

**RIVERLAKE**

# SERVICE SCOPE

# RIVERLAKE

RELIABILITY · DURABILITY · SAFETY



**TAIZHOU CHUANHU HYDRAULIC MACHINERY CO., LTD.**

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Taizhou Chuanhu Hydraulic Machinery Co., LTD.

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# COMPANY PROFILE



INDUSTRY LEADING TECHNOLOGY



CONTINUOUS INNOVATION



GOOD SERVICE



## ABOUT US

RIVERLAKE IS A LEADING MANUFACTURER AND SUPPLIER OF HIGH-FORCE HYDRAULIC TOOLS IN CHINA. WE PROVIDE OUR CUSTOMERS WORLDWIDE WITH EXCEPTIONAL HYDRAULIC TOOL EXPERIENCE. HERE AT RIVERLAKE, WE MANUFACTURE AND SELL A WIDE RANGE OF HYDRAULIC CYLINDERS, PUMPS, BOLTING TOOLS, FLANGE MAINTENANCE TOOLS, PULLERS, AND OTHER HYDRAULIC TOOLS.

## OUR PRODUCTS

WE ARE VERY SERIOUS ABOUT THE SAFETY, RELIABILITY, AND DURABILITY OF OUR TOOLS. WE MAKE SURE THAT BY ADOPTING THE BEST STRUCTURE DESIGN, USING HIGH-QUALITY MATERIALS, AND FOLLOWING HIGH-STANDARD PRODUCTION AND TESTING PROCEDURES. ALL OUR TOOLS COMPLY WITH ISO 10100:2001 AND GB 15622:2005 STANDARDS AND ARE DESIGNED WITH A 1.5 SAFETY FACTOR. RIVERLAKE PRODUCTS AFFIRM THE GOOD'S CONFORMITY WITH EUROPEAN HEALTH, SAFETY, AND ENVIRONMENTAL PROTECTION STANDARDS AND HAVE PASSED CE CERTIFICATION. YOU ARE WELCOME TO DOWNLOAD OUR CERTIFICATION HERE.

## OUR SERVICES

HERE AT RIVERLAKE, BESIDES THE QUALITY OF OUR TOOLS, WE ALSO CARE ABOUT THE CUSTOMER SERVICE WE PROVIDE. NO MATTER IT IS THE TRAINING OF OUR SALES STAFF, COOPERATION WITH OUR DISTRIBUTION NETWORK, KEEPING A GOOD QUANTITY OF STOCKS FOR STANDARD MODELS, FAST AND ON-TIME SHIPPING OR AFTER-SALE SERVICE, WE ARE 100% SERIOUS ABOUT THEM.

## OUR HISTORY

THE HISTORY OF RIVERLAKE DATES BACK TO 2005, WHEN EDWARD DENG, THE FOUNDER OF THE COMPANY STARTED HIS OWN FACTORY TO MANUFACTURE ALL KINDS OF HYDRAULIC CYLINDERS AND PUMPS IN YUHUAN CITY, ZHEJIANG PROVINCE. THE BRAND NAME RIVERLAKE COMES FROM HIS LIFE EXPERIENCE. MR. EDWARD WAS BORN IN THE SICHUAN PROVINCE (ABBREVIATION AS 川) AND WENT TO SCHOOL IN THE HUBEI PROVINCE (ABBREVIATION AS 湖). THE MEANING OF 川 IN ENGLISH IS RIVER AND THE MEANING OF 湖 IN ENGLISH IS LAKE, THAT'S HOW RIVERLAKE WAS NAMED.

IN 2018, RIVERLAKE MOVED TO ITS NEW FACILITY IN THE CHUANGRONG INDUSTRIAL ZONE. TODAY, WE MANUFACTURE AT OUR OWN FACILITIES WITH A TOTAL AREA OF 7,000 M<sup>2</sup> AND 90 EMPLOYEES. OUR PRODUCTS HAVE BEEN EXPORTED TO MANY COUNTRIES AND AREAS, ESPECIALLY THE UNITED STATES, SOUTH ASIA, AND AFRICA.

## OUR WARRANTY

RIVERLAKE PRODUCTS COME WITH A COMPREHENSIVE 1-YEAR WARRANTY. FOR ALL PRODUCTS SOLD UNDER PROPER USE, WE WILL PROVIDE FREE REPLACEMENT PARTS IF TOOL FAILURE OCCURS. ALL PRODUCTS AND SERVICES OFFERED ARE SUBJECT TO OUR STANDARD TERMS & CONDITIONS.

## OUR GOAL

WE STRIVE TO BECOME AN INTERNATIONAL BRAND BUSINESS AND BUILD A STRONG DISTRIBUTION NETWORK AND REPUTATION AROUND THE GLOBE. WE WILL BE DOWN-TO-EARTH, STEP BY STEP, KEEP PROVIDING THE BEST PRODUCTS AND SERVICES AS WE CAN TO OUR CUSTOMERS, AND WORK HARD TO BECOME A WELL-KNOWN HYDRAULIC TOOLS BRAND IN OUR GENERATION.



MORE THAN 90 OUTSTANDING EMPLOYEES



WIDE RANGE OF SALES POINTS



1-YEAR WARRANTY



# RC-Series, Single-Acting Cylinders

## Product Introduction

### RC-Series, Single-Acting Cylinders



**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

**Saddles**

All RC cylinders are equipped with hardened removable grooved saddles.

- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- Designed for use in all positions;
- Baked enamel finish for increased corrosion resistance;
- Collar threads, plunger threads, and base mounting holes for easy fixturing;
- High strength alloy steel body is precision machined to reduce wear and features a baked enamel finish for durability and corrosion protection;
- Nickel plating is available on most models;
- Heavy duty return springs;
- Plunger wiper reduces contamination, extending cylinder life;
- 3/8-18NPT coupler and dust cap included on all models;
- An Industrial U-cup style seal prevents costly leaks;
- Hardened and chromed piston reduces wear and corrosion;
- High-strength composite bearing provides support for off-center loads without damaging the cylinder walls.

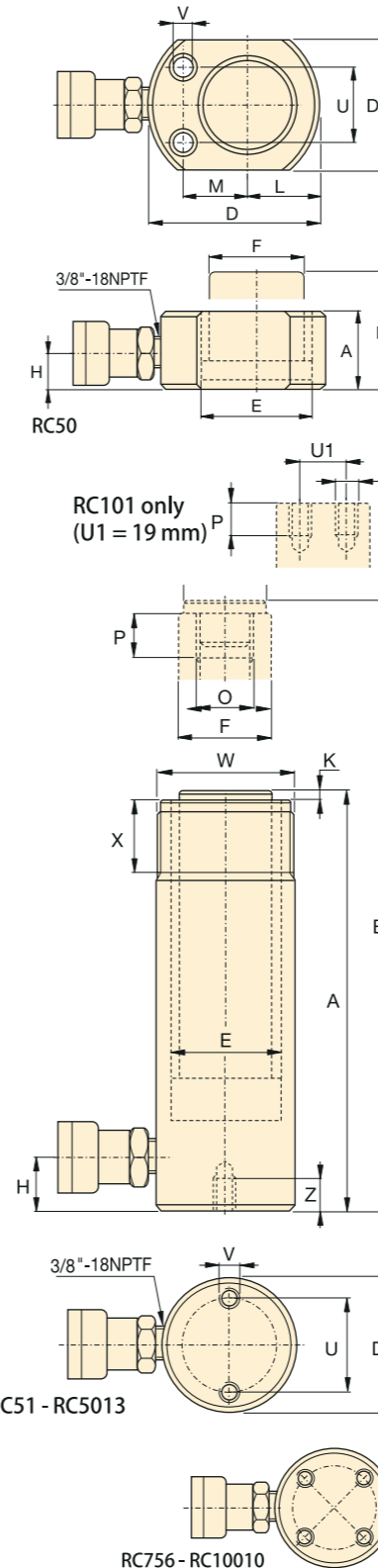
▼ Stage lifting set up in Greece, where assembled pipes, 25 meters in length, were stage lifted with six RC-2514 cylinders.



▼ RC cylinder mounting attachments greatly extend the application possibilities (available for 5, 10, 15 and 25 ton cylinders).



## Product Details



### QUICK SELECTION CHART

For complete technical information see next page . . .

Model Number	Capacity /Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>	Weight/Kg	
RC-50	5	16	6.5	10	1	
RC-51		25	6.5	16	1	
RC-53		76	6.5	50	1.5	
RC-55		127	6.5	83	1.9	
RC-57		177	6.5	115	2.4	
RC-59	232	6.5	151	2.8		
RC-101	10	26	14.5	38	1.8	
RC-102		54	14.5	78	2.3	
RC-104		105	14.5	152	3.3	
RC-106		156	14.5	226	4.4	
RC-108		203	14.5	294	5.4	
RC-1010		257	14.5	373	6.4	
RC-1012		304	14.5	441	6.8	
RC-1014		356	14.5	516	8.2	
RC-151		15	25	20.3	51	3.3
RC-152			51	20.3	104	4.1
RC-154	101		20.3	205	5	
RC-156	152		20.3	308	6.8	
RC-158	203		20.3	411	8.2	
RC-1510	254		20.3	516	9.5	
RC-1512	305		20.3	619	10.9	
RC-1514	356		20.3	723	11.8	
RC-251	25	26	33.2	86	5.9	
RC-252		50	33.2	166	6.4	
RC-254		102	33.2	339	8.2	
RC-256		158	33.2	525	10	
RC-258		210	33.2	697	12.2	
RC-2510		261	33.2	867	14.1	
RC-2512		311	33.2	1033	16.3	
RC-2514		362	33.2	1202	17.7	
RC-308		30	209	42.1	880	18.1
RC-502		50	51	71.2	362	15
RC-504	101		71.2	719	19.1	
RC-506	159		71.2	1131	23.1	
RC-5013	75	337	71.2	2399	37.6	
RC-756		156	102.6	1601	29.5	
RC-7513		33	102.6	3417	59	
RC-1006	100	168	133.3	2239	59	
RC-10010		260	133.3	3466	72.6	

## Product Details

◀ For full features see previous page.

Model Number	Capacity/To n	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)
RC-50	5	16	6.5	10	41	57	58	28.7	25.4	19
RC-51		25	6.5	16	110	135	38	28.7	25.4	19
RC-53		76	6.5	50	165	241	38	28.7	25.4	19
RC-55		127	6.5	83	215	342	38	28.7	25.4	19
RC-57		177	6.5	115	273	450	38	28.7	25.4	19
RC-59		232	6.5	151	323	555	38	28.7	25.4	19
RC-101	10	26	14.5	38	89	115	57	42.9	38.1	19
RC-102		54	14.5	78	121	175	57	42.9	38.1	19
RC-104		105	14.5	152	171	276	57	42.9	38.1	19
RC-106		156	14.5	226	247	403	57	42.9	38.1	19
RC-108		203	14.5	294	298	501	57	42.9	38.1	19
RC-1010		257	14.5	373	349	606	57	42.9	38.1	19
RC-1012		304	14.5	441	400	704	57	42.9	38.1	19
RC-1014		356	14.5	516	450	806	57	42.9	38.1	19
RC-151	15	25	20.3	51	124	149	69	50.8	41.4	19
RC-152		51	20.3	104	149	200	69	50.8	41.4	19
RC-154		101	20.3	205	200	301	69	50.8	41.4	19
RC-156		152	20.3	308	271	423	69	50.8	41.4	25
RC-158		203	20.3	411	322	525	69	50.8	41.4	25
RC-1510		254	20.3	516	373	627	69	50.8	41.4	25
RC-1512		305	20.3	619	423	728	69	50.8	41.4	25
RC-1514		356	20.3	723	474	830	69	50.8	41.4	25
RC-251	25	26	33.2	86	139	165	85	65	57.2	25
RC-252		50	33.2	166	165	215	85	65	57.2	25
RC-254		102	33.2	339	215	317	85	65	57.2	25
RC-256		158	33.2	525	273	431	85	65	57.2	25
RC-258		210	33.2	697	323	533	85	65	57.2	25
RC-2510		261	33.2	867	374	635	85	65	57.2	25
RC-2512		311	33.2	1033	425	736	85	65	57.2	25
RC-2514		362	33.2	1202	476	838	85	65	57.2	25
RC-308	30	209	42.1	880	387	596	101	73.2	57.2	57
RC-502	50	51	71.2	362	176	227	127	95.2	79.5	33
RC-504		101	71.2	719	227	328	127	95.2	79.5	33
RC-506		159	71.2	1131	282	441	127	95.2	79.5	35
RC-5013		337	71.2	2399	460	797	127	95.2	79.5	35
RC-756	75	156	102.6	1601	285	441	146	114.3	95.2	30
RC-7513		33	102.6	3417	492	825	146	114.3	95.2	30
RC-1006	100	168	133.3	2239	357	525	177	130.3	104.9	41
RC-10010		260	133.3	3466	449	709	177	130.3	104.9	41

## Product Details

Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Plunger Internal Thread(O)	Plunger Thread Length/mm(P)	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Thread Depth/mm(Z)	Collar Thread(W)	Collar Thread Length/mm(X)	Weight/Kg	Model Number
*	*	*	*	28	5.6MM	*	*	*	1	RC-50
25	6	3/4"-16UN	14	25	1/4"-20UN	14	1 1/2"-16UN	28	1	RC-51
25	6	3/4"-16UN	14	25	1/4"-20UN	14	1 1/2"-16UN	28	1.5	RC-53
25	6	3/4"-16UN	14	25	1/4"-20UN	14	1 1/2"-16UN	28	1.9	RC-55
25	6	3/4"-16UN	16	25	1/4"-20UN	14	1 1/2"-16UN	28	2.4	RC-57
25	6	3/4"-16UN	16	25	1/4"-20UN	14	1 1/2"-16UN	28	2.8	RC-59
*	*	#10-24UN	6	39	5/16"-18UN	12	2 1/4"-14UN	26	1.8	RC-101
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	2.3	RC-102
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	3.3	RC-104
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	4.4	RC-106
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	5.4	RC-108
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	6.4	RC-1010
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	6.8	RC-1012
35	6	1"-8UN	19	39	5/16"-18UN	12	2 1/4"-14UN	26	8.2	RC-1014
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	3.3	RC-151
38	9	1"-8UN	22	48	3/8"-16UN	12	2 3/4"-16UN	30	4.1	RC-152
38	9	1"-8UN	22	48	3/8"-16UN	12	2 3/4"-16UN	30	5	RC-154
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	6.8	RC-156
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	8.2	RC-158
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	9.5	RC-1510
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	10.9	RC-1512
38	9	1"-8UN	25	48	3/8"-16UN	12	2 3/4"-16UN	30	11.8	RC-1514
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	5.9	RC-251
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	6.4	RC-252
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	8.2	RC-254
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	10	RC-256
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	12.2	RC-258
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	14.1	RC-2510
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	16.3	RC-2512
50	10	1 1/2"-16UN	25	58	1/2"-13UN	19	3 5/16"-12UN	49	17.7	RC-2514
50	10	1 1/2"-16UN	25	*	*	*	3 5/16"-12UN	49	18.1	RC-308
71	2	*	*	95	1/2"-13UN	19	5"-12UN	55	15	RC-502
71	2	*	*	95	1/2"-13UN	19	5"-12UN	55	19.1	RC-504
71	2	*	*	95	1/2"-13UN	19	5"-12UN	55	23.1	RC-506
71	2	*	*	95	1/2"-13UN	19	5"-12UN	55	37.6	RC-5013
71	5	*	*	*	*	*	5 3/4"-12UN	44	29.5	RC-756
71	5	*	*	*	*	*	5 3/4"-12UN	44	59	RC-7513
71	2	*	*	140	3/4"-10UN	25	6 7/8"-12UN	44	59	RC-1006
71	2	*	*	140	3/4"-10UN	25	6 7/8"-12UN	44	72.6	RC-10010

# RCH-Series, Hollow Plunger Cylinders

## Product Introduction

### ▼ RCH-Series, Hollow Plunger Cylinders



Capacity: 13-95 ton  
 Stroke: 8-155 mm  
 Center Hole Diameter: 19,6-79,0 mm  
 Maximum Operating Pressure: 700 bar

- The hollow plunger design allows for both pull and pushes forces;
- Single-acting, spring return;
- Nickel-plated, floating center tube to increase product durability;
- Baked enamel finish for increased corrosion resistance;
- Collar threads for easy fixturing;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ Hollow plunger cylinder RCH-1003 used in an application for intermediate booms suspension on a dragline.



**80%** Think Safety

Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

**Saddles**

Most RCH-Series cylinders are equipped with smooth saddles.

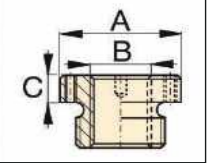


Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>
RCH-120	13	8	18,5
RCH-121		42	18,5
RCH-123		76	18,5
RCH-202	20	49	32,8
RCH-206		155	32,8
RCH-302	30	64	47,7
RCH-306		155	47,7
RCH-603	60	76	87,5
RCH-606		153	87,5
RCH-1003	95	76	135,3

## Product Details

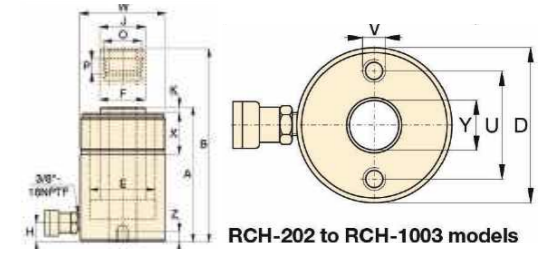
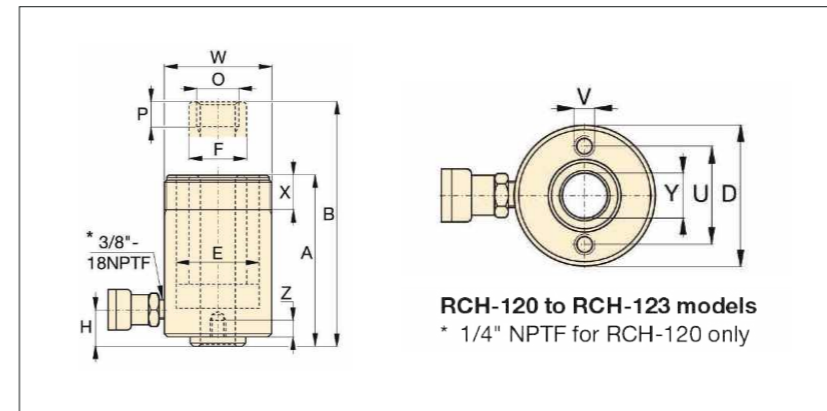
### ▼ Optional Heat Treated Hollow Saddles

Saddle Type	Cylinder Model	Saddle Model	Saddle Dimension A(mm)	Saddle Dimension A(mm)	Saddle Dimension A(mm)
Threaded Hollow	RCH-202,206	HP-2015	53	1"-8	9
	RCH-302,306	HP-3015	63	1 1/4"-7	9
	RCH-603,606	HP-5016	91	1 5/8"-5 1/2"	12
	RCH-1003	HP-10016	126	2 1/2"-8	13



Smooth hollow saddles are standard on all RCH-models (except RCH-120, RCH-1211).

▼ RCH-121 and RCH-1211 have a 47 mm dia. boss that protrudes 6 mm from base.



Model Number	Bolt Circle U	Thread V	Thread Depth Z
RCH-120	50,8	5/16"-18 uNc	9
RCH-121	*	*	*
RCH-123	50,8	5/16"-18 uNc	12,7
RCH-202	82,6	3/8"-16 uNc	9,4
RCH-206	82,6	3/8"-16 uNc	9,4
RCH-302	92,2	3/8"-16 uNc	14
RCH-306	92,2	3/8"-16 uNc	14
RCH-603	130,3	1/2"-13 uNc	14
RCH-606	130,3	1/2"-13 uNc	14
RCH-1003	177,8	5/8"-11 uNc	19

Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Plunger Dia/mm(F)	Saddle Dia/mm(J)	Saddle Protrusion from Plgr./mm(K)	Plunger Internal Thread(O)	Plunger Thread Length/mm(P)
55	63	70	35	*	*	3/4"-16 UN	16
120	162	70	35	*	*	*	*
184	260	70	35	*	*	*	*
162	211	99	55	19	54	9,7	19
306	461	99	55	25	54	9,7	19
178	242	115	65	21	63	9	22
330	485	115	65	25	63	9	22
246	322	159	92	31	91	12	19
323	476	159	92	31	91	12	19
254	330	212	127	38	126	12	25

Collar Thread(W)	Collar Thread Length/mm(X)	Center Hole Dia/mm(Y)	Weight/Kg	Model Number
2 3/4"-16 UN	30	19,6	1,5	RCH-120
2 3/4"-16 UN	30	19,6	2,8	RCH-121
2 3/4"-16 UN	30	19,6	4,4	RCH-123
3 7/8"-12 UN	38	26,9	7,3	RCH-202
3 7/8"-12 UN	38	26,9	13,4	RCH-206
4 1/2"-12 UN	42	33,3	10,5	RCH-302
4 1/2"-12 UN	42	33,3	19,3	RCH-306
6 1/4"-12 UNC	48	53,8	27,4	RCH-603
6 1/4"-12 UNC	48	53,8	34,8	RCH-606
8 3/8"-12 UN	60	79	59,5	RCH-1003

# CLL-Series, Lock Nut Cylinders

## Product Introduction

### CLL-Series, Lock Nut Cylinders



Capacity: 50-1000 ton  
 Stroke: 50-300 mm  
 Maximum Operating Pressure: 700 bar

- Lock nut provides mechanical load holding for a safe work environment;
- 10% side-load resistance of maximum capacity;
- Overflow port as stroke limiter to prevent plunger blow-out;
- Single-acting, load-return;
- Plunger wiper reduces contamination, extending cylinder life;
- Baked enamel finish for increased corrosion resistance;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ For this curved bridge, CLL-cylinders were used to support the concrete beams, to level the pierhead and to place 4000 ton slide bearings between pier and pierhead.



**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

**Saddles**

All CLL cylinders are equipped with bolt-on removable grooved saddles.

▼ CLL cylinder, mechanically locked, after positioning the curved bridge.

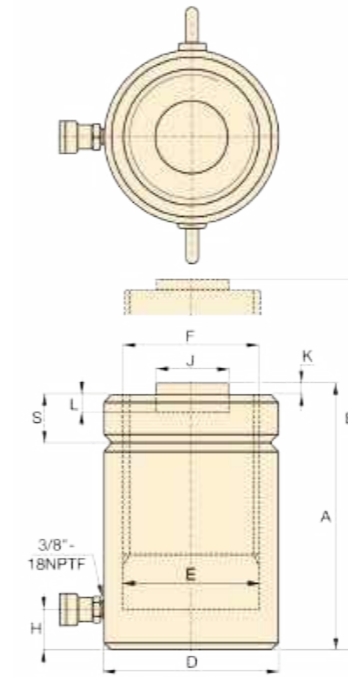


## Product Details

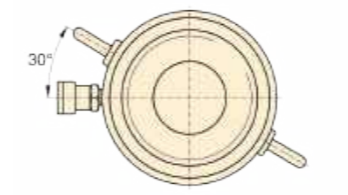
### QUICK SELECTION CHART

For complete technical information see next page . . .

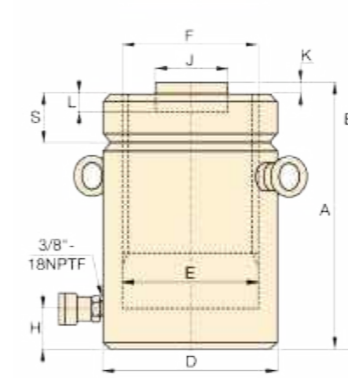
Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>
CLL-502	50	50	70.8	354
CLL-504		100	70.8	708
CLL-506		150	70.8	1062
CLL-508		200	70.8	1416
CLL-5010		250	70.8	1770
CLL-5012		300	70.8	2124
CLL-1002	100	50	132.7	663.5
CLL-1004		100	132.7	1327
CLL-1006		150	132.7	1990.5
CLL-1008		200	132.7	2654
CLL-10010		250	132.7	3317.5
CLL-10012		300	132.7	3981
CLL-1502	150	50	201	1005
CLL-1504		100	201	2010
CLL-1506		150	201	3015
CLL-1508		200	201	4020
CLL-15010		250	201	5025
CLL-15012		300	201	6030
CLL-2002	200	50	268.8	1417
CLL-2006		150	268.8	4251
CLL-20012		300	268.8	7085
CLL-2502	250	50	362.9	1814.5
CLL-2506		150	362.9	5443.5
CLL-25012		300	362.9	9072.5
CLL-3002	300	50	452.2	2261
CLL-3006		150	452.2	6783
CLL-30012		300	452.2	11305
CLL-4002	400	50	572	2905
CLL-4006		150	572	8715
CLL-40012		300	572	14525
CLL-5002	500	50	730.2	3651
CLL-5006		150	730.2	10953
CLL-50012		300	730.2	18255
CLL-6002	600	50	854.9	4274.5
CLL-6006		150	854.9	12823.5
CLL-60012		300	854.9	21372.5
CLL-8002	800	50	1163.6	5818
CLL-8006		150	1163.6	17454
CLL-80012		300	1163.6	29090
CLL-10002	1000	50	1451.5	7257.5
CLL-10006		150	1451.5	21772.5
CLL-100012		300	1451.5	36287.5



CLL-502 - CLL-25012



CLL-3002 - CLL-100012



Optional Tilt Saddle \*

## Product Details

▼ For complete technical information see next page . . .

Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)	Standard Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)
164	214	125	71	Tr 95×4	30	71	2
214	314	125	71	Tr 95×4	30	71	2
264	414	125	71	Tr 95×4	30	71	2
314	514	125	71	Tr 95×4	30	71	2
364	614	125	71	Tr 95×4	30	71	2
414	714	125	71	Tr 95×4	30	71	2
187	237	165	71	Tr 130×6	30	71	2
237	337	165	71	Tr 130×6	30	71	2
287	437	165	71	Tr 130×6	30	71	2
337	537	165	71	Tr 130×6	30	71	2
387	637	165	71	Tr 130×6	30	71	2
437	737	165	71	Tr 130×6	30	71	2
209	259	205	130	Tr160×6	39	130	2
259	359	205	130	Tr160×6	39	130	2
309	459	205	130	Tr160×6	39	130	2
359	559	205	130	Tr160×6	39	130	2
409	659	205	130	Tr160×6	39	130	2
459	759	205	130	Tr160×6	39	130	2
243	293	235	130	Tr185×6	50	130	2
343	493	235	130	Tr185×6	50	130	2
443	693	235	130	Tr185×6	50	130	2
249	299	275	150	Tr 215×6	50	150	2
349	499	275	150	Tr 215×6	50	150	2
449	699	275	150	Tr 215×6	50	150	2
295	345	310	139	Tr 240×6	59	139	5
395	545	310	139	Tr 240×6	59	139	5
495	745	310	139	Tr 240×6	59	139	5
335	385	350	159	Tr 265×6	70	159	5
435	585	350	159	Tr 265×6	70	159	5
535	785	350	159	Tr 265×6	70	159	5
375	425	400	179	Tr 305×6	80	179	5
475	625	400	179	Tr 305×6	80	179	5
575	825	400	179	Tr 305×6	80	179	5
395	445	430	194	Tr 330×6	85	194	5
495	645	430	194	Tr 330×6	85	194	5
595	845	430	194	Tr 330×6	85	194	5
455	505	505	224	Tr 385×6	100	224	5
555	705	505	224	Tr 385×6	100	224	5
655	905	505	224	Tr 385×6	100	224	5
495	545	560	249	Tr 430×6	110	249	5
595	745	560	249	Tr 430×6	110	249	5
695	945	560	249	Tr 430×6	110	249	5

## Product Details

◀ For full features see previous page.

Depth of Plunger Hole/mm(L)	Lock Nut Height/mm(S)	Saddle Dia/mm(J1)	Saddle Height/mm(K1)	Saddle Model Number	Weight/Kg	Model Number
13	36	71	24	CAT-100	15	CLL-502
13	36	71	24	CAT-100	20	CLL-504
13	36	71	24	CAT-100	25	CLL-506
13	36	71	24	CAT-100	30	CLL-508
13	36	71	24	CAT-100	35	CLL-5010
13	36	71	24	CAT-100	40	CLL-5012
13	44	71	24	CAT-100	30	CLL-1002
13	44	71	24	CAT-100	39	CLL-1004
13	44	71	24	CAT-100	48	CLL-1006
13	44	71	24	CAT-100	56	CLL-1008
13	44	71	24	CAT-100	64	CLL-10010
13	44	71	24	CAT-100	73	CLL-10012
25	44	130	20	CAT-200	53	CLL-1502
25	44	130	20	CAT-200	66	CLL-1504
25	44	130	20	CAT-200	78	CLL-1506
25	44	130	20	CAT-200	92	CLL-1508
25	44	130	20	CAT-200	104	CLL-15010
25	44	130	20	CAT-200	117	CLL-15012
25	50	130	20	CAT-200	83	CLL-2002
25	50	130	20	CAT-200	118	CLL-2006
25	50	130	20	CAT-200	153	CLL-20012
25	56	150	21	CAT-250	116	CLL-2502
25	56	150	21	CAT-250	163	CLL-2506
25	56	150	21	CAT-250	210	CLL-25012
25	60	195	75	CAT-300	173	CLL-3002
25	60	195	75	CAT-300	233	CLL-3006
25	60	195	75	CAT-300	293	CLL-30012
25	70	225	85	CAT-400	251	CLL-4002
25	70	225	85	CAT-400	327	CLL-4006
25	70	225	85	CAT-400	403	CLL-40012
25	80	250	91	CAT-500	367	CLL-5002
25	80	250	91	CAT-500	467	CLL-5006
25	80	250	91	CAT-500	568	CLL-50012
25	85	275	96	CAT-600	447	CLL-6002
25	85	275	96	CAT-600	563	CLL-6006
25	85	275	96	CAT-600	680	CLL-60012
25	100	320	123	CAT-800	711	CLL-8002
25	100	320	123	CAT-800	871	CLL-8006
25	100	320	123	CAT-800	1031	CLL-80012
25	110	360	136	CAT-1000	951	CLL-10002
25	110	360	136	CAT-1000	1143	CLL-10006
25	110	360	136	CAT-1000	1335	CLL-100012



# CLP-Series, Pancake Lock Nut Cylinders

## Product Introduction

### CLP-Series, Pancake Lock Nut Cylinders



Capacity: 60-520 ton  
 Stroke: 45-50 mm  
 Maximum Operating Pressure: 700 bar

- Lock nut provides mechanical load holding for a safe work environment;
- An integrated tilt saddle allows for up to 5 degrees of misalignment;
- Extreme low height for use in confined areas;
- 10% side-load resistance of maximum capacity;
- Overflow port as stroke limiter to prevent plunger blow-out;
- Single-acting, load-return;
- Plunger wiper reduces contamination, extending cylinder life;
- Baked enamel finish for increased corrosion resistance;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ Only the extreme low height CLP-cylinder fits in this confined area to lift the construction. The V-82 needle valve is used to control cylinder speed during lifting and lowering.



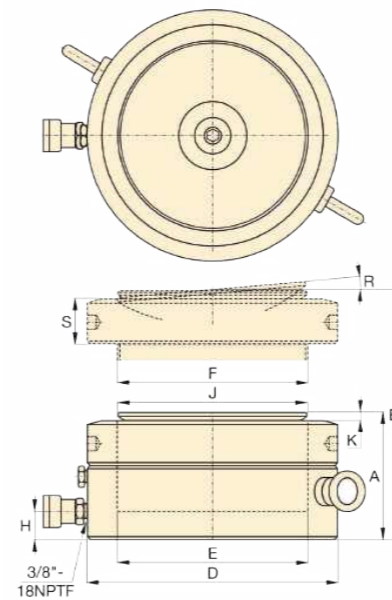
**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

**Tilt Saddles**

All CLP-Series cylinders include integral tilt saddles with maximum tilt angles up to 5°.

## Product Details



**ALL CLP-SERIES**

CYLINDERS REQUIRE A SOLID LIFTING SURFACE FOR CORRECT SUPPORT.

USE OF PANCAKE CYLINDERS ON SURFACES SUCH AS SAND, MUD OR DIRT, MAY RESULT IN CYLINDER DAMAGE!

**WRONG!**

Rough soil

**RIGHT!**

Flat lifting surface

Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)
125.00	175.00	140	96	TR104 X4	19
137.00	187.00	175	126	TR134.5 X 6	21
148.00	193.00	220	159	TR170 X 6	27
155.00	200.00	245	180	TR 190 X6	30
159.00	204.00	275	200	TR215 X 6	32
178.00	223.00	350	250	TR265 X 6	39
192.00	237.00	400	290	TR305 X 6	48

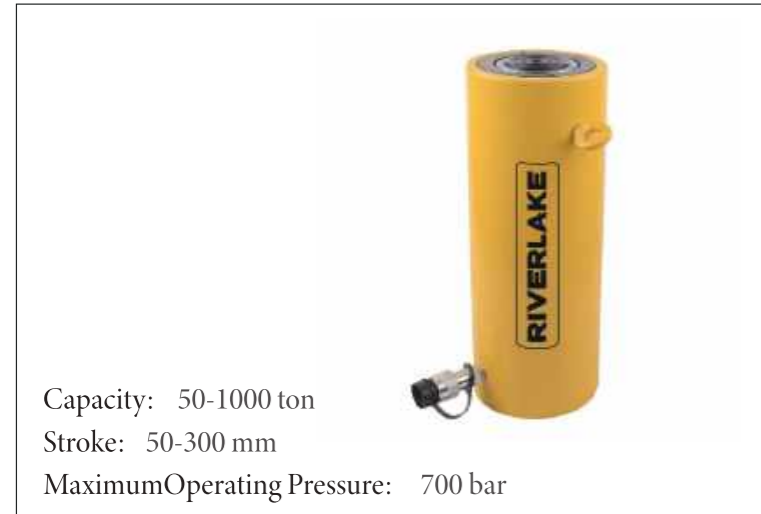
Standard Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Saddle Max. Tilt Angle(R)	Lock Nut Height/mm(S)	Weight/Kg	Model Number
96	6	5°	28	14.5	CLP-602
126	8	5°	31	23.5	CLP-1002
160	9	5°	40	41.5	CLP-1602
180	10	5°	43	57	CLP-2002
200	11	5°	44	74	CLP-2502
250	11	4°	55	134	CLP-4002
290	10	3°	62	189	CLP-5002

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>
CLP-602	60	50	86.6	433
CLP-1002	100	50	143.1	715
CLP-1602	160	45	226.9	1021
CLP-2002	200	45	283.4	1275
CLP-2502	250	45	362.9	1633
CLP-4002	400	45	551.3	2481
CLP-5002	520	45	730.3	3286

# CLSG-Series, Single Acting Cylinders

## Product Introduction

### CLSG-Series, Single Acting Cylinders



Capacity: 50-1000 ton  
 Stroke: 50-300 mm  
 Maximum Operating Pressure: 700 bar

- Interchangeable, hardened grooved saddles are standard configuration;
- Plunger wiper reduces contamination, extending cylinder life;
- The integral stopping ring provides piston blow-out protection;
- Single-acting, load retraction;
- Baked enamel finish for increased corrosion resistance;
- Base mounting holes for easy fixturing;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ Eight CLSG-2506 cylinders equipped with tilting saddles lifted the planking of the bridge as the pier heads were being rebuilt.



**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

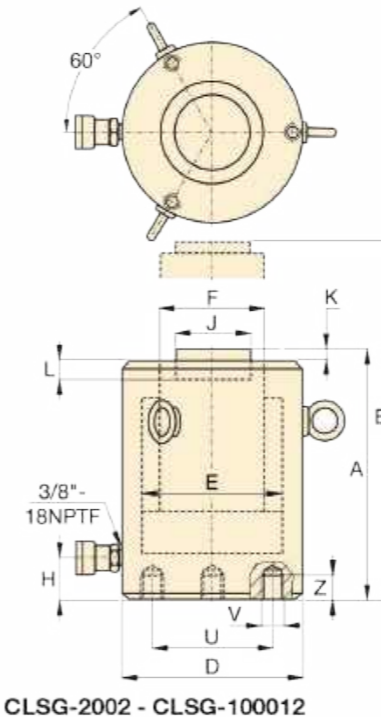
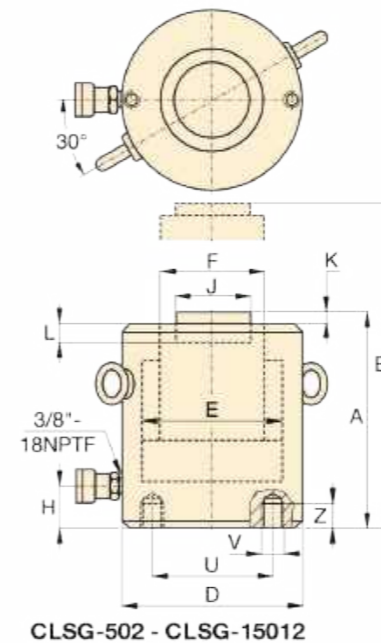
**Saddles**

All CLSG-Series cylinders are equipped with bolt-on removable grooved saddles.

## Product Details

**Mounting Hole Orientation**

Top mounting hole orientation is maintained to port location. Base mounting hole orientation is not maintained to port location.



◀ For full features see previous page.

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>	
CLSG-502	50	50	75.4	385	
CLSG-504		100	75.4	770	
CLSG-506		150	75.4	1155	
CLSG-508		200	75.4	1540	
CLSG-5010		250	75.4	1924	
CLSG-5012	100	300	75.4	2309	
CLSG-1002		50	132.5	664	
CLSG-1004		100	132.5	1327	
CLSG-1006		150	132.5	1991	
CLSG-1008		200	132.5	2655	
CLSG-10010	150	250	132.5	3318	
CLSG-10012		300	132.5	3982	
CLSG-1502		50	202.5	1010	
CLSG-1504		100	202.5	2020	
CLSG-1506		150	202.5	3028	
CLSG-1508	200	200	202.5	4038	
CLSG-15010		250	202.5	5048	
CLSG-15012		300	202.5	6058	
CLSG-2002		50	266	1330	
CLSG-2006		150	266	3989	
CLSG-20012	250	300	266	7977	
CLSG-2502		50	362.7	1813	
CLSG-2506		150	362.7	5442	
CLSG-25012		300	362.7	10883	
CLSG-3002		300	50	452	2262
CLSG-3006	150		452	6786	
CLSG-30012	300		452	13571	
CLSG-4002	400		50	572	2860
CLSG-4006			150	572	8580
CLSG-40012		300	572	17230	
CLSG-5002		500	50	730.6	3653
CLSG-5006			150	730.6	10959
CLSG-50012	300		730.6	21918	
CLSG-6002	600		50	855.3	4276
CLSG-6006			150	855.3	12829
CLSG-60012		300	855.3	25659	
CLSG-8002		800	50	1163	5816
CLSG-8006			150	1163	17450
CLSG-80012	300		1163	34900	
CLSG-10002	1000		50	1450	7255
CLSG-10006			150	1450	21766
CLSG-100012		300	1450	43532	

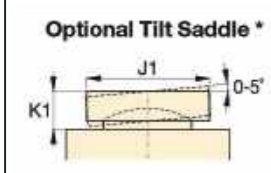
### Base Mounting Hole Dimensions (mm)

Base Mounting Hole Bolt Circle(U)	Base Mounting Hole Thread(V)	Base Mounting Hole Thread Depth/mm(Z)	Model Number
65	M12	23	CLSG-50
95	M12	23	CLSG-100
130	M12	23	CLSG-150
165	M12	23	CLSG-200
190	M12	23	CLSG-250
180	M16	30	CLSG-300
205	M16	30	CLSG-400
250	M24	36	CLSG-500
275	M24	36	CLSG-600
330	M24	36	CLSG-800
375	M24	36	CLSG-1000

1) Base mounting holes are random positioned in regard to coupler position.

## Product Details

▼ For complete technical information see next page . . .

 Optional Tilt Saddle*	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)
	162	212	130	99	70	52
	212	312	130	99	70	52
	262	412	130	99	70	52
	312	512	130	99	70	52
	362	612	130	99	70	52
	412	712	130	99	70	52
	182	232	165	130	95	54
	232	332	165	130	95	54
	282	432	165	130	95	54
	332	532	165	130	95	54
	382	632	165	130	95	54
	432	732	165	130	95	54
	196	246	205	159	115	61
	246	346	205	159	115	61
	296	446	205	159	115	61
	346	546	205	159	115	61
	396	646	205	159	115	61
	446	746	205	159	115	61
	216	266	235	184	135	67
	316	466	235	184	135	67
	466	766	235	184	135	67
	235	285	275	216	165	73
	335	485	275	216	165	73
	485	785	275	216	165	73
	312	362	310	241	200	101
	412	562	310	241	200	101
	562	862	310	241	200	101
	375	425	350	267	215	114
	475	625	350	267	215	114
	625	925	350	267	215	114
	419	469	400	305	250	114
	519	669	400	305	250	114
	669	969	400	305	250	114
	429	479	430	330	270	114
	529	679	430	330	270	114
	679	979	430	330	270	114
	474	524	505	387	320	149
	574	724	505	387	320	149
	724	1024	505	387	320	149
	564	614	560	432	345	174
	664	814	560	432	345	174
	814	1114	560	432	345	174

## Product Details

◀ For full features see previous page.

Standard Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Depth of Plunger Hole/mm(L)	Saddle Dia/mm(J1)	Saddle Height/mm(K1)	Saddle Model	Weight/Kg	Model Number
50	1	19	50	24	CATG-50	17	CLSG-502
50	1	19	50	24	CATG-50	20	CLSG-504
50	1	19	50	24	CATG-50	23	CLSG-506
50	1	19	50	24	CATG-50	27	CLSG-508
50	1	19	50	24	CATG-50	31	CLSG-5010
50	1	19	50	24	CATG-50	34	CLSG-5012
75	1	19	73	29	CATG-100	28	CLSG-1002
75	1	19	73	29	CATG-100	33	CLSG-1004
75	1	19	73	29	CATG-100	40	CLSG-1006
75	1	19	73	29	CATG-100	50	CLSG-1008
75	1	19	73	29	CATG-100	61	CLSG-10010
75	1	19	73	29	CATG-100	71	CLSG-10012
94	1	19	91	31	CATG-150	39	CLSG-1502
94	1	19	91	31	CATG-150	52	CLSG-1504
94	1	19	91	31	CATG-150	65	CLSG-1506
94	1	19	91	31	CATG-150	78	CLSG-1508
94	1	19	91	31	CATG-150	92	CLSG-15010
94	1	19	91	31	CATG-150	105	CLSG-15012
113	1	24	118	35	CATG-200	55	CLSG-2002
113	1	24	118	35	CATG-200	91	CLSG-2006
113	1	24	118	35	CATG-200	146	CLSG-20012
145	1	24	144	46	CATG-250	89	CLSG-2502
145	1	24	144	46	CATG-250	136	CLSG-2506
145	1	24	144	46	CATG-250	207	CLSG-25012
177	1	19	160	62	CATG-300	184	CLSG-3002
177	1	19	160	62	CATG-300	232	CLSG-3006
177	1	19	160	62	CATG-300	303	CLSG-30012
196	3	27	193	51	CATG-400	270	CLSG-4002
196	3	27	193	51	CATG-400	330	CLSG-4006
196	3	27	193	51	CATG-400	421	CLSG-40012
228	3	27	228	63	CATG-500	401	CLSG-5002
228	3	27	228	63	CATG-500	480	CLSG-5006
228	3	27	228	63	CATG-500	599	CLSG-50012
247	3	27	241	76	CATG-600	474	CLSG-6002
247	3	27	241	76	CATG-600	565	CLSG-6006
247	3	27	241	76	CATG-600	701	CLSG-60012
297	3	27	287	75	CATG-800	741	CLSG-8002
297	3	27	287	75	CATG-800	868	CLSG-8006
297	3	27	287	75	CATG-800	1058	CLSG-80012
323	3	27	311	93	CATG-1000	1062	CLSG-10002
323	3	27	311	93	CATG-1000	1213	CLSG-10006
323	3	27	311	93	CATG-1000	1439	CLSG-100012

## CLRG-Series, High Tonnage Cylinders

### Product Introduction


#### CLRG-Series, High Tonnage Cylinders



Capacity: 50-1000 ton  
Stroke: 50-300 mm  
Maximum Operating Pressure: 700 bar

- Interchangeable, hardened grooved saddles are standard configuration;
- Plunger wiper reduces contamination, extending cylinder life;
- The integral stopping ring provides piston blow-out protection;
- Double-acting, hydraulic return;
- Baked enamel finish for increased corrosion resistance;
- Base mounting holes for easy fixturing;
- An Industrial U-cup style seal prevents costly leaks;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- Safety valve in retract side of cylinder helps to prevent damage in case of accidental over-pressurization.


▼ The dismantling of the temporary support towers of Beijing's "Bird's Nest" During the stage lowering process the bird's nest is alternatively supported by CLRG-Series cylinders.

**Think Safety**  
Manufacturer's rating of load and stroke are maximum safe limits.  
Good practice encourages using only 80% of these ratings.



**Saddles**  
All CLRG cylinders are equipped with bolt-on removable grooved saddles.

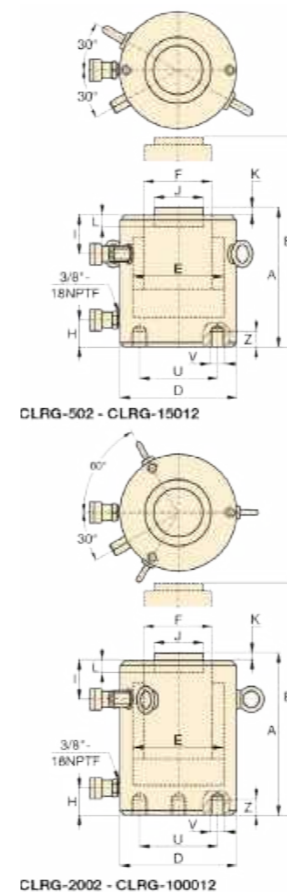


**Safety Device**  
A pilot-operated check valve (V-42) can be inserted between cylinder and pump. This valve provides a safety lock on the cylinder under load at any position and remote control for unlocking.

▼ Replacing adjustment rolls under a fly-over with CLRG cylinders, for controlled lifting and lowering



### Product Details



▼ Base Mounting Hole<sup>1)</sup> Dimensions (mm)

Model Number	Bolt Circle U	Thread Size V	Min. Thread Depth Z
CLRG-50	65	2xM12	22
CLRG-100	95	2xM12	22
CLRG-150	130	2xM12	22
CLRG-200	165	3xM12	22
CLRG-250	190	3xM12	22
CLRG-300	180	3xM16	30
CLRG-400	205	3xM16	30
CLRG-500	250	3xM24	36
CLRG-600	275	3xM24	36
CLRG-800	330	3xM24	36
CLRG-1000	375	3xM24	36

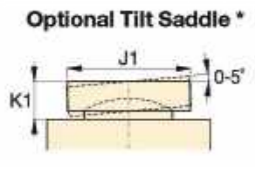
1) Base mounting holes are random positioned in regard to coupler position.

◀ For full features see previous page.

