

▼ Shown from left to right: HXD-60 with CC-680, HXD-30 with CC-360



- High torque-to-weight ratio, slim nose radius and flat design
- High speed, high degree of rotation angle
- Snap in, interchangeable cassettes, no tools required
- 360° swivel hose connection allows easier positioning in confined areas
- High repeatability, with accuracy  $\pm 3\%$
- Strong unibody design, integrated reaction arm and few moving parts make wrenches durable and reliable
- Extensive range of metric and imperial hexagon cassettes and reducers
- Drive unit and cassette come in storage case to protect from damage, water and dirt
- Lock-ring couplers are standard

▼ The HXD-30 drive unit combined with cassette CC-3238 is the best solution for this turbine application. The slim nose radius and swivel couplers allow easy access in all positions.



## Aluminum, Low Profile



### Twin 3.5:1 Safety Hoses

Use only Enerpac THC-700 series twin 3.5:1 safety hoses with HXD double-acting wrenches to ensure the integrity of your system.

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### Nut Splitters

Remove rusted or corroded nuts easily with Enerpac Nut Splitters. Hexagon nut capacities up to 2.88 in.

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### Select the Right Torque

Choose your Enerpac Torque Wrench using the loosening torque rule of thumb:

Loosening torque may require 250% of tightening torque depending on the condition of the fastener.

See the **Pressure vs. Torque** charts.

Page: 227

▼ An Enerpac HXD hydraulic wrench brings safety and efficiency to this flange maintenance job at a refinery.



# Double-Acting Hydraulic Torque Wrenches

▼ Shown from left to right: CC-3238, HXD-30



## Torque Wrench Selection in 2 steps:

- 1. Drive Unit**  
Select the HXD-drive Unit using the quick selection chart below.
- 2. Cassette**  
Select the appropriate CC-cassette from pages 204 and 205.

## HXD Series



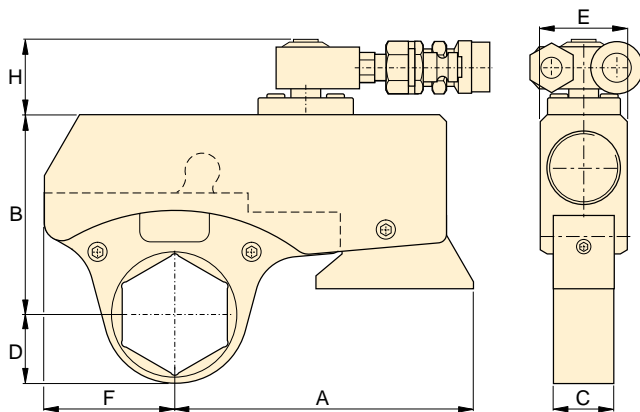
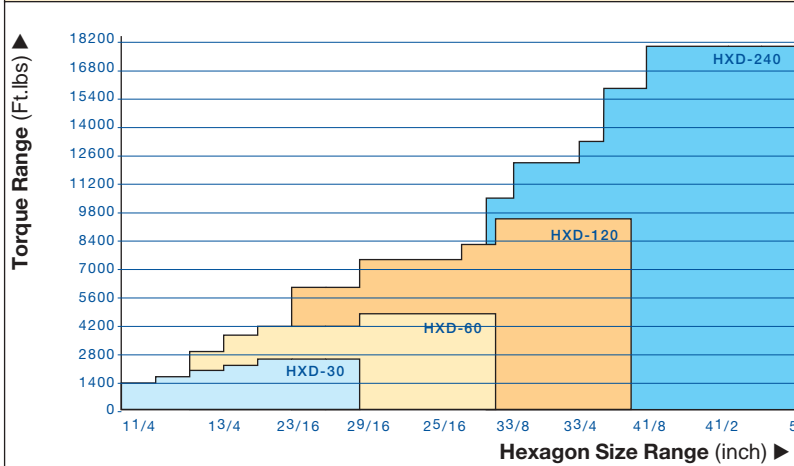
Maximum Torque:  
**17,860 Ft.lbs**

Hexagon Range:  
**1¼-5 inches**

Nose Radius:  
**1.12-3.78 inches**

Maximum Operating Pressure:  
**11,600 psi**

## DRIVE UNIT AND INTERCHANGEABLE CASSETTE SELECTION



Drive Unit with Cassette



## Metric and Imperial Sizes

Expanded versatility with the full range of metric and imperial Reducer Inserts and Holding Rings.

