

Hydraulic Tools For Industrial Applications



Introduction

WREN, established in 1992, is one of the most professional manufacturers of high pressure hydraulic(70-350Mpa) tools.WREN is working on developing the highest quality industrial bolting system, making industrial bolting safer and simpler.

WREN focus on high lever quality and safety, make its own designs of hydraulic torque wrenches, pumps, Hydraulic Cylinders, bolt tensionerS,which are already widely used in steel, shipbuilding, power station, petroleum, chemical and other engineering industries.WREN also has distributors in North America, South east Asia, Europe, South Africa, Korea, Australia. Besides hydraulic torque wrenches, Wren is also able to manufacture other parts to meet all cutomer's requirements.



Corporation Summarize

CNC workshop



3400M² Warehouse



Worldwide Distributors



CE certificate / ISO9001:2008 Quality System / Excellent Supplier Qualification



Catalog

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WREN company have passed through the German Rhine (TÜV) quality certification



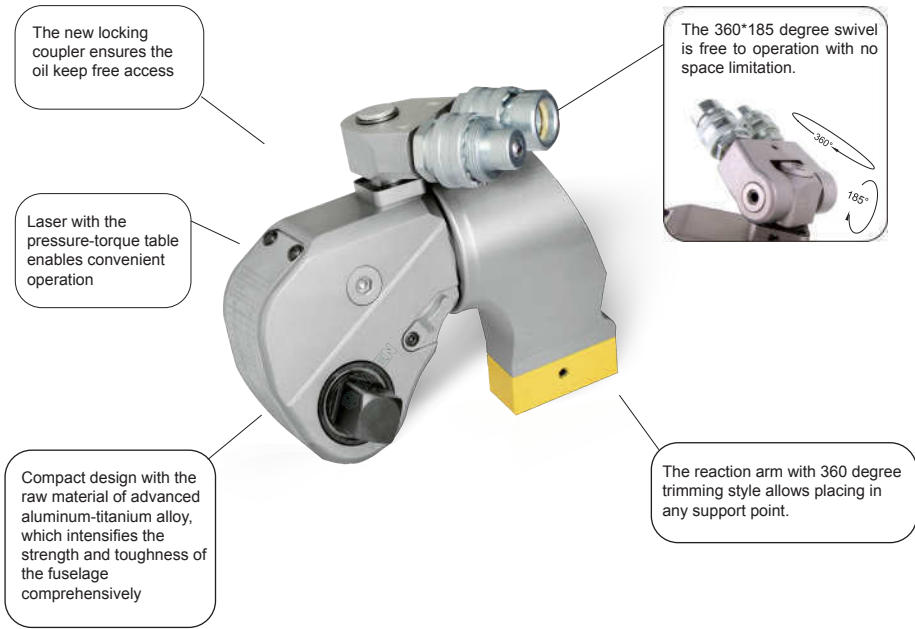
WREN company have passed through the Alibaba depth certification in 2010



WREN has got the CE certificate in 2012



IBT series Square drive hydraulic torque wrench



- 700bar Max working pressure and the accuracy keep within $\pm 3\%$
- All together 10 models with the range from 112N.m to 72000N.m, which covers the most bolts size, and be the most comprehensive available in the market.
- The 360°185 degree swivel is free to operation with no space limitation.
- The square drive operate with the high intense socket and suitable with 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, high intense.
- The new locking coupler ensures the oil keep free access.

IBT Series Selection Chart

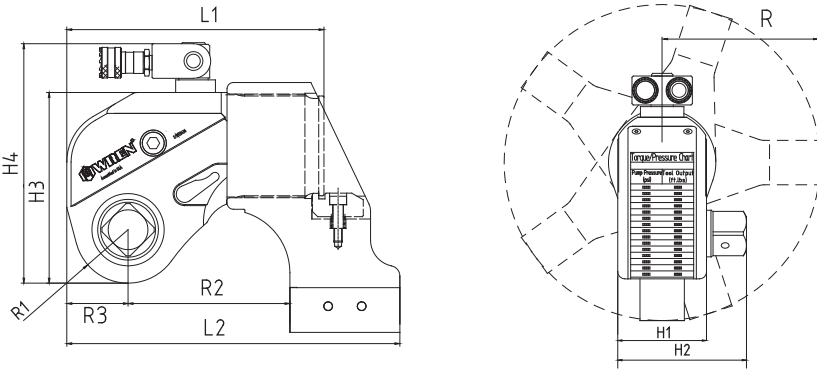
TYPE	07IBT	1IBT	3IBT	5IBT	8IBT	10IBT	20IBT	25IBT	35IBT	50IBT
Torque (N.m)	112~1120	183~1837	451~4512	752~7528	1078~10780	1551~15516	2666~26664	3472~34725	4866~48666	7200~72000
Bolt size (M)	14~30	16~36	22~48	27~56	30~64	36~72	42~90	48~100	64~120	72~125
Weight(Kg)	1.8	2.5	5	8	11	15	26.5	35	50	87
Square Drive	3/4"	3/4"	1"	1-1/2"	1-1/2"	1-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"

Industrial Applications:



IBT series Square drive hydraulic torque wrench

IBT series is the professional hydraulic torque wrench which WREN vigorously extends in international market. Its raw material is aluminum-titanium alloy which makes the wrench light and high intense. IBT series has 10 models with the range from 112N.m to 72000N.m; covers the most of bolts size, and be the most comprehensive available in the market. WREN provide after-sales service all over the world, and already got the approved by TUV certificate.

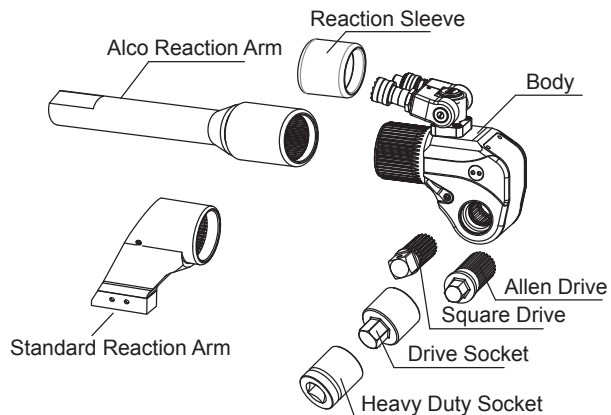


IBT Dimension Chart

TYPE	L1 (mm)	L2 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	R (mm)	R1 (mm)	R2 (mm)	R3 (mm)
07IBT	110.8	139.3	42	65.8	76.2	108.1	75	20.5	68.3	25
1IBT	144.5	173.5	50	72	96	131	91.5	26	85	29
3IBT	178	229	68	95	127	176.5	123.5	34	114	40
5IBT	210.5	270.5	80	123	149	199	140	39	137	46.5
8IBT	222	293	90	134	167	217	165	47	153	47
10IBT	245.5	317.5	100	142	182	232	178	51	154	58.5
20IBT	307.5	383.5	120	183	220	270	213	59	186	71
25IBT	323	401	137	200	247	297	228	66	199	66
35IBT	372.5	496.5	153	216	282	332	243.5	77	241	79
50IBT	400	516	160	223	291	341	258	81	259	97.5

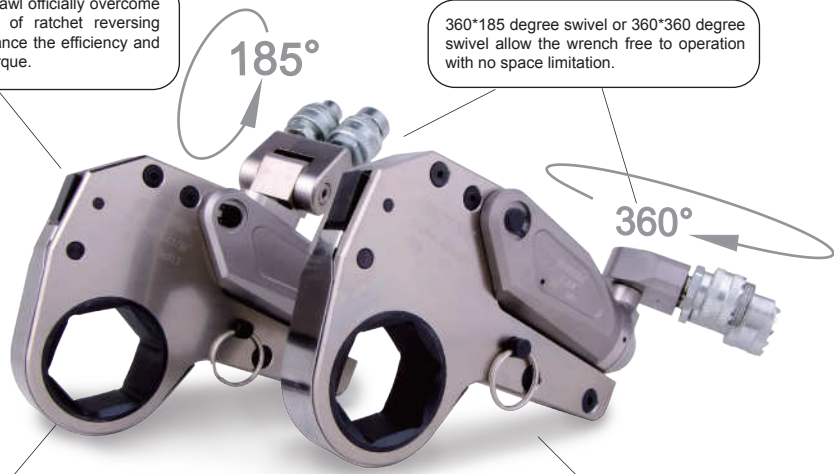
Accessory:

For Special Reaction Arm, consult to WREN !



LOW series Low Profile Hydraulic Torque Wrench

The reaction pawl officially overcome the possibility of ratchet reversing opposite; enhance the efficiency and precision of torque.



360°185 degree swivel or 360°360 degree swivel allow the wrench free to operation with no space limitation.

- 700bar max working pressure; keep the accuracy $\pm 3\%$.
- 5 models with the range from 232-44593N.m
- 360°185 degree swivel & 360°360 degree swivel allow the wrench free to operation with no space limitation.
- More accuracy and easier when the wrench direct operate on the nuts.
- Compact design with longer arm fully advances the reliability.
- Compact design with the raw material of advanced aluminum-titanium alloy, high intense.
- The new locking coupler ensures the oil keep free access.

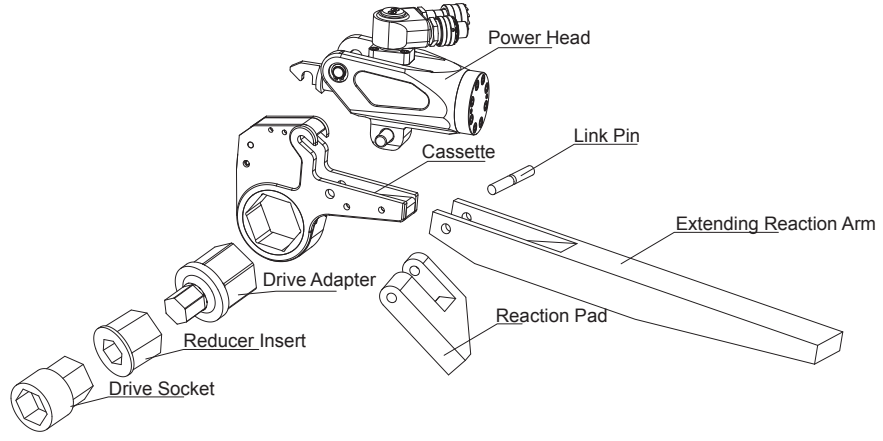
LOW series is the professional Low profile hydraulic torque wrench which WREN vigorously extends in international market. Compare with the square drive hydraulic torque wrench, this series work directly on the nuts, and its body suits well in the narrow space. LOW covers the nuts from S19 to S175. To fulfill all different working situations, the user can just replace the hexagon cassette because the hexagon cassette is changeable, or add the reducer. WREN provide after-sales service all over the world, and already got the approved by TUV certificate.

More accuracy and easier when the wrench direct operate on the nuts.

Compact design with longer arm fully advances the reliability.