Model Number	Capacity/Ton	Stroke/mm	Push Max Cylinder Capacity/KN	Pull Max Cylinder Capacity/KN	Push Cylinder Effective Area/cm <sup>2</sup>	Pull Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/c m <sup>3</sup>	Pull Oil Capacity/c m <sup>3</sup>
CLRG-502	50	50	539	269	77	38.5	385	192
CLRG-504		100	539	269	77	38.5	770	385
CLRG-506		150	539	269	77	38.5	1155	577
CLRG-508		200	539	269	77	38.5	1540	770
CLRG-5010		250	539	269	77	38.5	1924	962
CLRG-5012		300	539	269	77	38.5	2309	1155
CLRG-1002	100	50	929	433	132.7	61.9	664	309
CLRG-1004		100	929	433	132.7	61.9	1327	619
CLRG-1006		150	929	433	132.7	61.9	1991	928
CLRG-1008		200	929	433	132.7	61.9	2655	1237
CLRG-10010		250	929	433	132.7	61.9	3318	1546
CLRG-10012		300	929	433	132.7	61.9	3982	1856
CLRG-1502	150	50	1390	675	198.6	96.5	993	482
CLRG-1504		100	1390	675	198.6	96.5	1986	965
CLRG-1506		150	1390	675	198.6	96.5	2978	1447
CLRG-1508		200	1390	675	198.6	96.5	3971	1930
CLRG-15010		250	1390	675	198.6	96.5	4964	2412
CLRG-15012		300	1390	675	198.6	96.5	5957	2895
CLRG-2002	200	50	1861	889	265.9	127	1330	635
CLRG-2006		150	1861	889	265.9	127	3989	1905
CLRG-20012		300	1861	889	265.9	127	7977	3809
CLRG-2502	250	50	2565	1068	366.4	152.6	1832	763
CLRG-2506		150	2565	1068	366.4	152.6	5497	2289
CLRG-25012		300	2565	1068	366.4	152.6	10993	4578
CLRG-3002	300	50	3193	1060	456.2	151.4	2281	757
CLRG-3006		150	3193	1060	456.2	151.4	6843	2270
CLRG-30012		300	3193	1060	456.2	151.4	13685	4541
CLRG-4002	400	50	3919	1354	559.9	193.5	2800	967
CLRG-4006		150	3919	1354	559.9	193.5	8399	2902
CLRG-40012		300	3919	1354	559.9	193.5	16797	5804
CLRG-5002	500	50	5114	1733	730.6	247.6	3653	1238
CLRG-5006		150	5114	1733	730.6	247.6	10959	3713
CLRG-50012		300	5114	1733	730.6	247.6	21918	7427
CLRG-6002	600	50	5987	2068	855.3	295.4	4276	1477
CLRG-6006		150	5987	2068	855.3	295.4	12829	4431
CLRG-60012		300	5987	2068	855.3	295.4	25659	8862
CLRG-8002	800	50	8234	2709	1176.3	387	5881	1935
CLRG-8006		150	8234	2709	1176.3	387	17644	5806
CLRG-80012		300	8234	2709	1176.3	387	35288	11611
CLRG-10002	1000	50	10260	3792	3792	541.7	7329	2709
CLRG-10006		150	10260	3792	3792	541.7	21986	8126
CLRG-100012		300	10260	3792	3792	541.7	43972	16252

## Product Details

▼ For complete technical information see next page . . .

Optional Tilt Saddle *	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)
	162	212	130	99	70	52
	212	312	130	99	70	52
	262	412	130	99	70	52
	312	512	130	99	70	52
	362	612	130	99	70	52
	412	712	130	99	70	52
	179	229	165	130	95	54
	229	329	165	130	95	54
	279	429	165	130	95	54
	329	529	165	130	95	54
	379	629	165	130	95	54
	429	729	165	130	95	54
	196	246	205	159	114	61
	246	346	205	159	114	61
	296	446	205	159	114	61
	346	546	205	159	114	61
	396	646	205	159	114	61
	446	746	205	159	114	61
	212	262	235	184	133	67
	312	462	235	184	133	67
462	762	235	184	133	67	
235	285	275	216	165	73	
335	485	275	216	165	73	
485	785	275	216	165	73	
322	372	310	241	197	101	
422	572	310	241	197	101	
572	872	310	241	197	101	
374	424	350	267	216	114	
474	624	350	267	216	114	
624	924	350	267	216	114	
419	469	400	305	248	114	
519	669	400	305	248	114	
669	969	400	305	248	114	
429	479	430	330	267	114	
529	679	430	330	267	114	
679	979	430	330	267	114	
484	534	505	387	317	149	
584	734	505	387	317	149	
734	1034	505	387	317	149	
564	614	560	432	343	174	
664	814	560	432	343	174	
814	1114	560	432	343	174	

## Product Details

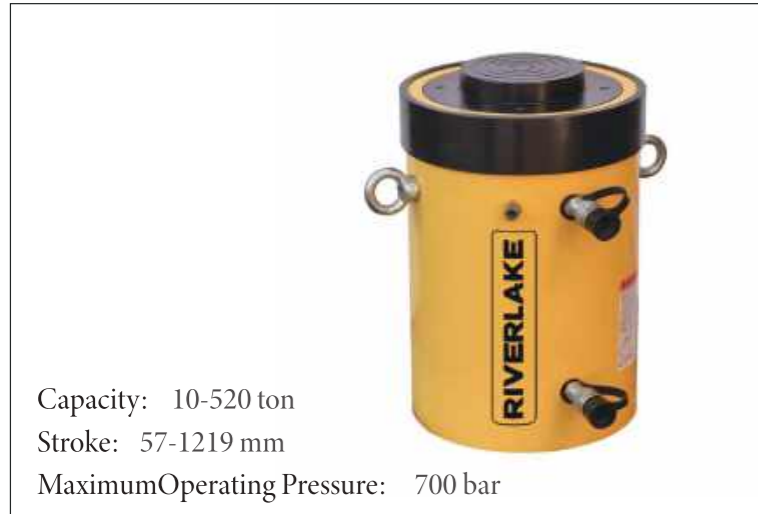
◀ For full features see previous page.

Top To Retract Port/mm(I)	Saddle Dia/mm(J)	Saddle Protri. From Page./mm(K)	Depth of Plunger Hole/mm(L)	Saddle Dia/mm(J1)	Saddle Height/mm(K1)	Saddle Model	Weight/Kg	Model Number
33	50	1	19	50	24	CATG-50	17	CLRG-502
33	50	1	19	50	24	CATG-50	20	CLRG-504
33	50	1	19	50	24	CATG-50	23	CLRG-506
33	50	1	19	50	24	CATG-50	27	CLRG-508
33	50	1	19	50	24	CATG-50	31	CLRG-5010
33	50	1	19	50	24	CATG-50	34	CLRG-5012
48	75	1	19	73	29	CATG-100	29	CLRG-1002
48	75	1	19	73	29	CATG-100	34	CLRG-1004
48	75	1	19	73	29	CATG-100	40	CLRG-1006
48	75	1	19	73	29	CATG-100	46	CLRG-1008
48	75	1	19	73	29	CATG-100	52	CLRG-10010
48	75	1	19	73	29	CATG-100	58	CLRG-10012
56	94	1	19	91	31	CATG-150	39	CLRG-1502
56	94	1	19	91	31	CATG-150	52	CLRG-1504
56	94	1	19	91	31	CATG-150	65	CLRG-1506
56	94	1	19	91	31	CATG-150	78	CLRG-1508
56	94	1	19	91	31	CATG-150	92	CLRG-15010
56	94	1	19	91	31	CATG-150	105	CLRG-15012
66	113	1	24	118	35	CATG-200	55	CLRG-2002
66	113	1	24	118	35	CATG-200	91	CLRG-2006
66	113	1	24	118	35	CATG-200	146	CLRG-20012
78	145	1	24	144	46	CATG-250	89	CLRG-2502
78	145	1	24	144	46	CATG-250	136	CLRG-2506
78	145	1	24	144	46	CATG-250	207	CLRG-25012
75	177	1	19	160	62	CATG-300	184	CLRG-3002
75	177	1	19	160	62	CATG-300	232	CLRG-3006
75	177	1	19	160	62	CATG-300	303	CLRG-30012
105	196	3	27	193	51	CATG-400	270	CLRG-4002
105	196	3	27	193	51	CATG-400	330	CLRG-4006
105	196	3	27	193	51	CATG-400	421	CLRG-40012
135	228	3	27	228	63	CATG-500	401	CLRG-5002
135	228	3	27	228	63	CATG-500	480	CLRG-5006
135	228	3	27	228	63	CATG-500	599	CLRG-50012
135	247	3	27	241	76	CATG-600	474	CLRG-6002
135	247	3	27	241	76	CATG-600	565	CLRG-6006
135	247	3	27	241	76	CATG-600	701	CLRG-60012
135	297	3	27	287	75	CATG-800	741	CLRG-8002
135	297	3	27	287	75	CATG-800	868	CLRG-8006
135	297	3	27	287	75	CATG-800	1058	CLRG-80012
170	323	3	27	311	93	CATG-1000	1062	CLRG-10002
170	323	3	27	311	93	CATG-1000	1213	CLRG-10006
170	323	3	27	311	93	CATG-1000	1439	CLRG-100012

# RR-Series, Double-Acting Cylinders

## Product Introduction

### RR-Series, Double-Acting Cylinders



Capacity: 10-520 ton  
 Stroke: 57-1219 mm  
 Maximum Operating Pressure: 700 bar

- Collar threads and plunger threads for easy fixturing;
- Baked enamel finish for increased corrosion resistance;
- Removable hardened saddles protect the plunger during lifting and pressing;
- A built-in safety valve prevents accidental over-pressurization;
- Plunger wiper reduces contamination, extending cylinder life;
- The integral stopping ring provides piston blow-out protection;
- Double-acting, hydraulic return;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ These long stroke RR-cylinders are attached in a sliding and guiding system pulling the arched roof assembly of Athens Olympic Stadium step by step into the final position.



**80%** **Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

**Saddles**  
 RR-Series cylinders up to 75 ton have plunger mounting holes for installation of CAT-Series tilt saddles.

▼ RR-cylinders provide power and precision in a special hydraulic press.



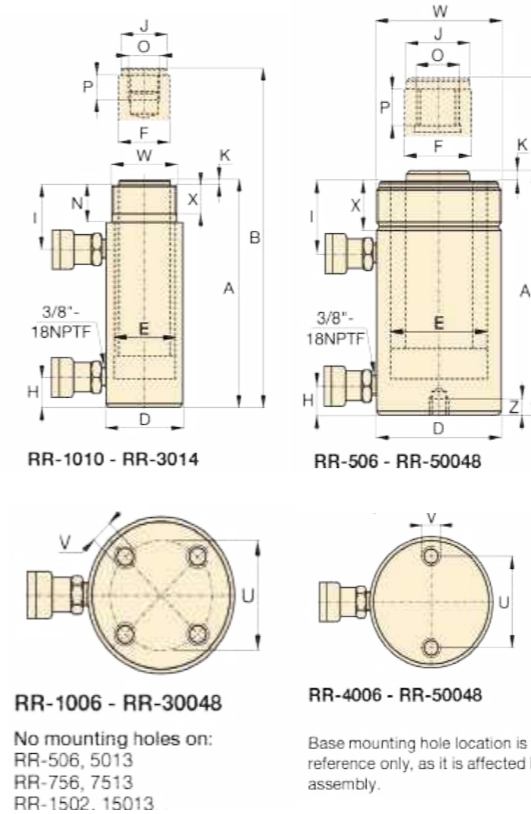
## Product Details



Cylinder retract capacity for certain RR cylinders may be less than theoretical values, as a result of reduced relief valve pressure settings.

RR-308/3014: 275 bar  
 RR-506/5013/5020: 480 bar  
 RR-756/7513: 495 bar

▼ 1. For complete technical information see next page . . .



Model Number	Capacity/Ton	Stroke/mm	Advance Cylinder Effective Area/cm <sup>2</sup>	Retract Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/cm <sup>3</sup>
RR-1010	10	254	14.5	4.8	368
RR-1012	10	305	14.5	4.8	442
RR-308	30	209	42.1	19.1	879
RR-3014	30	368	42.1	19.1	1549
RR-506	50	156	71.2	21.5	1111
RR-5013	50	334	71.2	21.5	2378
RR-5020	50	511	71.2	21.5	3638
RR-756	75	156	102.6	31.4	1601
RR-7513	75	333	102.6	31.4	3417
RR-1006	95	168	133.3	62.2	2238
RR-10013	95	333	133.3	62.2	4439
RR-10018	95	460	133.3	62.2	6132
RR-1502	140	57	198.1	95.4	1129
RR-1506	140	156	198.1	95.4	3090
RR-15013	140	333	198.1	95.4	6597
RR-15032	140	815	198.1	95.4	16145
RR-2006	200	152	285	145.3	4332
RR-20013	200	330	285	145.3	9405
RR-20018	200	457	285	145.3	13025
RR-20024	200	610	285	145.3	17385
RR-20036	200	914	285	145.3	26049
RR-20048	200	1219	285	145.3	34741
RR-3006	325	153	457.3	243.2	6997
RR-30012	325	305	457.3	243.2	13947
RR-30018	325	457	457.3	243.2	20889
RR-30024	325	609	457.3	243.2	27850
RR-30036	325	915	457.3	243.2	41843
RR-30048	325	1219	457.3	243.2	55745
RR-4006	440	152	613.1	328.1	9319
RR-40012	440	305	613.1	328.1	18700
RR-40018	440	457	613.1	328.1	28018
RR-40024	440	610	613.1	328.1	37400
RR-40036	440	914	613.1	328.1	56037
RR-40048	440	1219	613.1	328.1	74737
RR-5006	520	153	729.7	405.4	1164
RR-50012	520	305	729.7	405.4	22256
RR-50018	520	457	729.7	405.4	33347
RR-50024	520	609	729.7	405.4	44440
RR-50036	520	915	729.7	405.4	66768
RR-50048	520	1219	729.7	405.4	88951

## Product Details

◀ 1. For full features see previous page.

Pull Oil Capacity/cm3	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)
122	409	663	73
147	457	762	73
400	395	604	101
703	549	917	101
335	331	487	127
718	509	843	127
1099	733	1244	127
490	347	503	146
1046	525	858	146
1045	357	525	177
2071	524	857	177
2861	687	1147	177
544	196	253	203
1488	385	541	203
3177	582	915	203
7775	1116	1931	203
2209	430	582	247
4795	608	938	247
6640	765	1222	247
8863	917	1527	247
13280	1222	2136	247
17712	1527	2746	247
3721	485	638	311
7418	638	943	311
11114	790	1247	311
14811	943	1552	311
22253	1247	2162	311
29646	1552	2771	311
4987	538	690	358
10007	690	995	358
14995	843	1300	358
20014	995	1605	358
29988	1300	2214	358
39996	1605	2824	358
6203	577	730	397
12365	730	1035	397
18526	882	1339	397
24689	1035	1644	397
36973	1339	2254	397
49418	1644	2863	397

▼ 2. For complete technical information see next page . . .

Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)	Top To Retract Port/mm(I)	Saddle Dia/mm(J)
42.9	34.9	36	57	35
42.9	34.9	36	57	35
73.2	54.1	39	81	50
73.2	54.1	39	81	50
95.2	79.5	28	76	71
95.2	79.5	28	76	71
95.2	79.5	57	76	71
114.3	95.2	30	76	71
114.3	95.2	30	81	71
130.3	95.2	38	71	76
130.3	95.2	38	71	76
130.3	95.2	41	92	76
158.8	114.3	22	66	95
158.8	114.3	49	84	114
158.8	114.3	49	84	114
158.8	114.3	76	88	114
190.5	133.4	57	96	133
190.5	133.4	57	96	133
190.5	133.4	85	101	133
190.5	133.4	85	101	133
190.5	133.4	85	101	133
190.5	133.4	85	101	133
241.3	165.1	88	114	165
241.3	165.1	88	114	165
241.3	165.1	88	114	165
241.3	165.1	88	114	165
241.3	165.1	88	114	165
241.3	165.1	88	114	165
241.3	165.1	88	114	165
279.4	190.5	108	133	190
279.4	190.5	108	133	190
279.4	190.5	108	133	190
279.4	190.5	108	133	190
279.4	190.5	108	133	190
304.8	203.2	120	152	203
304.8	203.2	120	152	203
304.8	203.2	120	152	203
304.8	203.2	120	152	203
304.8	203.2	120	152	203
304.8	203.2	120	152	203

## Product Details

◀ 2. For full features see previous page.

Saddle Protr. fr. Plgr./mm(K)	Plunger Internal Thread(O)	Plunger Thread Length/mm(P)	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Thread Depth/mm(Z)	Collar Thread(W)	Collar Thread Length/mm(X)	Weight/Kg	Model Number
6	1"-8	25	*	*	*	2 1/4"-14	26	12	RR-1010
6	1"-8	25	*	*	*	2 1/4"-14	26	14	RR-1012
10	1 1/2"-16	25	*	*	*	3 5/16"-12	49	18	RR-308
10	1 1/2"-16	25	*	*	*	3 5/16"-12	49	29	RR-3014
2	1"-12	25	*	*	*	5"-12	44	30	RR-506
2	1"-12	25	*	*	*	5"-12	44	52	RR-5013
2	1"-12	25	76	1/2"-13	25	5"-12	44	68	RR-5020
6	1"-12	38	*	*	*	5 3/4"-12	38	41	RR-756
6	1"-12	38	*	*	*	5 3/4"-12	38	68	RR-7513
3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	61	RR-1006
3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	93	RR-10013
3	1 3/4"-12	35	139	3/4"-10	25	6 7/8"-12	50	117	RR-10018
19	*	*	*	*	*	*	*	49	RR-1502
19	3 3/8"-16	35	158	3/4"-16	28	8"-12	55	93	RR-1506
19	3 3/8"-16	35	158	3/4"-16	28	8"-12	55	124	RR-15013
19	3 3/8"-16	35	*	*	*	8"-12	55	238	RR-15032
22	*	*	127	1"-8	25	*	*	147	RR-2006
22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	199	RR-20013
22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	204	RR-20018
22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	279	RR-20024
22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	383	RR-20036
22	2 1/2"-12	63	127	1"-8	25	9 3/4"-12	54	483	RR-20048
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	200	RR-3006
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	312	RR-30012
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	385	RR-30018
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	469	RR-30024
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	628	RR-30036
28	2 1/2"-12	82	158	1 1/4"-7	44	12 1/4"-12	58	780	RR-30048
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	303	RR-4006
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	399	RR-40012
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	453	RR-40018
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	597	RR-40024
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	792	RR-40036
28	3"-12	95	203	1 1/2"-6	50	14 1/8"-8	65	980	RR-40048
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	432	RR-5006
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	589	RR-50012
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	680	RR-50018
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	816	RR-50024
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	1002	RR-50036
28	3 1/4"-12	108	203	1 3/4"-5	57	15 5/8"-8	79	1224	RR-50048

# RCH-Series, Hollow Plunger Cylinders

## Product Introduction

### RRH-Series, Hollow Plunger Cylinders



Capacity: 30-145 ton  
 Stroke: 38-258 mm  
 Center Hole Diameter: 33,3-79,2 mm  
 Maximum Operating Pressure: 700 bar

- The hollow plunger design allows for both pull and pushes forces;
- Double-acting for fast retraction;
- Nickel-plated, floating center tube to increase product durability;
- Baked enamel finish for increased corrosion resistance;
- Collar threads for easy fixturing;
- Relief valves prevent damage in case of over-pressurization;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

▼ Double-acting hollow plunger cylinders are applied for bridge launching systems.



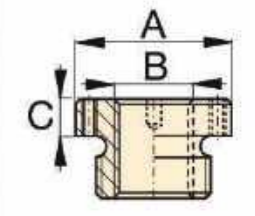
**Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits.  
 Good practice encourages using only 80% of these ratings.

**Saddles**  
 All RRH-Series cylinders are equipped with smooth saddles.

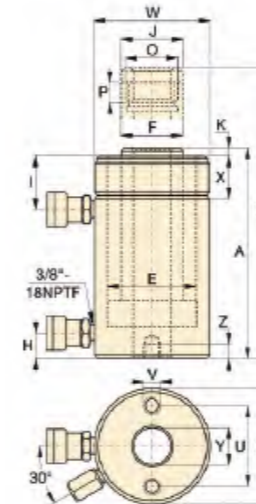
## Product Details

### Optional Heat Treated Hollow Saddles

Saddle Type	Cylinder Model Number	Saddle Model No.	Saddle Dimensions/mm (A)	Saddle Dimensions/mm (B)	Saddle Dimensions/mm (C)
Threaded Hollow	RRH-307,3010	HP-3015	63	1 1/4"-7	9
	RRH-603,606,6010	HP-5016	91	1 5/8"-5 1/2"	12
	RRH-1001,1003,1006,10010	HP-10016	126	2 1/2"-8	13



Smooth hollow saddles are standard on all RCH-models (except RCH-120, RCH-1211).



Model Number	Capacity/Ton	Stroke/mm	Push Max Cylinder Capacity/KN	Pull Max Cylinder Capacity/KN	Push Cylinder Effective Area/cm <sup>2</sup>	Pull Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/cm <sup>3</sup>	Pull Oil Capacity/cm <sup>3</sup>
RRH-307	30.0	178.0	326.0	213.0	47.7	32.4	849.0	577.0
RRH-3010		258.0	326.0	213.0	47.7	32.4	1231.0	836.0
RRH-603	60.0	89.0	576.0	380.0	87.4	56.2	778.0	481.0
RRH-606		166.0	576.0	380.0	87.4	56.2	1451.0	891.0
RRH-6010		257.0	576.0	380.0	87.4	56.2	2246.0	1388.0
RRH-1001	95.0	38.0	931.0	612.0	135.2	87.1	514.0	331.0
RRH-1003		76.0	931.0	612.0	135.2	87.1	1027.0	662.0
RRH-1006		153.0	931.0	612.0	135.2	87.1	2069.0	1333.0
RRH-10010		257.0	931.0	612.0	135.2	87.1	3475.0	2239.0
RRH-1508	145.0	203.0	1429.0	718.0	196.8	102.0	3995.0	2074.0

### Base Mounting Hole Dimensions (mm)

Model Number	Bolt Circle U	Thread V	Thread Depth Z
RRH-307	92.2	3/8"-16	15.7
RRH-3010	92.2	3/8"-16	15.7
RRH-603	130	1/2"-13	14
RRH-606	130	1/2"-13	14
RRH-6010	130	1/2"-13	14
RRH-1001	177.8	5/8"-11	19
RRH-1003	177.8	5/8"-11	19
RRH-1006	177.8	5/8"-11	19
RRH-10010	177.8	5/8"-11	19
RRH-1508	*	*	*

Collapsed Height/mm (A)	Extended Height/mm (B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm (H)	Top To Retract Port/mm(I)	Saddle Protri. From Plgr./mm(K)	Thread(O)	Plunger Thread Length/m (P)	Collar Thread(W)	Collar Thread Length/mm (X)	Center Hole Dia/mm(Y)	Weight/Kg	Model Number
330.0	508.0	114.0	88.9	65.0	25.0	60.0	63.0	9.0	1 13/16" - 16	4.1/2" - 12 UN	41.9	33.3	21.0	RRH-307
431.0	689.0	114.0	88.9	65.0	25.0	60.0	63.0	9.0	1 13/16" - 16	4.1/2" - 12 UN	41.9	33.3	27.0	RRH-3010
246.0	336.0	159.0	123.9	92.0	31.0	66.0	91.0	12.0	2 3/4"-16	6.1/4" - 12 UNC	48.0	53.8	28.0	RRH-603
323.0	489.0	159.0	123.9	92.0	31.0	66.0	91.0	12.0	2 3/4"-16	6.1/4" - 12 UNC	48.0	53.8	35.0	RRH-606
438.0	695.0	159.0	123.9	92.0	31.0	66.0	91.0	12.0	2 3/4"-16	6.1/4" - 12 UNC	48.0	53.8	45.0	RRH-6010
165.0	203.0	212.0	165.1	127.0	38.0	44.0	126.0	12.0	4"-16	-	-	79.2	33.0	RRH-1001
254.0	330.0	212.0	165.1	127.0	38.0	85.0	126.0	12.0	4"-16	8.3/8" - 12 UN	59.9	79.2	61.0	RRH-1003
342.0	495.0	212.0	165.1	127.0	38.0	85.0	126.0	12.0	4"-16	8.3/8" - 12 UN	59.9	79.2	79.0	RRH-1006
460.0	717.0	212.0	165.1	127.0	38.0	85.0	126.0	12.0	4"-16	8.3/8" - 12 UN	59.9	79.2	107.0	RRH-10010
349.0	552.0	247.0	190.5	152.5	38.0	60.0	127.0	4.0	4 1/4"-12	*	*	79.2	111.0	RRH-1508



# BRC, BRP-Series, Pull Cylinders

## Product Introduction

### ▼ BRC, BRP-Series, Pull Cylinders



Capacity: 2,5-50 ton  
 Stroke: 127-155 mm  
 Maximum Operating Pressure: 700 bar

- High strength alloy steel structure;
- Plunger blow-out protection to prevent rod over-extension;
- Hard-chrome plated plunger piston for longer service life;
- Baked enamel finish for increased corrosion resistance;
- Replaceable links on BRP models;
- Plunger wiper reduces contamination, extending cylinder life;
- Single acting, spring return.

▼ Ship building, welding and pull cylinders go hand in hand.



**80%**

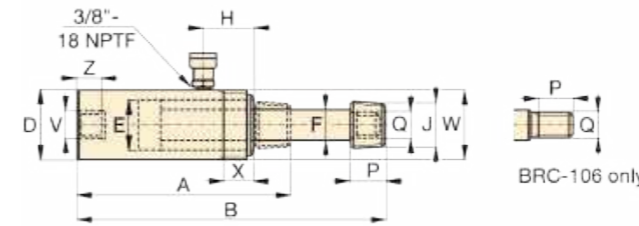
**Think Safety**

Manufacturer's rating of load and stroke are maximum safe limits.

Good practice encourages using only 80% of these ratings.

## Product Details

### ▼ BRC Cylinder Mounting Dimensions (mm)

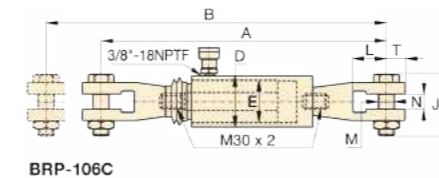


Model Number	Base Mounting Holes Thread(V)	Collar Thread(W)	Collar Thread Length/mm(X)	Base Mounting Holes Thread Length/mm(Z)
BRC-25	3/4"-14NPT	1 1/2"-16UN	24	17
BRC-46	1 1/4"-11 1/2NPT	2 1/4"-14UN	26	24
BRC-106	M30X2	M85X2	25	24

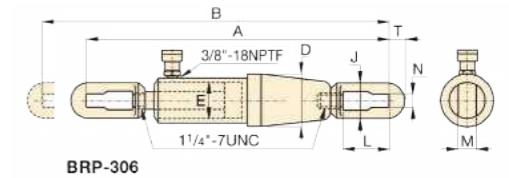
### BRC-25, -46, 106

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)
BRC-25	2.5	127	3.5	45	264	391	48
BRC-46	5	140	7.3	101	301	441	57
BRC-106	10	151	15	228	289	440	85

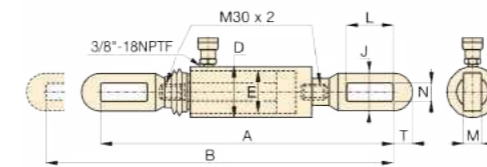
Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Top To Inlet Port/mm(H)	Dimension(J)	Dimension P	Dimension Q	Weight/Kg
28.4	19	45	3/4"-14	28	1 1/16"-24	1.8
42.9	30.2	42	1 1/4"-11 1/2"	32	1 3/16"-16	4.5
54.1	31.8	39	*	25	M30X2	9.5



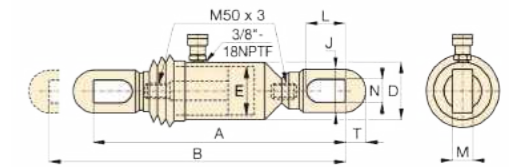
BRP-106C



BRP-306



BRP-106L



BRP-606

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)
BRP-106C	10	151	15	227	587	738	85
BRP-106L	10	151	15	227	541	692	85
BRP-306	30	155	46.6	722	1085	1240	136
BRP-606	50	152	72.1	1096	719	871	140

Cylinder Bore Dia/mm(E)	Dimension(J)	Dimension L	Dimension M	Dimension N	Dimension T	Weight/Kg
54.1	119	62	30	35	32	15.9
54.1	67	115	22	30	32	13.2
88.9	114	145	35	39	50	48.1
110	130	149	39	50	70	53.5

## RSM, RCS-Series, Low Height Cylinders

### Product Introduction

#### ▼ RSM, RCS-Series, Low Height Cylinders



Capacity: 5-150 ton  
Stroke: 6-62 mm  
Maximum Operating Pressure: 700 bar

#### RSM-series, Low-Height Cylinders:

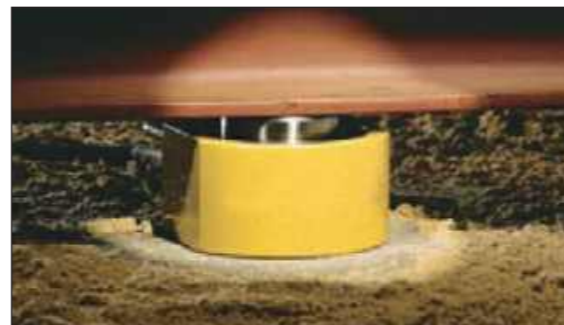
- Compact, flat design for use where most other cylinders will not fit;
- Compact, flat design for use where most other cylinders won't fit;
- Single-acting, spring return;
- Mounting holes for easy fixturing;
- RSM-750,1000 and 1500 have handles for easy carrying;
- Baked enamel finish for increased corrosion resistance;
- Hard chrome plated high quality steel plungers;
- Grooved plunger ends require no saddle;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- An Industrial U-cup style seal prevents costly leaks;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads.

#### RCS-series, Low Height Cylinders:

- Lightweight, low profile design for use in confined spaces;
- Baked enamel finish for increased corrosion resistance;
- Plunger wiper reduces contamination, extending cylinder life;
- Grooved plunger end with threaded holes for mounting tilt saddles;
- Plated steel plungers;
- Single-acting spring return;
- Hardened and chromed piston reduces wear and corrosion;
- An Industrial U-cup style seal prevents costly leaks;
- The integral handle on RCS-1002 for easy carrying;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off center loads.

**Think Safety**  
Manufacturer's rating of load and stroke are maximum safe limits.  
Good practice encourages using only 80% of these ratings.

▼ Only a couple of centimeters will do for an RSM-cylinder to lift a large construction.

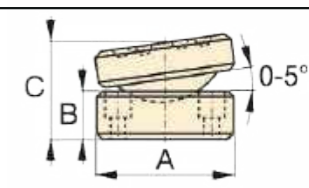


Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/cm <sup>3</sup>
RSM-50	5	6	7.1	4.3
RSM-100	10	10	14.5	16
RSM-200	20	11	28.6	31
RSM-300	30	13	42	55
RSM-500	45	16	62.1	99
RSM-750	75	16	102.7	164
RSM-1000	90	16	126.8	203
RSM-1500	150	16	198.1	317
RCS-101	10	38	14.4	55
RCS-201	20	45	28.3	129
RCS-302	30	62	41.8	261
RCS-502	45	60	63.6	373
RCS-1002	90	57	132.8	722

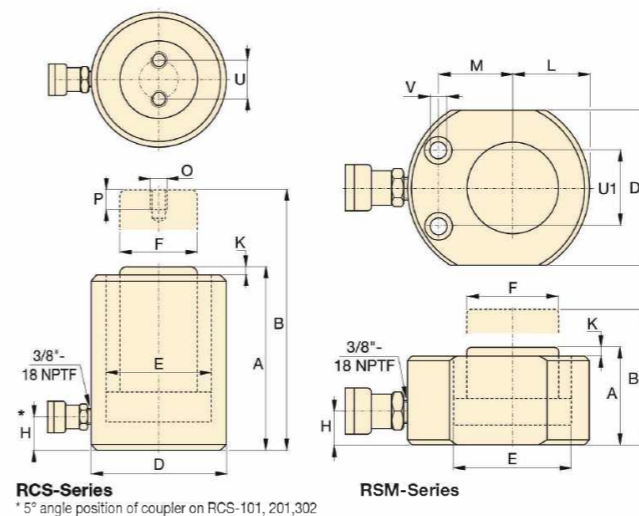
### Product Details

#### ▼ Optional Bolt On Tilt Saddle Dimensions(mm)

Cylinder Model	Saddle Model	A/mm	B/mm	C/mm
RCS-101	CAT-11	35	11	21
RCS-201,302,502	CAT-51	50	15	29
RCS-1002	CAT-101	71	17	35



\* 'C' dimension equals saddle protrusion from plunger. Mounting screws are included.



#### ▼ RSM Cylinder Mounting Hole Dimensions(mm)

Model Number	Base Mounting Holes Bolt Circle/mm(U1)	Base Mounting Holes Dia/mm(V)	Mounting Hole Counter Bore Dia/mm	Mounting Counter Bore Depth/mm
RSM-50	28.5	5.5	9.1	4.3
RSM-100	36.6	7.1	10.7	7.9
RSM-200	49.3	10	15.1	9.9
RSM-300	52.3	10	15.9	11.2
RSM-500	66.5	11	19	12.7
RSM-750	78.2	13.5	20.6	14.2
RSM-1000	76.2	13.5	20.6	14.2
RSM-1500	117.3	13.5	20.6	14.2

Collapsed Height/mm (A)	Extended Height/mm (B)	Outside Dia/mm (D)	Cylinder Bore Dia/mm (E)	Plunger Dia/mm (F)	Base To Advance Port/mm (H)	Plunger Protrusion From Base/mm (K)	Plunger To Base/mm (L)	Plunger To Plg. Hole/mm (M)	Thread O (mm)	Thread Depth P (mm)	Bolt Circle U (mm)	Weight/Kg	Model Number
33	39	59×42	28.7	25	16	1	20	22	*	*	*	1	RSM-50
42	55	83×56	42.9	38	19	1	27	34	*	*	*	1.4	RSM-100
51	63	101×76	60.5	51	19	1	39	39	*	*	*	3.1	RSM-200
58.5	71	117×95	73.2	66	19	2	47	44	*	*	*	4.5	RSM-300
67	83	140×114	88.9	70	19	2	57	53	*	*	*	6.8	RSM-500
79	95	165×139	114.3	83	19	2	69	66	*	*	*	11.4	RSM-750
86	102	178×153	127	92	19	2	76	74	*	*	*	14.5	RSM-1000
100	116	215×190	158.8	115	23	2	95	82	*	*	*	26.3	RSM-1500
88	126	69	42.9	38	17	5	*	*	26	M4	8	4.1	RCS-101
98	143	92	60.5	51	17	3	*	*	39	M5	8	4.7	RCS-201
117	180	102	73.2	66	19	3	*	*	39	M5	8	6.8	RCS-302
122	182	124	88.9	70	23	2	*	*	39	M5	8	10.1	RCS-502
141	198	165	127	92	31	1	*	*	55	M8	11	19.2	RCS-1002

## RSMB-Series, Telescopic Hydraulic Cylinders

### Product Introduction

#### ▼ RSMB-Series, Telescopic Hydraulic Cylinders



Capacity: 10-50 ton  
 Stroke: 25-64mm  
 Maximum Operating Pressure: 700 bar

80%

**Think Safety**

Manufacturer's rating of load and stroke are maximum safe limits.

Good practice encourages using only 80% of these ratings.

- Single-Acting, load return;
- The longer stroke length of telescopic cylinders will save you time and simplify projects by moving a load a greater distance and eliminating the use of temporary cribbing;
- For use in confined spaces: machinery positioning, tool fastening;
- Mounting bolt holes for easy fixturing;
- Up to 3% side-load of maximum capacity;
- High-Alloy steel for maximum strength;
- 1st Stage: maximum load capacity at a lower stroke;
- 2nd Stage: extended stroke with lower capacity than the 1st stage;
- Final Stage: maximum stroke extension with the lowest capacity;
- Baked enamel finish for increased corrosion resistance;
- Hardened and chromed piston reduces wear and corrosion;
- An Industrial U-cup style seal prevents costly leaks;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads.

### Product Details

Model Number	Capacity/Ton	Stroke/mm	Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	OD X Flat Side/mm	Weight/Kg
RSMB-100	10	25	22	42	67	82X55	1.5
RSMB-200	20	26	41	51	77	101X76	2.4
RSMB-300	30	53	58	58	111	117X95	4.5
RSMB-500	50	64	113	66	130	140X114	7

## RT-Series, Telescopic Hydraulic Cylinders

### Product Introduction

#### ▼ RT-Series, Telescopic Hydraulic Cylinders



Capacity: 14-31.5 ton  
 Stroke: 270-600 mm  
 Maximum Operating Pressure: 700 bar

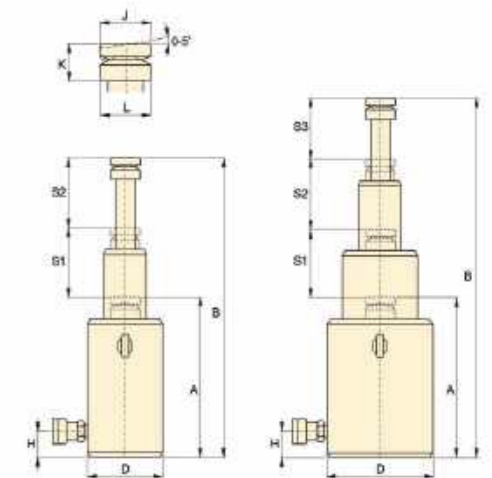
80%

**Think Safety**

Manufacturer's rating of load and stroke are maximum safe limits.

Good practice encourages using only 80% of these ratings.

- 3% side-load of full capacity;
- Double or triple wear bearings support lifting stages;
- Tilting saddles with 5 degrees of maximum tilt standard on all models;
- Certified lifting eyes for safe handling and positioning;
- Design Safety factor complies with ASME B30.1 & EN1494;
- Steel cylinder base for maximum strength.



### Product Details

Model Number	Capacity /Ton	Stroke/mm	Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	1st Stage Capacity /Ton	1st Stage Stroke/mm	2nd Stage Capacity /Ton
RT1510	14	270	944	283	553	36	135	14
RT1817	17	435	3092	345	780	95	145	41
RT2111	20.2	300	1487	317	617	51	150	20
RT2119	20.2	500	4661	395	895	126	170	51
RT3311	31.5	300	2359	352	652	81	150	32
RT3323	31.5	600	8816	476	1076	202	200	81

2nd Stage Stroke/mm	3rd Stage Capacity /Ton	3rd Stage Stroke/mm	Outside Dia/mm(D)	Base To Advance Port/mm(H)	Standard Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Saddle Support Dia/mm(L)	Weight/Kg
135	*	*	110	20	60	49	60	15.1
145	17	145	170	27	80	73	85	40.3
150	*	*	125	23	60	53	66	21.8
170	20.2	160	200	34	90	83	100	67.3
150	*	*	160	25	80	66	89	39.9
200	31.5	200	250	44	110	110	123	124

## HCRL-Series, Double Acting Lock Nut Cylinders

### Product Introduction

#### ▼ HCRL-Series, Double Acting Lock Nut Cylinders



Capacity: 50-300 ton  
Stroke: 150-300mm  
Maximum Operating Pressure: 700 bar



**Think Safety**  
Manufacturer's rating of load and stroke are maximum safe limits.  
Good practice encourages using only 80% of these ratings.

- Hydraulically controlled fast retraction;
- Lock nut provides mechanical load holding for a safe work environment;
- Designed to withstand up to 10% side-load of maximum capacity;
- An integrated tilt saddle allows up to 5 degrees of misalignment;
- Hardened surface resists side-loading and cyclic wear;
- Weather protected, inside and out;
- Replaceable bearings enclose the plunger external and internally for support;
- Certified lifting eyes, base mounting holes, and collar thread as standard;
- Stop-ring to prevent plunger blow-out;
- Low friction lock nut, spin easy, save time and effort;
- The HCRL-Series cylinders are available up to 1000-ton capacity and 600mm stroke upon request. contact RIVERLAKE for more information.

#### ▼ RSM Cylinder Mounting Hole Dimensions(mm)

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/cm <sup>3</sup>	Pull Oil Capacity/cm <sup>3</sup>
HCRL506	50	150	68.4	1025	86
HCRL508		200	68.4	1367	115
HCRL5010		250	68.4	1709	143
HCRL5012		300	68.4	2051	172
HCRL1006	100	150	141.4	2121	236
HCRL1008		200	141.4	2827	314
HCRL10010		250	141.4	3534	393
HCRL10012	150	300	141.4	4241	471
HCRL1506		150	214.4	3216	236
HCRL1508		200	214.4	4288	314
HCRL15010		250	214.4	5360	393
HCRL15012	200	300	214.4	6432	471
HCRL2006		150	285.9	4288	530
HCRL2008		200	285.9	5718	707
HCRL20010		250	285.9	7147	884
HCRL20012	250	300	285.9	8577	1060
HCRL2506		150	351.9	5278	530
HCRL2508		200	351.9	7037	707
HCRL25010		250	351.9	8796	884
HCRL25012	300	300	351.9	10556	1060
HCRL3006		150	424.1	6362	530
HCRL3008		200	424.1	8482	707
HCRL30010		250	424.1	10603	884
HCRL30012		300	424.1	12723	1060

### Product Details

#### Higher Capacities, Larger Strokes

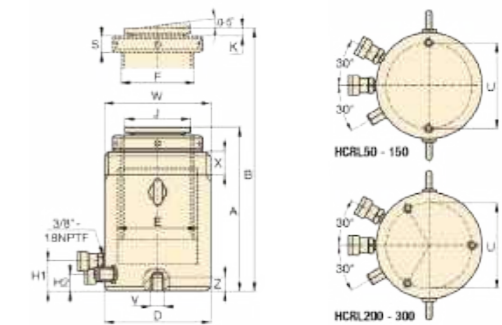
The HCRL-Series Cylinders are available up to 2000 ton capacity and additional stroke lengths available on request.



#### ▼ Collar Threads & Base Mounting Holes(mm)

Model Number	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Min Thread Depth/mm(Z)	Thread Size(W)	Thread Length/mm(X)
HCRL50	105	M12X1.75	22	M130X2	42
HCRL100	150	M12X1.75	22	M185X2	57
HCRL150	185	M12X1.75	22	M222X3	70
HCRL200	215	M12X1.75	22	M260X3	79
HCRL250	245	M12X1.75	22	M290X3	85
HCRL300	260	M16X2	25	M315X3	94

The collar threadlength is designed for the full rated cylinder capacity.



Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H1)	Base To Retract Port/mm(H2)	Saddle Dia/mm(J)	Saddle Protr./mm(K)	Lock Nut Height/mm(S)	Weight/Kg	Model Number
310	460	130	100	Tr90X4	41	27	77	15	26	30	HCRL506
377	577	130	100	Tr90X4	41	27	77	15	26	36	HCRL508
427	677	130	100	Tr90X4	41	27	77	15	26	40	HCRL5010
477	777	130	100	Tr90X4	41	27	77	15	26	45	HCRL5012
346	496	185	140	TR120X60	50	36	77	15	36	64	HCRL1006
421	621	185	140	TR120X60	50	36	77	15	36	77	HCRL1008
471	721	185	140	TR120X60	50	36	77	15	36	85	HCRL10010
521	821	185	140	TR120X60	50	36	77	15	36	94	HCRL10012
359	509	222	170	Tr150X6	46	32	126	13	45	97	HCRL1506
434	634	222	170	Tr150X6	46	32	126	13	45	116	HCRL1508
484	734	222	170	Tr150X6	46	32	126	13	45	129	HCRL15010
534	834	222	170	Tr150X6	46	32	126	13	45	142	HCRL15012
399	549	260	200	Tr170X6	71	49	126	13	50	145	HCRL2006
469	669	260	200	Tr170X6	71	49	126	13	50	168	HCRL2008
519	769	260	200	Tr170X6	71	49	126	13	50	184	HCRL20010
569	869	260	200	Tr170X6	71	49	126	13	50	200	HCRL20012
416	566	290	220	Tr190X6	71	49	160	15	55	190	HCRL2506
491	691	290	220	Tr190X6	71	49	160	15	55	224	HCRL2508
541	791	290	220	Tr190X6	71	49	160	15	55	244	HCRL25010
591	891	290	220	Tr190X6	71	49	160	15	55	265	HCRL25012
421	571	315	240	Tr210X6	71	49	160	15	55	230	HCRL3006
496	696	315	240	Tr210X6	71	49	160	15	55	269	HCRL3008
546	796	315	240	Tr210X6	71	49	160	15	55	294	HCRL30010
596	896	315	240	Tr210X6	71	49	160	15	55	319	HCRL30012

## RD-Series, Precision Production Cylinders

### Product Introduction

#### RD-Series, Precision Production Cylinders



- Designed for long life, the best choice for production applications;
- Unique mounting configurations simplify fixturing;
- Baked enamel finish for increased corrosion resistance;
- Double-acting operation develops force in both directions, providing maximum versatility;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- High strength composite bearing provides support for off-center loads without damaging the cylinder walls;
- An Industrial U-cup style seal prevents costly leaks.

**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

- Clamping application using RD cylinders (with clevis eye attachments on both ends) for their high pressure capability and mounting flexibility.



Model Number	Capacity/Ton	Stroke/mm	Push Max Cylinder Capacity/Ton	Pull Max Cylinder Capacity/Ton	Push Cylinder Effective Area/cm <sup>2</sup>	Pull Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/c m <sup>3</sup>	Pull Oil Capacity/c m <sup>3</sup>	Collapsed Height/mm (A)	Extended Height/mm (B)	Body Length/mm (C)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)
RD41	4	29	4	2	5.1	2.2	14	6	186	214	162	50	25.4	19
RD43		80	4	2	5.1	2.2	40	18	237	316	213	50	25.4	19
RD46		156	4	2	5.1	2.2	79	34	313	468	289	50	25.4	19
RD91	9	29	9	5	11.4	6.3	32	18	223	251	198	65	38.1	25.4
RD93		80	9	5	11.4	6.3	90	50	274	353	249	65	38.1	25.4
RD96		155	9	5	11.4	6.3	177	98	350	505	325	65	38.1	25.4
RD910		257	9	5	11.4	6.3	293	162	452	709	427	65	38.1	25.4
RD166	16	159	16	8	20.3	10.6	323	169	389	548	359	80	50.8	35
RD1610		260	16	8	20.3	10.6	528	276	491	751	461	80	50.8	35
RD256	25	159	25	11	31.7	13.7	504	218	424	583	397	92	63.5	47.8
RD2510		260	25	11	31.7	13.7	824	356	526	786	499	92	63.5	47.8

### Product Details

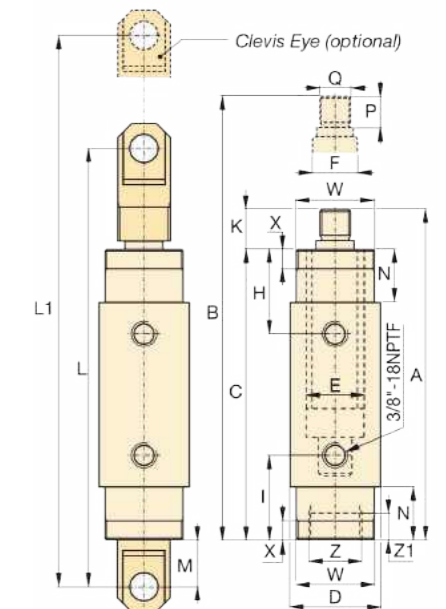
#### RD CYLINDER ATTACHMENTS

**Retainer Nut**  
For locking foot or flange mountings. Tightens onto cylinder collar threads (Included with foot and flange mounting kits).

