

Compact high torque single-acting actuator for large vessels and offshore units

KEY POINTS

- 1600 Nm torque
- Compact single-acting actuator
- Minimizes installation, operating and maintenance cost



APPLICATION

Damcos BRCF 16000HT is a new single-acting hydraulically operated actuator with a fully nominal end-closing torque. BRCF 16000HT combines the compact actuator design with a new principle for higher torque output at end closing.

The BRCF 16000HT is especially suitable for large ships and offshore platforms and meets the market's requirement on marine approvals.

OVERVIEW

The BRCF 16000HT is the market's most compact single-acting actuator. Thanks to the helical spline and the new way of controlling the closing torque (patented), the actuator delivers high torque without the need of a large size actuator.

The new model has an extra piston to compress the springs during the opening of the actuator, while the actuator piston adds torque to the actuator. In this way, the actuator piston only uses its power to give torque, not to compress the springs.

The new single-acting BRCF 16000HT is the perfect solution for getting highest torque output with a maintained reliability and accuracy. It provides the same constant high torque output during opening as the double-acting actuator BRC, throughout the 90° rotation and with an operating pressure of 135 bar. When the valve is closing the actuator provides a torque at 11200 Nm. During the closing, the torque decreases to 6400 Nm. The torque rises to 16,000 Nm in the last 10 degrees of closure.

An extra safety is added to the actuator. If the hydraulic pressure is lost, e.g due to a minor leakage, a mechanical lock maintains the valve in close position.

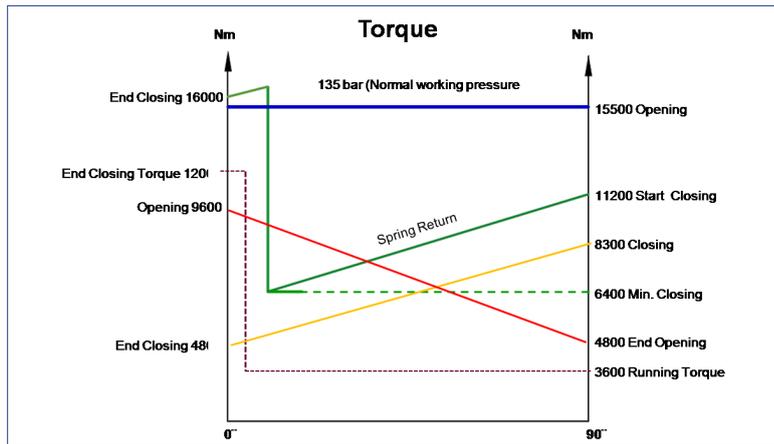
The parts of the BRCF 16000HT are dimensioned to fit the high torque without any need for extra pipe support. It also utilizes common BRC parts and fits the Damcos standard block program.

The actuator can be submerged and is suitable for the most demanding conditions, such as high vibration. With an independently adjustable opening and closing speed, the start-up is eased which will prolong the lifetime of the valves and piping.



*Hydraulic fail-safe balanced rotary actuator
90° (quarter-turn)*

TECHNICAL NOTE



Performance of the Damcos BRCF 16000HT

Technical comparison between BRCF and BRCF 16000HT		
	BRCF 16000HT	BRCF
Closing Torque:	16000Nm	4800 Nm
Weight:	667 kg	420 kg
Burst test:	675 bar	675 bar
USD per Nm:	2.0 \$/Nm	4.0 \$/Nm
Working & Pressure:	135 bar	135 bar
Temperature:	-20 °C to +80 °C	-20 °C to +80 °C
Rotation:	90 ° ±1 °	90 ° ±1 °
Oil displacement:	8.4 liter	3.1 liter

The Emerson logo is a trademark and service mark of Emerson Electric Co. Damcos and the Damcos logotype are registered trademarks of Damcos A/S. All rights reserved. The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs and specifications of our products at any time without notice. Damcos A/S accepts no responsibility for any errors that may appear in this publication.

This product is developed and managed by:

Emerson Process Management
 Damcos A/S
 Aaderupvej 41
 DK-4700 Naestved
 T +45 5578 7200
 F +45 5578 7272
www.emersonprocess.com/mtm

DAMCOS®


EMERSON™
 Process Management