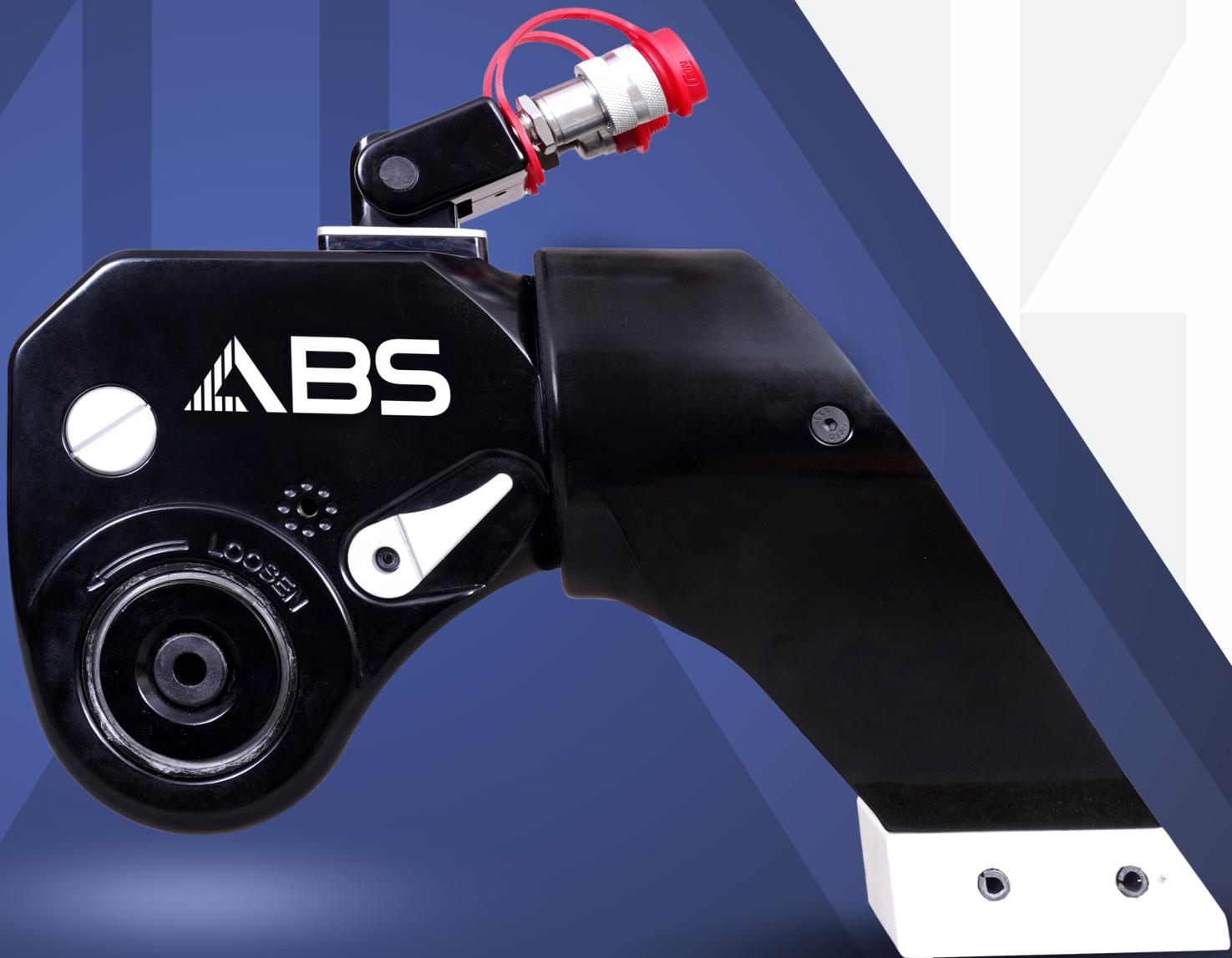


 **ABS**



**ENGINEERED FOR
PERFORMANCE**

OUR STORY BEGAN WITH A VISION

With near to 3 decades of rich experience in the hydraulic bolting tools industry, **ABS** has evolved from an importer to an innovation-driven organization dedicated to design and manufacturing excellence. Our vision is to provide world-class tools at affordable prices, without compromising on quality—rather, improving upon existing standards through innovation, precision, and relentless pursuit of excellence.

In alignment with the Make in India vision, **ABS** established a state-of-the-art in-house design and

manufacturing facility equipped with advanced CNC and VMC machines. By blending mechanical engineering expertise with cutting-edge electronic integration, we have embraced Industry 4.0 standards—embedding documentation, traceability, and recordability features into our tools.

At **ABS**, we are shaping the future of intelligent bolting solutions—driven by experience, powered by innovation, and defined by quality, trust, and value.



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CNX SERIES

HYDRAULIC TORQUE WRENCH

ABS CNX - Square Drive Torque Wrenches: Precision Power for the Toughest Bolting Jobs.

Engineered to excel, the **ABS CNX series** delivers **precision torque** during bolt tightening and **maximum breakaway power** for the toughest bolt break-out challenges. Their compact design is specifically optimized for use in applications with **tight radial clearances**. Constructed from lightweight, aircraft-grade **Aluminum** and **high-strength steel alloys**, these wrenches are built for **unmatched durability**, minimal weight, and the endurance to withstand long bolting cycles and continuous heavy wear.



TORQUE RANGE **118-88510 ft.lbs.**

160-120000 Nm



One-Way Ratcheting Mechanism

Provides efficient fastening and accuracy.



Ratchet Freeing Mechanism

Ensures quick release of tool from the job without getting stuck



Multi-Axis 360°-180° Swivel

Offers unmatched versatility and access in confined spaces.



Coarse teeth Ratchet

Ensure high durability and accuracy



ATEX & CE certified

ATEX & CE certified for global safety compliance

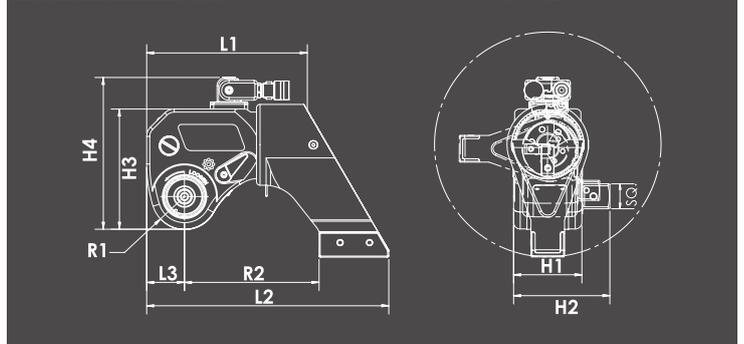
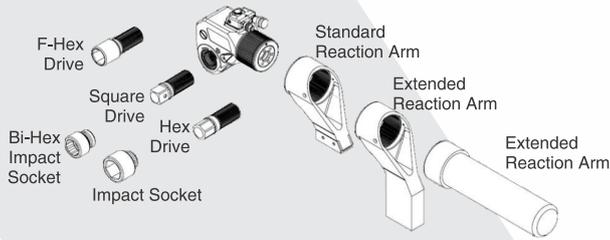


Torque Accuracy

Delivers precision torque with $\pm 3\%$ accuracy

CNX SERIES

HYDRAULIC TORQUE WRENCH



MODEL	L1 (inch/ mm)	L2 (inch/ mm)	L3 (inch/ mm)	H1 (inch/ mm)	H2 (inch/ mm)	H3 (inch/ mm)	H4 (inch/ mm)	R1 (inch/ mm)	R2 (inch/ mm)	DRIVE SIZE	WEIGHT (lbs/ kg)	TORQUE (ft.lbs./Nm)	
												MIN.	MAX.
CNX-01	3.94 100.3	5.96 151.6	0.9 23	1.62 41.2	2.47 62.9	2.95 75	4.3 109.4	0.8 20.5	3.30 84	3/4"	4.41 2	118 160	822 1114
CNX-02	4.9 124	7.3 186.5	1.1 28.8	2.0 51.6	2.9 72.6	3.7 93.3	4.9 124.4	1.0 25	4.1 104.3	3/4"	4.41 2	200 271	1339 1816
CNX-04	6.4 161.9	9.7 245.5	1.5 39.1	2.7 68.8	3.7 94.4	4.8 121.2	6.4 162.1	1.3 33.3	5.3 135.2	1"	10.36 4.7	479 650	3228 4377
CNX-07	7.7 195.8	11.7 296.1	1.9 48.5	3.3 82.6	5.0 126.9	5.7 143.7	7.3 185.1	1.6 39.9	6.4 161.6	1-1/2"	18.08 8.2	834 1131	5587 7575
CNX-11	7.7 195.6	12.6 319.3	2.2 55.2	3.6" 90.7	5.1 129.3	6.5 165.1	8.5 215.9	1.7 44.7	6.9 176.8	1-1/2"	24.91 11.3	1200 1627	8000 10846
CNX-15	9.6 243	14.4 366.2	2.3 57.2	4.1 103.3	5.7 145.7	7.2 183.2	9.1 231.4	2.0 49.8	8.0 203.5	1-1/2"	33.07 15	1754 2378	11513 15610
CNX-20	10.54 267.8	15.5 392.9	2.5 63.3	4.4 113	7.1 180.6	8.1 206	10.2 258.7	2.2 55.5	8.8 223.8	2-1/2"	44.53 16.4	2012 2728	14082 19093
CNX-30	11.4 289.8	17.3 438.7	2.7 68.8	4.7 120.1	7.1 180.3	8.8 223	10.2 260.1	2.4 59.9	9.6 243.3	2-1/2"	43.43 19.7	2958 4011	19748 26775
CNX-35	11.8 299.7	18.5 470.4	3.1 78.4	5.2 133.3	7.5 190	9.6 243.8	11.5 292.1	2.6 66.0	10.2 260.3	2-1/2"	68.56 31.1	3883 5265	25890 35102
CNX-50	14.0 356.3	21.2 539.2	3.3 84.6	5.8 147.8	8.3 211.3	10.8 274.1	12.4 313.9	2.9 73.7	11.7 298.2	2-1/2"	77.60 35.2	5397 7317	37078 50271
CNX-72	15.5 393.7	23 584	3.7 94	6.6 166.9	9.4 237.7	11.0 279.4	12.8 325.1	3.3 82.6	12.8 325.6	2-1/2"	124.34 56.4	7875 10677	59995 81338
CNX-120	20.0 509	19.5 496	5.2 132	7.5 190	9.7 247	15.0 383	16.8 429	4.7 119	14.8 377	3-1/2"	280.5 127.5	11965 16213	88510 120000

*Minimum and maximum torque output data may vary.

CNZ SERIES

HYDRAULIC TORQUE WRENCH

ABS CNZ Series: The Ultimate Low-Profile Torque Wrench

When the job demands full power in a fraction of the space, turn to the **ABS CNZ**. Engineered for the most space-restricted bolting tasks, the sleek, ultra-compact design delivers unmatched accessibility.

The **CNZ series** effortlessly slips into applications with tight overhead clearances, providing precision torque for tightening and maximum breakaway power for the toughest bolt break-out challenges.

Constructed for relentless performance, the wrench features lightweight, aircraft-grade Aluminum and high-strength steel alloys. This premium build ensures unmatched durability, minimal tool weight, and the endurance to conquer long bolting cycles and continuous heavy wear.



TORQUE RANGE 74-59120 ft.lbs.
100-80150 Nm

Secondary Pawl for Faster Tightening

Tighten bolts with blazing speed thanks to the secondary pawl that accelerates tightening cycles while simultaneously preventing unwanted rollback, ensuring both efficiency and reliability.

360° x 360° Hose Uniswivel

Experience unmatched maneuverability with the 360° x 360° hose uniswivel, granting you the freedom to reach any angle without compromising control.

Ratchet Freeing Mechanism

Ensures quick release of tool from the job without getting stuck

Multipurpose Accessories

Enhance your versatility with a range of multipurpose accessories(not included) that cater to your specific bolting needs.

ATEX & CE certified

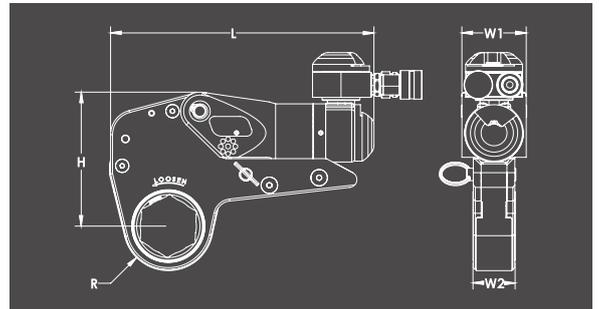
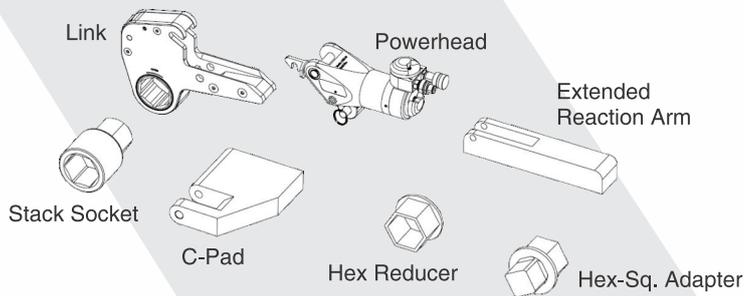
ATEX & CE certified for global safety compliance

Torque Accuracy

Delivers precision torque with $\pm 3\%$ accuracy

CNZ SERIES

HYDRAULIC TORQUE WRENCH



MODEL	H (inch/ mm)	W1 (inch/ mm)	W2 (inch/ mm)	L (inch/ mm)	R (inch/ mm)	HEX (inch/mm)	WEIGHT (lbs/kg) (Without Link)	TORQUE (ft.lbs./Nm)	
								MIN.	MAX.
CNZ-01	3.36 85.5	1.50 38.3	1.10 28	6.28 159.7	0.80 20.38	3/4" - 1 5/8" 19-41	1.8 0.8	74 100	723 980
CNZ-02	4.02 102.1	1.97 50	1.25 31.8	7.5 190.4	0.95 - 1.79 24.1 - 45.5	3/4" - 2 3/8" 19 - 60	1.98 0.9	243 329	1686 2286
CNZ-05	5.37 136.4	2.59 65.8	1.67 42.4	10.16 266	1.30 - 2.30 34 - 58.9	1 5/16" - 3 1/8" 34 - 80	4.41 2	580 786	3853 5224
CNZ-10	6.7 170.3	3.23 82.15	2.09 53	12.29 312.1	1.78 - 2.90 45 - 73.9	2" - 3 7/8" 50 - 100	7.50 3.4	1142 1549	8146 11045
CNZ-18	8.04 204.1	3.87 98.4	2.49 63.2	14.66 372.4	2.31 - 3.48 58.9 - 88.4	2 3/4" - 4 5/8" 70 - 120	12.13 5.5	2009 2724	13392 18157
CNZ-25	9.09 231	4.41 112	2.83 72	16.57 421	2.47 - 4.21 62.8 - 107	2 3/4" - 5 3/4" 70 - 145	14.85 6.7	2790 3780	19100 25881
CNZ-42	10.71 272.1	5.18 131.5	3.33 84.6	19.46 494.25	3.03 - 4.72 77 - 120	3 1/2" - 6 1/2" 90 - 165	24.03 10.9	4577 6205	30967 41986
CNZ-80	13.39 340.1	6.46 164.1	4.16 105.8	21.14 573	4.26 - 5.79 108 - 147	4-5/8" - 7-1/2" 120 - 190	48 21.7	8887 12020	59120 80150

*Minimum and maximum torque output data may vary.

CNZ LINK SELECTION

- Cassette links with precision ratcheting mechanism compatible with CNZ Power Heads.
- Multiple cassette link options available for each Power Head in both INCH and METRIC sizes, ensuring versatile application.
- Designed for enhanced reliability, accuracy, and ease of use, enabling smooth operations even in confined areas.

HYDRAULIC TORQUE WRENCH

CNZ-02	HEX SIZE	
	IMPERIAL	METRIC
ZL-02-19	3/4"	19mm
ZL-02-20	13/16"	-
ZL-02-21	-	21mm
ZL-02-22	7/8"	22mm
ZL-02-23	15/16"	-
ZL-02-24	-	24mm
ZL-02-25	1"	-
ZL-02-27	1-1/16"	27mm
ZL-02-28	1-1/8"	-
ZL-02-30	1-3/16"	30mm
ZL-02-31	1-1/4"	-
ZL-02-32	-	32mm
ZL-02-33	1-5/16"	-
ZL-02-34	-	34mm
ZL-02-35	1-3/8"	35mm
ZL-02-36	-	36mm
ZL-02-37	1-7/16"	-
ZL-02-38	1-1/2"	38mm
ZL-02-39	1-9/16"	-
ZL-02-41	1-5/8"	41mm
ZL-02-42	1-11/16"	-
ZL-02-44	1-3/4"	-
ZL-02-46	1-13/16"	46mm
ZL-02-47	1-7/8"	-
ZL-02-49	1-15/16"	49mm
ZL-02-50	-	50mm
ZL-02-51	2"	-
ZL-02-52	2-1/16"	-
ZL-02-54	2-1/8"	-
ZL-02-55	2-3/16"	55mm
ZL-02-57	2-1/4"	-
ZL-02-59	2-5/16"	-
ZL-02-60	2-3/8"	60mm

CNZ-05	HEX SIZE	
	IMPERIAL	METRIC
ZL-05-33	1-5/16"	-
ZL-05-34	-	34mm
ZL-05-35	1-3/8"	-
ZL-05-36	-	36mm
ZL-05-37	1-7/16"	-
ZL-05-38	1-1/2"	38mm
ZL-05-39	1-9/16"	-
ZL-05-41	1-5/8"	41mm
ZL-05-42	1-11/16"	-
ZL-05-44	1-3/4"	-
ZL-05-46	1-13/16"	46mm
ZL-05-47	1-7/8"	-
ZL-05-49	1-15/16"	49mm
ZL-05-50	-	50mm
ZL-05-51	2"	-
ZL-05-52	2-1/16"	-
ZL-05-53	2-1/8"	-
ZL-05-55	2-3/16"	55mm
ZL-05-57	2-1/4"	-
ZL-05-58	2-5/16"	-
ZL-05-60	2-3/8"	60mm
ZL-05-61	2-7/16"	-
ZL-05-63	2-1/2"	-
ZL-05-65	2-9/16"	65mm
ZL-05-66	2-5/8"	-
ZL-05-68	2-11/16"	-
ZL-05-70	2-3/4"	70mm
ZL-05-71	2-13/16"	-
ZL-05-73	2-7/8"	-
ZL-05-75	2-15/16"	75mm
ZL-05-76	3"	-
ZL-05-77	3-1/16"	-
ZL-05-79	3-1/8"	-
ZL-05-80	-	80mm



CNZ LINK SELECTION

HYDRAULIC TORQUE WRENCH

CNZ-10	HEX SIZE	
	IMPERIAL	METRIC
ZL-10-41	1-5/8"	41mm
ZL-10-42	1-11/16"	-
ZL-10-44	1-3/4"	-
ZL-10-46	1-13/16"	46mm
ZL-10-47	1-7/8"	-
ZL-10-49	1-15/16"	49mm
ZL-10-50	-	50mm
ZL-10-51	2"	-
ZL-10-52	2-1/16"	-
ZL-10-54	2-1/8"	-
ZL-10-55	2-3/16"	55mm
ZL-10-57	2-1/4"	-
ZL-10-58	2-5/16"	-
ZL-10-60	2-3/8"	60mm
ZL-10-61	2-7/16"	-
ZL-10-63	2-1/2"	-
ZL-10-65	2-9/16"	65mm
ZL-10-66	2-5/8"	-
ZL-10-68	2-11/16"	-
ZL-10-70	2-3/4"	70mm
ZL-10-71	2-13/16"	-
ZL-10-73	2-7/8"	-
ZL-10-75	2-15/16"	75mm
ZL-10-76	3"	-
ZL-10-77	3-1/16"	-
ZL-10-79	3-1/8"	-
ZL-10-80	-	80mm
ZL-10-81	3-3/16"	-
ZL-10-82	3-1/4"	-
ZL-10-84	3-5/16"	-
ZL-10-85	-	85mm
ZL-10-86	3-3/8"	-
ZL-10-87	3-7/16"	-
ZL-10-88	3-1/2"	-
ZL-10-90	-	90mm
ZL-10-91	3-9/16"	-
ZL-10-92	3-5/8"	-
ZL-10-93	3-11/16"	-
ZL-10-95	3-3/4"	95mm
ZL-10-96	3-13/16"	-
ZL-10-98	3-7/8"	-
ZL-10-100	3-15/16"	100mm
ZL-10-101	4"	-
ZL-10-103	4-1/16"	-
ZL-10-105	4-1/8"	105mm

