MPa)	Quantity of Jaws	Cylinder Capacity (T)	Working Stroke (mm)	Spread (min.-max.) (mm)	Reach (min.-max.) (mm)	Centering Range (mm)	Motor Power (KW)	Voltage (V)
KET-PH-50T	70	3	50	300	100-1250	120-300	545-1100	0.75	380
KET-PH-100T	70	2	100	250	380-1220	860-1060	310-915	2.2	380
KET-PH-200T	70	2	200	330	203-1334	1100-1219	800-2134	2.2	380

Vehicle-mounted Hydraulic Cam Dismounting Puller

Product Descriptions

Vehicle-mounted hydraulic cam dismounting puller is widely used to dismantle the cam in the coal mill and steam turbine, the coupling , gear, bearing in the induced draft fan and motors. Equipped with special double speed electric hydraulic pump, very safe and reliable.

Product Features

- High strength alloy steel jaws with high pulling force.
- Vehicle-mounted type, move conveniently.

Technical Parameters

Model	Working Pressure (MPa)	Cylinder Capacity (T)	Working Stroke (mm)	Spread Range (mm)	Motor Power (KW)	Voltage (V)
KET-DTC-50T	70	50	250	100-380	0.75	380
KET-DTC-100T	70	100	350	170-420	0.75	380
KET-DTC-150T	70	150	400	210-450	0.75	380
KET-DTC-200T	70	200	500	450-650	0.75	380

Hydraulic Coupler Puller

▲ Simple and convenient fixture.

▲ Easy operation.

▲ Quick disassembly.

▲ Successful separation.

Product Descriptions

Hydraulic coupler puller focuses on dismantling the hydraulic couplings. With the feature of saving time and strength, easy to operate, no injury to the equipment. Widely used in steel plant, metallurgy, electric power, cement plant, coal mine etc.

Product Features

- Easy to install, the best design in structure. Aluminium alloy plunger, light weight.
- Easy to operate, only need to operate the 700bar hand pump to remove the coupler from shaft safely.
- Good performance, no injury to the equipment after finished the dismantling.
- Can be used for couplers with several different sizes, no matter coupler is domestic or imported, big size or small size, just need to notice the screw specification of the coupler , the special connector can be customized to match with the puller.

Technical Parameters

Model	Cylinder Capacity (T)	Working Pressure (MPa)	Oil Capacity (cm^3)	Working Stroke (mm)	Cylinder Length (mm)	Cylinder Weight (kg)	Matched module specification (M)
KET-LTC-20	20	70	450	75	304	10	27、30、32、36、42、48
KET-LTC-42	42	70	530	90	373	18	42、48、56、60、64

Lightweight Hydraulic Hand Pump

Product Descriptions

Light weight hand pump is a kind of small high pressure hydraulic pump that can transfer the mechanical power to the hydraulic power, matched with the hydraulic cylinder for lifting the heavy equipment, and also can be matched with the other hydraulic tools for bending, cutting, assembling, dismantling etc.

Matched the use of hydraulic cylinder.

Matched the use of hydraulic puller.

Matched the use of flange spreader.

Matched the use of workshop press.

Product Features

- High pressure, manual type, light weight, portable, easy to operate.
- Two speed operation, automatic switching, high performance, large oil tank.
- Built-in safety valve to avoid damage caused by high pressure.
- Optional directional valve to make it more convenient to operate the single acting cylinders.

Technical Parameters

Model	Working Pressure (MPa)		Oil Displacement Per Stroke (ml)		Outlet Size	Oil Tank Capacity (ml)	Dimensions (mm)
	1st stage	2nd stage	1st stage	2nd stage			
KET-P-142	1.3	70	32	1.6	NPT1/4"	350	310×137×127
KET-P-392	1.3	70	32	1.6	NPT3/8"	901	533×157×127

Steel Hydraulic Hand Pump

KET-P-80

Matched the use with single acting heavy duty hydraulic cylinder.

KET-P-464

Matched the use with double acting heavy duty hydraulic cylinder.

Product Features

- Usually equipped with the high tonnage cylinders.
- Compact, all steel design.
- Heavy duty and durable all-metal structure.
- Large flow output at per stroke.
- Double speed, effortless-handle to reduce labor intensity.
- Integrated control valves with high performance.
- Large oil capacity to power a wide range of cylinders and tools.
- Chrome plated plunger and wiper system for durable, long lasting performance.

Technical Parameters

Model	Working Pressure (MPa)		Oil Displacement Per Stroke(ml)		Outlet Size	Oil Tank Capacity (L)	Cylinder Type
	1st stage	2nd stage	1st stage	2nd stage			
KET-P-80	2.5	70	16.22	2.46	NPT3/8	2.2	Single Acting
KET-P-84	2.5	70	16.22	2.46	NPT3/8	2.2	Double acting
KET-P-462	1.4	70	126	4.7	NPT3/8	7.4	Single Acting
KET-P-464	1.4	70	126	4.7	NPT3/8	7.4	Double acting

Ultra high Pressure Hydraulic Hand Pump

Product Features

- Maximum working pressure up to 300Mpa(43500Psi);
- Aerospace grade aluminium titanium alloy material, light weight, high strength and portable.
- Two stage design, high flow, high pressure, internal pressure relief valve for overload protection.
- Special oil tank cover design to make the oil tank has the good sealing property or air permeability, that can make air pressure keep balance inside and outside of the oil tank.
- Can be used in a vertical state when the pump head face down.
- Double plungers design, the high flow in the low pressure, the small flow in the high pressure.
- Lower handle effort to minimize operator fatigue.
- Matched with ultra high pressure hydraulic cylinder, bolt tensioners, hydraulic nuts, supper high pressure nut splitters.

Technical Parameters

Model	Working Pressure (MPa)		Plunger Displacement (ml)		Outlet Size	Pressure Gauge Outlet	Oil Capacity (L)	Dimensions (mm)	Weight (kg)
	1st stage	2nd stage	1st stage	2nd stage					
KET-P-1000	2	100	32	1.6	G1/4"	G1/2"	2.2	620×120×160	9
KET-P-1600	2	160	32	1.6	G1/4"	G1/2"	2.2	620×120×160	9
KET-P-2000	2	200	32	0.9	G1/4"	G1/2"	2.2	620×120×160	11
KET-P-2500	2	250	32	0.9	G1/4"	G1/2"	2.2	620×120×160	11
KET-P-3000	2	300	32	0.9	G1/4"	G1/2"	2.2	620×120×160	11

Hydraulic Foot Pump

Steel hydraulic foot pump

Aluminum hydraulic foot pump

Product Features

- lightweight hydraulic foot pump robust, durable and compact.
- Steel pump frame for maximum stability, steel pumping handle, aluminium reservoir.
- Controllable oil-return device in favor of spring return or gravity oil return cylinder,controlling the return of load and quick return without load.
- Foot pedal lock and lightweight construction for easy carrying.
- Large foot-pad release valve for controlling load descent.
- Internal pressure relief valve for overload protection.

Technical Parameters

Model	Working Pressure (MPa)		Oil Displacement Per Stroke (cm^3)		Dimensions (mm)	Weight (kg)	Remarks
	1st stage	2nd stage	1st stage	2nd stage			
KET-P-392FP	1.5	70	11.26	2.47	600×193×433	7	Steel
KET-P-400FP	2.6	70	12	2	720×180×200	8	Aluminum

Electric Hydraulic Pump

KET-SSB-55
Portable electric hydraulic pump

KET-DSB-75
Single acting electric hydraulic pump

KET-SDB-75
Solenoid valve electric hydraulic pump

KET-SSB-75
Manual valve electric hydraulic pump

KET-SSB-220
Double acting electric hydraulic pump

Matched the use with double acting heavy duty hydraulic cylinder.

Product Descriptions

Electric hydraulic pumps are pray coating, anti-corrosion, pollution-resistant, durable. Lightweight and compact design make it easy to be moved. Double speed pump design, with the high flow in low pressure. The actuator can be fast moved on no-load status.Internal high and low pressure automatic reversing valve and external adjustable pressure valve to make it easy to calibrate the working pressure and avoid the over load. Motor starter has the function of preventing overload, overheat and leakage. The pump can be matched with both double acting and single acting cylinders. Choosing the solenoid valve electric hydraulic pump, remote operation can be realized.

Technical Parameters

Model	Working Pressure (MPa)	Pump Type	Valve Type	Oil Tank Capacity (L)	Motor Power (KW)	Flow (L/min)	Voltage (V)	Current Frequency (HZ)	Dimensions (mm)
KET-SSB-55	70	double acting	manual valve	10	0.55	0.4	220	50	430×285×430
KET-SDB-55	70	double acting	solenoid valve	10	0.55	0.4	220	50	430×340×430
KET-DSB-75	70	single acting	manual valve	16	0.75	1	380	50	440×290×580
KET-SSB-75	70	double acting	manual valve	16	0.75	1	380	50	440×290×580
KET-SDB-75	70	double acting	solenoid valve	16	0.75	1	380	50	500×290×580
KET-DSB-220	70	single acting	manual valve	32	2.2	2	380	50	500×350×775
KET-SSB-220	70	double acting	manual valve	32	2.2	2	380	50	500×350×775
KET-SDB-220	70	double acting	solenoid valve	32	2.2	2	380	50	500×350×775
KET-SSB-550	70	double acting	manual valve	70	5.5	4.5	380	50	690×480×950
KET-SDB-550	70	double acting	solenoid valve	70	5.5	4.5	380	50	690×480×950
KET-SSB-750	70	double acting	manual valve	100	7.5	6	380	50	800×520×1050
KET-SDB-750	70	double acting	solenoid valve	100	7.5	6	380	50	800×520×1050

Ultra High Pressure Electric Hydraulic Pump




Matching with the use of hydraulic bolt tensioner.