**Foot Mounting**  
Mounts onto cylinder collar.

**Clevis Eye**  
Threads onto plunger or into cylinder base.

Model Number	Cylinder Capacity(Ton)	Dimensions(mm)							
		A	B	C	D	E	F	H	
Foot Mounting With Retainer Nut									
AD141	4	35.1	76	58	10.4	19.3	57	31.8	
AD171	9	50.8	101	78	13.5	25.4	82	44.4	
AD181	16	66.8	127	95.2	19.8	35.1	101	52.3	
AD191	25	82.6	159	117.5	26.2	44.4	124	63.5	
Flange Mounting With Retainer Nut									
AD142	4	35.1	98	78.6	10.4	19	*	*	
AD172	9	50.8	120	98.4	10.4	25.4	*	*	
AD182	16	66.8	143	115.9	13.5	35.1	*	*	
AD192	25	82.6	165	135.7	16.8	44.4	*	*	
Retainer Nut									
AD143	4	1 3/8"-12UNF	57	49.5	6.4	9.7	*	*	
AD173	9	2"-12	76	65.5	6.9	12.7	*	*	
AD183	16	2 5/8"-16	92	81	6.9	19	*	*	
AD193	25	3 1/4"-16	108	96.5	6.9	25.4	*	*	
Clevis Eye(See chart below for mounting dimensions L L1 and M)									
AD150	4	1/2"-20	1 1/8"-20	52.4	16	15.7	19	23.8	
AD151	9	3/4"-16	1 11/16"-18	57.1	19	25.4	25	23.8	
AD152	16	1 1/8"-12	2 3/16"-16	77.8	25.4	31.8	25	30.2	
AD153	25	1 1/2"-12	2 3/4"-16	77.8	31.8	38.1	25	27	



Top To Retract Port/mm(H)	Bottom To Advance Port/mm(I)	Plunger Protrusion/mm(K)	Clevis Eye Mounting Dimension L	Clevis Eye Mounting Dimension L1	Clevis Eye Mounting Dimension M	Neck Length/mm (N)	Plunger Thread Length/mm (P)	Plunger External Thread/mm (Q)	Collar Thread(W)	Collar Thread Length/mm(X)	Int. Base Thread(Z)	Int. Base Thread Length(Z1)	Weight/Kg	Model Number
47	47	24	258	286	41	29	22	1/2"-12	1 3/8"-12	11	1 1/8"-20	9	2	RD41
47	47	24	308	387	41	29	22	1/2"-12	1 3/8"-12	11	1 1/8"-20	9	2.6	RD43
47	47	24	385	540	41	29	22	1/2"-12	1 3/8"-12	11	1 1/8"-20	9	3.6	RD46
57	57	25	295	323	38	38	22	3/4"-16	2"-12	14	1 11/16"-18	14	3	RD91
57	57	25	346	425	38	38	22	3/4"-16	2"-12	14	1 11/16"-18	14	4.2	RD93
57	57	25	422	577	38	38	22	3/4"-16	2"-12	14	1 11/16"-18	14	5.6	RD96
57	57	25	524	781	38	38	22	3/4"-16	2"-12	14	1 11/16"-18	14	7.3	RD910
73	73	30	492	651	52	54	28	1 1/8"-12	2 5/8"-16	22	2 3/16"-16	24	10.2	RD166
73	73	30	593	853	52	54	28	1 1/8"-12	2 5/8"-16	22	2 3/16"-16	24	14.5	RD1610
89	89	27	524	683	53	70	25	1 1/8"-12	3 1/4"-16	29	2 3/4"-16	26	16	RD256
89	89	27	626	886	53	70	25	1 1/8"-12	3 1/4"-16	29	2 3/4"-16	26	20.3	RD2510

## RTC-Series, Ultra Thin Hydraulic Cylinders

### Product Introduction

▼ RTC-Series, Ultra Thin Hydraulic Cylinders



Capacity: 56-207 ton  
 Stroke: 10-15 mm  
 Maximum Operating Pressure: 700 bar

**80%** **Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits.  
 Good practice encourages using only 80% of these ratings.

- Extremely low collapsed height;
- Single-acting, load return;
- G1/4" coupler and dust cap included on all models;
- RTC series comes without a stopping ring and "Red Line" for visual maximum stroke limitation (A stopping ring can be equipped but the collapsed height will increase);
- Integrated tilting function up to 3 degrees to evenly distribute the load;
- Special surface treatment for harsh conditions.

### Product Details

Model Number	Capacity /Ton	Stroke/mm	Oil Capacity /cm3	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Balance Angle/°	Weight/Kg
RTC001	56	10	37	30	40	118	3	3
RTC002	56	15	51	35	50	118	3	3.6
RTC003	100	10	66	30	40	146	3	4
RTC004	100	15	91	35	50	146	3	4.8
RTC005	150	10	102	30	40	174	3	5.3
RTC006	150	15	141	35	50	174	3	6.2
RTC007	207	10	135	30	40	189	3	6.4
RTC008	207	15	187	35	50	189	3	7.5

## CULP-Series, Ultra Flat Hydraulic Cylinder with Stop-Ring

### Product Introduction

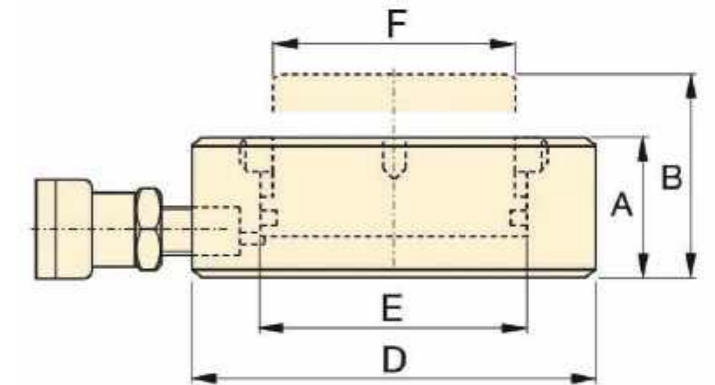
▼ CULP-Series, Ultra Flat Hydraulic Cylinder with Stop-Ring



Capacity: 14-31.5 ton  
 Stroke: 270-600 mm  
 Maximum Operating Pressure: 700 bar

**80%** **Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits.  
 Good practice encourages using only 80% of these ratings.

- Up to 4% side load of maximum capacity;
- Stop-ring for maximum stroke limitation;
- Extremely low collapsed height;
- bake enamel finish treatment for harsh conditions;
- Coupler included.



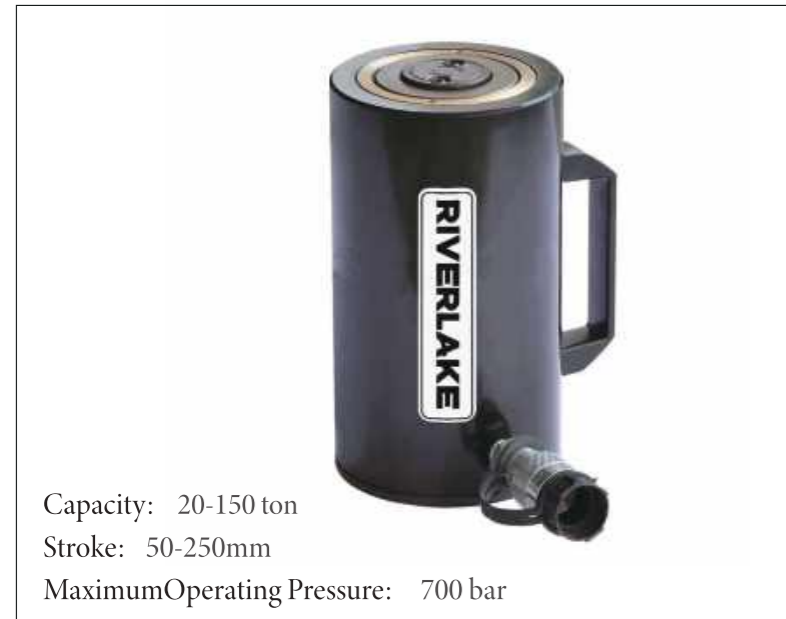
### Product Details

Model Number	Capacity/Ton	Stroke/mm	Oil Capacity/cm3	Cylinder Effective Area Advance (cm2)	Collapsed Height/mm (A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Weight/Kg
CULP10	10	6	8.3	13.9	27.5	33.5	72	42	38	1
CULP20	20	6	17	28.3	32	38	90	60	55	1.7
CULP30	30	6	26.5	44.2	35	41	105	75	67	2.5
CULP50	50	6	47.1	78.5	44.5	50.5	140	100	90	5.4
CULP100	150	6	92.3	153.9	65	71	195	140	125	11.5

## RAC-Series, Single Acting General Purpose Aluminum Hydraulic Cylinders

### Product Introduction

#### ▼ RAC-Series, Single Acting General Purpose Aluminum Hydraulic Cylinders



**80%** **Think Safety**

Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- An Industrial U-cup style seal prevents costly leaks;
- Composite bearings prevent metal-to-metal contact, increasing cylinder life and resistance to side-loads of up to 10%;
- Hard coat finish on all surfaces resists damage and extends cylinder life;
- For protection against load-induced damage, a saddle is standard on all models and a steel baseplate is optional on 10- and 15-ton models;
- The integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity;
- High-strength return spring for rapid cylinder retraction.

#### ▼ Optional Bolt-on Tile Saddle Dimensions(mm)

Model Number	Tile Saddle Model	Saddle Dia/mm(J1)	Saddle Protri. From Plgr./mm(K1)
RAC-50	CATG-50	50	24
RAC-100	CATG-150	91	31
RAC-150	CATG-200	118	35

Tilt Saddle Not Available For Less Than 50 Ton.

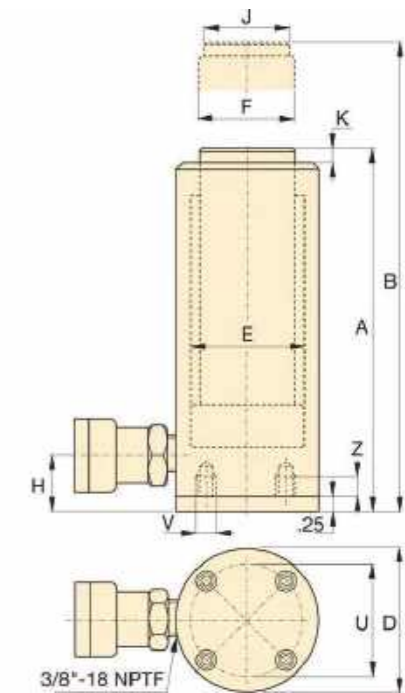
## RAC-Series, Single Acting General Purpose Aluminum Hydraulic Cylinders

### Product Details

#### ▼ Steel Base Plate Mounting Holes

Model Number	Bolt Circle/mm(U)	Thread(V)	Thread Depth/mm(Z)
RAC-20	70	M6	12
RAC-30	80	M6	12
RAC-50	110	M6	12
RAC-100	150	M10	12
RAC-150	200	M10	12

1) Including Base Plate Height of 6 mm and four (4) base plate bolts M6.

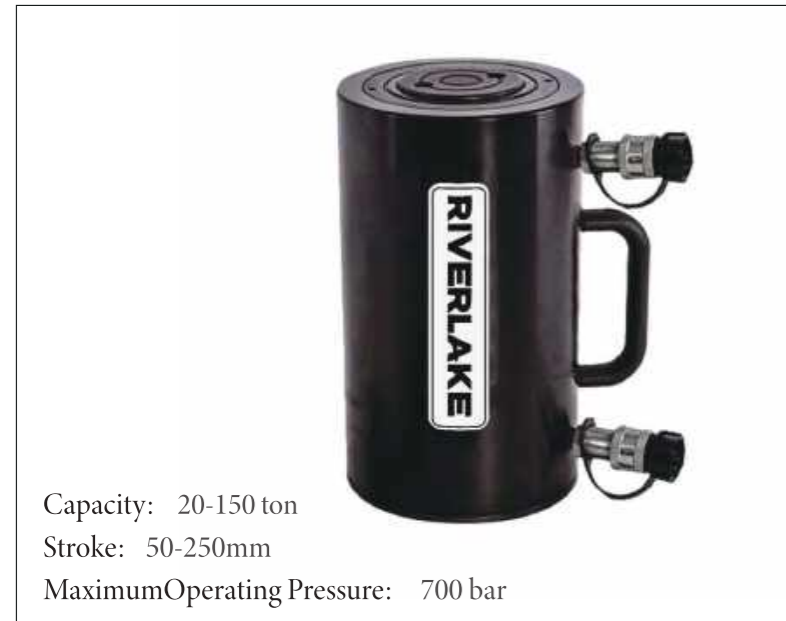


Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/c m <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)	Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Weight/Kg
RAC-202	20	50	31.2	156	174	224	85	63	50	27	40	3	3.6
RAC-204	20	100	31.2	312	224	324	85	63	50	27	40	3	4.1
RAC-206	20	150	31.2	468	274	424	85	63	50	27	40	3	4.6
RAC-208	20	200	31.2	624	324	524	85	63	50	27	40	3	5.1
RAC-2010	20	250	31.2	780	374	624	85	63	50	27	40	3	5.6
RAC-302	30	50	44.2	221	181	231	100	75	60	32	40	3	4.5
RAC-304	30	100	44.2	442	231	331	100	75	60	32	40	3	5.2
RAC-306	30	150	44.2	663	281	431	100	75	60	32	40	3	5.9
RAC-308	30	200	44.2	884	331	531	100	75	60	32	40	3	6.6
RAC-3010	30	250	44.2	1105	381	631	100	75	60	32	40	3	7.3
RAC-502	50	50	70.9	354	186	236	130	95	80	30	50	3	8.5
RAC-504	50	100	70.9	709	236	336	130	95	80	30	50	3	9.8
RAC-506	50	150	70.9	1063	286	436	130	95	80	30	50	3	11.1
RAC-508	50	200	70.9	1417	336	536	130	95	80	30	50	3	12.4
RAC-5010	50	250	70.9	1771	386	636	130	95	80	30	50	3	13.7
RAC-1002	100	50	143.1	715	221	271	180	135	110	46	94	3	17.3
RAC-1004	100	100	143.1	1431	271	371	180	135	110	46	94	3	19.6
RAC-1006	100	150	143.1	2147	321	471	180	135	110	46	94	3	21.9
RAC-1008	100	200	143.1	2863	371	571	180	135	110	46	94	3	24.2
RAC-10010	100	250	143.1	3578	421	671	180	135	110	46	94	3	26.5
RAC-1502	150	50	227	1135	243	293	230	170	140	51	113	3	25.3
RAC-1504	150	100	227	2270	293	393	230	170	140	51	113	3	29.3
RAC-1506	150	150	227	3405	343	493	230	170	140	51	113	3	33.3
RAC-1508	150	200	227	4540	393	593	230	170	140	51	113	3	37.3
RAC-15010	150	250	227	5675	443	693	230	170	140	51	113	3	41.3

## RAR-Series, Double Acting Aluminum Hydraulic Cylinders

### Product Introduction

#### ▼ RAR-Series, Double Acting Aluminum Hydraulic Cylinders



**Think Safety**

**80%** Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

- Double-acting for rapid retraction, regardless of hose lengths and system losses;
- Composite bearings increase cylinder life and side load resistance;
- Hard coat finish on all surfaces resists damage and extends cylinder life;
- Handles included on all models;
- Steel base plate and saddle for protection against load-induced damage;
- The integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity;
- A built-in safety valve prevents accidental over-pressurization;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened and chromed piston reduces wear and corrosion;
- An Industrial U-cup style seal prevents costly leaks.

### Product Details

#### ▼ Optional Bolt-on Tilt Saddle Dimensions(mm)

Model Number	Tilt Saddle Model	Saddle Dia/mm(J1)	Saddle Protri. From Plgr./mm(K1)
RAR-50	CATG-50	50	24
RAR-100	CATG-100	73	29
RAR-150	CATG-150	91	31

Tilt Saddle Not Available For Less Than 50 Ton.

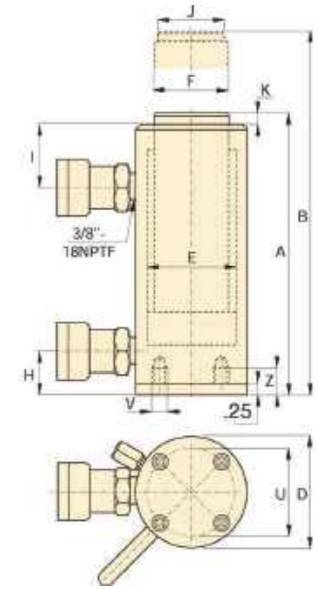
## RAR-Series, Double Acting Aluminum Hydraulic Cylinders

### Product Details

#### ▼ Steel Base Plate Mounting Holes

Model Number	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Thread Depth/mm(Z)
RAR-20	93	M6	12
RAR-30	105	M6	12
RAR-50	110	M6	12
RAR-100	165	M6	12
RAR-150	200	M6	12

1) Including Base Plate Height of 6 mm and four (4) base plate bolts M6.



Model Number	Capacity/Ton	Stroke/m	Advance Cylinder Effective Area/cm <sup>2</sup>	Retract Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/cm <sup>3</sup>	Pull Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm (A)	Extended Height/mm (B)	Outside Dia/mm (D)	Cylinder Bore Dia/mm (E)	Plunger Dia/mm (F)	Base To Advance Port/mm (H)	Top to retract port/mm (I)	Saddle Dia/mm (J)	Saddle Protri. From Plgr. K(mm)	Weight/Kg
RAR-202	20	50	31.2	18.6	156	93	189	239	113	63	40	30	50	30	3	7.4
RAR-204	20	100	31.2	18.6	312	186	239	339	113	63	40	30	50	30	3	8
RAR-206	20	150	31.2	18.6	468	279	289	439	113	63	40	30	50	30	3	8.6
RAR-208	20	200	31.2	18.6	624	372	339	539	113	63	40	30	50	30	3	9.2
RAR-2010	20	250	31.2	18.6	780	465	389	639	113	63	40	30	50	30	3	9.8
RAR-302	30	50	44.2	24.5	221	123	201	251	125	75	50	30	55	40	3	8.6
RAR-304	30	100	44.2	24.5	442	245	251	351	125	75	50	30	55	40	3	9.5
RAR-306	30	150	44.2	24.5	663	368	301	451	125	75	50	30	55	40	3	10.4
RAR-308	30	200	44.2	24.5	884	490	351	551	125	75	50	30	55	40	3	11.3
RAR-3010	30	250	44.2	24.5	1105	613	401	651	125	75	50	30	55	40	3	12.2
RAR-502	50	50	70.9	26.7	354	134	201	251	145	95	75	30	56	50	3	11.1
RAR-504	50	100	70.9	26.7	709	267	251	351	145	95	75	30	56	50	3	12.7
RAR-506	50	150	70.9	26.7	1063	401	301	451	145	95	75	30	56	50	3	14.3
RAR-508	50	200	70.9	26.7	1417	534	351	551	145	95	75	30	56	50	3	15.9
RAR-5010	50	250	70.9	26.7	1771	668	401	651	145	95	75	30	56	50	3	17.5
RAR-1002	100	50	143.1	79.5	715	398	251	301	185	135	90	43	80	75	3	16.4
RAR-1004	100	100	143.1	79.5	1431	795	301	401	185	135	90	43	80	75	3	19.3
RAR-1006	100	150	143.1	79.5	2147	1193	351	501	185	135	90	43	80	75	3	22.2
RAR-1008	100	200	143.1	79.5	2863	1590	401	601	185	135	90	43	80	75	3	25.1
RAR-10010	100	250	143.1	79.5	3578	1988	451	701	185	135	90	43	80	75	3	28
RAR-1502	150	50	227	132	1135	660	248	298	230	170	110	38	75	113	3	24.2
RAR-1504	150	100	227	132	2270	1320	298	398	230	170	110	38	75	113	3	28.9
RAR-1506	150	150	227	132	3405	1980	348	498	230	170	110	38	75	113	3	33.2
RAR-1508	150	200	227	132	4540	2640	398	598	230	170	110	38	75	113	3	37.9
RAR-15010	150	250	227	132	5675	3300	448	698	230	170	110	38	75	113	3	42.6



## RACL-Series, Single Acting Aluminum Lock Nut Hydraulic Cylinders

### Product Introduction

#### ▼ RACL-Series, Single Acting Aluminum Lock Nut Hydraulic Cylinders



**80%** Think Safety

Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

- The 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%;
- Hard coat finish on all surfaces resists damage and extends cylinder life;
- 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;
- The integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity;
- High-strength return spring for rapid cylinder retraction;
- 3/8NPT-18 coupler and dust cap included on all models.

#### ▼ Optional Bolt-on Tilt Saddle Dimensions(mm)

Model Number	Tilt Saddle Model	Saddle Dia/mm(J1)	Saddle Protri. From Plgr./mm(K1)
RACL-50	CATG-50	50	24
RACL-100	CATG-100	91	31
RACL-150	CATG-150	118	35

Tilt Saddle Not Available For Less Than 50 Ton.

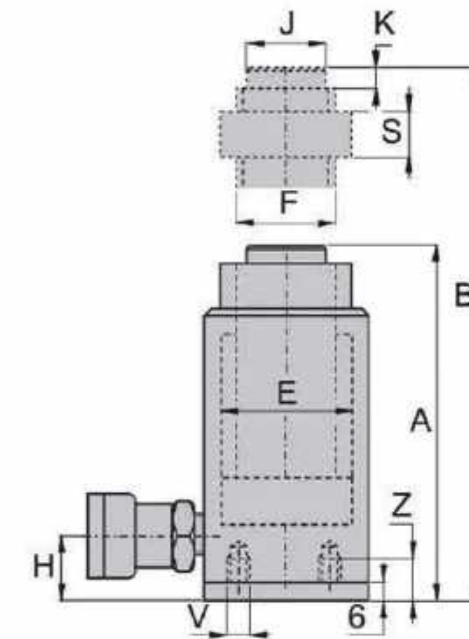
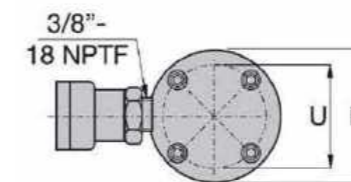
## RACL-Series, Single Acting Aluminum Lock Nut Hydraulic Cylinders

### Product Details

#### ▼ Steel Base Plate Mounting Holes

Model Number	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Thread Depth/mm(Z)
RACL-20	70	M6	12
RACL-30	80	M6	12
RACL-50	110	M6	12
RACL-100	150	M10	12
RACL-150	200	M10	12

1) Including Base Plate Height of 6 mm and four (4) base plate bolts M6.



Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>	Oil Capacity/c m <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)	Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Lock Nut Height S(mm)	Weight/Kg
RACL-202	20	50	31.2	156	224	274	85	63	Tr 55 x 4	27	40	3	50	4
RACL-204	20	100	31.2	312	274	374	85	63	Tr 55 x 4	27	40	3	50	4.6
RACL-206	20	150	31.2	468	324	474	85	63	Tr 55 x 4	27	40	3	50	5.2
RACL-208	20	200	31.2	624	374	574	85	63	Tr 55 x 4	27	40	3	50	5.8
RACL-2010	20	250	31.2	780	424	674	85	63	Tr 55 x 4	27	40	3	50	6.4
RACL-302	30	50	44.2	221	231	281	100	75	Tr 60 x 4	33	40	3	50	5.4
RACL-304	30	100	44.2	442	281	381	100	75	Tr 60 x 4	33	40	3	50	6.1
RACL-306	30	150	44.2	663	331	481	100	75	Tr 60 x 4	33	40	3	50	6.8
RACL-308	30	200	44.2	883	381	581	100	75	Tr 60 x 4	33	40	3	50	7.5
RACL-3010	30	250	44.2	1105	431	681	100	75	Tr 60 x 4	33	40	3	50	8.2
RACL-502	50	50	70.9	354	236	286	130	95	Tr 80 x 4	30	50	3	50	9.3
RACL-504	50	100	70.9	709	286	386	130	95	Tr 80 x 4	30	50	3	50	10.6
RACL-506	50	150	70.9	1063	336	486	130	95	Tr 80 x 4	30	50	3	50	11.9
RACL-508	50	200	70.9	1417	386	586	130	95	Tr 80 x 4	30	50	3	50	13.2
RACL-5010	50	250	70.9	1771	436	686	130	95	Tr 80 x 4	30	50	3	50	14.5
RACL-1002	100	50	143.1	716	296	346	180	135	Tr 110 x 6	46	94	3	75	21.9
RACL-1004	100	100	143.1	1431	346	446	180	135	Tr 110 x 6	46	94	3	75	24.2
RACL-1006	100	150	143.1	2147	396	546	180	135	Tr 110 x 6	46	94	3	75	26.5
RACL-1008	100	200	143.1	2863	446	646	180	135	Tr 110 x 6	46	94	3	75	28.8
RACL-10010	100	250	143.1	3578	496	746	180	135	Tr 110 x 6	46	94	3	75	31.1
RACL-1502	150	50	227	1135	323	373	230	170	Tr 140 x 6	51	113	3	80	32.2
RACL-1504	150	100	227	2270	373	473	230	170	Tr 140 x 6	51	113	3	80	36.2
RACL-1506	150	150	227	3405	423	573	230	170	Tr 140 x 6	51	113	3	80	40.2
RACL-1508	150	200	227	4540	473	673	230	170	Tr 140 x 6	51	113	3	80	44.2
RACL-15010	150	250	227	5675	523	773	230	170	Tr 140 x 6	51	113	3	80	48.2

## RACH-Series, Single Acting Hollow Plunger Aluminum Hydraulic Cylinders

### Product Introduction

▼ RACH-Series, Single Acting Hollow Plunger Aluminum Hydraulic Cylinders



- The hollow plunger design allows for both pull and pushes forces;
- Composite bearings increase cylinder life and side load resistance;
- Hard coat finish on all surfaces resists damage and extends cylinder life;
- Handles included on all models;
- Floating center tube increases seal life;
- Steel baseplate and saddle for protection against load-induced damage;
- The integral stop ring prevents plunger over-travel and is capable of withstanding the full cylinder capacity;
- High-strength return spring for rapid cylinder retraction;
- Plunger wiper reduces contamination, extending cylinder life;
- Hardened alloy steel guide ring eliminates over travel and provides support to reduce wear from off-center loads;
- An Industrial U-cup style seal prevents costly leaks.

**Think Safety**

80%

Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

Model Number	Capacity/Ton	Stroke/mm	Cylinder Effective Area/cm <sup>2</sup>
RACH-202	20	50	32.7
RACH-204	20	100	32.7
RACH-206	20	150	32.7
RACH-208	20	200	32.7
RACH-2010	20	250	32.7
RACH-302	30	50	51.1
RACH-304	30	100	51.1
RACH-306	30	150	51.1
RACH-308	30	200	51.1
RACH-3010	30	250	51.1
RACH-602	60	50	84.7
RACH-604	60	100	84.7
RACH-606	60	150	84.7
RACH-608	60	200	84.7
RACH-6010	60	250	84.7
RACH-1002	100	50	164.6
RACH-1004	100	100	164.6
RACH-1006	100	150	164.6
RACH-1008	100	200	164.6
RACH-10010	100	250	164.6
RACH-1502	150	50	225.8
RACH-1504	150	100	225.8
RACH-1506	150	150	225.8
RACH-1508	150	200	225.8
RACH-15010	150	250	225.8

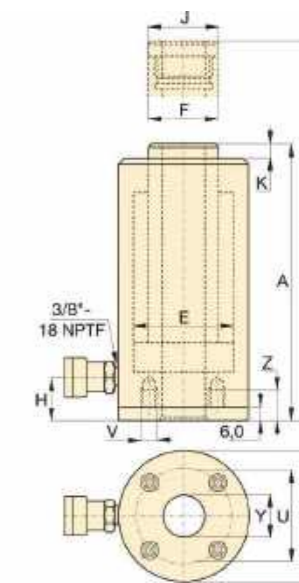
## RACH-Series, Single Acting Hollow Plunger Aluminum Hydraulic Cylinders

### Product Details

▼ Steel Base Plate Mounting Holes

Model Number	Base Mounting Holes Bolt Circle/mm(U)	Base Mounting Holes Thread(V)	Base Mounting Holes Thread Depth/mm(Z)
RACH-20	80	M6	12
RACH-30	110	M6	12
RACH-60	160	M6	12
RACH-100	220	M10	12
RACH-150	245	M10	12

1) Including base plate height of 6mm and four base plate bolts M6



Oil Capacity/cm <sup>3</sup>	Collapsed Height/mm(A)	Extended Height/mm(B)	Outside Dia/mm(D)	Cylinder Bore Dia/mm(E)	Plunger Dia/mm(F)	Base To Advance Port/mm(H)	Saddle Dia/mm(J)	Saddle Protri. From Plgr./mm(K)	Center Hole Dia/mm(Y)	Weight/Kg	Model Number
164	188	238	100	75	55	29	55	10	27	5.2	RACH-202
327	251	351	100	75	55	29	55	10	27	6.1	RACH-204
491	315	465	100	75	55	29	55	10	27	7.1	RACH-206
654	378	578	100	75	55	29	55	10	27	8	RACH-208
818	442	692	100	75	55	29	55	10	27	9	RACH-2010
256	208	258	130	95	70	29	70	10	34	8	RACH-302
511	267	367	130	95	70	29	70	10	34	9.5	RACH-304
766	333	483	130	95	70	29	70	10	34	11.2	RACH-306
1022	395	595	130	95	70	29	70	10	34	12.9	RACH-308
1277	458	708	130	95	70	29	70	10	34	14.5	RACH-3010
423	251	301	180	130	100	61	100	12	54	16.2	RACH-602
847	315	415	180	130	100	61	100	12	54	19.5	RACH-604
1270	380	530	180	130	100	61	100	12	54	25.6	RACH-606
1694	445	645	180	130	100	61	100	12	54	26	RACH-608
2117	510	760	180	130	100	61	100	12	54	29.6	RACH-6010
823	258	308	250	185	145	61	145	14	79	33.8	RACH-1002
1646	325	425	250	185	145	61	145	14	79	39.8	RACH-1004
2487	391	541	250	185	145	61	145	14	79	46.2	RACH-1006
3291	459	659	250	185	145	61	145	14	79	52.2	RACH-1008
4114	527	777	250	185	145	61	145	14	79	58.8	RACH-10010
1129	280	330	275	205	150	61	145	14	79	48.9	RACH-1502
2258	360	460	275	205	150	61	145	14	79	55.7	RACH-1504
3387	430	580	275	205	150	61	145	14	79	63	RACH-1506
4517	500	700	275	205	150	61	145	14	79	70.1	RACH-1508
5646	570	820	275	205	150	61	145	14	79	77.2	RACH-15010

## JHA-Series, Aluminum Hydraulic Bottle Jack

### Product Introduction

▼ JHA-Series, Aluminum Hydraulic Bottle Jack



Capacity: 56-207 ton  
 Stroke: 10-15 mm  
 Maximum Operating Pressure: 700 bar

**80%** **Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits.  
 Good practice encourages using only 80% of these ratings.

- All-directional operation;
- Internal relief valve to prevent overloading;
- Machined flat front and bottom surfaces permit flush alignment in tight corners;
- All models include a pumping handle;
- Chrome plated plungers.

### Product Details

Model Number	Capacity (Tons)	Stroke(mm)	Effective Area(cm <sup>2</sup> )	Retracted Height(mm)	Cylinder Dia(mm)	Piston Dia(mm)	Pump Type	Weight(Kg)
JHA-73	7	76	9.6	133	73X158	30.2	Single-Speed	5
JHA-156	15	153	20.3	247	92X238	41.4	Single-Speed	13.2
JHA-356	35	155	45.6	257	117X254	54.1	Single-Speed	18.1
JHA-756	75	153	102.6	285	174X325	114.3	Single-Speed	42.6
JHA-1506	150	155	197.9	327	241X407	158.8	Double-Speed	95.3
JH-306	30	155	38.3	254	95X242	69.9	Single-Speed	26.8
JH-506	50	154	62.1	260	127X258	88.9	Double-Speed	40.8
JH-1006	100	153	133.1	287	181X328	130.1	Double-Speed	74.4

## RT-Series, Twin Hollow Hydraulic Cylinders

### Product Introduction

▼ RT-Series, Twin Hollow Hydraulic Cylinders



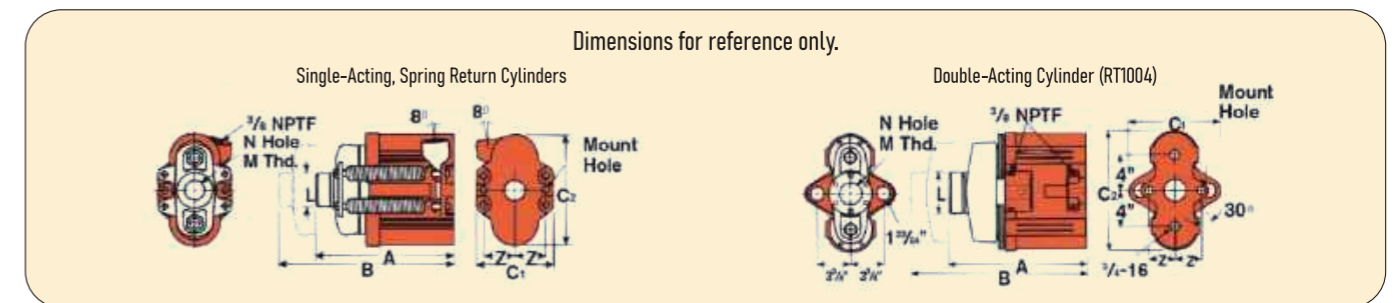
Capacity: 20-150 ton  
 Stroke: 50-250 mm  
 Center Hole Diameter: 27-79 mm  
 Maximum Operating Pressure: 700 bar

**80%** **Think Safety**  
 Manufacturer's rating of load and stroke are maximum safe limits.  
 Good practice encourages using only 80% of these ratings.

- Cylinders withstand full “dead-end” loads;
- Compact design is ideal for applications in which space is limited;
- The basic head can be changed from a tapped hole to a plain hole by simply changing the insert;
- Pistons have a “Power-Tech” treatment for corrosion and abrasion resistance;
- RT Series center hole cylinder is versatile for a strand or pulls applications.

### Product Details

▼ Technical Dimensions, Base Mounting Holes



Model Number	Capacity (PUSH)/Ton	Stroke/mm	Collapsed Height A/mm	Extended Height B/mm	Cylinder Dia C1/mm	Cylinder Dia C2/mm	Load Cap Dia L/mm	Load Cap Thread M/in	Center Hole Dia N/mm	Mounting Hole Location Z/	Mounting Hole Dia/mm	Weight/Kg
RT172	17.5	50.8	174.6	225.4	96.3	146.1	44.5	2024/1/8	27	38.1	8.7	6.6
RT302	30	63.5	241.3	277.8	108	190.5	57.2	1 1/4-7	32.9	46	11.9	12.8
RT503	50	76.2	268.3	344.5	149.2	238.1	73.01	1 5/8-5 1/2	42.5	60.3	16.7	25.4
RT1004	100	123.8	384.2	508	266.7	336.6	120.7	2 1/2-8	65.1	73	19.8	72.6

## SJ-Series, Mono Strand Post Tension Stressing Hydraulic Jacks

### Product Introduction

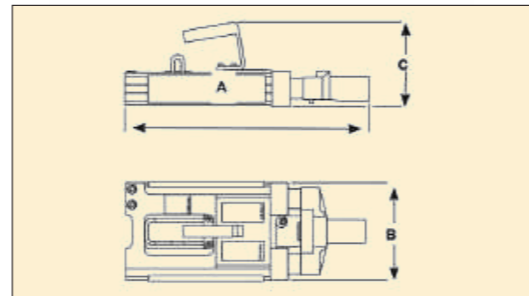
#### ▼ SJ-Series, Mono Strand Post Tension Stressing Hydraulic Jacks



Capacity: 20-30 ton  
Stroke: 216-254 mm  
Maximum Operating Pressure: 700 bar



**Think Safety**  
Manufacturer's rating of load and stroke are maximum safe limits.  
Good practice encourages using only 80% of these ratings.



- Monostrand Stressing Jacks are the most durable strand jacks in the industry;
- Ideally suited for work on slab-on-grade where dirt, heat, and high volume use take their toll;
- Available for up to 0.6" dia. (15.2mm) strand in power seater and spring seater models;
- Simple operation, hyd. Hose connects directly to the jack;
- Standard 10" (254mm) stroke, with other stroke lengths available on special order basis;
- Full line of the nose piece and wedge seater lengths;
- Dead-end seaters for production and fieldwork are available on a special order basis;
- Service repair is simple. Long-lasting, easy-to-replace components. Operator repair is simple;
- 3" (76,2mm) seater nose assembly easily removed for optional 6" (152.4mm) nose assembly.

### Product Details

Model	Capacity(Ton)	Stroke(mm)	Oil Capacity(L)	Strand Dia(mm)	Seater Type	Description	Weight(Kg)	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)
SJ2010	20	254	0.7	11.1-12.7	Spring	Post-tension jack w ith spring seater 12.7mm strand	25	533.4	228.6	152.4
SJ2010P	20	254	0.7	11.1-12.7	Power	Post-tension jack w ith power seater 12.7mm strand	25	558.8	259.2	177.8
SJ2010DA	20	216	0.9	11.1-12.7	Power	Double-acting post-tension jack w ith power seater 12.7mm strand	21	457.2	177.8	152.4
SJ3010	30	254	1	11.1-15.2	Spring	Post-tension jack w ith spring seater 15.2mm strand	38	558.8	259.2	177.8
SJ3010P	30	254	1	11.1-15.2	Power	Post-tension jack w ith power seater 15.2mm strand	38	558.8	259.2	177.8
SJ3010DA	30	216	1.1	11.1-15.2	Power	Double-acting post-tension jack w ith power seater 15.2mm strand	26	457.2	203.2	152.4

## RJI-Series, Hydraulic Wheeled Jack

### Product Introduction

#### ▼ RJI-Series, Hydraulic Wheeled Jack

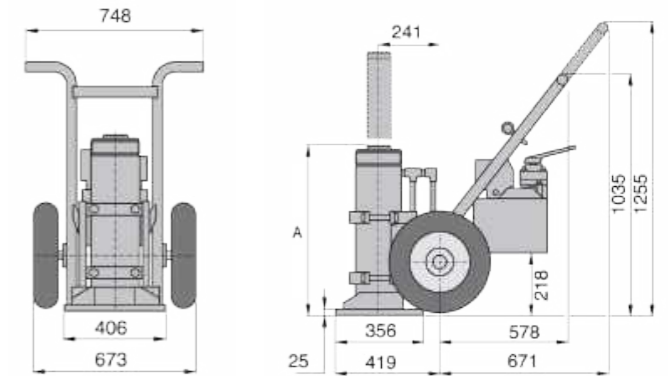


Capacity: 50-100 ton  
Stroke: 330-5084 mm  
Maximum Operating Pressure: 700 bar



**Think Safety**  
Manufacturer's rating of load and stroke are maximum safe limits.  
Good practice encourages using only 80% of these ratings.

- The strong and heavy-duty structure makes the hydraulic jacking system have a long service life;
- The large base pad supports a hydraulic cylinder;
- Omni-directional wheels are convenient for transportation and placement;
- The hydraulic control check valve provides pressure self-locking in case of an emergency;
- The cylinder and pump are easy to disassemble and can be easily used on other occasions or for maintenance.



### Product Details

Model Number	Capacity/Ton	Stroke/mm	Collapsed Height/mm	Extended Height/mm	Pump Type	Speed Under Load(mm/second)	Speed Under Without Load(mm/second)	Weight/Kg
RJI-5013	50	330	535	865	Electric Power Pack	0.05	0.51	270
RJI-5020	50	508	759	1267	Electric Power Pack	0.05	0.51	283
RJI-10013	100	330	549	879	Electric Power Pack	0.08	0.95	295
RJI-10018	100	457	713	1170	Electric Power Pack	0.08	0.95	327

# HDC-Series, Double Acting Hydraulic Cylinders

## Product Introduction

### ▼ HDC-Series, Double Acting Hydraulic Cylinders



Capacity: 20-30 ton  
 Stroke: 216-254 mm  
 Maximum Operating Pressure: 700 bar

**80%**

**Think Safety**

Manufacturer's rating of load and stroke are maximum safe limits. Good practice encourages using only 80% of these ratings.

- More compact dimensions, fully optimized outer diameter and body height, greatly reducing installation space requirements;
- Flexible customize production hydraulic cylinders from 50 to 1000 ton capacity and stroke from 50mm to 2000mm;
- The new structural design uses composite materials to strongly support bearings, 42CrMo alloy quenched and tempered steel, and T-type combined seals to significantly improve the service life and anti-eccentric load ability of the hydraulic cylinder;
- Quality assurance, each hydraulic cylinder is fully inspected before leaving the factory, full-stroke dynamic load pressure test, and traceable paper inspection report is shipped with the cylinder packaging;
- Powerful functions, built-in overtravel protection switch, return pressure control safety valve, return overpressure protection safety valve, to avoid failure or safety hazards caused by overtravel use, overpressure use, and oil line connection errors;
- High temperature paint spraying process provides excellent appearance and anti-corrosion performance;
- Equipped with CEJN quick thread connector and dust cap;
- Faster production cycle: digital standard parts and raw materials safe inventory management, hydraulic cylinder delivery cycle 7-14 days.

### ▼ HDC Cylinders Connection With HE Series Electric Pump



## Product Introduction

▼ HDC Cylinders Configuration Available With V42 Pilot Operated Check Valve or V66 Manually Operated Check Valve Installation. HDC Cylinder Comes With Tilt Saddle As Standard Configuration, But Flat Saddle Is Also Available. HDC Cylinder Comes With Baked Enamel Finish As Standard, But QPQ Surface Finish On All Parts Is Available.

HDC200-150	HDC100-200-V42	HDC200-250-V66	HDC200-250-V66-QPQ

1. Equipped with a spherical tilting saddle, it effectively improves the hydraulic cylinder's ability to resist eccentric loads;
2. G80 High Strength Lifting Ring;
3. Alloy quenched and tempered steel piston, surface hard chrome plated, anti-magnetic and corrosion resistant;
4. Overtravel protection and return overpressure protection switch, automatic pressure relief in case of overtravel and return overpressure, provide strong safety protection;
5. The T-type seal structure provides a minimum of 1.3 times the full-stroke high-pressure life performance;
6. The hydraulic cylinder body is made of 42Crmo alloy steel. After heat treatment, the hardness is as high as HRC43, the surface roughness is Ra 0.2, and it has long life and high strength;
7. The dust ring prevents external impurities from entering the inner cavity of the cylinder and causing pollution and tool damage;
8. Composite material bearing wear rings greatly improve the supporting capacity of the piston and enhance the hydraulic cylinder's ability to resist eccentric loads;
9. Return pressure protection safety valve effectively prevents overpressure caused by pipeline errors;
10. Swedish CEJN quick connector and dust cap;
11. The outer surface of the hydraulic cylinder is treated with high temperature paint to provide excellent appearance and anti-corrosion performance;
12. Composite material bearing wear rings can greatly enhance the supporting capacity of the piston and cylinder wall, and enhance the hydraulic oil to increase the hydraulic cylinder's ability to resist off-center loads and extend its service life.

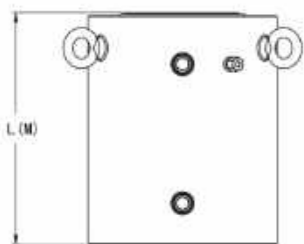
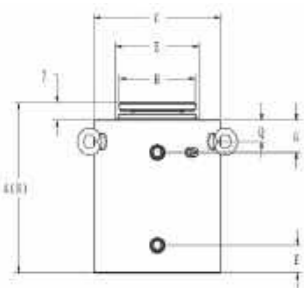
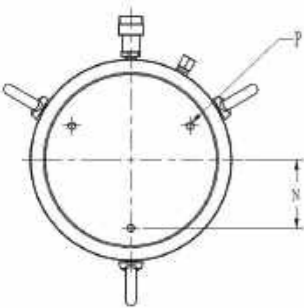
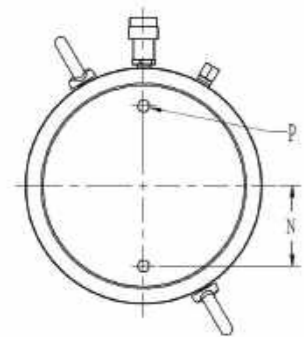
### ▼ 1000T Fully Automatic Testing System.

The hydraulic cylinder is fully automatically tested for no-load, medium pressure, and rated pressure in full stroke dynamic load and full stroke pressure holding tests, and the inspection report is automatically output after the test is passed. Each hydraulic cylinder has a traceable factory code.



## Product Details

Note: HDC series cylinder stroke range 50-2000mm can be customized produced.