CNZ-18	HEX SIZE	
	IMPERIAL	METRIC
ZL-18-50	-	50mm
ZL-18-51	2"	-
ZL-18-52	2-1/16"	-
ZL-18-53	2-1/8"	-
ZL-18-55	2-3/16"	55mm
ZL-18-57	2-1/4"	-
ZL-18-58	2-5/16"	-
ZL-18-60	2-3/8"	60mm
ZL-18-62	2-7/16"	-
ZL-18-63	2-1/2"	-
ZL-18-65	2-9/16"	65mm
ZL-18-66	2-5/8"	-
ZL-18-68	2-11/16"	-
ZL-18-70	2-3/4"	70mm
ZL-18-71	2-13/16"	-
ZL-18-73	2-7/8"	-
ZL-18-75	2-15/16"	75mm
ZL-18-76	3"	-
ZL-18-77	3-1/16"	-
ZL-18-79	3-1/8"	-
ZL-18-80	-	80mm
ZL-18-81	3-3/16"	-
ZL-18-82	3-1/4"	-
ZL-18-84	3-5/16"	-
ZL-18-85	-	85mm
ZL-18-86	3-3/8"	-
ZL-18-87	3-7/16"	-
ZL-18-89	3-1/2"	-
ZL-18-90	-	90mm
ZL-18-91	3-9/16"	-
ZL-18-92	3-5/8"	-
ZL-18-93	3-11/16"	-
ZL-18-95	3-3/4"	95mm
ZL-18-96	3-13/16"	-
ZL-18-98	3-7/8"	-
ZL-18-100	3-15/16"	100mm
ZL-18-101	4"	-
ZL-18-104	4-1/6"	-
ZL-18-105	4-1/8"	105mm
ZL-18-106	4-3/16"	-
ZL-18-107	4-1/4"	-
ZL-18-109	4-5/16"	-
ZL-18-110	-	110mm
ZL-18-111	4-3/8"	-
ZL-18-112	4-7/16"	-
ZL-18-114	4-1/2"	-
ZL-18-115	-	115mm
ZL-18-117	-	117mm

CNZ-25	HEX SIZE	
	IMPERIAL	METRIC
ZL-25-75	2-15/16"	75mm
ZL-25-76	3"	-
ZL-25-77	3-1/16"	-
ZL-25-79	3-1/8"	-
ZL-25-80	-	80mm
ZL-25-81	3-3/16"	-
ZL-25-82	3-1/4"	-
ZL-25-84	3-5/16"	-
ZL-25-85	-	85mm
ZL-25-86	3-3/8"	-
ZL-25-87	3-7/16"	-
ZL-25-89	3-1/2"	-
ZL-25-90	-	90mm
ZL-25-91	3-9/16"	-
ZL-25-92	3-5/8"	-
ZL-25-93	3-11/16"	-
ZL-25-95	3-3/4"	95mm
ZL-25-96	3-13/16"	-
ZL-25-98	3-7/8"	-
ZL-25-100	3-15/16"	100mm
ZL-25-101	4"	-
ZL-25-104	4-1/6"	-
ZL-25-105	4-1/8"	105mm
ZL-25-106	4-3/16"	-
ZL-25-107	4-1/4"	-
ZL-25-109	4-5/16"	-
ZL-25-110	-	110mm
ZL-25-111	4-3/8"	-
ZL-25-112	4-7/16"	-
ZL-25-114	4-1/2"	-
ZL-25-115	-	115mm
ZL-25-117	-	117mm
ZL-25-108	4-1/4"	-
ZL-25-109	4-5/16"	-
ZL-25-110	-	110mm
ZL-25-111	4-3/8"	-
ZL-25-112	4-7/16"	-
ZL-25-114	4-1/2"	-
ZL-25-115	-	115mm
ZL-25-116	4-9/16"	-
ZL-25-117	4-5/8"	117mm
ZL-25-119	4-11/16"	-
ZL-25-120	-	120mm
ZL-25-121	4-3/4"	-
ZL-25-122	4-13/16"	-
ZL-25-123	4-7/8"	-
ZL-25-125	-	125mm
ZL-25-126	4-15/16"	-
ZL-25-127	5"	127mm
ZL-25-128	5-1/16"	-
ZL-25-130	5-1/8"	-
ZL-25-131	5-3/16"	-
ZL-25-133	5-1/4"	-
ZL-25-134	5-5/16"	135mm
ZL-25-136	5-3/8"	-
ZL-25-138	5-7/16"	-
ZL-25-140	5-1/2"	140mm
ZL-25-141	5-9/16"	-
ZL-25-142	5-5/8"	-
ZL-25-144	5-11/16"	-
ZL-25-145	-	145mm

CNZ-42	HEX SIZE	
	IMPERIAL	METRIC
ZL-42-108	4-1/4"	-
ZL-42-109	4-5/16"	-
ZL-42-110	-	110mm
ZL-42-111	4-3/8"	-
ZL-42-112	4-7/16"	-
ZL-42-114	4-1/2"	-
ZL-42-115	-	115mm
ZL-42-116	4-9/16"	-
ZL-42-117	4-5/8"	117mm
ZL-42-119	4-11/16"	-
ZL-42-120	-	120mm
ZL-42-121	4-3/4"	-
ZL-42-122	4-13/16"	-
ZL-42-123	4-7/8"	-
ZL-42-125	-	125mm
ZL-42-126	4-15/16"	-
ZL-42-127	5"	127mm
ZL-42-128	5-1/16"	-
ZL-42-130	5-1/8"	-
ZL-42-131	5-3/16"	-
ZL-42-133	5-1/4"	-
ZL-42-134	5-5/16"	135mm
ZL-42-136	5-3/8"	-
ZL-42-138	5-7/16"	-
ZL-42-140	5-1/2"	140mm
ZL-42-141	5-9/16"	-
ZL-42-142	5-5/8"	-
ZL-42-144	5-11/16"	-
ZL-42-145	-	145mm
ZL-42-146	5-3/4"	-
ZL-42-147	5-13/16"	-
ZL-42-149	5-7/8"	-
ZL-42-150	-	150mm
ZL-42-151	5-15/16"	-
ZL-42-152	6"	-
ZL-42-153	6-1/16"	-
ZL-42-155	-	155mm
ZL-42-156	6-1/8"	-
ZL-42-157	6-3/16"	-
ZL-42-158	6-1/4"	-
ZL-42-160	-	160mm
ZL-42-161	6-5/16"	-
ZL-42-162	6-3/8"	-
ZL-42-163	6-7/16"	-
ZL-42-165	6-1/2"	165mm
ZL-42-166	6-9/16"	-
ZL-42-168	6-5/8"	-
ZL-42-170	6-11/16"	170mm
ZL-42-171	6-3/4"	-
ZL-42-173	6-13/16"	-
ZL-42-174	6-7/8"	-
ZL-42-175	-	175mm

CNO SERIES ULTRA-THIN CASSETTE SYSTEM

HYDRAULIC TORQUE WRENCH

The **CNO series** of tools has a special, ultra-thin cassette system to operate efficiently in extremely limited spaces where traditional tools and standard cassette links cannot fit—such as areas with protruding studs or tight clearances.

This innovative system features specially designed attachment cartridge that accommodates multiple bit types—**open spanners**, **closed spanners**, and **ratchet spanners**—enabling precise and reliable bolting in narrow or hard-to-reach spaces.

The **Reaction Mechanism** is a unique roller design which eliminates scratches and dents on the flange surface.



Ultra-Thin Design

Replaces the conventional cassette or link with a compact attachment that is significantly slimmer, ideal for restricted areas.

Interchangeable Bits

Compatible with various bit types:

Ring Spanners – for nuts with a 12-sided recess.

Open Spanners – with a 12-sided female recess and threaded rod passage for tight-space applications.

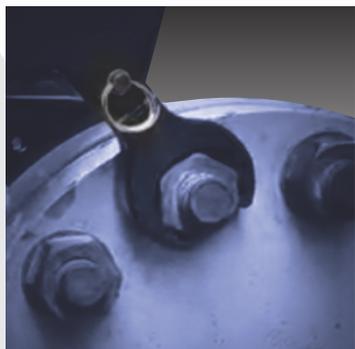
Ratchet Spanners – featuring a resettable 6-sided female recess for quick, repeatable operation.

360° X 180° Hose Uniswivel Mechanism

Offers full 360-degree rotation combined with 180-degree swivel for unmatched flexibility and freedom of movement.

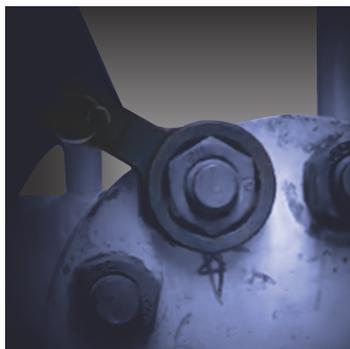
CNO SERIES ULTRA-THIN CASSETTE SYSTEM

HYDRAULIC TORQUE WRENCH



OPEN SPANNER

Ideal for accessing exposed nuts and bolts in tight spaces.



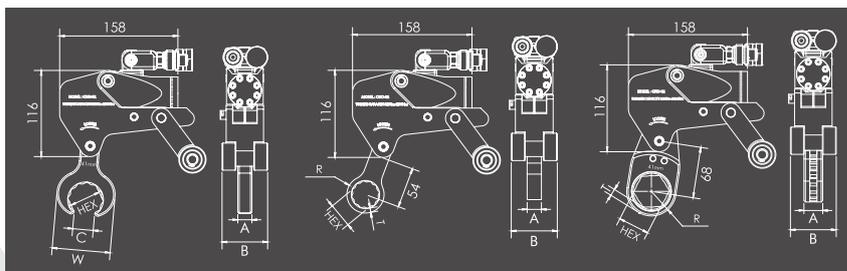
RING SPANNER

Offers superior grip and torque for even the most stubborn fasteners.



RATCHETING SPANNER

Enables fast, continuous operation, improving efficiency.



MODEL	HEX SIZE (mm)	TORQUE		OPEN SPANNER LINK (mm)				RING SPANNER LINK (mm)				RATCHET LINK (mm)			
		FT.LBS	NM	C	W	WIDTH		R	T	WIDTH		R	T	WIDTH	
						A	B			A	B			A	B
CNO-02	24	243 TO 1686	329 TO 2286	16.8	53.6	24	61	22.86	9.06	19	61	25.4	10.33	25.2	61
	27			18.8	58.05			22.86	7.34			25.4	9.88		
	32			22.9	64.8			24.65	6.25			27.43	9.03		
	36			24.9	71.5			27.43	6.73			29.97	9.27		
	41			27.9	79.8			31.24	7.67			32.77	9.20		
	46			30.7	93.5			34.8	8.35			35.56	9.11		
	50			36.8	94			38.61	9.29			41.15	11.83		
55	37	109.8	38.61	6.99	41.15	9.53									
CNO-04	41	580 TO 3853	786 TO 5224	27.2	77.9	31	82.6	32.8	9.19	25.4	82.6	33.8	10.21	31	82.6
	46			30.2	92.9			35.6	9.11			36.8	10.32		
	50			33.5	90			38.4	9.60			39.2	10.44		
	55			36.1	108.9			41.1	9.52			42.3	10.63		
	60			39.9	108.9			45.0	10.46			45.5	10.98		
	65			55.60	114.00			46.7	9.36			48.7	11.35		
	75			49.50	132.80			52.1	8.94			54.7	11.56		
CNO-08	50	1142 TO 8146	1549 TO 11045	33.1	110.4	38	83	40.13	11.38	32	83	44.2	15.45	37.2	83
	55			36.1	115.4			42.93	11.3			46.99	15.37		
	60			39.1	120.4			45.72	11.22			49.78	15.28		
	65			43.7	127			48.51	11.14			52.58	15.2		
	70			46.7	133.6			51.31	11.06			55.37	15.12		
	75			49.7	146			54.36	11.23			58.42	15.3		
	80			53.3	152.6			57.15	11.15			61.21	15.21		
	85			58.1	162			60.2	11.32			64.26	15.39		
	90			61.5	163.3			62.99	11.24			67.06	15.31		
	95			65.3	172.4			66.04	11.42			70.1	15.48		
	100			65.3	178			68.58	11.08			72.9	15.4		
	105			69.1	188.9			71.48	11.4			75.8	15.5		

*Minimum and maximum torque output data may vary.

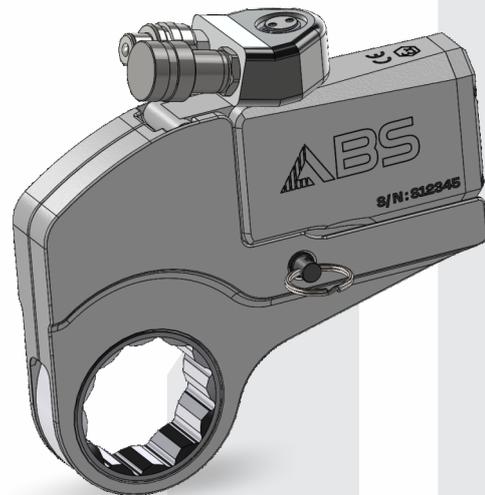
CNS SERIES

HYDRAULIC TORQUE WRENCH

STANDARD



SLIM



For general maintenance that requires high torque values and repeatable results, the **CNS series** has a simple design created to meet the needs of the customers and proved to be most reliable tool with only 3 moving parts. The tool comes with option of Standard link to fit standard applications and slim links to fit in applications with low overhead and radial clearance. This tool is ideal for BOP (Blow-out Preventers), Manifold assemblies, Valve flanges, turbine hubs etc., with space constraints.

Streamlined 3-Part Design

A simple internal mechanism minimizes wear, is simple to service, and minimizes future maintenance costs.

Versatile Drive Compatibility

Compatible with Standard and Slim Link with screwless link pin connectivity to enable quick connection between powerhead and the link.

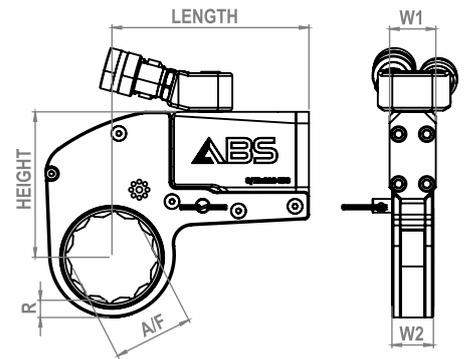
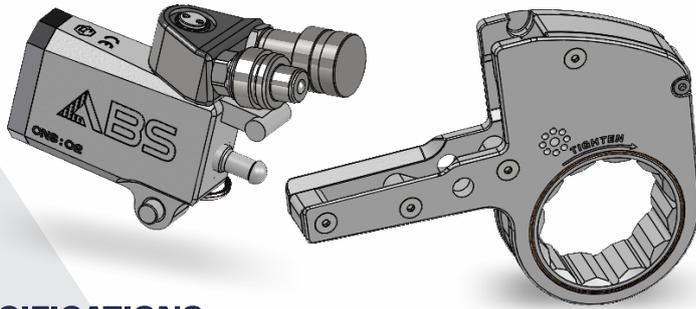
Uniswivel Hose Articulation

Uniswivel technology for free movement and positioning of tool and hoses and optional 360° swivel allows flexible hose positioning, reducing strain and improving ergonomics.

TORQUE RANGE **140-8998 ft.lbs.**
190-12200 Nm

CNS SERIES

HYDRAULIC TORQUE WRENCH

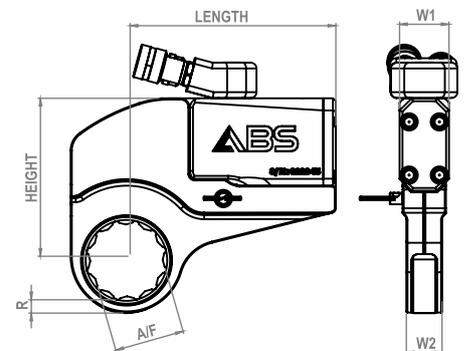
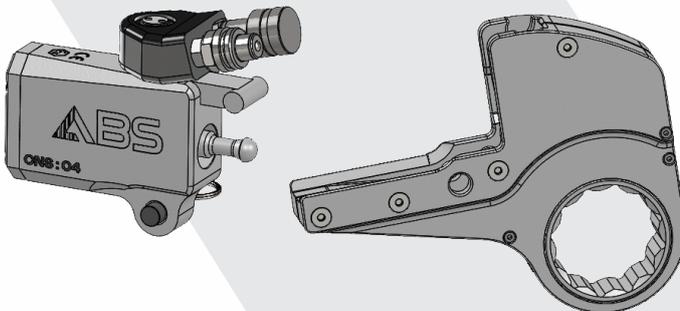


SPECIFICATIONS

Model	HEX RANGE (A/F)	R	LENGTH	HEIGHT	W2	W1	Weight	Min Torque	Max Torque
	Inches/mm						Lbs./Kg	Ft. Lbs./Nm	
CNS-01	1" - 1-13/16" 24-46	0.30 8	4.23 107	3.42 87	0.94 24	1.06 27	2.80 1.41	140 190	1,000 1,356
CNS-02	1" - 2-3/8" 24-60	0.38 10	5.30 135	3.73 95	1.13 29	1.25 32	3.25 1.50	261 354	1,920 2,603
CNS-04	1-7/16" - 3-1/8" 36-80	0.51 13	7.07 180	5.51 140	1.51 38	1.67 42	7.35 3.27	654 887	4,502 6,104
CNS-08	2" - 3-7/8" 50-100	0.72 18	8.60 218	6.53 166	1.89 48	2.10 53	11.85 5.41	1,350 1,830	8,998 12,200
CNS-14	2-3/4" - 4-5/8" 70-120	0.73 19	10.52 267	8.03 204	2.35 60	2.50 64	19.25 8.77	2,194 2,975	15,011 20,352
CNS-20	2-15/16" - 5" 70-130	0.92 23	10.93 278	8.87 225	2.89 73	3.00 76	24.43 11.36	3,205 4,345	22,112 29,979
CNS-30	3-3/8" TO 6-1/2" 85-165	1.00 25	13.89 353	10.95 278	3.00 76	3.75 95	46.71 21.68	5,394 7,313	36,777 49,862

*Minimum and maximum torque output data may vary.

CNS SLIM SERIES



SPECIFICATIONS

Model	HEX RANGE (A/F)	R	W2	W1	Length	Height	Weight	Min Torque	Max Torque
	Inches/mm						Lbs./Kg	Ft. Lbs./Nm	
CNS-02 SLIM	1-1/4" TO 1-13/16" / 32-46	0.35/ 8.9	1.00/ 25.4	1.25 /32	5.63 / 143.0	4.30/ 109.2	2.80/ 0.129	280/380	1,800/ 2,440
CNS-04 SLIM	1-13/16" TO 3-1/8" / 46-80	0.43/ 10.9	1.20/ 30.5	1.67 /42	7.17/ 182.1	5.51/ 140	3.25/ 0.150	640/868	4,300/ 5,830
CNS-08 SLIM	2-3/8" TO 3-1/2" / 60-89	0.55/ 14	1.45/ 36.8	2.10 /53	8.89/ 225.8	7.12/ 180.8	7.35/ 0.340	1,270/ 1,722	8,500/ 11,524

*Minimum and maximum torque output data may vary.

HYDRAULIC PUMPS - ELECTRIC

for TORQUE TOOLS

Available in various series of electrically operated power sources, **ABS Torquing pumps** are specifically designed to simplify the process of tightening or loosening bolts, nuts, and other fasteners. Ergonomically designed and lightweight, these pumps are user-friendly, safe, and compact—ideal for operation in constrained areas. They deliver optimum flow rates to ensure speed and efficiency during operations. Our pumps apply torque with precision and generate the necessary hydraulic pressure, serving as an integral component of torque wrench systems. We offer a wide range of distinct models that can be selected according to specific requirements.

SERIES	HFWE	
SOURCE V/bar	230V / 440V - 50Hz	700 Bar
POWER (kW)	0.55	
OIL FLOW (lpm)	6.5 (LP) x 1.8 (MP) x 0.7 (HP)	
WEIGHT (kg)	Without Oil: 25	
DIMENSIONS (cm)	40 (L) x 28 (W) x 40 (H)	
OIL COOLER	YES	



SERIES	HFEE		HFEE - EX 	
SOURCE V/bar	1-230V 50Hz	700 Bar	400 V, 50 Hz	700 Bar
POWER (kW)	1.1 kW		1.5 kW, 3 PH	
OIL FLOW (lpm)	0.97 lpm (up to 10000 psi) - 9.7 lpm (up to 1450 psi)		1.1 + 8.6 lpm (Radial Piston Pump)	
WEIGHT (kg)	Without Oil: 38		Without Oil: 47	
DIMENSIONS (cm)	58 (L) x 29 (W) x 51 (H)		76.1 (L) x 44.4 (W) x 58.5 (H)	
FLUID CAPACITY (Ltr)	6		20	
OIL COOLER	YES		YES	

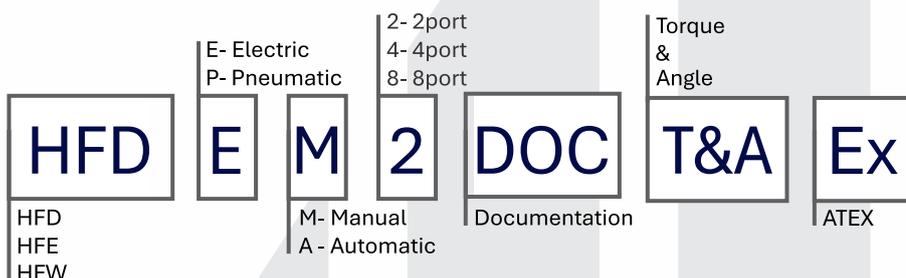


SERIES	HFDE	
SOURCE V/bar	1-230V 50Hz	700 Bar
POWER (kW)	0.55	
OIL FLOW (lpm)	6.5 (LP) x 1.8 (MP) x 0.7 (HP)	
WEIGHT (kg)	Without Oil: 25	
DIMENSIONS (cm)	40 (L) x 28 (W) x 40 (H)	
FLUID CAPACITY (Ltr)	4	
OIL COOLER	YES	

*Made in Germany.



Nomenclature For Pump Model Selection



*115V variants available on request. | *Specifications are subject to change without notice.