Matching with the use of hydraulic nut.

Product Descriptions

Ultra high pressure electric hydraulic pump is widely used in many industrial application field and also can be matched with lots of super high pressure hydraulic tools to achieve pulling, pushing, bending, expansion, intensify, extrusion etc.

Product Features

- Double stage design, gear pump for the first stage, booster pump for the second stage, that can shorten the working period and improve working efficiency.
- Powerful induction motor can be started under full load.
- Can be equipped with lots of super high pressure hydraulic tools.
- Motor voltage: 220V or 380V.
- Two built-in relief valves, one for overload protection set by factory, another for field adjustment the pressure.

Technical Parameters

Model	Working Pressure (MPa)	Flow (L/min)	Voltage (V)	Oil Tank Capacity (L)	Weight (kg)
KET-DCB-150	150	1	380	25	50
KET-DCB-200	200	0.8	380	30	60
KET-DCB-250	250	0.4	380	30	60
KET-DCB-300	300	0.2	380	30	60

Special Electric Hydraulic Pump for Rivet Gun

Product Descriptions

- Working pressure: 70MPa.
- Flow: 2L/min.
- Oil tank capacity: 20L.
- Motor power: 3 KW.
- Feature: PLC control, control work by a key.

Product Features

- PLC control, one button control mounting rivet; pressure gauges provide signal feedback.
- Special design protects pump from contamination and makes sure normal operation in 24 hours.
- Flow can be customized according to the customer requirement.

Technical Parameters

Model	Working Pressure (MPa)	Flow (L/min)	Rivet Gun Type	Control Mode	Voltage (V)	Motor Power (KW)	Oil Tank Capacity (L)
KET-MQB-70-2	70	2	double acting	PLC	380	3	20

Portable Ultra High Pressure Pneumatic Pump

Product Descriptions

Power source of this pump is compressed air to achieve the linear output of the super high pressure. Easy, safe and reliable in operation. Can be matched with many super high pressure hydraulic tools, like bolt tensioners, hydraulic nuts, supper high pressure nut splitters etc.

Driving air pressure: 6-8 Bar, air control system includes filter, hydraulic control valve, flow control valve, stainless steel pressure gauge. The diameter of the gauge is 100mm and is silicone oil filled for quake proof purpose.

Technical Parameters

Model	Working Pressure (MPa)	Flow (L/min)	Oil Tank Capacity (L)	Air Pressure (bar)	Outlet Size	Dimensions (mm)
KET-QDB-150	150	0.4	4.5	8	NPT1/2	600×460×500
KET-QDB-200	200	0.2	4.5	8	NPT1/2	600×460×500
KET-QDB-250	250	0.1	4.5	6.5	NPT1/2	600×460×500

Pneumatic Hydraulic Pump

Product Descriptions

Pneumatic hydraulic pumps are pray coating, anti-corrosion, pollution-resistant, durable. Lightweight and compact design make it easy to be moved. External adjustable pressure valve to make it easy to calibrate the working pressure and avoid the over load. Internal oil gas separator can extend service life of the pump. Durable aluminum manual valve, suitable for single acting and double acting hydraulic cylinders.

Technical Parameters

Model	Working Pressure (MPa)	Flow(L/min)		Cylinder Type	Valve Type	Air Pressure (MPa)	Air Flow (m^3/min)	Motor Power (kW)	Oil Tank Capacity (L)
		10MPa	70MPa						
KET-DQB-S70A	70	–	0.9	double acting	Manual valve	0.6	2.4	2.1	20
KET-DQB-S70B	70	6.9	0.9	double acting	Manual valve	0.6	2.4	2.1	20
KET-DQB-D70A	70	–	0.9	single acting	Manual valve	0.6	2.4	2.1	20
KET-DQB-D70B	70	6.9	0.9	single acting	Manual valve	0.6	2.4	2.1	20

Pneumatic Hydraulic Foot Pump

Product Descriptions

Max working pressure of this pump is 700bar, can work with the low tonnage hydraulic cylinders or other hydraulic tools together. The pressure is adjustable within 0-700bar. Internal relief valves for overload protection. Power source of this pump is compressed air, no electric spark or flame hazard. Pedal switch control, the manual switch control and big oil tank can be customized according to the client request. Portable aluminium cylinder, work with single acting hydraulic cylinder, equipped with liquid level indicator and NPT 3/8" couplings.

Technical Parameters

Model	Working Pressure (MPa)	Cylinder Type	Oil Tank Capacity (cm^3)	Flow(L/min)		Air Pressure Range (bar)	Air Consumption (L/min)	Sound Level (dB)	Weight (kg)
				No-load	Load				
KET-PA-133	70	single acting	589	0.65	0.13	4.1-8.3	255	85	5.5
KET-PA-1150	70	single acting	1311	0.65	0.13	4.1-8.3	255	85	8.2

Ultra High Pressure Anti-explosion Electric Hydraulic Pump

Product Features

- Equipped with EX d II Bt4 type of three-phase motor, very safe and suitable for the explosion proof situation.
- High efficiency, adopt two stage flow design, with different flow in high pressure and low pressure, to achieve the best match with the transmission torque. Manual valve, easy to operate, ensure safety.

Technical Parameters

Model	Working Pressure (MPa)	Low-pressure Flow (L/min)	High-pressure Flow (L/min)	Oil Tank Capacity (L)	Hydraulic Oil (mm)	Weight (kg)
KET-CFB-1600	160	0-15MPa @ 1L/min	15-160MPa @ 1L/min	20	(Summer)46#or 32#、(Winter) 32#Antiwear hydraulic oil	110 (including oil)

Special Anti-explosion Electric Hydraulic Pump for Wrenches

Product Descriptions

Anti-explosion electric hydraulic pump for wrenches is safe, reliable and easy to operate, power ultra high pressure hydraulic tools. No electric spark or flame hazard.

Product Features

- Adopt EX d II Bt4 type explosion-proof magnetic motor starter, high output torque valve, manual valve, easy to operate.
- Advanced three stages flow design, high speed. Low, middle, high different pressure with different flow, which can achieve the best match with transmission torque.

Technical Parameters

Model	Working Pressure (MPa)	Motor Power (KW)	Power Supply	Flow (L/min)	Oil Tank Capacity (L)	Weight (kg)	Dimensions (mm)
KET-BFB-70	70	1.1	330V/50Hz/ Three phase	8.0@0-6.5MPa 1.8@6.5-32MPa 0.85@32-70MPa	14	55	475×335×620

Anti-explosion Electric Hydraulic Pump

Product Descriptions

Anti-explosion electric hydraulic pump is especially designed for the the explosion proof situation like in chemical industry, coal mine place.

Product Features

- Explosion proof electric motor、Explosion proof electric cabinet
- Drag line controller(explosion proof).
- Low running noise.
- The hydraulic oil temperature is low under the condition of continuous work.
- The gauge was filled by silicone oil.
- 380V, three phase, 50Hz explosion proof type of motor, explosion proof electric cabinet.
- With the function of over current and over voltage circuit protection.
- Over load circuit protection.

Technical Parameters

Model	Working Pressure (MPa)	Pump Type	Valve Type	Oil Tank Capacity (L)	Motor Power (KW)	Flow (L/min)	Voltage (V)	Current Frequency (HZ)	Outlet Size	Dimensions (mm)
KET-FBB-380	70	double acting	manual valve	16	0.75	1	380	50	NPT3/8	500×400×760

AC and DC Battery Hydraulic Pump

Product Features

- Long battery capacity.
- AC and DC, support charge while working.
- Continuous operation up to two hours.
- Easy to replace the battery.
- Light weight, portable.
- Suitable for field work.

Technical Parameters

Model	Working Pressure (MPa)	Oil Capacity (L)	Battery Capacity (VAH)	Voltage (V)	Flow (L/min)	Battery Life (H)	Sound Level (dB)	Weight (kg)
KET-BP-10	70	2	1000	24	0.7	2	75	20
KET-BP-20	70	5	1000	24	0.7	2	75	24

AC and DC Battery Hydraulic Pump

Product Features

- Large oil tank, can bear high capacity crimping equipment. No engine overheating with long time working.
- Double speed design, usually works with the 60T, 100T, 200T, 300T crimping machine together.
- Rated pressure is 70MPa, the max pressure can be up to 100MPa.
- Safety relief valve, good protection for the crimping equipment.
- High efficiency, simple structure, light weight, easy to operate.
- Simple construction, easy operation, light weight.
- Internal crimping machine return pressure protection system.
- Low noise, environmental protection.
- Equipped with pressure gauge for checking the pressure.

Technical Parameters

Model	Working Pressure (MPa)	Oil Tank Capacity (L)	Engine Speed (Rev/min)	High-pressure Flow (L/min)	Low-pressure Flow (L/min)	Weight(including oil) (kg)
KET-QBZ-700	70	16	3600	1.5	6	53

Hydraulic System for Strand Jack Exclusive

Product Descriptions

Increase the function of frequency control based on conventional hydraulic proportion power system, improve the utilization of energy. Reduces overheat and increases reliability of the system. It is the best choice for the synchronous hydraulic lifting systems and synchronous traction equipment.

