

# REGISTERED



CRN: CSA - DC 211 3 8 . 56

# Statutory Declaration Registration of Fittings Registration Process administered by

(a) Design Qualification	1	CSA Group per CSA B51
<sup>1</sup> Joel Feldman		
Vice President, Engin	neering	
	(Position eg, president, plant mana	iger, chief eng.)
Of Swagelok Company		
	(name of company)	
Located at <u>Headquarte</u>	ers: 29500 Solon Road, Solon, Ohio 441 (plant address)	39 USA (See Attachment A)
do solemnly declare that the fit	ttings listed hereunder, which are subject to the	e Boilers & Pressure Vessels Act:
comply with all the required:  Or	irements of the ANSI/ASME codes as to their	dimensions, material, identification & service for which are
are not covered by the position code data.	provisions of the ANSI/ASME codes, and are t e and standard, and are designed to the best cu	therefore constructed to comply with urrent engineering practice, as shown by the supporting test
(b) Quality control of Ma		
I further declare the manufactu ISO 9001:2015, an	are of these fittings is controlled by a quality core and has been verified by the following authority or	ntrol program which complies with the requirements of or authorized agency <u>BSI</u>
The fittings <sup>2</sup> covered by this dec	claration, for which I seek registration, are	Category C. Valves
In support of the application, the ISO 9001:2015 Certifica	ne following information, calculations and/or tes ate. Attachment A. Attachment B. Cata	st data are attached: alog Information and other Support Documents
	olon, Ohio	Jamie L. Ristau Resident Portage County lotary Public, State of Ohio
The 29th Day of Nove		mamission Expires: 03/08/2019
	ioner for oaths)	Signature of Declarer <sup>3</sup>
	For Official Use Onl	ly
The application is accepted for CSA Standard B51.	or registration in Category in a	accordance with the Boilers and Pressure Vessels Act and
This registration must be reva	alidated after ten (19) years from the date of ac	cceptance. Feb·22.2029
Registered Number CRN	SA-0C21138.56 Fort	Group Apr. 01 · 2019
1000		

2 All fittings are required to be registered in the name of the Manufacturer.

<sup>1</sup> Three completed copied of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.

This form shall be completed and signed by the president of highest official in the manufacturing plan where the fitting is produced.

Swagelok

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## Attachment B: Scope for Swagelok 60 Series Ball Valves (Category C)

This document represents the scope of the 60 Series Ball Valves covered by this submission for CRN approval. The Swagelok 60 Series Ball Valves were designed and evaluated in accordance with ASME B31.1-2016 for unlisted components and ASME B31.3-2016 for unlisted components.

**Summary Tables** 

Product Pressure		Main		Maximum Rated Pressure (Note 1)		Design Gode
Series Bear	Bearing Componen	Pressure Bearing Material	Port Connections, Sizes*	At 100°F	I Company	of Construction
		316SS (ASTM A479 or ASTM A351)	Swagelok Tube Fitting 1/4", 3/8" Famale NPT 1/8", 1/4" Female ISO 1/4" Tube Butt Weld 1/4", 3/8" Pipe Butt Weld 1/4", 3/8" Tube Socket Weld 1/4", 3/8" Male VCO Fitting 1/4" Male VCR Fitting 1/4"	3000 psig (4 bolt body) 2500 psig (8 bolt body)	800 psig @450°F (4 bolt body) 200 psig@600°F (8 bolt body)	
62	Body	WCB Carbon Steel (ASTM A218)	Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/8", 1/4" Tube Butt Weld 1/4", 3/8" Pipe Butt Weld 1/4", 3/8" Tube Socket Weld 1/4", 3/8"	3000 psig (4 bolt body) 2500 psig (8 bolt body)	800 psig @450°F (4 bolt body) 200 psig @600°F (8 bolt body)	
		Brass C36000 or C35600 (ASTM B16)	Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/8", 1/4"	2000 psig	100 psig @400*F	
		Alloy C276 bar (ASTM B574) or CW-12MW Cast (ASTM A494)	Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/4"	1500 psig	1470 psig @150°F	
		Alloy 400 N04400 (ASTM B164)	Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/4"	1500 psig	1470 psig @150°F	
		Titanium Grade 4 UNS R50700 (ASTM B348)	Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/4"	1500 psig	1380 psig @150°F	ASME B31.1 (Unlisted
Feehnical H	tandards & Sá	(ASTM A479 or A8TM A551)  iety Authority  Vesseis	Swagelok Tube Fitting 1/2", 3/4" Female NPT 3/8", 1/2" Female ISO 1/2" Tube Butt Weld 1/2" Pipe Butt Weld 1/2" Tube Socket Weld 1/2", 3/4" Pipe Socket Weld 1/2" Male VCO Fitting 1/2" Male VCR Fitting 1/2"	2500 psig (4 bolt and 8 bolt bodies) 3000 psig (welded bodies)	800 psig @450°F (4 bolt body) 1000 psig @850°F (8 bolt body) 100 psig @450°F (welded)	Components) and ASME B31.3 (Unlisted Components)
	fety Prog Body		Swagelok Tube Fitting 1/2", 3/4" Female NPT 3/8", 1/2" Female ISO 1/2" Tube Butt Weld 1/2" Pipe Butt Weld 1/2" Tube Socket Weld 1/2", 3/4" Pipe Socket Weld 1/2"	2500 psig	800 psig @450*F (4 bolt body) 200 psig @800*F (8 bolt body)	:
	ĺ		Swagelok Tube Fitting 1/4", 3/8" Female NPT 1/8", 1/4"	1500 psig	100 psig @400°F	
		Alloy C276 bar (ASTM 8574) or CW-12MW Cast (ASTM A494)	Swagelok Tube Fitting 1/2" Female NPT 1/2	1500 psig	1470 psig @150°F	
	40	Alloy 400 N04400 (ASTM B164)	Swagelok Tube	1500 psig	1470 psig @150*F	
		Titanium Grade 4 UNS R50700 (ASTM B348)	Swagelok Tube Fitting 1/2" Female NPT 1/2"	1500 sig	1380 psig @150°F	