HYDRAULIC PUMPS - PNEUMATIC

for TORQUE TOOLS

Available in various series of pneumatically operated power sources, **ABS** torquing pumps are specifically designed to simplify the process of tightening or loosening bolts, nuts, and other fasteners. Our pumps apply torque with precision and generate the necessary hydraulic pressure, serving as an integral component of torque wrench systems. We offer a wide range of distinct models that can be selected according to specific requirements.

SERIES	HFWP	
SOURCE Air/Bar	5-10 Bar	700 Bar
POWER (kW)	2.8	
OIL FLOW (lpm)	7.5 (LP) x 2.5 (MP) x 0.9 (HP)	
WEIGHT (kg)	Without Oil: 26	
DIMENSIONS (cm)	50 (L) x 26 (W) x 38 (H)	



PNEUMATIC	HFD P		HFD P - EX 	
SOURCE Air/Bar	5-10 Bar	700 Bar	5-12 Bar	700 Bar
POWER (kW)	2.8		2.8	
OIL FLOW (lpm)	7.5 (LP) x 2.5 (MP) x 0.9 (HP)		7.5 (LP) x 2.5 (MP) x 0.9 (HP)	
WEIGHT (kg)	Without Oil: 27		Without Oil: 26	
DIMENSIONS (cm)	50 (L) x 27 (W) x 39 (H)		50 (L) x 27 (W) x 39 (H)	
FLUID CAPACITY (Ltr)	4		3.85	

*Made in Germany.



HYDRAULIC PUMPS - ELECTRIC (SPECIAL)

for TORQUE TOOLS

SERIES	HFW-E-A-4-DOC-T&A
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Electrical operated hydraulic power pack for torque wrench: 700 BAR/10000 PSI

The pump is capable of offering three distinct programs:

- Torque-controlled tightening.
- Torque-controlled tightening with angle monitoring.
- Torque and angle-controlled tightening.
- Remote control interface featuring an LCD display for easy torque setting.
- Designed for ergonomic mobility
- Noise emission limited to 79 dB for minimal disruption.
- Remote control should display of torque and pressure.
- Fully automatic operation.
- Documentation (added software) for process recording and analysis.



*Specifications are subject to change without notice.

Achieving Unrivaled Joint Integrity and Precision

In the demanding world of critical bolted connections—from subsea pipelines and power generation turbines to massive construction projects—the reliable integrity of every joint is paramount. Traditional tightening methods, constrained by the unpredictable variable of friction, often compromise the accuracy and uniformity essential for joint longevity and operational safety.

At **ABS**, we engineered our line of **Hydraulic Bolt Tensioning Systems** to eliminate these compromises and introducing a superior method of bolting that ensures predictable, precise, and repeatable load application every single time.

Why Tensioning is the Critical Difference

Our hydraulic tensioners apply a pure, axial force to stretch the bolt in its elastic region. By bypassing frictional resistance entirely, we guarantee that the calculated hydraulic pressure translates directly into the specified bolt preload.

We provide a comprehensive range of tensioning tools:

- **Single-stage**
- **Multi-stage**
- **Spring Return**
- **Hydraulic Nut**
- **Direct Fit and customized**

ABS Tensioning Systems our designed for optimal performance across the widest spectrum of bolt sizes and application clearances.

We are committed to delivering not just a tool, but a complete bolting solution that elevates your standards of safety, quality, and operational uptime.

Secure Your World with ABS Precision Tensioning Tools.



BOLT SIZE RANGE 3/4" - 5 3/4"

M16 - M150

With the ABS Tensioners, you gain:

Unmatched Accuracy

Achieved by eliminating the friction factor inherent in torque-based tightening.

Uniform Clamping Force

The ability to tension 50% or 100% of bolts simultaneously ensures even gasket compression and joint closure.

Enhanced Safety and Efficiency

Incorporating the latest safety features, these tensioners prioritize user safety during operations and minimizes tightening time on critical assets.

Long Stroke Design

Enables efficient and precise bolt tensioning across a wider range of applications.

HFST SERIES

TENSIONERS



MODEL	BOLT SIZE		MAXIMUM TENSIONER LOAD		HYDRAULIC PRESSURE AREA mm ²	MAX. PRESSURE bar	STROKE mm	DIMENSIONS (mm)					
	inch	mm	kN	tonf				A	B	C	D	E	F
HFST-11	-	M16	233	23.8	1555	1500	12	74	31	64	79.3	44	74
	3/4"	M20											
	7/8"	M22											
	1"	M24											
	1-1/8"	M27											
HFST-12	1-1/8"	M27	443	44.0	2884	1500	15	108	42	89	101.2	58.1	102.1
	-	M30											
	1-1/4"	M33											
	1-3/8"	M36											
	1-1/2"	M39											
HFST-13	1-1/2"	M39	791	80.0	5271	1500	15	136	54	89	116	58	132.47
	1-5/8"	M42											
	1-3/4"	M45											
	1-7/8"	M48											
	2"	M52											
HFST-14	2"	M52	1267	129.0	8445	1500	15	172	65.5	102	119.5	58	162
	2-1/4"	M56											
	2-1/2"	M64											
HFST-15	2-1/2"	M64	1830	186.0	12197	1500	15	200	76	98	131	64	187
	2-3/4"	M72											
	3"	M76											
HFST-16	3"	M76	2502	255	16682	1500	15	235	94	125	163	68	218
	3-1/4"	M80											
	3-1/2"	M90											
HFST-17	3-1/2"	M90	2629	268	17530	1500	15	245	102	125	148	66	245
	3-3/4"	M95											
	4"	M100											
HFST-18	4"	M100	3802	387.7	25349	1500	15	286	122	133	157	73	284
	4-1/2"	M110											
	5"	M125											
HFST-19	5"	M125	4903	500.0	32688	1500	15	335	143	165	191	78	325
	5-1/4"	M130											
	5-3/4"	M150											

*2500 bar design are available on request.

*Tool dimensions and load value are subject to design specification.

HFSRT SERIES

TENSIONERS

The auto return tensioner range has been designed to ensure fast, simple, safe and reliable operation. With a focus on productivity and a reduction in downtime we have implemented state of the art materials and technology resulting in significant time saving during operation.

Durable

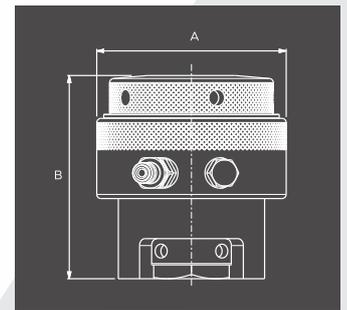
Operational performance does not degrade during the life of the tool. Extensive in-house tests at full stroke and full pressure have shown that it far out performs current HFSRT load cells.

Increased Safety

HFSRT Load cells have a relief valve to prevent accidental overstroke of the tool. This safety mechanism prevents seal blow outs and the users exposure to ejected oil.

Improved Seal Technology

Latest design eases seal changeouts and enhances general performance throughout high cycle usage.



MODEL	BOLT DIAMETER		MAXIMUM TENSIONER LOAD		HYDRAULIC PRESSURE AREA mm ²	MAX. PRESSURE bar	STROKE		DIMENSIONS (mm)	
	inch	mm	kN	lbf			inch	mm	A	B
HFSRT-0*	3/4"	M20	160	35,970	1,070	1500	0.315"	8	66	93
	7/8"	M22								93
HFSRT-1	1"	M24	280	62,950	1,870	1500	0.375"	10	87	117
	1 1/8"	M27								117
	—	—								120
HFSRT-2	1"	M24	450	101,160	3,000	1500	0.375"	10	103	117
	1 1/8"	M27								117
	1 1/4"	M30								120
	1 3/8"	M33								123
	—	M36								126
HFSRT-3	1 1/4"	M33	660	148,370	4,400	1500	0.375"	10	118	123
	1 3/8"	M36								126
	1 1/2"	M39								130
	1 5/8"	M42								133
HFSRT-4	1 1/2"	M39	1,000	224,810	6,670	1500	0.375"	10	141	132
	1 5/8"	M42								135
	1 3/4"	M45								139
	1 7/8"	M48								142
	2"	—								145
HFSRT-5	2"	M52	1,500	337,210	10,000	1500	0.375"	10	176	148
	2 1/4"	M56								154
	2 1/2"	M60								161
	2 3/4"	M64								161
	—	M68								167
HFSRT-6	2 3/4"	M72	2,500	562,020	16,670	1500	0.375"	10	219	167
	3"	M76								171
	3 1/4"	M80								180
	3 1/2"	M85								180
	—	M90								186
HFSRT-7	3 1/2"	M90	3,200	719,390	21,340	1500	0.375"	10	252	186
	3 3/4"	M95								186
	4"	M100								192
	—	—								199

*HFSRT-0 is not an auto return tensioner.



HFDF SERIES

TENSIONERS

When space is tight and loads are heavy, our Direct Fit tensioners step up to conquer the challenge. This ingenious one-piece design delivers a perfect fit for confined environments, eliminating the need for bulky adapters and simplifying setup. Gone are the days of frequent maintenance hassles. The streamlined design minimises wear and tear, keeping your bolting operations running smoothly. Plus, its versatility allows for customisation to specific requirements, ensuring optimal performance for any task.

Don't let limited clearance hold you back. The compact design packs a powerful punch, tackling even the most demanding high-load applications with ease. Experience the freedom and efficiency of a tensioner that adapts to your space, not the other way around.

BOLT SIZE RANGE **3/4" - 4"** **M20 - M100**



Compact Design

Allows the operator easy usage and smooth process flow.

Increased Safety & Speed

Designed to boost safety and speed for operators.

Customizable Design

Can be customized to fit all applications.

Hassle Free Operations

Preferred tool for confined spaces.



HFMT SERIES MULTI STAGE TENSIONER

The **ABS** multi-stage bolt tensioners exemplify versatility and reliability, making them ideal hydraulic bolt tensioners for demanding applications, especially in high-load and confined-space scenarios. Designed for various applications, these hydraulic bolt tensioners are crafted to withstand prolonged usage while demanding minimal maintenance.

- **Minimal Maintenance:** Invest in reduced downtime and lower operating costs with the tensioner's minimal maintenance requirements.
- **User-Friendly Design:** Intuitive controls and a smooth operation ensure efficient and error-free bolting, minimizing user fatigue.
- **Handle the Toughest Jobs:** Engineered for exceptional strength and durability, these tensioners withstand demanding applications and prolonged use.

MODEL	BOLT DIA		MAX. LOAD		TENSIONER DIA		TENSIONER HEIGHT		TENSIONER STROKE	
	inch	mm	kN	lbf	inch	mm	inch	mm	inch	mm
HFMT-24	1"	M24	288	64,742	2.36	60	7.40	185	0.28	7
HFMT-27	1-1/8"	M27	375	84,300	2.60	66	7.62	193.5	0.28	7
HFMT-30	1-1/8"	M30	462	103,858	2.83	72	7.91	201	0.28	7
HFMT-33	1-1/4"	M33	572	128,586	3.07	78	8.50	216	0.31	8
HFMT-36	1-3/8"	M36	670	150,616	3.25	82.5	9.04	229.5	0.39	10
HFMT-39	1-1/2"	M39	802	180,290	3.62	92	10.31	263	0.39	10
HFMT-42	1-5/8"	M42	920.5	206,928	3.86	98	10.31	262	0.39	10
HFMT-45	1-3/4"	M45	1082	243,234	4.13	105	10.91	281.5	0.39	10
HFMT-48	1-7/8"	M48	1222	274,706	4.37	111	11.56	293.5	0.39	10
HFMT-52	2"	M52	1452	326,410	4.72	120	12.80	327	0.39	10
HFMT-56	2-1/4"	M56	1675	376,540	5.04	128	12.99	330	0.39	10
HFMT-64	2-1/2"	M64	2244	494,560	5.83	146	14.23	376	0.47	12

*For low radial clearance applications



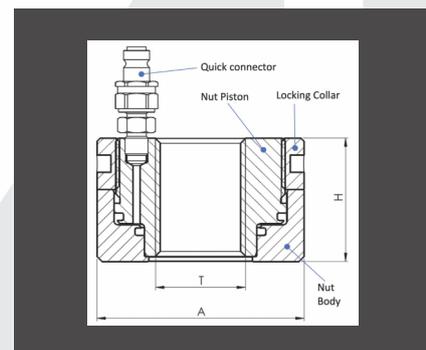
HFHN SERIES

HYDRAULIC NUT

In the realm of heavy machinery, critical components, and permanent joints, the challenge is not just applying a high load, but ensuring that load is sustained accurately, safely, and is readily accessible when maintenance is required. Traditional heavy-duty nuts are notoriously difficult to tighten in confined spaces and even harder to remove after years of service under high load or corrosive conditions.

ABS introduces the next-generation fastening solution - THE HYDRAULIC NUT.

Designed as a direct replacement for conventional hexagon nuts, our hydraulic nuts are self-contained tensioning systems. By integrating the hydraulic cylinder and locking mechanism directly into the nut structure, we offer a compact, permanent solution that delivers the pure, axial bolt tensioning benefits of a bolt tensioner—but remains fixed on the stud.



Achieve Permanent Precision and Unmatched Accessibility with The Hydraulic Nut

Why Hydraulic Nuts are a Long-Term Investment

Our hydraulic nuts are engineered for critical applications where maximum uptime and minimum effort are non-negotiable.

From the first installation to critical, periodic servicing, the ABS Hydraulic Nut is your permanent partner in maintaining joint integrity across metallurgy, power generation, mining, naval sectors and many critical applications.

Key Advantages you will experience:

Precision and Retention:

Achieve an accurate, pre-set bolt load with simple hydraulic pressure, eliminating the inaccuracies and thread wear. Once the load is achieved, the mechanical lock ring is engaged, ensuring the load is retained indefinitely.

Superior Accessibility:

Their compact, circular design is perfectly suited for applications with extremely low radial or height clearances, such as on large press columns, turbine casings, or couplings.

Rapid Removal, Every Time:

Years of service and rust are no match. The hydraulic feature allows for immediate and effortless tension release, guaranteeing quick, non-destructive disassembly and drastically reducing maintenance downtime.

Long Stroke Design

Enables efficient and precise bolt tensioning across a wider range of applications.

HFHN SERIES

HYDRAULIC NUT

Why Hydraulic Nuts are a Long-Term Investment

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From the first installation to critical, periodic servicing, the ABS Hydraulic Nut is your permanent partner in maintaining joint integrity across metallurgy, power generation, mining, naval sectors and many critical applications.

Choose permanence, choose precision. Choose ABS Hydraulic Nuts.

HFHN-15 RANGE - MAX 1500 BAR

PART NUMBER		BOLT THREAD SIZE		MAX. LOAD		Pressure Area	NUT OD	NUT HEIGHT	NUT STROKE	WEIGHT
		T		F		HPA	A	H		
METRIC	IMPERIAL	METRIC	IMPERIAL	kN	tonf	mm ²	mm	mm	mm	kg
HFHN-15-M22	HFHN-15-0875	M22	7/8"	152	15.2	1011	57	44	5	0.7
HFHN-15-M24	HFHN-15-1000	M24	1"	176	17.7	1175	60	45	5	0.8
HFHN-15-M27	HFHN-15-1125	M27	1 1/8"	230	23.1	1531	65	46	5	1.0
HFHN-15-M30	-	M30	-	280	28.1	1869	73	48	5	1.3
HFHN-15-M33	HFHN-15-1250	M33	1 1/4"	312	31.3	2081	78	52	6	1.6
HFHN-15-M36	HFHN-15-1375	M36	1 3/8"	368	36.9	2450	85	56	6	2.0
HFHN-15-M39	HFHN-15-1500	M39	1 1/2"	390	39.2	2602	88	58	6	2.2
HFHN-15-M42	HFHN-15-1625	M42	1 5/8"	448	45.0	2989	93	61	6	2.6
HFHN-15-M45	HFHN-15-1750	M45	1 3/4"	522	52.4	3483	101	64	6	3.2
HFHN-15-M48	HFHN-15-1875	M48	1 7/8"	589	59.1	3928	107	68	8	3.8
HFHN-15-M52	HFHN-15-2000	M52	2"	703	70.6	4688	116	70	8	4.6
HFHN-15-M56	HFHN-15-2500	M56	2 1/4"	812	81.5	5413	125	72	8	5.5
HFHN-15-M60	-	M60	-	945	94.8	6299	134	74	8	6.5
HFHN-15-M64	HFHN-15-1500	M64	2 1/2"	1070	107.4	7136	142	80	8	7.9
HFHN-15-M68	HFHN-15-2750	M68	2 3/4"	1222	122.7	8147	152	84	10	9.5
HFHN-15-M72	HFHN-15-3000	M72	3"	1384	138.9	9226	161	88	10	11.2
HFHN-15-M80	HFHN-15-3250	M80	3 1/4"	1738	174.4	11584	179	92	10	14.5
HFHN-15-M90	HFHN-15-3500	M90	3 1/2"	2236	224.4	14909	203	96	10	19.5
HFHN-15-M95	HFHN-15-3750	M95	3 3/4"	2509	251.8	16728	215	100	10	22.8
HFHN-15-M100	HFHN-15-4000	M100	4"	2798	280.8	18652	226	105	15	26.4
HFHN-15-M110	HFHN-15-4500	M110	4 1/2"	3422	343.5	22815	250	110	15	34.0
HFHN-15-M125	HFHN-15-5000	M125	5"	4477	449.3	29844	285	125	15	50.2
HFHN-15-M140	HFHN-15-5500	M140	5 1/2"	5672	569.3	37815	321	140	15	71.6
HFHN-15-M150	HFHN-15-6000	M150	6"	6548	657.2	43653	345	150	15	88.7

*HFHN-25 Range - MAX 2500 bar pressure are available as per requirements.

TENSIONING PUMPS

The **ABS tensioning pumps** redefine bolting operations by delivering precise and controlled force for consistent and accurate bolt tensioning. Available in **Manual, Electric, and Pneumatic** models, these pumps are designed to meet diverse operational needs across different industries. Their advanced precision minimizes the risk of over- or under-tightening, effectively preventing joint failures and component damage — setting **ABS** apart from traditional tensioning methods.

Going beyond conventional practices, our pumps enhance **safety, versatility, and ease of use** in every bolting application. **ABS** pumps are ergonomically designed, lightweight, and compact, ensuring comfortable handling even in constrained spaces. Their robust construction and compatibility with various hydraulic tensioners enable efficient operation across a wide range of bolt sizes and applications — delivering superior safety, reliability, and operational efficiency in every task.

HYDRAULIC HAND PUMPS

MODEL	HX16-1		HX16-3	
PUMP TYPE	Double Speed		Double Speed	
MAX. PRESSURE CAPACITY (bar)	1600		1600	
USABLE OIL CAPACITY (CC)	1440		3240	
PRESSURE RATING (bar)	15 (1st Stage)	1600 (2st Stage)	15 (1st Stage)	1600 (2st Stage)
OUTPUT OIL VOLUME EACH STROKE (cm ³)	32 (1st Stage)	2.5 (2st Stage)	32 (1st Stage)	2.5 (2st Stage)
HANDLE FORCE (N)	375		375	
OVER DIMENSION (MM)	577 (A) x 120 (B) x 170 (C)		582 (A) x 200 (B) x 170 (C)	
OUTPUT ADAPTER	G1/4"		G1/4"	
WEIGHT (Kg)	6.3		10	



- **CE Certified:** Complies with stringent safety and quality standards.
- **Precision Monitoring:** Equipped with a dual-scale (psi/bar) pressure gauge, ensuring clear and accurate pressure monitoring.
- **Efficient Design:** Two-stage operation for increased power and efficiency, requiring fewer pump strokes.
- **Variable Pressure Options:** Choose from **1500** and **2500** bar configurations based on your specific bolting needs.

Unwavering Reliability

Performance You Can Trust

HYDRAULIC ELECTRIC PUMPS



MODEL	HFEL-1500	
OIL FLOW (L/min)	0.35/0.37 HIGH	1.4/1.65 LOW
PRESSURE (bar)	1500/1500 HIGH	100/100 LOW
POWER (KW)	1.1/1.1	
USABLE OIL CAPACITY(Ltr.)	5	
INPUT POWER	1ph 110V-240V 50HZ / 1ph 100V-130V 60HZ	
WEIGHT (kg) (W/O Oil)	37 / 37	
DIMENSIONS: L(mm) x W(mm) x H(mm)	490 x 310 x 500 / 490 x 310 x 500	582 (A) x 200 (B) x 170 (C)

- Withstands rough handling in workshops, mobile operations, and industrial settings.
- Input Supply of 230V / 50Hz.
- **Options: 1500 and 2500 Bar for specific bolting needs.**
- **Precise Pressure Monitoring:** a dual-scale gauge (Mpa gauge option).
- **Safety Relief Valve** to prevent exceeding safe pressure limits.

Built to Endure

Performance and Control

HYDRAULIC PNEUMATIC PUMPS

MODEL	HFPL-1500-A
OIL FLOW (L/MIN) HIGH/ LOW	H0.37 / L1.4
PRESSURE (BAR) HIGH/ LOW	H1500 / L100
USABLE OIL CAPACITY L	5L
INPUT AIR PRESSURE	4-8 Bar
WEIGHT WITHOUT OIL	23Kg
OVER DIMENSION L x W x H(mm)	490 x 310 x 500mm

Hydraulic power tools professional manufacture



- Specifically designed for efficient pressurization of hydraulic bolt tensioners, ensuring consistent and accurate bolt tightening.
- Input Air supply of 4-8 Bar
- FRL for clean, controlled and lubricated air supply.
- **Options: 1500 and 2500 Bar for specific bolting needs.**
- **Precise Pressure Monitoring:** a dual-scale gauge (Mpa gauge option).
- **Safety Relief Valve** to prevent exceeding safe pressure limits.

