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Eight Compact Tensioners
Capable of Tensioning Over
400 Standard Flanges

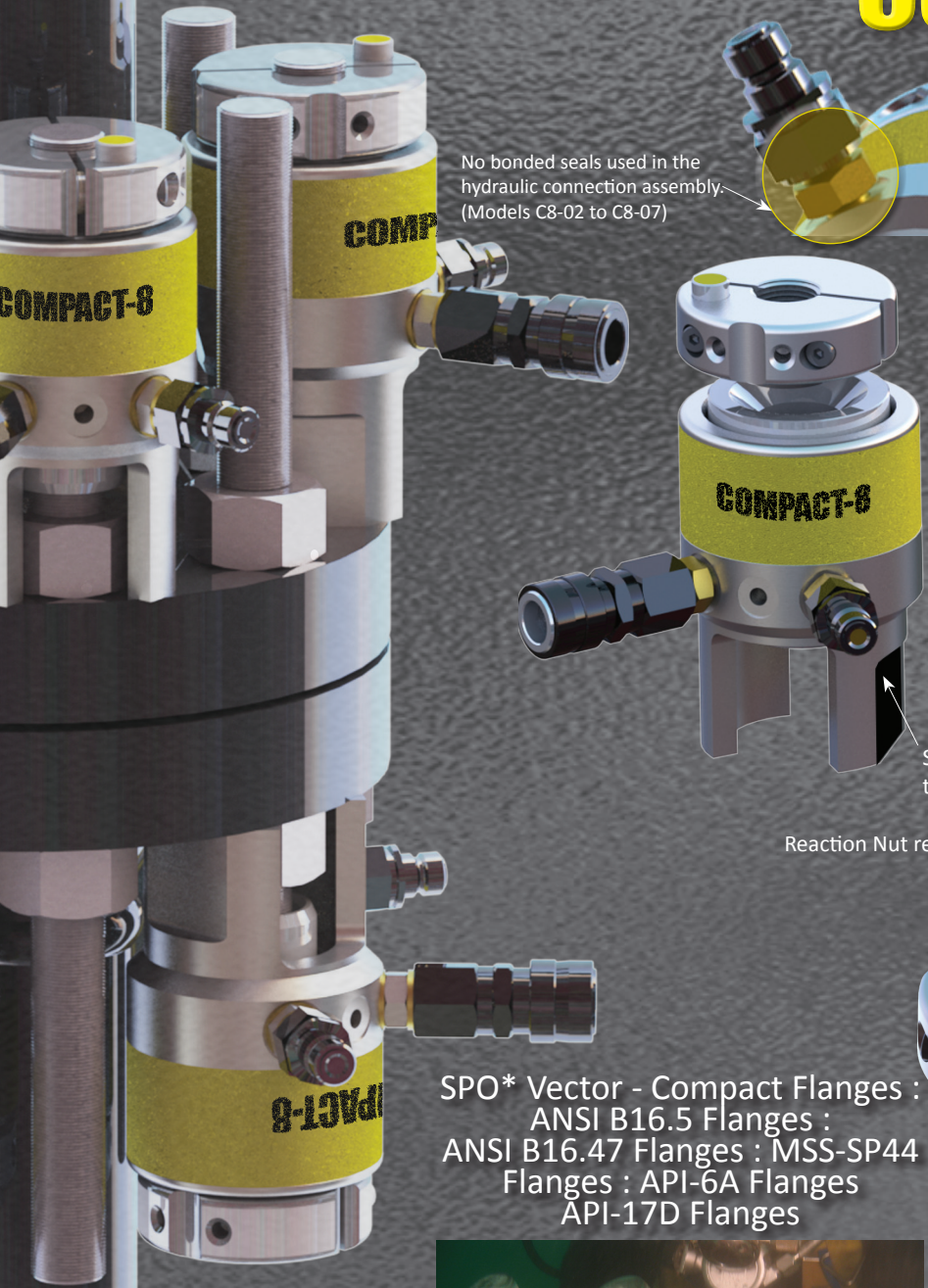
The COMPACT-8 range of subsea bolt tensioning tools brings a new generation of bolting solutions.

Comprised of eight bolt tensioning tools, the COMPACT-8 series is capable of tensioning most standard flanges including the newer Vector SPO* Compact flanges. The COMPACT-8 series is made from high strength stainless steel which greatly reduces maintenance work to a minimum after subsea use.

Torcup subsea bolt tensioning tools have been used around the world since 1996 and have a proven reliability and safety record.

Compact-8

Subsea Bolt Tensioning Tools



No bonded seals used in the hydraulic connection assembly. (Models C8-02 to C8-07)

User configurable Hydraulic Connections.

Non slip tool surface for easy diver handling.

Rear profile machined, for versatility.

Side profile machined flats, to clear the adjacent nut.

Reaction Nut release button

Heavy Duty Split Reaction Nuts or Solid Reaction Nuts available.

