



Specialists in pneumatic and hydraulic equipment

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Official distributor of Boltight bolt tensioning equipment

(also for specials and custom made with working pressure up to 2.500 bar)

**BOLTIGHT<sup>®</sup>**  
**HYDRAULIC BOLT TENSIONING**

## HYDRAULIC BOLT TENSIONING

### 1500 bar Hydraulic Bolt Tensioning Equipment

Our 1500 bar tools are designed for applications where space is more limited or where much higher bolt stresses are required. Working above 1000 bar these tools fall under category 1 of the European Pressure Equipment Directive and are CE marked.

#### Features :-

- Smaller size and/or higher load capacity
- CE Marked
- Comprehensive health and safety, operating and maintenance manual
- Ideal for use in confined spaces
- Cost effective and robust design
- Long life composite material hydraulic seals
- Quick and easy to use
- Pressure tested and certificates issued
- Standard and custom built tooling
- Purchase or rental
- Fits all standard pipe flanges above 4 inch NB
- 15mm piston stroke
- Highly visible maximum stroke indicator
- Single or twin hydraulic connections
- Captive socket and/or quick release bridge options
- Optional finishes, oil black, nickel plate, PTFE coat
- Complimentary range of 1500 bar pumps, flexible hoses and fittings

Boltight will design and manufacture a hydraulic bolt tensioning tool to solve your bolt tightening problem. Features like spring or hydraulic piston return, positive piston stop, captive socket and quick release bridges can be custom built into any tools

More than 50% of the tooling sold by Boltight is custom designed and built.



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## HYDRAULIC BOLT TENSIONING

### Typhoon Tensioners



Boltight's Typhoon® range of bolt tensioners offer a high-load, low profile solution for space-restricted applications demanding high and accurate preloads.

Developed initially for the Wind Industry where such connections are commonplace, additional convenience features such as a spring loaded gear drive for nut rotation, automatic piston retraction and positive stop facility ensure that Boltight Typhoon® tensioners are the ideal choice for any application demanding a powerful, portable and user-friendly bolt tensioning tool.

Typhoon® tensioners also feature a high-cycle fatigue, aerospace-grade reaction component for maximum tool life. Typhoon tools are designed to fail safely (posing no threat to personnel or plant when the maximum tool life is achieved). Available in single stage or multi stage configurations, the tools also feature a durable carrying handle, configurable quick connect options and digital cycle counters where specified.

The tools generate ISO and ASTM proof load standards for 10.9 bolts, in accordance with the requirements for wind turbine, structural and other high load, high integrity bolting applications.

#### Specification

- Single or multi stage configurations available
- Lightweight, optimised hi-load designs
- Generates 95% yield stress on 10.9 bolts
- Meets 10.9 proof load requirement ASTM A490M and EN ISO 898-1:1999
- High-cycle fatigue life
- Spring loaded gear driven nut rotation
- Safe failure design
- Positive stop
- Fast piston retraction mechanism
- Optional cycle counter
- Carrying handle
- Configurable hydraulic connections including swivel fitting
- Durable, user-friendly design
- Special/bespoke designs available
- Complementary range of pumps, flexible hoses and fittings



Single Stage Typhoon®



Multi Stage Typhoon®



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## HYDRAULIC BOLT TENSIONING



### Single Stage

- Ideal for low overhead clearance applications
- Compact, single stage design for minimal installation height



Bolt Diameter		Maximum Load		Tensioner Diameter		Tensioner Height		Tensioner Stroke	
Imperial	Metric	lbf	kN	in	mm	in	mm	in	mm
1"	M24	65,192	290	3.35	85	3.86	98	0.31	8
1-1/8"	M27	84,300	375	3.58	91	4.09	104	0.31	8
1-1/8"	M30	103,408	460	3.86	98	4.21	107	0.31	8
1-1/4"	M33	128,136	570	4.29	109	4.53	115	0.31	8
1-3/8"	M36	150,616	670	4.49	114	4.65	118	0.31	8
1-1/2"	M39	179,840	800	5.04	128	4.88	124	0.39	10
1-5/8"	M42	206,816	920	5.20	132	5.20	132	0.39	10
1-3/4"	M45	242,784	1080	5.59	142	5.28	134	0.39	10
1-7/8"	M48	274,256	1220	5.94	151	5.43	138	0.39	10
2"	M52	325,960	1450	6.38	162	5.51	140	0.39	10
2-1/4"	M56	376,540	1675	6.73	171	5.91	150	0.39	10
2-1/2"	M64	494,560	2200	7.17	182	6.38	162	0.47	12

### Multi Stage

- Ideal for low radial clearance applications
- Multi stage design for easy installation into narrow apertures



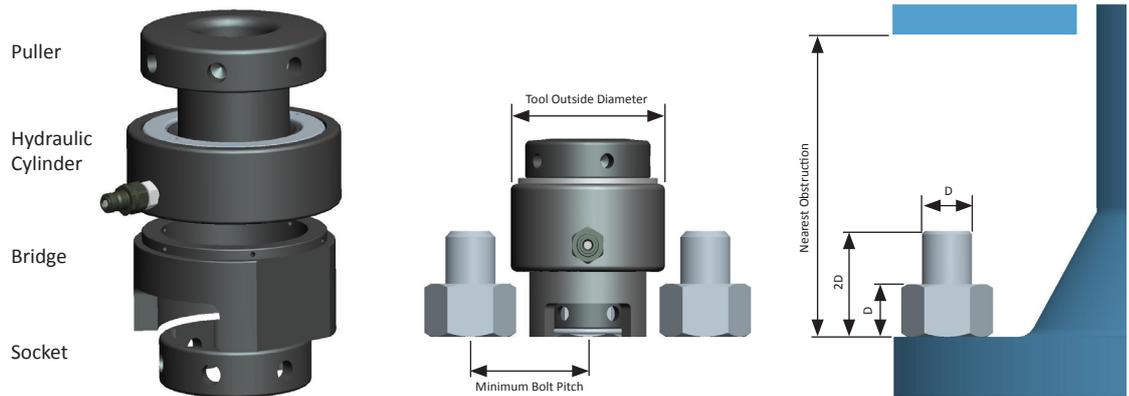
Bolt Diameter		Maximum Load		Tensioner Diameter		Tensioner Height		Tensioner Stroke	
Imperial	Metric	lbf	kN	in	mm	in	mm	in	mm
1"	M24	64,742	288	2.36	60	7.40	185	0.28	7
1-1/8"	M27	84,300	375	2.60	66	7.62	193.5	0.28	7
1-1/8"	M30	103,858	462	2.83	72	7.91	201	0.28	7
1-1/4"	M33	128,586	572	3.07	78	8.50	216	0.31	8
1-3/8"	M36	150,616	670	3.25	82.5	9.04	229.5	0.39	10
1-1/2"	M39	180,290	802	3.62	92	10.31	263	0.39	10
1-5/8"	M42	206,928	920.5	3.86	98	10.31	262	0.39	10
1-3/4"	M45	243,234	1082	4.13	105	10.91	281.5	0.39	10
1-7/8"	M48	274,706	1222	4.37	111	11.56	293.5	0.39	10
2"	M52	326,410	1452	4.72	120	12.80	327	0.39	10
2-1/4"	M56	376,540	1675	5.04	128	12.99	330	0.39	10
2-1/2"	M64	494,560	2244	5.83	146	14.23	376	0.47	12

- Alternative specifications also available (designs up to 2500 bar and M160 previously supplied)
- Contact Boltight if your size or application requirement is not listed above!



## HYDRAULIC BOLT TENSIONING

### Hydraulic Bolt Tensioning Tools (1500 bar)



### Inch sizes (metric sizes also available)

Tool No	Bolt Diameters	Stroke	Hydraulic Area	Max Load		Tool Outside Dia	Min Bolt Pitch	Nearest Obstruction
				kN	lbf			
	inches	mm	mm <sup>2</sup>			mm	mm	mm
21	3/4	12	1,555	233	52,380	73	53	145
	7/8							
	1							
	1-1/8							
22	*1-1/8*	15	2,884	433	97,342	105	62	175
	1-1/4							
	1-3/8							
	1-1/2							
23	*1-1/2*	15	5,271	791	177,823	136	83	200
	1-5/8							
	1-3/4							
	1-7/8							
24	2	15	8,445	1,267	284,832	172	104	230
	*2*							
	2-1/4							
	2-1/2							
25	*2-1/2*	15	12,197	1,830	411,400	200	129	255
	2-3/4							
	3							
	*3*							
26	3-1/4	15	16,682	2,502	562,471	235	154	288
	3-1/2							
	*3-1/2*							
	3-3/4							
27	4	15	17,530	2,629	593,270	245	185	320
							191	

### NOTES

- Maximum load is generated at the maximum operating pressure of 1500 bar.
- For hoses fittings and pumps request data sheets 601, 602, and 603
- Unless specified inch size tooling will be threaded UNC up to 1 inch and UN8 for 1-1/8 inch upwards.
- Equivalent metric sizes are also available. Specify diameter and thread pitch when ordering.
- This range of tooling has been designed to suit most standard flanges used in the oil and gas industry.
- Each tool comprises one hydraulic cylinder, bridge, puller and socket.
- Extra bridges, pullers and sockets can be purchased to adapt the hydraulic cylinder to fit other bolt sizes.
- All tools are assembled, filled with oil, pressure tested and a test certificate issued prior to despatch.
- Each tool is marked with the maximum operating pressure, load and stroke. All tools are CE marked.
- Any number of tools can be connected together for simultaneous operation.
- Pullers can be machined with other thread forms - specify when ordering.
- Larger bolt sizes are available. Send application details.
- Tools are fitted with self sealing quick connectors.
- Due to continuous product development dimensions may change without notice.