Model Number	Capacity/Ton (kN)	Stroke/mm	Push Max Cylinder Capacity/kN	Pull Max Cylinder Capacity/kN	Push Cylinder Effective Area/cm <sup>2</sup>	Pull Cylinder Effective Area/cm <sup>2</sup>	Push Oil Capacity/cm <sup>3</sup>	Pull Oil Capacity/cm <sup>3</sup>	Collapsed Height With Tilt Saddle/mm(A)
HDC50-50	50 (550)	50	550	280	78.6	40.0	393	200	175
HDC50-100		100	550	280	78.6	40.0	786	400	225
HDC50-150		150	550	280	78.6	40.0	1179	600	275
HDC50-200		200	550	280	78.6	40.0	1571	800	325
HDC50-250		250	550	280	78.6	40.0	1964	1000	375
HDC50-300		300	550	280	78.6	40.0	2357	1200	425
HDC50-350		350	550	280	78.6	40.0	2750	1400	475
HDC50-500		500	550	280	78.6	40.0	3929	2000	625
HDC50-2000	2000	550	280	78.6	40.0	15714	8000	2125	
HDC100-50	100 (1002)	50	1002	506	143.1	72.3	716	361	190
HDC100-100		100	1002	506	143.1	72.3	1431	723	240
HDC100-150		150	1002	506	143.1	72.3	2147	1084	290
HDC100-200		200	1002	506	143.1	72.3	2863	1446	340
HDC100-250		250	1002	506	143.1	72.3	3579	1807	390
HDC100-300		300	1002	506	143.1	72.3	4294	2169	440
HDC100-350		350	1002	506	143.1	72.3	5010	2530	490
HDC100-500		500	1002	506	143.1	72.3	7157	3614	640
HDC100-2000	2000	1002	506	143.1	72.3	28629	14457	2140	
HDC150-50	150 (1497)	50	1497	770	213.9	110.0	1069	550	206
HDC150-100		100	1497	770	213.9	110.0	2139	1100	256
HDC150-150		150	1497	770	213.9	110.0	3208	1650	306
HDC150-200		200	1497	770	213.9	110.0	4277	2200	356
HDC150-250		250	1497	770	213.9	110.0	5346	2750	406
HDC150-300		300	1497	770	213.9	110.0	6416	3300	456
HDC150-350		350	1497	770	213.9	110.0	7485	3850	506
HDC150-500		500	1497	770	213.9	110.0	10693	5500	656
HDC150-2000	2000	1497	770	213.9	110.0	42771	22000	2156	
HDC200-50	200 (1985)	50	1985	983	283.6	140.4	1418	702	230
HDC200-100		100	1985	983	283.6	140.4	2836	1404	280
HDC200-150		150	1985	983	283.6	140.4	4254	2106	330
HDC200-200		200	1985	983	283.6	140.4	5671	2809	380
HDC200-250		250	1985	983	283.6	140.4	7089	3511	430
HDC200-300		300	1985	983	283.6	140.4	8507	4213	480
HDC200-350		350	1985	983	283.6	140.4	9925	4915	530
HDC200-500		500	1985	983	283.6	140.4	14179	7021	680
HDC200-2000	2000	1985	983	283.6	140.4	56714	28086	2180	
HDC300-50	300 (3167)	50	3167	1076	452.4	153.7	2262	769	295
HDC300-100		100	3167	1076	452.4	153.7	4524	1537	345
HDC300-150		150	3167	1076	452.4	153.7	6786	2306	395
HDC300-200		200	3167	1076	452.4	153.7	9049	3074	445
HDC300-250		250	3167	1076	452.4	153.7	11311	3843	495
HDC300-300		300	3167	1076	452.4	153.7	13573	4611	545
HDC300-350		350	3167	1076	452.4	153.7	15835	5380	595
HDC300-500		500	3167	1076	452.4	153.7	22621	7686	745
HDC300-2000	2000	3167	1076	452.4	153.7	90486	30743	2245	
HDC400-50	400 (4008)	50	4008	1467	572.6	209.6	2863	1048	355
HDC400-100		100	4008	1467	572.6	209.6	5726	2096	405
HDC400-150		150	4008	1467	572.6	209.6	8589	3144	455
HDC400-200		200	4008	1467	572.6	209.6	11451	4191	505
HDC400-250		250	4008	1467	572.6	209.6	14314	5239	555
HDC400-300		300	4008	1467	572.6	209.6	17177	6287	605
HDC400-350		350	4008	1467	572.6	209.6	20040	7335	655
HDC400-500		500	4008	1467	572.6	209.6	28629	10479	805
HDC400-2000	2000	4008	1467	572.6	209.6	114514	41914	2305	
HDC500-50	500 (4948)	50	4948	1648	706.9	235.4	3534	1177	405
HDC500-100		100	4948	1648	706.9	235.4	7069	2354	455
HDC500-150		150	4948	1648	706.9	235.4	10603	3531	505
HDC500-200		200	4948	1648	706.9	235.4	14137	4709	555
HDC500-250		250	4948	1648	706.9	235.4	17671	5886	605
HDC500-300		300	4948	1648	706.9	235.4	21206	7063	655
HDC500-350		350	4948	1648	706.9	235.4	24740	8240	705
HDC500-500		500	4948	1648	706.9	235.4	35343	11771	855
HDC500-2000	2000	4948	1648	706.9	235.4	141371	47086	2355	
HDC800-50	800 (7939)	50	7939	2484	1134.1	354.9	5671	1774	480
HDC800-100		100	7939	2484	1134.1	354.9	11341	3549	530
HDC800-150		150	7939	2484	1134.1	354.9	17012	5323	580
HDC800-200		200	7939	2484	1134.1	354.9	22683	7097	630
HDC800-250		250	7939	2484	1134.1	354.9	28354	8871	680
HDC800-300		300	7939	2484	1134.1	354.9	34024	10646	730
HDC800-350		350	7939	2484	1134.1	354.9	39695	12420	780
HDC800-500		500	7939	2484	1134.1	354.9	56707	17743	930
HDC800-2000	2000	7939	2484	1134.1	354.9	226829	70971	2430	
HDC1000-50	1000 (9698)	50	9698	3343	1385.4	477.6	6927	2388	553
HDC1000-100		100	9698	3343	1385.4	477.6	13854	4776	603
HDC1000-150		150	9698	3343	1385.4	477.6	20781	7164	653
HDC1000-200		200	9698	3343	1385.4	477.6	27709	9551	703
HDC1000-250		250	9698	3343	1385.4	477.6	34636	11939	753
HDC1000-300		300	9698	3343	1385.4	477.6	41563	14327	803
HDC1000-350		350	9698	3343	1385.4	477.6	48490	16715	853
HDC1000-500		500	9698	3343	1385.4	477.6	69271	23879	1003
HDC1000-2000	2000	9698	3343	1385.4	477.6	277086	95514	2503	

## Product Introduction

Extended Height With Tilt Saddle/mm(B)	Cylinder Outside Dia/mm(C)	Cylinder Inner Dia/mm(D)	Plunger Dia/mm(E)	Base To Advance Port/mm(F)	Top To Retract Port/mm(G)	Saddle Dia/mm(H)	Saddle Protri. From Plgr./mm(J)	Depth of Plunger Hole/mm(K)	Collapsed Height With Flat Saddle/mm(L)	Extended Height With Flat Saddle/mm(M)	Top To Lifting Rings/mm(Q)	Weight/Kg
225	130	100	70	40	42	50	18	10	161	211	40	15
325	130	100	70	40	42	50	18	10	211	311	40	19
425	130	100	70	40	42	50	18	10	261	411	40	23
525	130	100	70	40	42	50	18	10	311	511	40	26
625	130	100	70	40	42	50	18	10	361	611	40	30
725	130	100	70	40	42	50	18	10	411	711	40	34
825	130	100	70	40	42	50	18	10	461	811	40	37
1125	130	100	70	40	42	50	18	10	611	1111	40	48
4125	130	100	70	40	42	50	18	10	2111	4111	40	158
240	165	135	95	43	44	75	19	10	174	224	40	26
340	165	135	95	43	44	75	19	10	224	324	40	31
440	165	135	95	43	44	75	19	10	274	424	40	37
540	165	135	95	43	44	75	19	10	324	524	40	43
640	165	135	95	43	44	75	19	10	374	624	40	48
740	165	135	95	43	44	75	19	10	424	724	40	54
840	165	135	95	43	44	75	19	10	474	824	40	59
1140	165	135	95	43	44	75	19	10	624	1124	40	76
4140	165	135	95	43	44	75	19	10	2124	4124	40	242
256	215	165	115	47	48	94	24	10	186	236	40	48
356	215	165	115	47	48	94	24	10	236	336	40	58
456	215	165	115	47	48	94	24	10	286	436	40	67
556	215	165	115	47	48	94	24	10	336	536	40	77
656	215	165	115	47	48	94	24	10	386	636	40	87
756	215	165	115	47	48	94	24	10	436	736	40	97
856	215	165	115	47	48	94	24	10	486	836	40	107
1156	215	165	115	47	48	94	24	10	636	1136	40	137
4156	215	165	115	47	48	94	24	10	2136	4136	40	434
280	230	190	135	51	54	113	31	10	203	253	40	60
380	230	190	135	51	54	113	31	10	253	353	40	71
480	230	190	135	51	54	113	31	10	303	453	40	82
580	230	190	135	51	54	113	31	10	353	553	40	92
680	230	190	135	51	54	113	31	10	403	653	40	103
780	230	190	135	51	54	113	31	10	453	753	40	114
880	230	190	135	51	54	113	31	10	503	853	40	125
1180	230	190	135	51	54	113	31	10	653	1153	40	157
4180	230	190	135	51	54	113	31	10	2153	4153	40	479
345	295	240	195	64	75	177	41	12	280	310	50	135
445	295	240	195	64	75	177	41	12	310	410	50	156
545	295	240	195	64	75	177	41	12	360	510	50	177
645	295	240	195	64	75	177	41	12	410	610	50	197
745	295	240	19									

## P-Series, Hydraulic Hand Pump

### Product Introduction

#### ▼ P-Series, Hydraulic Hand Pump



- Lightweight and compact design, easy to carry;
- High-strength alloy steel construction for increased durability;
- Two-speed operation on all models reduces handle strokes by as much as 78% over single-speed pumps;
- Lower handle effort to minimize operator fatigue;
- Large oil capacities to power a wide range of cylinders or tools;
- Internal pressure relief valve for overload protection.

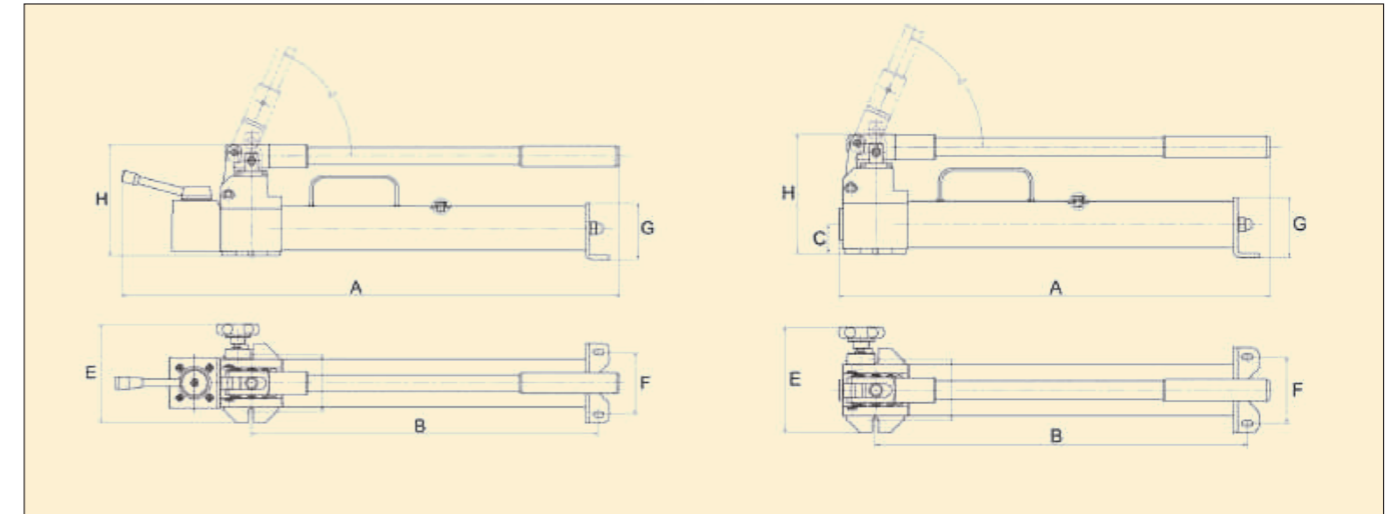
### Product Details

Model	Points	Speed	Usable Oil Capacity/cm3	First Stage Pressure/bar	Second Stage Pressure/bar	Max handles Force/Kg	Oil Displacement Per Stroke 1st Stage (cm3)	Oil Displacement Per Stroke 2nd Stage (cm3)	Oil Port Thread	Weight/Kg
P-142	Single Acting	Two	330	14	700	35	7.8	0.8	3/8-18NPT	2.2
P-202	Single Acting		900	25	700	49	33	3.3		6.8
P-204	Double Acting		900	25	700	49	33	3.3		8.8
P-802	Single Acting		2300	25	700	49	33	3.3		10.1
P-842	Double Acting		2300	25	700	49	33	3.3		11.6
P-460	Single Acting		4500	25	700	51	26	2.9		22.5
P-461	Double Acting		4500	25	700	51	26	2.9		22.5
P-463	Single Acting		7500	25	700	51	125	5.8		30
P-465	Double Acting		7500	25	700	51	125	5.8		30

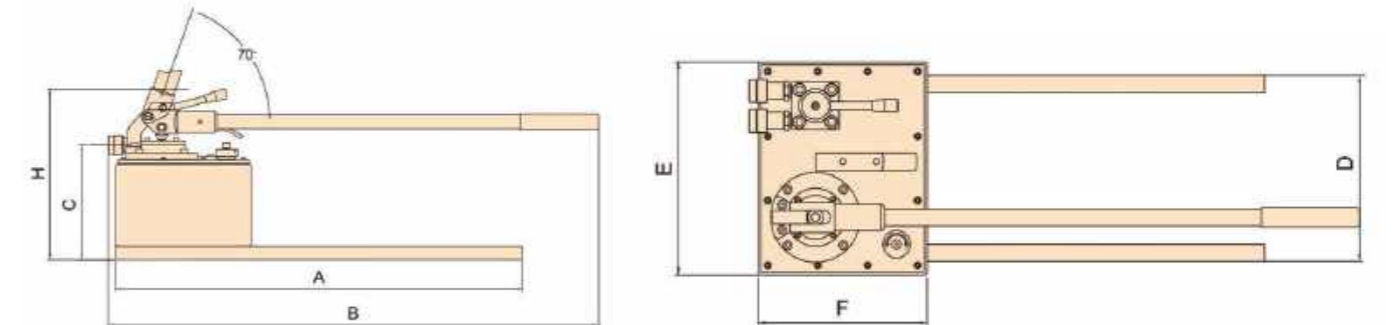
## P-Series, Hydraulic Hand Pump

### Product Details

#### ▼ P142/202/204/802/842



#### ▼ P460/461/463/465

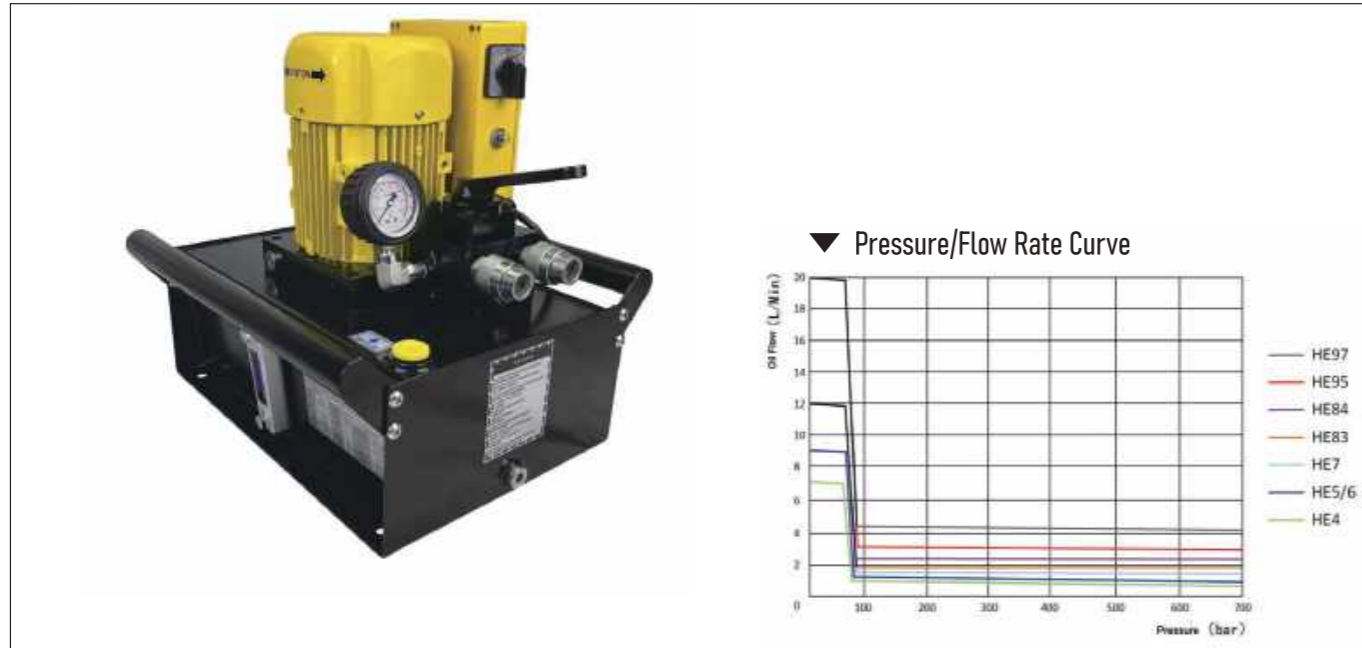


Model	Points	Speed	Dimension A/mm	Dimension B/mm	Dimension C/mm	Dimension D/mm	Dimension E/mm	Dimension F/mm	Dimension G/mm	Dimension H/mm
P-142	Single Acting	Two	375	290	*	80	110	67	*	143
P-202	Single Acting		582.5	505.5	47	108	130	82	82	165
P-204	Double Acting		642.5	505.5	47	108	130	82	82	165
P-802	Single Acting		739	508	47	125	138	*	82	161
P-842	Double Acting		769	508	47	125	138	*	82	161
P-460	Single Acting		580	608	163	275	315	250	*	267
P-461	Double Acting		580	608	163	275	315	250	*	267
P-463	Single Acting		800	904	211	275	315	250	*	315
P-465	Double Acting		800	904	211	275	315	250	*	315

# HE-Series, General Application Electric Hydraulic Pump

## Product Introduction

### HE-Series, General Application Electric Hydraulic Pump



- ICE Brushless motor, maintenance free;
- Gear pump + radial piston pump two-stage pump structure, high-efficiency operation;
- Integrated design of pump motor and valve group, lightweight;
- 75dB low noise;
- Inside safety valve, outside pressure adjusting valve.

## Product Details

### Series Specification

Model	Motor Power	Voltage(V)	High-Pressure Oil Flow (L/min)	Low-Pressure Oil Flow (L/min)	Rated Working Pressure ( Mpa)
HE4	1.1KW 1PH	220/115	0.7	7	70
HE5	1.5KW 1PH	220/115	1	9	70
HE6	1.5KW 3PH	380/220	1	9	70
HE7	2.2KW 3PH	380/220	1.5	12	70
HE83	3KW 3PH	380/220/440	1.8	12	70
HE84	4KW 3PH	380/220/440	2.3	12	70
HE95	5.5KW 3PH	380/220/440	3	20	70
HE97	7.5KW 3PH	380/220/440	4.2	20	70

## Product Details

### Series Configuration Order Model Number Selection Table

Pump Options	Oil Tank Capacity Options	Control Valve Options	Wheels	Air Cooling Radiator	Protection Frame	Motor Control	Multiple Points	None Standard Voltage
HE4	010(10L)	MV32	Blank(no wheels)	Blank(Without Radiator)	Blank(Without Protection Frame)	Blank(Motor Power Switch On The Pump)	Blank(Without Multiple Points)	115/60 ( Single Phase 115V 60HZ)
HE5	020(20L)	MV33	W (With Wheels)	F(With Radiator)	L(With Protection Frame)	R(Motor Power Control By Control Handle Buttons)	2SV( 2 Points Single Acting Needle Valve Type Distribution Manifold)	220/60 ( Single Phase 220V 60HZ)
HE6	040(40L)	MV43					2DV( 2 Points Double Acting Needle Valve Type Distribution Manifold)	440/60 ( Three Phase 440V 60HZ)
HE7	080(80L)	EV32					4SV( 4 Points Single Acting Needle Valve Type Distribution Manifold)	
HE83	100(100L)	HV22					4DV( 4 Points Double Acting Needle Valve Type Distribution Manifold)	
HE84	150(150L)	EV43						
HE95	200(200L)	EVL43						
HE97	300(300L)	EVB43						

### Control Valve Options

<p>MV32 manual unloading valve, single-acting increase(motor start)/hold(motor off)/release(MV32) pressure, no leakage</p>	<p>MV33 manual control valve, increase/hold/release pressure, single-acting, slightly leakage</p>	<p>MV43(M) 3way 4position manual control valve, double-acting, slightly leakage</p>
<p>MV43(O) 3way 4position manual control valve, double-acting, slightly leakage</p>	<p>EV32 solenoid control valve, single-acting, increase/release pressure</p>	<p>HV22 HAWE WGZ series solenoid valve, no leakage, single-acting, increase/hold/release pressure</p>
<p>EV43(M) 3way 4position solenoid control valve, double-acting, increase/hold/release pressure, slightly leakage</p>	<p>EV43(Y) 3way 4position solenoid control valve, double-acting, increase/hold/release pressure, slightly leakage</p>	<p>EV43(O) 3way 4position solenoid control valve, double-acting, increase/hold/release pressure, slightly leakage</p>
<p>EVL43 3way 4position solenoid control valve, double-acting, increase/hold/release pressure, with hydraulic lock, no leakage.</p>	<p>EVB43 3way 4position solenoid control valve, double-acting, increase/hold/release pressure, with a load lowering valve Installed on a port, no leakage</p>	



## Examples(Including Some Customized Models)

HE4010MV32	HE4010MV43	HE4010MV43R	HE4010MV22R
			
HE5010EVL43R	HE6040EVL43R	HE4010EVL43WFLR	HE7020EVL43LR
			
HE7040MV43W	HE83080MV43WL	HE4010MV32-2SV	HE4010MV32-4SV
			
HE5010MV43R-2DV	HE4010MV43WFLR-2DV	HE4040MV43WLR-4DV-GA	HE5040MV32-10SV
			

## Examples(Including Some Customized Models)

HE4010MV33-6SV	HE4080MV33WL-4SV	HE7040MV43-4DV	HE4010MV43(-2)
			
HE5010EVL43(-4)LR	HE4010EVL43(-2)R	HE4007EV32WFL(FP)	HE83040EV32WL(FP)
			
HE4005EVL43FLR	HE7(-2)080EVB43(-2)R	HE4007MV43R-115/60	HE4005MV32L
			
HE6020EVL43R-440/60	HE97100MV43(-2)W	HE95080MV43(-2)WLR	HE97150MV43WLR
			

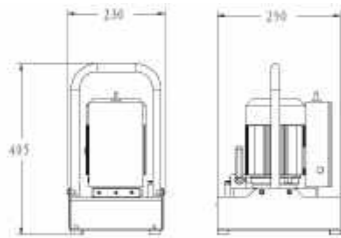
## Portable Electric Hydraulic Pump

### Product Introduction

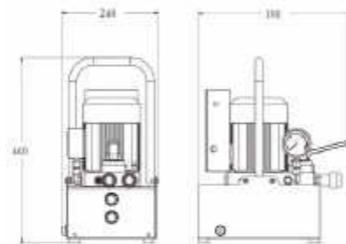
#### ▼ Portable Electric Hydraulic Pump



- Brushless motor, maintenance free, low noise;
- Start-stop switch on the pump, 3 meters remote control switch, multiple operation modes;
- Two-stage plunger pump, effectively improving work efficiency;
- IP55 protection level;
- Rubber non-slip feet;
- Equipped with a thermal overload protector to effectively protect the motor;
- Built-in safety valve to prevent overpressure;
- NPT3/8 oil outlet.



HE Pump



HC Pump

### Product Details

Model	Max Working Pressure(Mpa)	Motor Power(KW)	Low Pressure Flow Rate(L/min)	High Pressure Flow Rate(L/min)	Voltage	Usable Oil(L)	Control Valve	Oil Outlets	Pressure Gauge	Weight(Kg)
HE3002MV32R	70	0.375	1.5	0.2	1 PH 220/115V	2L	MV32 Manual unloading valve	Single Acting	N	14
HE3002EV32R	70	0.375	1.5	0.2	1 PH 220/115V	2L	EV32 Solenoid Valve	Single Acting	Y	14
HE3002HEV32R	70	0.375	1.5	0.2	1 PH 220/115V	2L	HEV32 HAWE Solenoid Valve, Pressure Holding No Leakage	Single Acting	Y	14
HE3005MV32RG	70	0.375	1.5	0.2	1 PH 220/115V	3L	MV32 Manual unloading valve	Single Acting	Y	15
HC3005MV32	70	0.55	4.5	0.35	1 PH 220/115V	5L	MV32 Manual unloading valve	Single Acting	Y	18
HC3005MV43	70	0.55	4.5	0.35	1 PH 220/115V	5L	MV43 4Way 3Position Double Acting Manual Valve	Double Acting	Y	19
HC3005EVL43	70	0.55	4.5	0.35	1 PH 220/115V	5L	EVL43 4Way 3Position solenoid valve Double Acting with hydraulic lock, No Leakage	Double Acting	Y	21
HC3005EVB43	70	0.55	4.5	0.35	1 PH 220/115V	5L	EVB43 4Way 3Position solenoid valve Double Acting With Load Lowering Valve Installed on A Port	Double Acting	Y	21

## Pneumatic Hydraulic Pump For Hydraulic Cylinder

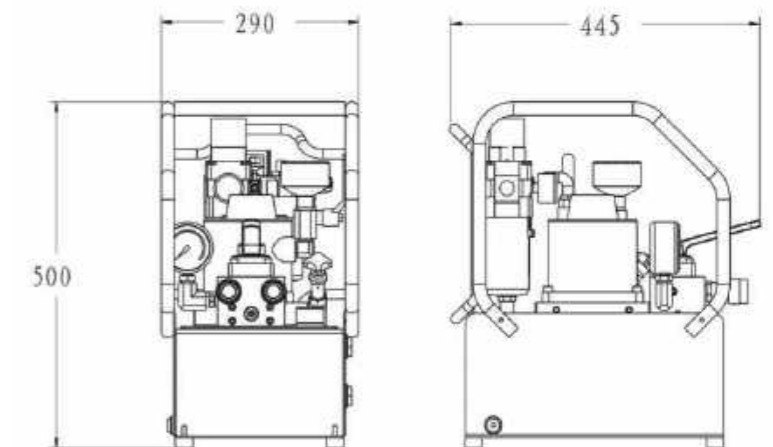
### Product Introduction

#### ▼ Pneumatic Hydraulic Pump For Hydraulic Cylinder



- Equipped with Pneumatic TrioPneumatic triplet;
- Ball valve motor start switch, easy to start and stop;
- Optional single-acting, double-acting manual control valve;
- Built-in safety valve, external pressure adjusting valve;
- Steel oil tank, full protection frame;
- 6 meters remote cable control handle.

Maximum Operating Pressure (bar)	700
High Pressure Flow Rate(L/min)	1
Low Pressure Flow Rate(L/min)	9
Usable Oil Capacity(L)	7
Control Valve	Manual Single/Double Acting
Weight(Kg)	31



## Manul Bolt Tensioner Pump

### Product Introduction

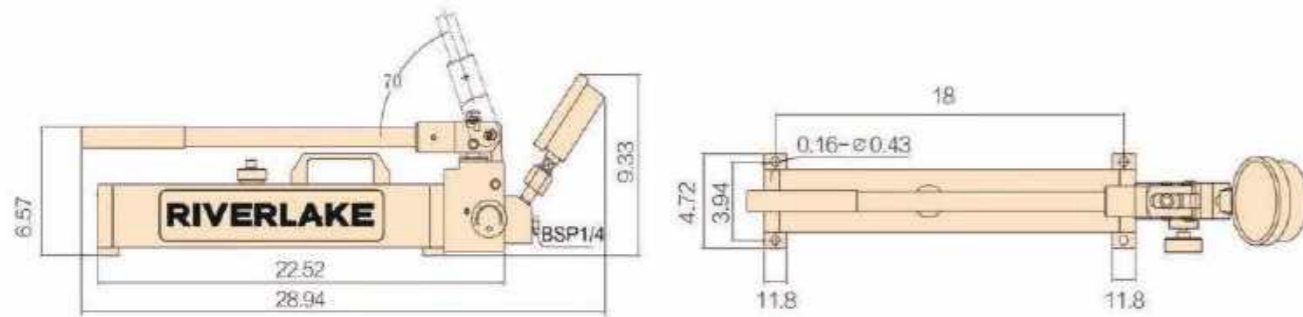
#### ▼ Manul Bolt Tensioner Pump



- Made of aluminum titanium alloy, lightweight, high pressure, corrosion, and impact resistance to various harsh environments;
- Two speed operation, built-in high and low-pressure automatic switch valve. Providing greater flow at low pressure to save operation time and increase the work efficiency;
- Internal safety valve design, protection for overload;
- The pressure regulating valve can adjust the working pressure;
- Compact design, easy to carry;
- Installed with pressure gauge and adapter.

## Product Details

### ▼ Dimensions



Model	Usable Oil Capacity/cm <sup>3</sup>	First Stage Pressure/bar	Second Stage Pressure/bar	Max handle Force/Kg	Oil Displacement Per Stroke 1st Stage (cm <sup>3</sup> )	Oil Displacement Per Stroke 2nd Stage (cm <sup>3</sup> )	Weight/Kg	Dimension A/mm	Dimension B/mm	Dimension C/mm
P-1500	1600	18	1500	20	32	1.2	10.8	225.2	47.2	65.7
P-2100	1600	18	2100	20	32	1.2	10.8	225.2	47.2	65.7
P-2800	1600	18	2800	20	32	0.8	10.8	225.2	47.2	65.7

## Electric Bolt Tensioner Pump

### Product Introduction

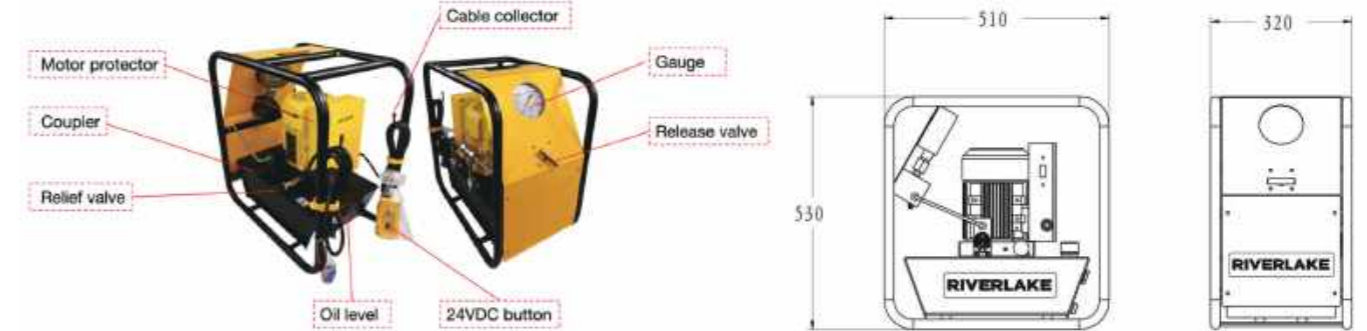
#### ▼ Electric Bolt Tensioner Pump



- Brushless motor, maintenance free;
- 100% cover protection frame;
- Panel-mounted user-adjustable valve for safe and precise pressure control;
- The safety relief valve limits output pressure;
- Pressure control accuracy:  $\pm 2$ MPa;
- MAX pressure: 150-250MPa;
- Noisy level: 75dB;
- 24VDC safety control button;
- Easy operation cable collector;
- CEJN gauge and couplers;
- The two-stage pump design provides high flow at low pressure for fast system fills and controlled flow at high pressure for safe and accurate operation;
- The compact and lightweight design fits through tight openings and provides easy handling.

## Product Introduction

### ▼ Dimensions



## Product Details

Model	Rated Working Pressure(Bar)	High Pressure Flow Rate(L/min)	Low Pressure Flow Rate(L/min)	Usable Oil(L)	Power(KW)	Noise level(dB)	CEJN Couplers	Voltage	Weight(Kg)
NEP1500	1500	0.25	1.5	7	1.1	75	116	230VAC/50HZ or 115VAC/60HZ	36
NEP2500	2500	0.15	1.5	7	1.1	75	125	230VAC/50HZ or 115VAC/60HZ	36

## ELECTRIC BOLT TENSIONER PUMP

### Product Introduction

#### ▼ Portable Electric Hydraulic Pump



- Brushless motor, maintenance free, low noise;
- Start-stop switch on the pump, 3 meters remote control switch, multiple operation modes;
- Two-stage plunger pump, effectively improving work efficiency;
- IP55 protection level;
- Rubber non-slip feet;
- Equipped with a thermal overload protector to effectively protect the motor;
- Built-in safety valve to prevent overpressure;
- NPT3/8 oil outlet.

## Product Details

### ▼ Specifications

Model	Rated Working Pressure(Bar)	High Pressure Flow Rate(L/min)	Low Pressure Flow Rate(L/min)	Usable Oil(L)	Power(KW)	Number of Tensioners	Dimensions(c m )	Voltage	Weight(Kg)
PTES20020	2000	0.2	4	20	3/4.5/5.5/7.5	1 or 2 or 4	61.5X45X60	110/230/380	35.2
PTES28020	2800	0.2	4	20	3/4.5/5.5/7.5	1 or 2 or 4	61.5X45X60	110/230/380	38.3
PTES40020	4000	0.2	4	20	3/4.5/5.5/7.5	1 or 2 or 4	61.5X45X60	110/230/380	40.3

## Anti-Explosion Electric Hydraulic Bolt Tensioner Pump

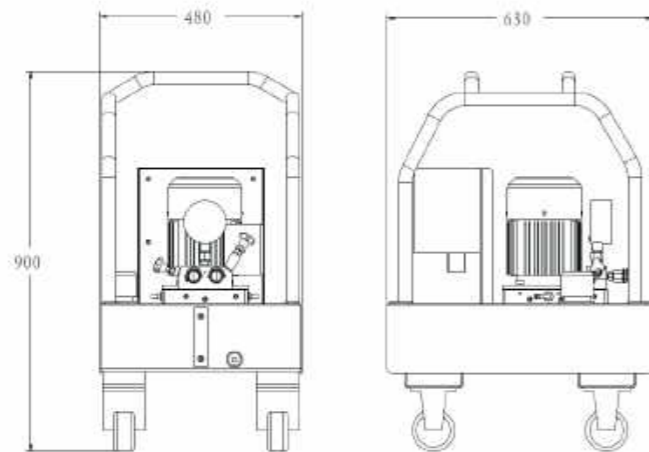
### Product Introduction

#### ▼ Anti-Explosion Electric Hydraulic Bolt Tensioner Pump



- Explosion-proof design level: Exd II B T4;
  - Increased safety electric control box, equipped with three-phase overload protector;
  - ABB explosion-proof motor;
  - Equipped with an adjustable relief valve, the pressure is continuously adjustable;
  - 6M explosion-proof wired control handle;
  - Configured with a protective frame and lockable casters;
  - Double-stage pump design, low-pressure fast oil supply, high-pressure stable pressure boost, high efficiency;
  - Single/double oil outlets are optional;
- Configured with CEJN 116/125 series quick-plug connectors.

### ▼ Dimensions



## Product Details

### ▼ Series Comparison

Model	Rated Working Pressure(Bar)	Rated Flow Rate(L/min)	Low Pressure Flow Rate(L/min)	Usable Oil(L)	Power(KW)	Noise level(dB)	Voltage	Weight(Kg)
EX-EPW1500	1500	0.35	3	20	1.5	80	380VAC	110
EX-EPW2500	2500	0.2	3	20	1.5	80	380VAC	110

## Pneumatic Bolt Tensioner Pump

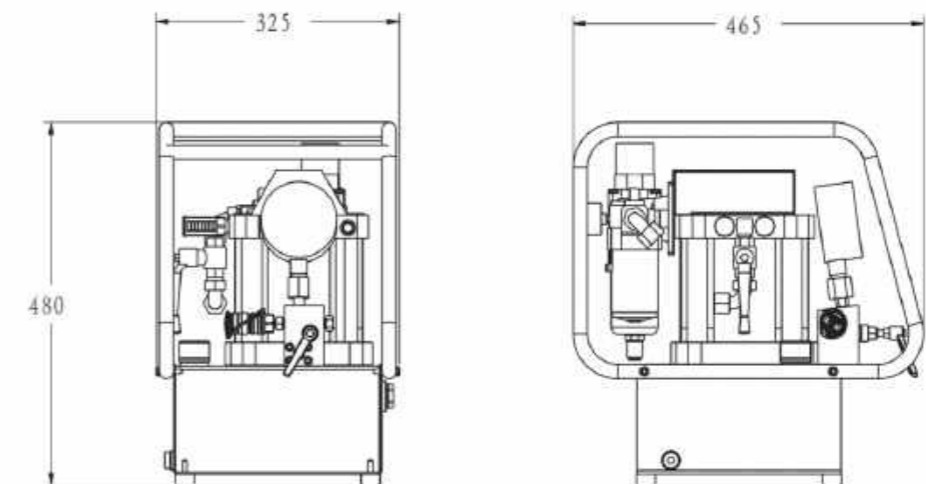
### Product Introduction

#### ▼ Manul Bolt Tensioner Pump



- Equipped with Pneumatic TrioPneumatic triplet;
- Ball valve motor start switch, easy to start and stop;
- Manual unloading valve;
- Built-in safety valve to prevent overpressure;
- Steel oil tank, full protection frame;
- Incline pressure gauge design, easy-to-read pressure;
- 6.3mL large displacement design, effectively improving operating efficiency;
- Equipped with dual oil outlets, and strong compatibility;
- Using PEEK, FKM, and other long-life seals;
- Plate seal design, no hydraulic steel pipe, high sealing stability.

### ▼ Dimensions



## Product Details

### ▼ Series Comparison

Model	Rated Working Pressure(Bar)	Pressure Boost ratio	Displacement(ml)	Usable Oil(L)	Air Source Pressure(bar)	Weight(Kg)
HAP1500	1500	250:1	6.3	5	3-7	25
HAP2500	2500	370:1	4.2	5	3-7	25

## Product Introduction(2)

### ▼ Manul Bolt Tensioner Pump



- General purpose, high-pressure air-driven pump unit for products requiring up to 6000bar hydraulic pressure;
- Compact, lightweight, rugged steel frame for protection and easy handling;
- Pre-lubricated pump element does not require an airline lubricator;
- Easily adjustable output pressure control;
- Integrated and protected easy to read glycerin filled gauge;
- Safety relief valve limits output pressure;
- Ultra-high pressure pneumatic pump automatically stops when the set pressure is reached, and the pressure remains stable;
- The pump station has a stable pressure start and reliable performance;
- The pump station has a large flow rate, ensuring rapid tensioning and improving work efficiency.

## Product Details(2)

### ▼ Specifications

2 to 8	Rated Working Pressure(Bar)	Pressure Boost ratio	Flow Rate(L/min)	Oil Tank Capacity(L)	Air Source Pressure(bar)	Port Thread	Dimension(cm)	Weight(Kg)
PTA15010	1500	255:1	0.1-3	9.5	2-8	G 1/4"	42*42*39	28
PTA20010	2000	255:1	0.1-3	9.5	2-8	G 1/4"	42*42*39	28
PTA28010	2800	400:1	0.1-3	9.5	2-8	9/16"-18UNF	42*42*39	32
PTA40010	4000	500:1	0.1-3	9.5	2-8	9/16"-18UNF	45*45*49	40
PTA60010	6000	800:1	0.1-3	9.5	2-8	9/16"-18UNF	45*45*49	45

# Electric Hydraulic Torque Wrench Pump

## Product Introduction

### ▼ Electric Hydraulic Torque Wrench Pump



- A three-stage plunger pump is commonly used, 2-3 times faster than a two-stage pump;
- Subject to a brushless motor (without generating sparks) design, with low speed, and good heat dissipation, it can still provide high flow at low power, equipped with a hydraulic oil filter, and the hydraulic oil can be used for more than 300 hours;
- The motor has no action and automatically stops within 30 seconds to avoid misoperation;
- It has thermal overload protection, and automatically stops when the oil temperature exceeds 80 C to protect the pump body;
- It is equipped with a compact frame to protect the pump body, is lightweight, and is convenient for on-site high-altitude operations;
- 5-meter detachable remote controller for remote control operation, convenient for transportation and maintenance of pump body;
- Lightweight, small in size, applicable for continuous and long-term work, such as high-intensity operations such as installation or repair, and applicable for occasions with low explosion-proof requirements.

## Product Details

### ▼ Specifications

Model	Max Working Pressure(Mpa)	High Pressure Oil Flow (L/min)	Middle Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	Motor Power(KW)	Voltage(V)	Oil Capacity(L)	Solenoid Valve	Servo Motor	Torque Wrench To Work With	Dimension(cm)	Weight(Kg)
PE55	70	0.7	1.8	6.5	0.55	110/230	6	HAWE	NO	4	40*30*40	23.2
PE110	70	1	3.1	8	1.1	110/230	8	HAWE	NO	4	43*30*42	28.2
PE220	70	1.6	5.2	12	2.2	110/230/380	20	HAWE	NO	4	50*33*50	50
PES300	70	2.4	*	12	3	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES450	70	3	*	15	4.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES550	70	4	*	22	5.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES750	70	6.4	*	25	7.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50

## Product Introduction(2)

### ▼ Manul Bolt Tensioner Pump



- The high-efficiency pump features 50% higher speed and efficiency than a two-stage pump;
- External startup switch of the motor for greater ease of remote operation;
- Optimized PCB design to achieve powerful functions: automatic cut-off in one minute after no-operation, automatic decompression after stop, and overload protection;
- An advance external heat sink increases pump reliability of continuous operation;
- The advanced pressure control valve fits through a long-time continuous operation and provides stable pressure;
- Triphase brushless motor provides for high efficiency, low maintenance, and long life;
- The pump head is built for long life and low maintenance, Compact, and Lightweight, high speed, large flow, high efficiency.

## Product Details(2)

### ▼ Series Comparison

Model	High Pressure Oil Flow (L/min)	Middle Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	High Pressure(Mpa)	Middle Pressure(Mpa)	Low Pressure(Mpa)	Motor Power(KW)	Oil Capacity(L)	Input Power	Torque Wrench Numbers	Weight(Kg)
RLP5000H	0.85	1.7	7.5	70	28	7	1.1	5	1PH 110-240V 50/60HZ	2	28
RLP5000H-4	0.85	1.7	7.5	70	28	7	1.1	5	1PH 110-240V 50/60HZ	4	28

## Product Introduction(3)

### ▼ Manul Bolt Tensioner Pump



- High-efficiency pump features 50% higher speed and efficiency than comparable pumps;
- The pump head is built for long life, low maintenance, Compact, Lightweight, high speed, large flow, and high efficiency;
- Simultaneous operation of multiple torques wrenches particularly suits large hydraulic wrenches;
- An advance external heat sink increases pump reliability of continuous operation;
- The advanced pressure control valve fits through a long-time continuous operation and provides stable pressure;
- Triphase brushless motor provides for high efficiency, low maintenance, and long life;
- Unique design capable of starting at any time under pressure;
- An optimized cooling system keeps the pump cool under extreme use.

## Product Details(3)

### ▼ Series Comparison

Model	High Pressure Oil Flow (L/min)	Middle Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	High Pressure(Mpa)	Middle Pressure(Mpa)	Low Pressure(Mpa)	Motor Power(KW)	Oil Capacity(L)	Input Power	Weight(Kg)
RHP8000	1.7	3.4	14	70	28	7	2.2	10	3PH 220-575V 50/60HZ	43

# Intelligent Electric Hydraulic Torque Wrench Pump

## Product Introduction

### ▼ Intelligent Electric Hydraulic Torque Wrench Pump



- Subject to a mechanical pressure gauge and electronic LED digital display with dual closed-loop control display, the pressure unit can be selected in units such as Bar, MPa, and Psi. The LCD screen can be operated to switch units such as N.m, Ft. lbs, and the Chinese and English, metric and imperial systems can be selected for the system;
- The dual adjustment mode of the mechanical knob and button makes the operation simpler and more convenient;
- The counter calculates the number of times it has been used in real-time, making it clear whether maintenance is needed immediately;
- There are three standard modes to choose from: torque mode, bolt mode, and gear mode;
- The automatic and manual modes can be switched at will, without long pressing the button. The fully automatic tightening mode can be selected after only pressing once, saving time and effort;
- The body can store 10,000 pieces of fastening data, which can be connected to the USB or mobile equipment to monitor and export fastening data (workstation, operator, torque, and date);
- Optional: angle mode and sensor mode;
- Optional: A wireless communication module can be added to connect to the upper computer or APP.

## Product Details

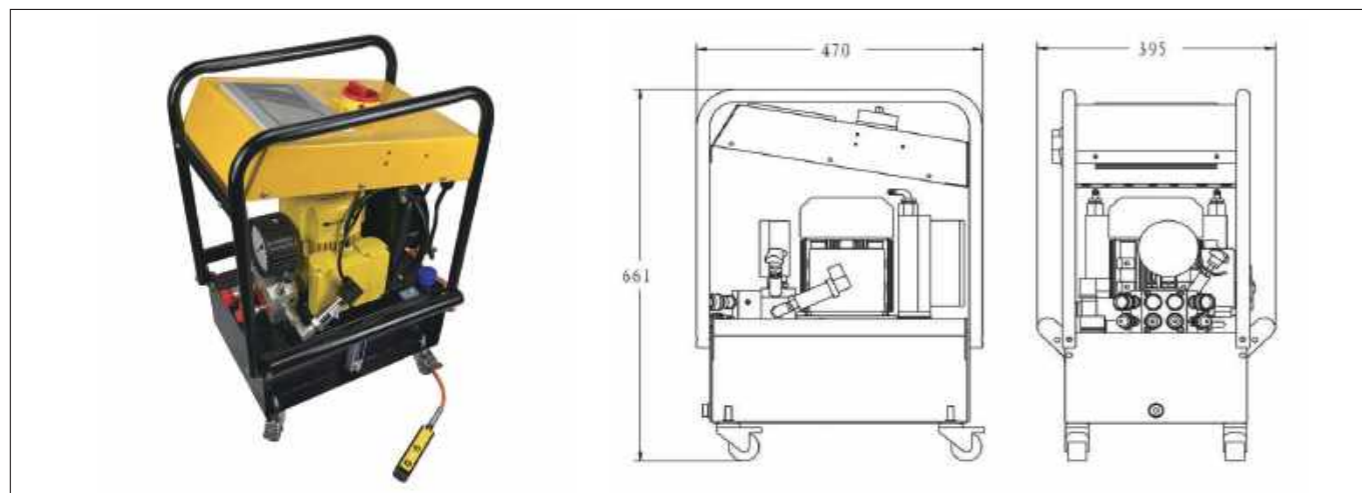
### ▼ Specifications

TPR= With Air Cooling, TP=Without Air Cooling.

Model	Max Working Pressure(Mpa)	High Pressure Oil Flow (L/min)	Middle Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	Motor Power(KW)	Voltage(V)	Oil Capacity(L)	Solenoid Valve	Servo Motor	Torque Wrench To Work With	Dimension (cm)	Weight(Kg)
TP55-AI	70	0.7	1.8	6.5	0.55	110/230	6	Made In China	NO	4	45*35*50	23.2
TPR55-AI	70	0.7	1.8	6.5	0.55	110/230	6	Made In China	NO	4	45*35*50	25.2
TP110-AI	70	1	3.1	8	1.1	110/230	8	Made In China	NO	4	45*35*50	25.2
TPR110-AI	70	1	3.1	8	1.1	110/230	8	Made In China	NO	4	45*35*50	28.2
PE55-AI	70	0.7	1.8	6.5	0.55	110/230	6	HAWE	NO	4	40*30*40	23.2
PE110-AI	70	1	3.1	8	1.1	110/230	8	HAWE	NO	4	43*30*42	28.2
PE220-AI	70	1.6	5.2	12	2.2	110/230/380	20	HAWE	NO	4	50*33*50	50
PES300-AI	70	2.4	*	12	3	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES450-AI	70	3	*	15	4.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES550-AI	70	4	*	22	5.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50
PES750-AI	70	6.4	*	25	7.5	110/230/380	33	HAWE	YES	4	61.5*45*60	50

## Product Introduction(2)

### ▼ Manul Bolt Tensioner Pump



- Maintenance-free brushless motor with low noise;
- One-click automatic cycle;
- Pressure monitoring, alarm feature;
- The tightening delay time can be set to effectively ensure that the bolts are tightened in place;
- 10-inch touch screen;
- Gear pump, plunger pump structure, two-stage flow;
- High-efficiency air-cooled radiator, low-temperature rise in continuous operation;
- Standard four output can drive two sets of hydraulic wrenches at the same time; eight outputs are available;
- Built-in safety valve, safe and reliable;
- Equipped with adjustable relief valve, and precise pressure adjustment.

## Product Details(2)

### ▼ Series Comparison

Model	Max Working Pressure (Mpa)	High Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	Motor Power(KW)	Voltage(V)	Oil Capacity(L)	Dimension L (mm)	Dimension W (mm)	Dimension H (mm)	Weight(Kg)
HE5TW10-AT	700	1	9	1.5	1PH 110-220V 50/60HZ	10	470	395	661	60

# Anti-Explosion Hydraulic Torque Wrench Pumps

## Product Introduction

### ▼ Anti-Explosion Hydraulic Torque Wrench Pumps



- 230/380V, 50/60Hz optional, equipped with hydraulic oil filter, oil circulation cooling system to ensure long-term continuous operation;
- The power cord is 10 meters long, and the remote control handle cable is 10 meters long. It has a compact frame roller car to protect the pump body. It is lightweight and convenient for high-altitude operations on-site;
- Explosion-proof testing certification has been passed for all electrical accessories and certificates are provided;
- It is applicable for explosion-proof applications in Zone 2, Zone 1, and Zone 0, widely used in explosion-proof environments such as dust, coal mines, petrochemicals, natural gas, etc;
- Protection grade IP65, overall explosion-proof grade: ExdIIBT4. Other higher explosion-proof grades can also be selected: ExdIICT4/CT5/CT6, etc;
- If necessary, the Company can fully cooperate in implementing the required certification work to comply with relevant laws and regulations.

## Product Details

### ▼ Specifications

PES Series uses a servo motor.