Technical Parameters

Model	Motor Power (KW)	System Pressure (MPa)	Speed Control System
KET-GJXB-1500	15	31.5	Proportional control、Net control
KET-GJXB-2200	22	31.5	Proportional controll、Net control
KET-GJXB-3000	30	31.5	Proportional controll、Net control
KET-GJXB-4500	45	31.5	Proportional controll、Net control
KET-GJXB-1500B	7.5×2	31.5	Frequency conversion control、Net control
KET-GJXB-2200B	11×2	31.5	Frequency conversion control、Net control
KET-GJXB-3000B	15×2	31.5	Frequency conversion control、Net control
KET-GJXB-4500B	22×2	31.5	Frequency conversion control、Net control

Special Electric Hydraulic Pump for Engineering Hydraulic Cylinder

Product Descriptions

Special electric hydraulic pump for engineering hydraulic cylinder is pray coating, anti-corrosion, pollution-resistant, durable. Lightweight and compact design make it easy to be moved. Double speed pump design, with the high flow in low pressure. The actuator can be fast moved on no-load status. Internal precise high and low pressure automatic reversing valve and external adjustable pressure valve to make it easy to calibrate the working pressure and avoid the over load. The motor starter has the function of preventing overload, overheat and leakage. The pump can be matched with both double acting and single acting cylinders. Choosing the solenoid valve electric hydraulic pump, remote operation can be realized.

Field Applications

▲ Synchronous pushing of shield machine.

▲ Synchronous pushing of shield machine.

▲ Synchronous pushing and translation of historic building.

▲ Trenchless underground pipe pushing.

Technical Parameters

Model	Working Pressure (MPa)	Flow (L/min)	Motor Power (KW)	Motor Speed (r/min)	Oil Tank Capacity (L)	Oil Tank Dimensions (mm)			Dimensions (mm)			Weight (kg)
						Length	Width	Height	Length	Width	Height	
KET-DBZ-300	31.5	3	3	1470	51	500	400	300	570	460	650	104
KET-DBZ-400	31.5	4	4	1470	51	500	400	300	570	460	660	106
KET-DBZ-550	31.5	5	5.5	1470	164	750	550	470	790	640	850	226
KET-DBZ-750	31.5	6	7.5	1480	164	750	550	470	790	640	890	236
KET-DBZ-1110	31.5	15	11	1480	191	800	600	470	840	700	950	294
KET-DBZ-2200	31.5	30	11×2	1480	433	1200	850	500	1240	950	980	596
KET-DBZ-1800	31.5	24	18.5	1480	291	1000	700	490	1040	830	1050	398
KET-DBZ-3700	31.5	48	18.5×2	1480	433	1200	850	500	1220	950	1060	684
KET-DBZ-5400	31.5	72	18.5×3	1480	850	2000	1000	500	2000	1130	1220	1214
KET-DBZ-7200	31.5	96	18.5×4	1480	1226	2500	1200	520	2500	1340	1190	1610
KET-DBZ-3000	31.5	36	30	1480	450	1200	850	520	1230	950	1220	622
KET-DBZ-6000	31.5	72	30×2	1480	850	1200	1000	500	2000	1130	1200	872
KET-DBZ-9000	31.5	108	30×3	1480	850	2000	1000	500	2000	950	1200	1496
KET-DBZ-12000	31.5	144	30×4	1480	1594	2500	1500	500	2530	1600	1200	2048

Hydraulic Steel Wire Rope Swaging Machine

100T Hydraulic Steel Wire Rope Swaging Machine

500T Hydraulic Steel Wire Rope Swaging Machine

2000T Hydraulic Steel Wire Rope Swaging Machine

Product Descriptions

Hydraulic Steel Wire Rope Swaging Machine, developed independently by KIET, is a new machine with aesthetic aircraft design and advanced technology manufacturing. The main component of the body is made of high-quality alloy steel which makes it durable. The machine is operated with hydraulic power, it features compact structure, stable operation, low noise, high efficiency. It is processed in non-cutting shape technology, without destroying the strength of the wire, making the premise of soft metal in the mold cavity full flow, tighten the steel wire rope, through the friction between the steel wires to achieve the purpose of forming. At present, we have 100T, 200T, 300T, 500T, 800T, 1000T, 1500T, 2000T, 3000T, 5000T, etc.

Product Accessories

Aluminum ferrule

All kinds of sling

Sling Filed Applications

Field Applications

Hydraulic Steel Wire Rope Swaging Machine is widely used in steel, shipbuilding, power plants, ports, transportation, construction and others. Compared with the traditional plug and weave craft for Steel wire rope sling, the suppression craft greatly reduces the damage to the rope. It is a cold processing technology. The finished wire rope is of high strength, the swaging part is of beautiful appearance, corrosion resistance, and can save the wire rope, make sure the length accurate and guarantee the high production efficiency.

Field Applications

▲ Hoisting of pressure vessel in oil refinery.

▲ Hoisting of steam turbine in thermal power plant.

▲ Hoisting of nuclear power equipment.

Technical Parameters

Model	Capacity (T)	Wire Rope Diameter (mm)	Working Pressure (MPa)	Motor Power (KW)	Voltage (V)	Current Frequency (HZ)	Weight (kg)
KET-YTJ-100	100	6-14	70	0.75	380	50	200
KET-YTJ-150	150	6-20	70	0.75	380	50	375
KET-YTJ-350	350	6-32	70	2.2	380	50	420
KET-YTJ-500	500	6-40	28	7.5	380	50	2040
KET-YTJ-800	800	10-48	30	15	380	50	4010
KET-YTJ-1000	1000	10-56	63	5.5	380	50	4508
KET-YTJ-1500	1500	10-65	70	5.5	380	50	10000
KET-YTJ-2000	2000	10-78	28	30	380	50	21453

Split Type Manual Hydraulic Pipe Bender

▲ Bending of cable pipelines in nuclear power plants.

Product Descriptions

Separately designed between the bender and pump, easy to carry on site. It is widely used in smooth wrinkle-free bending for water pipes, wire pipes, gas pipes, pipe, especially for thick-walled pipes.

Size 1/2"- 2" pipes can be bent to 90º at a time, size 2"- 6" must move the pipe to bend.

Product Features

- A whole set includes Hydraulic Pipe Bender, Manual Hydraulic Pump, Hydraulic Hose, Molds, Fixed Plug-pin.
- Piston plated hard Cr to prevent scratches and corrison, surface painted to improve the resistance and corrison.
- Pipe outer diameter: 1/2"- 2".
- Max. bending angle: 90º.
- Lightweight heat-treated steel molds and steel frame make bending pipe smooth wrinkle-free.

Technical Parameters

Model	Working Pressure (MPa)	Bending Range(O.D.) (mm)	Bending Radius (mm)	Pipe Thickness (mm)
KET-SWG-60	70	22-60	4×pipe diameter	≤4

Split Type Electric Hydraulic Pipe Bender

▲ Bending of cable pipelines in nuclear power plants.

▲ Customized vehicle-mounted mobile pipe bender.

Product Descriptions

Separately designed between the bender and pump, easy to carry on site. It is widely used in smooth wrinkle-free bending for water pipes, wire pipes, gas pipes, pipe, especially for thick-walled pipes.

Size 1/2"- 2" pipes can be bent to 90º at a time, size 2"- 6" must move the pipe to bend.

Product Features

- A whole set includes Hydraulic Pipe Bender, Electric Hydraulic Pump, Hydraulic Hose, Molds, Fixed Plug-pin;
- Double acting Hydraulic Cylinder, quickly reset, improving the bending efficiency;
- Piston plated hard Cr to prevent scratches and corrison, surface painted to improve the resistance and corrison;
- Lightweight heat-treated steel molds and steel frame make bending pipe smooth wrinkle-free;
- Size 4"- 6" Electric Hydraulic Pipe Bender, equipped with Double Acting Hydraulic Cylinder which reset quickly, works more efficiently with Electric Pump.

Technical Parameters

Model	Working Pressure (MPa)	Bending Range(O.D.) (mm)	Bending Radius (mm)	Pipe Thickness (mm)
KET-DWG-60	70	22-60	4×pipe diameter	≤4
	Female mould 2 pieces Pin 2pieces Bending tyre: 22 27 34 42 48 60			
KET-DWG-76	70	27-76	4×pipe diameter	≤10
	Female mould 2 pieces Pin 2pieces Bending tyre: 27 34 42 48 60 76			
KET-DWG-108	70	27-108	4×pipe diameter	≤10
	Female mould 2 pieces Pin 2pieces Bending tyre: 27 42 48 60 76 89 108			
KET-DWG-159	70	76-159	4×pipe diameter	≤10
	Female mould 2 pieces Pin 2pieces Bending tyre: 76 89 108 133 159 Block 2 pieces			

On-track Heavy Load Hydraulic Pusher

Product Descriptions

Composed of clamping cylinder and pushing-moving cylinder, electric hydraulic pump, hydraulic hose, widely used in pushing large-scale equipment for installation.

Equipped with heavy rail (38kg/m, 43kg/m, 50kg/m). In order to smoothly move the heavy objects, you must use two sets hydraulic pushers at the same time.

Conveniently, safely, quickly and accurately move the large power plant transformers, large power plants boilers, large marine diesel engines and other large equipment to the designated installation location.

▲ Pushing-moving and installation of generating equipment in thermal power plant.

▲ Pushing-moving in position of transformer in thermal power plant.

▲ Pushing-moving in position of generating equipment in thermal power plant.

