

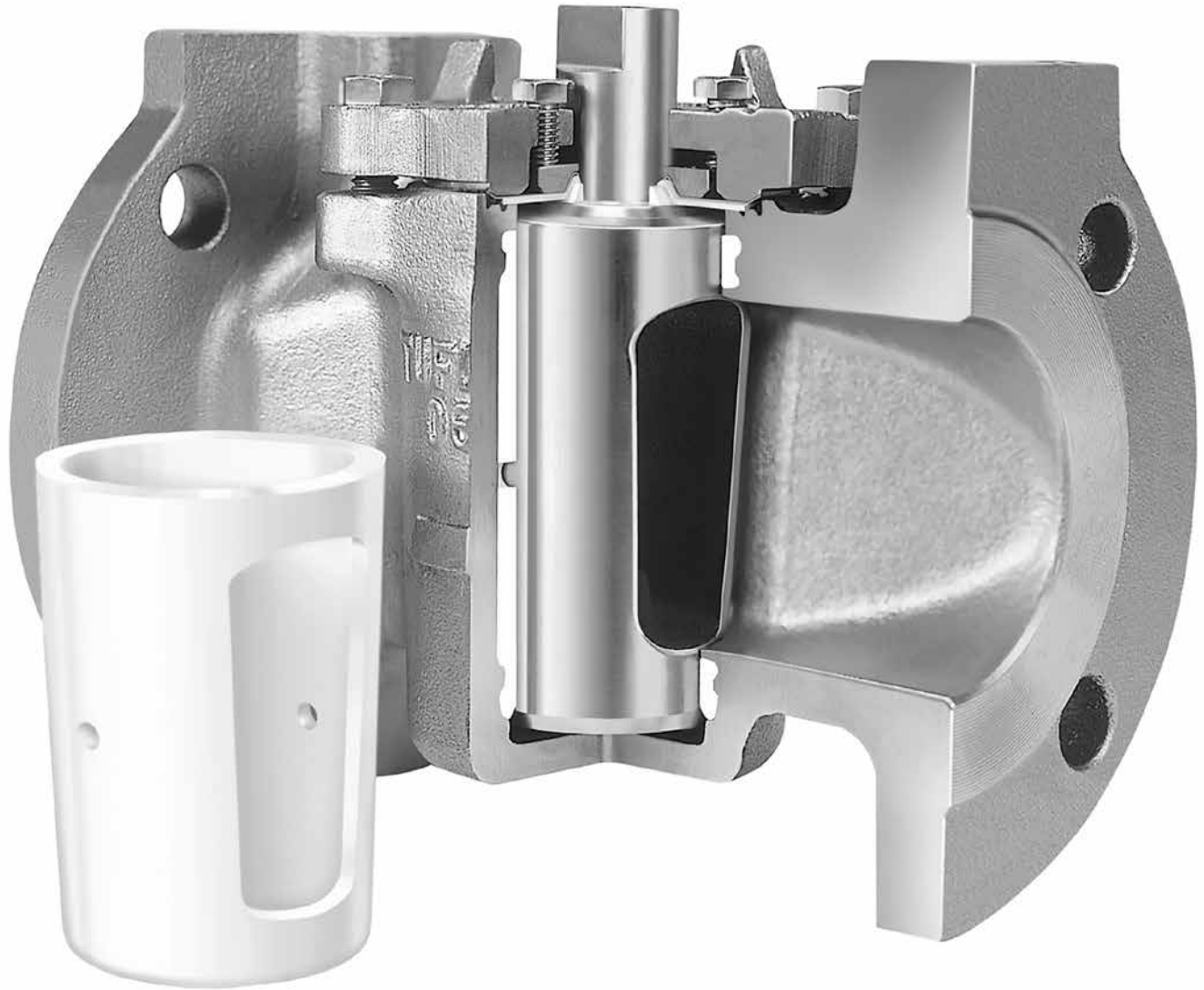
**MOST COMPACT AUTOMATED SPV PACKAGES IN THE INDUSTRY**

## **L-TORQ XOMOX** Sleeved Plug Valves

**CRANE**<sup>®</sup>

**v in** [www.cranecpe.com](http://www.cranecpe.com)

## Why Sleeved Plug Valves



### **No Cavities**

No scaling media  
– Torque does not  
increase during  
service

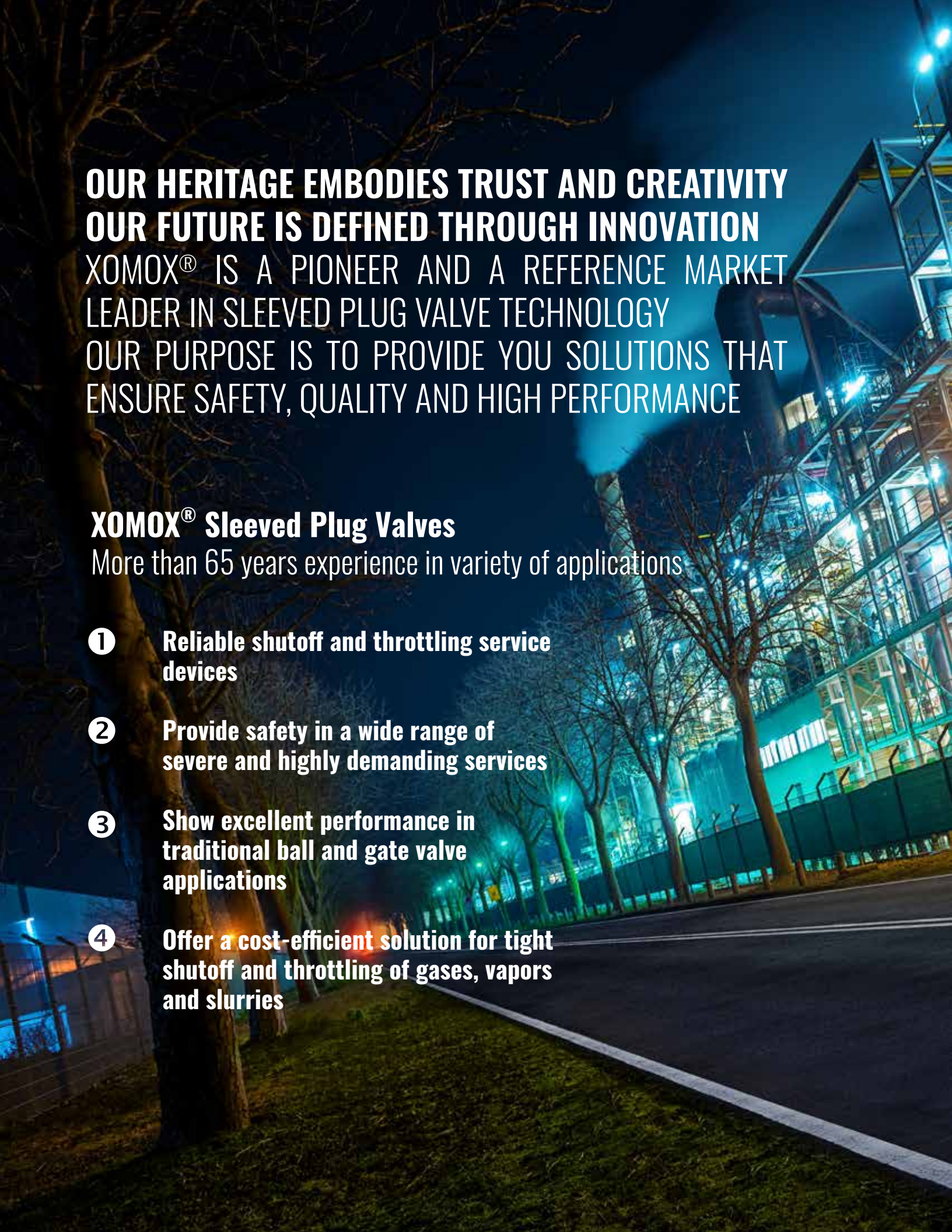
### **Large Sealing Area**

Small scratches do  
not affect the seal. No  
concern of leakage

### **Inline Adjustable**

Inline and external seals  
can be adjusted while the  
valve is installed.





**OUR HERITAGE EMBODIES TRUST AND CREATIVITY**  
**OUR FUTURE IS DEFINED THROUGH INNOVATION**  
XOMOX® IS A PIONEER AND A REFERENCE MARKET  
LEADER IN SLEEVED PLUG VALVE TECHNOLOGY  
OUR PURPOSE IS TO PROVIDE YOU SOLUTIONS THAT  
ENSURE SAFETY, QUALITY AND HIGH PERFORMANCE

## **XOMOX® Sleeved Plug Valves**

More than 65 years experience in variety of applications

- 1 Reliable shutoff and throttling service devices**
- 2 Provide safety in a wide range of severe and highly demanding services**
- 3 Show excellent performance in traditional ball and gate valve applications**
- 4 Offer a cost-efficient solution for tight shutoff and throttling of gases, vapors and slurries**

## Product Overview

### Materials of Construction

- WCB/CF8M/CN7M/CD4MCuN with PFA Sleeve

### Size Range

- ½" - 6"

### Pressure Ratings

- ASME Class 150, 300,

### Sealing and Packing

- Cover Joint: 50% PTFE - 50% Graphite Spiral Wound Gasket with Monel or SS trim.
- Stem Seals: PTFE or Graphite per API 624

### Actuator Mounting

- ISO 5211 Mounting

### Applications

- MDI, TDI
- Fertilizer
- Ammonia
- Caustic
- Crude
- Oil Sands
- AA
- Chlorine
- HCN
- Sulfuric Acid
- HF
- Coffee



## L-TORQ XOMOX

Brings remarkable benefits in torque, reparability and emissions performance, while maintaining the primary properties of a sleeved plug valve.