### Options available :-

- Twin hydraulic connections
- Other thread forms
- Special designs

\*Tool size available but non-standard so will have a longer lead time and greater cost than standard tooling. Please contact us for a quotation.

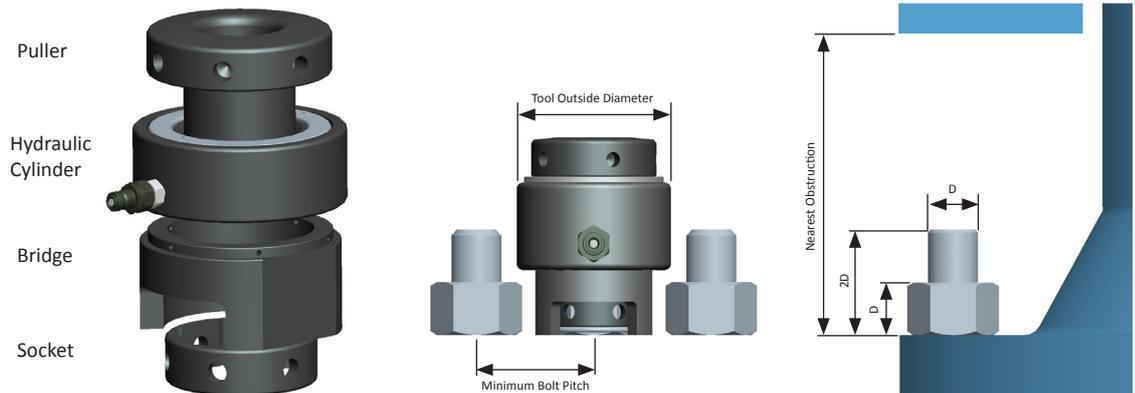


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## HYDRAULIC BOLT TENSIONING

### Hydraulic Bolt Tensioning Tools (1500 bar)



### Metric sizes (inch sizes also available)

Tool No	Bolt Diameters	Stroke	Hydraulic Area <sup>2</sup>	Max Load		Tool Outside Dia	Min Bolt Pitch	Nearest Obstruction
				kN	lbf			
	metric	mm	mm			mm	mm	mm
21	M16	12	1,555	233	52,380	73	53	145
	M20						53	
	M22						53	
	M24						62	
	M27						62	
22	*M27*	15	2,884	433	97,342	105	62	175
	M30						73	
	M33						73	
	M36						81	
	M39						83	
	*M39*						83	
23	M42	15	5,271	791	177,823	136	93	200
	M45						96	
	M48						101	
	M52						104	
	*M52*						104	
24	M56	15	8,445	1,267	284,832	172	123	230
	M64						129	
	*M64*						129	
25	M72	15	12,197	1,830	411,400	200	150	255
	M76						154	
	*M76*						154	
26	M80	15	16,682	2,502	562,471	235	176	288
	M90						185	
	*M90*						185	
27	M95	15	17,530	2,629	593,270	245	191	320
	M100						197	
							197	

#### NOTES

- Maximum load is generated at the maximum operating pressure of 1500 bar.
- For hoses fittings and pumps request data sheets 601, 602, and 603
- Unless specified inch size tooling will be threaded UNC up to 1 inch and UN8 for 1-1/8 inch upwards.
- Equivalent metric sizes are also available. Specify diameter and thread pitch when ordering.
- This range of tooling has been designed to suit most standard flanges used in the oil and gas industry.
- Each tool comprises one hydraulic cylinder, bridge, puller and socket.
- Extra bridges, pullers and sockets can be purchased to adapt the hydraulic cylinder to fit other bolt sizes.
- All tools are assembled, filled with oil, pressure tested and a test certificate issued prior to despatch.
- Each tool is marked with the maximum operating pressure, load and stroke. All tools are CE marked.
- Any number of tools can be connected together for simultaneous operation.
- Pullers can be machined with other thread forms - specify when ordering.
- Larger bolt sizes are available. Send application details.
- Tools are fitted with self sealing quick connectors.
- Due to continuous product development dimensions may change without notice.

#### Options available :-

- Twin hydraulic connections
- Other thread forms
- Special designs

\*Tool size available but non-standard so will have a longer lead time and greater cost than standard tooling. Please contact us for a quotation.

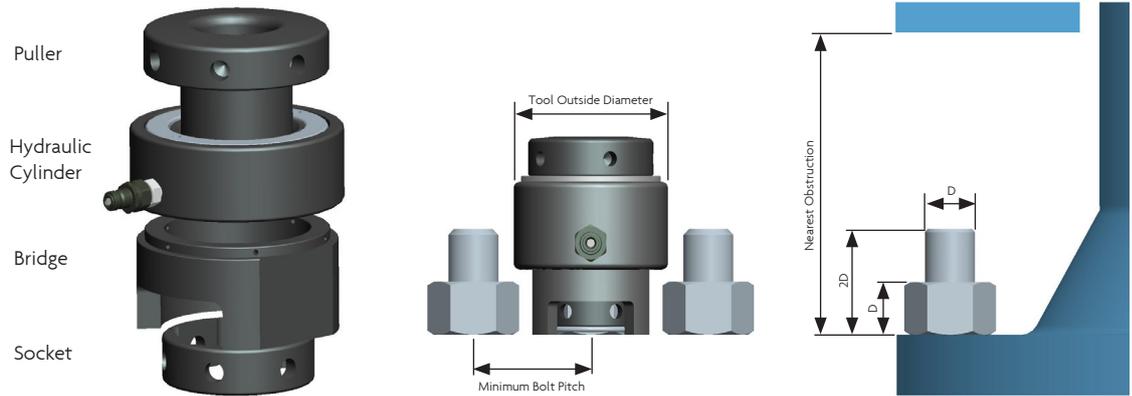


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## HYDRAULIC BOLT TENSIONING

### Hydraulic Bolt Tensioning Tools (1500 bar)



#### Additions to Standard Range

Tool additions to cover higher bolt load and/or reduced diameter applications required in the medium bolt size range. These tools are stocked and available for quick delivery.

Tensioner 23B utilises the same Bridge and Socket as the standard 23 tooling.

	Bolt Diameters	Stroke	Hydraulic Area	Max Load		Tool Outside Dia	Min Bolt Pitch	Nearest Obstruction
				kN	lbf			
	inch/metric	mm	mm <sup>2</sup>			mm	mm	mm
23B	1-5/8	15	6,320	948	213,118	144	97	200
	1-3/4							
	1-7/8							
	2							
23B	M42	15	6,320	948	213,118	144	97	200
	M45							
	M48							
	M52							
29	1-7/8	15	6,983	1,047	235,374	156	112	230
	2							
	2-1/4							
29	M48	15	6,983	1,047	235,374	156	106	230
	M52							
	M56							



## HYDRAULIC BOLT TENSIONING

### 1500 bar Tools Weight Table

Bolt Dia	Tool No	Socket kg	Puller kg	Bridge kg	Cylinder kg	Bridge & Cylin- der kg	Complete Tool kg
3/4	21	0.07	0.80	0.39	1.05	1.4	2.3
7/8	21	0.05	0.73	0.39	1.05	1.4	2.2
1	21	0.12	0.65	0.36	1.05	1.4	2.2
1-1/8	21	0.10	0.60	0.36	1.05	1.4	2.1
1-1/4	22	0.13	1.80	0.85	2.75	3.6	5.5
1-3/8	22	0.16	1.70	0.80	2.75	3.6	5.4
1-1/2	22	0.17	1.60	1.20	2.75	4.0	5.7
1-5/8	23	0.30	3.45	1.65	4.10	5.8	9.5
1-3/4	23	0.20	3.25	1.65	4.10	5.8	9.2
1-7/8	23	0.45	3.05	2.40	4.10	6.5	10.0
2	23	0.35	2.85	2.40	4.10	6.5	9.7
2-1/4	29	0.55	4.15	2.90	5.40	8.3	13.0
2-1/4	24	0.55	5.90	3.40	6.30	9.7	16.2
2-1/2	24	0.80	5.30	3.95	6.30	10.3	16.4
2-3/4	25	0.95	8.60	6.50	9.50	16.0	25.6
3	25	1.00	7.70	6.60	9.50	16.1	24.8
3-1/4	26	1.20	13.40	8.50	12.75	21.3	35.9
3-1/2	26	1.35	12.40	9.75	12.75	22.5	36.3
3-3/4	27	1.90	14.10	12.60	13.70	26.3	42.3
4	27	2.10	12.75	11.70	13.70	25.4	40.3