Technical Parameters

Model	Standard Configuration	Prepared by User	How to Use
KET-SCM-200T	1×clamping cylinder, 1×pushing-moving cylinder, 1×electric hydraulic pump, 4×6m hydraulic hose, 1×distributing valve	2×active sliding boots, 2×passive sliding boots, 200T equipment	Connect 1×clamping cylinder and 1×pushing-moving cylinder by hydraulic hose in series, driving by 1×electric hydraulic pump
KET-SCM-400T	2×clamping cylinder, 2×pushing-moving cylinder, 2×electric hydraulic pump, 8×6m hydraulic hose, 2×distributing valve	4×active sliding boots, 4×passive sliding boots, 400T equipment	Connect 2×clamping cylinders, 2×pushing-moving cylinders, 2×electric hydraulic pumps and 2×distri-buting valves by hose in series, driving by 2×elec-tric hydraulic pumps

Mobile Hydraulic Lifting Jack

▲ Lifting and maintenance of locomotive.

▲ Lifting and maintenance of large engineering vehicle.

Product Features

- Rugged wear-resistant heavy-duty structure extends its service life.
- Large base pad to support the cylinder.
- All-round wheels for easy transport and placement.
- Cylinders and pumps are easy to disassemble and used for other applications or repairs.
- Electric drive mode, work capacity range 50-200T, appropriate for all kinds high-intensity operations.
- Adjustable handle can be adjusted in three directions, easy to transport and adjust the tilt angle.
- Auxiliary ram to increase the collapsed height, significantly increase the lifting height, no need to support pad.

Technical Parameters

Model	Capacity (T)	Working Pressure (MPa)	Stroke (mm)	Pump Type	Valve Type
KET-JCJ-50-356	50	70	356	Electric hydraulic pump	Manual valve/Solenoid valve
KET-JCJ-50-690	50	70	690	Electric hydraulic pump	Manual valve/Solenoid valve
KET-JCJ-100-406	100	70	406	Electric hydraulic pump	Manual valve/Solenoid valve
KET-JCJ-100-445	100	70	445	Pneumatic hydraulic pump	Manual valve
KET-JCJ-100-686	100	70	686	Electric hydraulic pump	Manual valve/Solenoid valve
KET-JCJ-150-350	150	70	350	Electric hydraulic pump	Manual valve/Solenoid valve

Mobile Lifting Jack for Locomotive

Product Applications

Mobile lifting jacks for locomotives are suitable for all types of railway electric locomotives, diesel locomotives and other vehicles to implement up and down operating requirements, to facilitate the body, bogies and other parts maintenance operations, usually operating simultaneously with four sets.

Product Features

- Includes transmission, frame, bracket, moving frame, synchronous control device, etc.
- Structure is simple, the use of production costs less but with high efficiency and light weight;
- Easy to operate, usually fixed in the station, can also be moved, use safely;
- Mainly using gear transmission and screw drive transmission, low failure rate, easy maintenance;
- Four sets as simultaneous operation group can automatically control the synchronization upgrade to avoid tilting.

Technical Parameters

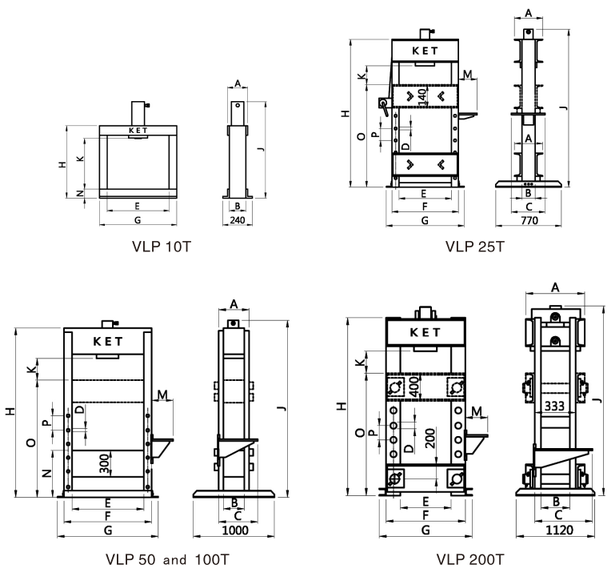
Model	Single Lifting Capacity (T)	Lifting Speed (mm/min)	Min. Height of Support Head (mm)	Max. Stroke of Support Head (mm)	Horizontal Extended Distance of Support Head (mm)	Synchronous Control Precision (mm)
KET–JCJ–30	30	about 190	800	≥2200	0-500	≯12

Model	Bracket Bearing Surfaces of 4×lifting Jacks (mm)	Bracket Bearing Surfaces of 8×lifting Jacks (mm)	Tilt Angle of Support Head (°)	Sound (Measure from 3 meter distance) (db)	Installation Type	Service Life (year)
KET–JCJ–30	≤2	≤2	2-3	≤70	Mobile type	30

Model	Voltage (V)	Motor Power (KW)	Rated Lifting Capacity (T)	Min. height of Support Head (mm)	Lifting Height (mm)	Dimensions (mm)
KET-JCJ-16G	AC380	3	16	650	2000	1150×720×2700
KET-JCJ-25G	AC380	4	25	650	2000	1300×750×2800
KET-JCJ-30G	AC380	5.5	30	800	2500	1320×770×3300
KET-JCJ-40G	AC380	7.5	40	900	2500	1400×900×3300

Field Applications

VLP Type Hydraulic Press



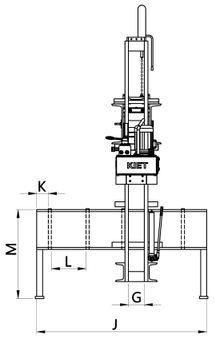
Product Features

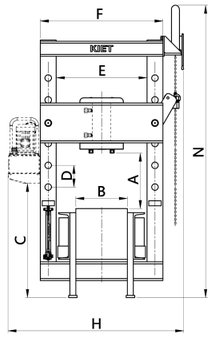
- Heavy-duty welded frame to enhance the strength and durability;
- Standard power sources and hydraulic cylinders to ensure high performance and barrier-free operation;
- All Presses are equipped with heavy-duty rubber hose to ensure long service life;
- 25T, 50T and 100T Presses are equipped with turbine and vortex rod lifting devices, can be safely and easily adjusted;
- Max. working pressure is 70Mpa.

Technical Parameters

Model	Capacity (T)	Max. Daylight (mm)		Cylinder Stroke (mm)	Dimensions (mm)														Weight (kg)
		Vertical	Horizontal		A	B	C	D	E	F	G	H	J	K	M	N	O	P	
KET-VLP-106P142	10	430	435	155	110	80	-	-	435	-	542	620	748	430	-	80	-	-	49
KET-VLP-106PAT1																			54
KET-VLP-256P392	25	1225	510	159	260	140	510	32	510	630	700	1622	1740	370	140	212	1070	122	165
KET-VLP-256PAT1							610								323				170
KET-VLP-506P802	50	993	990	159	310	240	-	32	990	1190	1390	1995	-	210 ~ 940	-	540	1290	150	595
KET-VLP-506ZE5S				155															675
KET-VLP-506ZE5C				155															660
KET-VLP-5013ZE5S				333															700
KET-VLP-1006ZE3C	100	989	990	168	400	340	560	40	990	1240	1400	1879	1885	239	425	540	1290	150	962
KET-VLP-1006ZE3S				168															970
KET-VLP-10013ZE3S				333									2050						993
KET-VLP-20013ZE4S	200	1340	1220	333	553	233	560	76	1220	1620	1740	2285	2370	377	425	453	1415	254	1992

Roll-frame Hydraulic Press





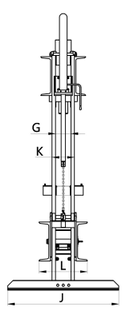
Product Features

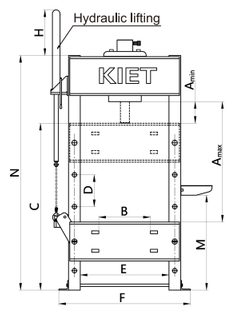
- Three-dimensional adjustment design, can move the plate up and down, the hydraulic cylinder left and right, the bed frame front and back.
- Unique hydraulic lifting device for effortless adjustment of the vertical daylight.
- Manual, electric, pneumatic, hydraulic pump station as power source all are optional according to customer requirements.
- Roll-frame design, can easily move the hydraulic cylinder left and right.
- Wheel design, can move the bed frame front and back.
- Max. working pressure is 70Mpa.

Technical Parameters

Model	Capacity (T)	Max. Vertical Daylight (mm)	Max. Bed width (mm)	Cylinder Stroke (mm)	Dimensions(mm)														Weight
					A (Max.)	A (Min.)	B	C	D	E	F	G	H	J	K	L	M	N	(kg)
KET-IPR-5075	50	942	730	333	942	152	526	971	264	730	933	127	1420	1626	203	270	762	2870	889
KET-IPR-10075	100	1048	889	333	1048	159	673	965	222	889	1143	146	1605	1676	203	270	813	3021	1746
KET-IPR-20075	200	1295	1219	330	1295	279	984	933	254	1219	1626	232	2150	2197	203	381	915	3200	3568

H Type Hydraulic Press





Product Features

- Two-dimensional adjustment design, can move the plate up and down, the hydraulic cylinder left and right.
- Unique hydraulic lifting device for effortless adjustment of the vertical daylight.
- Roll-frame design, can easily move the hydraulic cylinder left and right.
- Manual, electric, pneumatic, hydraulic pump station as power source all are optional according to customer requirements.
- Max. working pressure is 70Mpa.