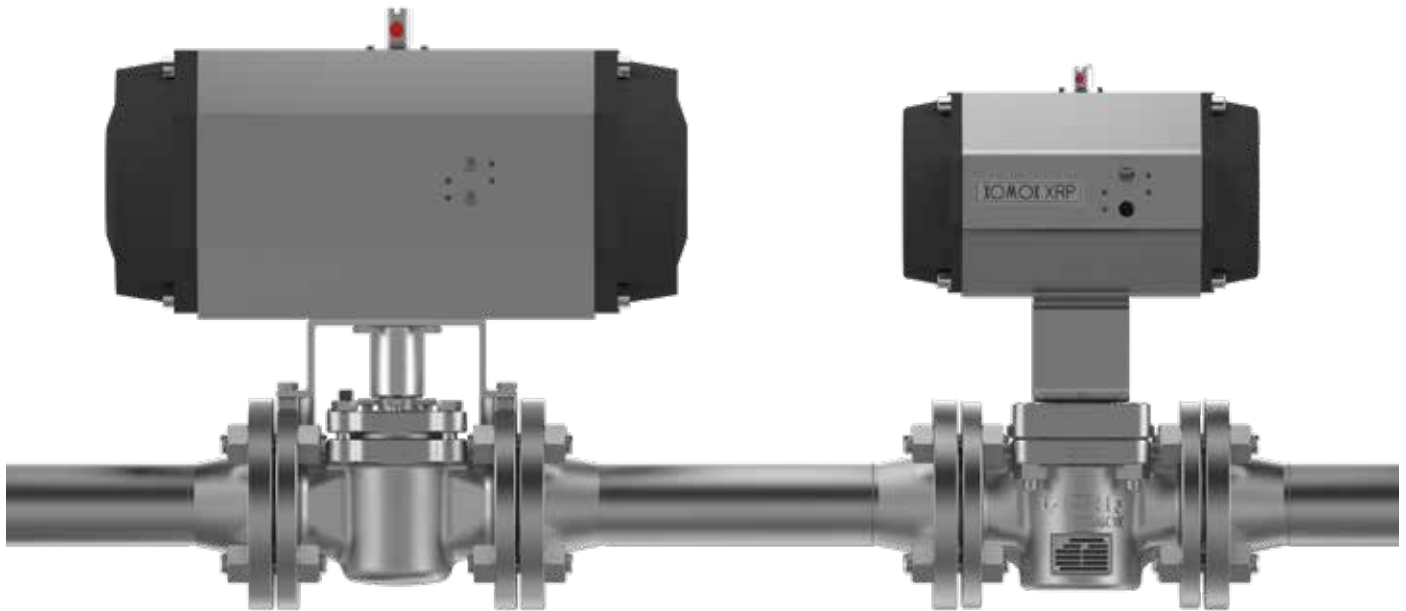
## Features and Benefits

50%↓



## TORQUE REDUCTION

**Conventional  
Sleeved Plug Valve**



**Smaller Actuator**

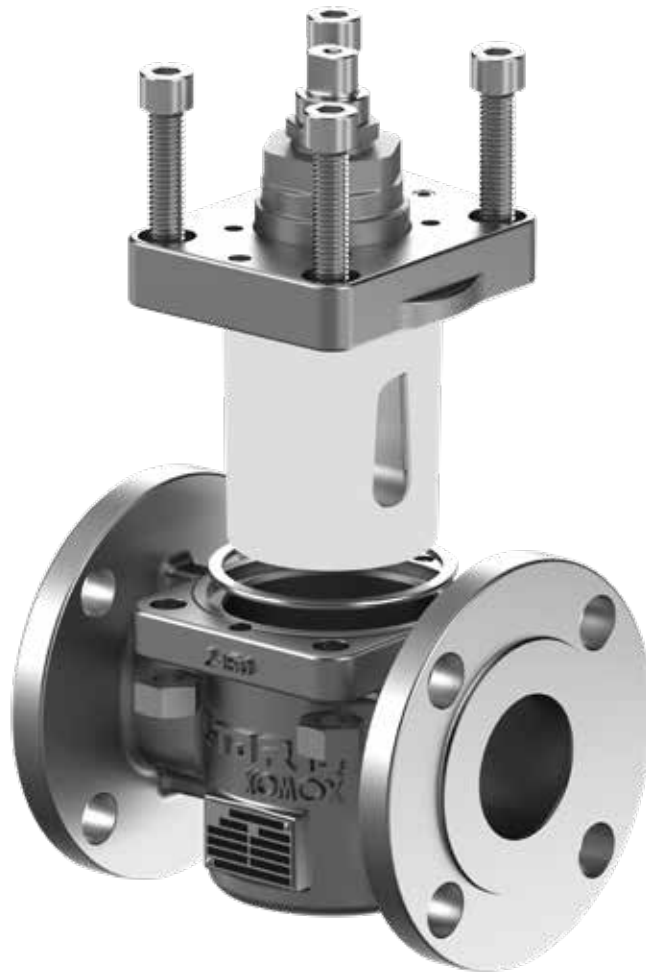
**Lighter Weight**  
(Actuated Valves)

