# **BOLTIGHT<sup>®</sup> DATA SHEET**

### HYDRAULIC BOLT TENSIONING

### **Typhoon Tensioners**

Boltight's Typhoon<sup>®</sup> range of bolt tensioners offer a high-load, low profile solution for spacerestricted 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<sup>®</sup> tensioners are the ideal choice for any application demanding a powerful, portable and user-friendly bolt tensioning tool.

Typhoon<sup>®</sup> 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.

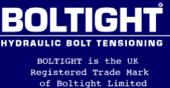
The tools generate ISO and ASTM proof load standards for 10.9 bolts, in accordance with the requirements for wind turbine, structural and other high load, high integrity bolting applications.

# **ÖTYPHOON**

#### 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





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Single Stage Typhoon®



Multi Stage Typhoon®

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# 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 appertures

| 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 |  |







of Boltight Limited

• 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!

**COOHALT** 

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