H Type Hydraulic Press

Technical Parameters

Model	Capacity (T)	Max.Vertical Daylight (mm)	Max. Bed Width (mm)	Cylinder Stroke (mm)	H Type Press Dimensions(mm)														Weight
					A (Max.)	A (Min.)	B	C	D	E	F	G	H	J	K	L	M	N	(kg)
KET-IPE-1215	10	1016	473	254	1016	62	-	1187	127	473	632	-	-	755	108	189	889	1320	135
KET-IPA-1220																			72
KET-IPH-1240																			71
KET-IPH-1234																			85
KET-IPA-1244																			73
KET-IPE-2505	25	1365	736	152	1365	160	-	1465	301	736	1002	101	336	762	133	271	705	1930	274
KET-IPE-2510				355															313
KET-IPA–2520				355															276
KET-IPH-2531				355															281
KET-IPA-3071	30	1365	736	355	1365	160	-	1465	301	736	1002	101	336	762	133	271	705	1930	310
KET-IPE-3060																			325
KET-IPH-3080																			301
KET-IPE-5010	50	1247	730	330	1247	190	430	1440	280	730	1070	127	222	914	184	357	840	1930	495
KET-IPA-5021				152															439
KET-IPH-5030				152															439
KET-IPH-5031				152															420
KET-IPE-5005				152															421
KET-IPA-5073				330															479
KET-IPE-5060				330															499
KET-IPH-5080				330															455
KET-IPA-10023	100	1079	889	254	1079	177	508	1295	296	889	1295	171	222	914	222	395	841	1930	751
KET-IPE-10010				254															776
KET-IPH-10030				254															751
KET-IPE-10060				330															816
KET-IPH-10080				152															755
KET-IPE-15065	150	1231	1219	330	1231	317	711	1384	254	1219	1706	231	333	1117	333	555	1212	2286	1794
KET-IPE-20065	200	1231	1219	330	1231	317	711	1384	254	1219	1706	231	333	1117	333	555	1212	2286	1794

Field Applications

Folding Hydraulic Crane

Product Features

- Folding design to easy carry, no space occupation after contraction;
- The two-speed hydraulic hand pump can quickly lift up and precisely drop down by the operator.
- Rolling bearing wheels and controllable dials make moving the crane very easy;
- Operated by only one person, saving time and effort, improving work efficiency is the biggest advantage of the aircraft.

Technical Parameters

Model	Rated Load (kg)	Sling Height (mm)	Handle Operating Force (kN)	Weight (kg)
KET-ZDC-2000	2000	2200	35	165

Counterweight Hydraulic Crane

Product Features

- Hydraulic lifting, height adjustable, polyurethane wheels easy to move.
- The overall adopts high-strength structural steel machinery, easy to operate, jack imported seals, hard chrome plated jack plunger, the overall surface of the baking room paint.

Technical Parameters

Model	Rated Lifting Capacity (kg)	Sling Height (mm)	Handle Operating Force (kN)	Dimensions (mm)	Weight (kg)	Hole Site	Rated Load (T)
KET-PDC-2000	2000	2500	35	1500×700×1860	165	1	2
						2	1
						3	0.5

Servomotor Repairing Pulley

Product Descriptions

Servomotor repairing pulley is an exclusive hydraulic equipment customized for the maintenance of the hydropower plant's servomotor. This equipment can dissemble and install the servomotor and transport the servomotor from the foundation pit. The servomotor repair pulley has an alignment function, the carriage has a lifting function, it can move on the rail under the effect of the traction. The max. load of servomotor repair pulley is 40 tons, it consists of rails, pulleys, adjusting device.

Product Features

- Remove and install servomotor.
- Centering adjustment function for pulley guide rail.
- Lifting function for pulley pillow.
- Rated load capacity: 40T.

Technical Parameters

Model	Rated Load Capacity (T)	Pushing Capacity (T)	Lifting Height (mm)	Track Gauge (mm)	Dimensions (mm)
KET-JLQ-40	40	20	180	1000	5000×1400×553

Intelligent Hydraulic Mobile Lifting Trolley

Product Descriptions

Used in oil refining heat exchanger core installed to the shell (core), use 300T hydraulic car to lift and shift the core, hydraulic car main top is double acting mechanical self-locking top, first lift core to a certain height, core and shell should be guaranteed in same center, locking the main top. Translates the core, starts the car to move the function (forward and backward both are viable), slowly will the core body enter the shell, until the customer further installs.

Based on field bus technology PLC distributed control system of the overall program, divided into hydraulic bearing control unit, driving the control unit in two parts, integrate electrical, hydraulic and mechanical into the automated hydraulic equipment, through computer control of the load-bearing system and drive the system to work, with simultaneous lifting, self-walking, walking and other functions simultaneously.

Field Applications

Technical Parameters

Model	Double Acting Lock Nut Hydraulic Cylinder			Electric Hydraulic Pump			
	Capacity (T)	Working Pressure (MPa)	Stroke (mm)	Motor Power (KW)	Working Pressure (MPa)	Flow (L/min)	Oil Tank Capacity (L)
KET-ZNC-300	300	70	250	1.1KW (frequency conversion) 380V 50Hz	70	1	25

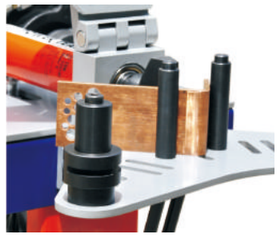
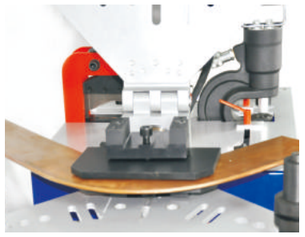
Model	Walking Motor Power (KW)	Walking Speed (m/min)	Wheel Diameter (mm)	Wheel Track (mm)	Track Gauge (mm)	Screw Rod Support	Dimensions (mm)
KET-ZNC-300	4KW+ reduction box (manual disconnecting device)	0-1.3 (frequency control)	760	960	1200	Load 100T/piece	2470×1442×940

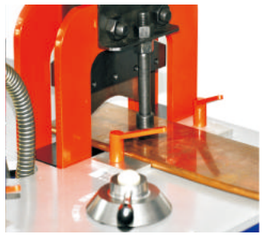
Multifunctional Busbar Processing Machine

Product Features

- Bending angle can set within 1-120°, with pedal control switch.
- Safe operating system, operating without worrying about security.
- Easy to replace the molds based on different work, improving the work efficiency.
- With 70Mpa hydraulic system, of low noise, strong work, durable use.
- The open workbench ensures the work-piece does not deflect after bending.
- Punching without flash, cutting off with formation, fished with precised angle, a large number of busbar processing can be quickly repeated.
- Equipped with cutting and punching double positioning ruler, bending and bending angle mark ruler.

Field Applications



Technical Parameters

Model	Functions	Voltage	Working Pressure (MPa)	Cutting Capacity (T)	Punching Capacity (T)	Bending Capacity (T)	Weight (kg)	Cutting Ability (mm)	Horizontal Bending Ability (mm)	Vertical Bending Ability (mm)	Bending Ability
KET-JGJ-3	Cutting、Punching Horizontal bending	Single phase 220V 50Hz	70	25	30	15	115	Cu/Al: 150×12	Cu/Al: 150×12	/	/
KET-JGJ-4	Cutting、Punching Horizontal bending、Vertical bending	Single phase 220V 50Hz	70	25	30	25	153	Cu/Al: 150×12	Cu/Al: 125×16	Cu/Al: 125×12	/
KET-JGJ-5	Cutting、Punching、Horizontal bending、Vertical bending、Bending	Single phase 220V 50Hz	70	25	30	25	160	Cu/Al: 150×12	Cu/Al: 125×16	Cu/Al: 125×12	3"

Model	Punching Thickness (mm)	Standard Punching Dies (mm)	Bending Dies	Platform Size (mm)	Optional Accessories (mm)
KET-JGJ-3	4-13	Φ10.5、Φ13.5、Φ17.5、Φ20.5	/	910×600×1000	Φ8.5、Φ11.5、Φ15.5、Φ18.5 punching die
KET-JGJ-4	4-13	Φ10.5、Φ13.5、Φ17.5、Φ20.5	Horizontal bending mould 1 piece、Vertical bending mould base 1set、Vertical bending mould 8 pieces（40-80×4、40-80×5、40-80×6、40-80×8、40-80×10、100×10、100-125×10、120-125×12）、Vertical bending supporting block 6pieces（4、5、6、8、10、12）	910×660×1160	Φ8.5、Φ11.5、Φ15.5、Φ18.5 punching die
KET-JGJ-5	4-13	Φ10.5、Φ13.5、Φ17.5、Φ20.5	Horizontal bending mould 1 piece、Vertical bending mould base 1set、Vertical bending mould 8 pieces（40-80×4、40-80×5、40-80×6、40-80×8、40-80×10、100×10、100-125×10、120-125×12）、Vertical bending supporting block 6pieces（4、5、6、8、10、12）、Bending mould 7 pieces（1/2、3/4、1、1 1/2、2、2 1/2、3）	910×760×1160	Φ8.5、Φ11.5、Φ15.5、Φ18.5 punching die

Automatic Hydraulic Crane

Product Features

Widely used in electric power, railway, subway, highway construction and on-site repair work, more suitable for large-scale house warehousing, large manufacturing and other industries; appropriate for use in the environment of narrow space;

Operated with wireless remote control or body switch, the operation is safe, reliable and fast;

Micro-design, small size, strong lifting, bid farewell to only personnel work can be used for the narrow space, improving work efficiency, also ensuring the safety of field operations.