Engineered for Excellence

Built-in Safety and Control

HYDRAULIC FLANGE SPREADERS

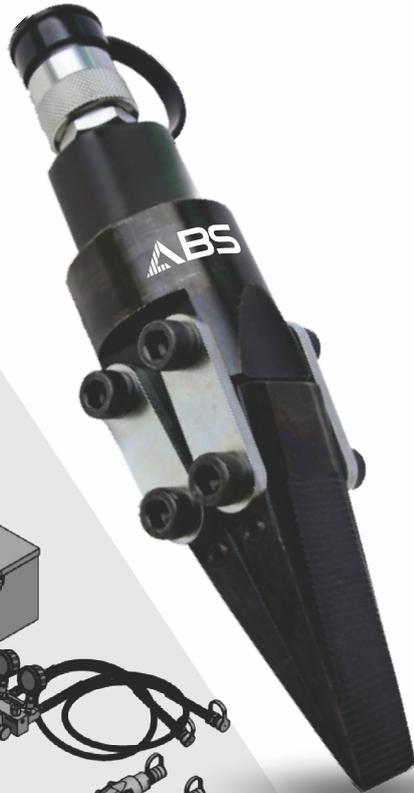
FLANGE SPREADERS

ABS Flange spreaders utilize a wedge mechanism inserted between the flanges. As the wedge is forced open, it applies controlled pressure to the flanges, separating them without damaging the components.

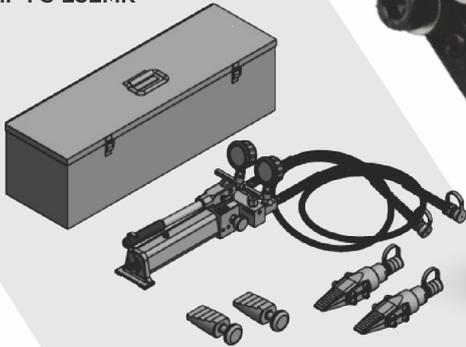
This allows for:

- Safe and controlled disassembly of flange connections, minimizing the risk of injury or equipment damage.
- Faster and more efficient separation compared to manual methods.
- Access to components behind the flanges for maintenance or inspection

HF-FS-15EK



HF-FS-25EMK



MODEL	CAPACITY (TON)*	SPREAD (mm)		STROKE (mm)	WEIGHT (Kg)
		MIN.	MAX.		
HF-FS-15EK	15	5	15	25	3.3
HF-FS-15EMK	15 X 2	5	15	25	3.3 X 2
HF-FS-25EK	25	7	23	65	7.8
HF-FS-25EMK	25 X 2	7	23	65	7.8 X 2

INTEGRAL HYDRAULIC FLANGE SPREADER

MECHANICAL FLANGE SPREADER



MODEL	CAPACITY (TON)*	SPREAD (mm)**	WEIGHT (Kg) WITH INTEGRAL HYDRAULIC PUMP CYLINDER
		MAX.	
HF-FSI-15	14.5	81	9

MODEL	CAPACITY (TON)*	SPREAD (mm)**		WEIGHT (Kg)		
		MIN.	MAX.	TOOL	TORQUE WRENCH	SAFETY BLOCK
HF-FSM-9T	9.4	9	81	5.5	1.5	0.5

Range of application: All flanges with a minimum access gap of 6 mm.
 *With 700 bar (10,000 psi) hydraulic pressure applied: 14.5 Ton per tool.
 It is recommended that tools are used in pairs giving:
 2 x 14.5 Ton = 29 Ton
 **Stepped blocks is used in pairs to increase the spreading distance.

Range of application: All flanges with a minimum access gap of 6 mm.
 *With 203 Nm of torque applied.
 It is recommended that tools are used in pairs giving:
 2 x 9.4 Ton = 18.8 T
 **Stepped blocks is used in pairs to increase the spreading distance.

HFNS SERIES

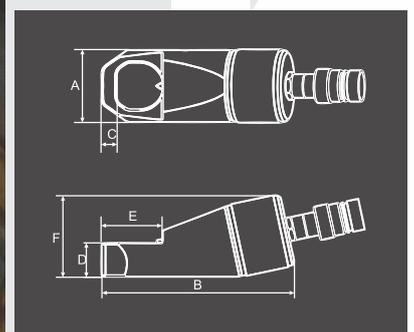
NUT SPLITTERS

Tackle tough jobs even in tight corners with our sleek nut splitters. Crack through even the most stubborn rusted nuts with our powerful hydraulic cylinder, ensuring effortless splitting. Built to last, our one-piece cutting frame and heavy-duty construction mean you can depend on these splitters for years to come. Our specially angled cutter blade with radius resists wear and tear, ensuring long-lasting performance. Choose the perfect splitter for your needs with our variety of sizes available.

- Compact design used in confined space with enough force to split the rusted nuts.
- All models feature a rugged one-piece cutting frame coupled to heavy-duty hydraulic cylinder.
- Specially designed "tool steel" cutter blade cuts the nut to the precise point where it cracks.
- **Unique angled head design to keep full contact with the nut being penetrated.**
- Unique angled cutter blade with radius to have the greater resistance to cutting and breaking nuts.
- 5 popular models applicable to cover the most range of nuts.

Heavy-Duty Hydraulic Cylinder

10-50 TON Capacity



MODEL	HEXAGON NUT RANGE (mm)	BOLT RANGE (mm)	CAPACITY (TON)	OIL CAPACITY (c.c.)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	WEIGHT (Kg)
HFNS-1924	19-24	M12-M16	10	18	60	171.5	10	25	40	68	2.2
HFNS-2432	24-32	M16-M22	15	40	70	192	13	30	52	79	3.3
HFNS-3241	32-41	M22-M27	20	68	80	230	16	36	65	92	4.4
HFNS-4150	41-50	M27-M33	35	150	100	286	21	45	76	116	8.2
HFNS-5060	50-60	M33-M39	50	250	117	321	24	54.5	92	134	11.7

*The hardness of nut material must not exceed HRC-44. Should not be used on stainless steel nuts and/or square shaped nuts.

HFTW SERIES

MANUAL TORQUE WRENCHES

ABS manual torque wrenches are specialized tools featuring a calibrated mechanism that allows you to apply controlled and measurable torque to a fastener. They typically consist of a handle, a body with a scale displaying torque values, and an attachment for sockets or other drives.



RATCHET TYPE

TORQUE (Nm)		SQ. DRIVE (inch)	WEIGHT (kg)	OAL (mm)
MIN.	MAX.			
2.5	1900	3/8" - 1"	0.73 - 24	390 - 1340

RATCHET TYPE

TORQUE (Ft.lbs)		SQ. DRIVE (inch)	WEIGHT (lbs)	OAL (inch)
MIN.	MAX.			
1.84	1401.36	3/8" - 1"	1.60 - 52.91	15.35 - 52.75

OPEN JAW SERIES

TORQUE (Nm)		WEIGHT (kg)	OAL (mm)
MIN.	MAX.		
2.5	1900	1.10 - 20.50	334 - 1356

OPEN JAW SERIES

TORQUE (Ft.lbs)		WEIGHT (lbs)	OAL (inch)
MIN.	MAX.		
1.84	1401.36	2.42 - 45.19	13.14 - 53.38

*Ring Jaw is also available

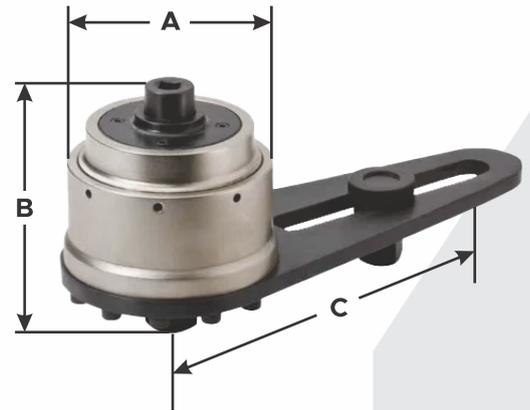
*Detailed list of models shall be provided on request.

HFTM SERIES

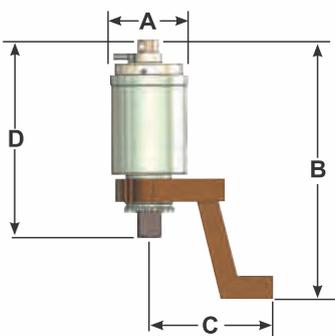
TORQUE MULTIPLIER WRENCHES

STANDARD INDUSTRIAL TORQUE MULTIPLIER

- The ratio stated is the true torque multiplication factor.
- Accuracy better than $\pm 5\%$.
- Precision tightening and loosening of all heavy duty fasteners.
- Higher capacity multipliers are furnished with strong ratchets (Anti-wind up mechanism) allowing jobs to be performed easily, efficiently, and safely.
- Precision Manufacturing ensures long life and premier quality.
- A groove on output Square breaks if over loaded in excess of 20% of its capacity.



TORQUE OUTPUT CAPACITY (MAX.)				DIA. (mm)	HEIGHT (mm)	INPUT DRIVE FEMALE (inch)	OUTPUT DRIVE MALE (inch)
TORQUE (ft. lbs.)		TORQUE (Nm)					
MIN.	MAX.	MIN.	MAX.				
1250	35000	1700	47500	115 - 315	87 - 550	1/2" - 3/4"	3/4" - 2-1/2"



HFTM SERIES COMPACT & LIGHT WEIGHT TORQUE MULTIPLIER

- Compact, Slim Body facilitates to be used in constrained areas.
- Strong, safe Anti Wind-Up Ratchet available on most models for safe and comfortable operation.
- A wide range of alternative reaction arms are available as per customers requirement, making the Torque Multiplier adaptable to many applications.

Features :

- Compact Size: Compact in size hence can be used in constrained areas.
- Ratio: Higher reduction ratio for low input.
- Safety: Safety shear pin at the input provisioned to prevent overloading.
- AWUR: In built Anti-Windup Mechanism reduces operators effort. Can be used with non-ratchet type torque wrench.
- Pin Lock: Pin Lock mechanism at output Sq. Drive for positive locking of socket.
- Reaction Arm: Different type of reaction arm available as per user requirement.
- Accuracy: Better than + 4% with very high repeatability.

MODEL	HFTM - 25	HFTM - 32	HFTM - 42
A	81	88	88
B	133-175	272	272
C	165	141	151
D	149	207	217

Model No.	Torque Capacity			Reduction Ratio	Sq. Drive		O.D. mm	Weight kg	Recommended Torque Wrench
	Nm	Lbft	Kgm		input	output			
HFTM - 25	2500	1845	255	1 : 8	1/2" F	1"	8	4.3	HFTW - 3330R
HFTM - 32	3200	2362	326	1 : 10	1/2" F	1"	88	6.3	
HFTM - 42	4200	3100	428	1 : 10	3/4" F	1.1/2"	88	6.8	

Note : HFTM - 32 and HFTM - 42 are fitted with Anti-Wind-Up Ratchet (AWUR) Mechanism. STM-1 can be provided with AWUR.

CBM SERIES SPLIT-FRAME MACHINES

PIPE CUTTING & BEVELING MACHINES

The cold cutting machine is a portable machining tool featuring a split-frame design and dedicated cutting blades for pipe sectioning.

Machine Functions: Cutting, Beveling, Facing, Counter boring, Shaft OD machining/Grinding

Light Weight

Easy Installation

Fast & Precision Quality Operations

Heavy Thickness Cut

OTHER FEATURES:

- Lower axial and radial clearance; lightweight design, suitable for working in narrow and complicated sites.
- Can be separated into two halves, making it easy to mount on pipes when both ends are not open.
- The machine performs cutting and beveling simultaneously.
- The tool can process carbon steel, stainless steel, and alloy pipes with U or V welding seams, and can also process convex flange welds.

APPLICATION RANGE:

- They are widely used in the fields of petroleum, chemical, natural gas, power supply construction, boiler and nuclear power

DRIVING TYPE:

- Electric, Pneumatic, Hydraulic, Numerical Controller-Series

SAFETY:

- Eliminates Health Risks: No hazardous gas fumes or sparks are generated during operation.
- Enhanced Safety: Facilitates remote operation, minimizing operator exposure.

EFFICIENCY:

- Streamlined Setup: Enables quick and effortless installation.
- Portability and Maneuverability: Lightweight and portable design for convenient transportation and jobsite use.
- Single-Step Completion: Achieves both cutting and beveling in one efficient pass.
- Superior Cutting Speed: Offers significantly faster cutting compared to gas cutting technology.



COST-EFFECTIVENESS:

- Low Consumables: Requires minimal replacement parts, reducing operational costs.
- Reduced Maintenance Requirements: Streamlined maintenance procedures for optimal performance.
- Optimized Manpower Needs: Efficient operation minimizes required personnel.
- Sustainable Tooling: Utilizes re-grindable cutting tools, maximizing lifespan and minimizing waste.

QUALITY:

- Precision Cutting: Delivers accurate and consistent cuts every time.
- Controlled Beveling: Enables precise bevel angles as specified by drawings.

PIPE CUTTING & BEVELING MACHINES

ELECTRIC

OD-Mounted Electric Series:

- Power Supply: 220-240V 1PH 50-60HZ
- Motor Power: 1.5-2KW

Electric (OCE):

- Motor Power: 1800W / 2000W
- Working Voltage: 220-240V
- Working Frequency: 50-60Hz
- Working Current: 8-10A



PNEUMATIC

- Working Pressure: 0.8-1.0 mpa
- Working Air Consumption: 1000-2000 l/min
- Single/Double Motor Drive Available

HYDRAULIC

- Working Power of Hydraulic Station: 5.5kW, 7.5kW, 11kW
- Working Voltage: 380V 3 Phase 5 Wire (Other Voltages can be Customized)
- Working Frequency: 50Hz
- Rated Pressure: 10MPa
- Rated Flow: 50-45 l/min (Stepless Speed Regulation)
- With 50 Meters Remote Control, PLC Control



SERVO

- Servo Motor Power: 2.3kW-4.0kW (Customizable Non-Standard)
- Working Voltage: 220V / 380V
- Working Frequency: 50-60Hz
- Equipped with Remote 50 Meter Remote Start Stop

PIPE CUTTING & BEVELING MACHINES

MACHINE USAGE APPLICATION

FABRICATION YARDS & SHOPS:

- **Precise Pipe Length Cutting:** Achieve accurate cuts to exact specifications, eliminating material waste and ensuring proper pipe fitting during assembly.
- **Streamlined Joining Preparation:** Prepare pipe ends for welding, flanging, or other joining methods by creating smooth, clean surfaces that ensure optimal joint integrity.

HAZARDOUS AREAS:

- **Safe Cutting of Hazardous Materials:** Cut and bevel pipes containing flammable or toxic substances (such as crude oil, petrol, diesel, gas, and chemicals) without generating sparks. This minimizes the risk of explosions or fires and ensures a safer work environment for personnel.
- **Spark-Free Beveling:** Create precise bevels on pipe ends for welding, even in environments with strict spark-control requirements.

VERSATILITY:

- **Broad Material Compatibility:** Cut and bevel a wide range of steel pipe materials used across different applications, eliminating the need for specialized cutting equipment for each pipe type.

ADDITIONAL CAPABILITIES:

- **Internal Machining:** Perform internal machining of pipe ends to achieve specific angles required for joining or other processes. This eliminates the need for separate machining equipment and streamlines the overall workflow.

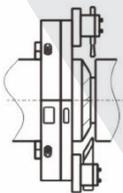
HIGH CAPACITY:

- **Handles Thick Pipes:** The machine can handle pipes with wall thicknesses up to 110 mm using standard accessories. This eliminates the need for additional equipment or modifications for thicker pipes encountered in demanding applications.

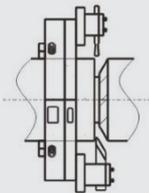
PLANT SHUTDOWNS & PROJECT WORK:

- **High Wall Thickness Capability:** Effectively cut and bevel pipes with thick walls, commonly encountered during plant shutdowns and large-scale projects. This eliminates the need for slower, less efficient cutting methods like oxy-fuel cutting.
- **Reduced Downtime:** The machine's portability and quick setup minimize downtime associated with equipment mobilization and preparation, allowing for faster completion of cutting tasks on large projects.

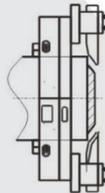
PROCESSING DRAWING



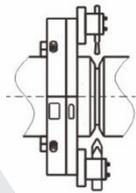
A - Cutting & Beveling (RH)



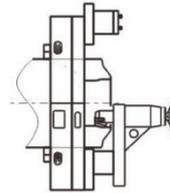
B - Cutting & Beveling (LH)



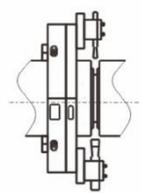
C - 37.5 & 10 Degree Compound Beveling



D - Double V Beveling



E - Counter Boring



F - Cold Cutting

PROCESSING SCHEMATIC

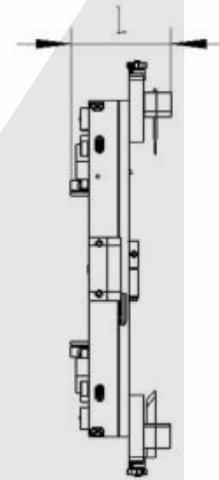
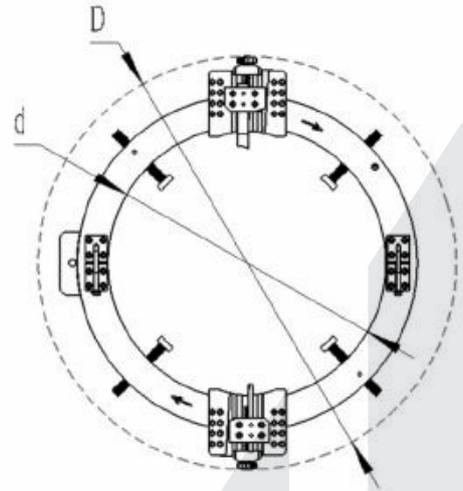
MODEL	SPECIFICATION	CAPACITY (OD)		WALL THICKNESS		ROTATION SPEED
		mm	in	STANDARD	HEAVY DUTY	
A-CBM-106	89	25-89	1-3	≤30	-	42
A-CBM-206	168	50-168	2-6	≤30	≤50	20
A-CBM-308	230	80-230	3-8	≤30	≤50	15
A-CBM-510	275	125-275	5-10	≤30	≤70	15
A-CBM-610	305	150-305	6-10	≤30	≤110	13
A-CBM-612	325	168-325	6-12	≤30	≤110	13
A-CBM-814	377	219-377	8-14	≤30	≤110	13
A-CBM-1016	426	273-426	10-16	≤30	≤110	12
A-CBM-1218	457	300-457	12-18	≤30	≤110	12
A-CBM-1420	508	355-508	14-20	≤30	≤110	11
A-CBM-1622	560	400-560	16-22	≤30	≤110	11
A-CBM-1824	610	457-610	18-24	≤30	≤110	11
A-CBM-2024	630	480-630	20-24	≤30	≤110	11
A-CBM-2026	660	508-660	20-26	≤30	≤110	11
A-CBM-2228	715	560-715	22-28	≤30	≤110	10
A-CBM-2430	762	610-762	24-30	≤30	≤110	10
A-CBM-2632	830	660-830	26-32	≤30	≤110	10
A-CBM-3036	914	762-914	30-36	≤30	≤110	10
A-CBM-3642	1066	914-1066	36-42	≤30	≤110	9
A-CBM-4248	1230	1066-1230	42-48	≤30	≤110	9
A-CBM-4856	1430	1219-1430	48-56	≤30	≤110	8
A-CBM-5664	1630	1422-1630	56-64	≤30	≤110	7
A-CBM-6472	1830	1630-1830	64-72	≤30	≤110	6

Note: Non-standard machines are available according to customers requirement.

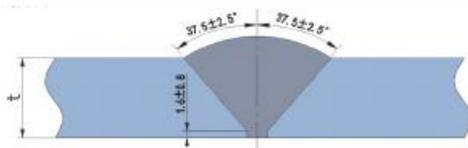
PIPE CUTTING & BEVELING MACHINES

OD MOUNTED PIPE CUTTING AND BEVELING MACHINE

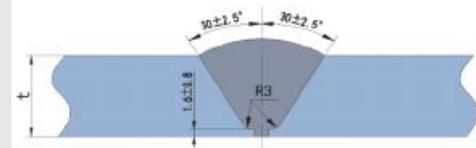
MODEL SIZE	d (mm)	D (mm)	L (mm)
A-CBM-106	95	300	160
A-CBM-206	185	480	178
A-CBM-308	236	535	178
A-CBM-510	283	584	178
A-CBM-610	316	608	178
A-CBM-612	334	636	178
A-CBM-814	386	690	178
A-CBM-1016	438	744	180
A-CBM-1218	466	772	180
A-CBM-1420	518	828	190
A-CBM-1622	570	878	190
A-CBM-1824	620	928	190
A-CBM-2024	643	965	190
A-CBM-2026	670	978	190
A-CBM-2223	720	1050	190
A-CBM-2430	772	1110	190
A-CBM-2632	840	1174	192
A-CBM-3036	928	1260	212
A-CBM-3642	1078	1513	212
A-CBM-4248	1248	1584	212
A-CBM-4856	1438	1784	220



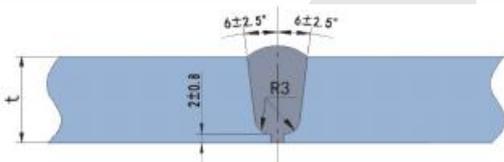
WELDING ANGLE DIAGRAM



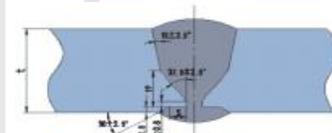
37.5 deg. V T Type Beveling with 1.6mm Root



30 deg. U Type Beveling with 1.6mm Root, R= 3mm



6 deg. U Type Beveling with 2mm Root, R= 5mm



Compound Beveling According to ASME B16.[1].25

PIPE CUTTING & BEVELING MACHINES

ACCESSORIES

STANDARD TOOL SLIDE

Applicable processing wall thickness $\leq 30\text{mm}$

Clamshell C/W the standard tool slide as standard supply with standard tool bits, achieve cut/bevel up to 30mm wall thickness in one pass.