Accessory:

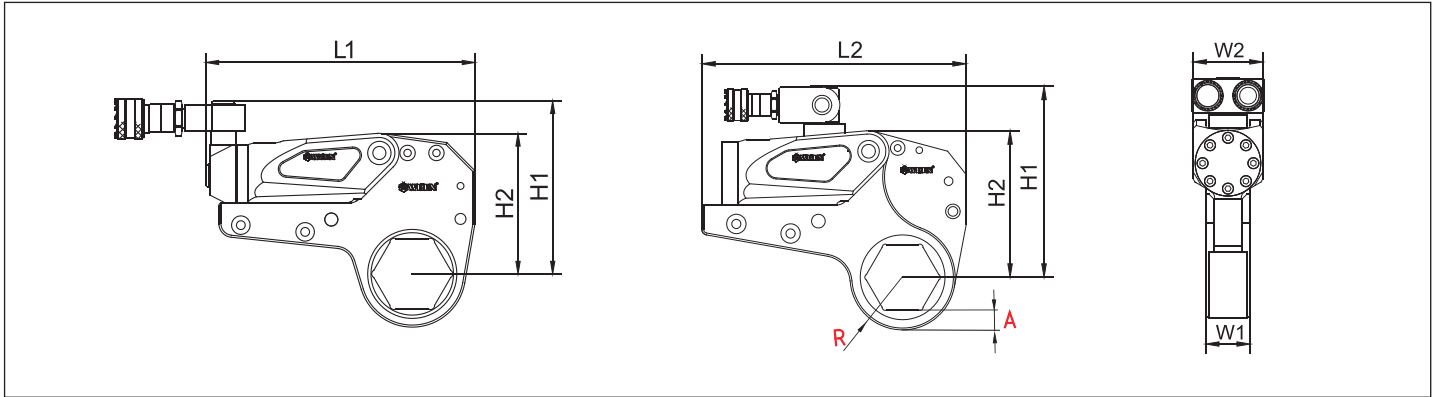
Reaction Pad	
Extending Reaction Arm	



LOW Paramete Chart

TYPE	Torque (N.m)	Nut Sizes (mm)	Power Head Weight (Kg)	Cassette Weight (Kg)	Sizes (mm)						
					L1	L2	H1	H2	W1	W2	
2LOW	232~2328	19~55	1	1.6	196.4	196.4	125.9	102.3	32	51	
	241~2414	60	1	1.7			128.5	105	32	51	
4LOW	585~2510	34~36	2	4.4	245	246	177	135.7	42	66	
	585~5021	41	2	4.6			187	145.7	42	66	
	585~5858	46~65									
	647~6474	70~80									
8LOW	1094~10941	41~95	3.3	8	300	301	207	169	53	83	
	1177~11774	100~105	3.3	8.4			216	178	53	83	
14LOW	1852~18521	50~117	5.5	11.6	361	361	239	204	64	99	
30LOW	4188~41882	110~155	11.4	29	430	441	303	272	85	131	
	4459~44593	160~175	11.4	30			315	285	85	131	

LOW Dimension Drawing



LOW Series Hexagon Cassette Selection Chart

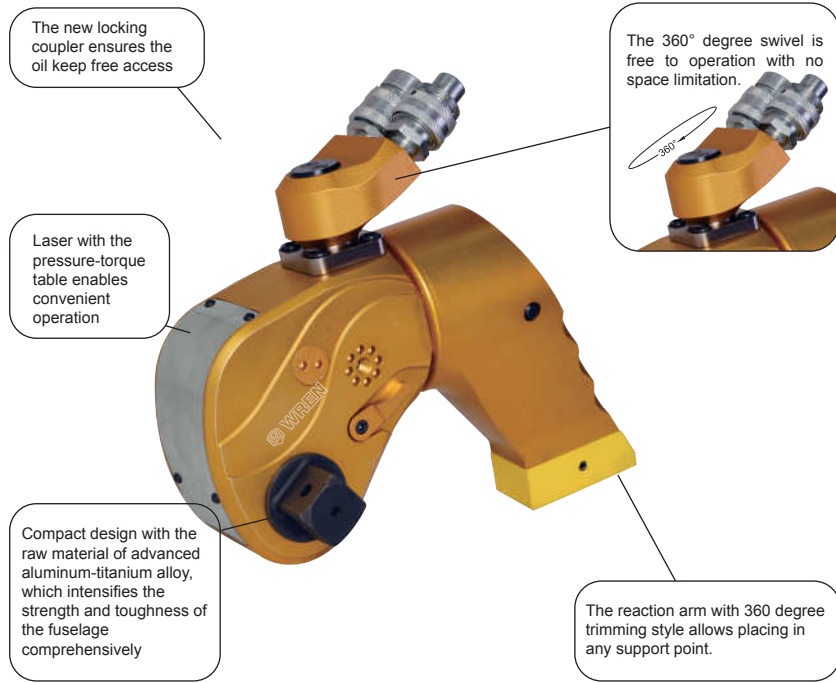
2LOW				4LOW				8LOW				14LOW				30LOW			
Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque
2LOW-19	27	16	2328	4LOW-34	36	16	2510	8LOW-41	46	22	10941	14LOW-50	60	31	18521	30LOW-85	78	28	41882
2LOW-22	27	14	2328	4LOW-36	36	15	2510	8LOW-46	46	19	10941	14LOW-55	60	28	18521	30LOW-90	78	27	41882
2LOW-27	27	11	2328	4LOW-41	39	15	5021	8LOW-50	46	17	10941	14LOW-60	60	25	18521	30LOW-95	83	28	41882
2LOW-30	29	12	2328	4LOW-46	42	15	5858	8LOW-55	50	18	10941	14LOW-65	60	22	18521	30LOW-100	83	25	41882
2LOW-32	29	11	2328	4LOW-50	44	15	5858	8LOW-60	52	17	10941	14LOW-70	60	19	18521	30LOW-105	89	28	41882
2LOW-34	31	11	2328	4LOW-55	46	14	5858	8LOW-65	55	17	10941	14LOW-75	63	19	18521	30LOW-110	89	25	41882
2LOW-36	31	10	2328	4LOW-60	50	15	5858	8LOW-70	58	17	10941	14LOW-80	66	19	18521	30LOW-115	95	28	41882
2LOW-41	34	10	2328	4LOW-65	53	15	5858	8LOW-75	60	17	10941	14LOW-85	69	19	18521	30LOW-117	95	27	41882
2LOW-46	37	10	2328	4LOW-70	56	15	6474	8LOW-80	63	16	10941	14LOW-90	72	20	18521	30LOW-120	95	25	41882
2LOW-50	40	11	2328	4LOW-75	59	15	6474	8LOW-85	66	16	10941	14LOW-95	74	19	18521	30LOW-125	101	29	41882
2LOW-55	43	11	2328	4LOW-80	61	15	6474	8LOW-90	69	17	10941	14LOW-100	77	19	18521	30LOW-130	101	26	41882
2LOW-60	46	11	2414					8LOW-95	71	16	10941	14LOW-105	80	19	18521	30LOW-135	104	26	41882
								8LOW-100	75	17	11774	14LOW-110	83	19	18521	30LOW-140	110	29	41882
								8LOW-105	78	17	11774	14LOW-115	87	20	18521	30LOW-145	110	26	41882
												14LOW-117	87	19	18521	30LOW-150	116	29	41882
																30LOW-155	116	26	41882
																30LOW-160	128	36	44593
																30LOW-165	128	33	44593
																30LOW-170	128	30	44593
																30LOW-175	128	27	44593

WREN can be customized according to customer requirements of special types of cassette.

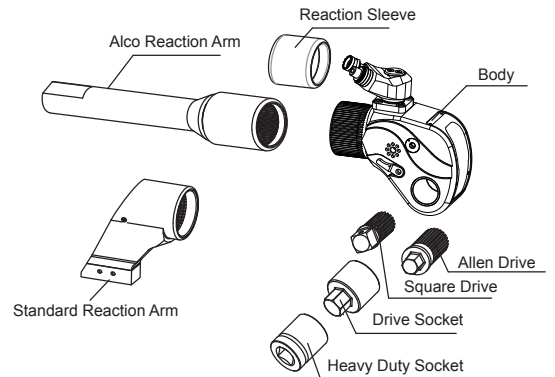
Industrial Applications:



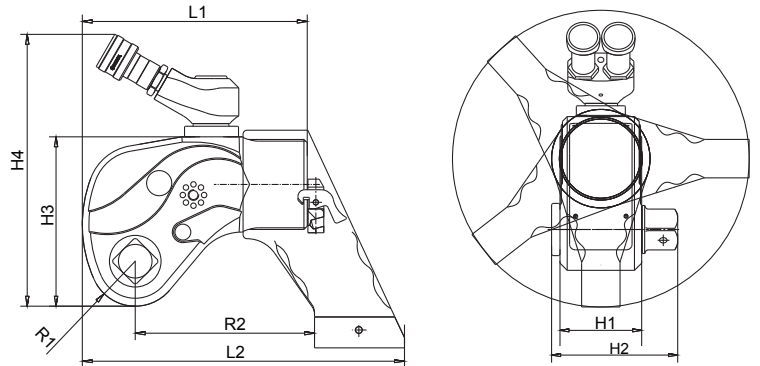
ATWS series Square drive hydraulic torque wrench



- 700bar Max working pressure and the accuracy keep within $\pm 3\%$
- All together 6 models with the range from 183N.m to 48666N.m, which covers the most bolts size, and be the most comprehensive available in the market.
- The 360 degree swivel is free to operation with no space limitation.
- The square drive operate with the high intense socket and suitable with 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, high intense.
- The new locking coupler ensures the oil keep free access.



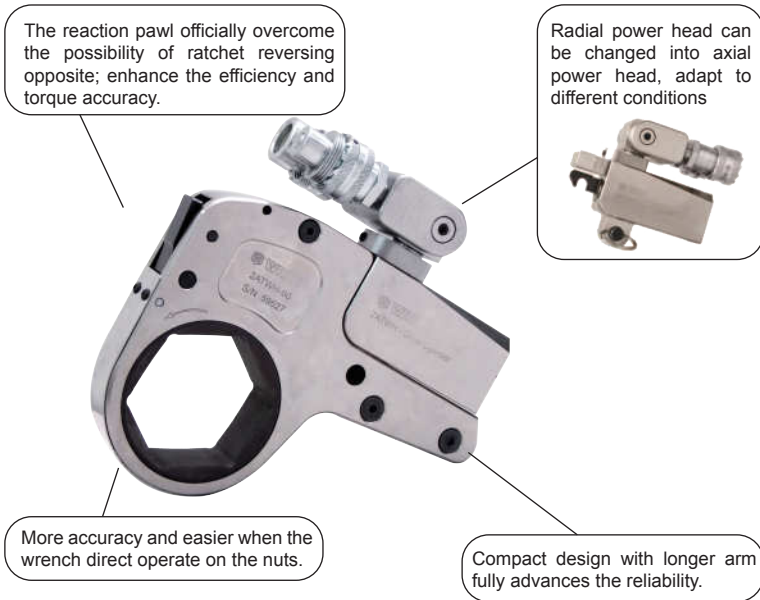
ATWS series is the professional hydraulic torque wrench which WREN vigorously extends in international market. Its raw material is aluminum-titanium alloy which makes the wrench light and high intense. ATWS series has 6 models with the range from 183N.m to 48666N.m; covers the most of bolts size, and be the most comprehensive available in the market. WREN provide after-sales service all over the world, and already got the approved by TUV certificate.



ATWS Series Selection Chart

TYPE	1ATWS	3ATWS	5ATWS	8ATWS	10ATWS	20ATWS	25ATWS	35ATWS
Torque (N.m)	183~1837	455~4553	758~7580	1096~10952	1456~14560	2666~26664	3472~34725	4866~48666
Bolt size (M)	16~36	22~48	27~56	30~64	36~72	42~90	48~100	64~120
Weight Kg	2.5	5	8	11	15	26.5	35Kg	50Kg
L1 (mm)	135	170	204	220	245	303	315	495
L2 (mm)	186	244	285	313	352	451	463	495
H1 (mm)	50	68	80	90	101	120	137	153
H2 (mm)	80	105	132	143	153	189	208	228
H3 (mm)	98	128	152	167	182	223	248	282
H4 (mm)	175	206	230	244	260	300	325	360
R1 (mm)	28	34	41	47	51	62	67	77
R2 (mm)	100	136	150	175	183	255	251	271
Square Drive	3/4"	1"	1-1/2"	1-1/2"	1-1/2"	2-1/2"	2-1/2"	2-1/2"

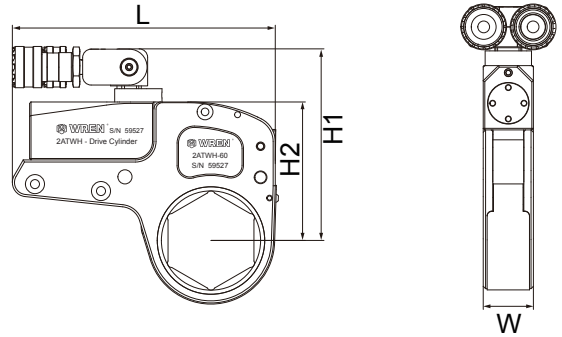
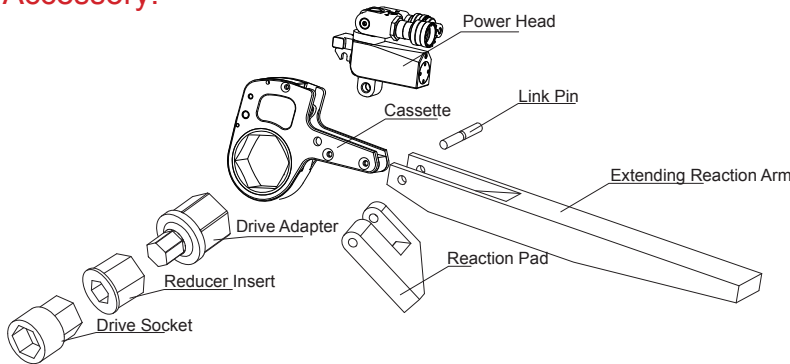
ATWH series Low Profile Hydraulic Torque Wrench



- 700bar max working pressure; keep the accuracy $\pm 3\%$.
- 5 models with the range from 225-44593N.m
- 360°*185 degree swivel allow the wrench free to operation with no space limitation.
- More accuracy and easier when the wrench direct operate on the nuts.
- Compact design with longer arm fully advances the reliability.
- Compact design with the raw material of advanced aluminum-titanium alloy, high intense.
- The new locking coupler ensures the oil keep free access.