Model	Max Working Pressure (Mpa)	High Pressure Oil Flow (L/min)	Middle Pressure Oil Flow (L/min)	Low Pressure Oil Flow (L/min)	Power(KW)	Voltage	Oil Tank Capacity(L)	Number of Torque Wrench	Dimension (cm)	Weight Including Oil(Kg)
PE110-4EX	70	0.7	1.8	6.5	1.1	230/400	20	4	53*50*52	40.2
PE150-4EX	70	1.3	3.4	8.5	1.5	230/400	33	4	60*53*63	45.6
PES300-4EX	70	2.4	*	12	3	110/230/400	33	4	61.5*45*60	50
PES450-4EX	70	3	*	15	4.5	110/230/400	33	4	61.5*45*60	50
PES550-4EX	70	4	*	22	5.5	110/230/400	33	4	61.5*45*60	50
PES750-4EX	70	6.4	*	25	7.5	110/230/400	33	4	61.5*45*60	50

# Pneumatic Torque Wrench Pumps

## Product Introduction

### ▼ Pneumatic Torque Wrench Pumps



- Equipped with Pneumatic TrioPneumatic triplet;
- High-power air motor, high work efficiency;
- Work with two or four hydraulic torque wrenches;
- High-efficiency muffler effectively reduces noise;
- Submerged air cooling design, effectively reducing oil temperature;
- 6m metal air control handle, air control pipeline is equipped with threaded pipe, reliable and durable;
- Rotation-free pressure gauge installation makes it easy to disassemble the pressure gauge;
- Equipped with a winder, it is convenient to control the collection of the trachea;
- Optional configuration for offshore.

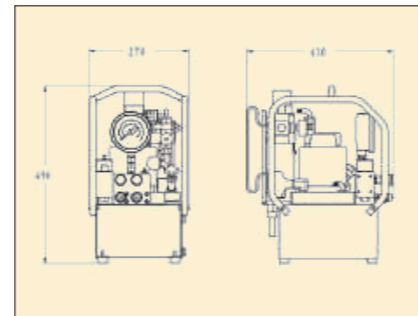
## Product Details

### ▼ Series Comparison

HA5TW-4OFF is specially designed for offshore working conditions. It has an SS316 oil tank, SS316 protection frame, SS316 sheet metal, SS316 hardware, steel motor, aluminum valve, and air control valve made of nickel-plated steel. All parts except plastic parts and quick couplers will be painted with Acrylic Polyurethane Semi-gloss Enamel Paint S04-60.

Model	High Pressure/Mpa	High-Pressure Oil Flow (L/min)	Low-Pressure Oil Flow (L/min)	Max Air Consumption(m³/H)	Usable Oil(L)	Torque Wrench Number	Weight(Kg)
HA5TW	70	1	7	220	5	2	27
HA5TW-4	70	1	7	220	5	4	27
HA5TW-4OFF	70	1	7	220	5	4	27

### ▼ Dimensions



## Product Introduction(2)

### ▼ Pneumatic Torque Wrench Pumps



- Input Air pressure range 4-8 bar;
- Three-speed operation reduces cycle time for higher productivity and efficiency;
- Default options with the manifold for simultaneous operation of 2 Torque wrenches;
- The super power-to-weight ratio, 22kg, is easy to carry. The output pressure range is within 40-700 bar;
- An excellent Built-in cooling system increases the reliability of the longtime running of the pump in the harsh industrial environment;
- Durable aluminum oil tank for excellent heat dissipation, rustproof, and easy handling. No electric control system for explosion-proof;
- Default options with the manifold for simultaneous operation of 2 Torque wrench customized options with the quick joint mounting plate for simultaneous operation of up to 4 torque wrenches.

## Product Details(2)

### ▼ Series Comparison

Model	High Pressure/Mpa	Middle Pressure/Mpa	Low Pressure/Mpa	High-Pressure Oil Flow (L/min)	Middle-Pressure Oil Flow (L/min)	Low-Pressure Oil Flow (L/min)	Motor Power(KW)	Oil Capacity(L)	Air Pressure(bar)	Weight(Kg)
RSP-70	70	30	7	0.85	1.8	8	3	5	4-8	22

# Split Flow Hydraulic Pump

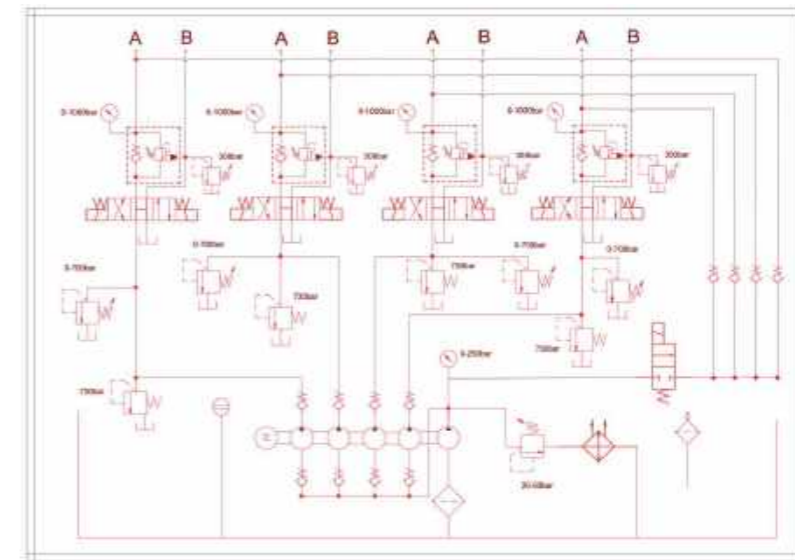
## Product Introduction

### ▼ Split Flow Hydraulic Pump



- One motor drives multiple independent plunger pump units to operate;
- Each valve group is equipped with an electromagnetic reversing valve, load balancing valve, pressure adjusting valve, and pressure gauge;
- System functions: pre-jacking, synchronous lifting, synchronous lowering;
- Precision plunger unit, ultra-low overflow loss;
- Equipped with a low-pressure pump to effectively improve the self-priming capacity of the plunger pump;
- The synchronization error can reach 3% under uniform load distribution conditions;
- Optional electric control cabinet or cable control handle on the pump;
- Equipped with air-cooled radiator, low temperature rise during continuous operation.

## Hydraulic Diagram



## Product Details

### ▼ Series Comparison

Model	Max Working Pressure/Bar	Voltage/VAC	Power/KW	Oil Tank Capacity/L	Points	Low Pressure Flow Rate/(L/min)	High Pressure Flow Rate/(L/min)	Control Valve	Weight/Kg
HE7060-4EVB43WFLR	700	380	2.2	60	4	6	0.25*4	Double acting EVB43 solenoid valve with load lowering valve	110
HE80100-4EVB43WFLR	700	380	4	100	4	7	0.4*4	Double acting EVB43 solenoid valve with load lowering valve	160
HE90150-4EVB43WFLR	700	380	7.5	150	4	10	0.7*4	Double acting EVB43 solenoid valve with load lowering valve	210



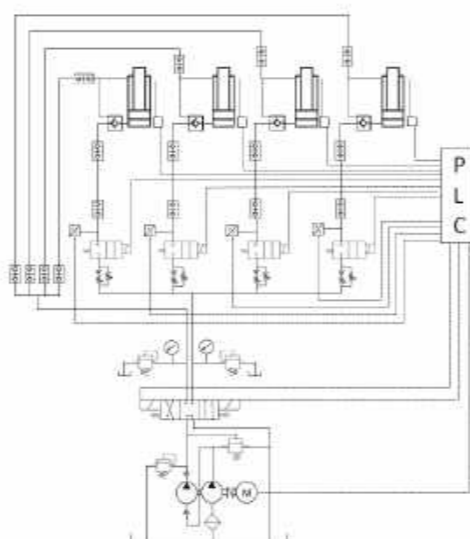
## Pulse Controlled Hydraulic Synchronous Jacking System

### Product Introduction

#### ▼ Pulse Controlled Hydraulic Synchronous Jacking System



#### ▼ Hydraulic Diagram



- 1 mm precision during heavy lifting and lowering operation with hydraulic cylinders;
- Air cooling fan for long-time operation;
- Lockable wheel for easy transportation;
- SIEMENS computing and analog processing module;
- Optional multiple pump station joint control functions, Internet remote control functions, etc;
- 10-inch touch screen, built-in control program, open parameter setting;
- High protection PLC electric control box, optional line control independent touch screen;
- Configured with 20m/30m displacement sensor data line;
- Function configuration: sensor parameter setting, pre-jacking pressure setting, overload alarm setting, sensor loss alarm, out-of-tolerance alarm, pre-jacking/synchronous lifting/synchronous lowering function;
- Panel-type interface, oil ports, displacement sensor, and cylinder interfaces are clearly marked.

### Product Details

#### ▼ Series Comparison

Model	Max Working Pressure/Bar	Voltage/VAC	Power/KW	Oil Tank Capacity/L	Points	Flow Rate/(L/min)	Displacement Sensor Option	Sensor Cable Length	Function
HE5060LL-4	700	220	1.5	60	4	0.75	500mm/1000MM	20M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HE7080LL-4	700	380	2.2	80	4	1.1	500mm/1000MM	20M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HE70100LL-8	700	380	2.2	100	8	1.1	500mm/1000MM	30M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HE80150LL-8	700	380	4	150	8	2	500mm/1000MM	30M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HE80200LL-16	700	380	4	200	16	2	500mm/1000MM	30M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HE70100LL-8-2	700	380	2.2*2	100*2	16	1.1*2	500mm/1000MM	30M	Two Independent 8 Points Pump Connected Together
HE80200LL-8-3	700	380	4*3	200*3	24	2*3	500mm/1000MM	30M	Three Independent 8 Points Pump Connected Together

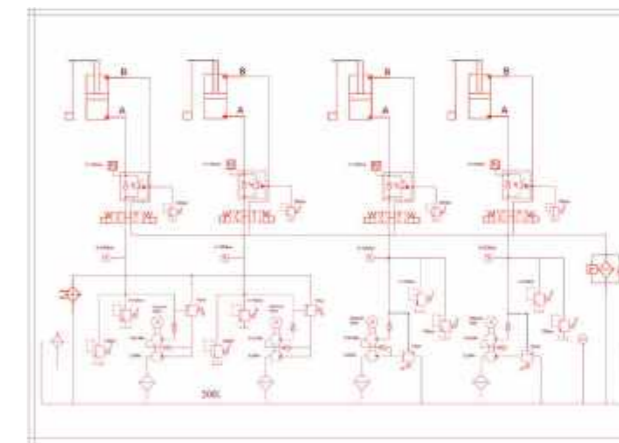
## Servo Controlled Hydraulic Synchronous Jacking System

### Product Introduction

#### ▼ Servo Controlled Hydraulic Synchronous Jacking System



#### ▼ Hydraulic Diagram



- 1 mm precision during heavy lifting and lowering operation with hydraulic cylinders;
- SIEMENS PLC system;
- Each point is driven by an independent servo high-pressure pump and valve group;
- The operation process runs continuously, without lag, and the lifting speed is fast;
- Standard equipped load balancing valve with high precision of synchronous lowering performance;
- The speed is continuously adjustable and the operating speed can be set steplessly;
- Pre-jacking, synchronous lifting and synchronous lowering functions;
- Proportional slope displacement function, each point sets the target displacement independently and operates in the same speed ratio;
- Configured with air-cooled radiator and filtration system;
- Sensor parameter setting, pre-jacking tonnage setting, alarm pressure value setting;
- Over pressure alarm, over tolerance alarm, sensor signal error alarm, displacement sensor over travel alarm, servo alarm, oil temperature and level alarm;
- Full protection frame, rainproof cover, forklift bottom, lifting lugs;
- Optional online control of multiple pump stations to achieve any combination of points.

### Product Details

#### ▼ Series Comparison

Model	Max Working Pressure/Bar	Voltage/VAC	Power/KW	Oil Tank Capacity/L	Points	Flow Rate/(L/min)	Displacement Sensor Option	Sensor Cable Length	Function
HSE40120-4	700	220	1*4	120	4	0.5*4	500mm/1000MM	20M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HSE80120-4	700	380	3*4	120	4	1.5*4	500mm/1000MM	20M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HSE80200-8	700	380	3*8	200	8	1.5*8	500mm/1000MM	30M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HSE902004	700	380	5.5*4	200	4	2.7*4	500mm/1000MM	20M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HSE90200-8	700	380	5.5*8	200	8	2.7*8	500mm/1000MM	30M	Pre-Jacking/Synchronous Lifting/Synchronous Lowering
HSE80120-4-3	700	380	3*12	120*3	4*3	1.5*12	500mm/1000MM	30M	Three Independent 4 Points Pump Connected Together

## Square Drive Hydraulic Torque Wrench

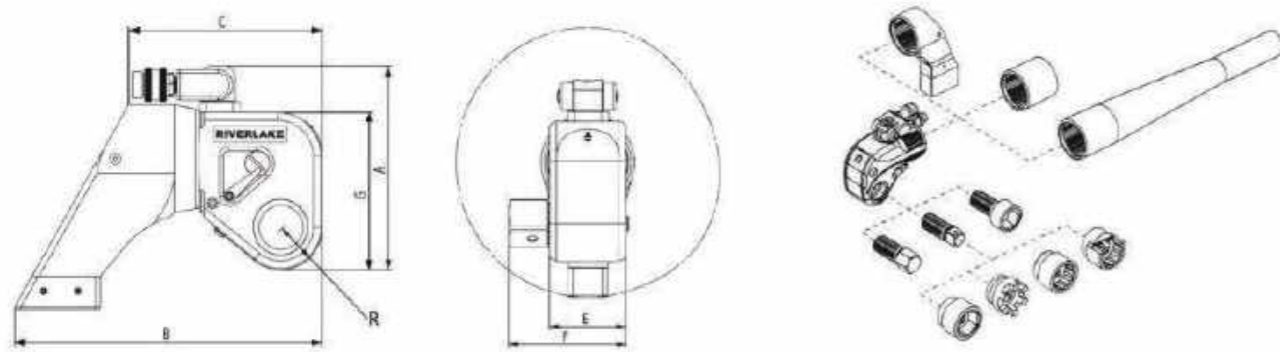
### Product Introduction

#### ▼ Square Drive Hydraulic Torque Wrench



- 70Mpa Max working pressure and the accuracy keep within  $\pm 3\%$ ;
- Altogether 12 models with the range from 110N.m to 140882N.m, which covers the most bolt size;
- The  $360^{\circ} \times 180^{\circ}$  degree swivel is free to operate with no space limitation;
- The square drive operates with high intense socket and is suitable for a large range of bolts;
- 360-degree adjustable reaction arm allows placing in any support point;
- Compact design with the raw material of advanced aluminum-titanium alloy, highly intense.

#### ▼ Dimensions



### Product Details

#### ▼ Series Comparison

Torque Wrench Model Number	Torque Range(Nm)	Square Drive Size(inch)	Dimension( mm ) A	Dimension( mm ) B	Dimension( mm ) C	Dimension( mm ) R	Dimension( mm ) E	Dimension( mm ) F	Dimension( mm ) G	Weight(Kg)
07MXT	110-1100	3/4"	108.1	139.3	110.8	20.5	42	65.8	76.2	1.8
1MXT	188-1882	3/4"	133	182	130	26	52	77	96	2.5
3MXT	447-4466	1"	165	249	170	34	70	98	127	4.9
5MXT	745-7451	1 1/2"	184	286	202	39	81	125	149	7.6
8MXT	1073-10732	1 1/2"	207	326	228	47	90	134	172	11.2
10MXT	1536-15359	1 1/2"	216	336	237	51	100	144	181	13.5
15MXT	2011-20108	2 1/2"	241	391	273	55	110	164	206	20.8
20MXT	2639-26392	2 1/2"	256	433	287	59	120	187	221	25.9
25MXT	3540-35397	2 1/2"	293	464	323	67	138	206	258	34.4
35MXT	4874-48740	2 1/2"	315	494	351	79	153	217	279	50
50MXT	7066-70660	2 1/2"	326	528	376	81	162	226	291	85
110MXT	14088-140882	4"	473	758	520	115	210	307	415	220

## Low Profile Hydraulic Torque Wrench

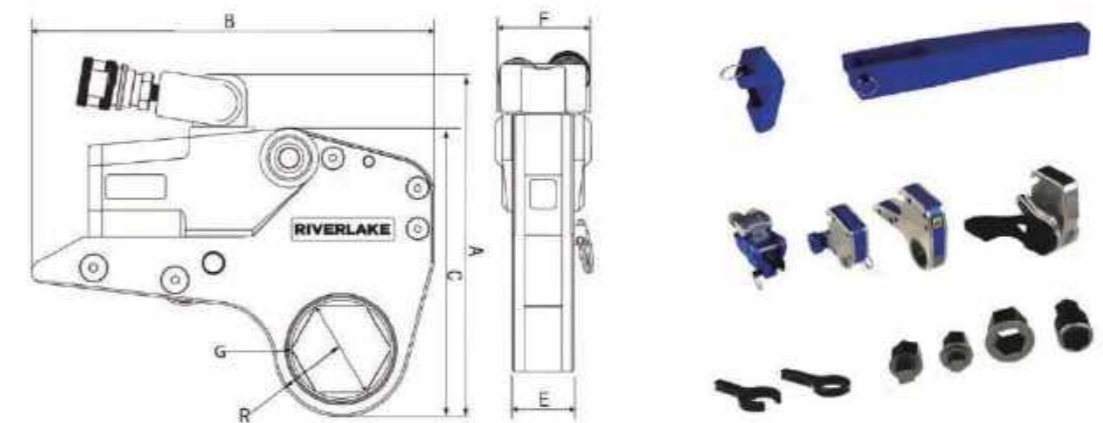
### Product Introduction

#### ▼ Low Profile Hydraulic Torque Wrench



- 70Mpa Max working pressure and the accuracy keep within  $\pm 3\%$ ;
- All together 6 models with the range from 230N.m to 44590N.m, which covers the most bolts size;
- The  $360^{\circ} \times 180^{\circ}$  degree swivel is free to operate with no space limitation;
- Compact, lightweight, aluminum drive unit;
- Low profile design for limited access applications Easily assembled to selected ratchet head;
- Minimum radius cassette head for fitment in confined spaces.

#### ▼ Dimensions



### Product Details

#### ▼ Torque Wrench Drive Unit Specification

Drive Unit Model	Minimum Torque(N.m)	Max Torque (N.m)	Hexagon Range(mm)	Power Head Weight (Kg)	Work Head Weight (Kg)	A(mm)	B(mm)	C(mm)	E(mm)	F(mm)
2XLCT	230	2330	19-55	1	1.6	170.3	196	141.3	32	51
	242	2415	60		1.7	170.3	196	141.3	32	51
4XLCT	251	2510	34-36	2	4.4	216.8	246	189.8	42	66
	502	5020	41			216.8	246	189.8	42	66
	647	6475	70-80		4.6	216.8	302.5	189.8	42	66
8XLCT	1094	10945	41~95	3.3	8	259.8	302.5	235.3	53	83
	1177	11775	100-105		8.4	259.8	302.5	235.3	53	83
14XLCT	1852	18525	50-117	5.5	11.6	308.3	367	283.3	64	99
18XLCT	2640	26400	75-135	7	12.6	344.8	400.5	322.8	70	23.5
30XLCT	4188	41880	110-155	11.4	29	404	457.5	387	85	131
	4459	44590	160-175		30	404	457.5	387	85	131

## Product Details

### ▼ Torque Wrench Drive Unit Specification

Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G
2XL-19	27	16	4XL-34	36	16	8XL-41	46	22	14XL-50	60	31	18XL-65	66	28	30XL-85	78	28
2XL-22	27	14	4XL-36	36	15	8XL-46	46	19	14XL-55	60	28	18XL-70	66	26	30XL-90	78	28
2XL-27	27	11	4XL-41	39	15	8XL-50	46	17	14XL-60	60	25	18XL-75	69	26	30XL-95	83	28
2XL-30	29	12	4XL-46	42	15	8XL-55	50	18	14XL-65	60	22	18XL-80	69	23	30XL-100	83	25
2XL-32	29	11	4XL-50	44	15	8XL-60	52	17	14XL-70	60	19	18XL-85	74	25	30XL-105	89	28
2XL-34	31	11	4XL-55	46	14	8XL-65	55	17	14XL-75	63	19	18XL-90	74	22	30XL-110	89	25
2XL-36	31	10	4XL-60	50	15	8XL-70	58	17	14XL-80	66	19	18XL-95	78	23	30XL-115	95	28
2XL-41	34	10	4XL-65	53	15	8XL-75	60	17	14XL-85	69	19	18XL-100	78	20	30XL-117	95	27
2XL-46	37	10	4XL-70	56	15	8XL-80	63	16	14XL-90	72	20	18XL-105	83	22	30XL-120	95	25
2XL-50	40	11	4XL-75	59	15	8XL-85	66	16	14XL-95	74	19	18XL-110	83	20	30XL-125	101	29
2XL-55	43	11	4XL-80	61	15	8XL-90	69	17	14XL-100	77	19	18XL-115	89	23	30XL-130	101	26
2XL-60	46	11				8XL-95	71	16	14XL-105	80	19	18XL-117	89	21	30XL-135	104	26
						8XL-100	75	17	14XL-110	83	19	18XL-120	95	26	30XL-140	110	29
						8XL-105	78	17	14XL-115	87	20	18XL-125	95	23	30XL-145	110	26
									14XL-117	87	19	18XL-130	99	24	30XL-150	116	29
												18XL-135	99	21	30XL-155	116	26
															30XL-160	128	36
															30XL-165	128	33
															30XL-170	128	30
															30XL-175	128	27

## SNotched Low Clearance Hydraulic Torque Wrench

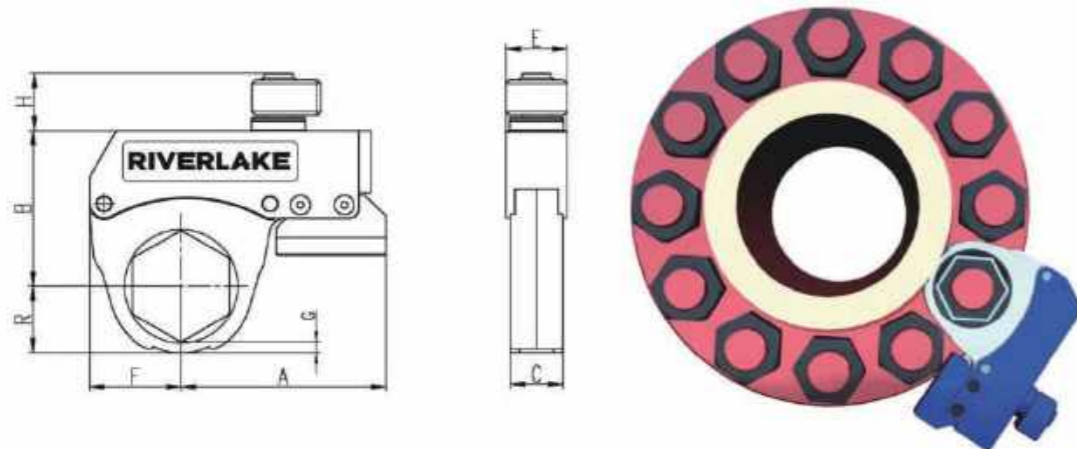
### Product Introduction

#### ▼ SNotched Low Clearance Hydraulic Torque Wrench



- 70Mpa Max working pressure and the accuracy keep within  $\pm 3\%$ ;
- Small dimensions and compact design for confined spaces;
- An integrated pressure relief valve ensures a safer working environment;
- Generously sized oil channels in the device, provide minimal heating under continuous load;
- Various inserts are available as an accessories, for flexible working;
- Unique notch design, suitable for working conditions with small clearances such as blowout preventers, Christmas trees, valves, etc.

#### ▼ Dimensions



## Product Introduction

### ▼ Torque Wrench Drive Unit Specification

Drive Unit Model	Minimum Torque(N.m)	Max. Torque(N.m)	Hexagon Range(mm)	Power Head Weight (Kg)	Work Head Weight (Kg)	A(mm)	B(mm)	C(mm)	E(mm)	F(mm)
3SGT	203	2030	19-41	1.2	1.3	148	109	28	40	57
	303	3030	46-60		1.4	148	109	28	40	57
6SGT	560	5600	41-65	2.2	1.5	168	127	35	50	83
	660	6600	70-80		1.7	168	127	35	50	83
10SGT	986	9860	41-65	3.3	3.4	216	148	46	66	86
	1200	12000	70-95		3.8	216	148	46	66	86
20SGT	1850	18500	70-95	5.5	5.8	282	191	56	82	86
	2000	20000	100-115		6.8	282	191	56	82	86
30SGT	3000	30000	100-115	11.5	15.8	341	237	72	105	116
40SGT	4000	40000	115-135	12.5	16.8	341	237	72	105	116
	4509	45090	135-155		17.5	341	237	72	105	116
60SGT	6000	60000	115-165	13.8	18.9	374	265	88	130	131
70SGT	7000	70000	130-180	30	32	365	278	91.8	135	149
90SGT	9000	90000	145-210	36.8	41.6	382	275	102	150	174

### ▼ Torque Wrench Cassette Specification

Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G
3SG-19	24	13	6SG-34	33	13	10SG-41	42	18	20SG-50	56	27	30SG-65	60	22	40SG-85	72	22
3SG-22	24	11	6SG-36	33	12	10SG-46	42	15	20SG-55	56	24	30SG-70	60	20	40SG-90	72	22
3SG-27	24	8	6SG-41	36	12	10SG-50	42	13	20SG-60	56	21	30SG-75	63	20	40SG-95	77	22
3SG-30	26	9	6SG-46	39	12	10SG-55	46	14	20SG-65	56	18	30SG-80	63	17	40SG-100	77	19
3SG-32	26	8	6SG-50	41	12	10SG-60	48	13	20SG-70	56	15	30SG-85	68	19	40SG-105	83	22
3SG-34	28	8	6SG-55	43	11	10SG-65	51	13	20SG-75	59	15	30SG-90	68	16	40SG-110	83	19
3SG-36	28	7	6SG-60	47	12	10SG-70	54	13	20SG-80	62	15	30SG-95	72	17	40SG-115	89	22
3SG-41	31	7	6SG-65	50	12	10SG-75	56	13	20SG-85	65	15	30SG-100	72	14	40SG-117	89	21
3SG-46	34	7	6SG-70	53	12	10SG-80	59	12	20SG-90	68	16	30SG-105	77	16	40SG-120	89	19
3SG-50	37	8	6SG-75	56	12	10SG-85	62	12	20SG-95	70	15	30SG-110	77	14	40SG-125	95	23
3SG-55	40	8	6SG-80	58	12	10SG-90	65	13	20SG-100	73	15	30SG-115	83	17	40SG-130	95	20
3SG-60	43	8				10SG-95	67	12	20SG-105	76	15	30SG-117	83	15	40SG-135	98	20
						10SG-100	71	13	20SG-110	79	15	30SG-120	89	20	40SG-140	104	23
						10SG-105	74	13	20SG-115	83	16	30SG-125	89	17	40SG-145	104	20
									20SG-117	83	15	30SG-130	93	18	40SG-150	110	23
												30SG-135	93	15	40SG-155	110	20
															40SG-160	122	30
															40SG-165	122	27
															40SG-170	122	24
															40SG-175	122	21

# Super Thin Low Profile Hydraulic Torque Wrench

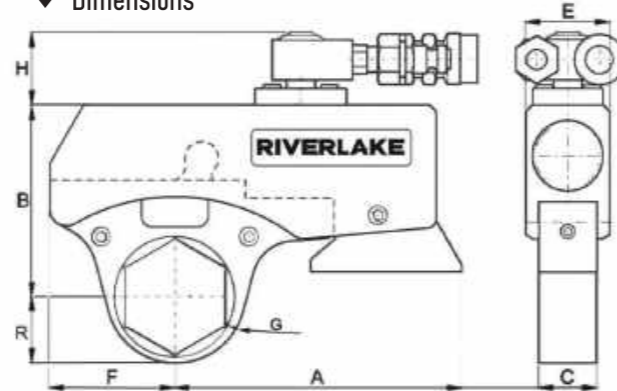
## Product Introduction

### ▼ Super Thin Low Profile Hydraulic Torque Wrench



- 70Mpa Max working pressure and the accuracy keep within  $\pm 3\%$ ;
- Altogether 11 models with the range from 303N.m to 180000N.m, which covers the most bolt size;
- Small dimensions and compact design for confined spaces;
- An integrated pressure relief valve ensures a safer working environment;
- Generously sized oil channels in the device, provide minimal heating under continuous load;
- Various inserts are available as an accessories, for flexible working.

### ▼ Dimensions



## Product Details

### ▼ Torque Wrench Drive Unit Specification

Drive Unit Model	Minimum Torque(N.m)	Max. Torque(N.m)	Hexagon Range(mm)	Power Head Weight (Kg)	Work Head Weight (Kg)	A(mm)	B(mm)	C(mm)	E(mm)	F(mm)
3SWT	203	2030	19-41	1.2	1.3	148	109	28	40	57
	303	3030	46-60		1.4	148	109	28	40	57
6SWT	560	5600	41-65	2.2	1.5	168	127	35	50	83
	660	6600	70-80		1.7	168	127	35	50	83
10SWT	986	9860	41-65	3.3	3.4	216	148	46	66	86
	1200	12000	70-95		3.8	216	148	46	66	86
20SWT	1850	18500	70-95	5.5	5.8	282	191	56	82	86
	2000	20000	100-115		6.8	282	191	56	82	86
30SWT	3000	30000	100-115	11.5	15.8	341	237	72	105	116
	4000	40000	115-135		16.8	341	237	72	105	116
40SWT	4509	45090	135-155	12.5	17.5	341	237	72	105	116
	6000	60000	115-165		18.9	374	265	88	130	131
60SWT	6000	60000	115-165	13.8	18.9	374	265	88	130	131
70SWT	7000	70000	130-180	30	32	365	278	91.8	135	149
90SWT	9000	90000	145-210	36.8	41.6	382	275	102	150	174
130SWT	13000	130000	160-230	42.5	45.6	431	299	119	175	190
160SWT	16000	16000	185-255	66	72	482	415	142.8	210	205
180SWT	18000	180000	200-285	95.5	102	550	440	160	235	218

## Product Introduction

### ▼ Torque Wrench Cassette Specification

Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G	Cassette Model	R	G
3TS-19	27	16	6TS-34	36	16	10TS-41	46	22	20TS-50	60	31	30TS65	66	28	40TS-85	78	28
3TS-22	27	14	6TS-36	36	15	10TS-46	46	19	20TS-55	60	28	30TS70	66	26	40TS-90	78	28
3TS-27	27	11	6TS-41	39	15	10TS-50	46	17	20TS-60	60	25	30TS75	69	26	40TS-95	83	28
3TS-30	29	12	6TS-46	42	15	10TS-55	50	18	20TS-65	60	22	30TS80	69	23	40TS-100	83	25
3TS-32	29	11	6TS-50	44	15	10TS-60	52	17	20TS-70	60	19	30TS85	74	25	40TS-105	89	28
3TS-34	31	11	6TS-55	46	14	10TS-65	55	17	20TS-75	63	19	30TS90	74	22	40TS-110	89	25
3TS-36	31	10	6TS-60	50	15	10TS-70	58	17	20TS-80	66	19	30TS95	78	23	40TS-115	95	28
3TS-41	34	10	6TS-65	53	15	10TS-75	60	17	20TS-85	69	19	30TS100	78	20	40TS-117	95	27
3TS-46	37	10	6TS-70	56	15	10TS-80	63	16	20TS-90	72	20	30TS105	83	22	40TS-120	95	25
3TS-50	40	11	6TS-75	59	15	10TS-85	66	16	20TS-95	74	19	30TS110	83	20	40TS-125	101	29
3TS-55	43	11	6TS-80	61	15	10TS-90	69	17	20TS-100	77	19	30TS115	89	23	40TS-130	101	26
3TS-60	46	11				10TS-95	71	16	20TS-105	80	19	30TS117	89	21	40TS-135	104	26
						10TS-100	75	17	20TS-110	83	19	30TS120	95	26	40TS-140	110	29
						10TS-105	78	17	20TS-115	87	20	30TS125	95	23	40TS-145	110	26
									20TS-117	87	19	30TS130	99	24	40TS-150	116	29
												30TS135	99	21	40TS-155	116	26
															40TS-160	128	36
															40TS-165	128	33
															40TS-170	128	30
															40TS-175	128	27

# Open End Low Clearance Hydraulic Torque Wrench

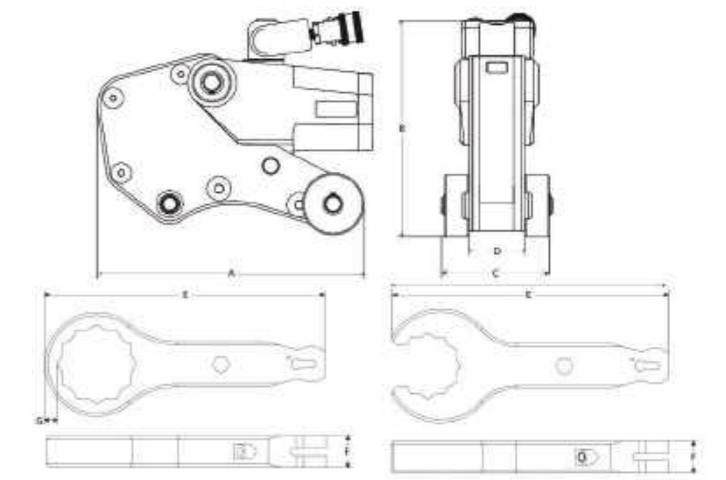
## Product Introduction

### ▼ Open End Low Clearance Hydraulic Torque Wrench



- Low clearance with size from 19-39mm;
- Spanners available from 19– 120mm;
- Ring and open-end spanner attachments are available;
- Customized size available.

### ▼ Dimensions



## Product Details

### Series Comparison

Model	Torque Range(N.m)	Bolt Size(s)	Power Unit WT.(kg)	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)	G(mm)
ROE4	346-2318	19-60	2.2	155	129	66	32	Depend on A/F	19	7.5
ROE8	786-5226	36-75	3	208	168	87	42	Depend on A/F	25.4	7.5
ROW12	1549-11049	55-90	3.3	260	209	108	43	Depend on A/F	31.75	13
ROE16	2725-18165	80-120	8.2	349	239	132	44	Depend on A/F	39	17.5

## Hydraulic Torque Wrench Socket

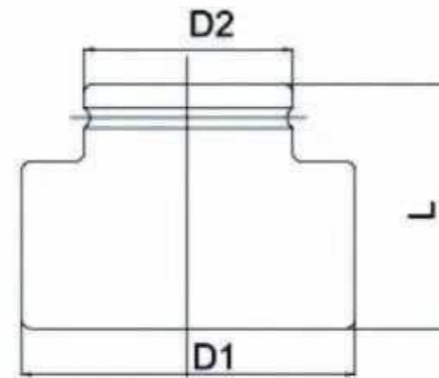
## Product Introduction

### Hydraulic Torque Wrench Socket



- Made of high-strength alloy steel;
- Made by German DIN industrial standards;
- Standard heat treatment process, lifetime warranty;
- The following are metric sockets;
- Non-standard castle sockets, flower-shaped sockets, and hexagon sockets can be customized.

### Dimensions



## Product Details

### Specification

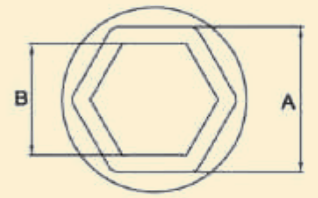
Model	Square Drive(inc)	Bolt Size(M)	A/F(mm)	L1(mm)	D1(mm)	D2(mm)
RS123	3/4"	M16	S24	46	38	35
RS127	3/4"	M18	S27	48	42	36
RS130	3/4"	M20	S30	50	46	38
RS134	3/4"	M22	S34	52	48	40
RS136	3/4"	M24	S36	54	52	42
RS141	3/4"	M27	S41	57	58	44
RS146	3/4"	M30	S46	60	64	46
RS150	3/4"	M33	S50	63	70	48
RS155	3/4"	M36	S55	66	76	50
RS230	1"	M20	S30	65	45	45
RS234	1"	M22	S34	67	47	47
RS236	1"	M24	S36	69	52	52
RS241	1"	M27	S41	72	59	52
RS246	1"	M30	S46	75	65	52
RS250	1"	M33	S50	77	71	52
RS255	1"	M36	S55	77	79	52
RS260	1"	M39	S60	79	84	53
RS265	1"	M42	S65	83	90	56
RS270	1"	M45	S70	86	98	61
RS275	1"	M48	S75	89	104	64

## Hex Reducers



- Made of high-strength alloy steel;
- Made by German DIN industrial standards;
- Standard heat treatment process, lifetime warranty;
- The following are metric sockets;
- Customizable pattern transition plug-in, transition plug-in to external hexagonal sleeve.

### Torque Wrench Dimensions



## Product Details

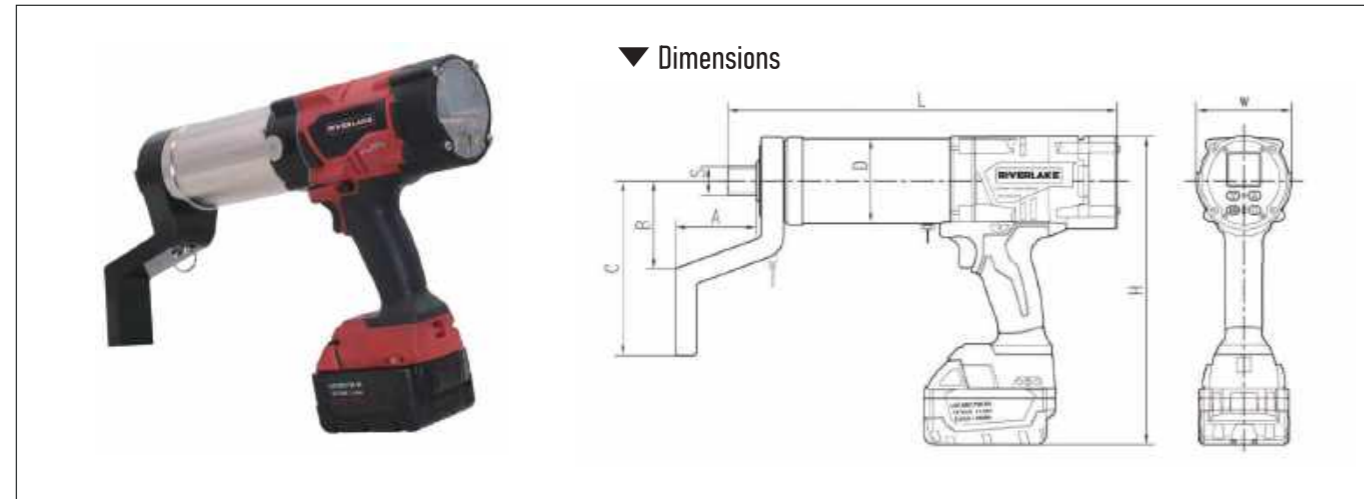
### Specification

Torque Wrench Model	Torque Cassette Model	A/F	Hex Reducer Model	A/B(mm)	Hex Reducer Model	A/B(mm)	Hex Reducer Model	A/B(mm)	Hex Reducer Model	A/B(mm)	Hex Reducer Model	A/B(mm)	Hex Reducer Model	A/B(mm)
2XLCT	2XL-50	50	2SH5046	50/46	2SH5041	50/41	2SH5036	50/36	2SH5032	50/32	2SH5030	50/30	2SH5027	50/27
2XLCT	2XL-46	46	2SH4641	46/41	2SH4636	46/36	2SH4632	46/32	2SH4630	46/30	2SH4627	46/27	*	*
2XLCT	2XL-41	41	2SH4136	41/36	2SH4132	41/32	2SH4130	41/30	2SH4127	41/27	*	*	*	*
2XLCT	2XL-36	36	2SH3632	36/32	2SH3630	36/30	2SH3627	36/27	*	*	*	*	*	*
2XLCT	2XL-32	32	2SH3230	32/30	2SH3227	32/27	*	*	*	*	*	*	*	*
2XLCT	2XL-30	30	2SH3027	30/27	*	*	*	*	*	*	*	*	*	*
2XLCT	2XL-27	27	*	*	*	*	*	*	*	*	*	*	*	*
4XLCT	4XL-65	65	4SH6560	65/60	4SH6555	65/55	4SH6550	65/50	4SH6546	65/46	4SH6541	65/41	4SH6536	65/36
4XLCT	4XL-60	60	4SH6055	60/55	4SH6050	60/50	4SH6046	60/46	4SH6041	60/41	4SH6036	60/36	4SH6032	60/32
4XLCT	4XL-55	55	4SH5550	55/50	4SH5546	55/46	4SH5541	55/41	4SH5536	55/36	4SH5532	55/32	4SH5530	55/30
4XLCT	4XL-50	50	4SH5046	50/46	4SH5041	50/41	4SH5036	50/36	4SH5032	50/32	4SH5030	50/30	4SH5027	50/27
4XLCT	4XL-46	46	4SH4641	46/41	4SH4636	46/36	4SH4632	46/32	4SH4630	46/30	4SH4627	46/27	*	*
4XLCT	4XL-41	41	4SH4136	41/36	4SH4132	41/32	4SH4130	41/30	4SH4127	41/27	*	*	*	*
4XLCT	4XL-36	36	4SH3632	36/32	4SH3630	36/30	4SH3627	36/27	*	*	*	*	*	*
4XLCT	4XL-32	32	4SH3230	32/30	4SH3227	32/27	*	*	*	*	*	*	*	*
4XLCT	4XL-30	30	4SH3027	30/27	*	*	*	*	*	*	*	*	*	*
4XLCT	4XL-27	27	*	*	*	*	*	*	*	*	*	*	*	*
8XLT	8XL-90	90	8SH9085	90/85	8SH9080	90/80	8SH9075	90/75	8SH9070	90/70	8SH9065	90/65	8SH9060	90/60
8XLT	8XL-85	85	8SH8580	85/80	8SH8575	85/75	8SH8570	85/70	8SH8565	85/65	8SH8560	85/60	8SH8555	85/55
8XLT	8XL-80	80	8SH8075	80/75	8SH8070	80/70	8SH8065	80/65	8SH8060	80/60	8SH8055	80/55	8SH8050	80/50
8XLT	8XL-75	75	8SH7570	75/70	8SH7565	75/65	8SH7560	75/60	8SH7555	75/55	8SH7550	75/50	*	*
8XLT	8XL-70	70	8SH7065	70/65	8SH7060	70/60	8SH7055	70/55	8SH7050	70/50	*	*	*	*
8XLT	8XL-65	65	8SH6560	65/60	8SH6555	65/55	8SH6550	65/50	*	*	*	*	*	*
8XLT	8XL-60	60	8SH6055	60/55	8SH6050	60/50	*	*	*	*	*	*	*	*
8XLT	8XL-55	55	8SH5550	55/50	*	*	*	*	*	*	*	*	*	*
8XLT	8XL-50	50	*	*	*	*	*	*	*	*	*	*	*	*
14XLT	14XL-115	115	14SH115110	115/110	14SH115105	115/105	14SH115100	115/100	14SH115095	115/95	14SH11590	115/90	14SH11585	115/85
14XLT	14XL-110	110	14SH110105	110/105	14SH110100	110/100	14SH110095	110/95	14SH110090	110/90	14SH110085	110/85	14SH110080	110/80
14XLT	14XL-105	105	14SH105100	105/100	14SH105095	105/95	14SH105090	105/90	14SH105085	105/85	14SH105080	105/80	14SH105075	105/75
14XLT	14XL-100	100	14SH100095	100/95	14SH100090	100/90	14SH100085	100/85	14SH100080	100/80	14SH100075	100/75	14SH100070	100/70
14XLT	14XL-95	95	14SH9590	95/90	14SH9585	95/85	14SH9580	95/80	14SH9575	95/75	14SH9570	95/70	14SH9565	95/65
14XLT	14XL-90	90	14SH9085	90/85	14SH9080	90/80	14SH9075	90/75	14SH9070	90/70	14SH9065	90/65	*	*
14XLT	14XL-85	85	14SH8580	85/80	14SH8575	85/75	14SH8570	85/70	14SH8565	85/65	*	*	*	*
14XLT	14XL-80	80	14SH8075	80/75	14SH8070	80/70	14SH8065	80/65	*	*	*	*	*	*
14XLT	14XL-75	75	14SH7570	75/70	14SH7565	75/65	*	*	*	*	*	*	*	*
14XLT	14XL-70	70	14SH7065	70/65	*	*	*	*	*	*	*	*	*	*
14XLT	14XL-65	65	*	*	*	*	*	*	*	*	*	*	*	*
18XLT	18XL-135	135	18SH135130	135/130	18SH135120	135/120	18SH135115	135/115	18SH135110	135/110	18SH135105	135/105	18SH135100	135/100
18XLT	18XL-130	130	18SH130120	130/120	18SH130115	130/115	18SH130110	130/110	18SH130105	130/105	18SH130100	130/100	18SH130095	130/95
18XLT	18XL-120	120	18SH120115	120/115	18SH120110	120/110	18SH120105	120/105	18SH120100	120/100	18SH120095	120/95	18SH120090	120/90
18XLT	18XL-115	115	18SH115110	115/110	18SH115105	115/105	18SH115100	115/100	18SH115095	115/95	18SH115090	115/90	18SH115085	115/85
18XLT	18XL-110	110	18SH110105	110/105	18SH110100	110/100	18SH110095	110/95	18SH110090	110/90	18SH110085	110/85	18SH110080	110/80
18XLT	18XL-105	105	18SH105100	105/100	18SH105095	105/95	18SH105090	105/90	18SH105085	105/85	18SH105080	105/80	18SH105075	105/75
18XLT	18XL-100	100	18SH100095	100/95	18SH100090	100/90	18SH100085	100/85	18SH100080	100/80	18SH100075	100/75	*	*
18XLT	18XL-95	95	18SH9590	95/90	18SH9585	95/85	18SH9580	95/80	18SH9575	95/75	*	*	*	*
18XLT	18XL-90	90	18SH9085	90/85	18SH9080	90/80	18SH9075	90/75	*	*	*	*	*	*
18XLT	18XL-85	85	18SH8580	85/80	18SH8575	85/75	*	*	*	*	*	*	*	*
18XLT	18XL-80	80	18SH8075	80/75	*	*	*	*	*	*	*	*	*	*
18XLT	18XL-75	75	*	*	*	*	*	*	*	*	*	*	*	*
30XLT	30XL-155	155	30SH155145	155/145	30SH155130	155/130	30SH155120	155/120	30SH155115	155/115	30SH155110	155/110	30SH155105	155/105
30XLT	30XL-145	145	30SH145130	145/130	30SH145120	145/120	30SH145115	145/115	30SH145110	145/110	30SH145105	145/105	30SH145100	145/100
30XLT	30XL-130	130	30SH130120	130/120	30SH130115	130/115	30SH130110	130/110	30SH130105	130/105	30SH130100	130/100	30SH130095	130/95
30XLT	30XL-120	120	30SH120115	120/115	30SH120110	120/110	30SH120105	120/105	30SH120100	120/100	30SH120095	120/95	30SH120090	120/90
30XLT	30XL-115	115	30SH115110	115/110	30SH115105	115/105	30SH115100	115/100	30SH115095	115/95	30SH115090	115/90	30SH115085	115/85
30XLT	30XL-110	110	30SH110105	110/105	30SH110100	110/100	30SH110095	110/95	30SH110090	110/90	30SH110085	110/85	30SH110080	110/80
30XLT	30XL-105	105	30SH105100	105/100	30SH105095	105/95	30SH105090	105/90	30SH105085	105/85	30SH105080	105/80	*	*
30XLT	30XL-100	100	30SH100095	100/95	30SH100090	100/90	30SH100085	100/85	30SH100080	100/80	*	*	*	*
30XLT	30XL-95	95	30SH9590	95/90										

# Battery Powered Torque Wrench

## Product Introduction

### ▼ Portable Electric Hydraulic Pump



- Standard configuration: 2 units 18V, 5Ah lithium batteries with power display, a fast charger that can be charged within 60 minutes, optional 8Ah, 12Ah batteries available;
- The brushless motor is suitable for low-explosion-proof occasions and has strong, long-lasting power;
- The power system can rotate 360 degrees, with memory-type mechanical locking and no reaction force acting on the handle, which can prevent personal injury caused by mechanical failure;
- The tension spring reaction arm can be quickly removed and repositioned to improve work efficiency;
- The minimum resolution can reach 1N.m, the factory accuracy reaches  $\pm 5\%$ , the repeatability accuracy is  $\pm 3\%$ , and a traceable torque calibration report is randomly included;
- When the set torque is reached, the machine will automatically stop, and the visual signal light and buzzer will inform the tightening result. After tightening, the machine will automatically retract, making it easy to remove the wrench;
- The counter counts the times used in real-time, and it is clear at a glance whether maintenance is needed;
- Standard modes configurations: torque, bolt, and gear preset modes;
- The wrench can store 10,000 tightening data, and can be connected to the device via Type-C to monitor and export tightening data (workstation, operator, torque, date), and realize reversible data query;
- Optional configurations available: Angle mode and sensor mode;
- Optional: A wireless communication module can be added to connect to the host computer or APP.