**Longer Lifetime**



## Features and Benefits

### SIMPLIFIED REPAIR



**Simplified  
Repair**

**Compact Sleeve  
cartridge design**

**Cover, Plug  
and Sleeve Cartridge  
Separate components**

## Features and Benefits



## FUGITIVE EMISSIONS



Meeting new  
**TA-LUFT 2021**

**ISO 15848-1**  
BH CO3 200°C  
SSA0 Standard

## Design Features

### SLEEVE CARTRIDGE DESIGN

- Structure that supports the sleeve by giving more dimensional control.
- Fully encapsulated metal cage port lips in PFA – eliminating the crevice region that exist in conventional SPV design

### INVERTED PLUG

- Provides effective control on sleeve compression
- Plug adjustment done by plug lifting
- Separated stem packing and plug adjustment

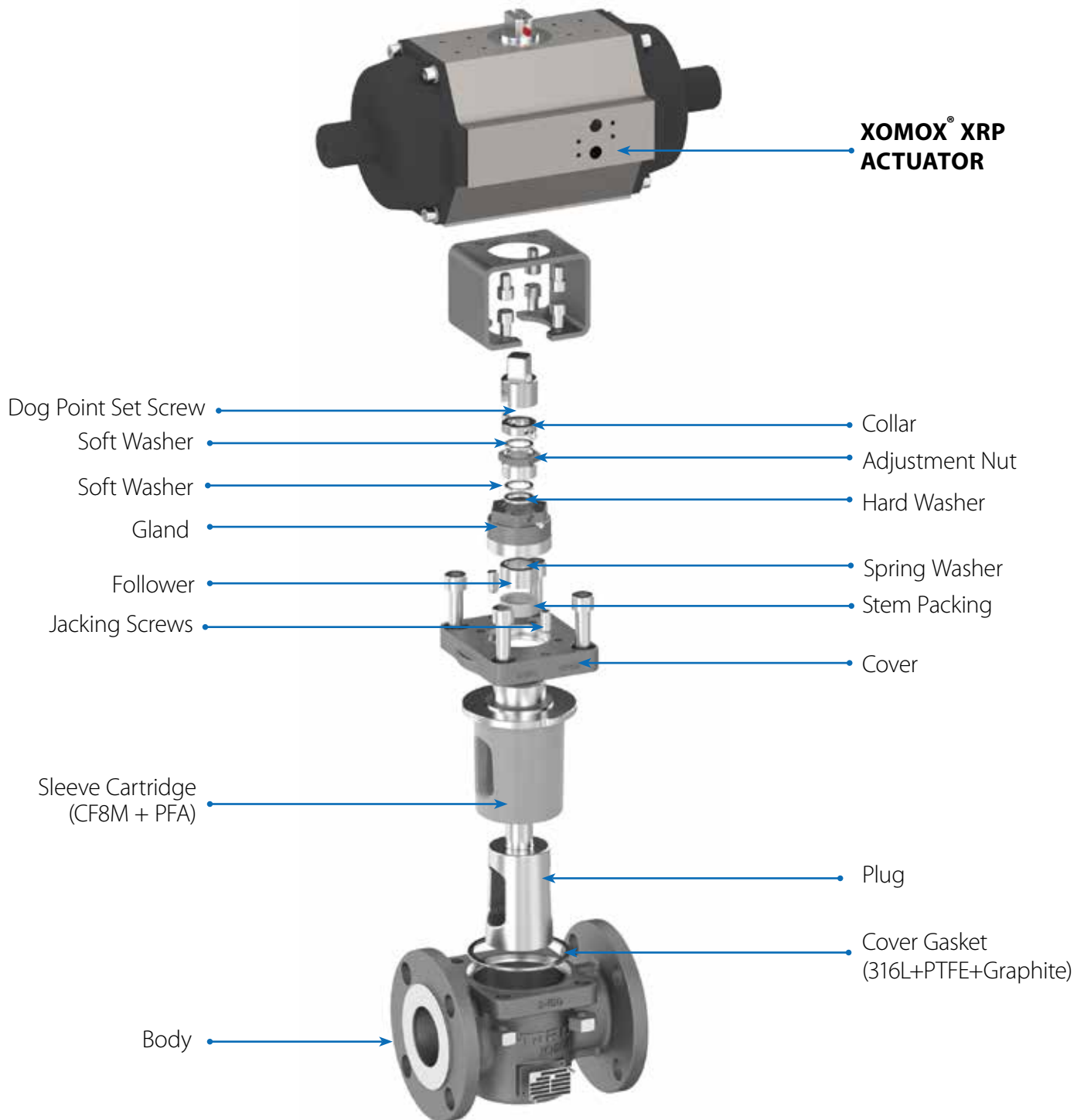
### REPAIR KIT

- Compact sleeve cartridge design
- This simplified repair process does not require highly skilled personnel nor special tooling.