ATWH series is the professional Low profile hydraulic torque wrench which WREN extends in international market. Compared with the square drive hydraulic torque wrench, this series work directly on the nuts, and its body suits well in the narrow space. ATWH covers the nuts from S19 to S175. To fulfill all different working situations, the user can just replace the hexagon cassette because the hexagon cassette is changeable, or add the reducer. WREN provide after-sales service all over the world, and already got the approved by TUV certificate.

Accessory:



Reaction Pad	
Extending Reaction Arm	

Parameter Chart

TYPE	Torque (N.m)	Nut Sizes (mm)	Power Head Weight (Kg)	Cassette Weight (Kg)	Sizes (mm)			
					L	H1	H2	W
2ATWH	225~2255	19~55	0.9	1.5	186	132	95	32
	233~2338	60	0.9	1.5	186	135	98	32
4ATWH	520~5208	34~65	1.6	3.4	251	176	127	42
	575~5755	70~80	1.6	3.4	256	186	137	42
8ATWH	1043~10438	41~95	3.1	6.3	308	211	154	53
	1123~11233	100~105	3.1	6.3	308	220	163	53
14ATWH	1852~18521	50~117	4.8	11.4	378	252	200	64
30ATWH	4188~41882	110~155	10.5	20.5	460	300	253	85
	4459~44593	160~175	10.5	20.5	460	313	266	85

ATWH series Low Profile Hydraulic Torque Wrench



Every model of ATWH power head covers a complete set of hexagon cassette, combines all the bolt size within its torque range. When choosing the correct hexagon cassette, ensure the distance between bolt and equipment partition must larger than the distance of "A". Pay attention that there is enough space between bolts. The "A" and "R" in below table will be helpful.

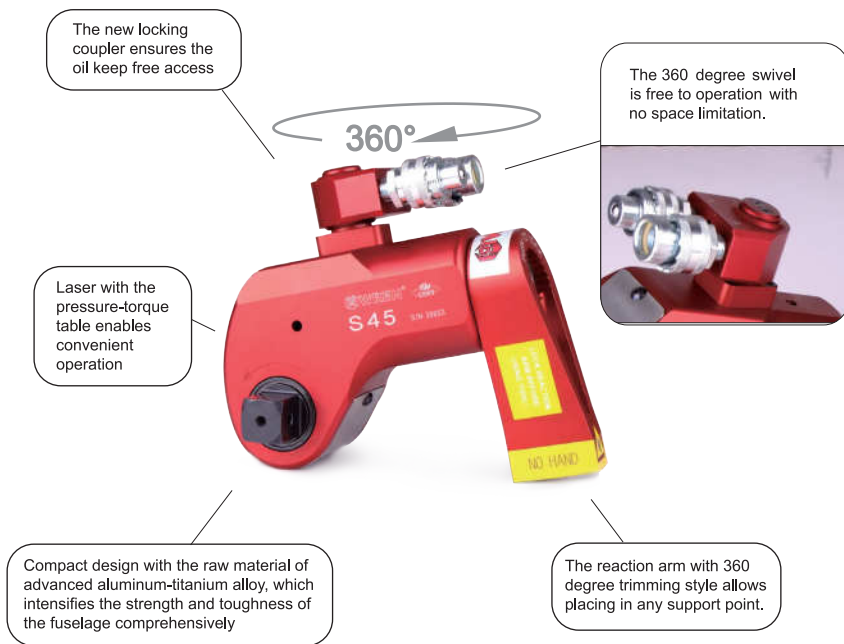
Reducer
Reducer work together with the ATWH Ratchet link. One single Ratchet link is suitable for many bolts sizes.(by the reducer, please contact WREN engineer)

Series Hexagon Cassette Selection Chart

2ATWH				4ATWH				8ATWH				14ATWH				30ATWH			
Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque
2ATWH-19	27	16	2328	4ATWH-34	36	16	2510	8ATWH-41	46	22	10941	14ATWH-50	60	31	18521	30ATWH-85	78	28	41882
2ATWH-22	27	14	2328	4ATWH-36	36	15	2510	8ATWH-46	46	19	10941	14ATWH-55	60	28	18521	30ATWH-90	78	27	41882
2ATWH-27	27	11	2328	4ATWH-41	39	15	5021	8ATWH-50	46	17	10941	14ATWH-60	60	25	18521	30ATWH-95	83	28	41882
2ATWH-30	29	12	2328	4ATWH-46	42	15	5858	8ATWH-55	50	18	10941	14ATWH-65	60	22	18521	30ATWH-100	83	25	41882
2ATWH-32	29	11	2328	4ATWH-50	44	15	5858	8ATWH-60	52	17	10941	14ATWH-70	60	19	18521	30ATWH-105	89	28	41882
2ATWH-34	31	11	2328	4ATWH-55	46	14	5858	8ATWH-65	55	17	10941	14ATWH-75	63	19	18521	30ATWH-110	89	25	41882
2ATWH-36	31	10	2328	4ATWH-60	50	15	5858	8ATWH-70	58	17	10941	14ATWH-80	66	19	18521	30ATWH-115	95	28	41882
2ATWH-41	34	10	2328	4ATWH-65	53	15	5858	8ATWH-75	60	17	10941	14ATWH-85	69	19	18521	30ATWH-117	95	27	41882
2ATWH-46	37	10	2328	4ATWH-70	56	15	6474	8ATWH-80	63	16	10941	14ATWH-90	72	20	18521	30ATWH-120	95	25	41882
2ATWH-50	40	11	2328	4ATWH-75	59	15	6474	8ATWH-85	66	16	10941	14ATWH-95	74	19	18521	30ATWH-125	101	29	41882
2ATWH-55	43	11	2328	4ATWH-80	61	15	6474	8ATWH-90	69	17	10941	14ATWH-100	77	19	18521	30ATWH-130	101	26	41882
2ATWH-60	46	11	2414					8ATWH-95	71	16	10941	14ATWH-105	80	19	18521	30ATWH-135	104	26	41882
								8ATWH-100	75	17	11774	14ATWH-110	83	19	18521	30ATWH-140	110	29	41882
								8ATWH-105	78	17	11774	14ATWH-115	87	20	18521	30ATWH-145	110	26	41882
												14ATWH-117	87	19	18521	30ATWH-150	116	29	41882
																30ATWH-155	116	26	41882
																30ATWH-160	128	36	44593
																30ATWH-165	128	33	44593
																30ATWH-170	128	30	44593
																30ATWH-175	128	27	44593

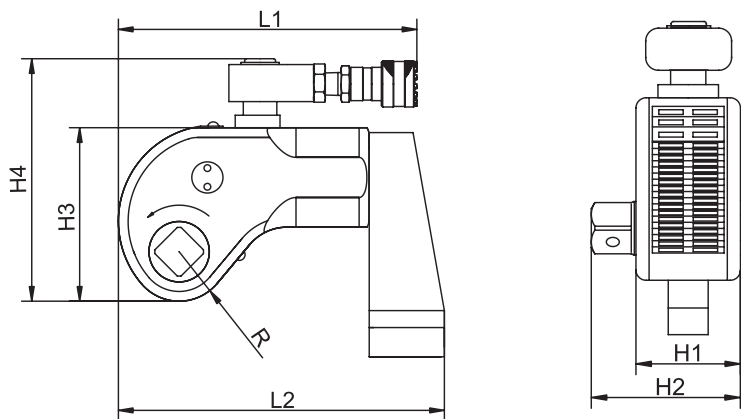
WREN can be customized according to customer requirements of special types of cassette.

S series Square Drive Torque Wrench



- 700bar maximum working pressure; Repeat accuracy $\pm 3\%$.
- 5 different model from 1727-36992N.m
- 360° multi-positional swivel quick release couplings
- Working with the high resistance sockets, above more size of screw
- 360° Adjustable reaction arm with safely lock feature, can be used without reaction arm
- High resistance with aluminum-titanium and light body
- Replaceable square drive adapters

S configured with high technology, ideal for long-term usage by means of aluminum-titanium design. Besides having calibration service and support WREN S is one of the important brands that can accomplish big missions even its small body. Almost every tightening & loosening problems can be accomplished with these series that have a torque capacity up to 3.6992 Nm. WREN serves a wide range accessory for S series. These products which are designed for serving true resolutions, entitled with TUV seal result of an effort with appropriate directives.



S Series Technical Data

model	Torque (N.m)	Bolt size (M)	Square drive inches	Weight (Kg)	Sizes (mm)						
					L1	L2	H1	H2	H3	H4	R
S17	172~1727	16~36	3/4 "	2	129	167	51	73	90	131	25
S45	452~4529	22~48	1 "	4.6	167	218	68	98	121	170	34
S100	1006~10064	30~64	1 1/2 "	10	223	293	92	135	163	211	46
S150	1497~14974	36~72	1 1/2 "	14.8	264	323	100	141	177	225	50
S370	3699~36992	48~100	2 1/2 "	32.5	329	432	137	104	240	288	66

H series Low Profile Torque Wrench

- 700bar maximum working pressure; Repeat accuracy $\pm 3\%$.
- 5 different model from 2625-48481N.m
- Fitted with 360°x360° uni-swivel quick release couplings
- Low profile design to accessing limited areas
- Drivers and adaptors can be replaced easily

H low profile torque wrenches designed for accessing limited areas and serves goos solutions with numbers of replaceable cassettes and adaptors. Drivers can be replaced easily and fast without using any tolls. Saves time by means of easy replacement of attachments. Light weight aluminum design allows easy operations even in robust conditions.

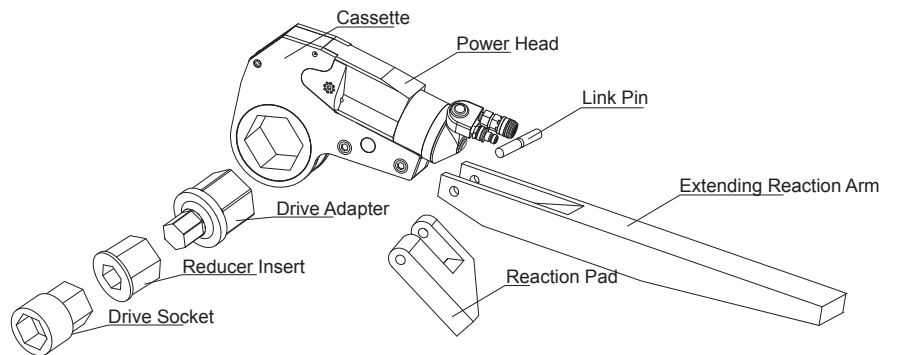


More accuracy and easier when the wrench direct operate on the nuts.

Compact design with longer arm fully advances the reliability.

