

# TWSQ SERIES

## Square Drive Hydraulic Torque Wrenches



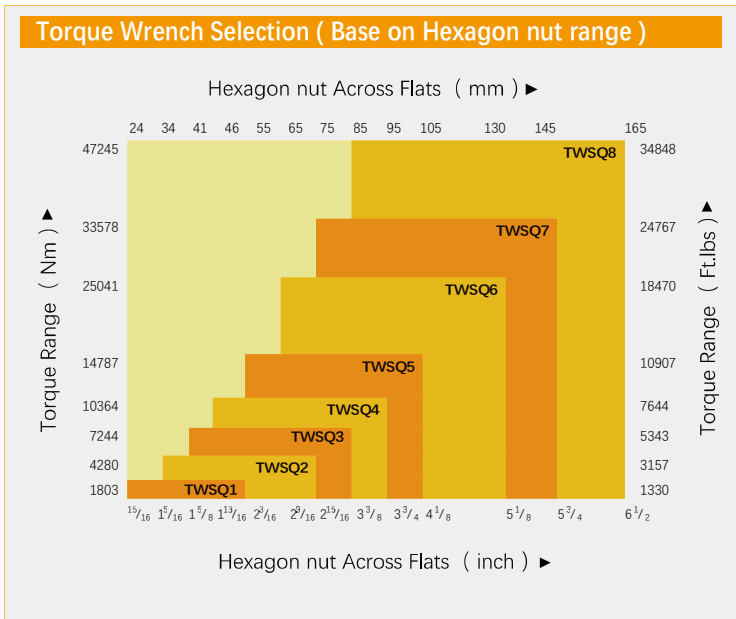
### Features

- Compact, optimized design to have maximum strength-to-weight ratio.
- Durable , high-strength, light weight aircraft alloy body construction.
- 360° reaction arm, Dual rotation direction ( 360°X-axis \* 180°Y-axis ) hydraulic swivel manifold, connect with screw quick couplings.
- Designed for high cycle life: 2-3x more than existing technology.
- Accurate anti-reverse pawl improves the preload accuracy, and easy to be released.
- Consistent torque value output with accuracy up-to  $\pm 3\%$
- High speed, double-acting operation.
- Oxidation treatment provide excellent corrosion protection and durability in harsh environment.

### How to Choose Square Drive Hydraulic Torque Wrench

- Find the nut sizes range for your application.
- Choose the appropriate models to match your needs of torque value and nut sizes.
- Add impact sockets for additional nut sizes.





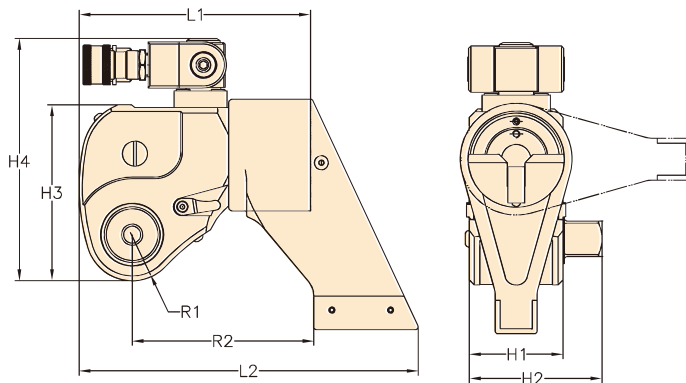
- Maximum Torque: 34848 Ft.lbs
- Square Drive Range: 3/4 - 2 1/2 inch
- Nose Radius: 0.98-3.00 inch
- Maximum Operating Pressure: 10,000 psi

### Principle of Torque Wrenches Selecting

Please refer to the bolt torque recommendation form. See " How to Select Hydraulic Torque Wrench " for details.

### Select the Right Torque

Choose your AIPI Torque Wrench using the untightening rule of thumb: Loosening torque equals about 250% of tightening torque.