# Properties and Characteristics



## Design Features and Options



Available In  
2-Way  
Configuration  
Class 150  
and Class 300

Integrated Locking  
Device Available  
with Lever And  
Gear Operators

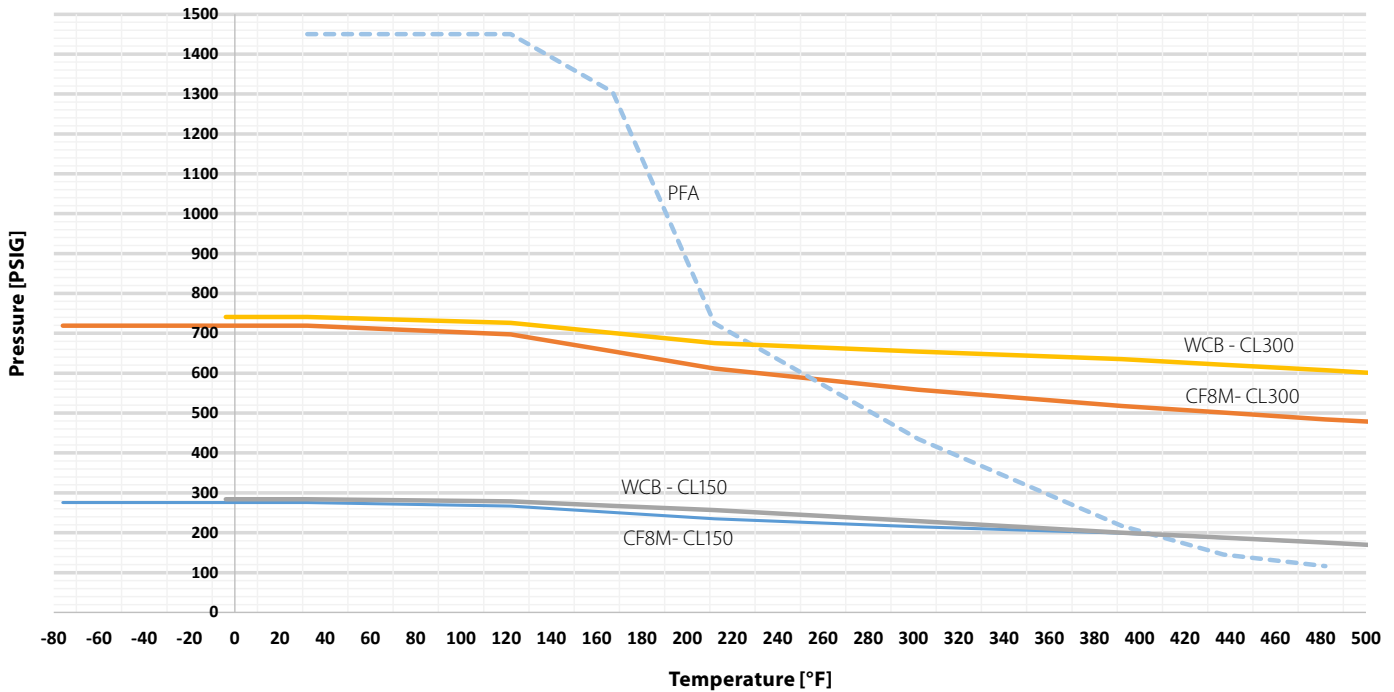
Actuator  
Mounting  
capabilities per  
ISO 5211