Accessory:

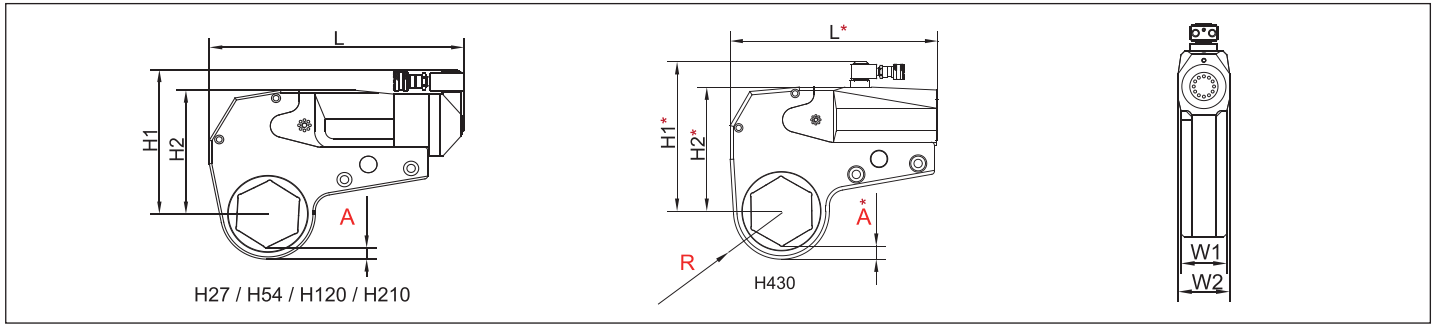
Reaction Pad	
Extending Reaction Arm	



H Series Technical Data

model	Torque (N.m)	Bolt size (mm)	Weight (Kg)	Cassette Weight (Kg)	Sizes (mm)					
					L	H1	H2	W1	W2	A
H27	262~2625	19~46	0.9		193	125	97	32	51	10~15
	306~3068	50~60			193	136	108	32	51	10~11
H54	537~5372	27~65	1.9		250	158	125	41	64	11~19
	603~6037	70~80			250	169	136	41	64	11.7~12
H120	1173~11737	50~80	3.4		310	189	157	52	78	15~15.2
	1434~14349	85~105			310	214	182	52	78	16~22
H210	2121~21216	70~100	5.9		378	223	191	64	97	8~21
	2312~23124	105~115			378	236	204	64	97	18~24
H430	4379~43792	80~117	16.1		405 *	291 *	242 *	83	93	25~31 *
	4848~48481	120~175			425 *	309 *	260 *	83	93	25~34 *

H Dimension Drawing



Choice of Cassettes

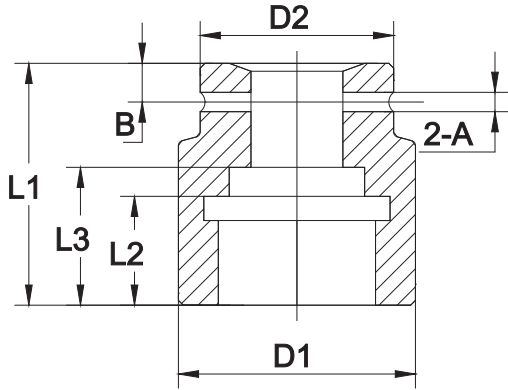
H27				H54				H120				H210				H430			
Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque	Type	R	A	Max Torque
H27-19	26	15	2625	H54-27	36	19	5372	H120-50	44	15	11737	H210-70	59	18	21216	H430-80	72	25	43792
H27-22	26	14	2625	H54-30	35	17	5372	H120-55	47	15	11737	H210-75	62	18	21216	H430-85	78	28	43792
H27-27	26	11	2625	H54-32	35	16	5372	H120-60	50	15	11737	H210-80	65	18	21216	H430-90	78	25	43792
H27-30	28	11	2625	H54-34	35	15	5372	H120-65	53	15	11737	H210-85	68	18	21216	H430-95	84	28	43792
H27-32	28	10	2625	H54-36	35	14	5372	H120-70	56	15	11737	H210-90	71	18	21216	H430-100	84	26	43792
H27-34	31	11	2328	H54-41	35	11	5372	H120-75	58	15	11737	H210-95	74	18	21216	H430-105	90	28	43792
H27-36	31	10	2625	H54-46	37	11	5858	H120-80	61	15	11737	H210-100	77	18	21216	H430-110	90	26	43792
H27-41	34	10	2625	H54-50	41	12	5372	H120-85	66	16	14349	H210-105	79	18	23124	H430-115	94	28	43792
H27-46	37	10	2625	H54-55	44	12	5372	H120-90	69	16	14349	H210-110	82	18	23124	H430-117	94	26	43792
H27-50	40	11	3068	H54-60	47	12	5372	H120-95	71	16	14349	H210-115	87	21	23124	H430-120	101	31	48481
H27-55	42	11	3068	H54-65	50	12	5372	H120-100	77	19	14349				H430-125	101	28	48481	
H27-60	45	10	3068	H54-70	52	12	6037	H120-105	77	16	14349				H430-130	101	25	48481	
				H54-75	56	12	6037								H430-135	105	26	48481	
				H54-80	58	12	6037								H430-140	110	29	48481	
															H430-145	110	26	48481	
															H430-150	115	29	48481	
															H430-155	115	26	48481	
															H430-160	121	29	48481	
															H430-165	121	26	48481	
															H430-170	128	30	48481	
															H430-175	128	27	48481	

WREN can be customized according to customer requirements of special types of cassette.

Industrial Applications:



Sockets

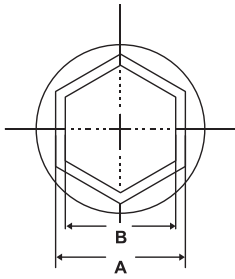


Can order imperial and non-standard socket

Standard sockets selection chart

Bolt Type		3/4" 07IBT/1IBT								1" 3IBT								1-1/2" 5,8,10IBT								2-1/2" 20,25,35,50IBT							
D	N	A	B	L1	L2	L3	D1	D2	A	B	L1	L2	L3	D1	D2	A	B	L1	L2	L3	D1	D2	A	B	L1	L2	L3	D1	D2				
M16	24	6.3	10	54	32	32	40	40																									
M18	27	6.3	10	54	32	32	42	42																									
M20	30	6.3	10	54	33	33	46	44	8	14	59	32	32	54	54																		
M22	34	6.3	10	54	33	33	52	44	8	14	59	32	32	58	58																		
M24	36	6.3	10	57	33	33	54	44	8	14	62	32	32	59	59	8	16	85	44	44	74	74											
M27	41	6.3	10	58	33	33	60	44	8	14	65	38	38	67	54	8	16	85	44	44	74	74											
M30	46	6.3	10	63	38	38	66	44	8	14	65	38	38	74	54	8	16	85	44	44	74	74											
M33	50	6.3	10	65	40	40	71	44	8	14	70	43	43	79	60	8	16	90	45	45	79	79											
M36	55	6.3	10	70	45	45	77	54	8	14	80	42	52	84	60	8	16	90	45	45	84	84	8	18	100	57	57	86	114				
M39	60								8	14	85	45	57	89	60	8	16	100	45	57	94	75	8	18	100	52	52	119	119				
M42	65								8	14	85	45	57	98	70	8	16	100	45	57	98	80	8	18	100	52	52	119	119				
M45	70								8	14	90	50	62	104	70	8	16	105	50	62	104	80	8	18	120	67	67	128	128				
M48	75								8	14	95	50	65	108	70	8	16	110	50	65	118	85	8	18	120	67	67	128	128				
M52	80															8	16	115	55	72	118	90	8	18	130	71	71	128	128				
M56	85															8	16	125	60	77	128	90	8	18	130	71	71	129	129				
M60	90															8	16	125	60	77	139	90	8	18	140	61	73	139	139				
M64	95															8	16	130	65	82	139	90	8	18	140	66	73	139	139				
M68	100															8	16	135	70	87	144	90	8	18	140	71	81	148	130				
M72	105															8	16	135	70	87	149	90	8	18	150	77	89	156	130				
M76	110															8	16	135	70	87	158	90	8	18	150	72	90	158	130				
M80	115															8	16	135	70	87	159	95	8	18	150	82	98	168	130				
M85	120															8	16	135	70	87	168	95	8	18	150	82	98	178	130				
M90	130															8	16	155	93	105	189	95	8	18	170	93	114	189	130				
M95	135																							8	18	170	93	114	198	130			
M100	145																							8	18	170	98	122	210	152			
M105	150																							8	18	190	100	140	216	152			
M110	155																							8	18	190	100	140	229	152			
M115	165																							8	18	190	100	140	241	152			

Reducer Insert



Can order imperial and non-standard Reducer Inserts

Standard reducer inserts selection chart

Wrench Model	Cassette	Nut Size (S)	Reducer Insert						Locking ring
			Type	A/B (mm)	Type	A/B (mm)	Type	A/B (mm)	
2 LOW	2LOW-50	50	2G5041	50/41	2G5036	50/36	2G5032	50/32	H-50
	2LOW-46	46	2G4636	46/36	2G4632	46/32	2G4630	46/30	H-46
	2LOW-41	41	2G4132	41/32	2G4130	41/30	2G4127	41/27	H-41
	2LOW-36	36	2G3630	36/30	2G3627	36/27			H-36
	2LOW-32	32	2G3227	32/27					H-32
	2LOW-30	30							
4 LOW	4LOW-65	65	4G6555	65/55	4G6550	65/50	4G6546	65/46	H-56
	4LOW-60	60	4G6050	60/50	4G6046	60/46	4G6041	60/41	H-60
	4LOW-55	55	4G5546	55/46	4G5541	55/41	4G5536	55/36	H-55
	4LOW-50	50	4G5041	50/41	4G5036	50/36	4G5032	50/32	H-50
	4LOW-46	46	4G4636	46/36	4G4632	46/32	4G4630	46/30	H-46
	4LOW-41	41	4G4132	41/32	4G4130	41/30	4G4127	41/27	H-41
	4LOW-36	36	4G3630	36/30	4G3627	36/27			H-36
	4LOW-32	32	4G3227	32/27					H-32
	4LOW-30	30							
8 LOW	8LOW-90	90	8G9080	90/80	8G9075	90/75	8G9070	90/70	H-90
	8LOW-85	85	8G8575	85/75	8G8570	85/70	8G8565	85/65	H-85
	8LOW-80	80	8G8070	80/70	8G8065	80/65	8G8060	80/60	H-80
	8LOW-75	75	8G7565	75/65	8G7560	75/60	8G7555	75/55	H-75
	8LOW-70	70	8G7060	70/60	8G7055	70/55	8G7050	70/50	H-70
	8LOW-65	65	8G6555	65/55	8G6550	65/50	8G6545	65/45	H-65
	8LOW-60	60	8G6050	60/50	8G6046	60/46			H-60
	8LOW-55	55	8G5546	55/46	8G5541	55/41			H-55
	8LOW-50	50							
14 LOW	14LOW-115	115	14G115105	115/105	14G115100	115/100	14G11595	115/95	H-115
	14LOW-110	110	14G110100	110/100	14G11095	110/95	14G11090	110/90	H-110
	14LOW-105	105	14G10595	105/95	14G10590	105/90	14G10585	105/85	H-105
	14LOW-100	100	14G10090	100/90	14G10085	100/85	14G10080	100/80	H-100
	14LOW-95	95	14G9585	95/85	14G9580	95/80	14G9575	95/75	H-95
	14LOW-90	90	14G9080	90/80	14G9075	90/75	14G9070	90/70	H-90
	14LOW-85	85	14G8575	85/75	14G8570	85/70	14G8565	85/65	H-85
	14LOW-80	80	14G8070	80/70	14G8065	80/65			H-80
	14LOW-75	75	14G7565	75/65					H-75
	14LOW-70	70							
30 LOW	30LOW-155	155	30G155145	155/145	30G155130	155/130	30G155120	155/120	H-155
	30LOW-145	145	30G145130	145/130	30G145120	145/120	30G145115	145/115	H-145
	30LOW-130	130	30G130120	130/120	30G130115	130/115	30G130110	130/110	H-130
	30LOW-120	120	30G120110	120/110	30G120105	120/105	30G120100	120/100	H-120
	30LOW-115	115	30G115105	115/105	30G115100	115/100	30G11595	115/95	H-115
	30LOW-110	110	30G110100	110/100	30G11095	110/95	30G11090	110/90	H-110
	30LOW-105	105	30G10595	105/95	30G10590	105/90	30G10590	105/90	H-105
	30LOW-100	100	30G10090	100/90	30G10085	100/85	30G10080	100/80	H-100
	30LOW-95	95	30G9585	95/85	30G9580	95/80			H-95
	30LOW-90	90	30G9080	90/80					H-90
	30LOW-85	85							
	30LOW-80	80							

The Choosing Of Hydraulic Torque Wrench

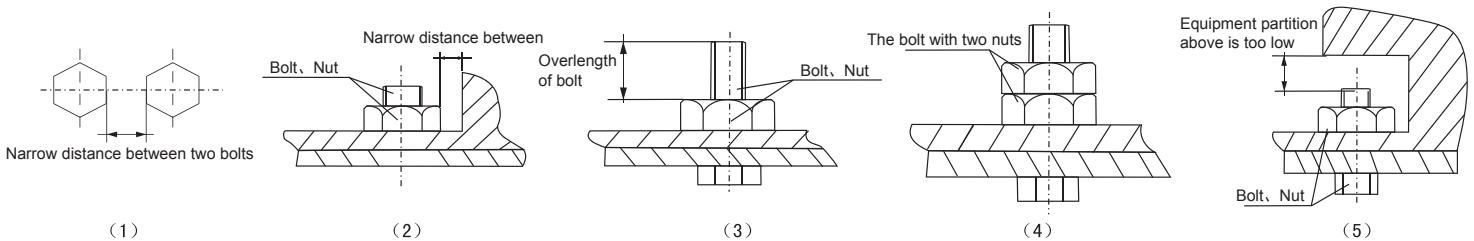
The bolt and nut pretightening force recommended chart.