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## HYDRAULIC BOLT TENSIONING

### Tommy Bar Sizes for 1500 bar Tools

Bolt Dia	Tool No	Socket	Puller
3/4	21	6	8
7/8	21	6	8
1	21	8	8
1-1/8	21	8	8
1-1/4	22	8	10
1-3/8	22	10	10
1-1/2	22	10	10
1-5/8	23	10	12
1-3/4	23	10	12
1-7/8	23	12	12
2	23	12	12
2-1/4	29	14	14
2-1/4	24	14	16
2-1/2	24	16	16
2-3/4	25	14	16
3	25	16	16
3-1/4	26	16	16

Bolt Dia	Tool No	Socket	Puller
M20	21	6	8
M22	21	6	8
M24	21	6	8
M27	21	8	8
M30	22	8	10
M33	22	8	10
M36	22	10	10
M39	22	10	10
M42	23	10	12
M45	23	10	12
M48	23	12	12
M52	23	12	12
M56	29	14	14
M56	24	14	16
M60	24	14	16
M64	24	14	16
M68	25	16	16
M72	25	14	16
M76	25	16	16
M80	26	16	16

#### Tommy Bars Available

6 dia	BT-TB6
8 dia	BT-TB8
10 dia	BT-TB10
12 dia	BT-TB12
14 dia	BT-TB14
16 dia	BT-TB16
20 dia	BT-TB20

Tommy Bar



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## HYDRAULIC BOLT TENSIONING

### *Xtra* Load Range Hydraulic Bolt Tensioning Tools

The new Boltight Xtra load range of 1500 bar tools has been developed to suit all common size flanges; including ANSI, API and Norsok L005 Compact Flanges.

The Xtra range offers high quality tooling to give safe and reliable operation.

30% more load than typical standard ranges, combined with a large usable piston stroke provides users with versatility, and fast, accurate operation.

The tools are fitted with a range of features including misalignment compensation device, over stroke safety and maximum stroke indicators. Spring piston return and gear drive nut rotation are available as an option.

#### Overview

- High load
- Lightweight design
- Large stroke
- 1500 bar maximum pressure
- Fast delivery
- Low maintenance design
- Maximum stroke indicator
- Safe over stroke mechanism
- Optional spring return
- Optional swivel connectors
- Optional twin port connection
- Optional gear drive nut rotation
- Optional square drive tool run down adaptor
- Oversize threads available to suit galvenised bolting
- Complementary pumps and hoses available
- All equipment supplied with pressure test certification
- All equipment CE marked
- All tools supplied with detailed operating, maintenance and safety manuals
- 24 hour technical support
- Special designs available



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## HYDRAULIC BOLT TENSIONING

### *Xtra* Load Range Square Drive Adaptor

The Boltight Xtra load range of tools features the capacity to fit a square drive adaptor to the tooling. This adaptor allows any wrench with a 1/4" square drive to be used to quickly and effortlessly wind the tool on or off the stud.

To fit the adaptor simply insert it into the recess in the top of the tool. The adaptor is self fixing allowing it to be used upside-down or horizontally without affecting usability. The speed and ease of fitting means that only a small quantity of adaptors are required per tool size.

The adaptors are generic to the tool model, so can be transferred between imperial and metric sizes for each tool. The adaptors are stamped with the corresponding tool model number to help with identification.

#### Overview

- Allows rapid fitting of the tool onto or off the stud
- Quick and easy to fit
- Can be used horizontally or inverted
- Interchangeable between metric and imperial models
- Only small quantities required
- Works with both hand wrenches and impact guns
- Fast delivery



*Square drive wrench used to rapidly wind the tool onto the stud*



*Adaptor simply inserts into the top of the tool*



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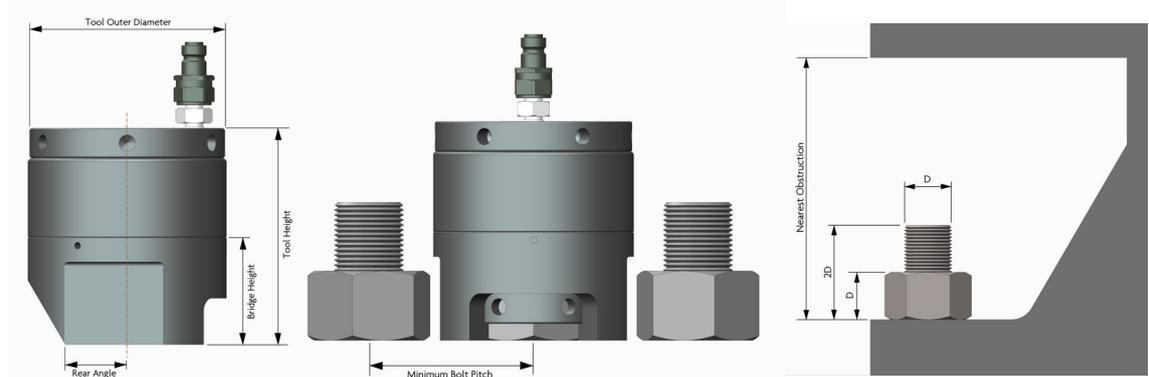
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## HYDRAULIC BOLT TENSIONING

### Xtra Load Range Hydraulic Bolt Tensioning Tools



Tool No.	Bolt Diameter		Hydraulic Area mm <sup>2</sup>	Max Load		Tool Ø mm	Tool Height mm	Bridge Height mm	Rear Angle mm	Minimum Bolt Pitch mm	Nearest Obstruction mm	Tool Weight	
	inch	mm		kN	klbf							kg	lbs
C1	3/4	M20	891	134	30.1	56	85	40	14.8	48.4	158	1.3	2.9
C2	7/8	M22	1268	190	42.7	63.5	92	45	18	52.2	167	1.8	4.0
C3	1	M24	1628	244	54.9	72	99	46	24	58.6	180	2.5	5.5
C4	1-1/8	M27 M30	2154	323	72.6	83	105	50	25	62.9	191	3.4	7.5
C5	1-1/4	M33	2747	412	92.6	92	109	53	27	70.2	199	4.3	9.5
C6	1-3/8	M36	3419	512	115.3	101	114	55	31	77.2	207	5.3	11.6
C7	1-1/2	M39	4153	623	140	111	127	62	36	81	222	6	19.8
C8	1-5/8	M42	4966	745	167.5	119	131	65	37	98.4	229	8.2	18
C9	1-3/4	M45	5901	878	199	129	139	69	39	94.3	242	10.4	23
C10	1-7/8	M48	6817	1022	229.8	138	143	69	42.5	100.3	247	12.2	26.8
C11	2	M52	7856	1178	264.8	147	152	74	44	108.3	260	14.5	31.9
C12	2-1/4	M56 M60	10117	1519	341.5	167	164	79	50	120	282	20.1	44.2
C13	2-1/2	M64	12702	1904	428.2	187	181	90	55	132.8	300	26.5	58.2
C14	2-3/4	M68 M72	14084	2111	474.6	198	191	96	62	144.5	320	33	72.6
C15	3	M76	16912	2539	570.8	215	200	102	69	160.3	330	40	88
C16	3-1/4	M80 M85	20056	3006	676.9	236	219	110	69.5	170.3	362	48.3	106.3
C17	3-1/2	M90	23423	3512	789.5	250	224	115	79	185.9	370	61	134.2
C18	3-3/4	M95	27051	4058	912.2	267	246	125	80	195.3	394	69.8	153.6
C19	4	M100	30984	4648	1044.9	286	257	132	88	241.1	411	78.5	172.7

#### NOTES

- Maximum load is generated at the maximum operating pressure of 1500 bar.
- For hoses fittings and pumps request data sheets 601, 602 & 603.
- Unless specified, inch size tooling will be threaded UNC up to 1 inch and UN8 for 1-1/8 inch upwards.
- All tools are assembled, filled with oil, pressure tested and a test certificate issued prior to despatch.
- Each tool is marked with the maximum operating pressure, load and stroke. All tools are CE marked.
- Any number of tools can be connected together for simultaneous operation.
- Tools can be machined with other thread forms - specify when ordering.
- If using tools with swivel connectors then 13 mm can be deducted from the nearest obstruction height.
- Due to continuous product development dimensions may change without notice.