Field Applications





Technical Parameters

Model	Lifting Capacity (T)	Max. Working Radius (m)	Max. Lifting Height (m)	Winching		Stretching		Fluctuating	Turning	Leg	
				Hook Lifting Speed (m/min)	Diameter and Length of Wire Rope	Jib Form	Jib Length (m)	Jib Angle (°)	Turing Angle	Leg Form	Max. Extended Distance
KET-WDC-3000	3	9	9.5	2.5	Φ8mm×50m	5-stage full automatic	9	0-75	360° continuous rotation	1-stage automatic, 2-stage manual	Distance between two legs:5.3m

Model	Walking device					Oil Tank Capacity (L)	Dimensions (mm)	Weight (kg)	Gasoline engine		
	Walking Way	Walking Speed (km/h)	Track	Climbing Ability (°)	Contact Pressure (Kpa)				Model	Max. Output Power (KW)	Lgnition System
KET-WDC-3000	Machinery (3 advance, 1 back)	1.2-2.25	Synthetic rubber	20	37	26	2850×760×1450	1800	G×390 (HONDA)	13	Transistor magnets ignition (contactless)

3D Hydraulic Adjustment Equipment

Product Descriptions

- Single lifting capacity: 100-600T.
- Horizontal adjustment range: 0-150mm.
- Vertical adjustment range: 0-250mm.
- Common quantity used: 4pcs.
- Operation method: wire-controlled handle (standard), the console (optional).
- Transportation: self-powered walking (hydraulic motor), crane lifting (with hooks), forklift trucking (with a shovel hole).

Product Features

- Specially designed for the hull segment closure three-dimensional adjustment of positioning, hull segmentation can be precisely positioned in three dimensions, six directions;
- 70Mpa hydraulic design makes the overall light weight, small size;
- "Motro-electro-hydraulic" integrated design; through the device standard wire-controlled handle all the actions of sub-adjustment, remote control handle with continuous operation and jog operation characteristics can be completed, can also be linked to achieve the total control console 4 or more Taiwan linkage operation segment positioning;
- In addition to the "hydraulic lock" and "lift valve group" at the moment of security, the equipment standard "mechanical lock" mechanical nut can provide hull segment, equipment and personnel of the reliable security;
- Equipment standard hydraulic motor comes with power walking, equipment walking wheel hydraulic lift, front and rear drive are set by the handle on the button control, a single person can easily walk and place equipment, and set the lifting point and shovel teeth Holes for easy door crane and forklift transport;
- The device can be tilted at the top of the device anti-bias force saddle 5 degrees, effective at the bottom of the uneven section to adapt to the phenomenon of standard steel tray;
- Equipment internal pipeline clear, tidy, the main pump station with rails design, can facilitate routine maintenance and inspection work;
- Modular design concept: master pump station, electrical control box, carrying jacks are fast connections between each other, easy to repair, replacement and upgrades.

Field Applications

Technical Parameters

Model	Capacity (T)	Working Pressure (MPa)	Vertical Adjustment Range (mm)	Horizontal Adjustment Range (mm)	Tilt Angle	Weight (T)
KET-TZJ-100	100	70	250	150	5°	2.3
KET-TZJ-200	200	70	250	150	5°	2.8
KET-TZJ-300	300	70	250	150	5°	3.4
KET-TZJ-400	400	70	250	150	5°	4.0
KET-TZJ-500	500	70	250	150	5°	4.6
KET-TZJ-600	600	70	250	150	5°	5.8

Automatic Locomotive Re-railing Machine

Product Descriptions

Automatic Locomotive Re-railing Machine is suitable for the operation system of passenger vehicles, large-scale Yang Lu mechanical system, subway system and other vehicles derailment jacking rescue from the complex operations. use two three-stage hydraulic jacks, two hydraulic jacks and mobile car. Jacks lift the vehicle's side beam to a certain height, the left and right side-slip jack completes the vehicle out of the road and rescue operations from the complex at a time, the special horizontal moving solved transverse inconsistencies. Using this system for vehicle out of the road tilt, first use the lifting jacks on both sides of re-railing machine to righting the vehicle then carry out rescue work at the same time; under base pillow pad to use real, pad-ping and ensure that jacks work perpendicular to the ground.

Automatic Locomotive Re-railing Machine for the rising edge of the side beam, the product of the maximum horizontal displacement of 500mm, the minimum working point of 450mm, the maximum stroke of 560mm, lifting beam for the weight of 60 tons to 100 tons, special Vehicle customization, matching gasoline motor pump station, electric hydraulic pump station, easy to install, stable operation.

Technical Parameters

Model	Available Oil Capacity (L)	Motor	Output Power (KW)	Dimensions (mm)	Weight (kg)
KET-QYB-70	40	gasoline engine	3.5	560 x 540 x 665	55
KET-DDB-70	40	electric engine（220 V / 50 Hz）	2.2	560 x 540 x 695	60
KET-CYB-70	40	diesel engine	5	550 x 480 x 750	81

Model	Load Capacity 1/2/3 (T)	Stroke 1/2/3 (mm)	Effective Stroke (mm)	Closed Height (mm)	Weight (kg)
KET-60-30-15	60/30/15	90/94/94	278	215	14
KET-60-30A	60/30	95/89	184	215	14
KET-60-30B	60/30	223/227	450	380	24
KET-100-50A	100/50	89/96	185	234	24
KET-100-50B	100/50	195/204	399	400	40
KET-140-70	140/70	198/199	397	400	60
KET-150	150	115	115	272	50

Field Applications

High-line Exclusive Hydraulic Roller Changing Trolley

Product Descriptions

Appropriate for Morgan, Danieli, Hafei, West Airlines, West Mark and other high-speed wire production line, only through the fingertip operation, you can complete the one-time dismantling and assembly of roller ring group, saving time and keeping continuity, greatly improving the efficiency.

In the high-speed wire rod production process, the roll ring is an important components, due to production needs, when rolling different specifications of the wire, corresponding specifications of the roll rings need to be replaced, and after rolling a certain tonnage of wire , roll ring also needs to be replaced because of wearing.

High-line Special Hydraulic Roll Change Trolley with large flow rate, stable pressure value, electromagnetic reversing valve control, with automatic winding device, high-strength polyurethane mobile wheels, easy to site pumping station. Safe and reliable, a voltage overload protection device and the minimum hydraulic display, to ensure safe use of equipment, the whole process by the microcomputer disassemble control, accurate and reliable, simple and convenient. Electronic oil pollution detection device can promptly refuel or change oil, to minimize the failure rate.

Technical Parameters

Model	Working Pressure (MPa)	High-pressure Flow (L/min)	Low-pressure Flow (L/min)	Power Supply (V)	Motor Power (KW)	Hose Length (m)	Sound (dB)	Dimensions (mm)	Weight (kg)
KET-HGB-700	70	1	3.5	380V/50Hz	1.5	6	< 50	1100×670×860	150

Field Applications








High-line Special Hydraulic Roller Changing Tools



Product Descriptions

Equipped with imported NOK seals from the Japanese, the Roll Changing tool cylinder is carefully processed in alloy steel as the substrate.

Product Features

- The high smoothness and surface nitriding treatment of the cylinder bore makes the cylinder have a high performance, and can improve the service life of the seal;
- The special mold spring, so that low-pressure piston reset quickly, high-pressure piston hydraulic reset form, the effective solution to the problem of high-pressure piston reset slow;
- The low pressure piston and the high pressure piston adopt the high strength aviation aluminum material, have the same mechanical performance with the steel copper, greatly reduce the roller tool weight, facilitate the field carry, enhance the working efficiency;
- Cylinder outside surface is dealt with high-temperature baking process, the product has a higher resistance to corrosion.

Field Applications


Technical Parameters

Model	Roll Specifications	Remarks
KET-HGZ-500Z	5”clamp supply roller tools	Single acting: pressure taper sleeve、spring return
KET-HGZ-600S	6”aluminum alloy plunger roller tools	Double acting：pressure collars first、then pressure taper sleeve、hydraulic return
KET-HGZ-800S	8”aluminum alloy plunger roller tools	Double acting：pressure collars first、then pressure taper sleeve、hydraulic return
KET-HGZ-1000D	10”aluminum alloy plunger roller tools	Single acting: pressure taper sleeve、spring return
KET-HGZ-1000SD	10”aluminum alloy plunger crane jib with roller	Double acting：pressure collars first、then pressure taper sleeve
KET-HGC-500C	5”roll disassembly tools	Single acting、spring return
KET-HGC-600C	6”roll disassembly tools	Single acting、spring return
KET-HGC-800C	8”roll disassembly tools	Single acting、spring return
KET-HGC-1000C	10”crane jib roll disassembly tools	Single acting、spring return
KET-HGZ-600D	6”aluminum alloy plunger roller tools	Single acting: pressure taper sleeve、spring return
KET-HGZ-800D	8”aluminum alloy plunger roller tools	Single acting: pressure taper sleeve、spring return

High-line Special Hydraulic Scissors

High-line Special Hydraulic Scissors

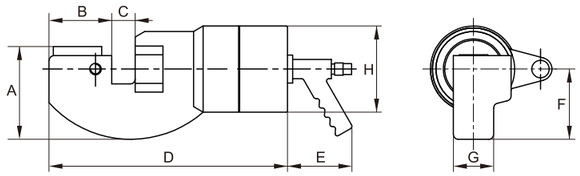
Balance crane

Product Descriptions

It is suitable for all kinds of high-speed wire rod factory. It can be used with the special electric hydraulic pump. It can cut diameter up to 55mm. It can be used for cutting, the maximum output up to 140T, in 2.5 seconds to the hardness of HRC38 alloy steel bar cut.

