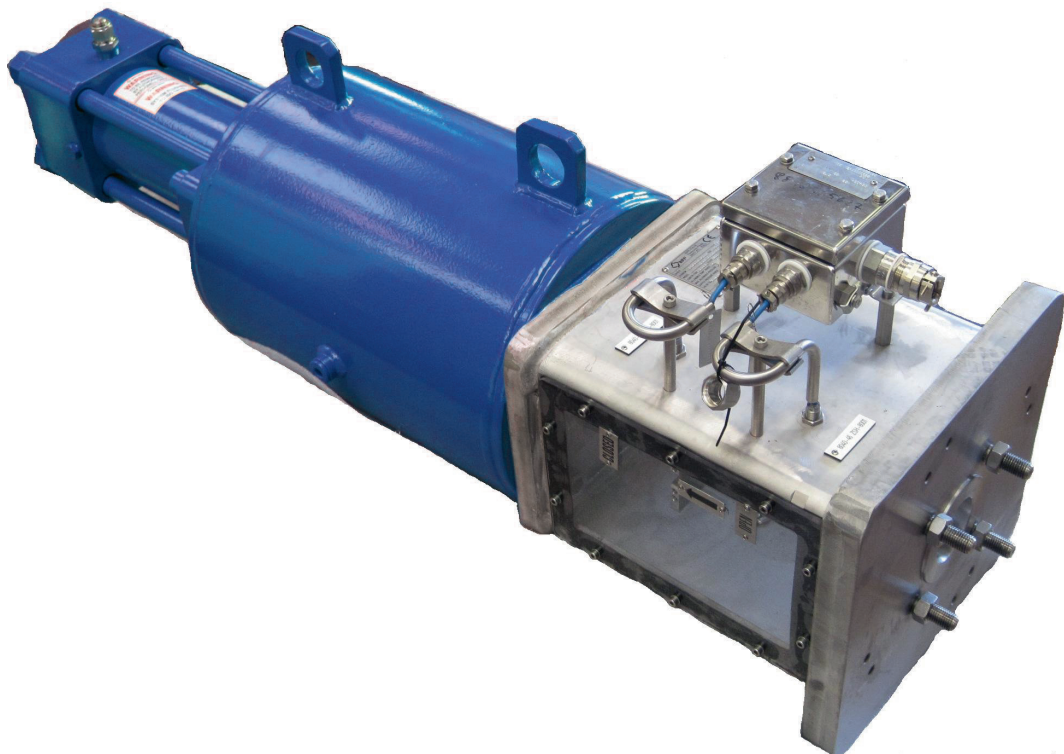


# **Biffi HLA/HLDA, HLAS/HLDAS**

## Hydraulic Actuators

Double-acting and single-acting hydraulic linear actuators for on-off and regulating service.



*This page is intentionally left blank*

## Table of Contents

General Application .....	5
Technical Data .....	5
Approvals .....	5
Features .....	5
Sectional Drawings.....	6
Applications .....	6
Selection Guide .....	7

*This page is intentionally left blank*

## General Application

HLA/HLDA, HLAS/HLDAS hydraulic actuators are designed for the control of gate, globe and all other linear valves.

## Technical Data

Design pressure:	Maximum value according to customer specification (contact factory to receive confirmation)
Supply medium:	Mineral oil or synthetic fluids
<b>Output thrust:</b>	
HLA/HLDA:	Double-acting thrust up to 8,000,000 N
HLAS/HLDAS:	Spring ending thrust up to 350,000 N Spring starting thrust 530,000 N
Ambient temperature:	From -60 °C to 100 °C

## Approvals

<b>Safety integrity level:</b>	IEC61508 -1 ÷ 7 2010 Suitable for use in SIL 3 applications
<b>Area Classifications:</b>	(ATEX) II2GD 135 (T4)
<b>Enclosure Standard:</b>	(IEC60529)-IP67M ANSI/NEMA250 NEMA 4-4X-6
<b>Pressure Equipment Directive:</b>	PED 2014/68/EU
<b>Machinery Directive:</b>	2006/42/EC