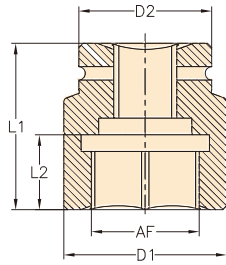
### Torque Wrench Pumps

Air and electric torque wrench pumps that are idea for use with hydraulic torque wrenches.

Torque Range		Square Drive Size	Hexagon Nut Across Flats	Torque Wrench Model Number	Weight	Dimensions							
Ft.lbs	Nm	inch	inch		lbs	L1	L2	H1	H2	H3	H4	R1	R2
						inch							
133-1330	180-1803	3/4	1 5/16 - 2 3/16	TWSQ1	6	5.12	7.24	2.00	2.83	3.82	5.70	0.98	3.82
316-3157	428-4280	1	1 5/16 - 2 15/16	TWSQ2	11	6.60	9.57	2.64	3.74	4.96	6.85	1.30	5.12
534-5343	724-7244	1 1/2	1 5/8 - 3 3/8	TWSQ3	19	7.87	11.30	3.07	4.80	5.98	7.83	1.54	6.10
764-7644	1036-10364	1 1/2	1 13/16 - 3 3/4	TWSQ4	25	8.40	12.13	3.54	5.24	6.65	8.50	1.80	6.70
1091-10907	1479-14787	1 1/2	2 3/16 - 4 1/8	TWSQ5	34	9.60	13.86	3.94	5.60	7.44	9.30	1.97	7.60
1847-18470	2504-25041	2 1/2	2 9/16 - 5 1/8	TWSQ6	59	11.18	16.26	4.72	7.20	8.78	10.63	2.32	8.82
2477-24767	3358-33578	2 1/2	2 15/16 - 5 3/4	TWSQ7	82	12.36	18.00	5.30	7.87	9.84	11.65	2.60	9.84
3485-34848	4725-47245	2 1/2	3 3/8 - 6 1/2	TWSQ8	118	14.10	20.35	6.02	8.45	11.30	13.07	3.00	10.63

The above table helps to choose the right models of tools with the size ranges of the square drive impact sockets.

# Impact Sockets for Square Drive Hydraulic Torque Wrench



## Features

- High-strength chromium-molybdenum steel alloy.
- Special sizes available upon request.

3/4" Square Drive (TWSQ1)					
Socket Model	Hexagon (AF)	L1	L2	D1	D2
	inch	inch			
IS075-0938	15/16	2.13	1.26	1.57	1.57
IS075-27	1 1/16	2.13	1.26	1.65	1.65
IS075-30	1 3/16	2.13	1.30	1.81	1.73
IS075-1313	1 5/16	2.13	1.26	1.89	1.73
IS075-1438	1 7/16	2.24	1.26	2.09	1.73
IS075-1625	1 5/8	2.28	1.30	2.36	1.73
IS075-46	1 13/16	2.48	1.50	2.60	1.73
IS075-2000	2	2.56	1.57	2.80	1.73
IS075-2188	2 3/16	2.76	1.77	3.03	2.13

1" Square Drive (TWSQ2)					
Socket Model	Hexagon (AF)	L1	L2	D1	D2
	inch	inch			
IS100-30	1 3/16	2.32	1.26	2.13	2.13
IS100-1313	1 5/16	2.32	1.26	2.28	2.28
IS100-1438	1 7/16	2.44	1.26	2.32	2.32
IS100-1625	1 5/8	2.56	1.50	2.64	2.13
IS100-46	1 13/16	2.56	1.50	2.91	2.13
IS100-2000	2	2.76	1.69	3.11	2.36
IS100-2188	2 3/16	3.15	2.05	3.31	2.36
IS100-2375	2 3/8	3.35	2.24	3.50	2.36
IS100-65	2 9/16	3.35	2.28	3.86	2.76
IS100-70	2 3/4	3.54	2.44	4.09	2.76
IS100-75	2 15/16	3.74	2.56	4.25	2.76