Hydraulic shear cylinder part is made of special alloy steel casting, high temperature up to 200℃, can adapt to the extreme conditions of the site operation.

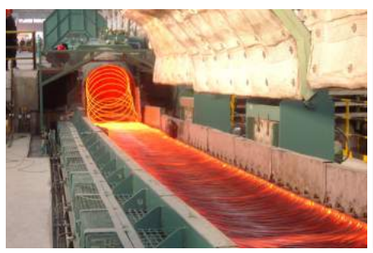
Blade design: cutting edge can be cut, the use of special composite alloy material, specially designed to improve 4 times effect.



Technical Parameters

Model	Capacity	Stripping Diameter for Corresponding Strength of Wire Rod(mm)				Balance Crane Matched	Weight	A	B	C	D	E	F	G	H
	(T)	≤700MPa	≤1000MPa	≤1300MPa	≤1600MPa		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
KET-RCU-10	10	10	8	7	6.5	14	4.5	45	42	15	155	32	115	-	75
KET-RCU-20	20	20	17	15	13	B20	14	106	80	26	251	60	95	80	94
KET-RCU-30	30	22	19	17	15	B20	16	106	80	26	260	65	95	80	94
KET-RCU-50	50	30	26	23	20	B30	43	167	120	32	355	140	125	115	146
KET-RCU-60	60	40	33	29	26	B30	46	172	112	42	380	140	135	115	175
KET-RCU-80	80	45	36	31	27	B45	85	200	135	45	470	140	160	140	205
KET-RCU-120	120	50	40	35	29	B50	108	200	135	52	490	154	160	140	250
KET-RCU-150	150	55	42	36	30	–	185	280	164	59	615	140	230	185	280

Field Applications



Special Electric Hydraulic Pump for Hydraulic Scissors

Product Descriptions

Hydraulic parts for electric hydraulic pump for high-wire plant production line design, power, followed by the production rhythm, continuous work does not heat, more than 5,000 times a day to engage in operating frequency, consisting of radial piston hydraulic pump, motor and oil tank，the hydraulic scissors through the spring retraction, using a single oil control, simple operation, easy maintenance, durable.

Mobile convenience, low noise, stable performance, through the handle operation, can complete the work process.

The pump station with Germany Harvey imported parts, integrated design, reliability and strong.

Technical Parameters

Model	Working Pressure (MPa)	Motor Power (KW)	Oil Tank Capacity (L)	Flow (L/min)	Voltage (V)	Current Frequency (HZ)	Control Supply (V)	Dimensions (mm)
KET-JDB-220	70	2.2	16	3.2	380	50	24	530×290×610
KET-JDB-300	70	3	25	3.5	380	50	24	530×300×620
KET-JDB-550	70	5.5	70	5.5	380	50	24	600×350×650
KET-JDB-750	70	7.5	120	7.0	380	50	24	750×500×680

High-line Special Hydraulic Hexagon Wrench

Product Descriptions

High-line special hexagon hydraulic torque wrench is a high-speed wire rod factory loading and unloading axis hydraulic tools, mainly applicable to axial thread tightening of the taper sleeve structure, such as (DANIELI) brand of rolling mill is to use this connection. The tool uses split structure, by the hydraulic wrench pump station, hydraulic torque wrench, hydraulic tubing composition.

Product Features

- Unique concentric reaction arm.
- Save time and improve work efficiency.
- Torque accuracy error is 2%, with high-precision spline, so that the preset torque is more accurate.
- Driving power head made of aluminum titanium alloy, lighter weight, head alloy steel manufacturing, durable, drive power head working pressure is 70MPa.

Technical Parameters

Model	Torque Range (NM)	Working Head Across Flats Width (mm)	Reaction Arm (mm)	Max. Working Pressure (MPa)	Weight (kg)
KET-HGY-105	900-10000	105	50*50	70	12

Hydraulic Couplers

NPT3/8

NPT1/4

Product Features

- Hydraulic couplers can be matched with hydraulic cylinder, hydraulic flange tools, hydraulic puller and other hydraulic tools.
- High flow, high pressure resistance, each hydraulic coupler set is equipped with dust cap.
- Base of the male coupler is galvanized.
- Optimized valve core design to ensure high flow and high sealing reliability.
- Max. working pressure:70MPa.

Matched the use with electric hydraulic pipe bending machine.

Matched the use with separated skid-resistant hydraulic puller.

Matched the use with hydraulic cylinder series.

Matched the use with hydraulic flange tools.

Matched the use with square drive hydraulic torque wrench.

Technical Parameters

Model	Working Pressure (MPa)	Male Half	Female Half	Thread	Connection Mode	Matched Hydraulic Tools
KET-NPT3/8	70	C701G	C701M	Internal/external thread NPT3/8”	Thread connection	Hydraulic cylinders,Hydraulic flange tools, Hydraulic pullers
KET-NPT1/4	70	C702G	C702M	Internal/external thread NPT1/4”	Thread connection	Hydraulic torque wrench

Ultra High Pressure Hydraulic Couplers

Matching with the use of hydraulic nut.

Matching with the use of hydraulic bolt tensioner.

Product Features

- Ultra high pressure hydraulic couplers can be matched with hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder and other hydraulic tools.
- High flow, high pressure resistance, each hydraulic coupler equipped with dust cap.
- Optimized valve core design to ensure high flow and high sealing reliability.
- Max. working pressure: 150MPa, 200MPa, 300MPa.

Technical Parameters

Model	Working Pressure (MPa)	Length (mm)	Diameter (mm)	Coupler Type	Thread	Connection Mode	Matched Hydraulic Tools
KET-CJT-150G	150	38	24.5	Male Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CJT-150M	150	59	27	Female Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CJT-200G	200	38	24.5	Male Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CJT-200M	200	59	27	Female Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CJT-300M	300	38	24.5	Male Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CJT-300M	300	59	27	Female Half	G1/4” internal thread	Quick cutting sleeve connection	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder

Hydraulic Manifolds

3-port Manifold

5-port Manifold

6-port Manifold

7-port Manifold

11-port Manifold

Product Descriptions

Hydraulic manifold is used for synchronous lifting of hydraulic pump station and multiple hydraulic cylinders, in the case of 1 set of hydraulic pump driving multiple hydraulic cylinders and other hydraulic tools, need to match the corresponding manifold. Oil port of manifold is standard NPT3/8” thread.

Technical Parameters

Model	Working Pressure (MPa)	Number of Outlets	Thread (in)	Matched Hydraulic Tool
KET-FPD-70-2	70	3	NPT3/8” internal thread	Hydraulic cylinder, hydraulic flange tool
KET-FPD-70-4	70	5	NPT1/4” internal thread	Hydraulic cylinder, hydraulic flange tool
KET-FPD-70-6	70	7	NPT3/8” internal thread	Hydraulic cylinder, hydraulic flange tool

Ultra High Pressure Hydraulic Manifold

5-port Manifold

Matched the use of pneumatic pump to drive 10 units hydraulic nuts.

Technical Parameters

Model	Working Pressure (MPa)	Number of Outlets	Thread (in)	Matched Hydraulic Tool
KET-CFF-150-2	150	3	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-150-4	150	5	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-150-6	150	7	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-200-2	200	3	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-200-4	200	5	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-200-6	200	7	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-300-2	300	3	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-300-4	300	5	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder
KET-CFF-300-6	300	7	G1/4” internal thread	Hydraulic bolt tensioner, hydraulic nut, ultra high pressure cylinder

Hydraulic Hose

Product Descriptions

The reinforcement of hydraulic hose is high strength steel wire winding layer with special treatment. Outside jacket is polyurethane material to provide the maximum abrasion resistance. Small fluid resistance, small volume expansion, good chemical corrosion resistance, light weight small outside diameter, which greatly facilitates the use of various types of hydraulic tools. All hydraulic hoses conduct over-pressure testing before they leave the factory. High pressure bearing capacity, the maximum working pressure is up to 100MPa.

Matched the use with series hydraulic cylinders.

Product Features

- For demanding applications, featuring a 4:1 safety factor.
- Outside jacket is polyurethane, to provide maximum abrasion resistance.
- Exhibits low volumetric expansion under pressure to enhance overall system efficiency.
- Applicable temperature: -40℃ ~100℃.
- Both ends of hydraulic hose with NPT3/8 or NPT1/4 external thread.
- Supporting the use of hydraulic cylinders, hydraulic pullers, hydraulic flange tools, hydraulic torque wrenches, nut splitters and is also suitable for other 70MPa pressure hydraulic tools.

Matched the use with square drive hydraulic torque wrench.