## HYDRAULIC BOLT TENSIONING



### 1500 bar Air Driven Power Pack

This easy to use, air driven hydraulic pump is mounted in a tubular steel transportable frame painted blue. The pack is supplied complete with, air inlet connector, air filter, air pressure regulator, air lubricator, air pressure gauge, air pressure limit valve, pump on/off control, oil reservoir, oil pressure release valve, oil pressure gauge, gauge guard, air/hydraulic pump and high pressure oil outlet through a self sealing quick connect coupling.

BT-1506 is designed for use with all BOLTIGHT 1500 bar tooling and represents the best compromise between price and performance.

A higher delivery pump BT-1507 is available where speed of operation is essential especially when using multiple large diameter tooling. Ask for Data Sheet BT-1507.

Pumps for 1000 bar, 2000 bar and 2500 bar working pressures are also available. Custom built power packs, with any number of outlets, to suit your existing tooling or with special features are available on request.

#### Specification

##### Consumption of Free Air

800 litres per minute (28 standard cubic feet per minute)

##### Air Pressure Required

4 - 7 bar (60 - 100 psi)

##### Dimensions

400 mm long x 400 mm wide x 440 mm high

##### Weight

19.5 kg

##### Oil Reservoir

8.5 litre ISO 10 hydraulic oil

##### Finish

Blue Paint Hammer Finish

##### Pressure Gauge

Dual Scale 0 - 2000 bar (0 - 29000 psi)

##### Working Pressure

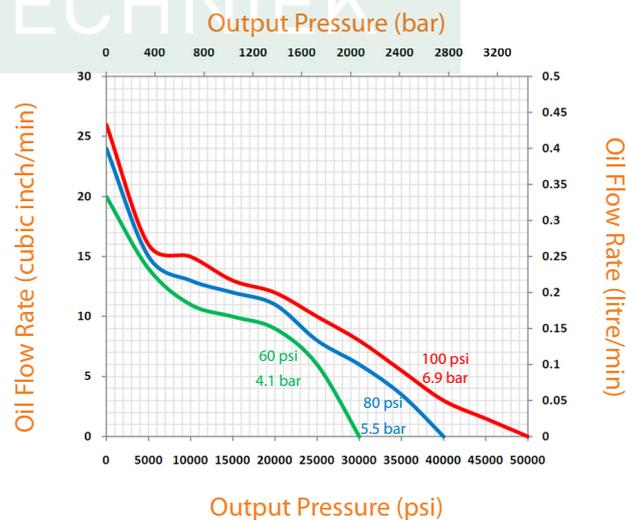
1500 bar

##### Oil Flow Rate

See graph



Air Driven Power Pack



BT-1506

This pump conforms to the European Pressure Equipment Directive and is CE Marked



## HYDRAULIC BOLT TENSIONING

### 1500 bar Electric Driven Power Pack

The BT-1506-E has been designed for use with all of Boltight's 1500 bar tooling. This compact and easy to use lightweight design allows pressures of up to 1500 bar to be reached very quickly and reliably giving significant time saving in assembly operations.

The power pack comprises of the hydraulic pump, electric motor, oil reservoir, pressure switch, pressure gauge, pressure release valve, internal safety pressure release valve, oil outlet via self sealing quick connect coupling. The pump is available in stand alone format or mounted in a tubular steel transportable frame.

The pump has two stages. The low pressure stage is factory set at 30 bar to provide a high volume oil flow (3 litres per minute) for rapid piston extension and seal energising. When pressure above 30 bar is required the pump automatically switches to the high pressure, low volume mode (0.1 litres per minute).

#### Specification

##### Working Pressure

1500 bar (21750 psi)

##### Oil Output Flow Rates

High pressure side - 0.1 litres per min

Low pressure side - 3.0 litres per min

##### Electric Motor Options

Open type, class E insulation 450W

230V or 110V 50/60Hz single-phase

##### Dimensions

320 mm long x 180 mm wide x 450 mm high

##### Weight

26 kg

##### Oil Reservoir

4.5 (4.0 usable) litre tank capacity

##### Pressure gauge

110 mm analogue gauge

##### Features

- Lightweight
- Two hydraulic stages
- Comprehensive operating manual
- CE marked



Stand Alone



Frame Mounted



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## HYDRAULIC BOLT TENSIONING

### Compact Electric Motor Driven Pump

BT-1506-E1 is a compact electric pump. The standalone power pack is both lightweight (19.5kg) and extremely portable. The pump, reservoir and motor are all combined into one easily handled package with a built-in moulded plastic carry handle.

The pump is fitted with a 1500 bar rated self sealing quick connect coupling and dust cap, a liquid filled damped pressure gauge and a simple oil level indicator. It also features a remote control pendant for operation from a distance.

Boltight's BT-1506-E1 is well suited for use in the wind turbine industry for its relatively low weight and small size.

The pump is very easy to use and maintain. It has a manually adjustable pressure relief valve for easy setting of the maximum working pressure.

The pump is pressurised in two stages. The low pressure stage is factory set to provide a high volume oil flow for rapid piston extension and seal energising. When higher pressure is required the pump automatically switches to the high pressure, low volume mode. The high oil flow ensures the pump reaches the desired operating pressure very quickly.

#### Options

The pump is available for 240V or 110V power supply.

It can also be fitted with an Oil Cooling Fan for operation in hot climates or long periods of use.

#### Specification

**Maximum Operating Pressure**  
1500 bar.

**Electric Motor**  
220V-240V 50/80Hz single-phase (110V option)  
Protection Rating: IP24  
Protected against solids objects over 12mm  
Protected against water sprays from all directions - limited ingress permitted

**Power Rating**  
0.75kW

**Pressure Relief Valve**  
Manual adjustment on front of pump

**Dimensions**  
349 mm long x 197 mm wide x 406 mm high

**Weight**  
19.5 kg

**Oil Reservoir**  
ISO VG32 hydraulic oil  
Capacity 2.6 litres. Usable oil 2.4 litres.

**Pressure Gauge**  
Graduated to 1600 bar

**Oil Flow Rate**  
1st Stage: 1.8 litres per minute up to 65 bar  
2nd Stage: 0.2 litres per minute up to 1500 bar



Compact Electric Pump BT-1506-E1



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Air Driven Power Pack (High Delivery)

This higher oil delivery, air driven hydraulic pump is mounted in a tubular steel transportable frame painted blue. The pack is supplied complete with, air inlet connector, air filter, air pressure regulator, air lubricator, air pressure gauge, air pressure limit valve, pump on/off control, oil reservoir, oil pressure release valve, oil pressure gauge, gauge guard, air/hydraulic pump and high pressure oil outlet through a self sealing quick connect coupling.

BT-1507 is a higher oil flow rate pump designed for use with all BOLTIGHT 1500 bar tooling where speed of operation is essential. Especially useful when using multiple large tools.

A lower delivery, and less costly pump BT-1506 is also available. Ask for Data Sheet BT-1506.

Pumps for 1000 bar, 2000 bar and 2500 bar working pressures are also available.

Custom built power packs, with any number of outlets, to suit your existing tooling or with special features are available on request.

#### Specification

##### Consumption of Free Air

1600 litres per minute (56 standard cubic feet per minute)

##### Air Pressure Required

4 - 7 bar (60 - 100 psi)

##### Dimensions

400 mm long x 400 mm wide x 440 mm high

##### Weight

23 kg

##### Oil Reservoir

8.5 litre ISO 10 hydraulic oil

##### Finish

Blue Paint Hammer Finish

##### Pressure Gauge

Dual Scale 0 - 2000 bar (0 - 29000 psi)

##### Working Pressure

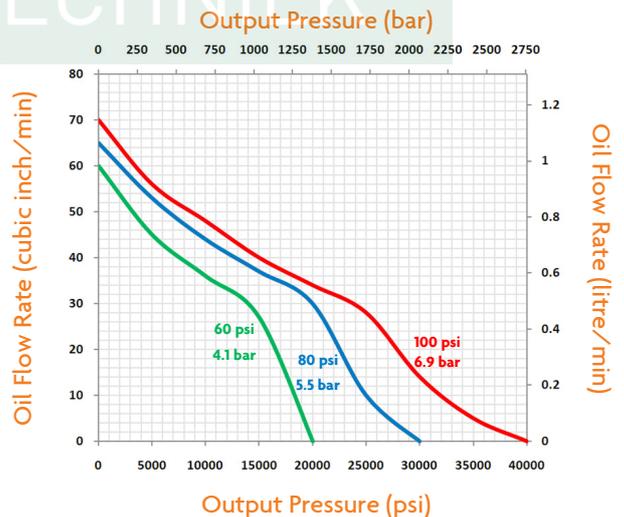
1500 bar

##### Oil Flow Rate

See graph



Air Driven Power Pack



BT-1507

This pump conforms to the European Pressure Equipment Directive and is CE Marked



## HYDRAULIC BOLT TENSIONING

### 1500 bar Electric Driven Power Pack (High Flow Rate)

The BT-1507-E electric motor driven power pack is designed for use with all 1500 bar tooling. It allows pressures of up to 1500 bar to be reached very quickly giving significant time saving in assembly operations.