Strength Grade		4.8		6.8		8.8		10.9		12.9	
Minum Breaking Strength		392Mpa		588Mpa		784Mpa		941Mpa		1176Mpa	
Material		Q235(SS41)		35(S35C)		35CrMo(SCM3)		42CMo(SCM4)		40GrNiMoA(SNCM)	
Bolt M(mm)	Diameter S(mm)	Torque		Torque		Torque		Torque		Torque	
		KGM	N.m	KGM	N.m	KGM	N.m	KGM	N.m	KGM	N.m
14	22	7	69	10	98	14	137	17	165	23	225
16	24	10	98	14	137	21	206	25	247	36	363
18	27	14	137	21	206	39	284	35	341	49	480
20	30	18	176	28	296	41	402	58	569	69	680
22	32	23	225	34	333	55	539	78	765	93	911
24	36	32	314	48	470	70	686	100	981	120	1176
27	41	45	441	65	637	105	1029	150	1472	180	1764
30	46	60	588	90	882	125	1225	200	1962	240	2352
33	50	75	735	115	1127	150	1470	210	2060	250	2450
36	55	100	980	150	1470	180	1764	250	2453	300	2940
39	60	120	1176	180	1764	220	2156	300	2943	370	3626
42	65	155	1519	240	2352	280	2744	390	3826	470	4606
45	70	180	1764	280	2744	320	3136	450	4415	550	5390
48	75	230	2254	350	3430	400	3920	570	5592	680	6664
52	80	280	2744	420	4116	480	4704	670	6573	850	8330
56	85	360	3528	530	5149	610	5978	860	8437	1050	10290
60	90	410	4018	610	5978	790	7742	1100	10791	1350	13230
64	95	510	4998	760	7448	900	8820				
68	100	580	5684	870	8526	1100	10780				
72	105	660	6468	1000	9800	1290	12642				
76	110	750	7350	1100	10780	1500	14701				
80	115	830	8143	1250	12250	1850	18130				
85	120	900	8820	1400	13720	2250	22050				
90	130	1080	10584	1650	16170	2500	24500				
100	145	1400	13720	2050	20090						
110	155	1670	16366	2550	24990						
120	175	2030	19894	3050	29890						

- ▲ This is Germany standard (DIN) above, the figure in the form is the max torque of the bolt, and the recommended torque is 80% of chart figure
- ▲ The recommended tightening torque equals the figure in the form*(80~90%). For instance: M52, strength grade is 8.8, the torque is 4704*90%=4233.6N.m
- ▲ It is recommended that loosening torque equals about 150% of tightening torque. For instance, the tightening torque is 4233.6*(1.5~2)=6350.4~8467.2N.m

The Space

Because of the space restriction, please notice the location. For example:



If you meet the above conditions, the square driven Torque Wrench cannot be used, you may use the Low Profile Wrench.

THE BW-SERIES MAGNETIC BACKUP WRENCHES SIMPLEST WAY TO STOP A NUT ROTATION. EASY TO USE AND VERSATILE

When torquing or loosening nuts, the thin profile of the MBW Backup wrench prevents the nut on the opposite side of the stud from turning.

No hydraulic, just mechanical & HANDS FREE OPERATION Eliminate injuries on hand and fingers.

Eliminate sparks cause from the use of slugging / striker wrenches.
Reduce time of operation and improve in productivity.



BOLTING SOLUTIONS

MAGNETS EMBEDDED

creates a magnetic field and force that attracts on other ferromagnetic materials.

BI-HEXAGONAL DESIGN

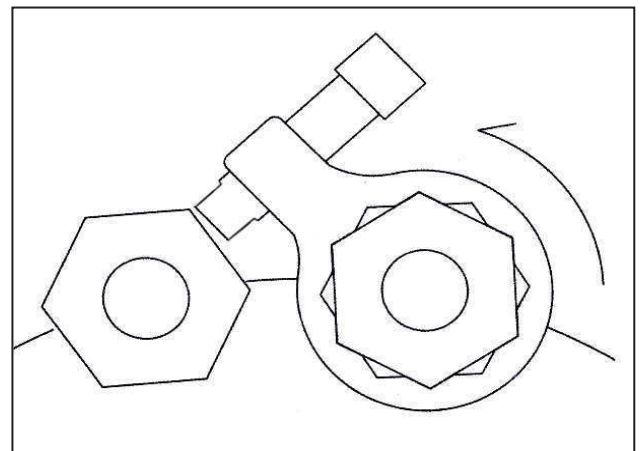
provides the ultimate mixture of versatility and durability



HIGH STRENGTH
heat treated material
heavy duty.

Usually set release bolt approximate 1/2" length extension, user can be proper to adjust the length extension in case of special space.

Place Backup Wrench on operated Nut, rotates Backup Wrench in counter-clockwise side until release bolt touching reaction points, by this operation, if the release bolt is impossible to close the reaction points after rotation, user also can run release bolt a little out to make it to touch reaction points, after finishing torque operation by hydraulic torque wrench, please loose release bolt with a manual wrench (or other similar wrench), then take backup wrench off and proceed to next operated nut.



WIDE RANGE OF METRIC AND IMPERIAL SIZES AVAILABLE**Nut Across Flat Range****30 mm - 145 mm****1 1/4" - 5 3/4"**

Model	Across Flat (mm)	Across Flat (in)	Load Limits (Ft.lbs)	Load Limits (Nm)
BW104	30	1-1/4"	2400	3254
BW107	36	1-7/16"	2500	3390
BW110	41	1-5/8"	3500	4745
BW113	46	1-13/16"	3500	4745
BW200	50	2"	4100	5559
BW203	55	2-3/16	4200	5694
BW204	57	2-1/4"	4300	5830
BW206	60	2-3/8"	4300	5830
BW209	65	2-9/16"	4550	6169
BW212	70	2-3/4"	5600	7592
BW215	75	2-15/16"	6300	8542
BW302	80	3-1/8"	7000	9491
BW308	85	3-1/2"	7200	9762
BW311	90	3-11/16"	7300	9897
BW314	95	3-7/8"	9000	12202
BW400	100	4"	24000	32539
BW402	105	4-1/8"	24000	32539
BW404	110	4-1/4"	24000	32539
BW408	115	4-1/2"	25000	33895
BW410	120	4-5/8"	27000	36607
BW500	130	5"	27000	36607
BW506	135	5-3/8"	27000	36607
BW512	145	5-3/4"	28000	37962

Examples of system connection

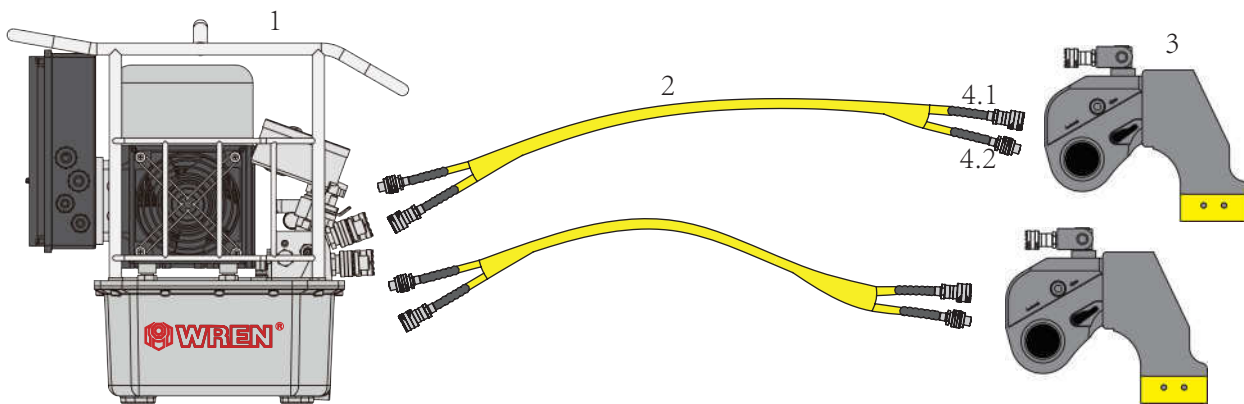
The existing M42 (S65) strength grade level 8.8 flange bolt with a two drive type hydraulic torque wrench.

Each type of hydraulic torque wrench has its own torque range.

If known to the locking torque value X N.m. As with the torque wrench maximum output torque value should be at least 2X N.m (bolt torque to remove loose locking torque of 1.5 ~ 2 times). As is the case with M42 (S65) bolt, if the technical requirements of the locking torque values for 2600N.m, it should in principle for the configuration of the torque wrench torque value should be greater than 5200N.m (such as field conditions, without removing the loose bolts, can be served with relatively little torque models). Check table selection of most suitable torque wrench torque wrench is 5 IBT type hydraulic torque wrench.

If you are on the site requirements of the locking torque values are unknown, WREN engineer will recommend you use. You can also follow the steps below to his own projections. From the bolt and nut torque value for recommendation, in accordance with the bolt size, strength check table to derive a closer to the real value of torque. As is the case with M42 (S65) look bolt locking torque of $2744 \times 90\% = 2470\text{N.m}$, due to remove loose bolt torque for locking of 1.5 ~ 2 times, matching hydraulic wrench torque value should be greater than 4940N.m. Check table selection of most suitable torque wrench torque wrench is 5 IBT type hydraulic torque wrench.

Configure:



- 1 LP3 Electric Pump
- 2 2JH6460Twin Hose
- 3 5IBT square driveTorque Wrench

- 4.1 C9013Quick Coupler (M)
- 4.2 C9014Quick Coupler (F)

one pump for two torque wrenches

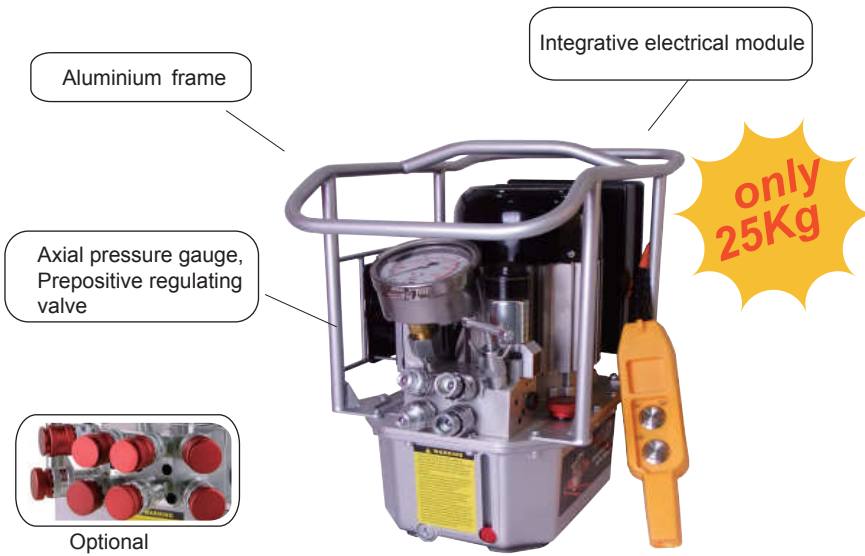
Type	Number	Note
LP3	1	220V/50HZ/700bar
5IBT	2	Torque 752~7528N.m
2JH6460	2	6M
C901Quick coupler	4	C9013 and C9014

one for one torque wrench

Type	Number	Note
LP3	1	220V/50HZ/700bar
5IBT	1	Torque 752~7528N.m
2JH6460	1	6M
C901Quick coupler	2	C9013 and C9014

Hydraulic Torque Wrench Pump

Electric Pump LP3 series



WREN can make the special length of remote control wire according customers' requirement (WREN standard: 6 meters).