HEAVY WALL TOOL SLIDE

Applicable processing wall thickness $\leq 70\text{mm}$

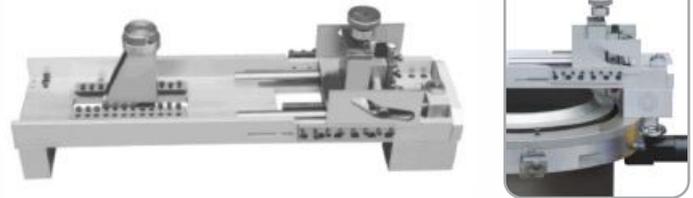
Special for heavy walled pipe, especially for power plant with special tool bits, achieve cut/bevel up to 70mm wall thickness in multi passes.



BRIDGE TOOL SLIDE

Suitable for ultra-thick pipe processing, maximum thickness not exceeding 110mm

Complete with counterbore/I.D beveling tool, I.D beveling angle available for adjust. Special for heavy walled pipe, achieve cut/bevel up to 110mm wall thickness in multi passes also can process flange facing.



TRACKING TOOL SLIDE

Suitable for high-precision processing or deformed pipes with diameters greater than 700mm for foot length compensation

O.D tracking slide compensate for out-of-round pipe travel along the OD makes the bevel face balanced Usually apply on large size diameter pipe.



UNIVERSAL COUNTER BORING TOOL SLIDE

Used for processing the inner wall of pipes

Performs inside beveling and counter boring

Tool Feed: Manually

Max. Travel: 70mm.



TOOL HOLDER FOR PIPE OUTER WALL MACHINING

Used for trimming the outer wall of pipes and removing anti-corrosion layers

Pipe outer wall axial processing tool post to removal of anti-corrosion layer and turning.



PIPE CUTTING & BEVELING MACHINES

SELECTION OF HYDRAULIC STATION

PLC TYPE HYDRAULIC STATION

POWER SUPPLY	7.5kW
WORKING VOLTAGE	380V, 3 PH, 5 Lines
WORKING FREQUENCY	50Hz
RATED WORKING PRESSURE	10Mpa
RATED FLOWING	0-36 l/min
CONTROL SYSTEM	PLC Control
WORKING SPEED	Remote Control
CONTROL PANEL	Electronic Display
OPEN WAY	Manual/Remote Control
OIL LINE LENGTH	6m (Standard)
NET WEIGHT (KG)	239Kg



EXPLOSION-PROOF HYDRAULIC STATION

POWER SUPPLY	7.5kW
WORKING VOLTAGE	380V, 3 PH, 5 Lines
WORKING FREQUENCY	50Hz
EXPLOSION-PROOF GRADE	BT4 / CT4
RATED WORKING PRESSURE	10Mpa
RATED FLOWING	36 l/min
OPEN WAY	Manual / Remote Control
OIL LINE LENGTH	6m (Standard)



DIESEL POWER HYDRAULIC STATION

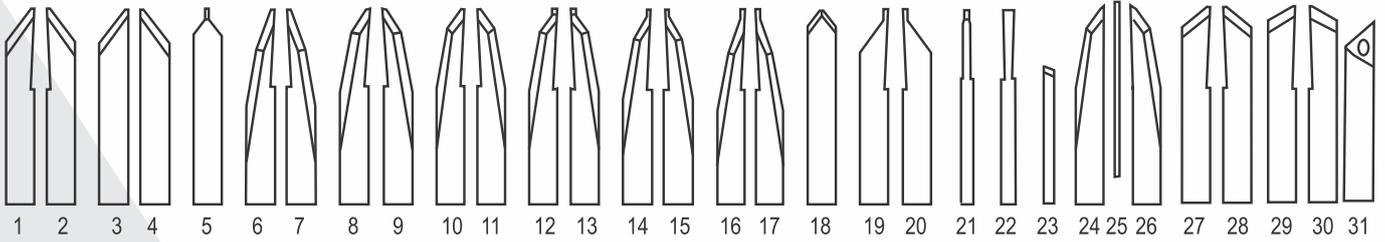
ENGINE POWER	22HP (15KW)
RATED WORKING PRESSURE	10Mpa
RATED FLOWING	50 l/min
OPEN WAY	Manual



Need other power, rated flowing, explosion-proof grade, etc., can be customized.

PIPE CUTTING & BEVELING MACHINES

STANDARD AB-CBM TOOLING



ITEM	DESCRIPTION
1	37° R.H. Bevel, 7-inch (178 mm)
1	37° R.H. Bevel, 3.5-inch (89 mm)
2	37° L.H. Bevel, 7-inch (178 mm)
2	37° L.H. Bevel, 3.5-inch (89 mm)
3*	37° R.H. Double Bevel, 7-inch (178 mm)
3*	37° R.H. Double Bevel, 3.5-inch (89 mm)
4*	37° L.H. Double Bevel, 7-inch (178 mm)
4*	37° L.H. Double Bevel, 3.5-inch (89 mm)
5	37° Double Bevel Sever, 7-inch (178 mm)
5	37° Double Bevel Sever, 3.5-inch (89 mm)
6	20°- 10° R.H. Bevel, 7-inch (178 mm)
7	20°- 10° L.H. Bevel, 7-inch (178 mm)
8	30°- 10° R.H. Bevel, 7-inch (178 mm)
9	30°- 10° L.H. Bevel, 7-inch (178 mm)
10	37°- 10° R.H. Bevel, 7-inch (178 mm)
11	37°- 10° L.H. Bevel, 7-inch (178 mm)
12	37°- 10° R.H. Sever, 7-inch (178 mm)
13	37°- 10° L.H. Sever, 7-inch (178 mm)
14	30°- 10° R.H. Sever, 7-inch (178 mm)
15	30°- 10° L.H. Sever, 7-inch (178 mm)
16	20°- 10° R.H. Sever, 7-inch (178 mm)
17	20°- 10° L.H. Sever, 7-inch (178 mm)
18	37° Double Bevel, 7-inch (178 mm)
18	37° Double Bevel, 3.5-inch (89 mm)

ITEM	DESCRIPTION
19	37° R.H. Sever, 7-inch (178 mm)
19	37° R.H. Sever, 3.5-inch (89 mm)
20	37° L.H. Sever, 7-inch (178 mm)
20	37° L.H. Sever, 3.5"
21	1/4-inch (6.35 mm) Sever, 7-inch (178 mm)
21	1/4-inch (6.35 mm) Sever, 3.5-inch (89 mm)
22	3/8-inch (9.53 mm) Sever, 7-inch (178 mm)
22	3/8-inch (9.53 mm) Sever, 3.5-inch (89 mm)
23	10° Counter Bore, 2- inch (50.8 mm)
24*	37°- 10° R.H. Double Bevel, 7-inch (178 mm)
25*	1/8-inch (3.18 mm) Sever, 6-inch (152.4)
26*	37°- 10° L.H. Double Bevel, 7-inch (178 mm)
27	45° R.H. Bevel, 7-inch (178 mm)
27	45° R.H. Bevel, 3.5-inch (89 mm)
28	45° L.H. Bevel, 7-inch (178 mm)
28	45° L.H. Bevel, 3.5-inch (89 mm)
29	30° R.H. Bevel, 7-inch (178 mm)
29	30° R.H. Bevel, 3.5-inch (89 mm)
30	30° L.H. Bevel, 7-inch (178 mm)
30	30° L.H. Bevel, 3.5-inch (89 mm)
31	Counterbore Insert Holder
31	Carbide Insert

* Blades used as a set.

CARBIDE HOLDERS

Max depth of cut/max wall capacity = 3.5-inches [89 mm]

#4 Insert Holder

#6 Insert Holder

#8 Insert Holder

#10 Insert Holder

37° Insert holder max wall capacity = 1.090" (27.7 mm)

370 x 3.5-inch (89 mm) RH Insert Holder

370 x 3.5-inch (89 mm) LH Insert Holder

370 x 7-inch (178 mm) RH Insert Holder

370 x 7-inch (178 mm) LH Insert Holder

30° Insert holder max wall capacity = 1.190" (30.2mm)

300 x 3.5-inch (89 mm) RH Insert Holder

300 x 3.5-inch (89 mm) LH Insert Holder

300 x 7-inch (178 mm) RH Insert Holder

300 x 7-inch (178 mm) LH Insert Holder

37° - 30° Max wall capacity = 3.180-inch (80.8 mm)

37° - 30° x 7-inch (178 mm) RH Insert Holder

37° - 30° x 7-inch (178 mm) LH Insert Holder

CARBIDE INSERT

Max depth of cut/max wall capacity = 3.5-inches [89 mm]

#4 Insert

#6 Insert

#8 Insert (M5 X 0.80 X 20mm screw)

#10 Insert (M6 X 1.0 X 25mm screw)

37° Insert holder max wall capacity = 1.090" (27.7 mm)

RH Bevel Insert

LH Bevel Insert

M4 Torx screw

30° Insert holder max wall capacity = 1.190" (30.2mm)

RH Bevel Insert

LH Bevel Insert

M4 Torx screw

37° - 30° Max wall capacity = 3.180-inch (80.8 mm)

RH Bevel Insert

LH Bevel Insert

M4 Torx screw

Customize solution available on request.

PIPE CUTTING & BEVELING MACHINES

T-TYPE BEVELING MACHINE

PRODUCT DESCRIPTION

- Quick and easy ID mounting, self locates centre of the pipe.
- Beveling and grooving with high speed. Used for the welding preparation.
- Can process facing, flange, convex surface and seal groove.
- Cold cutting process will not influence the quality of the material of the pipe.
- High quality beveling tool, can process different grades of carbon steel, alloy steel, stainless steel and so on.
- Can process the U, V and J shape of pipe beveling according to the requirements.

SPECIFICATIONS

HSDS SERIES ELECTRIC

Driven by low-energy consumption electric motor
110V or 220V optional, 50-60Hz

SPECIFICATIONS

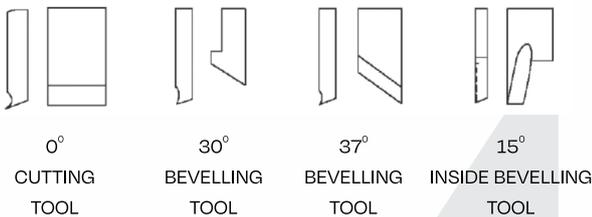
HTCM SERIES PNEUMATIC

Driven by pneumatic motor.
Air working pressure: 0.6-0.8Mpa,
Air consuming flux: 650-960L/min



BEVELING TYPES

- Other bevel angles for alloy steel, cast steel.

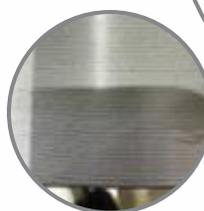


MODEL SIZE	SIZE	WORKING RANGE (ID) mm	WALL THICKNESS mm	RATED POWER kW	ROTATING RATE rpm
Electric: HSDS	80T	28-76	≤15	0.9	53
	120T	45-93	≤20	1.43	34
Pneumatic: HTCM	150T	65-159	≤20	1.43	34
	350T	150-330	≤20	1.43	34

OD MOUNTED FLANGE FACING AND SERRATION MACHINES

Product introduction:

- The machine adopts an external card clamping mechanism, providing high rigidity and stability. It can be used with both horizontal and vertical knife holders, and features a feed handwheel with a scale display for precise adjustments. This design makes it suitable for processing the inner holes of flanges as well as various types of sealing surfaces, including RF, RAT, and others.



Characteristic:

- The modular design allows for quick installation and disassembly, making it suitable even for demanding processing environments.
- Equipped with precision circular guide rails, the machine ensures long service life and excellent stability.
- Operates smoothly and without vibration, enhancing reliability and user comfort.
- A high-precision mechanical transmission system guarantees accurate horizontal, vertical, and inclined installations.
- The external card-type multi-angle support system provides greater stability during operation.
- A rotatable tool holder enables adaptability to different processing requirements.



Specification

MODEL			CLAMPING RANGE	WORKING RANGE	TOOL TRAVEL	ROTATION
AFDP-610	AFDG-610	AFDH-610	Ø 150-610	Ø 0-610	95	0-24
AFDP-1000	AFDG-1000	AFDH-1000	Ø 500-1000	Ø 0-1000	95	0-20
AFDP-1500	AFDG-1500	AFDH-1500	Ø 1000-1500	Ø 0-1500	95	0-15
AFDP-2000	AFDG-2000	AFDH-2000	Ø 1500-2000	Ø 0-2000	95	0-13
AFDP-2500	AFDG-2500	AFDH-2500	Ø 2000-2500	Ø 0-2500	95	0-10
AFDP-3000	AFDG-3000	AFDH-3000	Ø 2500-3000	Ø 0-3000	95	0-8

Note: Non-Standard machines are available according to customer's requirement

ID MOUNTED FLANGE FACING AND SERRATION MACHINES

Main Performance:

- The flange facer is a multifunctional series machine composed of three parts and supported by four clamps. It features an internally mounted small working radius and a novel tool holder design that can rotate 360 degrees, providing high efficiency. This machine is suitable for various types of flange facing, seal groove machining, weld preparation, and counter boring. It is specially designed for pipe, valve, and pump flanges.

Feature:

- Compact and lightweight structure, making it easy to transport and operate.
- Equipped with a feed handwheel featuring a scale for improved feed accuracy.
- Automatic feeding in both axial and radial directions for enhanced efficiency.
- Capable of processing in multiple orientations including horizontal, vertical, inverted, and tilted.
- Can handle flat faces, water lines, continuous grooves, RTJ grooves, and more.
- Available with pneumatic, hydraulic, or CNC drives.



WFS-610



WFP-1000



WFS-2000

Specification

MODEL	SPEC.	FACING RANGE (O.D)	MOUNTING RANGE (I.D)	TOOL FEED STROKE	TOOL HOLDER SWIVEL ANGLE	ROTATION SPEED
AFP	610	50-610 mm	50-508 mm	50 mm	+30°	0-42r/min
	1000	160-1000 mm	158-820 mm	102 mm	+360°	0-33r/min
AFH	1650	500-1650 mm	500-1500 mm	102 mm	+360°	0-22r/min
	2000	690-2200 mm	690-2000 mm	102 mm	+360°	0-20r/min
AFS	3000	1150-3000 mm	1120-2800 mm	102 mm	+360°	3-12r/min

Note: Non-Standard machines are available according to customer's requirement

1/2" IMPACT SOCKETS

BOLTING ACCESSORIES

ABS Impact Sockets are engineered to transmit torque efficiently and securely, ensuring smooth tightening and loosening of fasteners. Designed for durability and precision, these sockets deliver reliable performance in demanding applications.

- Available with square drives from 1/2" to 2-1/2" in 6-point and 12-point configurations, with standard and deep lengths.
- Offered in METRIC sizes (8mm to 225mm) and IMPERIAL sizes (9/16" to 9-1/4").
- Allen key sockets available from 1/2" to 1-1/2" square drives in both standard and custom A/F sizes.
- Manufactured from Chrome Molybdenum steel, ensuring exceptional strength, impact resistance, and long service life.

Customized socket solutions are available to meet specific application and performance requirements.

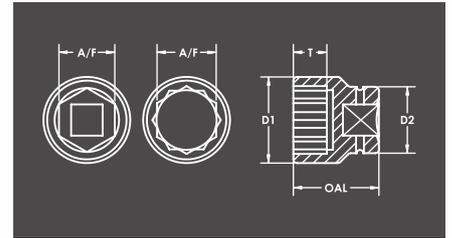


Material

Typically made from Chrome Molybdenum (Cr-Mo) steel or other high-strength materials for durability and resistance to wear and tear.

Size Markings

Clearly marked with their size for easy identification and selection.

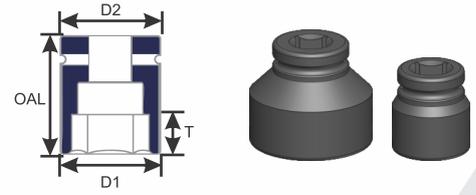


METRIC HEXAGON	A/F mm	D1 mm	D2 mm	T mm	OAL mm	WT. kg
	8	15	25	10	38	0.06
	10	17	25	10	38	0.09
	11	19	25	12	38	0.09
	12	20	25	12	38	0.09
	13	21	25	12	38	0.09
	14	22	25	13	38	0.09
	15	24	30	14	38	0.13
	16	25	30	14	38	0.13
	17	26	30	14	38	0.13
	18	27.5	30	14	38	0.13
	19	27.5	30	16	38	0.13
	20	30	30	16	38	0.13
	21	30	30	18	38	0.13
	22	32	30	18	38	0.14
	23	32	30	18	38	0.14
	24	35	30	21	45	0.17
	27	38	30	23	50	0.26
30	41	30	24	50	0.29	
32	44	30	26	50	0.30	
36	49	35	28	50	0.30	

IMPERIAL HEXAGON	A/F inch	D1 inch	D2 inch	T inch	OAL inch	WT. lbs
	5/16"	15	25	10	38	0.06
	3/8"	16	25	10	38	0.09
	7/16"	18	25	12	38	0.09
	1/2"	20	25	12	38	0.09
	9/16"	22	25	13	38	0.09
	5/8"	25	25	14	38	0.09
	11/16"	25	25	14	38	0.09
	3/4"	27.5	30	16	38	0.13
	13/16"	30	30	16	38	0.13
	7/8"	32	30	18	38	0.14
	15/16"	35	30	18	38	0.16
	1"	35	30	21	38	0.20
	1-1/16"	38	30	23	50	0.26
	1-1/8"	38	30	23	50	0.26
	1-3/16"	41	30	24	50	0.29
	1-1/4"	44	35	24	50	0.29
	1-3/8"	49	38	28	50	0.30

3/4" IMPACT SOCKETS

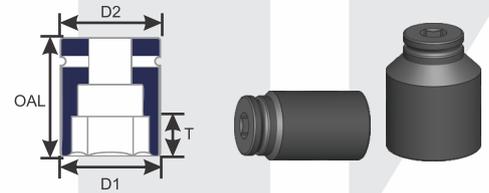
BOLTING ACCESSORIES



METRIC HEXAGON	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
	17	30.0	42.0	12.0	21.0	45.0	0.303
	19	32.0	42.0	12.0	21.0	45.0	0.306
	21	36.0	42.0	13.0	24.0	48.0	0.336
	22	37.0	42.0	13.0	24.0	48.0	0.338
	23	39.0	42.0	13.0	24.0	48.0	0.348
	24	39.0	42.0	15.0	24.0	48.0	0.348
	26	41.0	44.0	15.0	24.0	48.0	0.376
	27	44.0	44.0	16.0	24.0	48.0	0.396
	28	44.0	44.0	16.0	24.0	48.0	0.388
	30	47.0	44.0	18.0	27.0	51.0	0.443
	32	49.0	44.0	18.0	27.0	51.0	0.453
	33	50.0	44.0	18.0	27.0	51.0	0.459
	34	52.0	44.0	20.0	30.0	54.0	0.509
	36	54.0	54.0	20.0	30.0	54.0	0.647
	38	57.0	54.0	23.0	35.0	59.0	0.754
	41	61.0	54.0	23.0	35.0	59.0	0.811
42	62.0	54.0	25.0	35.0	59.0	0.814	
43	63.0	54.0	25.0	38.0	62.0	0.862	
46	67.0	54.0	25.0	38.0	62.0	0.941	
50	70.0	54.0	28.0	41.0	65.0	0.968	

IMPERIAL HEXAGON	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
	9/16	1.131	1.654	0.472	0.827	1.772	0.620
	5/8	1.181	1.654	0.472	0.827	1.772	0.670
	11/16	1.211	1.654	0.472	0.827	1.772	0.670
	3/4	1.260	1.654	0.472	0.827	1.772	0.670
	13/16	1.417	1.654	0.512	0.945	1.890	0.740
	7/8	1.535	1.654	0.512	0.945	1.890	0.770
	15/16	1.535	1.654	0.591	0.945	1.890	0.750
	1	1.614	1.732	0.591	0.945	1.890	0.830
	1.1/16	1.732	1.732	0.630	0.945	1.890	0.870
	1.1/8	1.850	1.732	0.709	1.063	2.008	0.970
	1.3/16	1.880	1.732	0.709	1.063	2.008	0.970
	1.1/4	1.929	1.732	0.709	1.063	2.008	1.000
	1.5/16	2.047	1.732	0.787	1.181	2.126	1.120
	1.3/8	2.076	2.126	0.787	1.181	2.126	1.400
	1.7/16	2.106	2.126	0.787	1.181	2.126	1.400
	1.1/2	2.344	2.126	0.906	1.378	2.323	1.660
1.9/16	2.352	2.126	0.906	1.378	2.323	1.760	
1.5/8	2.441	2.126	0.984	1.378	2.323	1.790	
1.11/16	2.480	2.126	0.984	1.496	2.441	1.900	
1.3/4	2.688	2.126	0.984	1.496	2.441	2.070	
1.13/16	2.688	2.126	0.984	1.496	2.441	2.070	