BT-1507-E is a high specification pump suitable for large groups of tools, and faster required flow rates and operating times.

With optional PLC control and automatic pressure setting the BT-1507-E high flow power pack is fully programmable and allows the operator to view certain types of system data such as input status or timer values. The unit can also be connected to a PC for full traceability.

Combined with full pendant control this pump is particularly suitable for OEM and factory use. Versions for operating pressures up to 3000 bar also available.

#### Specification

##### Working Pressure

1500 bar (21750 psi)

##### Oil Output Flow Rates

Max. flow 8.4 litres per min

##### Electric Motor Options

Single/Three Phase 110V/220V/380V

##### Dimensions

500 mm long x 370 mm wide x 470 mm high

##### Weight

50 kg

##### Oil Reservoir

7 (4 usable) litre tank capacity

##### Pressure Gauge

110 mm analogue gauge

##### Features

- Constant pressure operation
- Quiet operation 64dB (A)
- Compact unit
- PLC Programmable
- Full pendant control
- Comprehensive operating manual
- CE marked



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## HYDRAULIC BOLT TENSIONING



### 1500 bar Air Driven Power Pack (High Delivery/Stainless Frame)

This power pack is ideal for operating sub sea tooling offshore. The power pack has a large 15 litre stainless steel oil reservoir and frame.

The higher oil delivery, air driven hydraulic pump is mounted in a tubular steel transportable frame painted blue. The pack is supplied complete with, air inlet connector, air filter, air pressure regulator, air lubricator, air pressure gauge, air pressure limit valve, pump on/off control, oil reservoir, oil pressure release valve, oil pressure gauge, gauge guard, air/hydraulic pump and high pressure oil outlet through a self sealing quick connect coupling.

This is a higher oil flow rate pump designed for use with all Boltight 1500 bar tooling where speed of operation is essential. Especially useful when using multiple large tools.

Pumps for 1000 bar, 2000 bar and 2500 bar working pressures are also available.

Custom built power packs, with any number of outlets, to suit your existing tooling or with special features are available on request.

#### Specification

##### Consumption of Free Air

1600 litres per minute (56 standard cubic feet per minute)

##### Air Pressure Required

4 - 7 bar (60 - 100 psi)

##### Dimensions

560 mm long x 420 mm wide x 450 mm high

##### Weight

31 kg

##### Oil Reservoir

15 litre ISO 10 hydraulic oil

##### Finish

Stainless Steel

##### Pressure Gauge

Dual Scale 0 - 2000 bar (0 - 29000 psi)

##### Working Pressure

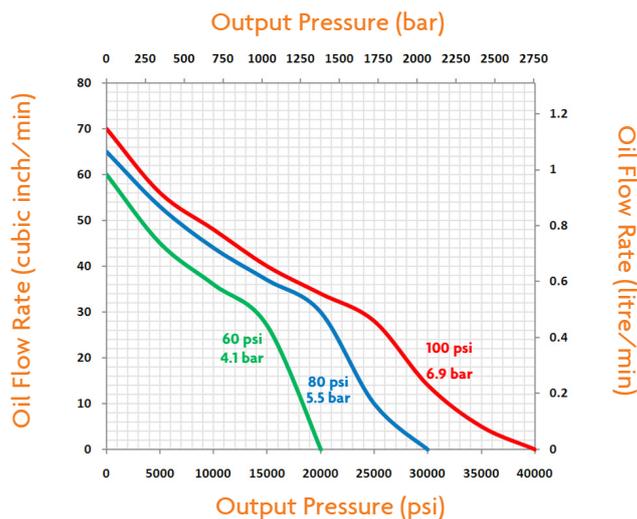
1500 bar

##### Oil Flow Rate

See graph



The subsea version of Boltight's Air Driven Power Pack (High Delivery) for operating subsea tooling offshore.



BT-1507-SS



## HYDRAULIC BOLT TENSIONING

### tower<sup>⚡</sup>PACK

#### 1500 bar Electric Driven Power Pack for Wind Turbines

A pump designed for the wind turbine industry - the **tower<sup>⚡</sup>PACK** electric driven hydraulic pump gives durable and reliable performance under the most testing conditions.

The 1500 bar operating pressure electric pump is the ideal match for the Boltight Typhoon range of bolt tensioning tools. The BT-1507-W portable hydraulic unit is designed to work in adverse environment conditions. To ensure its durability the pump has an IP-56 degree of protection.

The BT-1507-W has an easy to use interface with full pendant control, including a digital pressure read out, making this pump simple and quick to use. The pump has been optimised to be light and transportable and features a lifting point integral to the frame.

#### Specification

##### Working Pressure

1500 bar (21750 psi)

##### Electric Motor Options

110V-220V/50-60 Hz (IP56 Protected)

##### Dimensions

570 mm long x 280 mm wide x 400 mm high

##### Weight

42 kg

##### Oil Reservoir

4.7 (1.7 usable) litre tank capacity

##### Pressure Gauge

110 mm analogue gauge

##### Features

- Electronic pressure release valve
- Full pendant control
- Frame mounted swivel lifting point
- On board diagnostics
- Constant pressure operation
- Comprehensive operating manual
- CE marked



Electric Driven Power Pack



Anti-vibration frame with lifting points



Full pendant control



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Hand Pump

This hand pump can be used with all Boltight 1500 bar tooling and equipment.

The pump has both high and low pressure pistons and is supplied complete with a 63 mm diameter damped (liquid filled) pressure gauge, pressure release valve, internal pressure safety relief valve, a 1 litre oil reservoir and a self sealing quick connect coupling.

A hand pump with a larger 2.4 litre oil reservoir is also available (BT-1515).

A larger 110 mm diameter pressure gauge is available as an option (BT-1514-G110).

Hand pumps should only be used with one or two tensioning tools. When simultaneous operation of several tools is being considered Boltight recommends the use of an air driven pump.

#### Specification

##### Part No

BT-1514

##### Dimensions

620 mm long x 110 mm wide x 170 mm high

##### Weight

8.3 kg

##### Oil Reservoir

1 litre ISO 10 hydraulic oil

##### Finish

Aluminium Silver

##### Pressure Gauge

Dual Scale 0 - 1500 bar (0 - 22000 psi)

63 mm diameter

##### Maximum Pressure

1500 bar

##### Oil Delivery Low Pressure Piston

20 cc per stroke

##### Oil Delivery High Pressure Piston

1 cc per stroke

##### Handle effort @ 1500 bar

370 Newtons



1500 bar Hand Pump BT-1514



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Hand Pump (Large Gauge)

This hand pump can be used with all Boltight 1500 bar tooling and equipment.

The pump has both high and low pressure pistons and is supplied complete with, a 110 mm diameter pressure gauge, pressure release valve, internal pressure safety relief valve, a 1 litre oil reservoir and a self sealing quick connect coupling.

Hand pumps should only be used with one or two tensioning tools. When simultaneous operation of several tools is being considered Boltight recommends the use of an air driven pump.

#### Specification

##### Part No

BT-1514-G110

##### Dimensions

620 mm long x 130 mm wide x 170 mm high

##### Weight

8.3 kg

##### Oil Reservoir

1 litre ISO 10 hydraulic oil

##### Finish

Aluminium Silver

##### Pressure Gauge

Dual Scale 0 - 1500 bar (0 - 22000 psi)

110 mm diameter

##### Maximum Pressure

1500 bar

##### Oil Delivery Low Pressure Piston

20 cc per stroke

##### Oil Delivery High Pressure Piston

1 cc per stroke

##### Handle Effort @ 1500 bar

370 Newtons



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1500 bar Hand Pump BT-1514-G110

## HYDRAULIC BOLT TENSIONING

### 1500 bar Large Hand Pump

This hand pump can be used with all Boltight 1500 bar tooling and equipment.

The pump has both high and low pressure pistons and is supplied complete with, a 110 mm diameter pressure gauge, pressure release valve, internal pressure safety relief valve, a 2.4 litre oil reservoir and a self sealing quick connect coupling.