Parameter

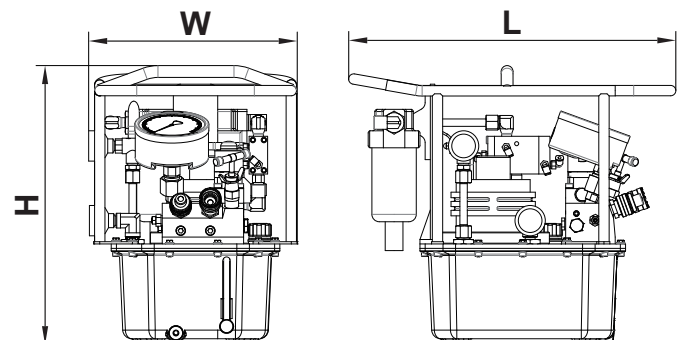
Model	LP3-2	LP3-4
Operating wrench	2	4
Tank capacity	5.5L	5.5L
Flow(low-mid-High)	7-1.6-0.8 L/min	7-1.6-0.8 L/min
Output pressure	70~700bar	70~700bar
Source of power	220V/50HZ	220V/50HZ
Power	1.1KW	1.1KW
Weight	25Kg	27Kg
Volume	305x445x426mm	305x465x426mm

- Compact automatic three stage design.
- Applicable on one or two wrenches simultaneously.
- Aluminum oil tank with gauge.
- Have $\Phi 100$ high pressure gauge.
- Infinitely variable pressure adjustment between 70~700 bar.
- With the high efficiency radiator the pump can work 24 hours continuously.
- Can change the motor to fit the different voltage.
- Optional components(FP4), can operate four wrenches at the same time

Air Pump LP3-N series

Parameter

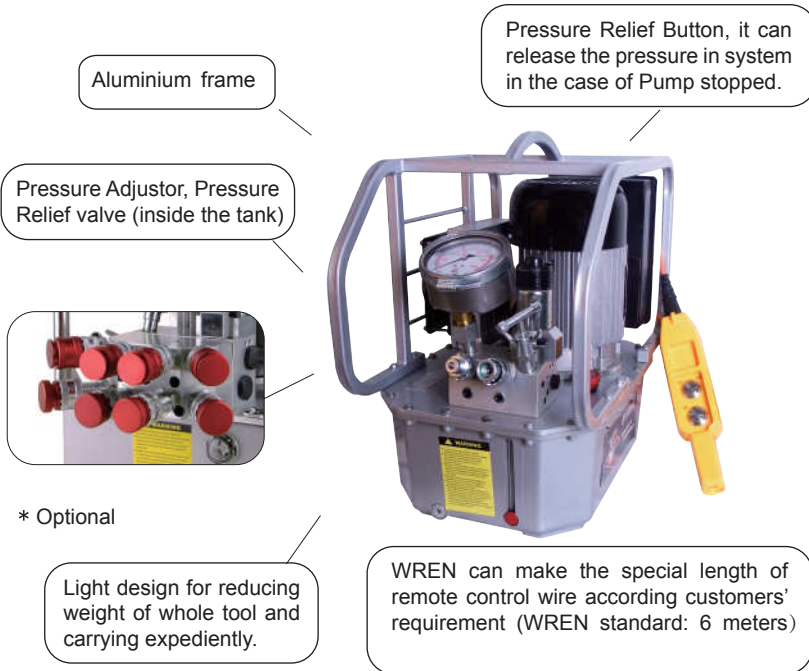
Model	LP3-N2	LP3-N4
Operating wrench	2	4
Working pressure	700 bar	700 bar
Air pressure(Input)	4-8 bar	4-8 bar
Power	3.0 KW	3.0 KW
Tank capacity	5.5L	5.5L
Flow rate (low-mid-high)	8.6-2.2-1.1 L/min	8.6-2.2-1.1 L/min
Oil cooler	N/A	N/A
Weight	22Kg	24Kg
Oil outputs	4x1/4" NPT	8x1/4" NPT
LxWxH(mm)	442x282x377mm	460x282x377mm



- Compact three-stage pump
- The Single valve block can be replaced by component FP4, there by allowing 2 or 4 Tools to be driven simultaneously.
- Three stage with air drive.
- Supporting continuous operation with steel frame.
- 4" diameter gauge, aluminium oil tank with oil level indicator
- Variable pressure adjustment between 70~700 bar
- Designed for continuous operation

Hydraulic Torque Wrench Pump

Electric Pump KLV4010 series



Parameter

Model	KLV4010-2	KLV4010-4
Operating wrench	2	4
Tank capacity	8L	8L
Flow(low-mid-High)	7-1.6-0.8L/min	7-1.6-0.8L/min
Output pressure	70~700bar	70~700bar
Source of power	220V/50HZ	220V/50HZ
Power	1.1KW	1.1KW
Weight	27.7Kg	29.9Kg
Volume	307x407x450mm	307x407x470mm

- Compact automatic three stage design.
- Applicable on one or two wrenches simultaneously.
- Aluminum oil tank with gauge.
- Have $\Phi 100$ high pressure gauge.
- Infinitely variable pressure adjustment between 70~700 bar.
- With the high efficiency radiator the pump can work 24 hours continuously.
- Can change the motor to fit the different voltage.
- Optional components, can operate four wrenches at the same time



Air Pump KLV4010N series

Parameter

Model	KLV4010N-2	KLV4010N-4
Operating wrench	2	4
Tank capacity	8L	8L
Flow(low-mid-High)	8.6-2.2-1.1 L/min	8.6-2.2-1.1 L/min
Output pressure	70~700 bar	70~700 bar
Air in	4~8 bar	4~8 bar
Power	3 KW	3 KW
Weight	21.5Kg	23.5Kg
Volume	289x407x450mm	289x407x470mm

- Input air(4~8 bar).
- Compact automatic three stage flow, can start in high pressure
- Applicable on one or two wrenches simultaneously
- Aluminum oil tank with oil gauge. Total weight only 21.5 kg
- Have $\Phi 100$ high pressure gauge
- Infinitely variable pressure adjustment between 70~700 bar
- With the high efficiency cooling system makes the pump suitable in extreme environment
- Optional components(FP4),can operate four wrenches at the same time

Pressure Relief Button, it can release the pressure in system in the case of Pump stopped.

Air Relief Port, make sure Air Driven Pump can be operated in cold and hot condition.

Pressure Adjustor, Pressure Relief valve (inside the tank)



* Optional



Left is standard FRL
Right is for option

only 21.5kg



Hydraulic Pump

Semi-automatic Electric Pump

KLW4120 Series Semi-automatic Electrical Pump shared a same design with KLW4010 series standard Electric Pump, it just was added a set of control system on the basic of KLW4010 standard Pump, it inherits all the characteristics of KLW4010, other characteristics are as below.

-Simple Operation:

Operate with one Button, the operator just press the button once time to achieve the task of tightening and loosening.

-High Efficiency:

Compare with the general Pump, KLW4120 Semi-automatic Pump has compact operation process to reduce some needless action and increase approximate 50% of working efficiency.

-Manual / Automatic

Besides of the semi-automatic operation, the Pump also has the function of manual operation.

KLW4120 can work 24 hours continuously. WREN also can make the Pump with other kinds of motors according customers' requirement.



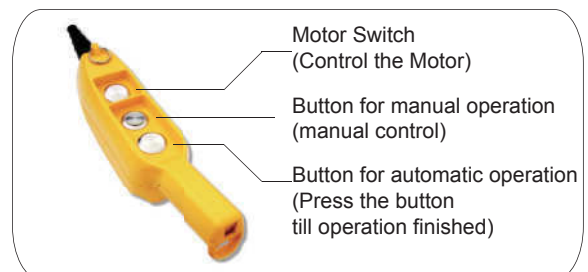
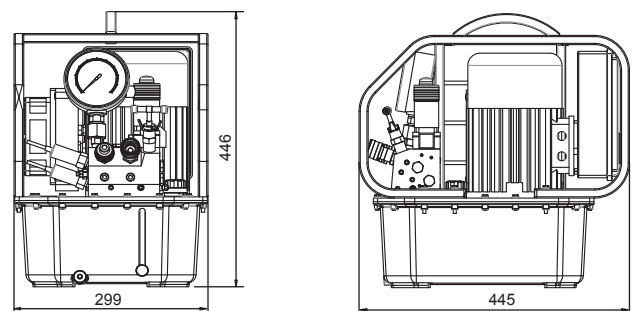
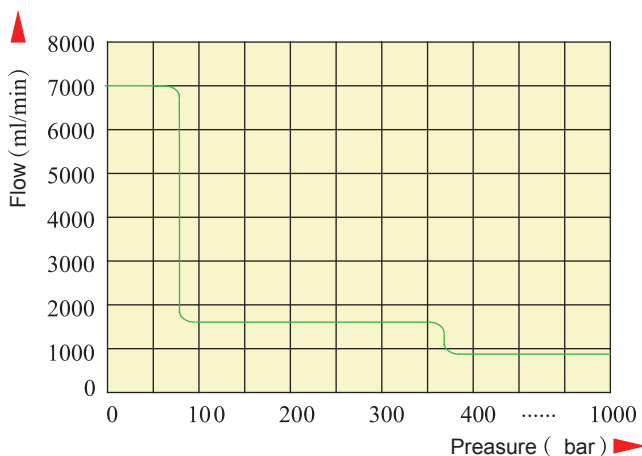
* Optional

Model: KLW4120

Parameter

Model	KLW4120-2	KLW4120-4
Operating wrench	2	4
Tank capacity	8L	8L
Flow(low-mid-High)	7-1.6-0.8 L/min	7-1.6-0.8 L/min
Out put pressure	70~700bar	70~700bar
Source of power	220V/50HZ	220V/50HZ
Power	1.1KW	1.1KW
Weight	27.7Kg	29.7Kg
Volume	299×445×446mm	299×465×446mm

Drawing of Flow Description for KLW4120



Hydraulic Torque Wrench Pump

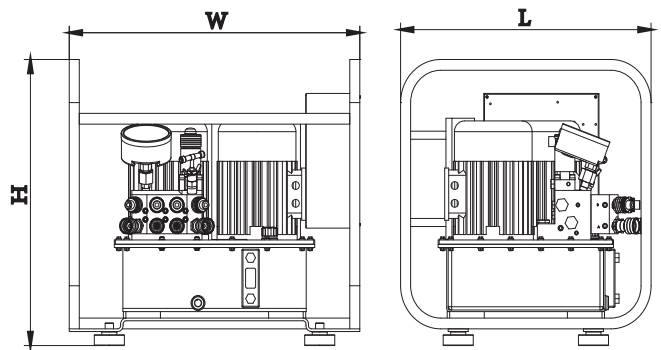
Double Engine High Speed Hydraulic Pump



- Compact automatic three stage flow, can start in high pressure
- Applicable on one or two wrenches simultaneously
- Aluminum oil tank with gauge
- Have $\Phi 100$ high pressure gauge
- Infinitely variable pressure adjustment between 70~700 bar
- With the high efficiency cooling system makes the pump suitable in extreme environment
- Optional components (FP4), can operate four wrenches at the same time