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## Hexagon Bolt and Nut Sizes

See the table for hexagon sizes of bolts, nuts and related thread diameters.

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## Torque Wrench Pumps

System matched air and electric pumps provide control to operate Enerpac HXD Torque Wrenches.

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## ▼ QUICK SELECTION CHART

Cassette Range	Maximum Torque at 11,600 psi	Drive Unit * Model Number	Drive Unit and Cassette Dimensions								Weight (including smallest cassette)			
			(in)	(mm)	(Ft.lbs)	(in)	A	B	C	D		E	F	H
 Page: 204														
1¼ - 2¾	32 - 60	2425	HXD-30	5.31	3.58 - 4.06	1.10	1.12 - 1.87	1.57	2.36	1.50	4.6			
1½ - 3¼	41 - 80	4565	HXD-60	6.14	4.53 - 5.12	1.38	1.36 - 2.38	1.97	2.95	1.50	8.1			
2¾/16 - 3¾	55 - 100	9220	HXD-120	7.87	5.55 - 6.14	1.85	1.83 - 2.89	2.56	3.78	1.50	16.3			
3¾ - 5	80 - 130	17860	HXD-240	10.20	6.80 - 7.95	2.20	2.44 - 3.78	3.22	4.92	2.00	28.9			

\* With integrated reaction arm.

# HXD-Series, Imperial Cassettes and Inserts



Maximum Torque at 11,600 psi:

**17,860 Ft.lbs**

Hexagon Range:

**1.25-5 inches**

**CC  
IN  
HR  
Series**



◀ The optional Reducer Insert must be secured in the Cassette with a Holding Ring.