Hand pumps should only be used with one or two tensioning tools. When simultaneous operation of several tools is being considered Boltight recommends the use of an air driven pump.

#### Specification

##### Part No

BT-1515

##### Dimensions

620 mm long x 130 mm wide x 170 mm high

##### Weight

10.1 kg

##### Oil Reservoir

2.4 litre ISO 10 hydraulic oil

##### Finish

Aluminium Silver

##### Pressure Gauge

Dual Scale 0 - 1500 bar (0 - 22000 psi)

110 mm diameter

##### Maximum Pressure

1500 bar

##### Oil Delivery Low Pressure Piston

20 cc per stroke

##### Oil Delivery High Pressure Piston

1 cc per stroke

##### Handle Effort @ 1500 bar

370 Newtons



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1500 bar Large Hand Pump BT-1515

## HYDRAULIC BOLT TENSIONING

### 1500 bar Small Hand Pump

This small hand pump 320 mm long, can be used with all Boltight 1500 bar tooling and equipment.

The pump has both high and low pressure pistons and is supplied complete with, a 63 mm diameter damped (liquid filled) pressure gauge, pressure release valve, internal pressure safety relief valve, and a 300 cc oil reservoir.

The pump is fitted with a self sealing quick connect coupling (Type B - see DS 26) which is not shown in the picture below.

Hand pumps should only be used with one or two tensioning tools. When simultaneous operation of several tools is being considered Boltight recommends the use of an air driven pump.

#### Specification

##### Part No

BT-1516

##### Dimensions

320 mm long x 110 mm wide x 170 mm high

##### Weight

5.5 kg

##### Oil Reservoir

300 cc ISO 10 hydraulic oil

##### Finish

Aluminium Silver

##### Pressure Gauge

Dual Scale 0 - 1500 bar (0 - 22000 psi)

63 mm diameter

##### Maximum Pressure

1500 bar

##### Oil Delivery Low Pressure Piston

20 cc per stroke

##### Oil Delivery High Pressure Piston

1 cc per stroke



1500 bar Hand Pump BT-1516



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 30m Downline Hose

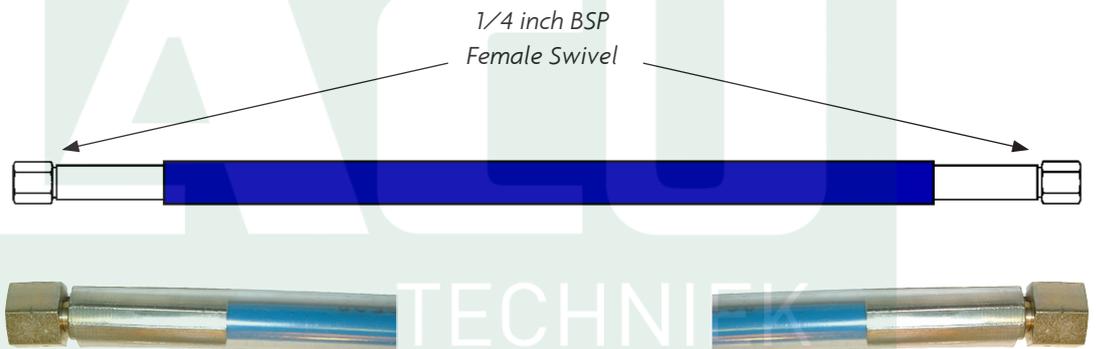
This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

Each end of the hose is fitted with a 1/4" BSP female swivel connector. Any number of these 30 m long hoses may be joined together to reach the operating water depth. The first and last hose may be fitted with a quick connector for connection to the pump at the top side and at depth, to the sub sea harness.

The hoses are normally mounted on a hose reel and stand as shown below. The hoses are filled with oil and pressure tested prior to despatch.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Test certificates are supplied. All hoses are marked with serial numbers for identification. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



30m Downline Hose

CE Marked

Part No BT-1537-30



Hose Reel

Part No BT-1590

This hand operated hose reel and stand is made from tubular steel finished in yellow paint, epoxy marine powder coat.



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 1m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 1 metre. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



1m Link Hose

CE Marked

Part No BT-1540-1



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 1.5m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 1.5 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



1.5m Link Hose

CE Marked

Part No BT-1540-1.5



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 2m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 2 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*

*Self sealing quick connect coupling with blue plastic dust cap*

2m Link Hose

CE Marked

Part No BT-1540-2



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 3m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 3 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



3m Link Hose

CE Marked

Part No BT-1540-3



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 4m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 4 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



4m Link Hose

CE Marked

Part No BT-1540-4



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 5m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 5 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



5m Link Hose

CE Marked

Part No BT-1540-5



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 6m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 6 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



6m Link Hose

CE Marked

Part No BT-1540-6



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 8m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 8 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



8m Link Hose

CE Marked

Part No BT-1540-8



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 10m Link Hose

This 1500 bar working pressure hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied.

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. The hose length is 10 metres. This hose assembly conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple with blue plastic dust cap*



*Self sealing quick connect coupling with blue plastic dust cap*



10m Link Hose

CE Marked

Part No BT-1540-10



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Tee Block - 1 inlet 2 outlets

This tee block is designed for 1500 bar working pressure.

The tee is delivered fully assembled with self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

The tee is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All tee blocks are marked with the maximum working pressure, the part number and a serial number for identification.

This tee block conforms to the European Pressure Equipment Directive and is CE Marked.

*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*



*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

Tee Block  
CE Marked

Part No BT-1543



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Tee Block - 2 inlets 1 outlet

This tee block is designed for 1500 bar working pressure.

The tee is delivered fully assembled with self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

The tee is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All tee blocks are marked with the maximum working pressure, the part number and a serial number for identification.

This tee block conforms to the European Pressure Equipment Directive and is CE Marked.

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

Tee Block  
CE Marked

Part No BT-1544



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Elbow Block (BT-1545)

This elbow block is designed for 1500 bar working pressure. The elbow is delivered fully assembled with self sealing quick connect coupling and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps. The elbow is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided. All elbows are marked with the maximum working pressure, the part number and a serial number for identification. This elbow assembly conforms to the European Pressure Equipment Directive and is CE Marked.

Self sealing quick connect coupling



Self sealing quick connect nipple



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Cross Block - 1 inlet 3 outlets

This cross block is designed for 1500 bar working pressure.

The cross block is delivered fully assembled with self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

The cross block is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All cross blocks are marked with the maximum working pressure, the part number and a serial number for identification.

This cross block conforms to the European Pressure Equipment Directive and is CE Marked.

*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*



*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

Cross Block  
CE Marked

Part No BT-1546



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Tee Block - 2 inlets 1 outlet

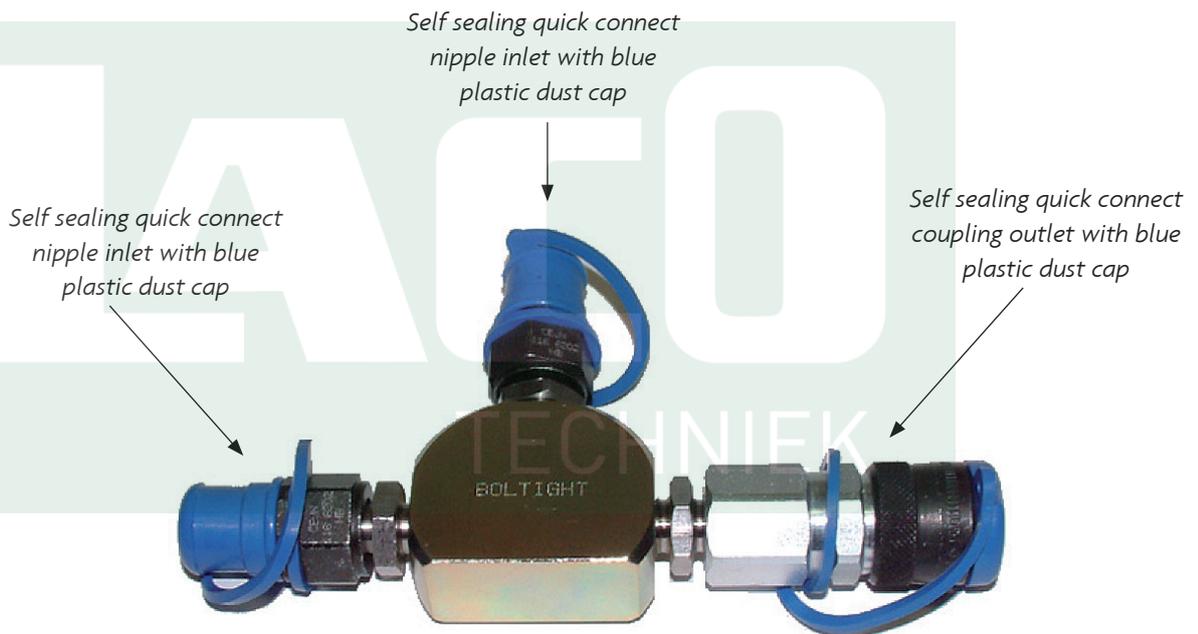
This tee block is designed for 1500 bar working pressure.