3/4" DEEP IMPACT SOCKETS



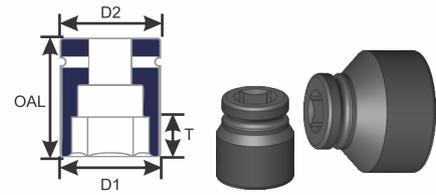
METRIC DEEP HEXAGON	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
	17	30.0	42.0	12.0	61.0	85.0	0.463
	19	32.0	42.0	12.0	61.0	85.0	0.479
	21	36.0	42.0	13.0	61.0	85.0	0.542
	22	37.0	42.0	13.0	61.0	85.0	0.551
	23	39.0	42.0	13.0	61.0	85.0	0.586
	24	40.0	42.0	15.0	61.0	85.0	0.595
	26	41.0	42.0	15.0	66.0	85.0	0.618
	27	43.0	43.0	16.0	66.0	90.0	0.674
	28	44.0	44.0	16.0	66.0	90.0	0.699
	30	47.0	44.0	18.0	66.0	90.0	0.769
	32	49.0	44.0	18.0	66.0	90.0	0.798
	33	50.0	44.0	18.0	66.0	90.0	0.812
	34	52.0	44.0	20.0	66.0	90.0	0.869
	36	54.0	54.0	20.0	66.0	90.0	1.034
	38	57.0	54.0	23.0	66.0	90.0	1.125
	41	61.0	54.0	23.0	66.0	90.0	1.229
42	62.0	54.0	25.0	66.0	90.0	1.241	
43	63.0	54.0	25.0	66.0	90.0	1.255	
46	67.0	54.0	25.0	76.0	100.0	1.563	
50	70.0	54.0	28.0	76.0	100.0	1.573	

IMPERIAL DEEP HEXAGON	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
	9/16	1.131	1.654	0.472	2.402	3.346	0.970
	5/8	1.181	1.654	0.472	2.402	3.346	1.020
	11/16	1.211	1.654	0.472	2.402	3.346	1.040
	3/4	1.260	1.654	0.472	2.402	3.346	1.050
	13/16	1.417	1.654	0.512	2.402	3.346	1.190
	7/8	1.535	1.654	0.512	2.402	3.346	1.290
	15/16	1.575	1.654	0.591	2.402	3.346	1.310
	1	1.614	1.654	0.591	2.598	3.543	1.360
	1.1/16	1.693	1.693	0.630	2.598	3.543	1.480
	1.1/8	1.850	1.732	0.709	2.598	3.543	1.690
	1.3/16	1.880	1.732	0.709	2.598	3.543	1.710
	1.1/4	1.929	1.732	0.709	2.598	3.543	1.760
	1.5/16	2.047	1.732	0.787	2.598	3.543	1.910
	1.3/8	2.126	2.126	0.787	2.598	3.543	2.280
	1.7/16	2.156	2.126	0.787	2.598	3.543	2.300
	1.1/2	2.244	2.126	0.906	2.598	3.543	2.470
1.9/16	2.402	2.126	0.906	2.598	3.543	2.700	
1.5/8	2.441	2.126	0.984	2.598	3.543	2.730	
1.11/16	2.480	2.126	0.984	2.598	3.543	2.760	
1.3/4	2.638	2.126	0.984	2.992	3.937	3.440	
1.13/16	2.456	2.126	1.102	2.992	3.937	3.410	
1.7/8	2.456	2.126	1.102	2.992	3.937	3.410	
2	2.731	2.441	1.181	2.992	3.937	4.180	

*Bihexagon socket available in all sizes.

1" IMPACT SOCKETS

BOLTING ACCESSORIES



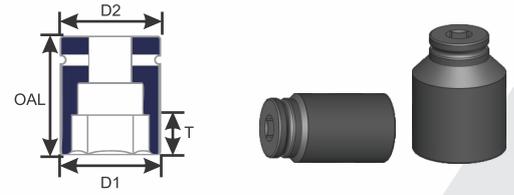
	METRIC HEXAGON						
	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
17	36.0	51.0	14.0	25.0	55.0	0.51	
19	36.0	51.0	14.0	25.0	55.0	0.51	
20	36.0	51.0	14.0	25.0	55.0	0.50	
21	38.0	51.0	14.0	25.0	55.0	0.52	
22	40.0	51.0	14.0	25.0	55.0	0.53	
23	40.0	51.0	14.0	25.0	55.0	0.52	
24	42.0	51.0	16.0	27.0	57.0	0.55	
25	43.0	51.0	16.0	27.0	57.0	0.55	
26	45.0	51.0	16.0	27.0	57.0	0.56	
27	46.0	51.0	16.0	27.0	57.0	0.57	
28	47.0	51.0	16.0	27.0	57.0	0.57	
29	48.0	51.0	18.0	29.0	59.0	0.59	
30	49.0	54.0	18.0	29.0	59.0	0.66	
31	50.0	54.0	18.0	29.0	59.0	0.66	
32	52.0	54.0	18.0	29.0	59.0	0.68	
33	54.0	54.0	18.0	29.0	59.0	0.69	
34	54.0	54.0	20.0	31.0	61.0	0.70	
35	54.0	54.0	20.0	31.0	61.0	0.69	
36	57.0	54.0	20.0	31.0	61.0	0.78	
37	57.0	54.0	20.0	31.0	61.0	0.76	
38	59.0	54.0	22.0	34.0	64.0	0.84	
39	60.0	54.0	22.0	34.0	64.0	0.88	
40	60.0	54.0	22.0	34.0	64.0	0.85	
41	62.0	54.0	22.0	34.0	64.0	0.90	
42	64.0	54.0	24.0	36.0	66.0	0.97	
43	65.0	54.0	24.0	36.0	66.0	0.98	
44	66.0	54.0	24.0	36.0	66.0	0.98	
45	68.0	54.0	24.0	36.0	66.0	1.03	
46	68.0	54.0	26.0	38.0	68.0	1.02	
47	71.0	54.0	26.0	38.0	68.0	1.02	
48	71.0	54.0	26.0	38.0	68.0	1.08	
49	74.0	54.0	28.0	40.0	70.0	1.17	
50	74.0	54.0	28.0	40.0	70.0	1.17	
51	77.0	62.0	30.0	40.0	70.0	1.40	
52	77.0	62.0	30.0	40.0	70.0	1.40	
54	79.0	62.0	30.0	40.0	70.0	1.42	
55	79.0	62.0	30.0	44.0	74.0	1.45	
56	80.0	62.0	31.0	44.0	74.0	1.46	
57	84.0	62.0	32.0	44.0	74.0	1.59	
58	84.0	62.0	32.0	44.0	74.0	1.59	
59	87.0	62.0	33.0	47.0	77.0	1.75	
60	87.0	62.0	33.0	47.0	77.0	1.75	
62	90.0	62.0	34.0	49.0	79.0	1.89	
65	93.0	62.0	36.0	51.0	81.0	1.99	
70	99.0	86.0	38.0	54.0	84.0	2.81	
75	104.0	86.0	40.0	56.0	89.0	3.08	
80	112.0	86.0	43.0	58.0	91.0	3.54	
85	119.0	86.0	50.0	60.0	93.0	3.85	
90	122.0	86.0	50.0	62.0	95.0	3.84	
95	130.0	106.0	53.0	64.0	97.0	5.13	
100	134.0	106.0	56.0	66.0	99.0	5.20	
105	142.0	106.0	59.0	68.0	101.0	5.83	
110	147.0	106.0	62.0	72.0	105.0	6.00	
115	153.0	127.0	66.0	72.0	105.0	7.36	

	IMPERIAL HEXAGON						
	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
11/16	1.417	2.008	0.551	0.984	2.165	1.13	
3/4	1.417	2.008	0.551	0.984	2.165	1.13	
13/16	1.496	2.008	0.551	0.984	2.165	1.13	
7/8	1.575	2.008	0.551	0.984	2.165	1.14	
15/16	1.654	2.008	0.630	1.063	2.244	1.20	
1	1.772	2.008	0.630	1.063	2.244	1.24	
1.1/16	1.811	2.008	0.630	1.063	2.244	1.25	
1.1/8	1.890	2.008	0.709	1.142	2.323	1.29	
1.3/16	1.969	2.126	0.709	1.142	2.323	1.45	
1.1/4	2.047	2.126	0.709	1.142	2.323	1.49	
1.5/16	2.126	2.126	0.787	1.220	2.402	1.54	
1.3/8	2.126	2.126	0.787	1.220	2.402	1.51	
1.7/16	2.244	2.126	0.787	1.220	2.402	1.68	
1.1/2	2.323	2.126	0.866	1.339	2.520	1.86	
1.9/16	2.362	2.126	0.866	1.339	2.520	1.88	
1.5/8	2.520	2.126	0.945	1.417	2.598	2.13	
1.11/16	2.569	2.126	0.945	1.417	2.598	2.15	
1.3/4	2.677	2.126	0.945	1.417	2.598	2.27	
1.13/16	2.677	2.126	1.024	1.496	2.677	2.30	
1.7/8	2.795	2.126	1.024	1.496	2.677	2.37	
1.15/16	2.795	2.126	1.024	1.496	2.677	2.37	
2	2.963	2.126	1.102	1.575	2.756	2.67	
2.1/16	2.963	2.126	1.102	1.575	2.756	2.67	
2.1/8	3.110	2.441	1.102	1.575	2.756	3.13	
2.3/16	3.150	2.441	1.181	1.732	2.913	3.21	
2.1/4	3.307	2.441	1.181	1.732	2.913	3.50	
2.5/16	3.307	2.441	1.181	1.732	2.913	3.50	
2.3/8	3.405	2.441	1.260	1.850	3.031	3.77	
2.7/16	3.543	2.441	1.339	1.929	3.110	4.17	
2.1/2	3.543	2.441	1.339	1.929	3.110	4.17	
2.9/16	3.711	2.441	1.417	2.008	3.189	4.38	
2.5/8	3.711	2.441	1.417	2.008	3.189	4.38	
2.11/16	3.898	3.386	1.496	2.126	3.307	6.19	
2.3/4	3.898	3.386	1.496	2.126	3.307	6.19	
2.13/16	3.898	3.386	1.496	2.126	3.307	6.19	
2.7/8	4.094	3.386	1.575	2.205	3.504	6.77	
2.15/16	4.094	3.386	1.575	2.205	3.504	6.77	
3	4.094	3.386	1.575	2.205	3.504	6.77	
3.1/16	4.425	3.386	1.654	2.283	3.583	7.80	
3.1/8	4.425	3.386	1.654	2.283	3.583	7.80	
3.3/16	4.425	3.386	1.654	2.283	3.583	7.80	
3.1/4	4.651	3.386	1.732	2.362	3.661	8.13	
3.5/16	4.742	3.386	1.732	2.362	3.661	8.40	
3.3/8	4.742	3.386	1.732	2.362	3.661	8.40	
3.7/16	4.803	3.386	1.811	2.441	3.740	8.44	
3.1/2	4.803	3.386	1.811	2.441	3.740	8.44	
3.5/8	5.118	4.173	1.890	2.520	3.819	11.29	
3.3/4	5.118	4.173	1.890	2.520	3.819	11.29	
3.7/8	5.276	4.173	1.969	2.598	3.898	11.44	
4	5.591	4.173	2.047	2.677	3.976	12.82	
4.1/8	5.591	4.173	2.047	2.677	3.976	12.82	
4.1/4	5.727	4.173	2.126	2.835	4.134	13.05	
4.3/8	6.024	5.000	2.205	2.835	4.134	16.20	
4.1/2	6.024	5.000	2.205	2.835	4.134	16.20	

*Bi-hexagon socket available in all sizes.

1" DEEP IMPACT SOCKETS

BOLTING ACCESSORIES



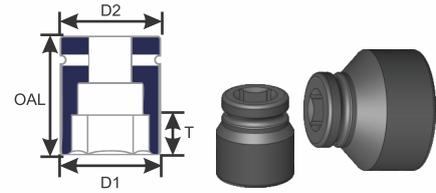
	METRIC DEEP HEXAGON						
	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
17	36.0	51.0	14.0	72.0	102.0	0.79	
19	36.0	51.0	14.0	72.0	102.0	0.79	
20	36.0	51.0	14.0	72.0	102.0	0.76	
21	38.0	51.0	14.0	72.0	102.0	0.81	
22	40.0	51.0	14.0	72.0	102.0	0.86	
23	40.0	51.0	14.0	72.0	102.0	0.84	
24	42.0	51.0	16.0	72.0	102.0	0.89	
25	43.0	51.0	16.0	72.0	102.0	0.90	
26	45.0	51.0	16.0	72.0	102.0	0.95	
27	46.0	51.0	16.0	72.0	102.0	0.97	
28	47.0	51.0	16.0	72.0	102.0	0.98	
29	48.0	51.0	18.0	72.0	102.0	0.99	
30	49.0	54.0	18.0	72.0	102.0	1.07	
31	50.0	54.0	18.0	72.0	102.0	1.09	
32	52.0	54.0	18.0	72.0	102.0	1.14	
33	54.0	54.0	18.0	72.0	102.0	1.19	
34	54.0	54.0	20.0	72.0	102.0	1.16	
35	54.0	54.0	20.0	72.0	102.0	1.13	
36	57.0	54.0	20.0	69.0	102.0	1.31	
37	57.0	54.0	20.0	69.0	102.0	1.28	
38	59.0	54.0	22.0	69.0	102.0	1.38	
39	60.0	54.0	22.0	69.0	102.0	1.41	
40	60.0	54.0	22.0	69.0	102.0	1.37	
41	62.0	54.0	22.0	69.0	102.0	1.45	
42	64.0	54.0	24.0	69.0	102.0	1.53	
43	66.0	54.0	24.0	69.0	102.0	1.61	
44	66.0	54.0	24.0	69.0	102.0	1.56	
45	68.0	54.0	24.0	69.0	102.0	1.65	
46	68.0	54.0	26.0	69.0	102.0	1.59	
47	71.0	54.0	26.0	67.0	102.0	1.73	
48	71.0	54.0	26.0	67.0	102.0	1.68	
49	74.0	54.0	28.0	80.0	110.0	1.96	
50	74.0	54.0	28.0	80.0	110.0	1.96	
51	77.0	62.0	30	75.0	110.0	2.23	
52	77.0	62.0	30	75.0	110.0	2.23	
54	79.0	62.0	30	75.0	110.0	2.26	
55	79.0	62.0	30.0	75.0	110.0	2.19	
56	80.0	62.0	31	75.0	110.0	2.21	
57	84.0	62.0	32	75.0	110.0	2.42	
58	84.0	62.0	32	75.0	110.0	2.42	
59	87.0	62.0	33	80.0	115.0	2.71	
60	87.0	62.0	33	80.0	115.0	2.71	
62	90.0	62.0	34.0	80.0	115.0	2.86	
65	93.0	62.0	36.0	80.0	115.0	2.90	
70	99.0	62.0	38.0	85.0	120.0	3.28	
75	104.0	86.0	40	85.0	120.0	4.17	
80	112.0	86.0	43	85.0	120.0	4.73	
85	119.0	86.0	50	90.0	125.0	5.27	
90	122.0	86.0	50	90.0	125.0	5.15	
95	130.0	106.0	53	95.0	130.0	6.91	
100	134.0	106.0	56	95.0	130.0	6.88	
105	142.0	106.0	59	95.0	130.0	7.58	
110	147.0	106.0	62	105.0	140.0	8.38	
115	153.0	127.0	66	105.0	140.0	9.81	

	IMPERIAL DEEP HEXAGON						
	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
11/16	1.417	2.008	0.551	2.835	4.016	1.73	
3/4	1.417	2.008	0.551	2.835	4.016	1.73	
13/16	1.496	2.008	0.551	2.835	4.016	1.78	
7/8	1.575	2.008	0.551	2.835	4.016	1.85	
15/16	1.654	2.008	0.630	2.835	4.016	1.95	
1	1.772	2.008	0.630	2.835	4.016	2.10	
1.1/16	1.811	2.008	0.630	2.835	4.016	2.13	
1.1/8	1.890	2.008	0.709	2.835	4.016	2.18	
1.3/16	1.969	2.126	0.709	2.835	4.016	2.39	
1.1/4	2.047	2.126	0.709	2.835	4.016	2.51	
1.5/16	2.126	2.126	0.787	2.835	4.016	2.56	
1.3/8	2.126	2.126	0.787	2.835	4.016	2.49	
1.7/16	2.244	2.126	0.787	2.717	4.016	2.82	
1.1/2	2.323	2.126	0.866	2.717	4.016	3.03	
1.9/16	2.362	2.126	0.866	2.717	4.016	3.03	
1.5/8	2.520	2.126	0.945	2.717	4.016	3.36	
1.11/16	2.569	2.126	0.945	2.717	4.016	3.53	
1.3/4	2.677	2.126	0.945	2.717	4.016	3.62	
1.13/16	2.677	2.126	1.024	2.717	4.016	3.62	
1.7/8	2.795	2.126	1.024	2.638	4.016	3.69	
1.15/16	2.795	2.126	1.024	2.638	4.016	3.69	
2	2.963	2.126	1.102	3.150	4.331	4.41	
2.1/16	2.923	2.126	1.102	3.150	4.331	4.41	
2.1/8	3.110	2.441	1.181	2.953	4.331	4.81	
2.3/16	3.150	2.441	1.181	2.953	4.331	4.85	
2.1/4	3.307	2.441	1.181	2.953	4.331	4.85	
2.5/16	3.307	2.126	0.945	2.717	4.331	4.85	
2.3/8	3.405	2.441	1.260	3.150	4.528	6.04	
2.7/16	3.543	2.441	1.260	3.150	4.528	6.30	
2.1/2	3.543	2.126	1.024	2.638	4.528	6.30	
2.9/16	3.711	2.441	1.339	3.150	4.528	6.38	
2.5/8	3.711	2.441	1.339	3.150	4.528	6.38	
2.11/16	3.031	2.441	1.102	2.953	4.528	6.38	
2.3/4	3.898	2.441	1.417	3.346	4.724	7.22	
2.13/16	3.898	2.441	1.417	3.346	4.724	7.22	
2.7/8	4.094	3.386	1.496	3.346	4.724	9.18	
2.15/16	4.094	3.386	1.496	3.346	4.724	9.18	
3	4.094	3.386	1.496	3.346	4.724	9.18	
3.1/16	4.425	3.386	1.575	3.346	4.724	10.40	
3.1/8	4.425	3.386	1.575	3.346	4.724	10.40	
3.3/16	4.425	3.386	1.575	3.346	4.724	10.40	
3.1/4	4.651	3.386	1.654	3.543	4.921	10.84	
3.5/16	4.742	3.386	1.654	3.543	4.921	11.60	
3.3/8	4.742	3.386	1.654	3.543	4.921	11.60	
3.7/16	4.803	3.386	1.732	3.543	4.921	11.60	
3.1/2	4.803	3.386	1.732	3.543	4.921	11.60	
3.5/8	5.118	4.173	1.811	3.740	5.118	15.20	
3.3/4	5.118	4.173	1.811	3.740	5.118	15.20	
3.7/8	5.276	4.173	1.890	3.740	5.118	15.20	
4	5.591	4.173	1.969	3.740	5.118	16.68	
4.1/8	5.591	4.173	1.969	3.740	5.118	16.68	
4.1/4	5.727	4.173	2.047	4.134	5.512	18.58	
4.3/8	6.024	5.000	2.126	4.134	5.512	21.59	
4.1/2	6.024	5.000	2.126	4.134	5.512	21.59	

*Bihexagon socket available in all sizes.