C.R.N.C.S.A.-OC.2/13 &. 17
Signed: OC. Canada M9W 1R3

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Product Series	Main Pressure Bearing Component	Pressure Bearing Material	Port Connections, Sizes*	The second district of	Maximum Bated Pressure (Note 1)	
				At 100°F	At Max temp	Design Gode of Construction
65	Body	316SS (ASTM A479 or ASTM A351)	Swagelok Tube Fitting 1" Female NPT 3/4", 1" Female ISO 3/4", 1" Pipe Butt Weld 3/4", 1" Tube Butt Weld 3/4", 1" Tube Socket Weld 1" Pipe Socket Weld 3/4", 1"	2500 psig (4 bolt and 8 bolt bodies) 3000 psig (Welded bodies)	800 psig @450°F (4 bolt body) 1000 psig @850°F (8 bolt body) 100 psig @450°F (welded)	
		WCB Carbon Slee! (ASTM A216)	Swagelok Tube Fitting 1" Female NPT 3/4", 1" Female ISO 3/4", 1" Pipe Butt Weld 3/4", 1" Tube Butt Weld 3/4", 1" Tube Socket Weld 1" Pipe Socket Weld 3/4", 1"	2500 psig	800 psig @450°F (4 bolt body) 200 psig @800°F (8 bolt body)	STORES STEEL STORES
		Brass C36000 or C35600 (ASTM B16)	Swagelok Tube Fitting 1" Female NPT 3/4", 1"	1500 psig	100 psig @400°F	0C 2113
		Alloy C276 bar (ASTM B574) or CW-12MW Cast (ASTM A494)	Female NPT 1"	1500 psig	1470 psig @150°F	thes also sales
		Alloy 400 N04400 (ASTM B104)	Swagelok Tube Fitting 1" Female NPT 1"	1500 psig	1470 psig @150*F	
		Titanium Grade 4 UNS R50700 (ASTM B348)	Fernale NPT 1"	1500 psig	1380 psig @150°F	
67 Body	31655 (ASTM A479 or ASTM A351)	Swagelok Tube Fitting 1-1/2" Female NPT 1-1/4", 1-1/2" Female ISO 1-1/4" Pine Butt Weld 1-1/2" Tube Butt Weld 1-1/2" Tube Socket Weld 1-1/4",1-1/2"	1500 psig (4 bolt body) 2000 psig (8 bolt body)	500 psig @450°F (4 bolt body) 500 psig @850°F (8 bolt body)	ASME B31.1 (Unlisted Components) and	
	WCB Carbon Steel (ASTM A216)	Pipe Socket Weld 1-1/4", 1-1/2"  Swagelok Tube Fitting 1-1/2"  Female NPT 1-1/4", 1-1/2"  Female ISO 1-1/4"  Pipe Butt Weld 1-1/2"  Tube Butt Weld 1-1/2"  Tube Socket Weld 1-1/4", 1-1/2"  Pipe Socket Weld 1-1/4", 1-1/2"	2200 psig	800 psig <b>@</b> 450°F (4 bolt body) 200 psig <b>@</b> 800°F (8 bolt body)	ASME B31.3 (Unlisted Components)	
68 Body	316SS (ASTM A479 or ASTM A351)	Swagelok Tube Fitting 2" Female NPT 2" Female ISO 2" Pipe Butt Weld 2" Tube Butt Weld 2 Tube Socket Weld 2" Pipe Socket Weld 2"	1500 psig (4 bolt body) 2000 psig (8 bolt body)	500 psig @450°F (4 bolt body) 500 psig @850°F (8 bolt body)		
	WCB Carbon Steel (ASTM A216)	Swagelok Tube Fitting 2* Female NPT 2* Female ISO 2* Pipe Butt Weld 2* Tube Butt Weld 2 Tube Socket Weld 2*	2200 psig (4 bolt body) 2000 psig (8 bolt body)	800 @450°F (4 bolt body) 200 psig @800°F (8 bolt body)		
62, 63, 65 3-way)	Body		Pipe Socket Weld 2" Swagelok Tube Fitting 1/4", 3/8" 1/2" Female NPT 1/8", 1/4",1/2", 1" Female ISO 1/4", 1/2, 3/4", 1"	1000 psig	800 psig @450°F	5
57, 68 3-way)	Body	316SS (ASTM A479 or ASTM A351)	Swagelok Tube Fitting 1-1/2" 2" AT Female NPT 1-1/4", 1-1/2", 2" Female ISO 1-1/4", 1-1/2", 2" Tube Socket Weld 1-1/4", 1-1/2", 2" Pipe Socket Weld 1-1/4", 1-1/2", 2"	TACHMENT T	0 30 4636.	16