The tee is delivered fully assembled with self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

The tee is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All tee blocks are marked with the maximum working pressure, the part number and a serial number for identification.

This tee block conforms to the European Pressure Equipment Directive and is CE Marked.



Tee Block  
CE Marked

Part No BT-1547

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## HYDRAULIC BOLT TENSIONING

### 1500 bar 1.5m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

1.5m Interconnecting Hose  
CE Marked

Part No BT-1548-1.5



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 2m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

2m Interconnecting Hose  
CE Marked

Part No BT-1548-2



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 3m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

3m Interconnecting Hose  
CE Marked

Part No BT-1548-3



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 4m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi-spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



Self sealing quick connect nipple inlet with blue plastic dust cap

4m Interconnecting Hose  
CE Marked

Part No BT-1548-4



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 5m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

5m Interconnecting Hose  
CE Marked

Part No BT-1548-5



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 6m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi-spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



Self sealing quick connect coupling outlet with blue plastic dust cap

Self sealing quick connect nipple inlet with blue plastic dust cap

6m Interconnecting Hose  
CE Marked

Part No BT-1548-6



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 8m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

8m Interconnecting Hose  
CE Marked

Part No BT-1548-8



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## HYDRAULIC BOLT TENSIONING

### 1500 bar 10m Interconnecting Hose

This 1500 bar working pressure interconnecting hose is manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE.

The hoses are delivered fully assembled with tee block, self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are supplied

All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150mm. This hose assembly conforms to the European Pressure Equipment Directive and is CE marked.



*Self sealing quick connect  
coupling outlet with blue  
plastic dust cap*

*Self sealing quick connect  
nipple inlet with blue  
plastic dust cap*

10m Interconnecting Hose  
CE Marked

Part No BT-1548-10



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Blank Nipple

This blank nipple is designed for 1500 bar working pressure.

The nipple is fitted with a BLUE plastic dust cap. The blank nipple is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All blank nipples are marked with the maximum working pressure, the part number and a serial number for identification.

This blank nipple conforms to the European Pressure Equipment Directive and is CE Marked.

*Self sealing quick connect nipple with blue plastic dust cap*



001

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Blank Nipple  
CE Marked

Part No BT-1553

## HYDRAULIC BOLT TENSIONING

### 1500 bar Blank Coupling

This blank coupling is designed for 1500 bar working pressure.

The coupling is fitted with a BLUE plastic dust cap. The blank coupling is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All blank couplings are marked with the maximum working pressure, the part number and a serial number for identification.

This blank coupling conforms to the European Pressure Equipment Directive and is CE Marked.

*Self sealing quick connect nipple with blue plastic dust cap*



Blank Coupling  
CE Marked

Part No BT-1554

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## HYDRAULIC BOLT TENSIONING

### 1500 bar Tee Block - 1 inlet 2 outlets

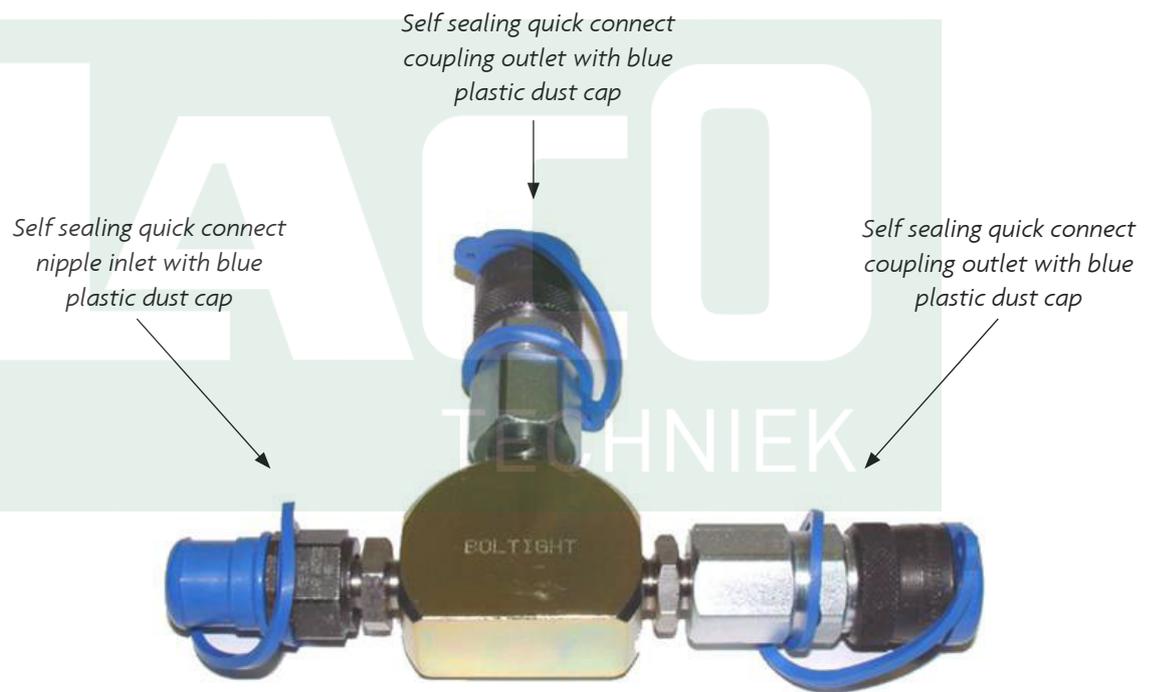
This tee block is designed for 1500 bar working pressure.

The tee is delivered fully assembled with self sealing quick connect couplings and nipple for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

The tee is assembled, filled with oil and pressure tested prior to despatch. Test certificates are provided.

All tee blocks are marked with the maximum working pressure, the part number and a serial number for identification.

This tee block conforms to the European Pressure Equipment Directive and is CE Marked.



*Self sealing quick connect nipple inlet with blue plastic dust cap*

*Self sealing quick connect coupling outlet with blue plastic dust cap*

*Self sealing quick connect coupling outlet with blue plastic dust cap*



Tee Block  
CE Marked

Part No BT-1557

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## HYDRAULIC BOLT TENSIONING

### 1500 bar Four Outlet Manifold Block with Manual Stop Valves

The maximum working pressure for this four outlet Manifold Block with Stop Valves is 1500 bar. The manifold is assembled with self sealing quick connectors for fast and clean operation.

The inlet is fitted with a quick connect male nipple. The four outlets are fitted with quick connect female couplings. The quick connectors are fitted with plastic dust caps

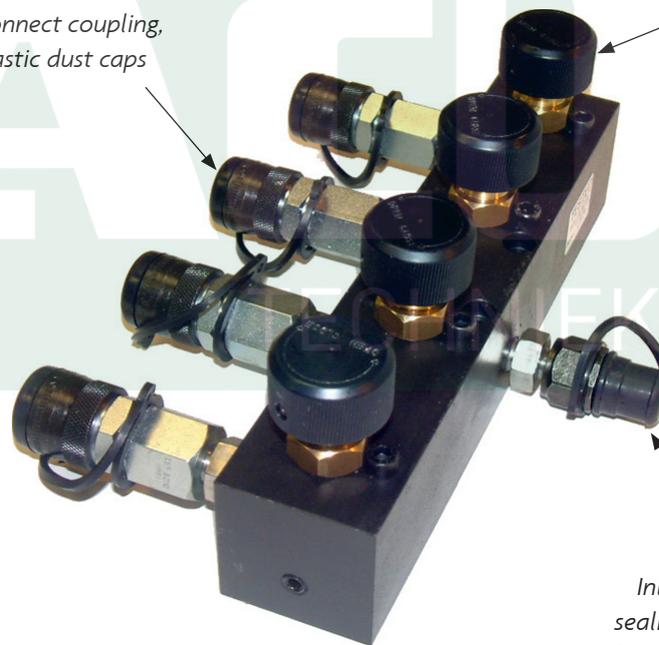
All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection against abrasion and chemical attack.

Each manifold block is filled with oil and pressure tested prior to despatch. Test certificates are supplied. All manifolds are identified by serial numbers.