Available in  
Firesafe  
Option as  
per API 607

# Pressure Temperature Ratings

## PRESSURE-TEMPERATURE RATING

L-TORQ XOMOX FIG. L067 & L0367, SIZE 1/2"-6" 2-WAY, CLASS 150 & 300



## OPERATING TORQUES. (INCH-POUNDS)

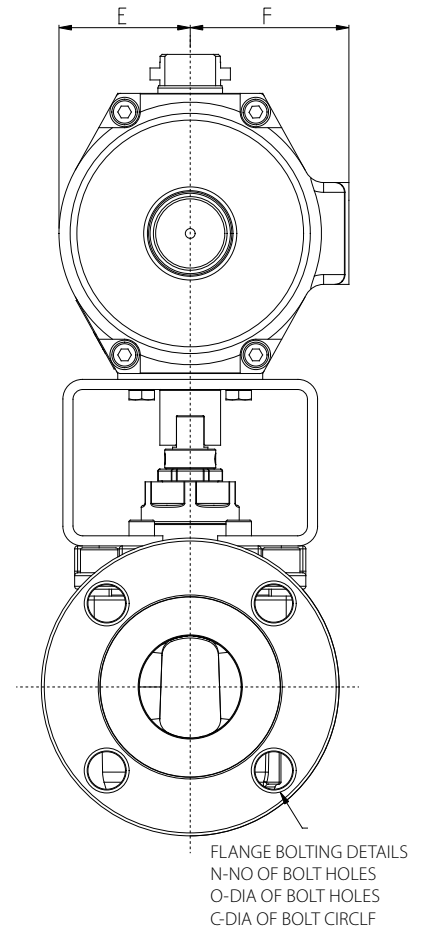
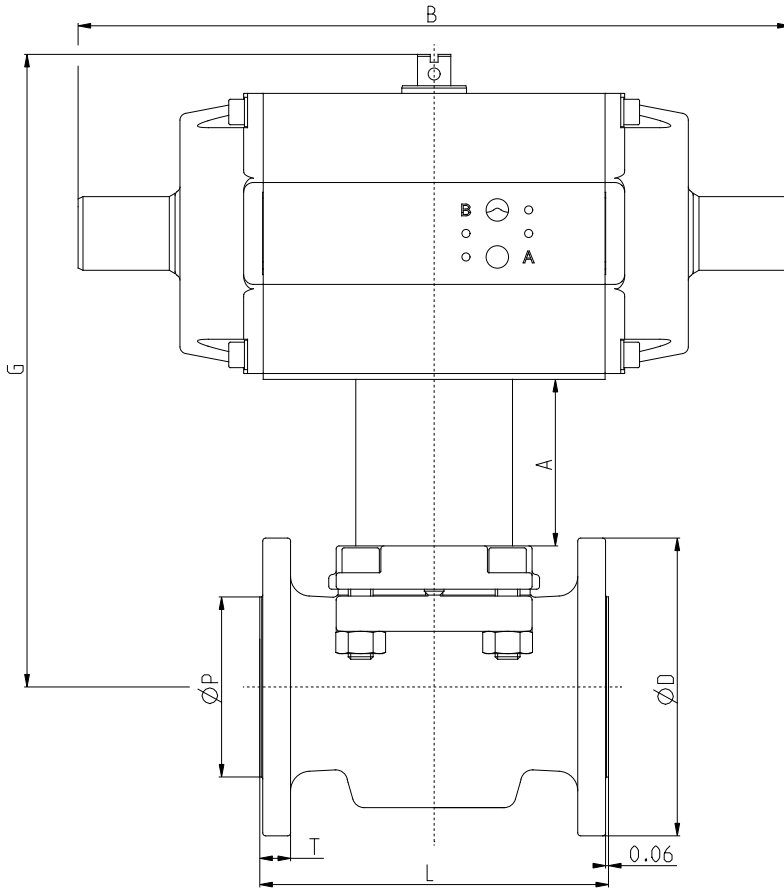
Size	Break Torque	Seat Torque	Run Torque
1/2	100	80	70
3/4	100	80	70
1	190	150	130
1 1/2	400	320	280
2	545	435	380
3	660	530	460
4	1350	1080	950
6	2700	2165	1880

\* Figures are for 2-Way valves with PFA Cartridge for clean media. For Chlorine, Oxygen etc. Dry Built configurations multiply the above values with 1.5

# Dimensional Data

## ACTUATED

L-TORQ XOMOX FIG. L067 & L0367, SIZE 1/2"-6", Class 150



## Single Acting with 80 PSIG air supply

L-TORQ XOMOX FIG. L067, SIZE 1/2"-6", Class 150

SIZE	CLASS	A	B	C	D	E	F	G	L	N	O	P	T	WEIGHT IN POUNDS	BARE STEM WEIGHT
1/2"	150	2.52	7.77	2.38	3.50	1.37	1.63	7.83	4.25	4.00	0.63	1.38	0.37	4.5	9.92
3/4"	150	2.52	7.77	2.75	3.90	1.37	1.63	7.83	4.61	4.00	0.63	1.69	0.40	4.9	10.8
1"	150	2.60	10.27	3.12	4.25	1.61	2.19	8.90	5.00	4.00	0.63	2.00	0.44	8	17.64
1 1/2"	150	3.35	11.34	3.88	5.00	2.17	2.72	11.34	6.50	4.00	0.63	2.87	0.56	12.5	27.56
2"	150	3.35	14.31	4.75	5.98	2.64	3.19	12.71	7.01	4.00	0.75	3.62	0.62	19.5	42.99
3"	150	3.35	14.31	6.00	7.48	2.64	3.19	13.26	7.99	4.00	0.75	5.00	0.75	26.7	58.86
4"	150	4.13	17.78	7.50	9.02	3.07	3.78	16.07	9.02	8.00	0.75	6.19	0.94	45.5	100.31
6"	150	4.33	20.83	9.50	10.98	3.54	4.02	18.63	10.51	8.00	0.88	8.50	1.00	77.2	170.2