SPO* Vector - Compact Flanges :
ANSI B16.5 Flanges :
ANSI B16.47 Flanges : MSS-SP44
Flanges : API-6A Flanges
API-17D Flanges

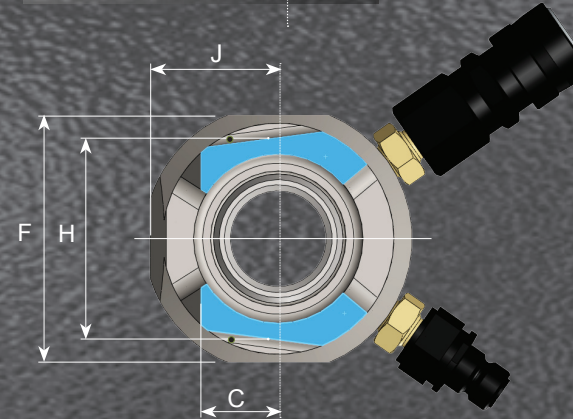
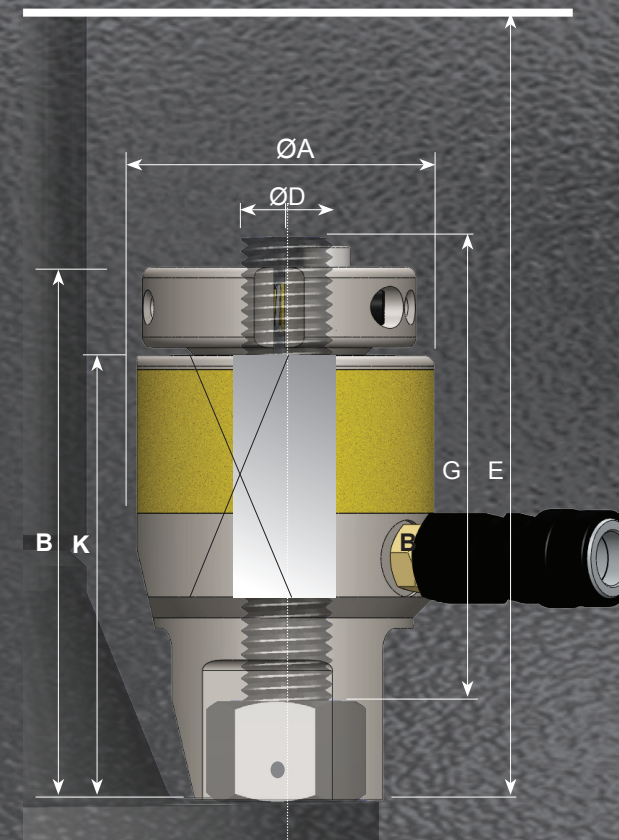
Split Reaction Nut

The Compact-8 range of subsea Bolt Tensioning tools can be supplied with quick acting Split Reaction Nuts. Simply mount the tensioning tool over the stud to be tensioned, slide the open reaction nut over the bolt and snap the reaction nut halves together for rapid and reliable assembly. The rapid speed of fit ensures the most efficient use of expensive diver time.



Technical Specifications

Maximum Working Pressure: 1500Bar : 21750psi
Maximum ram stroke (Tools 01 to 07): 30mm : 1.181"
Maximum ram stroke (Tool 00): 20mm : 0.787"



Main Features and Benefits

- High strength Stainless Steel material.
- 30mm ram stroke available.
- Compact size for maximum usability on Vector* SPO Compact flanges.
- Quick fitting split reaction nuts available on all models.
- High quality reliable seals. 1000's of pressure cycles
- Uses industry standard quick connect couplings.
- Non slip tool surface for easy diver handling.
- Fitted with lifting straps for easy diver handling.