The manifold conforms to the requirements of the European Pressure Equipment Directive and is CE marked

*Four tool outlets via self sealing quick connect coupling, fitted with plastic dust caps*

*Four outlets controlled by manually operated stop valves*



*Inlet from pump via self sealing quick connect nipple fitted with a plastic dust cap*



CE Marked

Part No BT-1570

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## HYDRAULIC BOLT TENSIONING

### 1500 bar Two Outlet Manifold Block with Manual Stop Valves

The maximum working pressure for this two outlet Manifold Block with Stop Valves is 1500 bar. The manifold is assembled with self sealing quick connectors for fast and clean operation. The inlet is fitted with a quick connect male nipple. The two outlets are fitted with quick connect female couplings

Each manifold block is filled with oil and pressure tested prior to despatch. Test certificates are supplied. All manifolds are identified by serial numbers.

The manifold conforms to the requirements of the European Pressure Equipment Directive and is CE marked

The quick connectors are fitted with plastic dust caps. Each manifold block is filled with oil and pressure tested prior to despatch. Test certificates are supplied. All manifolds are identified by serial numbers. The manifold conforms to the requirements of the European Pressure Equipment Directive and is CE marked.

*Two tool outlets via self sealing quick connect coupling, fitted with plastic dust caps*

*Two outlets controlled by manually operated stop valves*



*Inlet from pump via self sealing quick connect nipple fitted with a plastic dust cap*



CE Marked

Part No BT-1571

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## HYDRAULIC BOLT TENSIONING

### M150 Special Hydraulic Bolt Tensioning Tool

When faced with the prospect of tightening twenty M150 bolts in a very large piece of plant the customer naturally specified that hydraulic bolt tensioning tools should be used.

The Boltight standard range covers bolts from M20 to M100 so something special was called for and Boltight provided a solution.



BT-3125 M150 Special Hydraulic Bolt Tensioning Tool

This large tool operates at 1700 bar and develops a tensioning force in excess of 8762 kN.

The tool was designed to fit the customer's application and is equipped with a spring retraction system to return the piston after each operation of the tool.

The tensioner and the M150 puller were fitted with lifting eye bolts to ease the handling of the tool.

Four tools were connected together for simultaneous operation. When complete the total bolt load exceeded 120,000 kN

Boltight was also able to perform a residual load test using a calibrated strain gauged bolt and digital read out to ensure the tensioning operation would achieve the specified residual bolt tension.



The bolt tensioning tool connected to a high pressure pump and a hand held digital readout from a calibrated strain gauged bolt.



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Flexible Hose Assemblies

These 1500 bar working pressure hose assemblies are manufactured from multi spiral reinforced high pressure flexible hose, colour coded BLUE. They are delivered fully assembled with self sealing quick connect couplings and nipples for fast and clean operation. The quick connectors are fitted with BLUE plastic dust caps.

Hoses are assembled, filled with oil and pressure tested prior to despatch. Test certificates are available. All hoses are marked with serial numbers for identification. Hoses are assembled with a clear PVC cover for additional protection

against abrasion and chemical attack.

Minimum burst pressure is 4500 bar and the minimum bend radius is 150 mm. Minimum hose length is 1m. Hoses are available in multiples of 0.1m length. These hose assemblies conform to the requirements of the European Pressure Equipment Directive and are CE marked.

Special hose assemblies can be made to meet your needs. Please send details of your requirements for a fast response.



*BT-1540-N Hose*



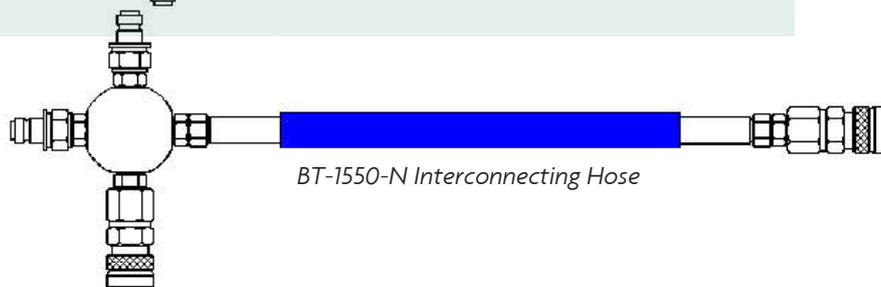
*BT-1541-N Hose*



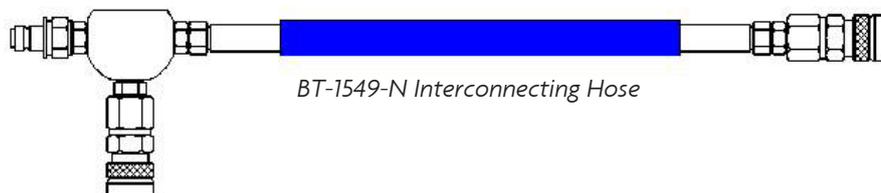
*BT-1542-N Hose*



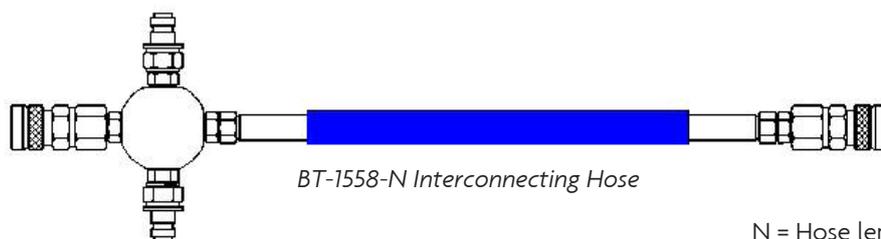
*BT-1548-N Interconnecting Hose*



*BT-1550-N Interconnecting Hose*



*BT-1549-N Interconnecting Hose*



*BT-1558-N Interconnecting Hose*

N = Hose length in metres



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Tee Blocks and other assemblies

These 1500 bar working pressure assemblies are designed for use with all Boltight 1500 bar system tooling, pumps and hose. They are delivered fully assembled with self sealing quick connect couplings for fast and clean operation. The quick connectors are fitted with BLUE colour coded dust covers.

Each assembly is filled with oil and pressure tested prior to despatch. Test certificates are provided. All assemblies are marked with serial numbers for identification. These assemblies

conform to the requirements of the European Pressure Equipment Directive and are CE marked.

Boltight Ltd also manufactures bolt tensioning equipment, pumps hoses and assemblies for 1000 bar, 2000 bar and 2500 bar operating pressures. Contact us for details.

Special assemblies can be made to your specified requirements. Please send details of your requirements for a fast response.



BT-1543  
Tee Block



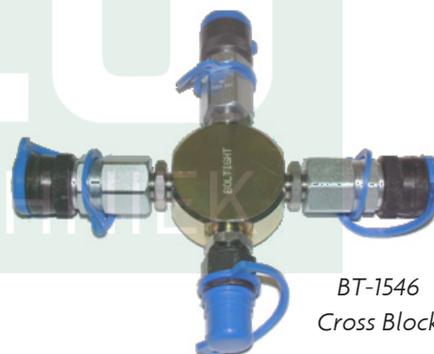
BT-1544  
Tee Block



BT-1545  
Elbow Block



BT-1547  
Tee Block



BT-1546  
Cross Block



BT-1551 Gender Changer



BT-1557  
Tee Block



BT-1552 Gender Changer



BT-1553 Blank Nipple



BT-1554 Blank Coupling



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## HYDRAULIC BOLT TENSIONING

### 1500 bar Fittings

These 1500 bar working pressure components are designed for use with all Boltight 1500 bar system tooling, pumps and hoses.

Special components can be made to your specified requirements. Please send details of your requirements for a fast response.



BT-1501  
Self sealing quick  
connect coupling



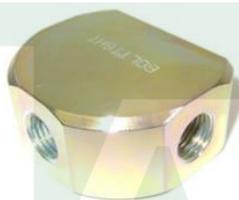
BT-1502  
Self sealing quick  
connect nipple



BT-1503  
1/4" BSP male/male  
adapter



BT-1504  
1/4" BSP 60° cone  
male/male adapter



BT-1505  
1/4" BSP Tee block  
(Three way)



BT-1508  
1/4" BSP Elbow block  
(Two way)



BT-1509  
1/4" BSP Cross block  
(Four way)



BT-1511  
Blue plastic cap  
for coupling

BT-1510  
Blue plastic cap  
for nipple



BT-1512  
1/4" BSP Plug



BT-1525  
1/8" BSP Plug



BT-1513  
9/16" UNF / 1/4" BSP  
male/male adapter



BT-1524  
1/8" BSP / 1/4" BSP  
male/male adapter



BT-1533  
Bonded washer seal  
for 1/8" BSP



BT-1521  
1/4" BSP / 1/4" BSP  
male/male adapter  
with 60° female cone  
each end



BT-1522  
1/4" BSP male with 60°  
female cone to 9/16"  
UNF male adapter