### ▼ Tool Kit Display



## Product Details

### ▼ Series Comparison

Model	Square Drive(Inch)	Min. Torque(Nm)	Max. Torque(Nm)	Speed (Rpm)	Weight(Kg)	Dimension L(mm)	Dimension H(mm)	Dimension D(mm)	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)
CTG04	3/4"	125	450	22.2	4.8	300	260	76	50	54	110
CTG07	3/4"	125	700	20	4.8	300	260	76	50	54	110
CTG10	3/4"	180	1000	14.1	5.3	320	260	88	65	65	130
CTG20	1"	350	2000	6.2	6.1	345	260	76	75	75	150
CTG30	1"	500	3000	5	7.4	355	260	88	83	83	160
CTG50	1-1/2"	1000	5000	2	9.5	385	260	86	83	83	160
CTG60	1-1/2"	1000	6000	2	9.8	385	260	86	83	83	160
CTG70	1-1/2"	1200	7000	1.5	14.6	425	260	122	90	90	180
CTG90	1-1/2"	1500	9000	1	14.9	425	260	122	95	95	200
CTG120	1-1/2"	2000	12000	1.5	17.2	467	285	139	95	95	200
CTG150	1-1/2"	2500	15000	1	17.5	467	285	139	95	95	200

# Pneumatic Torque Wrench

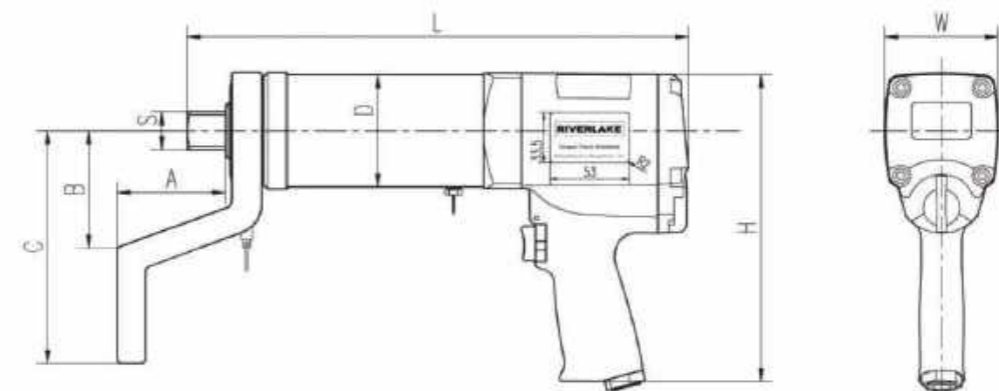
## Product Introduction

### ▼ Pneumatic Torque Wrench



- Lightweight, 7-blade high-performance pneumatic motor, high efficiency;
- The power system can rotate 360 degrees, and the memory-type mechanical locking system has no reaction force on the handle, which can prevent personal injury caused by mechanical failure;
- Low noise, non-impact design, and low vibration frequency ensure the tool is safe and comfortable;
- The tension spring reaction arm can be quickly removed and repositioned to improve work efficiency;
- Factory accuracy reaches  $\pm 5\%$ , repeatability accuracy  $\pm 3\%$ , and comes with a traceable torque calibration report;
- Precise, efficient, ergonomic, and scalable tools with smart technology;
- Digital display configuration available if required.

### ▼ Dimensions



## Product Introduction

### ▼ Tool Kit Display



PTW60



Digital Torque Display(Optional Configuration)

## Product Details

### ▼ Series Comparison

Model	Square Drive(Inch)	Min. Torque(Nm)	Max. Torque(Nm)	Speed (Rpm)	Weight(Kg)	Dimension L(mm)	Dimension H(mm)	Dimension D(mm)	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)
PTW05	3/4"	100	500	31.6	6.1	295	210	75	50	54	110
PTW08	3/4"	160	800	20.2	6.5	315	210	88	65	65	130
PTW18	1"	360	1800	8.9	7.5	340	210	75	75	75	150
PTW25	1"	500	2500	8.9	8.5	340	210	75	75	75	150
PTW30	1"	600	3000	6.6	8.9	350	210	88	80	83	160
PTW40	1"	800	4000	4.7	12.5	360	210	95	80	83	160
PTW50	1-1/2"	1000	5000	4.7	12.7	360	210	95	80	83	160
PTW60	1-1/2"	1200	6000	3.6	14.8	375	210	122	90	90	180
PTW80	1-1/2"	1600	8000	2.4	16.8	460	210	139	100	95	200
PTW100	1-1/2"	2000	10000	2.2	16.9	465	210	139	100	95	200
PTW120	1-1/2"	2400	12000	1.7	17.2	465	210	139	100	95	200

## Digital Control System For Pneumatic Torque Wrench

### Product Introduction

- The DPCS control system provides a simple and easy-to-use operating interface for pneumatic tools. The torque can be set through a mechanical knob or button, which is simple and convenient to operate;
- The lithium battery power supply system can work continuously for over 48 hours;
- The minimum resolution can reach 1N.m, the factory accuracy reaches  $\pm 5\%$ , the repeatability accuracy is  $\pm 3\%$ , and a traceable torque calibration report is included;
- The machine stops automatically when the set torque is reached, the visual signal light and buzzer inform the tightening result, the counter counts the number of times used in real-time, and it is clear at a glance whether maintenance is needed;
- Standard configuration: torque, bolt, and gear preset modes;
- The device can store 10,000 fastening data and be connected via Type-C or USB devices to monitor and export fastening data (station, operator, torque, date), and realize reversible data query;
- Optional: A wireless communication module can be added to connect to the host computer or APP;
- Applicable to single-speed or dual-speed pneumatic torque wrenches of various brands, with a torque range of 50-15000N.m.



## Electric Torque Wrench

### Product Introduction

#### ▼ Electric Torque Wrench



▼ Dimensions

- Dual-speed design can switch between I/II speeds, corresponding to different speeds and torques;
- The power system can rotate 360 degrees, with memory-type mechanical locking and no reaction force acting on the handle, which can prevent personal injury caused by mechanical failure.
- The tension spring reaction arm can be quickly removed and repositioned to improve work efficiency;
- The minimum resolution can reach 1N.m, the factory accuracy reaches  $\pm 5\%$ , the repeatability accuracy is  $\pm 3\%$ , and a traceable torque calibration report is included in the tool kit;
- The machine will automatically stop when the set torque is reached, and the visual signal light and buzzer will inform the tightening result;
- The counter counts the number of times used in real-time, and it is clear at a glance whether maintenance is needed;
- Standard configuration: torque, bolt, and gear preset modes;
- The tool can store 10,000 fastening data and can be connected to the device via Type-C to monitor and export fastening data(work-station, operator, torque, date), and realize reversible data query.
- Optional configuration: Angle mode and sensor mode;
- Optional configuration: A wireless communication module can be added to connect to the host computer or APP.

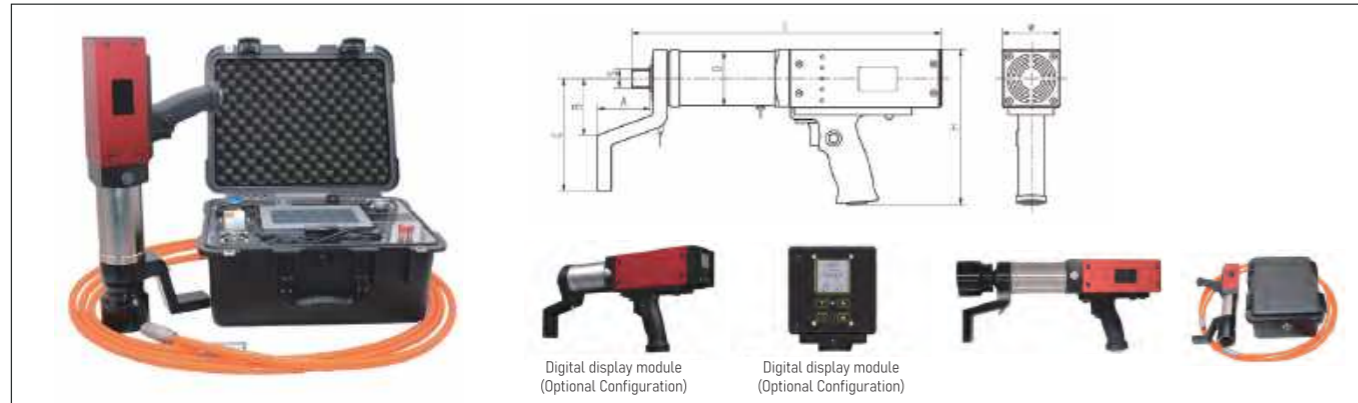
## Product Details

### ▼ Series Comparison

Model	Square Drive(Inch)	Min. Torque(Nm)	Max. Torque(Nm)	Speed (Rpm)	Dimension L(mm)	Dimension H(mm)	Dimension D(mm)	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Weight(Kg)
ETW07	3/4"	100	700	22.8	385	210	75	50	54	110	6.1
ETW10	3/4"	140	1000	14.5	405	210	88	65	65	130	6.5
ETW21	1"	300	2100	6.4	430	210	75	75	75	150	8.5
ETW30	1"	430	3000	4.8	440	210	88	80	83	160	8.9
ETW40	1"	570	4000	3.4	450	210	95	80	83	160	12.5
ETW50	1-1/2"	715	5000	3.4	450	210	95	80	83	160	12.5
ETW60	1-1/2"	850	6000	2.6	490	210	122	90	90	180	14.8
ETW70	1-1/2"	1000	7000	2.6	490	210	122	90	90	180	14.9
ETW80	1-1/2"	1150	8000	2	550	210	139	100	95	200	16.5
ETW100	1-1/2"	1450	10000	1.6	550	210	139	100	95	200	16.8
ETW120	1-1/2"	1750	12000	1.3	550	210	139	100	95	200	16.9

## Product Introduction(2)

### ▼ Electric Torque Wrench



- The power system can rotate 360 degrees, with memory-type mechanical locking and no reaction force acting on the handle, which can prevent personal injury caused by mechanical failure;
- The tension spring reaction arm can be quickly removed and repositioned to improve work efficiency;
- The minimum resolution can reach 1N.m, the factory accuracy reaches  $\pm 3\%$ , the repeatability accuracy is  $\pm 2\%$ , and a traceable torque calibration report is included in the tool kit. The TS version with torque sensor has an accuracy of  $\pm 1\%$ ;
- After tightening, it can automatically retract, making it easy to remove the wrench;
- Lightweight and reliable ergonomic gun-style grip, increasing the comfort of use;
- The STW-CS series controller provides a simple and easy-to-use operation interface for all STW tools. The torque can be set through the human-machine interface, making the operation simpler and more convenient. The workstation, operator, torque, date can be edited, and the tightening data can also be exported through USB;
- The machine will automatically stop when the set torque is reached, and the visual signal light and buzzer will inform the tightening result;
- The counter counts the number of times used in real-time, and it is clear at a glance whether maintenance is needed;
- Three modes are available: torque mode, angle mode, and torque plus angle mode;
- Optional configuration: The transmission system with torque sensor can realize dual closed-loop control of torque and angle, and TS is added to the model number;
- Support MODBUS, PROFIBUS, and other communication methods, and can also add wireless communication modules to achieve the management of IoT connection host computer and MES system;
- Optional configuration: Dual speed function can be added at a higher price if required;
- Optional configuration: The motor by default is Made in China. Import motor can be configured at a higher price if required.

## Product Details(2)

### ▼ Series Comparison

Model	Square Drive(Inch)	Min. Torque(Nm)	Max. Torque(Nm)	Speed (Rpm)	Dimension L(mm)	Dimension H(mm)	Dimension D(mm)	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Weight(Kg)
STW01	1/2"	7	50	58.6	325	210	75	45	45	90	6.6
STW03	3/4"	35	250	49.2	335	210	75	50	54	110	7.1
STW07	3/4"	100	700	32.4	385	210	75	50	54	110	8.1
STW10	3/4"	140	1000	20.6	405	210	88	65	65	130	8.5
STW21	1"	300	2100	9.1	430	210	75	75	75	150	10.5
STW30	1"	430	3000	7.4	440	210	88	80	83	160	10.9
STW40	1"	570	4000	4.8	450	210	95	80	83	160	14.5
STW50	1-1/2"	715	5000	4.8	450	210	95	80	83	160	14.5
STW60	1-1/2"	850	6000	3.7	490	210	122	90	90	180	16.8
STW70	1-1/2"	1000	7000	3.7	490	210	122	90	90	180	16.8
STW80	1-1/2"	1150	8000	2.5	550	210	139	100	95	200	18.5
STW100	1-1/2"	1450	10000	2.3	550	210	139	100	95	200	18.8
STW120	1-1/2"	1750	12000	1.6	550	210	139	100	95	200	18.9

## Offset Drive

### Product Introduction

#### ▼ Integrated Type Offset Drive



#### ▼ Split Type Offset Drive



- Used in conjunction with electric and pneumatic torque wrenches and multipliers, with a bias ultra-thin design, applicable for axial space-limited working conditions;
- With a hollow structure, it can be used in situations where bolts extend longer or height space is limited;
- It is made of high-strength alloy materials, which are sturdy and durable, with a high-precision transmission system to ensure smooth and accurate transmission;
- An integrated structure is adopted, with higher strength and lighter weight;
- It has a torque amplification function, customizable length/width/thickness/center distance, etc.

## Product Details

### ▼ Series Comparison(1)

Model	Maximum Torque (N.m)	Applicable Scope AF(mm)	Input Drive Shaft D(Inch)	Tooth Drum Diameter (mm)	A(mm)	E(mm)	H(mm)	Weight(Kg)
ITOD01	1500	17-36	3/4" or 1"	60/75	120	27	68	2
ITOD02	3000	30-60	3/4" or 1"	75	140	32	68	2.5
ITOD04	6000	41-80	1" or 1-1/2"	88/95	160	42	82	3.5
ITOD08	12000	50-90	1-1/2"	122/136	180	52	100	4.5

### ▼ Series Comparison(2)

Model	Maximum Torque (N.m)	Applicable Scope AF(mm)	Input Drive Shaft D(Inch)	Tooth Drum Diameter (mm)	A(mm)	E(mm)	H(mm)	Weight(Kg)
STOD01	1500	17-36	3/4" or 1"	60/75	120	32	68	3
STOD02	3000	30-60	3/4" or 1"	75	140	36	68	3.5
STOD04	6000	41-80	1" or 1-1/2"	88/95	160	46	82	4.5
STOD08	12000	50-90	1-1/2"	122/136	180	57	100	6.3



## None-standard Reaction Arms

### Product Introduction



## Interchangeable Hydraulic Bolt Tensioners

### Product Introduction

#### ▼ Interchangeable Hydraulic Bolt Tensioners



- Single-acting design with spring-assisted return;
- High-grade alloy steel construction;
- Maximum piston stroke indicator;
- Dual quick-connect couplings for easy connection;
- Designed to fit most sizes of ANSI and API flanges and some Compact flanges;
- Interchangeable accessories to cover multiple stud bolt sizes using the same tensioner;
- Customised and special design tensioners are available on request.

## Interchangeable Hydraulic Bolt Tensioners

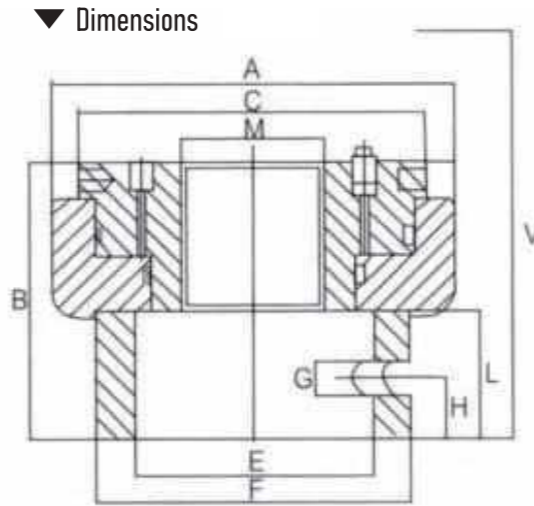
### Specification

Bolt Tension Model	Bolt Size(M)	Bolt Load/KN	Dimension/ mm	Dimension/ mm	Dimension/ mm	Dimension/ mm	Dimension/ mm	Dimension/ mm	Weight/Kg	Stroke/mm
			A	B	C	D	L	F		
TS0	M20	307	109	128	25	111	23	55	5	8
TS0	M22	307	109	130	27	113	25	59	5	8
TS0	M24	307	109	132	29	115	27	66	5	8
TS0	M27	307	109	135	32	118	30	72	5	8
TS1	M30	530	109	144	35	126	35	80	5	8
TS1	M33	530	109	147	38	129	38	85	5	8
TS1A	M30	486	109	144	35	126	35	80	7	8
TS1A	M33	486	109	147	38	129	38	85	7	8
TS1A	M36	486	109	147	38	129	38	90	7	8
TS2	M33	814	307	146	40	131	37	85	10	8
TS2	M36	814	307	149	43	134	43	96	10	8
TS2	M39	814	307	154	47	139	43	98	10	8
TS2	M42	814	307	156	50	141	54	110	10	8
TS3	M39	989	132	150	42	136	40	110	15	10
TS3	M42	989	132	152	44	138	44	113	15	10
TS3	M45	989	132	161	50	144	50	114	15	10
TS3	M48	989	132	163	52	146	52	118	15	10
TS4	M48	1413	174	174	59	145	55	132	20	10
TS4	M52	1413	174	178	59	154	55	135	20	10
TS4	M58	1413	174	179	59	158	55	135	20	10
TS5	M58	1649	198	179	60	161	60	135	25	12
TS5	M60	1649	198	183	64	165	64	143	25	12
TS5	M64	1649	198	184	65	166	65	150	25	12
TS5	M68	1649	198	193	72	175	72	158	25	12
TS6	M72	2131	222	207.5	76	184.5	75.5	165	35	12
TS6	M76	2131	222	211.5	80	188.5	80	170	35	12
TS7	M76	2544	252	221	80	194	80	170	50	12
TS7	M80	2544	252	226.5	85	199	85	175	50	12
TS7	M85	2544	252	226.5	85	199	76.5	190	50	12
TS7	M90	2544	252	235.5	94	208	95	205	50	12
TS8	M95	3101	282	247	104.5	218	100	215	65	12
TS8	M100	3101	282	252	109.5	223	105	235	65	12
TS9	M105	3792	318	242	98	212	93	225	85	12
TS9	M110	3792	318	264	120	234	115	235	85	12
TS9	M115	3792	318	269	125	239	120	260	85	12
TS10	M115	4900	360	297	120	261	120	260	110	12
TS10	M120	4900	360	302	125	266	125	270	110	12
TS10	M125	4900	360	307	140	271	130	272	110	12
TS11	M130	6255	408	312	135	276	135	285	130	12
TS11	M135	6255	408	317	140	281	140	292	130	12
TS11	M140	6255	408	322	145	286	155	300	130	12
TS11	M145	6255	408	332	155	296	165	312	130	12
TS12	M145	8423	456	337	150	301	150	312	150	12
TS12	M150	8423	456	342	155	306	165	340	150	12
TS12	M160	8423	456	352	165	316	165	350	150	12

## Load Retraction Hydraulic Bolt Tensioners

### Product Introduction

#### ▼ Load Retraction Hydraulic Bolt Tensioners



- Single-acting design with load piston retraction;
- High-grade alloy steel construction;
- Maximum piston stroke indicator;
- Dual quick-connect couplings for easy connection;
- Designed to fit most sizes of ANSI and API flanges and some Compact flanges;
- Interchangeable accessories to cover multiple stud bolt sizes using the same tensioner;
- Customised and special design tensioners are available on request.

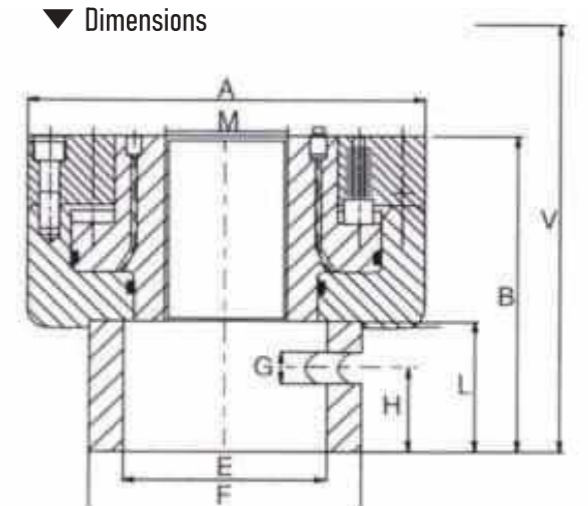
### Product Details

Model Number	Bolt Diameter/M	Bolt Diameter/In ch	Load On Bolt/KN	Area/mm <sup>2</sup>	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Stroke/mm	
					mm	mm	mm	mm	mm	mm	mm		
					A	B	C	E	F	G	H	L	
TG18	M18	3/4"	188	1256	70	75	65	45	60	6	8	29	8
TG24	M24	1"	225	1500	80	75	70	50	68	6	10	35	8
TG27	M27	1-1/8"	286	1906	90	87	80	55	75	8	13	38	8
TG30	M30	1-1/4"	319	2125	95	87	85	59	79	8	16	42	8
TG36	M36	1-3/8"	427	2845	105	90	95	62	82	8	20	45	8
TG39	M39	1-1/2"	530	3532	110	90	100	70	88	10	22	45	8
TG42	M42	1-5/8"	639	4262	118	90	100	72	90	10	28	45	8
TG48	M48	1-7/8"	801	5341	130	100	115	80	102	10	32	51	8
TG56	M56	2-1/4"	1087	7245	155	115	130	95	120	12	34	60	8
TG64	M64	2-1/2"	1523	10151	178	130	150	107	136	12	43	67	10
TG72	M72	2-3/4"	2029	13528	205	150	170	120	152	14	48	11	10
TG80	M80	3-1/8"	2392	15944	220	165	190	135	172	14	53	85	10
TG90	M90	3-5/8"	3355	22364	260	185	220	153	195	20	60	95	10
TG100	M100	4"	3395	22619	270	205	230	165	210	20	67	105	10
TG105	M105	4-1/8"	4243	28287	280	215	240	175	220	20	70	110	10
TG110	M110	4-3/8"	4712	31416	300	225	260	180	230	20	73	115	10
TG125	M125	5"	5832	38877	340	255	290	205	260	25	83	130	10
TG140	M140	5-1/2"	7069	47124	380	285	320	230	290	30	90	145	10
TG150	M150	6"	8423	56156	420	310	240	247	302	30	100	157	12
TG160	M160	6-1/2"	9312	62080	430	320	360	255	315	35	107	167	12

## Spring Return Hydraulic Bolt Tensioners

### Product Introduction

#### ▼ Spring Return Hydraulic Bolt Tensioners



- Single-acting design with spring-assisted return;
- High-grade alloy steel construction;
- Maximum piston stroke indicator;
- Dual quick-connect couplings for easy connection;
- Designed to fit most sizes of ANSI and API flanges and some Compact flanges;
- Interchangeable accessories to cover multiple stud bolt sizes using the same tensioner;
- Customised and special design tensioners are available on request.

### Product Details

#### ▼ Hydraulic Bolt Tensioners Selection Table

Model Number	Bolt Diameter/M	Bolt Diameter/In ch	Load On Bolt/KN	Area/mm <sup>2</sup>	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Dimension/	Stroke/mm
					mm	mm	mm	mm	mm	mm	mm		
					A	B	C	E	F	G	H	L	
TF18	M18	3/4"	188	1256	70	75	65	45	60	6	8	29	8
TF24	M24	1"	225	1500	80	75	70	50	68	6	10	35	8
TF27	M27	1-1/8"	286	1906	90	87	80	55	75	8	13	38	8
TF30	M30	1-1/4"	319	2125	95	87	85	59	79	8	16	42	8
TF36	M36	1-3/8"	427	2845	105	90	95	62	82	8	20	45	8
TF39	M39	1-1/2"	530	3532	110	90	100	70	88	10	22	45	8
TF42	M42	1-5/8"	639	4262	118	90	100	72	90	10	28	45	8
TF48	M48	1-7/8"	801	5341	130	100	115	80	102	10	32	51	8
TF56	M56	2-1/4"	1087	7245	155	115	130	95	120	12	34	60	8
TF64	M64	2-1/2"	1523	10151	178	130	150	107	136	12	43	67	10
TF72	M72	2-3/4"	2029	13528	205	150	170	120	152	14	48	11	10
TF80	M80	3-1/8"	2392	15944	220	165	190	135	172	14	53	85	10
TF90	M90	3-5/8"	3355	22364	260	185	220	153	195	20	60	95	10
TF100	M100	4"	3395	22619	270	205	230	165	210	20	67	105	10
TF105	M105	4-1/8"	4243	28287	280	215	240	175	220	20	70	110	10
TF110	M110	4-3/8"	4712	31416	300	225	260	180	230	20	73	115	10
TF125	M125	5"	5832	38877	340	255	290	205	260	25	83	130	10
TF140	M140	5-1/2"	7069	47124	380	285	320	230	290	30	90	145	10
TF150	M150	6"	8423	56156	420	310	240	247	302	30	100	157	12
TF160	M160	6-1/2"	9312	62080	430	320	360	255	315	35	107	167	12

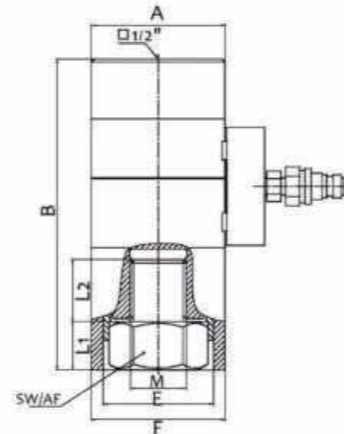
## Double Stage Hydraulic Tensioners

### Product Introduction

#### ▼ Double Stage Hydraulic Tensioners



#### ▼ Dimensions



- TW-Series Bolt Tensioners are designed for critical fastening applications in wind, steam, and gas turbines;
- TW-Series Bolt Tensioners are loaded with performance-enhancing features such as Auto-Retract Pistons, Cycle Counters, and a premium coating to offer the ultimate in efficiency, durability, and ease of use;
- Auto-retract piston: Simplifies use and improves speed of operation;
- Long-life puller: For maximum durability;
- Long-life seals: For maximum durability and extended service life intervals;
- Over-stroke indicator: Extends cylinder life by helping to prevent over-stroking of the cylinder;
- Optional counter: Helps indicate when maintenance is due to maximize uptime.

### Product Details

#### ▼ Hydraulic Bolt Tensioners Selection Table

Model Number	Bolt Diameter/M	Bolt Diameter/Inch	Load On Bolt/KN	Dimension/mm	Dimension/mm	Dimension/mm	Dimension/mm	Dimension/mm	Dimension/mm	Weight/Kg	Stroke/mm
				A	B	L1	L2	E	F		
TW24	M24	1"	350	184	184	22	33	44	60	60	8
TW27	M27	1-1/8"	475	190	190	25	37	56	65	65	10
TW30	M30	1-1/8"	578	205	205	28	44	62	74	74	10
TW33	M33	1-1/4"	713	237	237	31	46	67	80	80	10
TW36	M36	1-3/8"	844	220	220	34	49	72	90	90	10
TW39	M39	1-1/2"	1000	248	248	37	54	78	96	96	10
TW42	M42	1-5/8"	1160	253	253	40	57	84	96	96	10
TW45	M45	1-3/4"	1350	257	257	43	60	90	110	110	10
TW48	M48	1-7/8"	1525	261	261	45	62	95	118	118	10
TW52	M52	2"	1813	267	267	49	66	103	120	120	10
TW56	M56	2-1/4"	2094	290	290	53	70	107	131	131	10
TW60	M60	2-3/8"	2513	328	328	55	74	115	138	138	10
TW64	M64	2-1/2"	2763	331	331	59	78	121	148	148	10
TW68	M68	2-3/4"	3325	345	345	62	80	127	157	157	10
TW72	M72x6	2-7/8"	3500	360	360	65	85	131	168	168	10

## Subsea Hydraulic Bolt Tensioners

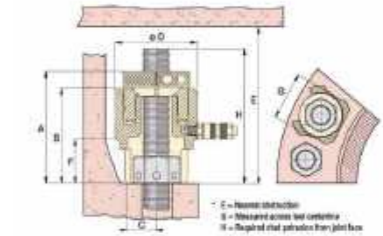
### Product Introduction

#### ▼ Subsea Hydraulic Bolt Tensioners



- Compact design;
- Long piston stroke;
- Misalignment Compensation;
- Quick, simple hose connection;
- Visible piston stroke indication;
- 'No spill' over stroke elimination;
- Quick fastening or solid reaction nut;
- Tommy Bar included with Load Cell.

#### ▼ Dimensions



### Product Details

#### ▼ Hydraulic Bolt Tensioners Selection Table

Model	G x P	Dimension (mm) D2	Dimension (mm) H	Dimension (mm) DT	Pressure Bolt (mm) D <sub>J</sub>	Pressure Bolt (mm) N	Pressure Bolt (mm) SW	Pressure Bolt (mm) a	Pressure Ring (mm) DS	Pressure Ring (mm) S	L (mm)	Standard Pre-tension Force (Kn)	Maximum Pre-tension Force (Kn)
SNM16x2	M16 x 2	34	16	25	M6 x 0.75	4	5	6	32	3	33	73	94
SNM20x2.5	M20 x 2.5	38	16	29	M6 x 0.75	6	5	6	38	4	34	110	140
SNM22x2.5	M22 x 2.5	41	16	31	M6 x 0.75	6	5	6	41	4	34	110	140
SNM24x3	M24 x 3	44	16	33	M6 x 0.75	8	5	6	43	4	34	145	187
SNM27x3	M27 x 3	50	24	39	M8 x 1	6	6	6	50	5	45	214	285
SNM30x3.5	M30 x 3.5	53	24	42	M8 x 1	6	6	6	53	5	45	214	285
SNM33x3.5	M33 x 3.5	59	24	45	M8 x 1	8	6	6	59	5	45	285	380
SNM36x4	M36 x 4	66	32	51	M10 x 1.25	6	8	8	66	5	58	343	457
SNM39x4	M39 x 4	70	32	54	M10 x 1.25	8	8	8	70	5	58	457	610
SNM42x4.5	M42 x 4.5	75	32	57	M10 x 1.25	8	8	8	73	5	58	457	610
SNM45x4.5	M45 x 4.5	83	38	63	M12 x 1.25	8	10	10	81	6	68	700	935
SNM48x5	M48 x 5	85	38	66	M12 x 1.25	8	10	10	85	6	68	700	935
SNM52x5	M52 x 5	91	38	70	M12 x 1.25	8	10	10	90	6	68	700	935
SNM56x5.5	M56 x 5.5	98	38	74	M12 x 1.25	10	10	10	94	6	68	875	1160
SNM60x5.5	M60 x 5.5	102	38	78	M12 x 1.25	10	10	10	100	6	68	875	1160
SNM64x6	M64 x 6	113	53	87	M16 x 1.5	8	14	12	112	8	92	1270	1690
SNM68x6	M68 x 6	117	53	91	M16 x 1.5	8	14	12	117	8	92	1270	1690
SNM72x6	M72 x 6	120	56	95	M16 x 1.5	8	14	9	120	8	92	1270	1690
SNM76x6	M76 x 6	132	56	100	M16 x 1.5	12	14	9	127	8	92	1900	2530
SNM80x6	M80 x 6	132	56	103	M16 x 1.5	12	14	9	127	8	92	1900	2530
SNM85x6	M85 x 6	137	56	108	M16 x 1.5	12	14	9	137	8	92	1900	2530
SNM90x6	M90 x 6	145	59	113	M16 x 1.5	16	14	13	137	8	99	2530	3380
SNM100x6	M100 x 6	157	61	123	M16 x 1.5	16	14	11	151	10	101	2530	3380
SNM110x6	M110 x 6	177	79	139	M20 x 1.5	12	17	16	172	10	125	3150	4200
SNM120x6	M120 x 6	189	81	149	M20 x 1.5	16	17	14	179	10	125	4200	5600
SNM125x6	M125 x 6	194	81	154	M20 x 1.5	16	17	14	190	10	125	4200	5600
SNM130x6	M130 x 6	205	94	159	M20 x 1.5	18	17	16	202	10	140	4700	6300
SNM140x6	M140 x 6	215	94	169	M20 x 1.5	20	17	16	215	10	140	5250	7000
SNM150x6	M150 x 6	225	94	179	M20 x 1.5	20	17	16	225	12	142	5250	7000
SNM160x6	M160 x 6	234	107	189	M20 x 1.5	24	17	23	234	12	162	6300	8400

## Hydraulic Nuts

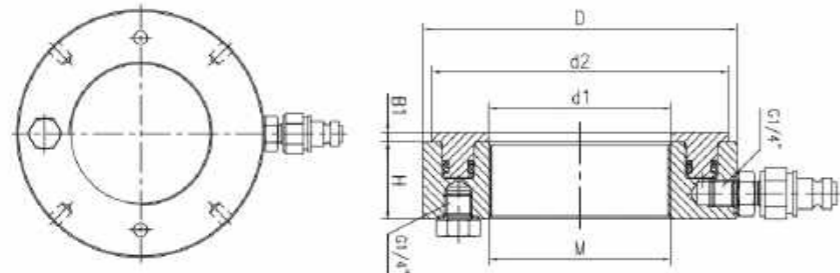
### Product Introduction

#### Hydraulic Nuts



- Commonly used in bearings, flywheels, propellers and other workpiece presses hydraulic tools;
- With the resulting top thrust is smooth, no impact, the process does not hurt the workpiece and other characteristics;
- Through the hydraulic nut inner thread, which can be installed in the shaft parts, the piston under the action of 700-800bar hydraulic pressure to push the workpiece to the installation position.

#### Dimensions



### Product Details

#### Specification

Model	Thread/mm	Outside Dia/mm (d)	Inner Dia/mm (d1)	Piston Dia/mm(d2)	Thickness/mm (H)	B1/mm	Stroke/mm	Effective Area/mm <sup>2</sup>	Weight/Kg
HN50	M50x1.5	114	50.5	104	38	4	5	3376	2.7
HN60	M60x2	125	60.5	115	38	5	5	4239	2.8
HN70	M70x2	135	70.5	127	38	5	5	4710	3.2
HN80	M80x2	146	80.5	137	38	5	5	5181	3.7
HN90	M90x2	156	90.5	147	38	5	5	5652	4
HN100	M100x2	166	100.5	158	38	6	5	5987	4.4
HN110	M110x2	178	110.5	169	38	6	5	6286	4.95
HN120	M120x2	188	120.5	179	38	6	5	8568	5.25
HN130	M130x2	198	130.5	190	38	6	5	7165	5.65
HN140	M140x2	208	140.5	200	39	7	5	7605	6
HN150	M150x2	220	150.5	211	39	7	6	7736	6.6
HN160	M160x3	232	160.5	224	40	7	6	8002	7.6
HN170	M170x3	244	170.5	235	41	7	6	8669	8.4
HN190	M190x3	270	191	259	42	8	8	9266	10.5
HN200	M200x3	282	201	271	43	8	8	8612	11.5
HN210	Tr210x4	294	212	282	44	8	9	11728	12.5
HN220	Tr220x4	306	222	293	44	8	9	11815	13.5
HN230	Tr230x4	318	232	305	45	8	9	12270	15
HN250	Tr250x4	342	252	329	46	9	10	13317	17
HN280	Tr280x4	380	282	363	49	9	12	14683	22
HN300	Tr300x4	404	302	386	51	10	13	15640	25
HN400	Tr400x4	522	402	499	60	11	17	20602	45.5
HN500	Tr500x4	636	502	609	67	12	19	24337	70
HN600	Tr600x4	748	602	721	73	13	23	28274	100
HN710	Tr710x4	870	712	840	78	15	25	30730	135
HN800	Tr800x4	965	802	936	80	16	25	31770	161
HN900	Tr900x4	1075	902	1043	86	17	30	32848	205

## Super Nut & Tightening Tool

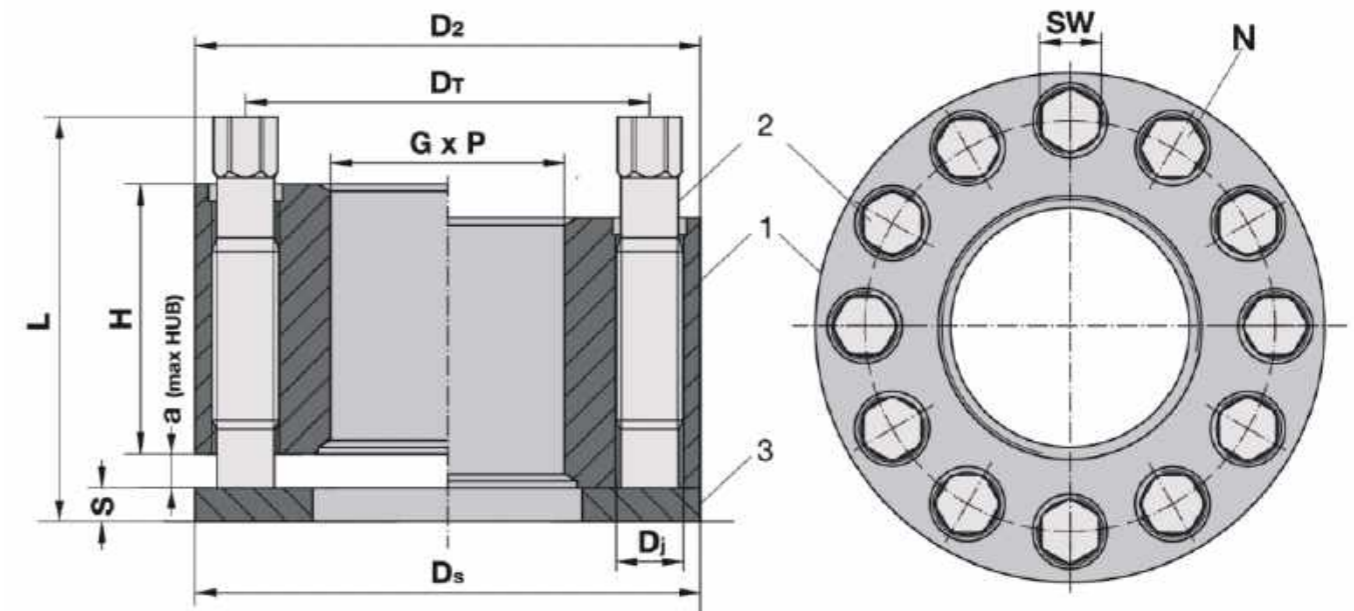
### Product Introduction

#### Super Nut & Tightening Tool



- Lightweight, small in size, and applicable for narrow spaces, which is economical and efficient;
- Load accuracy within the range of  $\pm 5\%$ ;
- It is easy to operate, with pressure evenly distributed on the pressure ring, which is not easily deformed;
- Under load, the main bolt is free of wear and maintenance;
- Optional surface blackening or nickel plating treatment, corrosion resistance;
- It is applicable for various types of vibration, rapid rotation, and high-force equipment, without loosening.

#### Dimensions



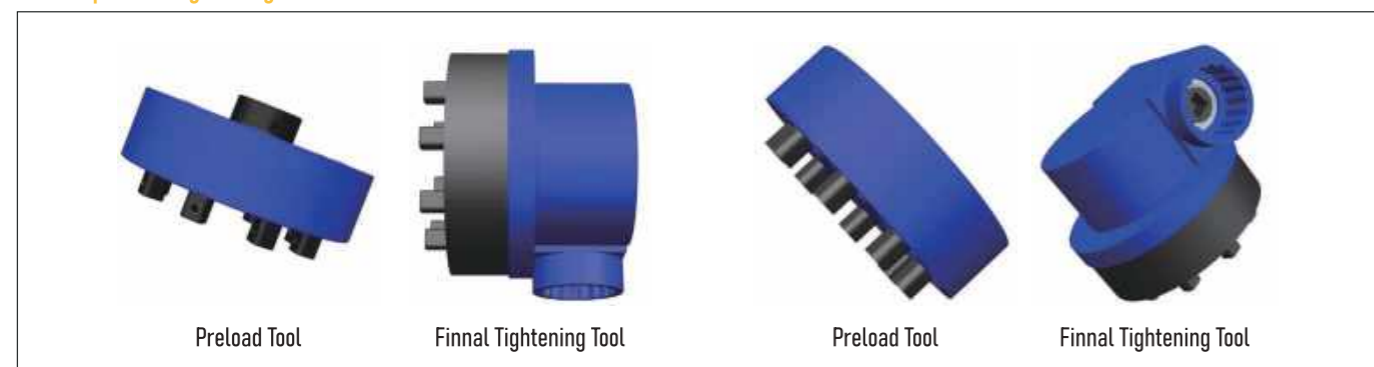
## Product Details

### ▼ Specification

Model	G x P	Dimension (mm) D2	Dimension (mm) H	Dimension (mm) DT	Pressure Bolt (mm) D <sub>J</sub>	Pressure Bolt (mm) N	Pressure Bolt (mm) SW	Pressure Bolt (mm) a	Pressure Ring (mm) DS	Pressure Ring (mm) S	L (mm)	Standard Pre-tension Force (Kn)	Maximum Pre-tension Force (Kn)
SNM16x2	M16 x 2	34	16	25	M6 x 0.75	4	5	6	32	3	33	73	94
SNM20x2.5	M20 x 2.5	38	16	29	M6 x 0.75	6	5	6	38	4	34	110	140
SNM22x2.5	M22 x 2.5	41	16	31	M6 x 0.75	6	5	6	41	4	34	110	140
SNM24x3	M24 x 3	44	16	33	M6 x 0.75	8	5	6	43	4	34	145	187
SNM27x3	M27 x 3	50	24	39	M8 x 1	6	6	6	50	5	45	214	285
SNM30x3.5	M30 x 3.5	53	24	42	M8 x 1	6	6	6	53	5	45	214	285
SNM33x3.5	M33 x 3.5	59	24	45	M8 x 1	8	6	6	59	5	45	285	380
SNM36x4	M36 x 4	66	32	51	M10 x 1.25	6	8	8	66	5	58	343	457
SNM39x4	M39 x 4	70	32	54	M10 x 1.25	8	8	8	70	5	58	457	610
SNM42x4.5	M42 x 4.5	75	32	57	M10 x 1.25	8	8	8	73	5	58	457	610
SNM45x4.5	M45 x 4.5	83	38	63	M12 x 1.25	8	10	10	81	6	68	700	935
SNM48x5	M48 x 5	85	38	66	M12 x 1.25	8	10	10	85	6	68	700	935
SNM52x5	M52 x 5	91	38	70	M12 x 1.25	8	10	10	90	6	68	700	935
SNM56x5.5	M56 x 5.5	98	38	74	M12 x 1.25	10	10	10	94	6	68	875	1160
SNM60x5.5	M60 x 5.5	102	38	78	M12 x 1.25	10	10	10	100	6	68	875	1160
SNM64x6	M64 x 6	113	53	87	M16 x 1.5	8	14	12	112	8	92	1270	1690
SNM68x6	M68 x 6	117	53	91	M16 x 1.5	8	14	12	117	8	92	1270	1690
SNM72x6	M72 x 6	120	56	95	M16 x 1.5	8	14	9	120	8	92	1270	1690
SNM76x6	M76 x 6	132	56	100	M16 x 1.5	12	14	9	127	8	92	1900	2530
SNM80x6	M80 x 6	132	56	103	M16 x 1.5	12	14	9	127	8	92	1900	2530
SNM85x6	M85 x 6	137	56	108	M16 x 1.5	12	14	9	137	8	92	1900	2530
SNM90x6	M90 x 6	145	59	113	M16 x 1.5	16	14	13	137	8	99	2530	3380
SNM100x6	M100 x 6	157	61	123	M16 x 1.5	16	14	11	151	10	101	2530	3380
SNM110x6	M110 x 6	177	79	139	M20 x 1.5	12	17	16	172	10	125	3150	4200
SNM120x6	M120 x 6	189	81	149	M20 x 1.5	16	17	14	179	10	125	4200	5600
SNM125x6	M125 x 6	194	81	154	M20 x 1.5	16	17	14	190	10	125	4200	5600
SNM130x6	M130 x 6	205	94	159	M20 x 1.5	18	17	16	202	10	140	4700	6300
SNM140x6	M140 x 6	215	94	169	M20 x 1.5	20	17	16	215	10	140	5250	7000
SNM150x6	M150 x 6	225	94	179	M20 x 1.5	20	17	16	225	12	142	5250	7000
SNM160x6	M160 x 6	234	107	189	M20 x 1.5	24	17	23	234	12	162	6300	8400

## Product Introduction(2)

### ▼ Super Nut Tightening Tool



- SNT series super nut tools, divided into pre tightening tools and final tightening tools;
  - Preload tool to ensure alignment of all positioning bolts and improve work efficiency;
  - final tightening tool that simultaneously applies accurate and uniform torque to all positioning bolts;
  - The preload tool can be used in combination with any cordless/pneumatic ratchet wrench on the market;
  - The final tightening tool can be combined with any of our company's fixed torque tools (can also be matched with other brands of tools), with repeatability accuracy of up to  $\pm 5\%$ ;
- The RIVERLAKE Super nut tools have been rigorously tested for high accuracy and reliability.

## Torque Multipliers

### Product Introduction

#### ▼ Torque Multipliers



- It is suitable for the construction site of nut disassembly and assembly in a narrow space, light, and convenient for manual operation;
- The planetary gear structure produces large torque output, and the reaction support arm can be adjusted arbitrarily in 360°;
- Interchangeable sockets of different specifications are suitable for a variety of large-diameter bolts and nuts;
- The smallest tool diameter produces the largest torque output;
- The reaction feet can be customized according to the actual working conditions of the user;
- Use with RIVERLAKE torque wrench to get higher torque accuracy.

### Product Details

#### ▼ Torque Multiplier Selection Table

Model	Torque Range(Nm)	Bolt Range	Nut Range	Torque Ratio	Input Square Drive	Output Square Drive	Weight/Kg
TMS15	1500	M20-M30	S30-S46	5:1	1/2"	1"	2.6
TMS20	2000	M22-M36	S32-S55	16:1	1/2"	1"	3.9
TMS35	3500	M30-M45	S46-S70	18:1	1/2"	1"	5.5
TMS42	4200	M33-M48	S50-S75	20:1	1/2"	1 1/2"	6
TMS55	5500	M36-M52	S55-S80	22:1	1/2"	1 1/2"	7.5
TMS75	7500	M42-M60	S65-S90	26:1	1/2"	1 1/2"	10
TMS100	10000	M52-M72	S80-S105	60:1	1/2"	1 1/2"	17
TMS150	15000	M60-M80	S90-S115	75:1	1/2"	2"	25
TMS-200	20000	M72-M95	S105-S135	90:1	1/2"	2"	31

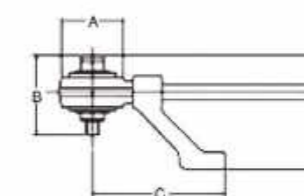
## Product Introduction(2)

#### ▼ Torque Multipliers



- Torque magnification 5:1;
- Repeatability accuracy better than  $\pm 4\%$ ;
- Comes with two reaction arms;
- Rugged construction, easy maintenance, and long service life.

