



## OVERVIEW

The Valve Works USA Double Acting Hydraulic Series consists of a lineup of actuators with reliable, proven designs that are engineered and manufactured to meet the requirements of API 6A. The Hydraulic Actuation allows for hydraulically powered operation to open and close the gate valve. This series of actuators offers the user several options depending on the specific gate valve size and pressure.

Double Acting Hydraulic Actuators are similar to each other in design with only slight variations across the lineup, offering a high percentage of parts interchangeability, giving you an efficiency-driven advantage in the management and maintenance of your actuator fleet, and providing optimal life cycle management integrity.

This brochure provides an in-depth look at the details of this series of actuators and explains the features, benefits, characteristics, dimensional & technical data, and other valuable information needed to determine which actuator provides an optimal solution for your specific application.

### TABLE 1 - PRODUCT FEATURES

	550 SERIES	650 SERIES	850 SERIES
<b>AVAILABLE VALVE BORE SIZES &amp; RATED WORKING PRESSURES (psi)</b>	1 13/16" 10/15K 2 1/16" 5/10/15K 2 9/16" 10K 3 1/8" 5/10K 4 1/16" 5K	2 9/16" 15K 3 1/8" 15K 4 1/16" 15K 5 1/8" 3/5/10/15K	5 1/8" 15K 7 1/16" 3/5/10/15K
<b>MAXIMUM OPERATING PRESSURE (psi)</b>	2500	2500	2500
<b>AVAILABLE PR<sup>a</sup></b>	2	2	2
<b>MATERIAL CLASSES</b>	AA	AA	AA
<b>STEM TYPE</b>	RISING	RISING	RISING
<b>STEM PACKING TYPE</b>	OPTI-SEAL	OPTI-SEAL	OPTI-SEAL
<b>REPACKING</b>	YES <sup>b</sup>	YES <sup>b</sup>	YES <sup>b</sup>
<b>BALANCE STEM</b>	YES	YES	YES
<b>TEMPERATURE RANGE</b>	-20°F (-29°C) THRU 250°F (121°C)	-20°F (-29°C) THRU 250°F (121°C)	-20°F (-29°C) THRU 250°F (121°C)

a) Performance Requirement.

b) Repacking is achieved via stem backseat method.

### TABLE 2 - TEMPERATURE RATINGS

TEMPERATURE CLASSIFICATION	OPERATING RANGE
P	-20°F (-29°C) TO 180°F (82°C)
S	0°F (-18°C) TO 140°F (60°C)
T	0°F (-18°C) TO 180°F (82°C)
U	0°F (-18°C) TO 250°F (121°C)

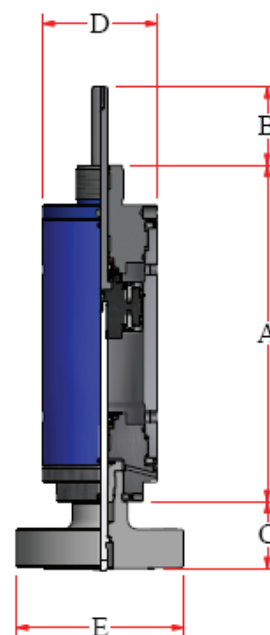
### TABLE 3 - MATERIAL REQUIREMENTS

MINIMUM MATERIAL REQUIREMENTS			
MATERIAL CLASS		BODY, BONNET END & OUTLET CONNECTIONS	PRESSURE-CONTROLLING PARTS & STEMS
AA	GENERAL SERVICE	CARBON OR LOW-ALLOY STEEL	CARBON OR LOW-ALLOY STEEL