▼ SELECTION CHART

DRIVE UNIT	INTERCHANGEABLE CASSETTE, IMPERIAL					OPTIONAL ADD-ON REDUCER INSERTS, IMPERIAL				HOLDING RINGS
	Max. Torque <sup>1)</sup> (Ft.lbs)	Hex. Size <sup>2)</sup> (in)	Nose Radius D (in)	Model Number	Weight (lbs)	Hexagon Size (in)	Model Number	Hexagon Size (in)	Model Number	Model Number
<b>HXD-30</b> (2425 Ft.lbs)	<b>1250</b>	1 1/4	1.12	<b>CC-3125</b>	1.2	-	-	-	-	-
	<b>1545</b>	1 7/16	1.24	<b>CC-3144</b>	1.4	1 7/16 - 1 1/4	<b>IN3144-125</b>	-	-	<b>HR-36</b>
	<b>1840</b>	1 5/8	1.36	<b>CC-3163</b>	1.5	1 5/8 - 1 7/16	<b>IN3163-144</b>	1 5/8 - 1 1/4	<b>IN3163-125</b>	<b>HR-41</b>
	<b>2130</b>	1 13/16	1.52	<b>CC-3181</b>	1.8	1 13/16 - 1 5/8	<b>IN3181-163</b>	1 13/16 - 1 7/16	<b>IN3181-144</b>	<b>HR-46</b>
	<b>2425</b>	2	1.65	<b>CC-3200</b>	2.1	2 - 1 13/16	<b>IN3200-181</b>	2 - 1 5/8	<b>IN3200-163</b>	<b>HR-50</b>
		2 3/16	1.77	<b>CC-3219</b>	2.2	2 3/16 - 2	<b>IN3219-200</b>	2 3/16 - 1 13/16	<b>IN3219-181</b>	<b>HR-55</b>
2 3/8		1.87	<b>CC-3238</b>	2.3	2 3/8 - 2 3/16	<b>IN3238-219</b>	2 3/8 - 2	<b>IN3238-200</b>	<b>HR-60</b>	
<b>HXD-60</b> (4565 Ft.lbs)	<b>2830</b>	1 5/8	1.36	<b>CC-6163</b>	2.6	-	-	-	-	-
	<b>3540</b>	1 13/16	1.56	<b>CC-6181</b>	2.9	1 13/16 - 1 5/8	<b>IN6181-163</b>	-	-	<b>HR-46</b>
	<b>3990</b>	2	1.71	<b>CC-6200</b>	3.2	2 - 1 13/16	<b>IN6200-181</b>	2 - 1 5/8	<b>IN6200-163</b>	<b>HR-50</b>
		2 3/16	1.83	<b>CC-6219</b>	3.3	2 3/16 - 2	<b>IN6219-200</b>	2 3/16 - 1 13/16	<b>IN6219-181</b>	<b>HR-55</b>
		2 3/8	1.91	<b>CC-6238</b>	3.4	2 3/8 - 2 3/16	<b>IN6238-219</b>	2 3/8 - 2	<b>IN6238-200</b>	<b>HR-60</b>
	<b>4565</b>	2 9/16	2.07	<b>CC-6256</b>	4.1	2 9/16 - 2 3/8	<b>IN6256-238</b>	2 9/16 - 2 3/16	<b>IN6256-219</b>	<b>HR-65</b>
		2 3/4	2.19	<b>CC-6275</b>	4.2	2 3/4 - 2 9/16	<b>IN6275-256</b>	2 3/4 - 2 3/8	<b>IN6275-238</b>	<b>HR-70</b>
		2 15/16	2.26	<b>CC-6293</b>	4.3	2 15/16 - 2 3/4	<b>IN6293-275</b>	2 15/16 - 2 9/16	<b>IN6293-256</b>	<b>HR-75</b>
		3 1/8	2.38	<b>CC-6313</b>	4.4	3 1/8 - 2 15/16	<b>IN6313-293</b>	3 1/8 - 2 3/4	<b>IN6313-275</b>	<b>HR-80</b>
	<b>HXD-120</b> (9220 Ft.lbs)	<b>5900</b>	2 3/16	1.83	<b>CC-12219</b>	5.8	2 3/16 - 2	<b>IN12219-200</b>	2 3/16 - 1 13/16	<b>IN12219-181</b>
2 3/8			1.91	<b>CC-12238</b>	5.8	2 3/8 - 2 3/16	<b>IN12238-219</b>	2 3/8 - 2	<b>IN12238-200</b>	<b>HR-60</b>