1 1/2" IMPACT SOCKETS

BOLTING ACCESSORIES



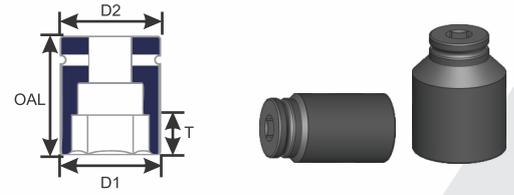
METRIC HEXAGON	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
	30	58.0	82.0	19.0	33.0	75.0	1.91
	32	58.0	82.0	19.0	33.0	75.0	1.91
	33	59.0	82.0	19.0	33.0	75.0	1.91
	34	60.0	82.0	20.0	33.0	75.0	1.91
	35	62.0	82.0	21.0	35.0	77.0	1.97
	36	63.0	82.0	21.0	35.0	77.0	1.97
	37	64.0	82.0	21.0	35.0	77.0	1.97
	38	65.0	84.0	22.0	35.0	77.0	2.07
	39	67.0	84.0	22.0	36.0	78.0	2.12
40	68.0	84.0	23.0	36.0	78.0	2.13	
41	69.0	84.0	23.0	37.0	79.0	2.14	
42	70.0	84.0	24.0	37.0	79.0	2.15	
43	71.0	84.0	24.0	38.0	80.0	2.17	
44	73.0	84.0	25.0	38.0	80.0	2.20	
45	74.0	84.0	25.0	39.0	81.0	2.22	
46	75.0	86.0	26.0	40.0	82.0	2.35	
47	77.0	86.0	27.0	40.0	82.0	2.38	
48	78.0	86.0	27.0	40.0	82.0	2.39	
49	79.0	86.0	27.0	41.0	83.0	2.41	
50	80.0	86.0	28.0	41.0	83.0	2.42	
51	81.0	86.0	30.0	41.0	83.0	2.42	
52	82.0	86.0	30.0	42.0	84.0	2.45	
54	84.0	86.0	30.0	42.0	84.0	2.47	
55	86.0	86.0	30.0	43.0	85.0	2.52	
56	88.0	86.0	31.0	43.0	85.0	2.71	
57	88.0	86.0	32.0	43.0	85.0	2.71	
58	90.0	86.0	32.0	44.0	86.0	2.78	
59	90.0	86.0	33.0	46.0	88.0	2.78	
60	90.0	86.0	33.0	46.0	88.0	2.78	
61	94.0	86.0	34.0	46.0	88.0	2.92	
62	94.0	86.0	35.0	46.0	88.0	2.92	
65	98.0	86.0	35.0	48.0	90.0	3.09	
67	101.0	86.0	37.0	50.0	92.0	3.26	
70	104.0	86.0	38.0	53.0	95.0	3.40	
73	108.0	86.0	40.0	55.0	97.0	3.71	
75	111.0	86.0	42.0	59.0	101.0	4.04	
76	118.0	86.0	44.0	61.0	103.0	4.41	
80	118.0	86.0	44.0	61.0	103.0	4.41	
85	124.0	86.0	48.0	66.0	108.0	4.88	
86	124.0	86.0	50.0	68.0	110.0	4.82	
90	130.0	106.0	53.0	71.0	113.0	6.24	
95	135.0	106.0	56.0	74.0	116.0	6.56	
100	143.0	106.0	59.0	77.0	119.0	7.48	
105	148.0	106.0	62.0	82.0	124.0	7.93	
110	154.0	106.0	65.0	85.0	127.0	8.51	
115	161.0	127.0	68.0	88.0	130.0	10.48	
120	168.0	127.0	71.0	91.0	133.0	11.38	
125	174.0	127.0	74.0	96.0	138.0	12.31	
130	180.0	127.0	77.0	99.0	141.0	13.09	

IMPERIAL HEXAGON	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
	1.3/8	2.441	3.228	0.827	1.378	3.031	4.30
	1.7/16	2.520	3.228	0.827	1.378	3.031	4.30
	1.1/2	2.559	3.307	0.827	1.378	3.031	4.60
	1.9/16	2.677	3.307	0.866	1.417	3.071	4.70
	1.5/8	2.717	3.307	0.906	1.457	3.110	4.70
	1.11/16	2.795	3.307	0.945	1.496	3.150	4.80
	1.3/4	2.913	3.307	0.984	1.535	3.189	4.90
	1.13/16	2.953	3.386	1.024	1.575	3.228	5.20
	1.7/8	3.071	3.386	1.024	1.575	3.228	5.30
1.15/16	3.110	3.386	1.063	1.614	3.268	5.30	
2	3.189	3.386	1.063	1.614	3.268	5.30	
2.1/16	3.228	3.386	1.102	1.654	3.307	5.40	
2.1/8	3.307	3.386	1.102	1.654	3.307	5.40	
2.3/16	3.465	3.386	1.142	1.693	3.346	6.00	
2.1/4	3.465	3.386	1.142	1.693	3.346	5.90	
2.5/16	3.543	3.386	1.181	1.732	3.386	6.10	
2.3/8	3.543	3.386	1.260	1.811	3.465	6.10	
2.7/16	3.701	3.386	1.260	1.811	3.465	6.40	
2.1/2	3.751	3.386	1.260	1.811	3.465	7.30	
2.9/16	3.858	3.386	1.339	1.890	3.543	6.80	
2.5/8	3.976	3.386	1.417	1.969	3.622	7.20	
2.11/16	4.026	3.386	1.417	1.969	3.622	7.40	
2.3/4	4.094	3.386	1.496	2.087	3.740	7.50	
2.13/16	4.144	3.386	1.496	2.087	3.740	8.30	
2.7/8	4.252	3.386	1.575	2.165	3.819	8.20	
2.15/16	4.372	3.386	1.654	2.323	3.976	8.90	
3	4.420	3.386	1.654	2.323	3.976	9.70	
3.1/16	4.646	3.386	1.732	2.402	4.055	9.70	
3.1/8	4.646	3.386	1.732	2.402	4.055	9.70	
3.3/16	4.716	3.386	1.732	2.402	4.055	10.70	
3.1/4	4.716	3.386	1.732	2.402	4.055	10.70	
3.5/16	4.882	3.386	1.969	2.677	4.331	10.70	
3.3/8	4.882	3.386	1.969	2.677	4.331	10.70	
3.7/16	5.118	4.173	2.087	2.795	4.449	13.70	
3.1/2	5.118	4.173	2.087	2.795	4.449	13.70	
3.9/16	5.193	4.173	2.087	2.795	4.449	13.80	
3.5/8	5.193	4.173	2.087	2.795	4.449	13.80	
3.11/16	5.315	4.173	2.205	2.913	4.567	17.00	
3.3/4	5.315	4.173	2.205	2.913	4.567	17.00	
3.13/16	5.670	4.173	2.323	3.031	4.685	17.00	
3.7/8	5.670	4.173	2.323	3.031	4.685	17.00	
3.15/16	5.745	4.173	2.323	3.031	4.685	17.90	
4	5.745	4.173	2.323	3.031	4.685	17.90	
4.1/16	5.827	4.173	2.441	3.228	4.882	17.90	
4.1/8	5.827	4.173	2.441	3.228	4.882	17.90	
4.3/16	6.103	4.173	2.559	3.346	5.000	18.70	
4.1/4	6.103	4.173	2.559	3.346	5.000	18.70	
4.3/8	6.193	4.173	2.559	3.346	5.000	19.70	
4.1/2	6.339	5.000	2.677	3.465	5.118	23.00	
4.5/8	6.419	5.000	2.677	3.465	5.118	24.20	
4.3/4	6.614	5.000	2.795	3.583	5.236	25.00	
5	6.930	5.000	2.913	3.780	5.433	28.30	
5.1/8	7.087	5.000	3.031	3.898	5.551	28.80	

*Bi-hexagon socket available in all sizes.

1 1/2" DEEP IMPACT SOCKETS

BOLTING ACCESSORIES



METRIC DEEP HEXAGON

A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
30	58.0	82.0	19.0	78.0	120.0	2.55
32	58.0	82.0	19.0	78.0	120.0	2.55
33	59.0	82.0	19.0	78.0	120.0	2.57
34	60.0	82.0	20.0	78.0	120.0	2.58
35	62.0	82.0	21.0	78.0	120.0	2.65
36	63.0	82.0	21.0	78.0	120.0	2.67
37	64.0	82.0	21.0	78.0	120.0	2.69
38	65.0	84.0	22.0	78.0	120.0	2.70
39	67.0	84.0	22.0	78.0	120.0	2.91
40	68.0	84.0	23.0	78.0	120.0	2.92
41	69.0	84.0	23.0	83.0	125.0	3.03
42	70.0	84.0	24.0	83.0	125.0	3.05
43	71.0	84.0	24.0	83.0	125.0	3.07
44	73.0	84.0	25.0	83.0	125.0	3.16
45	74.0	84.0	25.0	83.0	125.0	3.17
46	75.0	86.0	26.0	83.0	125.0	3.30
47	77.0	86.0	27.0	83.0	125.0	3.39
48	78.0	86.0	27.0	83.0	125.0	3.41
49	79.0	86.0	27.0	83.0	125.0	3.42
50	80.0	86.0	28.0	83.0	125.0	3.44
51	81.0	86.0	30.0	83.0	125.0	3.46
52	82.0	86.0	30.0	88.0	130.0	3.64
54	84.0	86.0	30.0	88.0	130.0	3.67
55	86.0	86.0	30.0	88.0	130.0	3.80
56	88.0	86.0	31.0	88.0	130.0	4.12
57	88.0	86.0	32.0	88.0	130.0	4.05
58	90.0	86.0	32.0	88.0	130.0	4.20
59	90.0	86.0	33.0	88.0	130.0	4.20
60	90.0	86.0	33.0	88.0	130.0	4.20
61	94.0	86.0	34.0	88.0	130.0	4.35
62	94.0	86.0	35.0	88.0	130.0	4.35
65	98.0	86.0	35.0	98.0	140.0	5.05
67	101.0	86.0	37.0	98.0	140.0	5.11
70	104.0	86.0	38.0	98.0	140.0	5.23
73	108.0	86.0	40.0	98.0	140.0	5.73
75	111.0	86.0	42.0	108.0	150.0	6.27
76	118.0	86.0	44.0	108.0	150.0	6.82
80	118.0	86.0	44.0	108.0	150.0	6.82
85	124.0	86.0	48.0	118.0	160.0	7.79
86	124.0	86.0	50.0	118.0	160.0	7.79
90	130.0	106.0	53.0	128.0	170.0	9.68
95	135.0	106.0	56.0	128.0	170.0	9.97
100	143.0	106.0	59.0	128.0	170.0	11.03
105	148.0	106.0	62.0	138.0	180.0	11.99
110	154.0	106.0	65.0	138.0	180.0	12.61
115	161.0	127.0	68.0	138.0	180.0	14.69
120	168.0	127.0	71.0	148.0	190.0	16.25
125	174.0	127.0	74.0	148.0	190.0	17.35
130	180.0	127.0	77.0	148.0	190.0	18.11

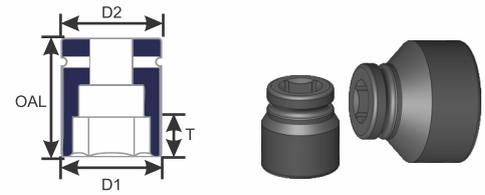
IMPERIAL DEEP HEXAGON

A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
1.3/8	2.441	3.228	0.827	3.071	4.724	5.80
1.7/16	2.520	3.228	0.827	3.071	4.724	5.90
1.1/2	2.559	3.228	0.827	3.071	4.724	5.90
1.9/16	2.677	3.307	0.866	3.071	4.724	6.40
1.5/8	2.717	3.307	0.906	3.268	4.921	6.70
1.11/16	2.795	3.307	0.945	3.268	4.921	6.80
1.3/4	2.913	3.307	0.984	3.268	4.921	7.00
1.13/16	2.953	3.386	1.024	3.268	4.921	7.30
1.7/8	3.071	3.386	1.024	3.268	4.921	7.50
1.15/16	3.110	3.386	1.063	3.268	4.921	7.50
2	3.189	3.386	1.063	3.268	4.921	7.60
2.1/16	3.228	3.386	1.102	3.465	5.118	8.00
2.1/8	3.307	3.386	1.102	3.465	5.118	8.10
2.3/16	3.465	3.386	1.142	3.465	5.118	8.10
2.1/4	3.465	3.386	1.142	3.465	5.118	8.90
2.5/16	3.543	3.386	1.181	3.465	5.118	9.20
2.3/8	3.543	3.386	1.260	3.465	5.118	9.20
2.7/16	3.701	3.386	1.260	3.465	5.118	9.60
2.1/2	3.751	3.386	1.260	3.465	5.118	10.50
2.9/16	3.858	3.386	1.339	3.858	5.512	11.10
2.5/8	3.976	3.386	1.417	3.858	5.512	11.20
2.11/16	4.026	3.386	1.417	3.858	5.512	11.40
2.3/4	4.094	3.386	1.496	3.858	5.512	11.50
2.13/16	4.144	3.386	1.496	3.858	5.512	12.30
2.7/8	4.25	3.386	1.575	3.858	5.512	12.60
2.15/16	4.370	3.386	1.654	4.252	5.906	13.80
3	4.420	3.386	1.654	4.252	5.906	14.70
3.1/16	4.646	3.386	1.732	4.252	5.906	15.00
3.1/8	4.646	3.386	1.732	4.252	5.906	15.00
3.3/16	4.716	3.386	1.732	4.252	5.906	16.00
3.1/4	4.716	3.386	1.732	4.252	5.906	16.00
3.5/16	4.882	3.386	1.969	4.646	6.299	16.70
3.3/8	4.882	3.386	1.969	4.646	6.299	16.70
3.7/16	5.118	4.173	2.087	5.039	6.693	21.30
3.1/2	5.118	4.173	2.087	5.039	6.693	21.30
3.9/16	5.193	4.173	2.087	5.039	6.693	21.40
3.5/8	5.193	4.173	2.087	5.039	6.693	21.40
3.11/16	5.315	4.173	2.205	5.039	6.693	21.90
3.3/4	5.315	4.173	2.205	5.039	6.693	21.90
3.13/16	5.670	4.173	2.323	5.039	6.693	24.90
3.7/8	5.670	4.173	2.323	5.039	6.693	24.90
3.15/16	5.745	4.173	2.323	5.039	6.693	25.80
4	5.745	4.173	2.323	5.039	6.693	25.80
4.1/16	5.827	4.173	2.441	5.433	7.087	26.40
4.1/8	5.827	4.173	2.441	5.433	7.087	26.40
4.3/16	6.103	4.173	2.559	5.433	7.087	27.70
4.1/4	6.103	4.173	2.559	5.433	7.087	27.70
4.3/8	6.193	4.173	2.559	5.433	7.087	28.70
4.1/2	6.339	5.000	2.677	5.433	7.087	32.30
4.5/8	6.419	5.000	2.795	5.827	7.480	35.70
4.3/4	6.614	5.000	2.795	5.827	7.480	35.70
5	6.930	5.000	2.913	5.827	7.480	39.40
5.1/8	7.087	5.000	3.031	5.827	7.480	39.90

*Bihexagon socket available in all sizes.

2 1/2" IMPACT SOCKETS

BOLTING ACCESSORIES



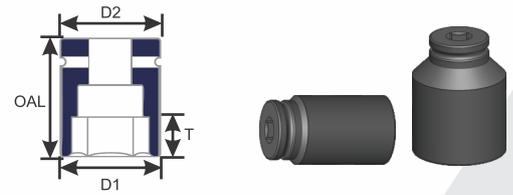
A/F	METRIC HEXAGON						
	mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
43	86.0	116.0	28.0	46.0	104.0	4.97	
44	86.0	116.0	28.0	46.0	104.0	4.97	
45	86.0	116.0	28.0	46.0	104.0	4.97	
46	86.0	116.0	28.0	46.0	104.0	4.97	
47	86.0	116.0	28.0	46.0	104.0	4.97	
48	86.0	116.0	28.0	46.0	104.0	4.97	
49	86.0	116.0	28.0	46.0	104.0	4.92	
50	86.0	116.0	28.0	46.0	104.0	5.07	
51	90.0	116.0	29.0	46.0	104.0	5.07	
52	90.0	116.0	29.0	46.0	104.0	5.87	
54	92.5	124.0	30.0	46.0	104.0	6.08	
55	93.8	124.0	32.0	52.0	110.0	6.10	
56	95.0	124.0	32.0	52.0	110.0	6.12	
57	96.3	124.0	32.0	52.0	110.0	6.14	
58	97.5	124.0	32.0	52.0	110.0	6.55	
59	98.8	127.0	34.0	54.0	112.0	6.64	
60	100.0	127.0	36.0	56.0	114.0	6.69	
62	103.0	127.0	36.0	56.0	114.0	6.83	
65	106.0	127.0	38.0	58.0	116.0	6.89	
67	109.0	127.0	38.0	58.0	116.0	7.05	
70	113.0	127.0	40.0	60.0	118.0	7.13	
73	116.0	127.0	40.0	60.0	118.0	7.38	
75	119.0	127.0	42.0	64.0	122.0	7.39	
76	120.0	127.0	44.0	64.0	122.0	7.50	
80	125.0	127.0	44.0	64.0	122.0	8.06	
85	129.0	127.0	48.0	68.0	126.0	8.59	
86	132.0	127.0	50.0	68.0	129.0	8.87	
90	136.0	127.0	52.0	70.0	130.0	9.37	
95	142.0	127.0	54.0	72.0	132.0	10.20	
100	148.0	127.0	56.0	78.0	138.0	10.99	
105	154.0	127.0	60.0	82.0	142.0	11.89	
110	161.0	127.0	64.0	86.0	146.0	12.19	
115	165.0	127.0	67.0	89.0	149.0	13.30	
120	173.0	127.0	70.0	92.0	152.0	13.68	
125	179.0	127.0	73.0	95.0	153.0	14.52	
130	185.0	127.0	76.0	98.0	156.0	18.37	
135	192.0	152.0	79.0	103.0	161.0	18.58	
140	196.0	152.0	82.0	106.0	164.0	20.22	
145	204.0	152.0	85.0	109.0	167.0	21.37	
150	211.0	152.0	88.0	112.0	170.0	22.04	
155	215.0	152.0	91.0	117.0	175.0	23.92	
160	223.0	152.0	94.0	120.0	178.0	27.19	
165	229.0	175.0	96.0	122.0	180.0	28.93	
170	235.0	175.0	98.0	126.0	184.0	30.20	
175	242.0	175.0	100.0	128.0	186.0	30.28	
180	246.0	175.0	103.0	131.0	189.0	32.54	
185	254.0	175.0	106.0	134.0	192.0	34.04	
190	261.0	175.0	109.0	137.0	195.0	34.80	
195	265.0	175.0	112.0	142.0	200.0	37.49	
200	273.0	175.0	115.0	145.0	203.0	39.91	
210	285.0	175.0	120.0	150.0	208.0	41.94	
215	292.0	175.0	123.0	153.0	211.0	45.71	
225	304.0	175.0	130.0	160.0	218.0	4.97	

A/F	IMPERIAL HEXAGON						
	inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
1.5/8	3.386	4.567	1.102	1.811	4.094	11.30	
1.3/4	3.386	4.567	1.102	1.811	4.094	11.30	
1.7/8	3.386	4.567	1.102	1.811	4.094	11.30	
2	3.543	4.567	1.142	1.811	4.094	11.30	
2.1/8	3.642	4.882	1.181	1.811	4.094	12.90	
2.1/4	3.789	4.882	1.260	2.047	4.331	13.50	
2.3/8	3.937	5.000	1.417	2.205	4.488	14.60	
2.1/2	4.133	5.000	1.496	2.283	4.567	15.00	
2.5/8	4.281	5.000	1.496	2.283	4.567	15.20	
2.3/4	4.429	5.000	1.575	2.362	4.646	15.50	
2.7/8	4.577	5.000	1.575	2.362	4.646	15.70	
2.15/16	4.675	5.000	1.654	2.520	4.803	16.20	
3	4.774	5.000	1.732	2.520	4.803	16.40	
3.1/8	4.921	5.000	1.732	2.520	4.803	16.50	
3.1/4	4.999	5.000	1.890	2.677	4.961	16.70	
3.3/8	5.000	5.000	1.969	2.677	5.079	18.90	
3.1/2	5.000	5.000	2.047	2.756	5.118	19.50	
3.5/8	5.197	5.000	2.047	2.756	5.118	20.40	
3.3/4	5.554	5.000	2.126	2.835	5.197	20.60	
3.7/8	5.394	5.000	2.205	3.071	5.433	21.60	
4	5.827	5.000	2.205	3.071	5.433	22.40	
4.1/8	6.063	5.000	2.362	3.228	5.591	24.20	
4.1/4	6.299	5.000	2.520	3.386	5.748	25.50	
4.3/8	6.379	5.000	2.520	3.386	5.748	26.40	
4.1/2	6.496	5.000	2.638	3.504	5.866	26.80	
4.5/8	6.536	5.000	2.638	3.504	5.866	28.00	
4.7/8	7.047	5.000	2.874	3.740	6.024	30.10	
5	7.163	5.000	2.992	3.858	6.142	31.00	
5.1/8	7.203	5.000	2.992	3.858	6.142	32.10	
5.1/4	7.203	5.000	2.992	3.858	6.142	32.10	
5.3/8	7.609	5.984	3.110	4.055	6.339	41.10	
5.1/2	7.717	5.984	3.228	4.173	6.457	41.10	
5.5/8	7.757	5.984	3.228	4.173	6.457	41.70	
5.3/4	8.081	5.984	3.346	4.291	6.575	45.20	
6.1/8	9.016	6.890	3.780	4.803	7.087	59.80	
6.1/2	9.016	6.890	3.780	4.803	7.087	59.80	
6.7/8	9.528	6.890	3.937	5.039	7.323	66.40	
7	9.685	6.890	4.055	5.157	7.441	66.60	
7.1/4	10.000	6.890	4.173	5.276	7.559	71.60	
7.1/2	10.276	6.890	4.291	5.394	7.677	74.90	
7.5/8	10.433	6.890	4.409	5.591	7.874	76.60	
7.3/4	10.433	6.890	4.409	5.591	7.874	76.60	
7.7/8	10.748	6.890	4.528	5.709	7.992	82.50	
8	10.748	6.890	4.528	5.709	7.992	83.60	
8.1/8	11.220	6.890	4.724	5.906	8.189	87.80	
8.1/4	11.220	6.890	4.724	5.906	8.189	87.80	
8.3/8	11.225	6.890	4.724	5.906	8.189	88.70	
8.1/2	11.496	6.890	4.843	6.024	8.307	92.30	
9	12.029	6.890	5.118	6.299	8.583	101.80	
9.1/4	12.029	6.890	5.118	6.299	8.583	101.80	

*Bi-hexagon socket available in all sizes.