1 1/2" Square Drive (TWSQ3, TWSQ4, TWSQ5)					
Socket Model	Hexagon (AF)	L1	L2	D1	D2
	inch	inch			
IS150-1625	1 5/8	3.35	1.73	2.91	2.91
IS150-46	1 13/16	3.35	1.73	2.91	2.91
IS150-2000	2	3.54	1.77	3.11	3.11
IS150-2188	2 3/16	3.54	1.77	3.31	3.31
IS150-2375	2 3/8	3.94	1.77	3.70	3.70
IS150-65	2 9/16	3.94	1.77	3.86	3.15
IS150-70	2 3/4	4.13	1.97	4.09	3.15
IS150-75	2 15/16	4.33	1.97	4.65	3.35
IS150-3125	3 1/8	4.53	2.17	4.65	3.54
IS150-3313	3 5/16	4.92	2.36	5.04	3.54
IS150-3375	3 3/8	4.92	2.36	5.04	3.54
IS150-3500	3 1/2	4.92	2.36	5.47	3.54
IS150-3688	3 11/16	5.12	2.56	5.47	3.54
IS150-95	3 3/4	5.12	2.56	5.47	3.54
IS150-3875	3 7/8	5.31	2.76	5.67	3.54
IS150-100	3 15/16	5.31	2.76	5.67	3.54
IS150-105	4 1/8	5.31	2.76	5.87	3.54
IS150-4250	4 1/4	5.31	2.76	6.22	3.54
IS150-110	4 5/16	5.31	2.76	6.22	3.54
IS150-4500	4 1/2	5.31	2.76	6.26	3.54
IS150-4625	4 5/8	5.31	2.76	6.61	3.74
IS150-4750	4 3/4	5.31	2.76	6.61	3.74
IS150-5000	5	6.10	3.66	7.44	3.74
IS150-5125	5 1/8	6.10	3.66	7.44	3.74

2 1/2" Square Drive (TWSQ6, TWSQ7, TWSQ8)					
Socket Model	Hexagon (AF)	L1	L2	D1	D2
	inch	inch			
IS250-65	2 9/16	3.94	2.05	4.69	4.69
IS250-70	2 3/4	4.72	2.64	5.04	5.04
IS250-75	2 15/16	4.72	2.64	5.04	5.04
IS250-3125	3 1/8	5.12	2.80	5.04	5.04
IS250-3313	3 5/16	5.12	2.80	5.08	5.08
IS250-3375	3 3/8	5.12	2.80	5.08	5.08
IS250-3500	3 1/2	5.51	2.87	5.47	5.47
IS250-3688	3 11/16	5.51	2.87	5.47	5.47
IS250-95	3 3/4	5.51	2.87	5.47	5.47
IS250-3875	3 7/8	5.51	3.19	5.83	5.12
IS250-100	3 15/16	5.51	3.19	5.83	5.12
IS250-105	4 1/8	5.91	3.50	5.87	5.12
IS250-4250	4 1/4	5.91	3.54	6.22	5.12
IS250-110	4 5/16	5.91	3.54	6.22	5.12
IS250-4500	4 1/2	5.91	3.86	6.61	5.12
IS250-4625	4 5/8	5.91	3.86	7.01	5.12
IS250-4750	4 3/4	5.91	3.86	7.01	5.12
IS250-5000	5	6.69	3.86	7.40	5.12
IS250-5125	5 1/8	6.69	3.86	7.40	5.12
IS250-5375	5 3/8	6.69	4.49	7.80	5.12
IS250-5500	5 1/2	6.69	4.80	8.27	5.98
IS250-5750	5 3/4	6.69	4.80	8.27	5.98
IS250-5875	5 7/8	7.48	5.51	8.50	5.98
IS250-6125	6 1/8	7.48	5.51	9.02	5.98
IS250-165	6 1/2	7.48	5.51	9.49	5.98