## Dimensional Data

### Single Acting with 80 PSIG air supply

L-TORQ XOMOX FIG. L0367, SIZE 1/2"-6", Class 300

SIZE	CLASS	A	B	C	D	E	F	G	L	N	O	P	T	WEIGHT IN POUNDS	BARE STEM WEIGHT
1/2"	300	2.52	7.77	2.62	3.74	1.37	1.63	7.83	5.51	4.00	0.63	1.38	0.56	5.2	11.46
3/4"	300	2.52	7.77	3.25	4.61	1.37	1.63	7.83	5.98	4.00	0.75	1.69	0.62	6.1	13.45
1"	300	2.60	10.27	3.50	4.88	1.61	2.19	8.90	6.26	4.00	0.75	2.00	0.68	9.6	21.16
1 1/2"	300	3.35	11.34	4.50	6.10	2.17	2.72	11.34	7.48	4.00	0.88	2.87	0.81	15.7	34.61
2"	300	3.35	14.31	5.00	6.50	2.64	3.19	12.71	8.50	8.00	0.75	3.62	0.87	22.6	49.82
3"	300	3.35	14.31	6.62	8.27	2.64	3.19	13.26	11.10	8.00	0.88	5.00	1.12	33.9	74.74
4"	300	4.13	17.78	7.88	10.00	3.07	3.78	16.07	12.01	8.00	0.88	6.19	1.25	57.5	126.77
6"	300	4.33	20.83	10.62	12.52	3.54	4.02	18.63	15.87	8.00	0.88	8.50	1.44	103.4	227.96

### Double Acting with 80 PSIG air supply

L-TORQ XOMOX FIG. L067 & L0367, SIZE 1/2"-6", Class 150 and 300

SIZE	CLASS	A	B	C	D	E	F	G	L	N	O	P	T	WEIGHT IN POUNDS	BARE STEM WEIGHT
1/2"	150	2.52	6.53	2.38	3.50	1.00	1.30	7.05	4.25	4.00	0.63	1.38	0.37	4	8.8
3/4"	150	2.52	6.53	2.75	3.90	1.00	1.30	7.05	4.61	4.00	0.63	1.69	0.40	4.4	9.7
1"	150	2.60	7.78	3.12	4.25	1.37	1.63	8.35	5.00	4.00	0.63	2.00	0.44	7.2	15.9
1 1/2"	150	3.35	10.27	3.88	5.00	1.61	2.19	10.16	6.50	4.00	0.63	2.87	0.56	11.8	26
2"	150	3.35	11.34	4.75	5.98	2.17	2.72	11.71	7.01	4.00	0.75	3.62	0.62	17.8	39.2
3"	150	3.35	11.34	6.00	7.48	2.17	2.72	12.26	7.99	4.00	0.75	5.00	0.75	25.5	56.2
4"	150	4.13	14.31	7.50	9.02	2.64	3.19	14.90	9.02	8.00	0.75	6.19	0.94	42.2	93
6"	150	4.33	17.78	9.50	10.98	3.07	3.78	17.59	10.51	8.00	0.88	8.50	1.00	72.8	160.5
1/2"	300	2.52	6.53	2.62	3.74	1.00	1.30	7.05	5.51	4.00	0.63	1.38	0.56	4.7	10.4
3/4"	300	2.52	6.53	3.25	4.61	1.00	1.30	7.05	5.98	4.00	0.75	1.69	0.62	5.8	12.8
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1 1/2"	300	3.35	10.27	4.50	6.10	1.61	2.19	10.16	7.48	4.00	0.88	2.87	0.81	15.3	33.7
2"	300	3.35	11.34	5.00	6.50	2.17	2.72	11.71	8.50	8.00	0.75	3.62	0.87	21.2	46.7
3"	300	3.35	11.34	6.62	8.27	2.17	2.72	12.26	11.10	8.00	0.88	5.00	1.12	33.3	73.4
4"	300	4.13	14.31	7.88	10.00	2.64	3.19	14.90	12.01	8.00	0.88	6.19	1.25	54.7	120.6
6"	300	4.33	17.78	10.62	12.52	3.07	3.78	17.59	15.87	8.00	0.88	8.50	1.44	100.8	222.2