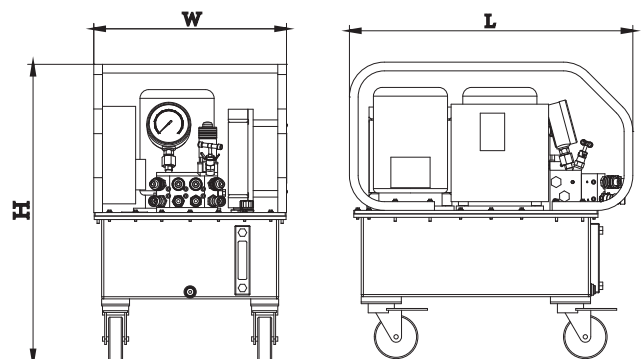
DHP 1.1KW x 2 (220v)

Model	DHP-220x4	DHP-220x8
Operating wrench	4	8
Work Pressure	700 bar	700 bar
Voltage/Frequency	220V / 50Hz	220V / 50Hz
Power	1.1 KW x 2	1.1 KW x 2
Tank capacity	13 L	13 L
Flow(low-mid-High)	14 - 3.2 - 1.6 L/min	14 - 3.2 - 1.6 L/min
Cooler	Yes	Yes
Weight	59.6	63.5
Output Port Size	8 x 1/4" NPT	16 x 1/4" NPT
Volume	500 x 580 x 531mm	500 x 620 x 531mm



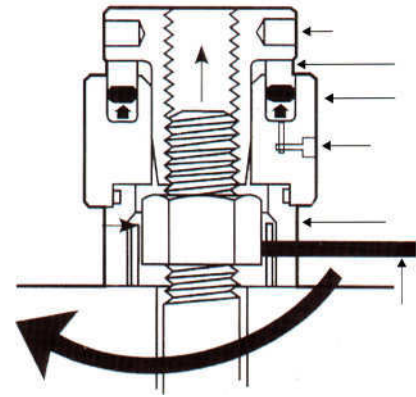
DHP 2.2KW x 2 (380v)

Model	DHP-380x4	DHP-380x8
Operating wrench	4	8
Work Pressure	700 bar	700 bar
Voltage/Frequency	380V / 50Hz	380V / 50Hz
Power	2.2 KW x 2	2.2 KW x 2
Tank capacity	40 L	40 L
Flow(low-mid-High)	20 - 8.2 - 2.8 L/min	20 - 8.2 - 2.8 L/min
Cooler	Yes	Yes
Weight	63.5	68.5
Output Port Size	8 x 1/4" NPT	16 x 1/4" NPT
Volume	650 x 442 x 680 mm	650 x 442 x 680 mm



Synchronous Tensioning System

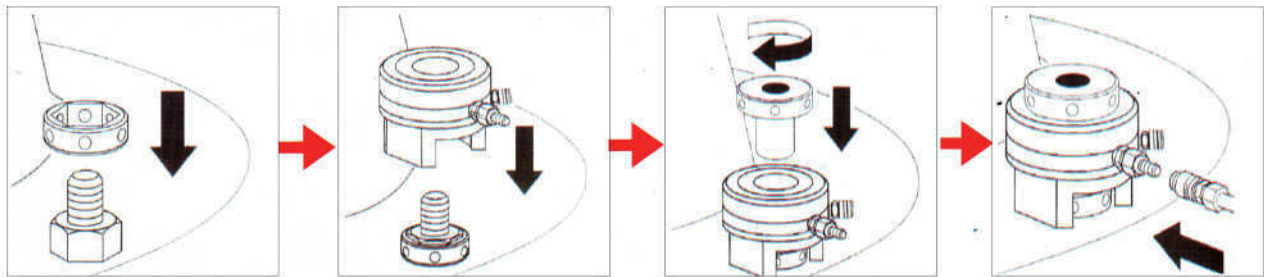
WREN bolt tensioner conforms to the technical standard, has been widely used in chemical industry, Power, steel, mechanics Military industry. WREN also providing customize production to suit all working condition, Any requirement, Please contact WREN Engineer.



Warranty: 12 months

Caution: Warranty is only available for WREN original product.

Assembling Drawing:



HTE series Multi-stage Cylinder

Aforesaid models are just the samples, WREN can make according to the requirement of customers.

- Multi-stage Cylinder Design, Increase the Tension Length
- Strong capacity with small outside diameter, it is suit for the operation at narrow space.
- Spring return, Protect for the stroke over the maximum value, it is suit for operation frequently.
- 700-1500bar operation pressure
- Operate by Super High Pressure Hand Pumps and Electrical Pump



Technical Data

Model	HTE30	HTE36	HTE39	HTE42	HTE48
Maximum Operation Pressure	1350bar	1350bar	1350bar	1350bar	1250bar
Maximum Output Capacity	465KN	678KN	915KN	915KN	1202KN
Maximum Stroke	7mm	10mm	10mm	10mm	7mm
Cylinder Effective Area	3448mm	5027mm	6830mm	6830mm	9621mm
Quantity of Cylinder Step	2	2	2	2	2
Outside Diameter	72mm	84.5mm	98.5mm	98.5mm	129mm
Bolt Size	M30X3.5	M36X4	M39X4	M42X4.5	M48X5

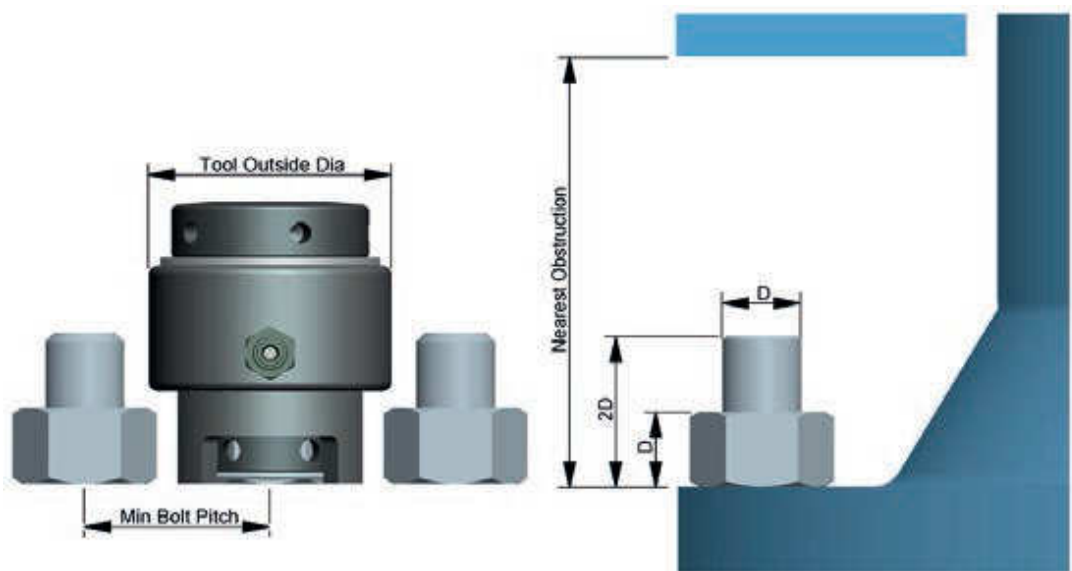


HSR BOLT TENSIONER
Spring Return Bolt Tensioner

- Unique quick release bridge adaptation
- Piston overstroke prevention
- Piston stroke indication
- Piston / cylinder misalignment compensation
- Bolt coverage from 1" to 3 1/2" with just 4 tools
- Designed to fit BS1560 / ANSI B16.5 / API flanges
- Fully enclosed load cell design eliminates entry of debris into piston retraction mechanism

The Spring Return design dramatically increases productivity and safety on the job site when compared to older technology manual return tensioners.

topside.



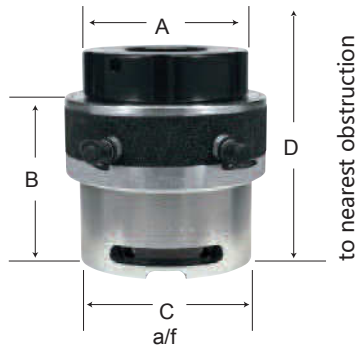
SPRING RETURN BOLT TENSIONER

Our spring return bolt tensioner reduces operator fatigue, saving time and improving safety and productivity.



Order a load cell and an adaptor kit to make a complete tensioner. each are sold separately.

Specifications and Dimensional Data



- Piston stroke - 10mm except for HS 0-8mm
- Max tool pressure - 21750psi(1500bar)
- Bolt protrusion above nut=1xbolt diameter
- "D" includes an allowance for tool removal after bolt tightening with 10mm tlls stroke
- Weight excludes puller sleeve
- Product development is constantly taking place and dimensions may change without notice

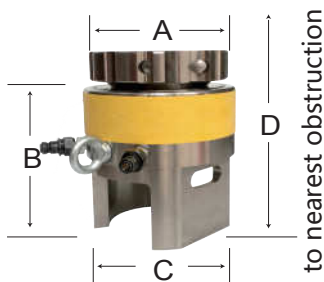
Load Cell	Stud Diameter	Stud	Tool Load		Hydraulic Area		A		B		C		D					
			Lbs	KN	in ²	mm ²	in	mm	in	mm	in	mm	Imp	Metric	in	mm		
HSR 0	3/4" 7/8"	M20	35500	160	1.65	1067	2.6	66	3.7	93	2.5	63	5.4	136	5.5	142		
		M22													5.6	142	5.6	144
		M24													6.9	175	6.9	175
HSR 1	1.1/8"	M27	61950	280	2.89	1867	3.4	87	4.6	117	2.7	68	7.1	181	7.0	178		
		M24													6.9	175	6.9	175
HSR 2	1.1/8" 1.3/8"	M24	99700	450	4.65	3001	4.1	103	4.6	117	3.0	75	6.9	175	7.0	178		
		M27													7.0	178	7.0	178
		M30													7.1	181	7.2	184
		M33													7.4	188	7.5	190
HSR 3	1.1/4" 1.1/2" 1.5/8"	M36	145950	660	6.82	4401	4.7	118	4.8	123	3.5	88	7.5	190	7.6	192		
		M33													7.6	192	7.6	192
		M36													7.8	197	7.8	198
		M39													8.0	203	8.0	204
HSR 4	1.1/2" 1.5/8" 1.3/4" 1.7/8" 2"	M42	223550	1000	10.34	6668	5.5	140.5	5.1	130	3.8	96	8.0	203	8.0	204		
		M42													8.2	209	8.3	211
		M45													8.3	211	8.4	212
		M42													8.5	217	8.6	218
		M48													8.8	223	8.9	225
HSR 5	2" 2.1/4" 2.1/2" 2.3/4" 2.3/4"	M52	331400	1500	15.50	10003	6.9	175.5	5.2	132	4.4	112	8.3	211	8.4	212		
		M56													8.5	217	8.6	218
		M60													8.8	223	8.9	225
		M64													9.1	230	9.1	231
		M68													9.3	236	9.3	236
		M72													9.7	246	9.8	248
HSR 6	3" 3.1/4" 3.1/2"	M76	553200	2500	25.84	16671	8.6	219	6.1	154	5.4	138	10.2	259	10.2	258		
		M80													10.2	259	10.3	262
		M85													10.7	272	10.8	273
		M90													11.2	284	11.1	283
		M90													11.6	294	11.7	297
HSR 7	3.1/2" 3.3/4" 4"	M95	708200	3200	33.06	21339	9.9	252	6.9	171	7.2	182	12.1	307	12.1	308		
		M80													12.1	307	12.1	308
		M85													12.6	320	12.7	323
		M90													13.1	332	13.2	334
HSR 7	3.1/2" 3.3/4" 4"	M90	708200	3200	33.06	21339	9.9	252	7.3	186	7.9	200	13.2	339	13.3	341		
		M95													13.2	339	13.3	341
		M100													13.7	352	13.9	356
HSR 7	3.3/4" 4"	M100	708200	3200	33.06	21339	9.9	252	7.6	192	7.9	200	13.7	352	13.9	356		
		M100													13.9	356	13.9	356
		M100													14.2	363	14.2	363

Our Subsea bolt tensioner incorporating the quick resction nut feature reduces diver fatigue,improving diver safety and productivity.