#### ▼ Dimensions



## Product Details(2)

### ▼ Torque Multiplier Selection Table

Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Dimension D(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT3-1300	1300	960	5:1	1/2"	3/4"	108	126	210	180	3.8	1.3
HT3-2700	2700	2000	5:1	3/4"	1"	108	128	210	186	3.8	1.3

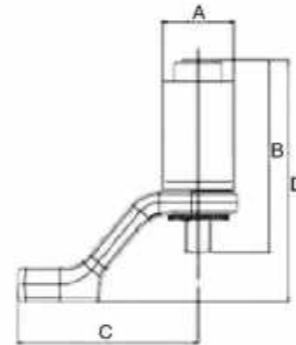
## Product Introduction(3)

### ▼ Torque Multipliers



- The body size is moderate, the operation is convenient and safe;
- Repeatability accuracy better than  $\pm 4\%$ ;
- With anti-rebound device;
- Rugged construction, easy maintenance, and long service life.

### ▼ Dimensions



## Product Details(3)

### ▼ Torque Multiplier Selection Table

Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Dimension D(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT-52/22.1	1000	740	22:1	3/8"	3/4"	52	139	131	175	1.4	0.85
HT-52/22.2	1000	740	22:1	1/2"	3/4"	52	139	131	175	1.4	0.85
HT-52/22.3	1000	740	22:1	3/8"	3/4"	52	150.1	131	186.3	1.6	0.85
HT-52/22.4	1000	740	22:1	1/2"	3/4"	52	150.1	131	186.3	1.6	0.85
HT-52/4.5	1000	740	4.5:1	1/2"	3/4"	52	115	131	150.3	1.02	0.85

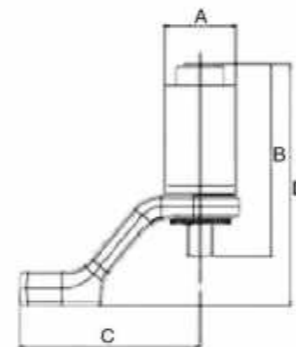
## Product Introduction(4)

### ▼ Torque Multipliers



- The body size is moderate, the operation is convenient and safe;
- Repeatability accuracy better than  $\pm 4\%$ ;
- With anti-rebound device;
- Rugged construction, easy maintenance, and long service life;
- Lightweight aluminum reaction arm;
- Can be used with a torque sensor and display to display torque value.

### ▼ Dimensions



## Product Details(4)

### ▼ Torque Multiplier Selection Table

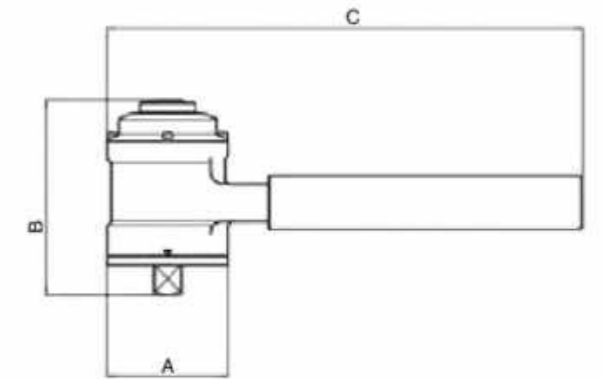
Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Dimension D(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT-72/5.1	1000	740	5:1	1/2"	3/4"	72	144	165	188	2.4	0.66
HT-72/5.2	1500	1100	5:1	1/2"	1"	72	144	165	188	2.4	0.66
HT-72/5.3	2000	1450	5:1	3/4"	1"	72	144	165	188	2.4	0.66
HT-72/25.1	1000	740	25:1	1/2"	3/4"	72	165	165	188	2.7	0.66
HT-72/25.2	2000	1450	25:1	1/2"	1"	72	165	165	188	2.7	0.66
HT-72/25.3	1000	740	25:1	1/2"	3/4"	72	174	165	218	3	0.66
HT-72/25.4	2000	1450	25:1	1/2"	1"	72	174	165	218	3	0.66

## Product Introduction(5)

### ▼ Torque Multipliers



### ▼ Dimensions



- High gear ratio, only need to use a small torque wrench to operate;
- Repeatability accuracy better than  $\pm 4\%$ ;
- Anti-rebound safety device (AWUR), is safer and more convenient to operate;
- Rugged construction, easy maintenance, and long service life;
- Angle protractor for easy viewing of tightening torque and angle.

## Product Details(5)

### ▼ Torque Multiplier Selection Table

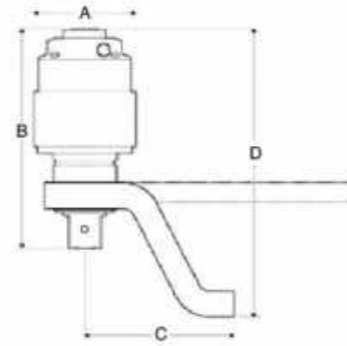
Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT4-3000	3000	2200	15.5:1	1/2"	1"	108	156	450	6.1	1.9
HT4-4500	4500	3300	26:1	1/2"	1"	108	173	450	7	1.9

## Product Introduction(6)

### ▼ Torque Multipliers



### ▼ Dimensions



- Reduced diameter allows better access, particularly on pipe flanges;
- Reaction taken from the high-strength spline;
- Reaction feet can slide on the spline to allow for sockets of various lengths;
- Anti Wind-Up Ratchet is available on all models (except 5:1 ratios), allowing safer and more practical operation;
- HT45 has an integral angle protractor for easy torque and angle tightening.

## Product Details(6)

### ▼ Torque Multiplier Selection Table

Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Dimension C(mm)	Min Dimension D(mm)	Max Dimension D(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT30/5	3000	2200	5:1	3/4"	1"	108	192	140	224.2	252.4	5	2
HT30/15	3000	2200	15:1	1/2"	1"	108	210.9	140	243.2	271.4	7	2
HT30/25	3000	2200	25:1	1/2"	1"	108	210.9	140	243.2	241.4	7	2
HT45/26	4500	3300	26:1	1/2"	1"	108	228	174	*	322	8.7	4
HT60/25	6000	4400	25:1	1/2"	1 1/2"	119	256	174	311.5	337	10.6	4
HT60/125	6000	4400	125:1	1/2"	1 1/2"	119	284.7	174	340.5	366	12.1	4

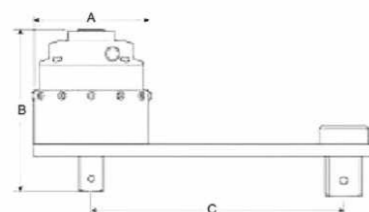
## Product Introduction(7)

### ▼ Torque Multipliers



- A variety of reaction styles are available for maximum versatility;
- Electronic torque transducers can be fitted for precise torque monitoring;
- True torque multiplication is guaranteed better than +/-4%;
- High ratios allow the use of a small torque wrench, multipliers can be used where access is limited;
- Anti Wind-Up Ratchet available on models of 25:1 ratio and above.

### ▼ Dimensions



## Product Details(7)

### ▼ Torque Multiplier Selection Table

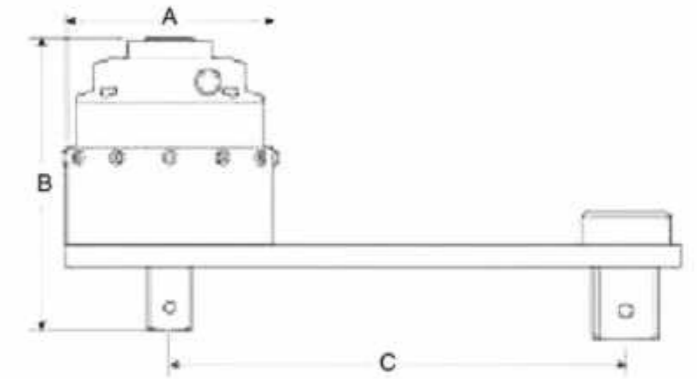
Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Min Dimension C(mm)	Max Dimension C(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT1	1700	1250	5:1	1/2"	3/4"	108	106	83	217	3	2.2
HT2/5	1700	1250	5:1	3/4"	1"	108	126	83	217	3	2.2
HT2/25	1700	1250	25:1	1/2"	1"	119	141.5	83	264	5.6	2.2
HT5/5	3400	2500	5:1	3/4"	1"	108	142.1	86	264	4.7	2.5
HT5/25	3400	2500	25:1	1/2"	1"	119	167.6	86	264	7.5	2.5
HT6	3400	2500	5:1	3/4"	1 1/2"	119	144.7	86	264	4.7	2.5
HT6/25	3400	2500	25:1	1/2"	1 1/2"	119	172	86	264	7.5	2.5

## Product Introduction(8)

### ▼ Torque Multipliers



### ▼ Dimensions



- Electronic torque transducers can be fitted for precise torque monitoring;
- True torque multiplication guaranteed better than +/-4%;
- High ratios allow the use of a small torque wrench, multipliers can be used where access is limited;
- Anti Wind-Up Ratchet available on models of 25:1 ratio and above.

## Product Details(8)

### ▼ Torque Multiplier Selection Table

Model	Torque Range(Nm)	Torque Range(lbf.ft)	Torque Ratio	Input Square Drive	Output Square Drive	Dimension A(mm)	Dimension B(mm)	Min Dimension C(mm)	Max Dimension C(mm)	Body Weight(Kg)	Reaction Arm Weight(Kg)
HT7/5	6000	4500	5:1	3/4"	1 1/2"	144	174.8	146	333	8.1	6.3
HT7/25	6000	4500	25:1	1/2"	1 1/2"	144	201.1	146	333	10.7	6.3
HT7/25SMD	6000	4500	125:1	1/2"	1 1/2"	130	201.1	163.4	337	10.6	4.9
HT7/125	6000	4500	25:1	1/2"	1 1/2"	144	226	146	333	12.2	6.3
HT7/125SMD	6000	4500	125:1	1/2"	1 1/2"	130	226	163.4	337	12.1	4.9
HT9/25	9500	7000	25:1	3/4"	1 1/2"	184	200.1	171	351	17.4	8.3
HT9/125	9500	7000	125:1	1/2"	1 1/2"	184	220.1	171	351	18.9	8.3
HT11/25	20000	14700	25:1	3/4"	2 1/2"	212	265.6	*	500	30.1	13.3
HT11/125	20000	14700	125:1	1/2"	2 1/2"	212	293.4	*	500	32.1	13.3
HT12/875	34000	25000	87.5:1	1/2"	2 1/2"	240	337	*	*	41.5	6.5
HT13/125	47500	35000	125:1	3/4"	2 1/2"	315	379	*	*	95.2	6.9

# Hydraulic Nut Splitter

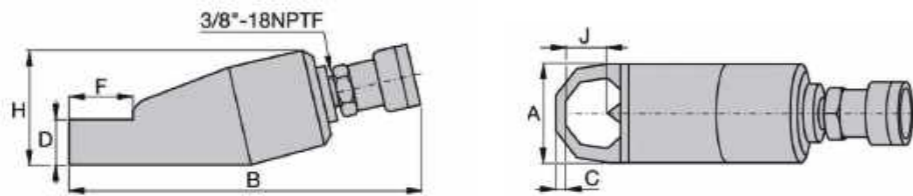
## Product Introduction

### Hydraulic Nut Splitter



- Compact and ergonomic design, easy to use;
- Unit angled head design;
- Single-acting spring return hydraulic cylinder;
- The heavy-duty blades can be sharpened again;
- Nut splitter includes blade, screw, wrench, etc;
- Can be used in applications: truck repair, pipe maintenance, tank cleaning, petrochemical, steel construction, mining, etc.

### Dimensions



## Product Details

### Series Comparison

Model	Capacity/Ton	Oil Capacity/cm <sup>3</sup>	Bolt Range	Hexagon Nut/mm	Replacement Blade No.	Weight/Kg
NC-1319	5	15	M6-M12	10~19	NCB-1319	1.2
NC-1924	10	20	M12-M16	19~24	NCB-1924	2
NC-2432	15	60	M16-M22	24~32	NCB-2432	3
NC-3241	20	80	M22-M27	32~41	NCB-3241	4.4
NC-4150	35	155	M27-M33	41~50	NCB-4150	8.2
NC-5060	50	240	M33-M39	50~60	NCB-5060	11.8
NC-6075	90	492	M39-M48	60~75	NCB-6075	34.1

## Product Introduction(2)

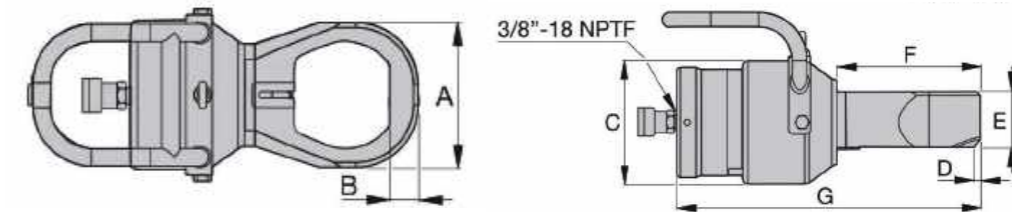
### Hydraulic Nut Splitter



- Specially designed to suit ANSI B16.5/BS1560 Standard flanges;
- Single-acting spring return;
- Tri-blade design provides three cutting surfaces on a single blade;
- Interchangeable heads design provides Max nut range flexibility;
- The preset scale allows controlled blade extension, which avoids damage to bolt threads;
- Grip tape and handle included for more secure maneuverability;
- Nickel-plated cylinder body for excellent corrosion protection and improved durability in harsh environments;
- Internal pressure relief valve for overload protection.

## Product Introduction(2)

### Dimensions



## Product Details(2)

### Series Comparison

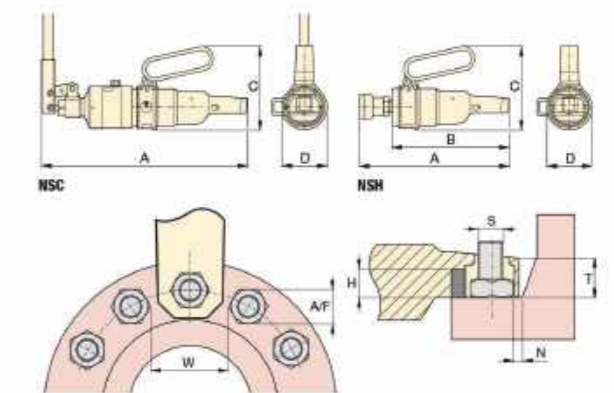
Model	Capacity/Ton	Oil Capacity/cm	Bolt Range	Hexagon Nut/mm	Replacement Blade No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	G/mm	Weight/Kg
NS-7080	103	377	M45-M52	70-80	NSB-70	132	28	180	8	81	186	412	37
NS-7085	103	377	M45-M56	70-85	NSB-70	145	30	180	8	81	196	422	37
NS-7095	103	377	M45-M64	70-95	NSB-70	160	32	180	8	81	201	432	38.5
NS-70105	103	377	M45-M72	70-105	NSB-70	174	35	180	9	81	209	443	39.5
NS-110115	193	819	M76-M80	110-115	NSB-110	189	36	234	3.7	111	234	472	69
NS-110130	193	819	M76-M90	110-130	NSB-110	219	41	234	2.5	111	242	493	71.5

## Product Introduction(3)

### Hydraulic Nut Splitter



### Dimensions



- Powered by a built-in hydraulic hand pump, the NSC-Series is a ready-to-use tool – no need for a hose, separate hand pump, or couplings. Useful for subsea applications and working at heights;
- Quick and easy cutting tip replacement;
- Drop-tested revolving anchor point and safety lanyard;
- Revolving composite handle for vibration and shock isolation;
- Nut Splitters include a set of hexagon keys and the following spare parts:
  - cutting tip
  - tip retention screw
  - spare alignment screw
- Standard Safety Lanyard with each nut splitter. Includes steel cable with carabiners; The maximum allowable hardness to split is ASTM A194 Gr 2H. Not to be used on square nuts or stainless steel.



## Product Details(3)

### Series Comparison

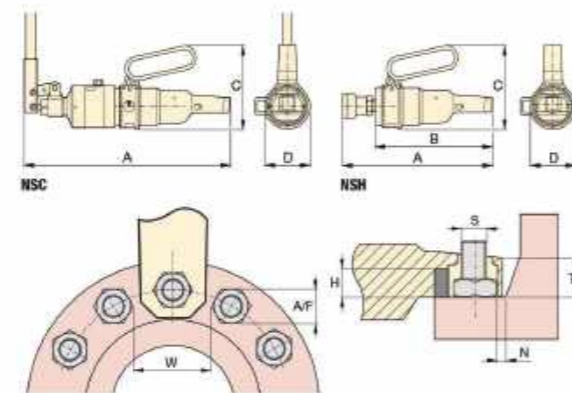
Model	Max Cutting Force/Ton	Oil Capacity/cm <sup>3</sup>	Bolt Range	Hexagon Nut Range/mm	Replacement Blade No.	Weight/Kg	Dimension A/mm	Dimension B/mm	Dimension C/mm	Dimension D/mm	Dimension H/mm	Dimension N/mm	Dimension S/mm	Dimension T/mm	Dimension W/mm
NSC1927	12	*	M12-M18	19-27	NSH1927CTK	5.8	353	*	152	81	18	11.5	24.5	26.5	53.5
NSC2432	15	*	M16-M22	24-32	NSH2432CTK	6.3	370	*	152	81	25	9	26.6	32	57.5
NSH1927	12	46	M12-M18	19-27	NSH1927CTK	3.5	258	213	152	81	18	11.5	24.5	26.5	53.5
NSH2432	15	46	M16-M22	24-32	NSH2432CTK	4	265	220	152	81	25	9	26.5	32	57.5
NSH3646	20	80	M24-M30	36-46	NSH3646CTK	6.9	290	239	169	93	34	16	39	44	83.5
NSH5065	36	230	M33-M42	50-65	NSH5065CTK	10.9	377	322	210	185	45	23	49.5	52	108
NSH6575	50	328	M42-M48	65-75	NSH6575CTK	24.5	396	345	220	202	54	27	61	65	135

## Product Introduction(4)

### Hydraulic Nut Splitter



### Dimensions



- Quick and easy cutting tip replacement;
- Drop-tested revolving anchor point and safety lanyard;
- Revolving composite handle for vibration and shock isolation;
- Nut Splitters include a set of hexagon keys and the following spare parts:
  - cutting tip
  - tip retention screw
  - spare alignment screw
- Standard Safety Lanyard with each nut splitter. Includes steel cable with carabiners;
- 3/8NPT-18 female half coupler is standard;
- The maximum allowable hardness to split is ASTM A194 Gr 2H. Not to be used on square nuts or stainless steel.

## Product Details(4)

### Series Comparison

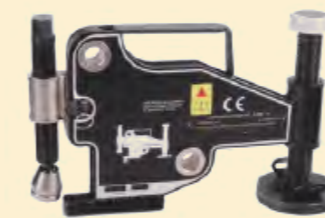
Model	Max Cutting Force/Ton	Oil Capacity/cm <sup>3</sup>	Bolt Range	Hexagon Nut Range/mm	Replacement Blade No.	Weight/Kg	Dimension A/mm	Dimension B/mm	Dimension C/mm	Dimension D/mm	Dimension H/mm	Dimension N/mm	Dimension S/mm	Dimension T/mm	Dimension W/mm
NSC1927	12	*	M12-M18	19-27	NSH1927CTK	5.8	353	*	152	81	18	11.5	24.5	26.5	53.5
NSC2432	15	*	M16-M22	24-32	NSH2432CTK	6.3	370	*	152	81	25	9	26.6	32	57.5
NSH1927	12	46	M12-M18	19-27	NSH1927CTK	3.5	258	213	152	81	18	11.5	24.5	26.5	53.5
NSH2432	15	46	M16-M22	24-32	NSH2432CTK	4	265	220	152	81	25	9	26.5	32	57.5
NSH3646	20	80	M24-M30	36-46	NSH3646CTK	6.9	290	239	169	93	34	16	39	44	83.5
NSH5065	36	230	M33-M42	50-65	NSH5065CTK	10.9	377	322	210	185	45	23	49.5	52	108
NSH6575	50	328	M42-M48	65-75	NSH6575CTK	24.5	396	345	220	202	54	27	61	65	135

## Flange Alignment Tool

### Product Introduction



- The FA1TM Mechanical Flange Alignment Tool is a simple solution to smaller diameter lower pressure flange joint misalignment;
- The FA1TMSTD Set includes:
  - 1 x FA1TM Tool
  - 1 x Mini Ratchet Strap
  - 1 x Instruction Manual



- The FA4TM Mechanical Linear & Rotational Alignment Tool is a simple solution to medium-diameter, medium-pressure flange joint misalignment;
- The FA4TMSTD Set includes:
  - 1 x FA4TM Tool
  - 1 x 68N · m (50ft · lb) Torque Wrench
  - 1 x 22mm Socket
  - 1 x Ratchet Strap
  - 1 x Instruction Manual
  - 1 x Carry-Case



- The FA9TE Hydraulic Linear & Rotational Flange Alignment Tool is a simple solution to large-diameter high-pressure flange joint misalignment;
- The FA9TESTD Set includes:
  - 1 x FA9TE Tool including Hydraulic Cylinder
  - 1 x Carry-Case
  - 1 x Instruction Manual
  - 1 x Ratchet & Strap



- The FA9TM Hydraulic Linear & Rotational Flange Alignment Tool is a simple solution to large-diameter high-pressure flange joint misalignment; Built-in Integral hydraulic pump, no need for extra hand pump and hoses;
- The FA9TMSTD Set includes:
  - 1 x FA9TM Tool
  - 1 x Instruction Manual
  - 1 x Carry-Case
  - 1 x Ratchet & Strap

## Product Details

### Series Comparison

Model	Alignment Capacity(Ton)	Min. Bolt Size(mm)	Min. Bolt Size(inch)	Flange Thickness(mm)	Flange Thickness(inch)	Type	Weight (kg)
FA1TMSTD	1	16	0.63	14-82	0.55-3.29	Mechanical	2
FA4TMSTD	4	24	0.95	30-133	1.18-5.23	Mechanical	8.6
FA9TMSTD	10	31.5	1.24	93-228	3.66-9	Integral Hydraulic	16.5
FA9TESTD	10	31.5	1.24	93-228	3.66-9	Split Hydraulic	16.5

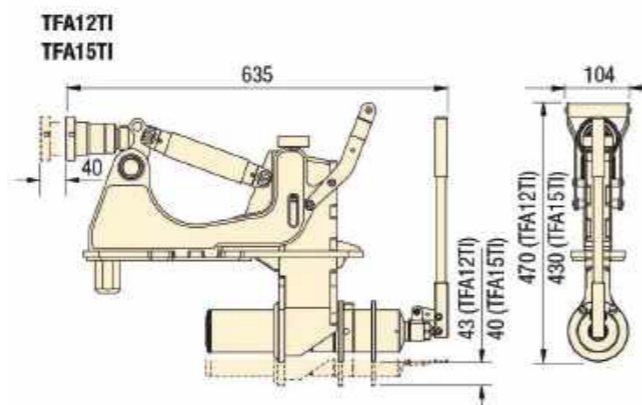
## Flange Alignment Tool Set

### Product Introduction

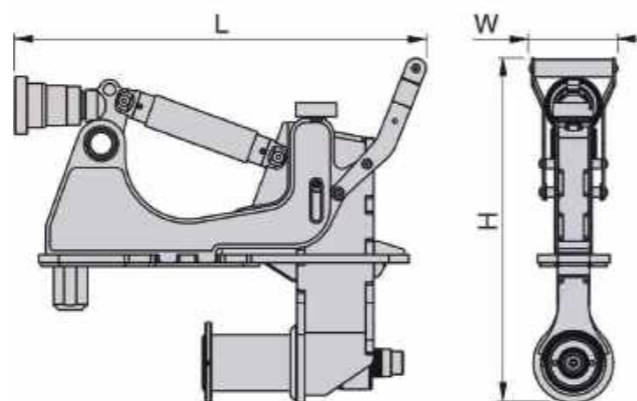
#### Flange Alignment Tool Set



#### Dimensions



#### TFA12TE, TFA15TE



- Assists in aligning / de-ovalizing large flanges;
- Helps resolve bolt-hole misalignment within tower sections of wind towers;
- It can be used both on and offshore;
- The TFA12TEMIN Set Includes:
  - 1 x TFA12TE Tool
  - 1 x Safety Lanyard
  - 1 x Instruction Manual
  - 1 x Carry Case
- The TFA15TEMIN Set Includes:
  - 1 x TFA15TE Tool
  - 1 x Safety Lanyard
  - 1 x Instruction Manual
  - 1 x Carry-Case

The RIVERLAKE integral hydraulic flange alignment tool assists in aligning / de-ovalizing large flanges and specifically can help resolve bolt-hole misalignment within the tower sections of wind turbines;

TFA12TISTD Set includes:

- 1 x TFA12TI Tool
- 1 x Instruction Manual
- 1 x Hard Case

TFA15TISTD Set includes:

- 1 x TFA15TI Tool
- 1 x Instruction Manual
- 1 x Hard Case

### Product Details

#### Series Comparison

Model	Max Reaction Force(Ton)	Min. Bolt Size (mm)	Reaction Force 1 Min(Ton)	Reaction Force 1 Max(Ton)	Reaction Force 2 Min(Ton)	Reaction Force 2 Max(Ton)	Bolt Hole Dia Min(mm) B	Misalign Min(mm) M	Misalign Max(mm) M	Rise Min(mm) R	Rise Max(mm) R	Pile Leg Drop Min(mm) D	Pile Leg Drop Max(mm) D	Wing Reach Min(mm) W	Wing Reach Max(mm) W	Reaction Spacing(mm) H	Height(m)	Width(m)	Length(m)	Weight (kg)
TFA4TMSTD	4	25	0.4	1	3	4	25	0	54	0	54	25	106	45	178	245	274	51	344	18
TFA12TEMIN	24	45	10	12	22	24	45	0	65	144	243	90	132	160	200	200	470	104	513	28.4
TFA15TEMIN	27	45	9	12	24	27	45	0	65	144	243	90	132	120	160	200	430	104	513	28
TFA12TISTD	24	45	10	12	22	24	45	0	65	150	250	83	123	160	203	200	470	104	635	31
TFA15TISTD	27	45	9	12	24	27	45	0	65	150	250	83	123	120	160	200	430	104	635	30.6

## Flange Spreader

### Product Introduction

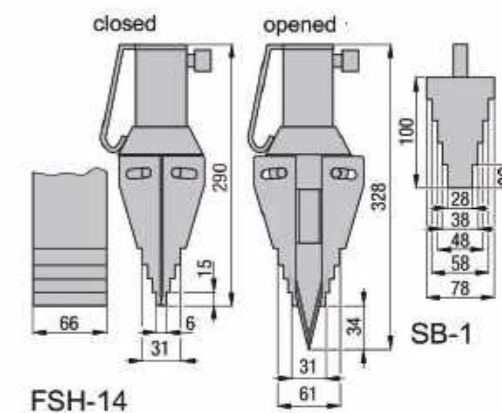
#### Flange Spreader



- The hydraulic flange spreader is available as a set (pump, tool, gauge, gauge adapter, couplers, and hose) for your ordering convenience;
- Suitable for maintenance, overhaul, testing, and valve replacement applications;
- Integrated wedge design: friction-free, smooth, and parallel wedge movement eliminates flange damage and prevents spreading arm failure;
- Unique interlocking wedge design: no first step bending and risk of slipping out of joint;
- Require very small access of only a 6mm gap;
- Stepped spreader arm design: each step can spread under full load;
- 42CrMnMo Material.

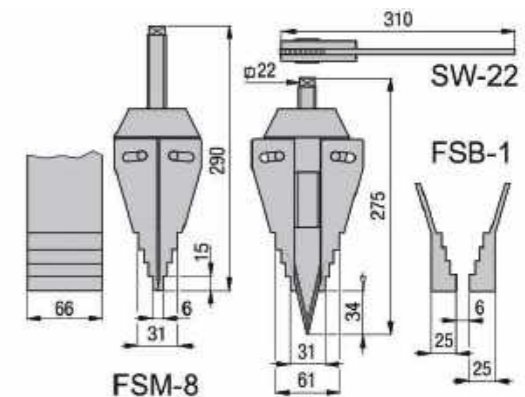
- Integrated wedge concept: friction-free, smooth, parallel wedge movement eliminates flange damage and spreading arm failure;
- Unique interlocking wedge design: no first step bending and risk of slipping out of joint;
- Requires a very small access gap of only 6mm;
- Stepped spreader arm design: each step can spread under full load;
- Few moving parts mean durability and low maintenance;
- Safety block SB1 and ratchet spanner SW22 included.

#### Dimensions



FSH-14

(2)



FSM-8

## Product Introduction

### ▼ STF14H, 14 Ton Hydraulic Flange Spreader Set



### ▼ FSH14M, 14 Ton Hydraulic Flange Spreader Set



Sets includes:

- 1pcs x FSH14 flange spreader
- 1pcs x GA45GC pressure gauge assembly
- 1pcs x HC7206C hydraulic hose
- 1pcs x P391 handle pump
- 1pcs x plastic tool case

Sets includes:

- 2pcs x FSH14 flange spreader
- 1pcs x HC7203C hydraulic hose
- 2pcs x HC7206C hydraulic hose
- 1pcs x AM21 manifold with CR400 couplers
- 1pcs x P391 handle pump
- 1pcs x plastic tool case

## Product Details

### ▼ Series Comparison

Model Number	Max Spreading Force/Ton	Tip Clearance/mm	Max Spread/mm	Spreader Type	Oil Capacity/cm	Weight/Kg
FSH14	14	6	81	Hydraulic	78	7.1
FSM8	8	6	81	Mechanical	*	6.5

# Hydraulic Flange Spreader

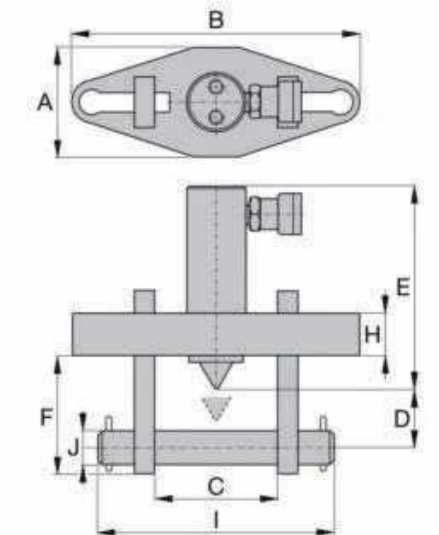
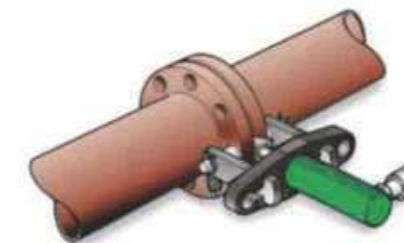
## Product Introduction

### ▼ Hydraulic Flange Spreader



- Lightweight, ergonomic design for easy operation;
- Adjustable jaw widths from 70mm to 216mm for a wide range of applications;
- Single-acting spring return RC hydraulic cylinder for fast operation.

### ▼ Dimensions



## Product Details

### ▼ Series Comparison

Model	Capacity /Ton	Max Flange Thickness/mm	Standard Wedge/mm	Stud Size/mm	Stroke/mm	Oil Capacity/cm3	Weight/Kg	Dimensi on A/mm	Dimensi on B/mm	Dimensi on C/mm	Dimensi on D/mm	Dimensi on E/mm	Dimensi on F/mm	Dimensi on H/mm	Dimensi on I/mm	Dimensi on J/mm
FS56	5	2X57	2-28	19-28	38	24.6	11.5	76	209	70	32	196	88	25	206	19
FS109	10	2X92	3-28	31-41	54	78.7	18.1	108	279	104	50	152	114	38	273	31



# Flange Spreader

## Product Introduction

### SWi2025TE, 24 Ton Hydraulic Flange Spreader



- Practical, portable, and lightweight;
- Revolving handle to aid horizontal or vertical spreading;
- Removable handle for improved access;
- No finger pinch-point;
- Increased step-depth on upper steps;
- Safety lanyard – 1,0 m length;
- Forged key components for strength and reliability;
- Rapid disassembly and assembly;
- Narrow jaw teeth – improved tool wear.

### SWi2025TEMAXSPB, 24 Ton, External Hydraulic Flange Spreader Maxi Set



- Maxi Set Includes:
  - 2 x SWi20/25TE Flange Spreader Wedgehead
  - 2 x 10,000 psi Hydraulic Cylinder
  - 2 x Safety Block
  - 2 x Lanyard
  - 2 x 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.8" (2 m) with 90 degree elbow
  - 1 x 10,000 psi (700 bar) HP550D Twin-Port Sealed Hand Pump with Gauge
  - Case dimensions (in) 36.6 x 23.6 x 7.1

### SWi2025TESTDSPB, 24 Ton, External Hydraulic Flange Spreader Single Wedge & Pump Set



- Set Includes:
  - 1 x SWi20/25TE Flange Spreader Wedgehead
  - 1 x 10,000 psi Hydraulic Cylinder
  - 1 x Safety Block
  - 1x Lanyard
  - 1 x 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.8" (2 m) with 90 degree elbow
  - 1 x 10,000 psi (700 bar) 350S Single-Port Sealed Hand Pump with Gauge
  - Case dimensions (in) 26.8 x 22 x 7.1

## Product Introduction

### SWi12/14TM, 14 Ton Mechanical Flange Spreader



- Kit Includes:
  - 1 x SWi12/14TM Mechanical Flange Spreader Wedgehead
  - 1 x SWi12/14TM Mechanical Flange
  - 1 x 12/14TM Mechanical Cylinder
  - 1 x (230N.m) Torque Wrench with 22mm Socket
  - 1 x Set of Safety Blocks
  - 1 x Pair of Stepped Blocks
  - 1 x Lanyard
  - 1 x Hex Key
  - 1 x Instruction Manual
  - 1 x Plastic Carry Case

### SWi5TE-S, 8.7 Ton, External Hydraulic Flange Spreader



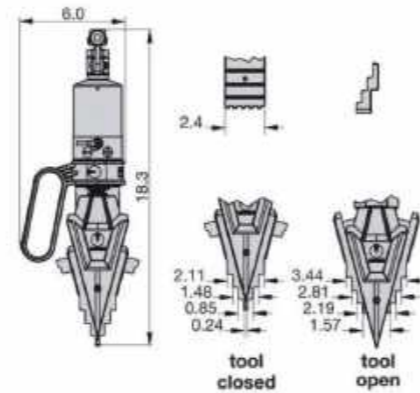
- Set Includes:
  - 1 x SWi5TE Flange Spreader Wedgehead
  - 1 x 10,000 psi Hydraulic Cylinder
  - 1 x Safety Block
  - 1 x Lanyard
  - Case dimensions (in) 22.8 x 13.4 x 7.1
  - User Features
    - Practical, portable and lightweight
    - Moulded plastic handle for comfort
    - Revolving handle to aid horizontal or vertical spreading
    - Removable handle for improved access
  - Safety Features
    - No finger pinch-points
    - Increased step depth on upper steps
  - Safety lanyard – 39 inches (1 m) length
  - Forged key components for strength and reliability
  - Maintenance Features
    - Rapid disassembly and assembly
    - Narrow jaw teeth – improved tool wear

## Specification

Model	Capacity/Ton	Maximum Spread/mm	Tip Clearance/m	Jaw Width/mm	Oil Capacity/cm <sup>3</sup>	Power	Weight/Kg
SWi2025TE	24	103,5	6	60	250	Split Hydraulic Power	15
SWi2025TEMAXSPB	24	103,5	6	60	250	Split Hydraulic Power	33
SWi2025TESTDSPB	24	103,5	6	60	250	Split Hydraulic Power	20.7
SWi12/14TM	14	103,5	6	60	*	Mechanical	13
SWi5TE-S	8.7	101	4	50	*	Split Hydraulic Power	10.5

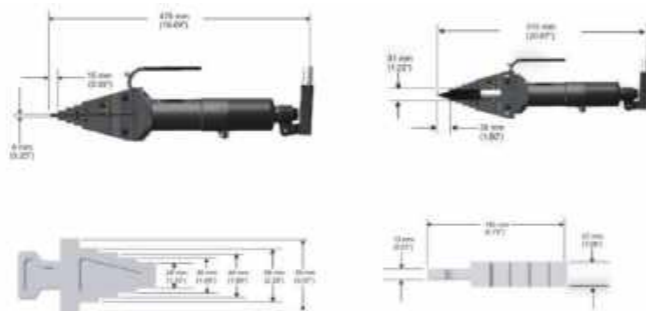
## Product Introduction

### ▼ SWI20/25TI, 24 Ton Integral Hydraulic Flange Spreader



- Tool Kit Inclusions:
  - 1 x SWI2025TI Flange Spreader Wedgehead
  - 1 x 10,000psi (700bar) Integral Hydraulic Pump/Cylinder
  - 1 x Set of Safety Blocks
  - 1 x Pair of Stepped Blocks
  - 1 x Lanyard
  - 1 x Hex Key
  - 1 x Carry-Strap
  - 1 x Instruction Manual
  - 1 x Carry Case

### ▼ SWI4.5TI, 14.5 Ton Integral Hydraulic Flange Spreader



- Tool Kit Inclusions:
  - 1 X SWI4.5TI Wedgehead
  - 1 X 700bar Integral Hydraulic Pump/Jack
  - 1 X Safety Block; 1 X Pair of Stepped Blocks
  - 1 X Carry Strap; 1 X Carry Case.

## Product Introduction

### ▼ SWi5TI-S, 8.7 Ton, Integral Hydraulic Flange Spreader Set



- Set Includes:
  - 1 x SWi5TI Flange Spreading Tool
  - 1 x Standard Safety Block
  - 1 x Lanyard
  - 1 x Moulded Plastic Carry Case with protective foam inserts
- User Features
  - Practical, portable and lightweight
  - Moulded plastic handle for comfort
  - Revolving handle to aid horizontal or vertical spreading
  - Removable handle for improved access
- Safety Features
  - No finger pinch-points
  - Increased step depth on upper steps
  - Safety lanyard – 39 inches (1 m) length
  - Forged key components for strength and reliability
- Maintenance Features
  - Rapid disassembly and assembly
  - Narrow jaw teeth – improved tool wear

## Product Details

### ▼ Specification

Model	Capacity/Ton	Maximum Spread/mm	Tip Clearance/mm	Jaw Width/mm	Oil Capacity/cm <sup>3</sup>	Power	Weight/Kg
SWI20/25TI	24	103.5	6	60	*	Integral Hydraulic Type	18.1
SWI4.5TI	14.5	81	6	*	*	Integral Hydraulic Type	10
SWi5TI-S	8.7	101	4	50	*	Integral Hydraulic Type	10.5

## Product Introduction

### ▼ SWI5TE, 15 Ton Hydraulic Flange Spreader



- The hydraulic flange spreader is available as a set (pump, tool, gauge, gauge adapter, couplers, and hose) for your ordering convenience;
- Suitable for maintenance, overhaul, testing, and valve replacement applications;
- Integrated wedge design: friction-free, smooth, and parallel wedge movement eliminates flange damage and prevents spreading arm failure;
- Unique interlocking wedge design: no first step bending and risk of slipping out of joint;
- Require very small access of only a 6mm gap;
- Stepped spreader arm design: each step can spread under full load.

## Product Introduction

### ▼ SW9TM, 9 Ton, Mechanical Industrial Spreader



- Flange spreading force 9 ton;
- Spreading distance 81 mm;
- The minimum required gap is 6 mm;
- The tool is maintenance free;
- Protected against corrosion;
- It is used with a 200 N.m torque wrench;
- Ergonomic – lightweight, easy use;
- It can be operated individually or in pairs;
- Used for safely opening pipe flanges.

## Product Details(8)

### ▼ Specification

Model Number	Max Spreading Force/Ton	Tip Clearance/mm	Max Spread/mm	Spreader Type	Oil Capacity/cm3	Weight/Kg
SW15TE	15	6	81	Hydraulic	79	14
SW9TM	9	6	81	Mechanical	*	7.5

## FC10TESTD, 10 ton, Flange Closing Tool

## Product Introduction

### ▼ FC10TESTD, 10 ton, Flange Closing Tool



- This tool is used to assist with flange maintenance and installation of pipe flange assemblies;
- FC10TE Hydraulic Flange Pulling Tool is used to close any flange with a bolt hole size of 22mm (7/8 inch) and above. It is recommended to use in pairs to produce a maximum pulling force of 20T;
- The closing distance of the tool can reach 600mm.

## Product Details(9)

### ▼ Specification

Model	Capacity (Ton)	Max Closing Distance(mm)	Min. Bolt Size(mm)	Type	Weight(Kg)
FC10TESTD	10	600	22	Hydraulic	23.5

## Secure-Grip Flange Spreader

## Product Introduction

### ▼ Mechanical Secure-Grip Flange Spreader



#### SG4TMSTD, 4 Ton Set Includes:

- 1 x SG4TM Tool
- 1 x 150 mm Vernier Calliper
- 1 x 3/8" Drive Torque Wrench and 16 mm Socket
- 1 x Safety Block
- 2 x M16 (5/8") Collets
- 2 x M20 (3/4") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

#### SG6TMSTD, 6 Ton Set Includes:

- 1 x SG6TM Tool
- 1 x 6" (150 mm) Vernier Calliper
- 1 x 3/8" Drive Torque Wrench and 21 mm Socket
- 1 x Safety Block
- 2 x M24 (7/8") Collets
- 2 x M27 (1") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

#### SG11TMSTD, 11 Ton Set Includes:

- 1 x SG11TM Tool
- 1 x 6" (150 mm) Vernier Calliper
- 1 x 1/2" Drive Torque Wrench and 24 mm Socket
- 1 x Safety Block
- 2 x M30 (1 1/8") Collets
- 2 x M33 (1 1/4") Collets
- 2 x M36 (1 3/8") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

### ▼ Hydraulic Secure-Grip Flange Spreader



#### SG13TESTD, 13 ton Set Includes:

- 1 x SG13TE Tool c/w Hydraulic Cylinder
- 1 x 10,000 psi (700 bar) HP 550S Sealed Hand Pump with Gauge
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.7" (2 m)
- 1 x 6" (150 mm) Vernier Calliper
- 1 x 1/2" Square Drive Flexible Handle
- 1 x 1 1/8" (30 mm) Socket
- 1 x Safety Block
- 2 x M39 (1 1/2") Collets
- 2 x M42 (1 5/8") Collets
- 2 x M45 (1 3/4") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

#### SG15TESTD, 15 ton Set Includes:

- 1 x SG15TE Tool c/w Hydraulic Cylinder
- 1 x 10,000 psi (700 bar) HP 550S Sealed Hand Pump with Gauge
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.7" (2 m)
- 1 x 12" (300 mm) Vernier Calliper
- 1 x 1/2" Square drive flexible handle
- 1 x 1/2" (36 mm) Drive Socket
- 1 x Safety Block
- 2 x M48 (1 7/8") Collets
- 2 x M52 (2") Collets
- 2 x M56 (2 1/4") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

## Secure-Grip Flange Spreader

### Product Introduction

#### Hydraulic Secure-Grip Flange Spreader



#### SG18TESTD, 18 ton Set Includes:

- 1 x SG18TE Tool c/w Hydraulic Cylinder
- 1 x Spreading plug
- 1 x 10,000 psi (700 bar) HP550S Sealed Hand Pump with Gauge
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.7" (2 m)
- 1 x 12" (300 mm) Vernier Calliper
- 1 x 0.5" (12.5 mm) Spacer Plate
- 1 x 5 mm Allen Key
- 1 x 2.0" (50 mm) Spacer
- 1 x Safety Block
- 2 x M60 (2 3/8") Collets
- 2 x M64 (2 1/2") Collets
- 2 x M70 (2 3/4") Collets
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

#### SG25TESTD, 25 ton Set Includes:

- 1 x SG25TE Tool c/w Hydraulic Cylinder
- 1 x Spreading plug
- 1 x 10,000 psi (700 bar) HP550S Sealed Hand Pump with Gauge
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 78.7" (2 m)
- 1 x 12" (300 mm) Vernier Calliper
- 1 x Spacer Plate
- 1 x Safety Block
- 1 x Instruction Manual
- 1 x Carry Case with protective foam inserts

### Product Details

#### Specification

Model	Capacity(Ton)	Max Spread (mm)	Tip Clearance(mm)	Type	Usable On Flanges Specified To Accept The Following Bolt Sizes	Oil Capacity (cm3)	Weight(Kg)
SG4TMSTD	4	75	0	Mechanical	M16,M20,5/8",3/4"	*	12.8
SG6TMSTD	6	80	0	Mechanical	M24,M27,7/8",1"	*	16
SG11TMSTD	11	90	0	Mechanical	M30,M33,M36,1 1/8",1 1/4",1 3/8"	*	20
SG13TESTD	13	115	0	Hydraulic	M39(1 1/2"),N42(1 5/8"),M45(1 3/4")	300	40.5
SG15TESTD	15	100	0	Hydraulic	M48(1 7/8"),M52(2"),M56(2 1/4")	400	45
SG18TESTD	18	100	0	Hydraulic	M60(2 3/8"),M64(2 1/2"),M70(2 3/4")	400	45
SG25TESTD	25	120	0	Hydraulic	M76(3"),M80(3 1/4"),M84(3 3/8"),M90(3 1/2"),M95(3 3/4"),M100(4")	500	50

## Hydraulic Puller Set

### Product Introduction

#### Hydraulic Master Puller Set with Hand Pump



- All master puller sets include a grip puller, a cross-bearing puller, a bearing cup puller, and a bearing puller attachment, which can be ordered separately;
- Supplied with a fully hydraulic set including pump, hose, cylinder, gauge, gauge adaptor, and wooden case;
- 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;
- These hydraulic pullers eliminate time-consuming and unsafe hammering, heating, or prying. Damage to parts is minimized through the use of controlled hydraulic power.

### Product Details

#### Series Comparison

Model	Capacity(Ton)	Power Source	Hydraulic Cylinder	Saddle	Hydraulic Hose	Pressure Gauge	Gauge Adapter	Grip Puller	Cross Bearing Puller	Bearing Cup Puller	Bearing Puller	Wooden Box	Weight(Kg)
BHP-1752	14	P-392 Hydraulic Hand Pump	RCH-1211	*	HC-7206	GF120B	GA3	BHP-1762	BHP-1772	BHP-180	BHP-181	CM-6	37
BHP-2751G	20	P-392 Hydraulic Hand Pump	RCH-202	HP-2015	HC-7206	GF813B	GA3	BHP-252	BHP-262	BHP-280	BHP-282	CW-350	90
BHP-3751G	30	P-392 Hydraulic Hand Pump	RCH-302	HP-3015	HC-7206	GF813B	GA3	BHP-352	BHP-362	BHP-380	BHP-382	CW-350	172
BHP-5751G	50	P-80 Hydraulic Hand Pump	RCH-603	HP-5016	HC-7206	GF813B	GA3	BHP-552	BHP-562	BHP-580	BHP-582	CW-750	298

### Product Introduction(2)

#### Hydraulic Grip Puller Set With Hand Pump



- RIVERLAKE grip puller sets provide precise hydraulic control allowing fast, efficient, and safe pulling;
- High-quality, forged steel components provide superior reliability and service;
- Includes hydraulic set;
- Warning Do not exceed 50% of the rated puller capacity when using a double crosshead (2 griparms) or puller legs in combination with a bearing puller attachment.