# ISO 15848 Standard Introduction



International  
Organization for  
Standardization

INTERNATIONAL .....ISO  
STANDARD ..... 15848-1

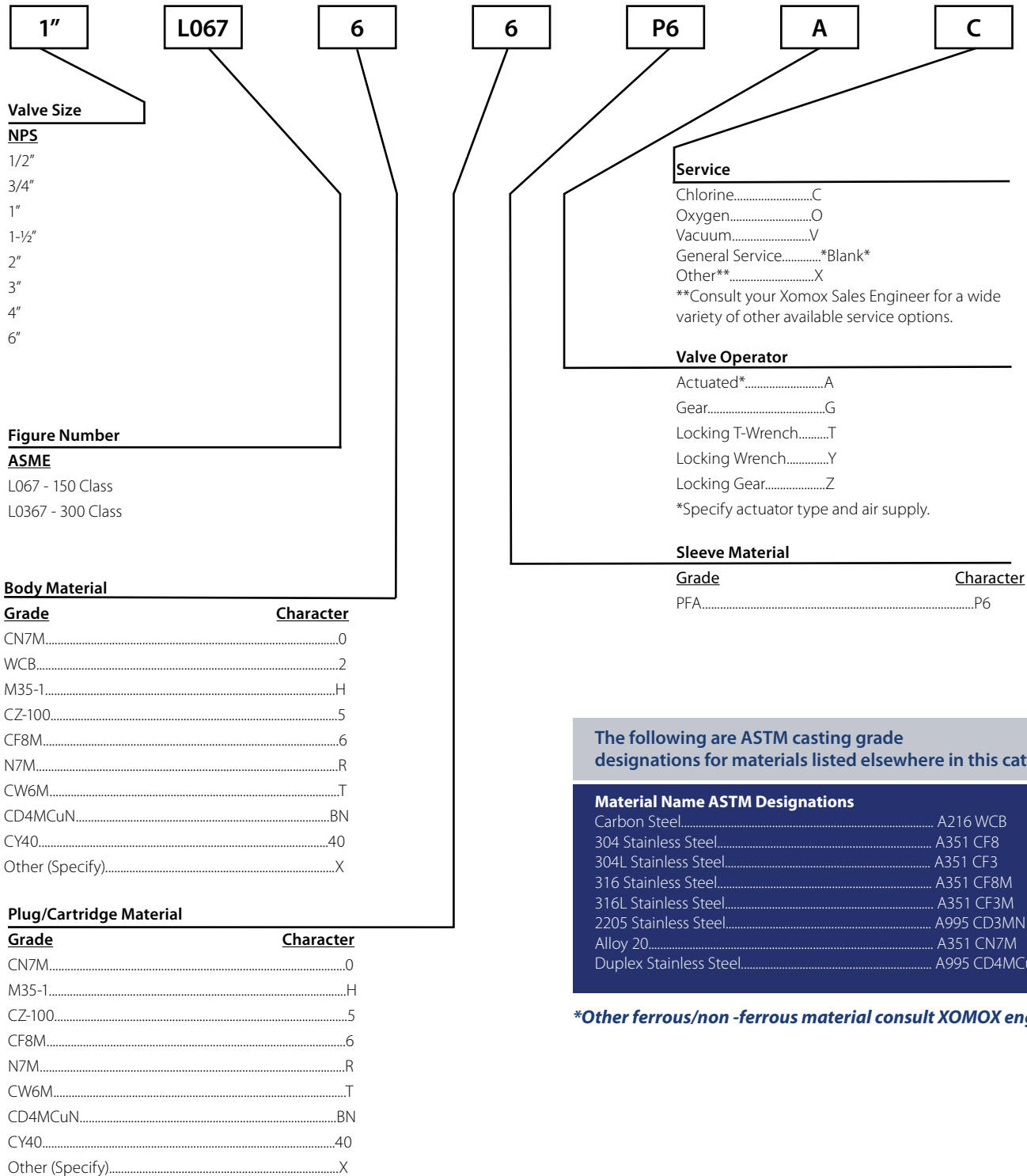
ISO 15848-1 is an International standard for fugitive emissions issued by the ISO Organization. It contains both dynamic life cycles and thermal cycles and is considered one of the most demanding fugitive emission standards for soft seated valves. This standard contains different levels of acceptance based on the number of thermal and mechanical cycles, temperature, and number of adjustments. The objective of ISO 15848-1 is to enable classification of performance in different designs and constructions of valves to reduce fugitive emissions.

## Example Description Tables

ISO 15848 – 1 BH CO3 <sup>(200°C)</sup> 392°F – SSA0																								
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Manufacturing valves will be subjected to the ISO 15848-2 test as described in the norm. This is a non-destructive test that intends to address the performance of the valves (Please refer to ISO 15848 norm).

# How to Order



The following are ASTM casting grade designations for materials listed elsewhere in this catalog.

**Material Name ASTM Designations**

Carbon Steel.....	A216 WCB
304 Stainless Steel.....	A351 CF8
304L Stainless Steel.....	A351 CF3
316 Stainless Steel.....	A351 CF8M
316L Stainless Steel.....	A351 CF3M
2205 Stainless Steel.....	A995 CD3MN
Alloy 20.....	A351 CN7M
Duplex Stainless Steel.....	A995 CD4MCuN 1B

*\*Other ferrous/non-ferrous material consult XOMOX engineer*

**CRANE**<sup>®</sup>

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