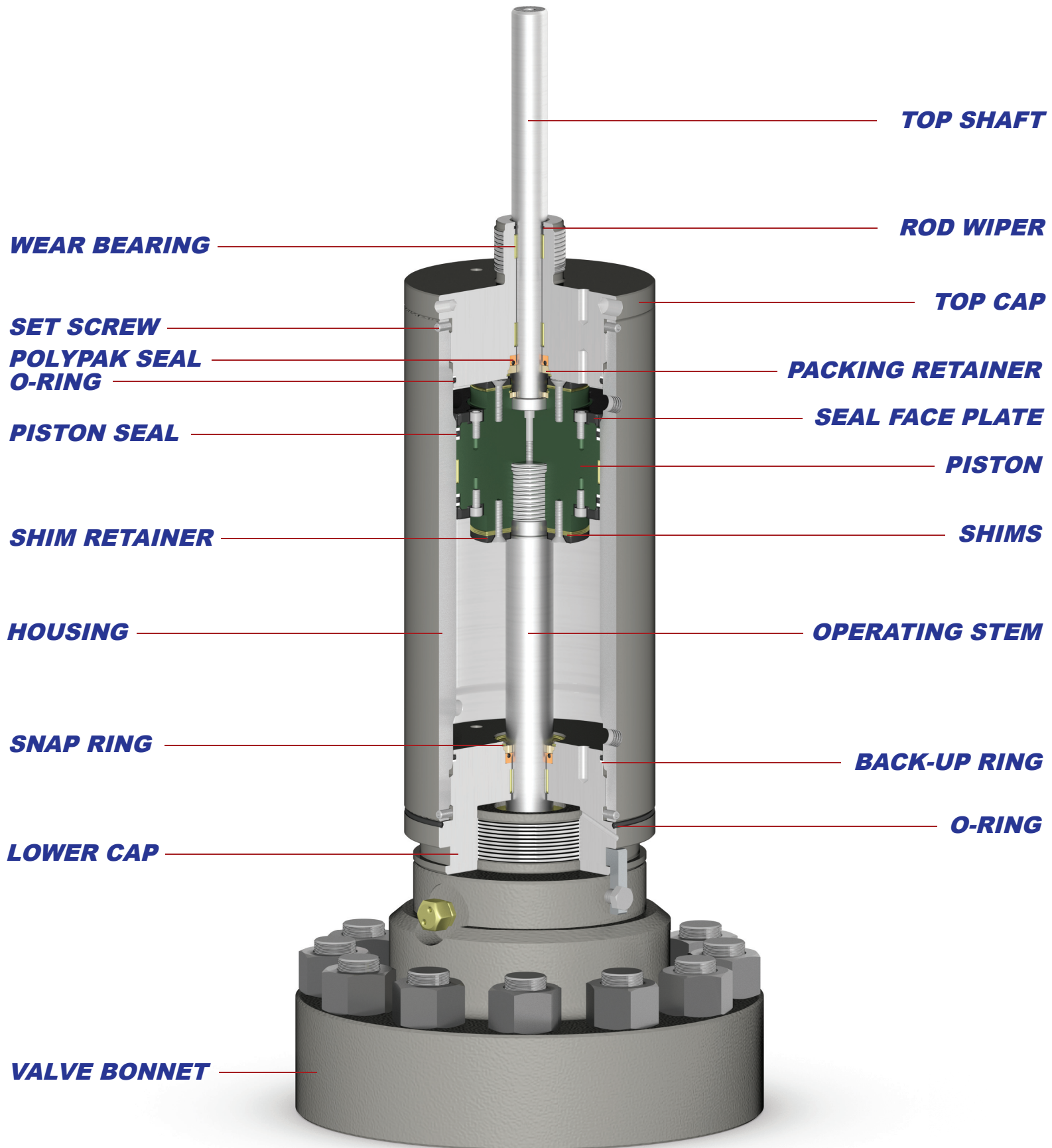
### TABLE 4 - TECHNICAL DATA

SERIES	HEIGHT (A)	DIAMETER (D)
550	21 1/2	7 1/4
650	22 3/4	8 1/2
850	27 1/4	10 1/2

The dimensions B, C, and E vary for different series of Double Acting Hydraulic Actuators and different valve sizes chosen to accompany them.



\*ALL DIMENSIONS ARE IN INCHES



\*THE ACTUAL PRODUCT MAY VARY SLIGHTLY FROM SHOWN SCHEMATIC DUE TO ENGINEERING APPROVED VARIATION

**ENGINEERED - DESIGNED - VERIFIED - QUALITY ASSURED - CERTIFIED - FIELD PROVEN - CREDIBLE - SUPPORTED**