Used to twine super high pressure hose from 5 meter to 210 meter.

Specifications and Dimensional Data



- Piston stroke - 1.1/18inch(Except WST1 - 0.79inch)
- Max tool pressure - 21,750psi
- "D" includes an allowance for tool removal after bolt tightening with 30mm tool stroke
- Product development is constantly taking place and dimensions may change without notice

Tool Ref	Bolt Diameter		Tool Load KN	Hydraulic Area		'A' in/mm	'B' in/mm	'C' A/F in/mm	Minmum Bolt Protrusion (Above Nut)		'D' in/mm	Stroke in/mm
	Imperial	Metric		in ²	mm ²				in	mm		
WST1	3/4"	M20	141	1.96	943	2.60/66	3.82/97	1.89/48	4.09	107	8.98/228	0.79/20
	7/8"	M22							3.98	105		
WST2	1"	M24	237	2.45	1585	3.23/82	5.02/127.5	2.36/60	5.24	139	11.65/296	1.82/30
	1-1/8"	M27							5.12	136		
		M30								134		
WST3	1-1/4"	M33	379	3.92	2532	3.82/97	5.39/137	3.03/77	5.35	142	12.17/309	1.82/30
	1-3/8"	M36							5.24	139		
WST4	1-1/2"	M39	551	5.69	3676	4.37/111	5.75/146	3.54/90	5.51	147	12.68/322	1.82/30
	1-5/8"	M42							5.35	144		
WST5	1-3/4"	M45	880	9.10	5868	5.35/136	6.22/158	4.49/114	5.94	160	13.46/342	1.82/30
	1-7/8"	M48							5.83	158		
		2"							M52	5.71		
WST6	2-1/4"	M56	1564	16.17	10433	6.97/177	7.11/180.5	5.51/140	6.54	178	14.72/374	1.82/30
	2-1/2"	M60							6.30	175		
	2-3/4"	M64							6.08	172		
		M68								169		
		M70								165		
WST7	3"	M76	2419	26.63	16128	8.54/217	7.95/202	7.09/180	7.13	195	15.10/409	1.82/30
	3-1/4"	M80							6.89	192		
		M85							6.65	188		
		M90								184		

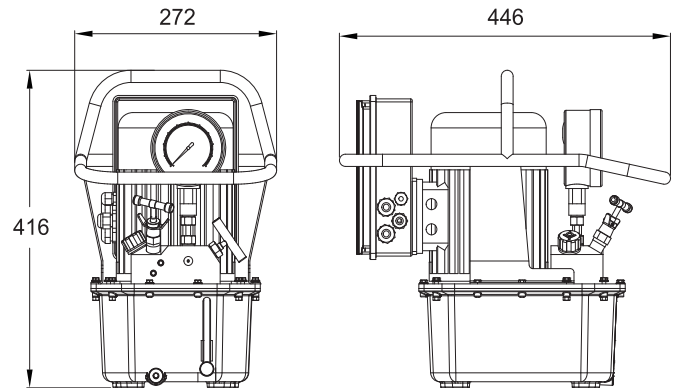
HNSP series Super High Pressure Electrical Pump

- Single-Acting high performance
- Can be used for bolt tensioning and other HP equipments in shipping vessel & wind power industry
- Convenient adjustable pressure regulator with a high precision pressure gauge
- Easy to adjust the pressure in the range of 700~3000 bar
- Simple and quick operation with the high performance quick connect couplings
- Very user friendly for site work due to its light weight compact design

Parameter

Model	HNSP06BZT15-16	HNSP06BZT15-20	HNSP06BZT15-30
Voltage/Frequency	220V/50HZ	220V/50HZ	220V/50HZ
Tank capacity	5.5L	5.5L	5.5L
Flow(low-High)	5.4-0.15L/min	5.4-0.15L/min	5.4-0.15L/min
Max Output Pressure	1600bar	2000bar	3000bar
Output Port Size	1/4"BSP	1/4"BSP	1/4"BSP
Power	1.1KW	1.1KW	1.1KW
Weight	24KG	24KG	24KG

BH series Hydraulic Hose	BH84 series	BH94 series
Maximum Operation Pressure /Safety Parameter	1800bar/2.5	2800bar/2.5
Inside Diameter	5.0X11.2	5.0X13.4
Outside Diameter		
Minimum Bending Radius	150	200
Available Quick Coupler	C116	C125



SHNSP series Super High Pressure Air Pump






Parameter

Model	SHNSP06BZQ5-16	SHNSP06BZQ5-20
Tank capacity	5.5L	5.5L
Flow(low-High)	5.4-1.5 L/min	5.4-1.5 L/min
Max Output pressure	1600 bar	2000 bar
Air in	4~8 bar	4~8 bar
Power	1.5 HP	1.5 HP
Weight	20KG	20KG
Volume	272x416x446mm	272x416x446mm

- Single-Acting high performance
- Can be used for bolt tensioning and other HP equipments in shipping vessel & wind power industry
- Convenient adjustable pressure regulator with a high precision pressure gauge
- Easy to adjust the pressure in the range of 700~2000 bar
- Simple and quick operation with the high performance quick connect couplings
- Very user friendly for site work due to its light weight compact design



- ▲ Four layers nylon design. Two layers of high strength steel wire braids and plastic coating.
- ▲ Twins hoses supplied for Hydraulic Torque Wrench.
- ▲ Used in strict occasion, 4:1 design factor.
- ▲ Light weight, small size and high bending radius.
- ▲ Exhibits low volumetric expansion under pressure.

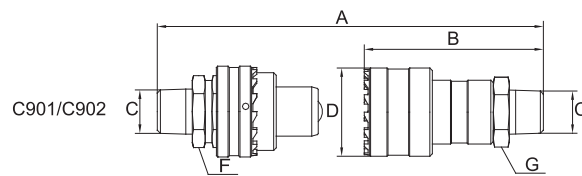
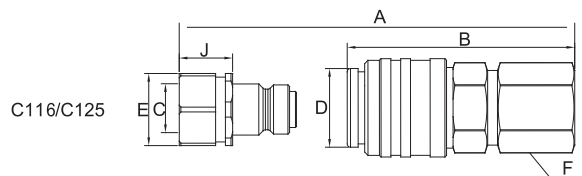
Model & photograph		max operating pressure (bar)	hose end		Type	hose length (M)
			end one	end two		
2JH64Series twin hydraulic hose		720	1/4"NPT	1/4"NPT	2JH6445-1	4.5
					2JH6460-1	6
					2JH6490-1	9
					2JH64100-1	10
JH74 Series hydraulic hose		720	1/4"NPT	1/4"NPT	JH7445	4.5
					JH7460	6
					JH7490	9
					JH74100	10
JH78 Series hydraulic hose		1000	3/8"NPT	3/8"NPT	JH7818	1.8
					JH7845	4.5
					JH7890	9
					JH78120	12
BH84 Series superhigh pressure hydraulic hose		1800	1/4"BSP	1/4"BSP	BH8420	2
					BH8460	6
					BH8490	9
					BH84120	12
BH94 Series superhigh pressure hydraulic hose		2500	1/4"BSP	1/4"BSP	BH9430	3
					BH9460	6
					BH9490	9

Above are the standard length, can be customized according to customer requirements of various length

C series Quick Coupler

Model & photograph	Max Operating Pressure	Male half	Femal half	connecting	Dimensions							
					A	B	C	D	E	F	G	J
C901	700bar	C9014	C9013	Spiral lock	97	61	1/4"NPT	29		22	22	
					97	61	1/4"NPT	29		22	22	
C902	700bar	C9022	C9021	Spiral lock	108	71	3/8"NPT	35		24	24	
					108	71	3/8"NPT	35		24	24	
C116	1500bar	C1162	C1161	Card set	81		1/4"BSP		27.5			18.5
					81	61.5	1/4"BSP	28		24		
C125	2000bar	C1252	C1251	Card set	82		1/4"BSP		27.5			17.7
					82	64.5	1/4"BSP	30		24		

C Series Quick Coupler Dimension



- ▲ 3/8"NPT high flow couplers,.
- ▲ It is standard component on most WREN cylinders.
- ▲ featuring 'push-to-connect' operation.
- ▲ 1/4" regular coupler.

SI* CONVERSION FORMULAS

APPROXIMATE CONVERSION

MULTIPLY	BY	TO GET OR MULTIPLY	TO GET
SI* UNIT	CONY FACTOR	NON-SI UNIT	SI* UNIT
LENGTH			
millimeter (mm) (1 inch = 25.4 mm exactly)	X 0.03937	= inch	X 25.4 = mm
centimeter (cm) 10 mm	X 0.3937	= inch	X 2.54 = cm
meter (m) 1000 mm	X 3.28	= foot	X 0.305 = m
meter (m)	X 1.09	= yard	X 0.914 = m
kilometer (km) 1000 m	X 0.62	= mile	X 1.61 = km
AREA			
millimeter ² (mm ²)	X 0.00155	= inch ²	X 645 = mm ²
centimeter (cm ²)	X 0.155	= inch ²	X 6.45 = cm ²
meter (m ²)	X 10.8	= foot ²	X 0.0929 = m ²
meter (m ²)	X 1.2	= yard ²	X 0.836 = m ²
hectare (ha) 10,000 m ²	X 2.47	= acre	X 0.405 = ha
kilometer (km ²)	X 0.39	= mile ²	X 2.59 = km ²
VOLUME			
centimeter ³ (cm ³)	X 0.061	= inch ³	X 16.4 = cm ³
liter (l)	X 61	= inch ³	X 0.016 = l
milliliter (ml) (1 ml= 1 cm ³)	X 0.034	= oz-liq	X 29.6 = ml
liter (l) 1000 ml	X 1.06	= quart	X 0.946 = l
liter (l)	X 0.26	= gallon	X 3.79 = l
meter ³ (m ³) 1000 l	X 1.3	= yard ³	X 0.76 = m ³
MASS			
gram (g)	X 0.035	= ounce	X 28.3 = g
kilogram (kg) 1000 g	X 2.2	= pound	X 0.454 = kg
metric ton (t) 1000 kg	X 1.1	= ton (short)	X 0.907 = t

APPROXIMATE CONVERSION

MULTIPLY	BY	TO GET OR MULTIPLY	TO GET
SI* UNIT	CONY FACTOR	NON-SI UNIT	SI* UNIT
FORCE (N = kg · m/s²)			
newton (N)	X 0.225	= pound	X 4.45 = N
kilonewton (kN)	X 225	= pound	X 0.00445 = kN
TORQUE			
newton meter (N·m)	X 8.9	= lb. in.	X 0.113 = N·m
newton meter (N·m)	X 0.74	= lb. ft.	X 1.36 = N·m
PRESSURE (Pa = N/m²)			
kilopascal (kPa)	X 4.0	= in. H ₂ O	X 0.249 = kPa
kilopascal (kPa)	X 0.30	= in. Hg	X 3.38 = kPa
kilopascal (kPa)	X 0.145	= p.s.i.	X 6.89 = kPa
megapascal (MPa)	X 145	= p.s.i.	X 0.00689 = MPa
Bar	X 14.5	= p.s.i.	X 0.0689 = Bar
POWER (W = J/s)			
kilowatt (kw)	X 1.34	= hp	X 0.746 = kw
kilowatt (kw)	X 0.948	= Btu/s	X 1.055 = kw
watt (w)	X 0.74	= ft. lb/s	X 1.36 = w
TEMPERATURE			
°C = (°F - 32) ÷ 1.8	°F = (°C X 1.8) + 32		
FLOW			
cu. cm./min. cm./min.	X 0.061	= cu. in./min.	X 16.4 = cu. cm./min.
liters/min.	X 0.2642	= GPM	X 3.785 = liters/min.

*System international (Modern Metric System)



WREN HEADQUARTER
CHINA ZHEJIANG HANGZHOU



We are the manufacturer for hydraulic wrench in world

Since 1992

Welcome to visit WREN official website: www.wrenchina.com

WREN retained on product design and specification changes and improvement
without prior notice to power, these changes will list in future publications