<b>7225</b>		2 9/16	2.07	<b>CC-12256</b>	6.1	2 9/16 - 2 3/8	<b>IN12256-238</b>	2 9/16 - 2 3/16	<b>IN12256-219</b>	<b>HR-65</b>
		2 3/4	2.19	<b>CC-12275</b>	6.2	2 3/4 - 2 9/16	<b>IN12275-256</b>	2 3/4 - 2 3/8	<b>IN12275-238</b>	<b>HR-70</b>
		2 15/16	2.26	<b>CC-12293</b>	6.3	2 15/16 - 2 3/4	<b>IN12293-275</b>	2 15/16 - 2 9/16	<b>IN12293-256</b>	<b>HR-75</b>
<b>8010</b>		3	2.26	<b>CC-12300</b>	6.3	3 - 2 3/4	<b>IN12300-275</b>	3 - 2 9/16	<b>IN12300-256</b>	<b>HR-75</b>
		3 1/8	2.38	<b>CC-12313</b>	6.5	3 1/8 - 2 15/16	<b>IN12313-293</b>	3 1/8 - 2 3/4	<b>IN12313-275</b>	<b>HR-80</b>
		3 3/8	2.54	<b>CC-12338</b>	7.8	3 3/8 - 3	<b>IN12338-300</b>	3 3/8 - 2 15/16	<b>IN12338-293</b>	<b>HR-85</b>
<b>9220</b>		3 1/2	2.66	<b>CC-12350</b>	8.0	3 1/2 - 3 1/8	<b>IN12350-313</b>	3 1/2 - 3	<b>IN12350-300</b>	<b>HR-90</b>
		3 3/4	2.78	<b>CC-12375</b>	8.2	3 3/4 - 3 1/2	<b>IN12375-350</b>	3 3/4 - 3 3/8	<b>IN12375-338</b>	<b>HR-95</b>
		3 7/8	2.89	<b>CC-12388</b>	8.3	3 7/8 - 3 1/2	<b>IN12388-350</b>	3 7/8 - 3 3/8	<b>IN12388-338</b>	<b>HR-100</b>
<b>HXD-240</b> (17860 Ft.lbs)		<b>10325</b>	3 1/8	2.44	<b>CC-24313<sup>3)</sup></b>	11.2	3 1/8 - 2 15/16	<b>IN24313-293</b>	3 1/8 - 2 3/4	<b>IN24313-275</b>
	<b>11685</b>	3 3/8	2.60	<b>CC-24338</b>	11.4	3 3/8 - 3 1/8	<b>IN24338-313</b>	3 3/8 - 3	<b>IN24338-300</b>	<b>HR-85</b>
	<b>12225</b>	3 1/2	2.71	<b>CC-24350</b>	11.4	3 1/2 - 3 1/8	<b>IN24350-313</b>	3 1/2 - 3	<b>IN24350-300</b>	<b>HR-90</b>
	<b>12775</b>	3 3/4	2.83	<b>CC-24375</b>	11.9	3 3/4 - 3 1/2	<b>IN24375-350</b>	3 3/4 - 3 3/8	<b>IN24375-338</b>	<b>HR-95</b>
	<b>13315</b>	3 7/8	2.99	<b>CC-24388<sup>4)</sup></b>	12.3	3 7/8 - 3 1/2	<b>IN24388-350</b>	3 7/8 - 3 3/8	<b>IN24388-338</b>	<b>HR-100</b>
	<b>15490</b>	4 1/8	3.15	<b>CC-24413</b>	12.5	4 1/8 - 3 7/8	<b>IN24413-388</b>	4 1/8 - 3 3/4	<b>IN24413-375</b>	<b>HR-105</b>
		4 1/4	3.30	<b>CC-24425</b>	14.9	4 1/4 - 3 7/8	<b>IN24425-388</b>	4 1/4 - 3 3/4	<b>IN24425-375</b>	<b>HR-110</b>
	<b>17860</b>	4 5/8	3.54	<b>CC-24463</b>	16.0	4 5/8 - 4 1/4	<b>IN24463-425</b>	4 5/8 - 4 1/8	<b>IN24463-413</b>	<b>HR-120</b>
		5	3.78	<b>CC-24500</b>	16.3	5 - 4 5/8	<b>IN24500-463</b>	5 - 4 1/4	<b>IN24500-425</b>	<b>HR-130</b>