Technical Parameters

Model	Working Pressure (MPa)	Length (m)
KET-DYG-70-2M	70	2
KET-DYG-70-4M	70	4
KET-DYG-70-6M	70	6
KET-DYG-70-9M	70	9
KET-DYG-70-12M	70	12
KET-DYG-70-16M	70	16
KET-DYG-70-20M	70	20

Model	Working Pressure (MPa)	Length (m)
KET-DYG-70-30M	70	30
KET-DYG-70-40M	70	40
KET-DYG-70-50M	70	50
KET-DYG-70-60M	70	60
KET-DYG-70-80M	70	80
KET-DYG-70-100M	70	100

Ultra High Pressure Hydraulic Hose

Product Descriptions

The reinforcement of the ultra high pressure hydraulic hose is high strength steel wire winding layer with special treatment. Four layer design, two of them is high strength steel wire braid. 4 times safety factor. Outside jacket is polyurethane material to provide the maximum abrasion resistance. Small fluid resistance, small volume expansion, good chemical corrosion resistance, light weight small outside diameter, which greatly facilitates the use of various types of hydraulic tools. All hydraulic hoses conduct over-pressure testing before they leave the factory. High capacity of bearing pressure, the maximum working pressure is up to 400MPa, matched with hydraulic bolt tensioners, hydraulic nuts, ultra high pressure hydraulic cylinders, ultra high pressure hydraulic nut splitters and also suitable for other 150MPa pressure hydraulic tools.

Matched the use with manual pump for bolt tensioning.

Matched the use with electric pump station for bolt tensioning.

Technical Parameters

Model	Working Pressure (MPa)	Length (m)
KET-CYG-150-2M	150	2
KET-CYG-150-4M	150	4
KET-CYG-150-6M	150	6
KET-CYG-150-12M	150	12
KET-CYG-200-2M	200	2
KET-CYG-200-4M	200	4

Model	Working Pressure (MPa)	Length (m)
KET-CYG-200-6M	200	6
KET-CYG-200-12M	200	12
KET-CYG-300-2M	300	2
KET-CYG-300-4M	300	4
KET-CYG-300-6M	300	6
KET-CYG-300-12M	300	12

Manual Valve

Matched the use of electric hydraulic pump to control cylinder lifting and falling.

Product Features

- Manual valve is supporting the use of electric hydraulic pump station to control single-acting, double acting cylinder lifting and falling.
- There are a variety of central functions for hydraulic control functions.
- With the superposition of hydraulic control valve to achieve the hydraulic circuit in the pressure "lock" function.
- Conventional installation in the electric hydraulic pump station, can also be installed on the remote oil control.

Technical Parameters

Model	Cylinder Type	Valve Type	Middle Position Function	Control Mode	Commutating Voltage (V)	Oil-way Diameter (mm)	Working Pressure (MPa)
KET-VDM-3406	double acting	Three position four way	M	manual valve	–	6	70
KET-VDM-3306	single-acting	Three position three way	M	manual valve	–	6	70

Soleniod Valve

Matched the use with pump station for hydraulic torque wrench.

Matched the use with pump station for high tonnage cylinders.

Product Features

- Solenoid valve is matched with electric hydraulic pump station to control single-acting, double acting cylinder lifting and lowering.
- There are a variety of central functions for hydraulic control functions.
- Achieving the hydraulic circuit in the pressure "lock" function with the superposition of hydraulic control valve.
- Conventional installation in the electric hydraulic pump station, can also be installed on the remote oil control.

Technical Parameters

Model	Cylinder Type	Outside View	Valve Type	Middle Position Function	Control Mode	Commutating Voltage (V)	Oil-way Diameter (mm)	Working Pressure (MPa)
KET-VDR-3406	double acting		Three position four way	O,H,Y	Solenoid valve	220/24	6	70
KET-VDR-3306	single acting		Three position three way	O,H,Y	Solenoid valve	220/24	6	70
KET-VDR-2406	double acting		Two position four way	–	Solenoid valve	220/24	6	70
KET-VDR-2306	single acting		Two position three way	–	Solenoid valve	220/24	6	70

Pressure Gauge

Matched the use with electric hydraulic pump station.

Product Features

- Pointer type pressure gauge: calibrated with dual scale reading for pressure and force in psi and Mpa.
- Silicone oil filled with good anti-seismic performance.
- Stainless steel outer case, anti-impact surface design, with good safety and durability.
- YJT series gauge adaptor can facilitate the connections between YLB series pressure gauge and various hydraulic tools
- External thread of gauge adaptor is connected with cylinder and pump station, female thread is connected with hose and pressure gauge.

Technical Parameters

Model	Working Pressure (MPa)	Range (MPa)	Dial Diameter (mm)	Interface Thread
KET-YLB-70-63	0-70	0-100	63	NPT1/4
KET-YLB-70-100	0-70	0-100	100	G1/2
KET-YLB-150	0-150	0-200	100	G1/2
KET-YLB-160	0-160	0-200	100	G1/2
KET-YLB-180	0-180	0-200	100	G1/2
KET-YLB-200	0-200	0-250	100	G1/2
KET-YLB-250	0-250	0-300	100	G1/2
KET-YLB-300	0-300	0-350	100	G1/2
KET-YLB-400	0-400	0-450	100	G1/2

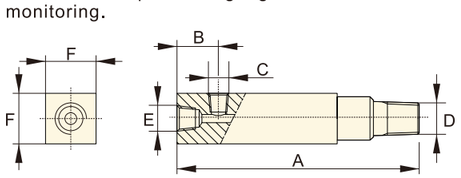
Gauge Adaptor

Matched the use with manual hydraulic pump.

Product Descriptions

Gauge adaptor can connect with pressure gauge conveniently, used for the connection of hydraulic tool and pressure gauge.

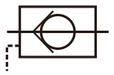
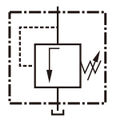
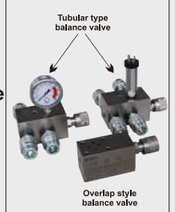
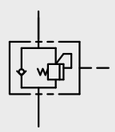
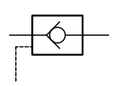
Male coupler thread is connected with cylinder, pump station and other hydraulic tools, female coupler thread is connected with hose and quick coupling. The third thread is used for the installation of pressure gauge which is convenient for pressure monitoring.



Technical Parameters

Model	Gauge Coupler F (T)	Male Coupler D (mm)	Female Coupler E (mm)	Dimensions(mm)					
				A	B	C	D	E	F
KET-YJT-C71	1/2	3/8	3/8	71	31	1/2NPTF	3/8NPTF	3/8NPTF	32
KET-YJT-C155	1/2	3/8	3/8	155	35	1/2NPTF	3/8NPTF	3/8NPTF	32
KET-YJT-C133	1/4	3/8	3/8	133	48	1/4NPTF	3/8NPTF	3/8NPTF	32
KET-YJT-C111	1/2	1/4	3/8	111	35	1/2NPTF	1/4NPTF	3/8NPTF	32
KET-YJT-C90	1/4	3/8	3/8	90	28	1/4NPTF	3/8NPTF	3/8NPTF	26H
KET-YJT-C50L	1/4	1/4	1/4	50	-	1/4NPTF	1/4NPTF	1/4NPTF	38
KET-YJT-C50Q	1/4	3/8	3/8	50	-	1/4NPTF	3/8NPTF	3/8NPTF	38

Hydraulic Control Valve

Model		Product Descriptions	Hydraulic Principle Diagram
Needle Valve KET-V-82 KET-V-182 KET-V-8F		**V-82:** To control cylinder speed. Also used as shut-off valve for temporary load holding. NPT3/8" female ports. **V-182:** Same as V-82, but with NPT1/4" female ports. Also suitable for gauge subbing (also V-82). **V-8F:** Similar to V-82, but with very fine metering for precise flow control. Not recommended using as a shut-off valve.	
Hydraulic check Valve KET-V-17		**V-17:** Ruggedly built to resist shock and operate with low pressure drop. Closes smoothly without pounding. NPT3/8" female ports.	
Hydraulic check Valve KET-V-42		**V-42**: Can be mounted at the cylinder to hold the load in case of system pressure loss. Normally used with double-acting cylinders where pilot port receives pressure from a Tee-fitting in the cylinder retract line. NPT3/8" female ports Pilot pressure ratio 14% (6.5:1)	
Manually Operated Check Valve KET-V-66 KET-V-66NV KET-V-66F		**V-66, V-66NV:** For load holding applications with single or double acting cylinders. Valves allow oil to flow back to tank when cylinder retracts. V-66NV is supplied with Viton seals, nickel-plated. V66F: Similar to V-66, but with very fine metering capability for precise flow control. V-66F is not designed for load holding.	
Pressure Relief Valve KET-V-152 KET-V-152NV		**V-152:** Limits pressure developed by the pump in hydraulic circuit, thus limiting the force imposed on other components.Valve opens whenever preset pressure is reached. To increase pressure setting, turn handle clockwise. Includes: 0.9m return line hose kit; ±3% repeatability; 55-700 bar adjustment range	
Balance valve KET-PHF-70		**KET-PHF-70**: The balance valve in hydraulic system is to prevent that overload incur hydraulic cylinder or motor "out of control".It can also be used to prevent rupture valve. Oil pressure area controlled by flow open gradually,which comes by mainvalveplug's control edge opening the hole on valve pocket gradually. The relationship among opening area, opening pressure and opening pressure difference decide the flow from performer from B to A. It's decided directly by the inlet flow from performer reverse side in case performer "out of control".If hose breaks occur between direction valve and balance valve oil mouth A, it has no influence on load down operation.	
Hydraulic check Valve KET-YKF-70		**KET-YKF-70:** Can be mounted at the cylinder to hold the load in case of system pressure loss. Normally used with double-acting cylinders where pilot port receives pressure from a Tee-fitting in the cylinder retract line. NPT3/8" female ports Pilot pressure ratio 14% (6.5:1)	

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