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\* Fractional port connection sizes shown. Equivalent metric size ranges are also in scope, and have the same pressure/temperature ratings

Note 1: Pressure ratings shown are the maximum possible for the combination of valve series and body material. Seat and flange seals will affect ratings; please refer to product literature.

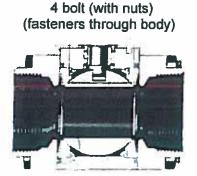
#### **Product Illustration**



## Configurations

The pressure retaining components of the 60 Series ball valve bodies can be categorized into three main types of assemblies based on the method used to attach the flanges to the body:

8 bolt







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The 4 bolt type assemblies are available in all body materials.

The 8 bolt type assemblies are available in Stainless Steel and Carbon Steel only.

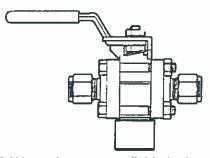
The welded assemblies are available in Stainless Steel only.



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#### 60 Series 3-Way Valves



3-Way valves are available in the 4-bolt type assembly and Stainless Steel material only.

#### **Product Options:**

The product options listed below affect pressure and/or temperature ratings shown in the above Summary Table, but in all cases the ratings are less than those shown in the table.

#### Flange Seal Material Options

Fluorocarbon, FKM Buna N Buna C Ethylene Propylene Neoprene Grafoil PTFE

#### Stem Seai Material Options

PTFE, virgin
Fluorocarbon, FKM
Buna C
Ethylene Propylene
Grafoil
PEEK (virgin, coated, or reinforced)

#### Seat Material Options

PTFE, virgin
PTFE, reinforced
PTFE, carbon glass filled
PEEK (virgin, coated, or reinforced)
UHMWPE
Inconel X-750





Additional options that do not increase the pressure and/or temperature ratings may be made available within the scope of this approval. Examples of these would include the following:

Handle options
Actuators (e.g. pneumatic, electric)
Panel mounting
Low dead space inserts

All of the above options, those that affect pressure and/or temperature ratings and those that do not, are within the scope of this approval.



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#### **Quality System**

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. The Swagelok Company maintains BSI Certificate of Registration Number FM 01729, which applies to all locations listed on the Certificate.

#### References

The product catalog-does not represent the full scope of registration, but rather details some of the most common options.

60 Series Ball Valve Catalog MS-01-146, Rev U



## Attachment A. Swagelok Manufacturing Locations

This document lists the Swagelok locations where end item or component level manufacturing activities take place.

Swagelok Company	Swagelok Company (Falon 1)		
29500 Solon Road	348 Bishop Road		
Solon, Ohio 44139	Highland Heights, Ohio 44143		
USA	USA		
Swagelok Company (Highland)	Swagelok Company (Falon 2)		
318 Bishop Road	358 Bishop Road		
Highland Heights, Ohio 44143	Highland Heights, Ohio 44143		
USA	USA		
Swagelok Company (OFC)	Swagelok Company (HPF)		
29495 F.A. Lennon Drive	6050 Cochran Road		
Solon, Ohio 44139	Solon, Ohio 44139		
USA	USA		
Swagelok Company (Atlantic)	Swagelok Company (Snow Metal)		
26651 Curtiss Wright Parkway	6060 Cochran Road		
Willoughby Hills, Ohio 44092	Solon, Ohio 44139		
USA	USA		
Swagelok Company (Micro) 26653 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA	Swagelok Company (Alfred) 29500 Ambina Drive Solon, Ohio 44139		
Swagelok Hose Services Company (SHSC)	Swagelok Company (Strongsville)		
29900 Solon Industrial Parkway	15400 Foltz Road		
Solon, Ohio 44139	Strongsville, Ohio 44119		
Swagelok (China) Fluid System Technologies Ltd.	Swagelok Company A.G. (European Technology		
Changshu Export Process Zone	Center)		
Changshu Economic Development Zone	St. GallerstraBe 84		
Changshu, Jiangshu	Lachen, Switzerland 8853		
215513 China	Switzerland		
Swagelok Limited Ballafletcher Road Fromode M4 4RA sle of Man	10F6		
ATTACHMENT TO  C.R.N.C.SA-OC.	OC21138.5		

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