<sup>1)</sup> Determine maximum torque according to the bolt (nut) size and grade. Other Reducer Insert dimensions available upon request.

<sup>2)</sup> See the table of hexagon bolt and nut sizes and related thread diameters on page 228.

<sup>3)</sup> Additional imperial Reducer Insert: 3 1/8"-2 9/16" **IN24313-256** fits **CC-24313** Cassette. Use **HR-80** Holding Ring.

<sup>4)</sup> Additional imperial Reducer Insert: 3 3/4"-2 9/16" **IN24375-313** fits **CC-24388** Cassette. Use **HR-100** Holding Ring.

# HXD-Series, Metric Cassettes and Inserts



Maximum Torque at 11,600 psi:

**17,860 Ft.lbs**

Hexagon Range:

**30-130 mm**

**CC  
IN  
HR  
Series**



◀ The optional Reducer Insert must be secured in the Cassette with a Holding Ring.

## ▼ SELECTION CHART

DRIVE UNIT	INTERCHANGEABLE CASSETTES, METRIC					OPTIONAL ADD-ON REDUCER INSERTS, METRIC						HOLDING RINGS
	Max. Torque <sup>1)</sup> (Ft.lbs)	Hex. Size <sup>2)</sup> (mm)	Nose Radius D (in)	Model Number	Weight (lbs)	Hexagon Size (mm)	Model Number	Hexagon Size (mm)	Model Number	Hexagon Size (mm)	Model Number	Model Number
HXD-30 (2425 Ft.lbs)	1250	32	1.12	CC-332	1.2	-	-	-	-	-	-	-
	1545	36	1.24	CC-336	1.4	-	-	-	-	-	-	-
	1840	41	1.36	CC-341	1.5	41/36	IN3-4136	41/32	IN3-4132	41/30	IN3-4130	HR-41
	2130	46	1.52	CC-346	1.8	46/41	IN3-4641	46/36	IN3-4636	46/32	IN3-4632	HR-46
		50	1.65	CC-350	2.1	50/46	IN3-5046	50/41	IN3-5041	50/36	IN3-5036	HR-50
		55	1.77	CC-355	2.2	55/50	IN3-5550	55/46	IN3-5546	55/41	IN3-5541	HR-55
2425	60	1.87	CC-360	2.3	60/55	IN3-6055	60/50	IN3-6050	60/46	IN3-6046	HR-60	
HXD-60 (4565 Ft.lbs)	2830	41	1.36	CC-641	2.6	41/36	IN6-4136	-	-	-	-	HR-41
	3540	46	1.56	CC-646	2.9	-	-	-	-	-	-	-
		50	1.71	CC-650	3.2	50/46	IN6-5046	50/41	IN6-5041	50/36	IN6-5036	HR-50
	3990	55	1.83	CC-655	3.3	55/50	IN6-5550	55/46	IN6-5546	55/41	IN6-5541	HR-55
		60	1.91	CC-660	3.4	60/55	IN6-6055	60/50	IN6-6050	60/46	IN6-6046	HR-60
	4565	65	2.07	CC-665	4.1	65/60	IN6-6560	65/55	IN6-6555	65/50	IN6-6550	HR-65
		70	2.19	CC-670	4.2	70/65	IN6-7065	70/60	IN6-7060	70/55	IN6-7055	HR-70
		75	2.26	CC-675	4.3	75/70	IN6-7570	75/65	IN6-7565	75/60	IN6-7560	HR-75
80		2.38	CC-680	4.4	80/75	IN6-8075	80/70	IN6-8070	80/65	IN6-8065	HR-80	
HXD-120 (9220 Ft.lbs)	5900	55	1.83	CC-1255	5.8	55/50	IN12-5550	55/46	IN12-5546	55/41	IN12-5541	HR-55
		60	1.91	CC-1260	5.8	60/55	IN12-6055	60/50	IN12-6050	60/46	IN12-6046	HR-60
	7225	65	2.07	CC-1265	6.1	65/60	IN12-6560	65/55	IN12-6555	65/50	IN12-6550	HR-65
		70	2.19	CC-1270	6.2	70/65	IN12-7065	70/60	IN12-7060	70/55	IN12-7055	HR-70
		75	2.26	CC-1275	6.3	75/70	IN12-7570	75/65	IN12-7565	75/60	IN12-7560	HR-75
	-	-	-	-	-	-	-	-	-	-	-	-
	8010	80	2.38	CC-1280	6.5	80/75	IN12-8075	80/70	IN12-8070	80/65	IN12-8065	HR-80
	9220	85	2.54	CC-1285	7.8	85/80	IN12-8580	85/75	IN12-8575	85/70	IN12-8570	HR-85
		90	2.66	CC-1290	8.0	90/85	IN12-9085	90/80	IN12-9080	90/75	IN12-9075	HR-90
		95	2.78	CC-1295	8.2	95/90	IN12-9590	95/85	IN12-9585	95/80	IN12-9580	HR-95
100		2.89	CC-12100	8.3	100/95	IN12-10095	100/90	IN12-10090	100/85	IN12-10085	HR-100	
HXD-240 (17860 Ft.lbs)	10245	80	2.44	CC-2480	11.2	80/75	IN24-8075	80/70	IN24-8070	80/65	IN24-8065	HR-80
	11820	85	2.60	CC-2485	11.4	85/80	IN24-8580	85/75	IN24-8575	85/70	IN24-8570	HR-85
	12215	90	2.72	CC-2490	11.4	90/85	IN24-9085	90/80	IN24-9080	90/75	IN24-9075	HR-90
	12610	95	2.83	CC-2495	11.9	95/90	IN24-9590	95/85	IN24-9585	95/80	IN24-9580	HR-95
	13400	100	2.99	CC-24100	12.3	100/95	IN24-10095	100/90	IN24-10090	100/85	IN24-10085	HR-100
	15370	105	3.15	CC-24105	12.5	105/100	IN24-105100	105/95	IN24-10595	105/90	IN24-10590	HR-105
		110	3.31	CC-24110	12.8	110/105	IN24-110105	110/100	IN24-110100	110/95	IN24-11095	HR-110
		115	3.43	CC-24115	15.6	115/110	IN24-115110	115/105	IN24-115105	115/100	IN24-115100	HR-115
		120	3.54	CC-24120	16.1	120/115	IN24-120115	120/110	IN24-120110	120/105	IN24-120105	HR-120
		125	3.66	CC-24125	16.1	125/120	IN24-125120	125/115	IN24-125115	125/110	IN24-125110	HR-125
		130	3.78	CC-24130	16.3	130/125	IN24-130125	130/120	IN24-130120	130/115	IN24-130115	HR-130

<sup>1)</sup> Determine maximum torque according to the bolt (nut) size and grade.  
Other Reducer Insert dimensions available upon request.

<sup>2)</sup> See the table of hexagon bolt and nut sizes and related thread diameters on page 228.