## Features

- Electroless nickel plated and polished cylinder for corrosion resistance and minimal friction.
- Hard chromium plated and polished piston rod in stainless steel for corrosion resistance and minimum friction.
- Piston rod support bushing in bronze with sintered PTFE provides minimal friction and extended service life.
- HLAS totally enclosed spring cartridge ensures personnel safety during assembly or disassembly.
- Compact design available to allow space footprint reduction without reducing requested thrust value.
- Fabricated carbon steel adapter spool with accessories provision designed specifically for adaptation to any type of valve.
- Accept an extensive range of accessories:
  - Complete control panel
  - Emergency tank
  - Manual handpump
  - PST device
  - Regulating device (ECU1000)
- Special coatings for offshore or corrosive environments.
- Special versions with built-in dump valve and damper for 'quick spring operation'.
- Double cylinder available to increase output capability.
- Housing in painted carbon steel.
- Spool in painted carbon steel or unpainted SS316 as option.

## Sectional Drawings

Figure 1. HLA Double-Acting

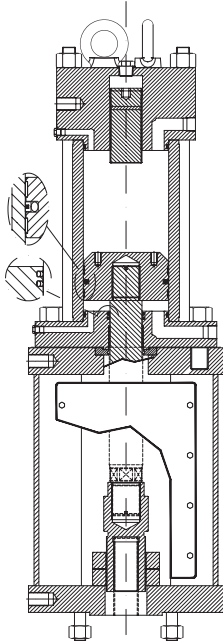
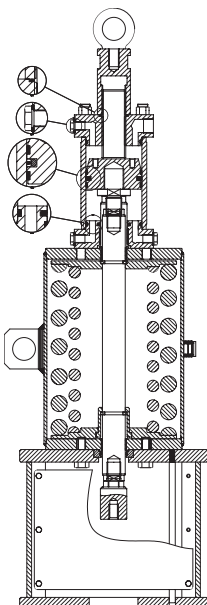


Figure 2. HLAS Spring-Return



## Applications

Figure 3. High Thrust Capability Solution



Figure 4. Compact Design Linear Actuator



**NOTE:**  
Dimensions are according to requested valve stroke and thrust.

## Selection Guide

**Table 1. Hydraulic Double-Acting Actuator**

Example:	HLA	250 k	135	300	MHP
HLA	Actuator series				
250 k	Max. allowable thrust (N)				
135	Cylinder diameter (mm)				
300	Stroke (mm)				
MHP	Manual override				

**Table 2. Hydraulic Double Cylinder Double-Acting Actuator**

Example:	HLDA	250 k	135	300	MHP
HLDA	Actuator series				
250 k	Max. allowable thrust (N)				
135	Cylinder diameter (mm)				
300	Stroke (mm)				
MHP	Manual override				

**Table 3. Hydraulic Spring-Return Actuator**

Example:	HLAS	250 k	135	100 k	CL	300	MHP
HLAS	Actuator series						
250 k	Max. allowable thrust (N)						
135	Cylinder diameter (mm)						
100 k	Spring ending thrust (N)						
CL	Spring action						
300	Stroke (mm)						
MHP	Manual override						

**Table 4. Hydraulic Compact Spring-Return Actuator**

Example:	HLASC	250 k	135	100 k	CL	300	MHP
HLASC	Actuator series						
250 k	Max. allowable thrust (N)						
135	Cylinder diameter (mm)						
100 k	Spring ending thrust (N)						
CL	Spring action						
300	Stroke (mm)						
MHP	Manual override						

**Table 5. Hydraulic Double Cylinder Spring-Return Actuator**

Example:	HLDAS	250 k	135	300	MHP
HLDAS	Actuator series				
250 k	Max. allowable thrust (N)				
135	Cylinder diameter (mm)				
300	Stroke (mm)				
MHP	Manual override				

Biffi Italia s.r.l.  
Strada Biffi 165  
29017 Fiorenzuola d'Arda (PC)  
Italy  
T +39 0523 944 411

For complete list of sales and manufacturing sites, please visit  
[www.biffi.it](http://www.biffi.it) or contact us at [biffi\\_italia@biffi.it](mailto:biffi_italia@biffi.it)

VCTDS-04480-EN ©2022 Biffi. All rights reserved.

The contents of this publication are presented for information purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express 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 on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