Metric Bolts

Bolt Dia	Thread Pitch	Tool Dia	Effective Side Diameter	Tool Height	Radial Dim'n	Max Initial Bolt Load	Hydraulic Area	Ram Stroke	Extra Stud Length (Including 3xPitches extra)	Headroom Dimension	Across Flats	Radial Dim'n	Dim'n
D	A	F	B	C				G	E	H	J	K	
Inch	mm	mm	mm	mm	mm	kN	mm ²	mm	mm	mm	mm	mm	mm
C8-00	0.75 UNC	66.0	66.0	123	20	190.21	1268.42	20	113.5	214.5	50.2	31.6	97.00
	0.875 UNC	66.0	66.0	123	20	190.21	1268.42	20	110.3	214.5	50.2	31.6	97.00
C8-01	1 8-UN	87.0	87.0	153	25	328.87	2193.02	30	137.1	270.5	65	41.5	127.00
	1.125 8-UN	87.0	87.0	153	25	328.87	2193.02	30	134.0	270.5	65	41.5	127.00
C8-02	1.25 8-UN	104.5	104.5	165	28	514.84	3433.17	30	142.8	286.5	82.5	50.15	135.00
	1.375 8-UN	104.5	104.5	165	28	514.84	3433.17	30	139.6	286.5	82.5	50.15	135.00
C8-03	1.5 8-UN	123.1	118.3	184.5	35	746.70	4979.3	30	155.9	321.5	90	59.1	150.50
	1.625 8-UN	123.1	118.3	184.5	35	746.70	4979.3	30	152.8	321.5	90	59.1	150.50
C8-04	1.75 8-UN	150.0	143.5	210.75	48	1177.31	7850.8	30	175.8	365.0	110	71.7	169.75
	1.875 8-UN	150.0	143.5	210.75	48	1177.31	7850.8	30	172.7	365.0	110	71.7	169.75
	2 8-UN	150.0	143.5	210.75	48	1177.31	7850.8	30	169.5	365.0	110	71.7	169.75
C8-05	2.25 8-UN	182.5	174.3	235.75	59	1904.04	12696.94	30	188.1	393.0	136	87.1	179.75
	2.5 8-UN	182.5	174.3	235.75	59	1904.04	12696.94	30	181.8	393.0	136	87.1	179.75
C8-06	2.75 8-UN	210.0	210.0	259.75	65	2542.11	16951.84	30	199.4	432.0	163.5	105	199.75
	3 8-UN	210.0	210.0	259.75	65	2542.11	16951.84	30	193.1	432.0	163.5	105	199.75
	3.25 8-UN	258.1	258.1	302.8	85	4059.32	27069.19	30	229.8	492.6	204	129	232.25
	3.5 8-UN	258.1	258.1	302.8	85	4059.32	27069.19	30	223.4	492.6	204	129	232.25
C8-07	3.75 8-UN	258.1	258.1	302.8	85	4059.32	27069.19	30	217.1	492.6	204	129	232.25

Bolt Dia	Thread Pitch	Tool Dia	Effective Side Diameter	Tool Height	Radial Dim'n	Max Initial Bolt Load	Hydraulic Area	Ram Stroke	Extra Stud Length (Including 3xPitches extra)	Headroom Dimension	Across Flats	Radial Dim'n	Dim'n	
D	A	F	B	C				G	E	H	J	K		
Metric	mm	mm	mm	mm	mm	kN	mm ²	mm	mm	mm	mm	mm	mm	
C8-00	20	2.5	66.0	66.0	123	20	190.21	1268.4	20	110.5	212.5	50.2	31.6	97.00
	22	2.5	66.0	66.0	123	20	190.21	1268.4	20	108.5	212.5	50.2	31.6	97.00
C8-01	24	3	87.0	87.0	153	25	328.87	2193	30	138	270	65	41.5	127.00
	27	3	87.0	87.0	153	25	328.87	2193	30	135	270	65	41.5	127.00
	30	3.5	87.0	87.0	153	25	328.87	2193	30	133.5	271.5	65	41.5	127.00
C8-02	33	3.5	104.5	104.5	165	28	514.84	3433.2	30	142.5	287.5	82.5	50.15	135.00
	36	4	104.5	104.5	165	28	514.84	3433.2	30	141	289	82.5	50.15	135.00
C8-03	39	4	123.1	118.3	185	35	746.70	4979.3	30	158	324.5	90	59.1	150.50
	42	4.5	123.1	118.3	185	35	746.70	4979.3	30	156.5	326	90	59.1	150.50
	45	4.5	150.0	143.5	211	48	1177.31	7850.8	30	179.5	369.25	110	71.7	169.75
C8-04	48	5	150.0	143.5	211	48	1177.31	7850.8	30	178	370.75	110	71.7	169.75
	52	5	150.0	143.5	211	48	1177.31	7850.8	30	174	370.75	110	71.7	169.75
	56	5.5	182.5	174.3	236	59	1904.04	12697	30	196.5	400.25	136	87.1	179.75
C8-05	60	5.5	182.5	174.3	236	59	1904.04	12697	30	192.5	400.25	136	87.1	179.75
	64	6	182.5	174.3	236	59	1904.04	12697	30	190	401.75	136	87.1	179.75
	68	6	210.0	210.0	260	65	2542.11	16952	30	210	440.75	163.5	105	199.75
C8-06	72	6	210.0	210.0	260	65	2542.11	16952	30	206	440.75	163.5	105	199.75
	76	6	210.0	210.0	260	65	2542.11	16952	30	202	440.75	163.5	105	199.75
	80	6	258.1	258.1	303	85	4059.32	27069	30	241	501.25	204	129	232.25
	85	6	258.1	258.1	303	85	4059.32	27069	30	236	501.25	204	129	232.25
C8-07	90	6	258.1	258.1	303	85	4059.32	27069	30	231	501.25	204	129	232.25
	95	6	258.1	258.1	303	85	4059.32	27069	30	226	501.25	204	129	232.25

BTS Bolt Tightening Software

Takes the complexity out of bolt tightening calculations.

The use of Torcup Bolt Load Software package along side the COMPACT-8 range of subsea bolt tensioning tools completely removes the complexity of calculating what pressure to operate the tensioning tools. A complete bolt tensioning project can be defined and rapid joint specific technical datasheets can be produced.

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