2 1/2" DEEP IMPACT SOCKETS

BOLTING ACCESSORIES



	METRIC DEEP HEXAGON						
	A/F mm	D1 mm	D2 mm	T mm	C mm	OAL mm	WT. kg
43	86.0	116.0	28.0	110.0	168.0	6.43	
44	86.0	116.0	28.0	110.0	168.0	6.43	
45	86.0	116.0	28.0	110.0	168.0	6.43	
46	86.0	116.0	28.0	110.0	168.0	6.43	
47	86.0	116.0	28.0	110.0	168.0	6.43	
48	86.0	116.0	28.0	110.0	168.0	7.03	
49	86.0	116.0	28.0	110.0	168.0	7.03	
50	86.0	116.0	28.0	110.0	168.0	7.03	
51	90.0	116.0	29.0	110.0	168.0	7.24	
52	90.0	116.0	29.0	110.0	168.0	7.24	
54	92.5	124.0	30.0	110.0	168.0	8.11	
55	93.8	124.0	32.0	110.0	168.0	8.18	
56	95.0	124.0	32.0	117.0	175.0	8.51	
57	96.3	124.0	32.0	117.0	175.0	8.58	
58	97.5	124.0	32.0	117.0	175.0	8.65	
59	98.8	127.0	34.0	117.0	175.0	9.04	
60	100.0	127.0	36.0	117.0	175.0	9.10	
62	103.0	127.0	36.0	127.0	185.0	9.66	
65	106.0	127.0	38.0	127.0	185.0	9.90	
67	109.0	127.0	38.0	127.0	185.0	10.13	
70	113.0	127.0	40.0	127.0	185.0	10.37	
73	116.0	127.0	40.0	127.0	185.0	10.62	
75	119.0	127.0	42.0	127.0	185.0	10.78	
76	120.0	127.0	44.0	127.0	185.0	10.85	
80	125.0	127.0	44.0	127.0	185.0	11.20	
85	129.0	127.0	48.0	127.0	195.0	12.42	
86	132.0	127.0	50.0	134.0	195.0	13.03	
90	136.0	127.0	52.0	135.0	195.0	13.40	
95	142.0	127.0	54.0	139.0	199.0	14.47	
100	148.0	127.0	56.0	135.0	195.0	15.07	
105	154.0	127.0	60.0	145.0	205.0	16.33	
110	161.0	127.0	64.0	149.0	209.0	17.67	
115	165.0	127.0	67.0	150.0	210.0	17.72	
120	173.0	127.0	70.0	150.0	210.0	19.23	
125	179.0	127.0	73.0	157.0	215.0	20.57	
130	185.0	127.0	76.0	157.0	215.0	21.44	
135	192.0	152.0	79.0	162.0	220.0	25.67	
140	196.0	152.0	82.0	167.0	225.0	26.22	
145	204.0	152.0	85.0	172.0	230.0	28.82	
150	211.0	152.0	88.0	172.0	230.0	30.38	
155	215.0	152.0	91.0	177.0	235.0	30.97	
160	223.0	152.0	94.0	177.0	235.0	33.49	
165	229.0	175.0	96.0	182.0	240.0	37.53	
170	235.0	175.0	98.0	182.0	240.0	39.22	
175	242.0	175.0	100.0	182.0	240.0	40.86	
180	246.0	175.0	103.0	187.0	245.0	41.63	
185	254.0	175.0	106.0	192.0	250.0	45.61	
190	261.0	175.0	109.0	192.0	250.0	46.93	
195	265.0	175.0	112.0	199.0	257.0	48.28	
200	273.0	175.0	115.0	202.0	260.0	51.89	
210	285.0	175.0	120.0	202.0	260.0	54.71	
215	292.0	175.0	123.0	212.0	270.0	59.42	
225	304.0	175.0	130.0	220.0	270.0	62.42	

	IMPERIAL DEEP HEXAGON						
	A/F inch	D1 inch	D2 inch	T inch	C inch	OAL inch	WT. lbs
1.5/8	3.386	4.567	1.024	4.331	6.614	13.80	
1.3/4	3.386	4.567	1.024	4.331	6.614	13.80	
1.7/8	3.386	4.567	1.102	4.331	6.614	13.80	
2	3.543	4.567	1.142	4.331	6.614	15.90	
2.1/8	3.642	4.882	1.181	4.331	6.614	17.80	
2.1/4	3.789	4.882	1.260	4.606	6.890	18.90	
2.3/8	3.937	5.000	1.417	4.606	6.890	20.00	
2.1/2	4.133	5.000	1.496	5.000	7.283	21.80	
2.5/8	4.281	5.000	1.496	5.000	7.283	22.80	
2.3/4	4.429	5.000	1.575	5.000	7.283	22.80	
2.7/8	4.577	5.000	1.575	5.000	7.283	23.40	
2.15/16	4.675	5.000	1.654	5.000	7.283	23.40	
3	4.774	5.000	1.732	5.000	7.283	24.10	
3.1/8	4.921	5.000	1.732	5.000	7.283	24.60	
3.1/4	4.999	5.000	1.890	5.276	7.677	26.60	
3.3/8	5.197	5.000	1.969	5.276	7.677	28.70	
3.1/2	5.354	5.000	2.047	5.315	7.677	29.50	
3.5/8	5.354	5.000	2.047	5.315	7.677	30.40	
3.3/4	5.354	5.000	2.126	5.472	7.677	31.80	
3.7/8	5.394	5.000	2.205	5.472	7.677	32.40	
4	5.827	5.000	2.205	5.472	7.677	33.20	
4.1/8	6.063	5.000	2.362	5.709	8.071	35.90	
4.1/4	6.299	5.000	2.520	5.866	8.228	38.20	
4.3/8	6.379	5.000	2.520	5.866	8.228	39.10	
4.1/2	6.496	5.000	2.638	5.906	8.268	39.10	
4.5/8	6.536	5.000	2.638	5.906	8.268	40.20	
4.7/8	7.047	5.000	2.874	6.181	8.465	45.30	
5	7.163	5.000	2.992	6.181	8.465	47.20	
5.1/8	7.203	5.000	2.992	6.181	8.465	48.30	
5.1/4	7.203	5.000	2.992	6.181	8.465	48.30	
5.3/8	7.609	5.984	3.110	6.378	8.661	57.20	
5.1/2	7.717	5.984	3.228	6.575	8.858	57.70	
5.5/8	7.757	5.984	3.228	6.575	8.858	58.50	
5.3/4	8.081	5.984	3.346	6.772	9.055	64.10	
6.1/8	9.016	6.890	3.780	7.165	9.449	82.60	
6.1/2	9.016	6.890	3.780	7.165	9.449	82.60	
6.7/8	9.528	6.890	3.397	7.165	9.449	89.90	
7	9.685	6.890	4.055	7.362	9.646	91.60	
7.1/4	10.000	6.890	4.173	7.559	9.843	100.30	
7.1/2	10.276	6.890	4.291	7.559	9.843	103.20	
7.5/8	10.433	6.890	4.409	7.835	10.118	106.20	
7.3/4	10.433	6.890	4.409	7.835	10.118	106.20	
7.7/8	10.748	6.890	4.528	7.953	10.236	114.20	
8	10.748	6.890	4.528	7.953	10.236	115.30	
8.1/8	11.220	6.890	4.724	7.953	10.236	120.40	
8.1/4	11.220	6.890	4.724	7.953	10.236	120.40	
8.3/8	11.225	6.890	4.724	7.953	10.236	121.30	
8.1/2	11.496	6.890	4.843	8.346	10.630	130.70	
9	12.029	6.890	5.118	8.661	10.630	138.50	
9.1/4	12.029	6.890	5.118	8.661	10.630	138.50	

*Bihexagon socket available in all sizes.

REDUCERS

BOLTING ACCESSORIES

To reduce the female hexagon A/F size of the CNZ hex drive series, our customized low clearance hex insert offers convenient and optimum solution.

Low Clearance Hex Insert is customisable as per the requirement.

METRIC HEXAGON REDUCER	OUTSIDE A/F SIZE	INSIDE A/F SIZE	CNZ-02	CNZ-05	CNZ-10
			MODEL NUMBER	MODEL NUMBER	MODEL NUMBER
	30	24	HXHR-02-30-24		
	32	24	HXHR-02-32-24		
	32	27	HXHR-02-32-27		
	36	30	HXHR-02-36-30		
	41	36	HXHR-02-41-36	HXHR-05-41-36	
	46	36	HXHR-02-46-36	HXHR-05-46-36	
	46	41	HXHR-02-46-41	HXHR-05-46-41	HXHR-10-46-41
	50	41	HXHR-02-50-41	HXHR-05-50-41	HXHR-10-50-41
	50	46	HXHR-02-50-46	HXHR-05-50-46	HXHR-10-50-46
	55	41	HXHR-02-55-41	HXHR-05-55-41	HXHR-10-55-41
	55	46	HXHR-02-55-46	HXHR-05-55-46	HXHR-10-55-46
	55	50	HXHR-02-55-50	HXHR-05-55-50	HXHR-10-55-50
	60	46	HXHR-02-60-46	HXHR-05-60-46	HXHR-10-60-46
	60	50		HXHR-05-60-50	HXHR-10-60-50
	60	55		HXHR-05-60-55	HXHR-10-60-55
	65	50		HXHR-05-65-50	HXHR-10-65-50
	65	55		HXHR-05-65-55	HXHR-10-65-55
	65	60		HXHR-05-65-60	HXHR-10-65-60
	70	55		HXHR-05-70-55	HXHR-10-70-55
	70	60		HXHR-05-70-60	HXHR-10-70-60
	70	65		HXHR-05-70-65	HXHR-10-70-65
	75	60		HXHR-05-75-60	HXHR-10-75-60
	75	65		HXHR-05-75-65	HXHR-10-75-65
	75	70		HXHR-05-75-70	HXHR-10-75-70
	80	65		HXHR-05-80-65	HXHR-10-80-65
	80	70		HXHR-05-80-70	HXHR-10-80-70
	80	75		HXHR-05-80-75	HXHR-10-80-75
	85	70			HXHR-10-85-70
	85	75			HXHR-10-85-75
	85	80			HXHR-10-85-80
	90	75			HXHR-10-90-75
	90	80			HXHR-10-90-80
	90	85			HXHR-10-90-85
	95	80			HXHR-10-95-80
	95	85			HXHR-10-95-85
	95	90			HXHR-10-95-90
	100	85			HXHR-10-100-85
	100	90			HXHR-10-100-90
	100	95			HXHR-10-100-95
	105	90			HXHR-10-105-90
	105	95			HXHR-10-105-95
	105	100			HXHR-10-105-100

REDUCERS

BOLTING ACCESSORIES



IMPERIAL HEXAGON REDUCER	OUTSIDE A/F SIZE	INSIDE A/F SIZE	CNZ-02	CNZ-05	CNZ-10
			HEIGHT- 1.25"	HEIGHT- 1.625"	HEIGHT- 2.1"
			MODEL NUMBER	MODEL NUMBER	MODEL NUMBER
	1 1/4"	1 1/16"	HXHR-02-125-106	HXHR-05-125-106	
	1 7/16"	1 1/16"	HXHR-02-143-106	HXHR-05-143-106	
	1 7/16"	1 1/4"	HXHR-02-143-125	HXHR-05-143-125	
	1 5/8"	1 1/4"	HXHR-02-162-125	HXHR-05-162-125	
	1 5/8"	1 7/16"	HXHR-02-162-143	HXHR-05-162-143	
	1 13/16"	1 7/16"	HXHR-02-181-143	HXHR-05-181-143	
	1 13/16"	1 5/8"	HXHR-02-181-162	HXHR-05-181-162	HXHR-10-181-162
	2"	1 5/8"	HXHR-02-200-162	HXHR-05-200-162	HXHR-10-200-162
	2"	1 13/16"	HXHR-02-200-181	HXHR-05-200-181	HXHR-10-200-181
	2 3/16"	1 5/8"	HXHR-02-218-162	HXHR-05-218-162	HXHR-10-218-162
	2 3/16"	1 13/16"	HXHR-02-218-181	HXHR-05-218-181	HXHR-10-218-181
	2 3/16"	2"	HXHR-02-218-200	HXHR-05-218-200	HXHR-10-218-200
	2 3/8"	1 13/16"	HXHR-02-237-181	HXHR-05-237-181	HXHR-10-237-181
	2 3/8"	2"	HXHR-02-237-200	HXHR-05-237-200	HXHR-10-237-200
	2 3/8"	2 3/16"	HXHR-02-237-218	HXHR-05-237-218	HXHR-10-237-218
	2 9/16"	2"		HXHR-05-256-200	HXHR-10-256-200
	2 9/16"	2 3/16"		HXHR-05-256-218	HXHR-10-256-218
	2 9/16"	2 3/8"		HXHR-05-256-237	HXHR-10-256-237
	2 3/4"	2 3/16"		HXHR-05-275-218	HXHR-10-275-218
	2 3/4"	2 3/8"		HXHR-05-275-237	HXHR-10-275-237
	2 3/4"	2 9/16"		HXHR-05-275-256	HXHR-10-275-256
	2 15/16"	2 3/8"		HXHR-05-293-237	HXHR-10-293-237
	2 15/16"	2 9/16"		HXHR-05-293-256	HXHR-10-293-256
	2 15/16"	2 3/4"		HXHR-05-293-275	HXHR-10-293-275
	3 1/8"	2 9/16"		HXHR-05-312-256	HXHR-10-312-256
	3 1/8"	2 3/4"		HXHR-05-312-275	HXHR-10-312-275
	3 1/8"	2 15/16"		HXHR-05-312-293	HXHR-10-312-293
	3 1/2"	2 15/16"			HXHR-10-350-293
	3 1/2"	3 1/8"			HXHR-10-350-312
	3 7/8"	3 1/8"			HXHR-10-387-312
	3 7/8"	3 1/2"			HXHR-10-387-350
	4 1/8"	3 1/2"			HXHR-10-412-350
	4 1/8"	3 7/8"			HXHR-10-412-387

HFBW SERIES BACKUP WRENCHES

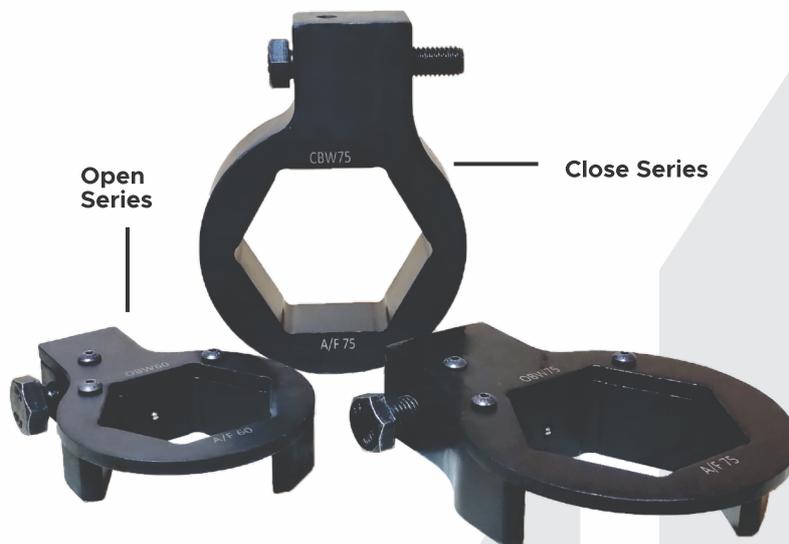
BOLTING ACCESSORIES

ABS Backup Wrenches are designed to hold the stationary nut for fitting securely while a torque wrench tightens the opposing fastener. Available in various sizes and configurations, they ensure precise engagement with different nut and bolt setups, making them indispensable in torquing operations.

Why are they important?

- **Safety:** Prevents the stationary component from rotating during tightening, avoiding thread damage, component distortion, or operator injury.
- **Efficiency:** By holding the counter-nut firmly, backup wrenches allow the torque wrench to apply the required torque accurately and quickly, reducing setup time and improving workflow.
- **Joint Integrity:** Ensures the stationary side remains fixed, resulting in consistent preload and a secure, long-lasting bolted joint.

ABS Backup Wrenches — engineered for safety, accuracy, and reliability in every torquing operation.



MODEL NO. (OPEN/CLOSE)	ACROSS FLAT		LOAD LIMITS	
	mm	inch	ft. lbs.	Nm
HFBW104	30	1-1/4"	2400	3254
HFBW107	36	1-7/16"	2500	3390
HFBW110	41	1-5/8"	3500	4745
HFBW113	46	1-13/16"	3500	4745
HFBW200	50	2"	4100	5559
HFBW203	55	2-3/16"	4200	5694
HFBW204	57	2-1/4"	4300	5830
HFBW206	60	2-3/8"	4300	5830
HFBW209	65	2-9/16"	4550	6169
HFBW212	70	2-3/4"	5600	7592
HFBW218	75	2-15/16"	6300	8542
HFBW302	80	3-1/8"	7000	9491
HFBW308	85	3-1/2"	7200	9762
HFBW311	90	3-11/16"	7300	9897
HFBW314	95	3-7/8"	9000	12202
HFBW400	100	4"	24000	32539
HFBW402	105	4-1/8"	24000	32539
HFBW404	110	4-1/4"	24000	32539
HFBW408	115	4-1/2"	25000	33895
HFBW410	120	4-5/8"	27000	36607
HFBW500	130	5"	27000	36607
HFBW506	135	5-3/8"	27000	36607
HFBW512	145	5-3/4"	28000	37962

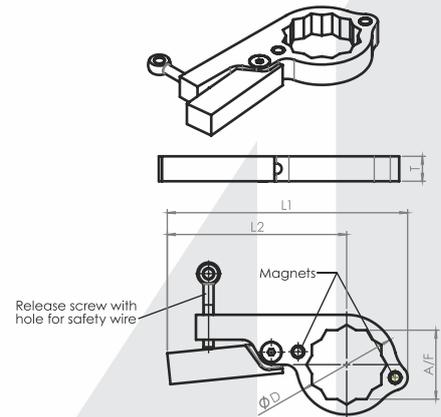
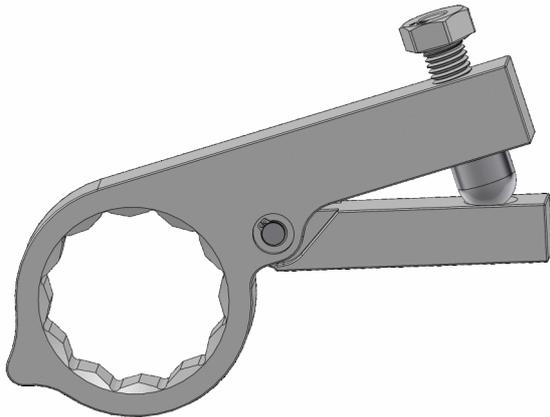
HFBW SERIES

MAGNETIC BACKUP WRENCHES

BOLTING ACCESSORIES

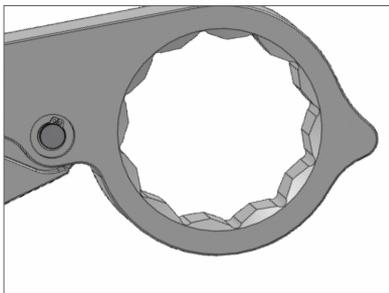
Finger pinching is a common injury in industrial bolting, often caused by reaction arms or backup wrenches during tightening. **ABS Magnetic Backup Wrenches** provide hands-free solutions with advanced safety and productivity features to address this risk.

This wrench eliminates injury risks by stopping counter-nut rotation without manual intervention. Designed in both metric and imperial sizes, it uses high-strength magnets and corrosion-resistant steel to quickly secure the tool on steel surfaces, simplifying bolting tasks across diverse applications.



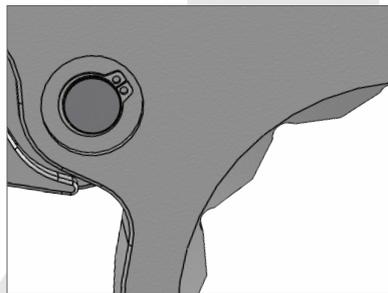
RANGE OF SIZES

Engineered for rigorous industrial use, these wrenches come in multiple sizes with reliable 12-point cutouts to match a variety of bolting jobs. Heavy-duty applications are easily accommodated, ensuring each wrench fits precisely to the required hex size.



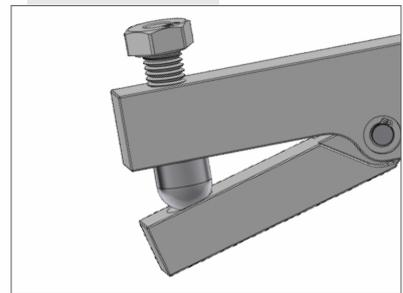
MAGNETIC LOCKS

Equipped with high-strength magnets embedded in the body, the Magnetic Backup Wrenches enable fast installation and secure attachment to steel surfaces. This design speeds up setup and enhances safety by minimizing manual contact during bolting.



ADJUSTABLE ARM

The adjustable arm allows for flexible installation in diverse configurations. The eye-bolt mechanism is user-friendly—quick to lock and release after bolting—and can be fitted with a lanyard to prevent accidental drops or field hazards.



ABS Backup Wrench Quick Release:

- Provides the quickest and most reliable way to prevent counter-nut rotation during bolting.
- Effortless lock-on and rapid quick-release boost safety and overall productivity.
- Removes the need for hammers, reducing risk and saving valuable time.
- Complete wrench sets fit all standard heavy hex sizes used in industrial applications.

SPECIFICATIONS:

Range	A/F		L1		L2		D		T		Weight	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lb
min - max	27 - 120	9/16" - 6 1/2"	95 - 508	3.74 - 20	74.5 - 375	2.933 - 14.764	28 - 230	1.102 - 9.055	10 - 50	0.394 - 1.969	0.15 - 19.64	0.33 - 43.3

NOTES

A series of horizontal dotted lines for writing notes, spanning the width of the page. A large, light gray diagonal shape is overlaid on the left side of the page, extending from the top-left corner towards the bottom-right.

NOTES

A series of horizontal dotted lines for writing notes, overlaid with a light gray geometric pattern consisting of overlapping trapezoidal shapes that create a stepped, staircase-like effect.

NOTES

A series of horizontal dotted lines for writing notes, spanning the width of the page. A large, light gray diagonal shape is present on the left side of the page, partially overlapping the lines.



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