### Product Details(2)

#### Series Comparison

Model	Capacity/Ton	Working Pressure/Mpa	Hand Pump	Cylinder	Hose	Gauge	Gauge Adapter	Grip Puller	Weight/Kg
BHP152	8	70	P141	RCH121	HB-7206QB	GF120B	GA4	BHP1762	22
BHP251G	20	70	P391	RCH202	HC-7206	GF813B	GA3	BHP252	56
BHP351G	30	70	P391	RCH302	HC-7206	GF813B	GA3	BHP352	91
BHP551G	50	70	P80	RCH603	HC-7206	GF813B	GA3	BHP552	160



## Product Introduction(3)

### ▼ Hydraulic Cross Bearing Puller Set with Hand Pump



- Precise hydraulic control allows fast, efficient and safe pulling;
- High quality forged steel components provide superior reliability and service;
- The Cross-Bearing Puller without hydraulics, Bearing Cup Puller and Bearing Puller may be ordered separately.

## Product Details(3)

### ▼ Series Comparison

Model	Capacity/Ton	Working Pressure/Mpa	Hand Pump	Cylinder	Hose	Gauge	Gauge Adapter	Cross Bearing Puller	Bearing Cup Puller	Bearing Puller	Weight/Kg
BHP162	8	70	P141	RCH121	HB-7206QB	GF120B	GA4	BHP-1772	BHP-180	BHP-181	26
BHP261G	20	70	P391	RCH202	HC-7206	GF813B	GA3	BHP-262	BHP-280	BHP-282	62
BHP361G	30	70	P391	RCH302	HC-7206	GF813B	GA3	BHP-362	BHP-380	BHP-382	121
BHP561G	50	70	P80	RCH603	HC-7206	GF813B	GA3	BHP-562	BHP-580	BHP-582	185

## Product Introduction(4)

### ▼ Hydraulic Lock-Grip Puller Set with Hand Pump



- LGH-Series Pullers provide the same safety and ease of use as their mechanical counterparts, with the pulling force applied by a standard 10,150 psi hydraulic cylinder;
- Quickly and easily mount on a wide range of applications;
- Turning the puller handle locks the jaws onto the application, allowing the desired object to be pulled free when the spindle is turned;
- Hydraulically applied pulling force increases pulling capacity, reducing operator fatigue;
- Lock-on jaws offer a secure grip for safe and easy operation;
- Synchronous jaw movement enables the entire pulling job to be performed by a single operator;
- LGH-Series Pullers MUST be used with a point protector if the shaft end does not contain a drilled center hole. One point protector is included with every puller;
- Always wear safety goggles and gloves while using pullers.

## Product Details(4)

### ▼ Series Comparison

Model	Capacity (Ton)	Power Source	Max. Spread(mm)	Min. Spread(mm)	Max. Reach(mm)	Number Of Jaws	Weight(Kg)
LGHS310H	10	Hand Pump	300	84	215	3	13
LGHS314H	14	Hand Pump	380	125	260	3	18
LGHS324H	24	Hand Pump	480	165	336	3	47
LGHS364H	64	Hand Pump	660	230	408	3	139

## Product Introduction(5)

### ▼ Hydraulic Lock-Grip Master Puller Set with Hand Pump



- All LGHMS-Series Master Puller Sets include an LGH-Series Puller, a Cross Puller, a Bearing Separator, a Bearing Cup Puller, a detachable Hollow Cylinder, a hose, a gauge and a pump;
- LGH-Series Pullers provide the same safety and ease of use as their mechanical counterparts, with the pulling force applied by a standard 10,150 psi hydraulic cylinder;
- Quickly and easily mount on a wide range of applications;
- Hydraulically applied pulling force increases pulling capacity, reducing operator fatigue;
- Lock-on jaws offer a secure grip for safe and easy operation;
- Synchronous jaw movement enables the entire pulling job to be performed by a single operator;
- LGH-Series Pullers MUST be used with a point protector if the shaft end does not contain a drilled center hole. A point protector is included with every puller;
- RIVERLAKE cylinders and pumps can be operated to 10,150 psi, but should not be operated past 5,000 psi when using the Cross Bearing Puller Set tools..

## Product Details(5)

### ▼ Series Comparison

Model	Capacity (Ton)	Power Source	Max. Spread(mm)	Min. Spread(mm)	Max. Reach(mm)	Number Of Jaws	Weight(Kg)
LGHMS310H	10	Hand Pump	300	84	215	3	No Data Yet
LGHMS314H	14	Hand Pump	380	125	260	3	No Data Yet
LGHMS324H	24	Hand Pump	480	165	336	3	95
LGHMS364H	64	Hand Pump	660	230	408	3	No Data Yet

# Puller Combination Set

## Product Introduction

### ▼ UKS,6-15 Ton Integral Puller Combination Set



- RIVERLAKE UKS integral hydraulic pullers combination set consists of an integral three-jaw hydraulic puller and a tri-section pulling plate. The integral puller has a built-in hydraulic hand pump, with no need for an extra hand pump and hydraulic hoses. The combination is to avoid bearing damage.

## Product Details

### ▼ Specification

Model	Tons	Reach/mm	Spread/mm	Stroke/mm	Weight/Kg
UKS-6IN	6	165	30-200/260	82-130	13
UKS-10INC	10	195	30-250/310	82-130	14
UKS-8IN	8	210	30-300/355	82-160	19
UKS-12INC	12	240	30-300/370	82-160	23
UKS-15IN	15	240	50-280/380	82-180	20
UKS-20INC	10	275	50-360/430	82-180	25

## Product Introduction(2)

### ▼ Triple Bearing Plate Puller Combination Set



- Special triple bearing puller design for safe and stable bearing removal job;
- The inner sloped design allows for the insertion of limited space, with no bearings to be hurt when working.

## Product Details

### ▼ Specification

Model	Tons	Spread/mm	Overall Length/mm	Stroke/mm	Weight/Kg
UKT-4	4	30-160	240	211	20
UKT-6	6	50-210	285	243	30
UKT-8	8	50-270	460	243	34
UKT-12	12	90-340	660	284	68

# Hydraulic Puller

## Product Introduction

### ▼ Safety Cage Hydraulic Puller



- 'Safety Cage' jaw retention system;
- High force hydraulic system for effortless pulling of large components;
- Slim tapered jaws for better gripping in tight spots  
Available in 2 and 3 jaw design.

## Product Details

### ▼ Series Comparison

Model	Number of Jaws	Capacity (Ton)	Hydraulic Cylinder	Stroke(mm)	Min. Spread(mm)	Max. Spread(mm)	Max Reach(mm)	Weight(Kg)
EPH-208	2	10	RC-106	152	19	304	203	10
EPH-210	2	15	RC-1510	254	25	381	245	22
EPH-213	2	25	RC-2514	362	63	457	304	44
EPH-216	2	50	RC-5013	336	76	635	355	87
EPH-108	3	10	RC-106	152	19	304	203	11
EPH-110	3	15	RC-1510	254	25	381	245	23
EPH-113	3	25	RC-2514	362	63	457	304	48
EPH-116	3	50	RC-5013	336	76	635	355	91

## Product Introduction(2)

### ▼ Self-Centering Hydraulic Grip Puller



- Self-contained hydraulic puller;
- 360° rotary coupler design for safe operation;
- Jaws proceed with forging made parts and special treatment for providing the best strength and long life use;
- A unique safety valve designed to reduce the risk of the puller overload by limiting the applied force;
- Manganous-phosphate coating for corrosion proof.

## Product Details(2)

### ▼ Series Comparison

Model	Capacity/Ton	Reach/mm	Spread C/mm	Stroke/mm	Weight/Kg
BH4	4	190	315	60	8.9
BH6	6	230	390	70	10
BH8	8	280	460	85	12
BH12	12	300	515	85	15
BH20	20	325	520	111	26
BH30	30	415	620	111	36
BH50	50	455	860	159	140
BH75	75	455	1000	159	175
BH100	100	680	1500	168	250

## Product Introduction(3)

### ▼ RHQ Series,Hydraulic Coupler Puller



- Easy to install, the best design in structure. Aluminium alloy plunger, light weight;
- Easy to operate, only need to operate the 700 bar 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.

## Product Details(3)

### ▼ Series Comparison

Model	Capacity /Ton	Working Pressure/Mpa	Oil Capacity /cm3	Cylinder Length/mm	Stroke/mm	Accessories	Cylinder Weight/Kg
RHQ20	20	70	450	304	75	M36X2	10
RHQ42	42	70	530	375	90	M42,M46,M64	18

## Product Introduction(4)

### ▼ Hydraulic Lock-Grip Puller with Hydraulic Cylinder



- LGH-Series Pullers provide the same safety and ease of use as their mechanical counterparts, with the pulling force applied by a standard 10,150 psi hydraulic cylinder;
- Quickly and easily mount on a wide range of applications;
- Turning the puller handle locks the jaws onto the application, allowing the desired object to be pulled free when the spindle is turned;
- Hydraulically applied pulling force increases pulling capacity, reducing operator fatigue;
- Lock-on jaws offer a secure grip for safe and easy operation;
- Synchronous jaw movement enables the entire pulling job to be performed by a single operator;
- LGH-Series Pullers MUST be used with a point protector if the shaft end does not contain a drilled center hole. A point protector is included with every puller;
- Always wear safety goggles and gloves while using pullers.

## Product Details(4)

### ▼ Series Comparison

Model No.	Number of Jaws	Max. Reach(mm)	Spread(mm)	Capacity US ( ton)	Weight(Kg)
LGH210	2	215	84-300	10	10
LGH310	3	215	84-300	10	13
LGH214	2	260	125-380	14	14
LGH314	3	260	125-380	14	18
LGH224	2	336	165-480	24	37
LGH324	3	336	165-480	24	47
LGH253	2	408	230-660	53	111
LGH364	3	408	230-660	64	139

## Product Introduction(5)

### ▼ Integral Safety Cage Hydraulic Puller



- A unique "Safety Cage" system, can firmly fix the workpiece with 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;
- Slim tapered jaws make it easier to work in narrow space;
- Slim tapered jaws make it easier to work in narrow space;
- Built-in hydraulic hand pump, no need for extra pump and hose set up.

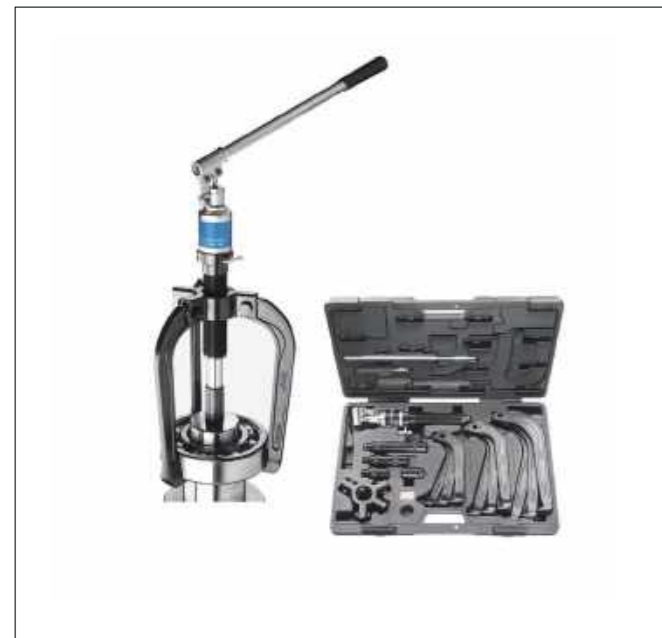
## Product Details(5)

### ▼ Series Comparison

Model	Number of Jaws	Capacity(Ton)	Min. Spread(mm)	Max.Spread(mm)	Max. Reach(mm)
EPI-208	2	10	19	304	203
EPI-210	2	15	25	381	245
EPI-213	2	25	63	457	304
EPI-216	2	50	76	635	355
EPI-108	3	10	19	304	203
EPI-110	3	15	25	381	245
EPI-113	3	25	63	457	304
EPI-116	3	50	76	635	355

## Product Introduction(6)

### ▼ TMHP 10E, 10 Ton Integral Hydraulic Bearing Puller



- Universal kit with three different lengths of mechanical arms for a wide range of applications;
- Self-locking arm minimizes the risk of the puller slipping off the shaft while working;
- Internal safety valve minimizes the risk of overloading the puller;
- Standard hydraulic mandrel extension for quick adjustment of draw length;
- Kit includes:
  - 1 x mechanical Arm Assembly Bracket
  - 3 x short claws, 110mm
  - 3 x claws, 160mm
  - 3 x long claws, 200mm
  - 1 x 10T Hydraulic Puller
  - 3 x extension rods 50,100,150mm
  - 1 x nosepiece with a center point for the hydraulic spindle

## Product Details(6)

### ▼ Series Comparison

Model	Capacity (Ton)	Reach(mm)	Spread(mm)	Stroke(mm)	Weight/(Kg)
TMHP 10E	10	110/160/200	75-170/80-250/110-280	80	14.5

## Product Introduction(7)

### ▼ TMHC 110E, Hydraulic Puller Kit



- A versatile puller kit facilitates safe and easy dismantling in a variety of applications;
- Hydraulic spindle facilitates easy and quick dismantling.
- High load rating of 100 kN (11.2 US ton);
- The strong back puller includes two different arm lengths for a maximum reach of 120 mm (4.7 in.);
- The jaw puller can be assembled as a three-arm or two-arm puller depending on the space and demands of the application;
- The firm grip of the strong back puller behind the bearing's inner ring reduces the force required to dismount the bearing;
- Supplied with extension rods to allow quick adaptation to pulling lengths up to 245 mm (9.6 in.);
- The spring-loaded center point of the hydraulic spindle allows easy puller centering minimizing the risk of shaft damage.

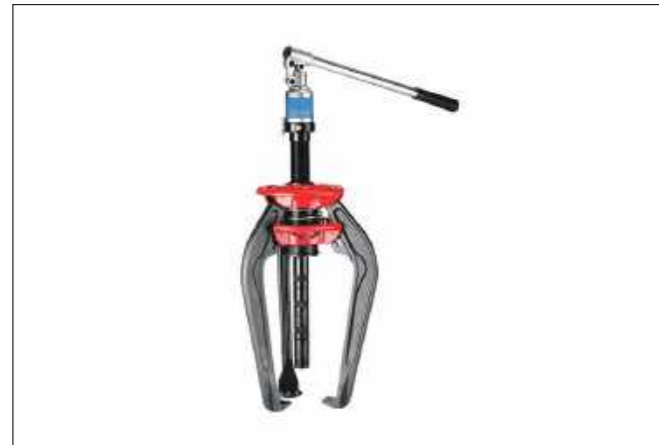
## Product Details(7)

### ▼ Series Comparison

Designation		TMHC 110E	
Description		Advanced hydraulic puller kit	
General	Contents	1 x arm-assembly stand	
		3 x arms, set 1 (TMHP10E-9)	
		3 x arms, set 2 (TMHP10E-10)	
		1 x separator set	
		1 x beam	
		2 x main rods	
		2 x extension rods, 125 mm (4.9 in)	
		1 x hydraulic spindle TMHS 100	
		2 x extension pieces for hydraulic spindle; 50, 100 mm (2.0, 3.9 in)	
		1 x nosepiece with centre point for hydraulic spindle	
		Maximum stroke	80 mm (3.1 in)
		Nominal working force	100 kN (11.2 US ton force)
		Weight	13,5 kg (29.8 lb)
Cycle life hydraulic cylinder	Minimum 5000 cycles up to 100 kN (11.2 US ton force)		
Threading hydraulic cylinder	UN 1½" x 16 tpi		
Safety valve setting hydraulic cylinder	105 kN (11.8 US ton force)		
Carrying case dimensions	580 x 410 x 70 mm (23 x 16 x 2.8 in)		
Jaw puller	Effective arms length, arms set 1 (TMHP10E-9)	65 mm (2.5 in)	
	Width of grip, arms set 1	50-110 mm (2-4.3 in)	
	Claw height	8 mm (0.3 in)	
	Effective arms length, arms set 2 (TMHP10E-10)	115 mm (4.5 in)	
	Width of grip, arms set 2	75-170 mm (2.9-6.7 in)	
Strong back puller	Claw height	8 mm (0.3 in)	
	Maximum reach	250 mm (9.8 in)	
	Shaft diameter range	20 – 100 mm (0.8 – 4 in)	

## Product Introduction(8)

### ▼ Hydraulic Cross Bearing Puller Set with Hand Pump



- Integrated, ready-to-use hydraulic cylinder, pump, and puller – assembly-free and no purchase of additional parts;
- Safety valve prevents spindles and pullers from being overloaded if excessive force is applied;
- The spring-loaded center point on the hydraulic spindle allows easy centering of the puller on the shaft without damaging the shaft;
- The unique red rings spring-operated opening mechanism allow the TMMA 75H to be placed behind the component with just one movement;
- Self-centering capability and nosepiece help to avoid damage to the shaft;
- Supplied with extension pieces and one nosepiece.

## Product Details(8)

### ▼ Series Comparison

Model	Capacity (Ton)	Min. Spread(mm)	Max. Spread(mm)	Reach(mm)	Stroke(mm)	Weight(Kg)
TMMA75H	8	52	200	200	75	7.6
TMMA100H	10	75	250	250	80	13.2

## Product Introduction(9)

### ▼ Integral Strong Back Puller



- Separator placement between the bearing and shoulder on the shaft is easily done;
- The spring-loaded center point of the spindle allows easy puller centering and minimizes the risk of shaft damage;
- The mechanical spindle generates dismounting force;
- A firm grip behind the bearing's inner ring reduces the force required to dismount the bearing.

## Product Details(9)

### ▼ Series Comparison

Model	Capacity /Ton	Reach/mm	Spread/mm	Stroke/mm	Weight/Kg
TMBS 50E	3	110	7-50	*	1.8
TMBS 100E	10	120-816	20-100	80	13.5
TMBS 150E	10	120-816	35-150	80	17

## Product Introduction(10)

### ▼ Integral Hydraulic Cobra Puller



- Jaw and jaw frame are made of high-strength forged alloy steel, cobra-shaped jaw, lifetime warranty;
- There are 10, 12, 20, and 30 tons of different output tonnage to choose from;
- Unique internal pressure relief valve design to protect the life of the hydraulic cylinder.

## Product Details(10)

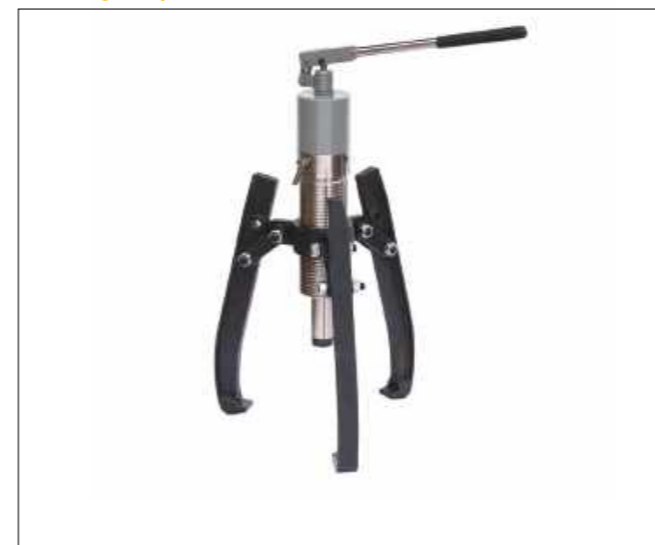
### ▼ Series Comparison

L: Long Jaws; B: Long and short jaws; C: lifetime warranty jaws.

Model	Capacity(Ton)	Reach(mm)	Spread(mm)	Stroke(mm)	Weight(Kg)
UK-10inC	10	195	30-250/310	82-130	7.5
UK-10inCL	10	250	30-280/340	82-180	10
UK-10inCB	10	195/250	30-280/340	82-180	11
UK-12inC	12	240	30-300/370	82-160	9.7
UK-12inCL	12	280	30-330/400	82-240	11.5
UK-12inCB	12	240/280	30-330/400	82-240	13
UK-20inC	20	275	50-360/430	82-180	14
UK-20inCL	20	330	50-380/450	82-280	16
UK-20inCB	20	275/330	50-380/450	82-280	23
UK-25inC	25	315	50-410/480	110-220	22
UK-25inCL	25	380	50-440/540	110-330	26
UK-25inCB	25	315/380	50-440/540	110-330	34
UK-30inC	30	405	100-540/610	110-260	35

## Product Introduction(11)

### ▼ Integral Hydraulic Puller



- Self-contained hydraulic puller, extra hand pump, hydraulic hose, and coupler are not required, are easy to use, and allow operation by one person;
- 2/3 jaws combination puller head as jaws can be installed with 2 or 3 jaws as a changeable type against the limited space;
- Jaws proceed with forging made parts and special treatment for providing the best strength and long life use; 360° rotary handle swivel sleeves allow pumping in all directions;
- A unique safety valve designed to reduce the risk of the puller overload by limiting the applied force;
- A complete hydraulic puller allows effortless generation of force and dismounting;
- The spring-loaded centre point of the hydraulic spindle allows easy centering of the puller on the shaft.

## Product Details(11)

### ▼ Series Comparison

Model	Capacity/Ton	Reach(mm)	Spread(mm)	Stroke(mm)	Weight(Kg)
UK-4	4	185	255	60	4.5
UK-6	6	220	330	70	5.5
UK-8	8	230	350	85	6.5
UK-12	12	270	375	85	8
UK-20	20	360	520	110	22
UK-30	30	395	550	111	32
UK-50	50	460	615	111	45

## Product Introduction(12)

### ▼ Integrated Self-Centering Puller



- Self-contained hydraulic puller, extra hand pump, hydraulic hose, and coupler are not required, are easy to use, and allow operation by one person;
- 2/3 jaws combination puller head as jaws can be installed with 2 or 3 jaws as a changeable type against the limited space;
- Jaws proceed with forging made parts and special treatment for providing the best strength and long life use;
- 360° rotary handle swivel sleeves allow pumping in all directions;
- A unique safety valve is designed to reduce the risk of the puller overload by limiting the applied force;
- A complete hydraulic puller allows effortless generation of force and dismounting;
- The spring-loaded center point of the hydraulic spindle allows easy centering of the puller on the shaft.

## Product Details(12)

### ▼ Series Comparison

Model	Capacity/Ton	Reach(mm)	Spread(mm)	Stroke(mm)	Weight(Kg)
UA-4	4	190	315	60	8.9
UA-6	6	230	390	70	10
UA-8	8	280	460	85	12
UA-12	12	300	515	85	15
UA-20	20	325	520	111	26
UA-30	30	415	620	111	36

## Product Introduction(13)

### ▼ Integral Hydraulic Puller



- Self-contained hydraulic puller, extra hand pump, hydraulic hose, and coupler are not required, are easy to use, and allow operation by one person;
- 2/3 jaws combination puller head as jaws can be installed with 2 or 3 jaws as a changeable type against the limited space; Jaws proceed with forging made parts and special treatment for providing the best strength and long life use;
- 360° rotary handle swivel sleeves allow pumping in all directions;
- A unique safety valve designed to reduce the risk of the puller overload by limiting the applied force;
- A complete hydraulic puller allows effortless generation of force and dismounting;
- The spring-loaded center point of the hydraulic spindle allows easy centering of the puller on the shaft.

## Product Details(13)

### ▼ Specification

L:Long jaws B: Long & Short jaws

Model	Capacity/Ton	Reach/mm	Spread/mm	Stroke/mm	Weight/Kg
UK-4IN	4	165	30-22/260	55-105	5.5
UK-6IN	6	165	30-200/260	82-130	5.9
UK-6INL	6	195	30-200/300	82-180	7
UK-6INB	6	165/195	30-200/300	82-180	8.4
UK-8IN	8	210	30-250/355	82-160	8
UK-8INL	8	240	30-300/380	82-240	9
UK-8INB	8	210/240	30-300/380	82-240	11.5
UK-15IN	15	240	50-280/380	82-180	10
UK-15INL	15	320	50-350/410	82-280	14
UK-15INB	15	240/320	50-350/410	82-280	18

## Mechanical Puller

### Product Introduction

#### ▼ Reversible Jaw Puller



- An essential and versatile tool for every workshop allows for external and internal pulling applications;
- The hexagonal head on the beam enables rotation of the puller and bearing during dismounting, improving ease of use;
- The extra long arm extension pieces, designed to be easy to fit and remove, can be used to further increase the effective arm length. Using extension pieces does not compromise the overall puller strength;
- The Reversible Jaw Pullers can also be supplied in three different sets, complete with a workshop stand.

### Product Details

#### ▼ Series Comparison

Tool Model	Capacity (T)	Width of grip		Reach(mm)	Weight(Kg)
		External pull(mm)	Internal pull(mm)		
TMMR 40F	1.7	23-48	59-67	67	0.3
TMMR 60F	1.7	23-68	62-87	82	0.4
TMMR 80F	4	41-83	95-97	98	1
TMMR 120F	4	41-124	95-139	124	1.2
TMMR 160F	5.6	68-164	114-163	143	2.3
TMMR 200F	5.6	65-204	114-204	169	2.6
TMMR 250F	6.7	74-254	132-254	183	4.4
TMMR 350F	6.7	74-354	135-354	238	5.2
TMMR 160XL	5	42-140	121-188	221	3.5
TMMR 200XL	5	42-180	121-228	221	3.7
TMMR 250XL	6	44-236	123-284	221	4.7
TMMR 300XL	6	44-336	123-384	221	5.2

### Product Details

Single Tool Model/Set Model	TMMR 4F/SET	TMMR 8F/SET	TMMR 8XL/SET
TMMR 40F	-	√	√
TMMR 60F	√	√	√
TMMR 80F	-	√	√
TMMR 120F	√	√	√
TMMR 160F	√	√	Extension arms set for the TMMR... XL
TMMR 200F	-	√	√
TMMR 250F	√	√	√
TMMR 350F	-	√	√
TMMR 16/20XL-1	-	-	√
TMMR 25/35XL-1	-	-	√
TMMR 16/35XL-5	-	√	√
Accessories	Description		
TMMR 16/20XL-1	Extra long arm set to convert TMMR 160F and TMMR 200F to XL version		
TMMR 25/35XL-1	Extra long arm set to convert TMMR 250F and TMMR 350F to XL version		
TMMR 16/35XL-4	Extension arms set for the TMMR.. XL		
TMMR 16/35XL-5	Spring-loaded nose piece		

### Product Introduction(2)

#### ▼ 3 Jaw, Standard Jaw Puller



- Cone system for automatic centering and secure positioning of arms;
- Strong springs keep arms apart for easy operation;
- Hardened, high-quality carbon steel.

### Product Details

#### ▼ Series Comparison

Model	Reach/mm	Spread/mm	Weight/Kg
TMMP3X125	100	125	1.1
TMMP3X185	165	185	2.7
TMMP3X230	250	250	5.9
TMMP3X300	250	300	6.1

## Product Introduction(3)

### ▼ Standard Jaw Puller



- one system for automatic centering and secure positioning of arms;
- Strong springs keep arms apart for easy operation;
- Hardened, high-quality carbon steel.

## Product Details(3)

### ▼ Series Comparison

Model	No. of arms	Capacity /T	Max.Spread/mm	Max.Reach/mm	Weight/Kg
TMMP 2X65	2	0.6	65	60	0.4
TMMP 2X170	2	1.8	170	135	1.9
TMMP 3X185	3	2.4	185	135	2.5
TMMP 3X230	3	3.4	230	210	5.5
TMMP 3X300	3	5	300	240	9

## Product Introduction(4)

### ▼ Heavy Duty Jaw Puller



- The unique pantograph system gives exceptional grip and helps counteract;
- Misalignment during operation;
- Maximum withdrawal force of 150, 300, or 500 kN (17, 34, or 56 US tons).

## Product Details(4)

### ▼ Series Comparison

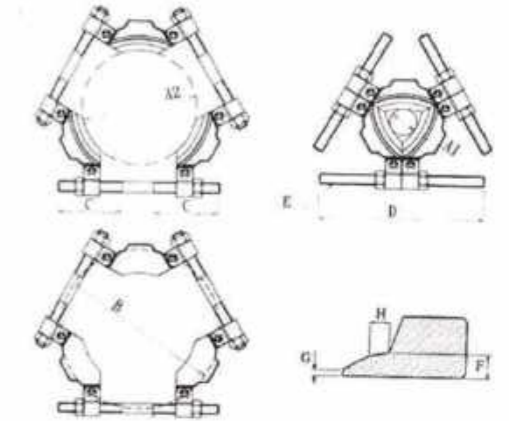
Model	Capacity (T)	Spread (mm)	Reach (mm)	Weight (Kg)
TMMP 6	6	50–127	120	4
TMMP 10	10	100–223	207	8.5
TMMP 15	15	140–326	340	21.5

## Product Introduction(5)

### ▼ Tri-section Pulling Plate Bearing Puller



### ▼ Dimension Drawing



- The unique design of the T3 series allows the application of force on the most efficient point; the inner ring, thereby requiring less force for dismounting than when pulling on the outer ring;  
The firm grip behind the bearing's inner ring ensures that the pulling forces are only transmitted through the inner ring and not through the outer ring or the rolling elements, preventing bearing damage;
- The tri-section construction allows even force distribution, preventing bearing locking and/or tilting on the shaft;  
Suitable for use in combination with any three-armed puller;
- A special wig shape allows the plates to be easily inserted between the bearing and the shoulder on the shaft;
- Available in a wide range, covering the most common shaft sizes.

## Product Details(5)

### ▼ Series Comparison

Model	Capacity/Ton	For Shaft Dia A/mm	For Shaft Dia A2/mm	Max. Reach/mm	C/mm	D/mm	E/mm	F/mm	G/mm	H/mm	Weight/Kg
T3-160	6	25	160	216	105	240	5/8"-11UNF	8	2	6.5	3.5
T3-210	8	50	210	280	117	285	7/8"-14UNF	10	2	9	5.5
T3-340	20	90	340	460	175	460	1 1/4"-12UNF	14	2	8	18
T3-495	30	140	495	660	235	660	1 3/4"-12UNF	20	2	12	45

## Product Introduction(6)

### ▼ Bearing Cup Puller



- Made of high-strength steel alloy;
- Easily adapted to cross-bearing pullers for fast and efficient removal of shafts;
- Adjustable to fit a variety of bearings and seals.



## Product Details(6)

### ▼ Series Comparison

Model	Capacity(Ton)	Min. Spread(mm)	Max. Spread(mm)	Max. Reach(mm)	Thread
BHP180	8	26	110	110	3/4"-16UNF
BHP280	20	25	220	140	1"-8UNC
BHP380	30	50	359	145	1 1/4"-7UNC
BHP580	50	50	359	145	1 5/8"-5.5

## Product Introduction(7)

### ▼ Deep groove ball bearing puller kit



- The claws are designed to precisely fit in the bearing's raceway, providing a good grip, thereby allowing high dismantling forces;
- Each puller arm is fitted with a spring for easy installation;
- The claw has been designed to allow easy insertion;
- The hexagon head of the spindle is designed to prevent the spanner from sliding down the spindle during dismantling;
- The puller can also be used to remove sealed bearings from blind housings after the seal has been removed;
- Supplied in a sturdy carrying case;

## Product Details(7)

### ▼ Series Comparison

Model No.	Suitable Bearings/ Shaft diameter							Weight(Kg)
	6000-6020	6200-6218	6300-6313	6403-6410	62/22, 62/28, 63/22, 63/28	16002, 16003, 16011	16100, 16101	
TMMD 100	10-100 mm	10-90 mm	10-65 mm	17-50 mm	22, 28, 22, 28 mm	15, 17, 55 mm	10, 12 mm	3.8KG

## Product Introduction(8)

### ▼ Blind housing bearing puller kit



- Allows a wide range of deep groove ball bearings to be dismantled;
- Ball adapters designed for a long service life;
- The nose piece helps minimize damage to the shaft and improves puller stability;
- Long reach by using extension rods;
- Supplied in handy tool case.

## Product Details(8)

### ▼ Specification

Model No.	Suitable Bearings					Weight(Kg)
	60.. Series	62.. Series	63.. Series	64.. Series	160... Series	
TMBP 20E	6021-6032	6213-6230	6309-6320	6406-6418	16026-16032	6.5

Designation	TMBP 20E
Effective arm length	147 – 547 mm (5.8 – 21.5 in.)
Maximum pulling force	55 kN (6.2 ton US)
Dimensions of case	530 x 85 x 180 mm (20.9 x 3.4 x 7.0 in.)
Weight	6,5 kg (14.3 lb)
Set contents	Adapters size A to F (2 pcs each)
	2 x main rods (with nut support rings and nuts)
	4 x extension rods
	Spindle
	Nose piece for spindle
	Beam

## Product Introduction(9)

### ▼ EasyPull mechanical puller



- Sturdy design allows the dismantling of components even in the tightest application in a safe manner;
- The unique red ring spring-operated opening mechanism allows the puller to be placed behind the component with one movement of the hands;
- Self-locking arms help prevent the risk of the puller slipping under the load;
- Double hexagonal heads allow more accessible application of withdrawal force;
- Self-centering capability and nosepiece help to avoid damage to the shaft;
- Efficient use of time due to quick dismantling;
- Available in three sizes with a withdrawal force of 60, 80, or 120 kN (6.7, 9.0, or 13.5 ton US), enabling easy selection;
- Hydraulic force generators available as an accessory for the 80 and 120 kN versions;
- Supplied with a tube of puller spindle grease.

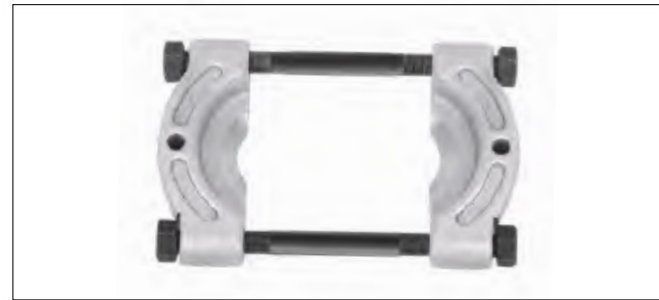
## Product Details(9)

### ▼ Specification

Model	Width of grip external, minimum	Width of grip external, maximum	Effective arm length	Maximum withdrawal force	Total weight	Claw height	Claw length	Claw width	Hexagon on puller or adapter	Puller protection blanket, Hydraulic spindle, Tri section pulling	Hexagon on the mechanical spindle	Diameter nose piece	Hexagon on the mechanical spindle	ACCESSORIES
TMMA 60	36 mm	150 mm	150 mm	60 kN	4,0 kg	7,5 mm	15 mm	20 mm	27 mm	17 mm	105 Nm	24 mm	no	Adapter: possible to upgrade to the hydraulic version
TMMA 80	52 mm	200 mm	200 mm	80 kN	5,7 Kg	9,8 mm	18 mm	28 mm	30 mm	22 mm	175 Nm	26 mm	yes	Puller protection blanket, Tri section pulling plate
TMMA 120	75 mm	250 mm	250 mm	120 kN	10,6 kg	13,8 mm	24 mm	40 mm	32 mm	24 mm	265 Nm	28 mm	yes	Puller protection blanket, Hydraulic spindle, Tri section pulling plates

## Product Introduction(10)

### ▼ Mechanical Bearing Separator



- Made of high-strength steel alloy;
- Easily adapted to cross-bearing pullers for fast and efficient removal of shafts;
- Wedge-shaped edges allow the removal of the most hard-to-grip components.

## Product Details(10)

### ▼ Series Comparison

Model	Capacity(Ton)	Min. Spread(mm)	Max. Spread(mm)	Width(mm)	Thread
BHP181	8	25	104	126	5/8"-18UNF
BHP282	20	9	130	150	5/8"-18UNF
BHP382	30	17	245	264	1"-14UNS
BHP582	50	17	245	264	1 1/4"-12UNF

## Product Introduction(11)

### ▼ Safety Cage Mechanical Puller



- 'Safety Cage' jaw retention system;
- Roll threaded shafts for less effort when applying high torque;
- More efficient pulling, as one man can do the job where manual pullers often require two operators!;
- Slim tapered jaws for better gripping in tight spots!;
- Available in 2 and 3 jaw design.

## Product Details(11)

### ▼ Series Comparison

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

# Trolley Mounted Hydraulic Puller

## Product Introduction

### ▼ AMP Series, Trolley Mounted Hydraulic Puller



- The hydraulic trolley-mounted pullers are hydraulically operated to achieve the vertical height adjustment of the puller, the extension of the jaws, and the pull-out of the workpiece;
- The puller is self-centering, the arm slides inward or outward simultaneously, easy to maneuver and adjust in height;
- The jaw is made of forged high-strength steel alloy. The tighter the force, the harder the jaw grip;
- The integral safety release valve prevents overloading and ensures that you will never exceed the max working capacity;
- One person can do the job efficiently and save time;
- High-quality 360-degree rotation wheels for easy transportation.

## Product Details

### ▼ Series Comparison

Model	Capacity (Ton)	Min. Spread(mm)	Max. Spread(mm)	Max. Reach(mm)	Min. Reach(mm)	Stroke(mm)	Weight(Kg)
AMP100	100	200	1000	450	375	200	720
AMP200	200	300	1500	680	550	250	1300
AMP300	300	400	1800	980	750	300	1820
AMP500	500	500	2000	1050	920	350	2100
AMP600	600	500	2000	1250	1000	350	2500

## Product Introduction(2)

### ▼ PH Series, Trolley Mounted Safety Cage Hydraulic Puller



- Our PH series hydraulic puller systems provide maximum pulling force in applications requiring high-force removal of large gears, pulleys, wheels, sleeves, and other press fit parts. 100 Ton pullers are available in 3-jaw, 2-jaw, or 2/3-jaw combination systems;
- 10,000 PSI electric two-stage pump;
- Remote jog switch with 3 meters cord;
- 100-ton cylinder, 10,000 PSI with spring return(10.25-inch stroke);  
Hydraulic-actuated lift cart extends puller from ground to a height of 1.52 m;
- Jaws are hydraulically controlled with cylinders;
- Multiple pushing adaptors:
  - (1) 4-in. diameter x 9-in. (102 x 229 mm)
  - (2) 4-in. diameter x 19-in. (102 x 483 mm)
  - (3) 4-in. diameter x 29-in. (102 x 737 mm)

## Product Details(2)

### ▼ Series Comparison

Model	Number of Jaws	Capacity (Ton)	Min. Spread(mm)	Max. Spread(mm)	Max. Reach(mm)	Center Height Adjustment(mm)	Weight(Kg)
PH-123T	2/3	100	191	1778	1219	676-1690	908
PH-100T	3	100	191	1778	1219	676-1690	855
PH-102T	2	100	191	1778	1219	676-1690	772
PH-200T	2	200	203	1334	1219	800-2134	1560

## Product Introduction(3)

### ▼ PH1002, 2 Jaws,100 Ton Hydraulic Puller



- The puller is self-centering, the arm slides inward or outward simultaneously, easy to maneuver and adjust in height;
- Can be equipped with an electric lifting motor;
- The complete stroke is 250mm,3 adapters(extensions) included;
- The jaw is made of forged high-strength steel alloy. The tighter the force, the harder the jaw grip;
- The integral safety release valve prevents overloading and ensures that you will never exceed the max working capacity;
- One person can do the job efficiently and save time; Remote control 220V/AC or 380V/AC electric power pack ABB motor and HAWE solenoid valve.

## Product Details(3)

### ▼ Series Comparison

Model	Number of Jaws	Capacity(Ton)	Min. Spread(mm)	Max. Spread(mm)	Min. Reach(mm)	Max. Reach(mm)	Stroke(mm)	Center Height Adjustment(m m)	Weight(Kg)
PH1002	2	100	381	1219	860	1060	250	305-915	550

## Product Introduction(4)

### ▼ SM Series,Trolley Mounted Hydraulic Puller



- Double-acting hydraulic design;
- Use for dismantling large shafts and perforating workpieces;
- Fully automatic hydraulic up and down, pull and grip;
- Easy operation, high efficiency.

## Product Details(4)

### ▼ Series Comparison

Model	Capacity(Ton)	Min. Spread(mm)	Max. Spread(mm)	Min. Reach(mm)	Max. Reach(mm)	Stroke(mm)	Weight(Kg)
SM503	50	100	1220	178	380	337	620
SM504	50	64	1150	559	650	337	660
SM103	100	120	1400	425	580	320	680
SM203	200	285	1500	520	680	320	1040
SM303	300	300	1800	550	700	320	1500

## Product Introduction(5)

### ▼ PH Series,Trolley Mounted Safety Cage Hydraulic Puller



- 'Safety Cage' jaw retention system;
- High force hydraulic system for effortless pulling of large components;
- Slim tapered jaws for better gripping in tight spots;
- 10,000 PSI electric two-stage pump;
- Remote jog switch with 3 meters cord;
- Jaws are hydraulically controlled with cylinders;
- Multiple pushing adaptors.

## Product Details(5)

### ▼ Specification

Model	Capacity(Ton)	Min. Spread(mm)	Max. Spread(mm)	Reach(mm)	Height(mm)	Weight(Kg)
PH113	25	63	457	304	480-1420	138
PH116	50	76	635	355	480-1420	198

## Product Introduction(6)

### ▼ BHT Series,Trolley Mounted Hydraulic Puller



- The puller is self-centering, easy to maneuver, and adjustable in height;
- 360° rotary coupler design for safe operation;
- Jaws proceed with forging made parts and special treatment for providing the best strength and long life use;
- A unique safety valve designed to reduce the risk of the puller overload by limiting the applied force;
- Manganous-phosphate coating for corrosion proof.

## Product Details(6)

Model	Number of Jaws	Capacity(Ton)	Min. Spread (mm)	Max. Spread (mm)	Reach(mm)	Stroke(mm)	Center Height Adjustment(mm)	Trolley Dimension(mm)	Pump	Weight(Kg)
BHT100	3	100	230	1350	650	168	300-1650	1180*2300*1650	380V 1.5KW;8L Oil Tank;2L/min Flow Rate	385

## Product Introduction(7)

### ▼ EPHS Series,Trolley Mounted Hydraulic Puller



- The puller can be assembled in 2 or 3-jaw configurations;
- Hydraulically-actuated jaws allow the cylinder to move in or out with a safe, secure grip on the workpiece;
- Hydraulic lift system for easy, precise position of puller;
- Swivel casters give ease of mobility, Large wheels make the movement of the cart easy;
- Guards at pinch points protect the operator;
- The puller can be mounted on the cart 90 degrees to the right or left of the puller cart centerline, permitting use in tight quarters, such as between machinery;
- Self-centering design puller jaws will automatically grip the workpiece evenly.

## Product Details(7)

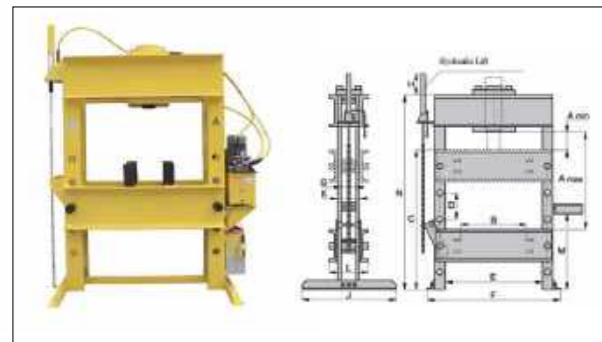
### ▼ Series Comparison

Model	Capacity(Ton)	Spread Range (mm)	Maximum Reach (mm)	Cylinder Stroke (mm)	Power Supply (V)	Dimension (mm) L	Dimension (mm) W	Dimension (mm) H	Weight(kg)
EPHS50	50	300-1650	780	330	230/400	2321	800	1155	420
EPHS100	100	350-1778	1220	330	230/400	2790	1030	1410	1083
EPHS150	150	300-1500	1175	330	230/400	2990	1030	1410	1200
EPHS200	200	300-1500	1229	330	230/400	2990	1030	1410	1500

# H Frame Hydraulic Workshop Press

## Product Introduction

### ▼ H Frame Hydraulic Workshop Press



- Quality welded frame for maximum strength and long life; Effortless adjustment of the vertical daylight (10-ton models are manual);
- Roller head design is standard to allow movement and locking of the cylinder from side to side(10-ton, 25-ton, and 30-ton are manual);
- All models in the Quick Selection Chart have been matched to a pump, cylinder, hoses, and gauge, offering the complete package.

## Product Details

### ▼ Series Comparison

Model	Capacity/Ton	Pump	Hydraulic Cylinder Model	Cylinder Stroke/mm	Tool Feed Speed(mm/sec)	Punching Speed(mm/sec)	A(Max.)	A(Min.)	B	C
IPE-1215	10	IPE-220	RC-1010	254	28	3.8	1016	62	*	1187
IPH-1240	10	P-392	RC-1010	254	7.8	1.7	1016	62	*	1187
IPH-1234	10	P-84	RR-1010	254	11	1.7	1016	62	*	1187
IPE-2505	25	IPE-220	RC-256	152	16	1.6	1384	177	*	1447
IPE-2510	25	IPE-220	RC-2514	355	23	3.6	1384	177	*	1447
IPH-2531	25	P-80	RC-2514	355	4.9	0.7	1384	177	*	1447
IPE-3060	30	IPE-220	RR-3014	355	18	2.8	1384	177	*	1447
IPH-3080	30	P-84	RR-3014	355	3.6	0.7	1384	177	*	1447
IPE-5010	50	IPE-220	RC-5013	330	20	1.9	1233	179	476	1371
IPH-5030	50	P-462	RC-506	152	19	0.7	1233	179	476	1371
IPH-5031	50	P-80	RC-506	152	2.3	0.3	1233	179	476	1371
IPE-5005	50	IPE-220	RC-506	152	7.7	0.8	1233	179	476	1371
IPE-5060	50	IPE-220	RR-5013	330	20	1.9	1233	179	476	1371
IPH-5080	50	P-464	RR-5013	330	19	0.7	1233	179	476	1371
IPE-10010	100	IPE-220	RC-10010	254	14	1	1079	177	508	1295
IPH-10030	100	P-462	RC-10010	254	10	0.4	1079	177	508	1295
IPE-10060	100	IPE-220	RR-10013	330	11	1	1079	177	508	1295
IPH-10080	100	P-464	RR-1006	152	10	0.4	1079	177	508	1295
IPE-15065	150	IPE-220	RR-15013	330	9	1.4	1231	317	711	1384
IPE-20056	200	IPE-220	RR-20013	330	6.7	1	1231	317	711	1384

D	E	F	G	H	J	K	L	M	N	Weight/Kg
127	473	632	*	*	755	108	189	889	1320	135
127	473	632	*	*	755	108	189	889	1320	71
127	473	632	*	*	755	108	189	889	1320	85
301	736	1028	101	336	762	133	271	673	1930	274
301	736	1028	101	336	762	133	271	673	1930	313
301	736	1028	101	336	762	133	271	673	1930	281
301	736	1028	101	336	762	133	271	673	1930	325
301	736	1028	101	336	762	133	271	673	1930	301
263	730	1085	127	222	914	184	333	781	1930	495
263	730	1085	127	222	914	184	333	781	1930	439
263	730	1085	127	222	914	184	333	781	1930	420
263	730	1085	127	222	914	184	333	781	1930	421
263	730	1085	127	222	914	184	333	781	1930	499
263	730	1085	127	222	914	184	333	781	1930	455
296	889	1295	171	222	914	222	395	841	1930	776
296	889	1295	171	222	914	222	395	841	1930	751
296	889	1295	171	222	914	222	395	841	1930	816
296	889	1295	171	222	914	222	395	841	1930	755
254	1219	1706	231	333	1117	333	555	1212	2286	1794
254	1219	1706	231	333	1117	333	555	1212	2286	1794