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[www.tssa.org](http://www.tssa.org)

January 05, 2017

SCOTT ISLIP  
ROUND ENGINEERING INC  
10 SEGWUN RD  
WATERDOWN ON L0R 2H8  
CA

Service Request Type: BPV-Fitting Registration  
Service Request No.: 1997058  
Your Reference No.: R-0644 AVCO BALL VALVES  
Registered to: ALLOY VALVES & CONTROL INC – AVCO

Dear SCOTT ISLIP,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

**CRN No.:** 0C19055.5  
**Main Design No.:** CATALOG - AVCO BALL VALVES, GENERAL ASSEMBLY DRAWINGS  
SCOPE OF REGISTRATION ( 3 PAGES)  
**Expiry Date:** 05-Jan-2027

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

The stamped copy of the approved registration and the invoice are mailed separately. Should you have any questions or require further assistance, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail [customerservices@tssa.org](mailto:customerservices@tssa.org). We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Ruiming You, P.Eng.  
Mechanical Engineer, BPV  
Tel.: 416-734-3428  
Fax: 416-231-6183  
Email: [ryou@tssa.org](mailto:ryou@tssa.org)



**TECHNICAL STANDARDS & SAFETY AUTHORITY**  
 14th Floor, Centre Tower  
 3300 Bloor Street West  
 Toronto, Ontario  
 Canada M8X 2X4

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below



## STATUTORY DECLARATION Registration of Fittings

I, MARK WEINER, CEO  
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of AVCO VALVES & CONTROL, INC.  
(Name of Manufacturer)

Located at 3210 S. SUSAN ST., SANTA ANA, CA, 92704 714-427-0877 714-427-6392  
(Plant Address) (Telephone No.) (Fax No.)

do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of ASME B16.34, ASME B31.3

(Title of recognized North American Standard)

which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with \_\_\_\_\_ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO:9001:2015 which has been verified by the following authority, ANAB

The items covered by this declaration, for which I seek registration, are category C - VALVES type fittings. In support of this application, the following information and/or test data are attached as follows:

SCOPE OF CRN REGISTRATION, DESIGN REPORTS, DRAWINGS, CALCULATIONS

(drawings, calculations, test reports, etc.)

Declared before me at \_\_\_\_\_ in the \_\_\_\_\_ of \_\_\_\_\_

the \_\_\_\_\_ day of \_\_\_\_\_ AD 20\_\_\_\_\_.

Commissioner for Oaths:

\_\_\_\_\_  
(Printed name)

\_\_\_\_\_  
(Signature)

*Mark Weiner*  
(Signature of Declarer)

### FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category C.

CRN: OC 19055.5

Registered by: RUMING YOU

Dated: JAN. 5, 2017

NOTE: This registration expires on JAN. 5, 2027

Technical Standards & Safety Authority CRN: <u>OC 19055.5</u> Signed: <u>[Signature]</u> Date: <u>Jan. 5, 2017</u>	Boilers and Pressure Vessels Regulation CRN: <u>OC 19055.5</u> Signed: <u>[Signature]</u> Date: <u>Jan. 5, 2017</u>
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NOTE: SEE (3) PAGES SCOPE OF REGISTRATION ATTACHED. 1/5/17

# CALIFORNIA JURAT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA )

COUNTY OF ORANGE )

Subscribed and sworn to (or affirmed) before me on this 17<sup>th</sup> day of MAY, 2016  
Date Month Year

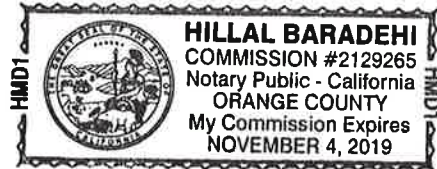
by MARK WEINER

*Name of Signers*

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature: Hillal Baradehi

*Signature of Notary Public*



*Seal*

*Place Notary Seal Above*

## OPTIONAL

*Though this section is optional, completing this information can deter alteration of the document or fraudulent attachment of this form to an unintended document.*

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Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_

Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**THIS IS PART OF**  
**CRN** 0019055.5  
Technical Standards & Safety Authority  
Boilers & Pressure Vessels  
Safety Program

**AVCO VALVES & CONTROL, INC.**  
 3210 S. SUSAN ST.  
 SANTA ANA, CALIFORNIA  
 USA, 92704



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05-Jan-17

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**SCOPE OF CRN REGISTRATION**

Product Description	AVCO Series	Design Code	Size Range	Body Class	End Connection (Note 1,2,3)	Material Specification (Note 4)	MAWP (psig) (Note 5)	MDMT (F)
Three Piece Ball Valve	1100 1900	ASME B16.34	1/4" thru 1-1/4"	600	FNPT, Socket Weld, CL.150, CL.300, CL.600 Flanged, Buttweld	ASTM A216-WCB Carbon Steel	1480 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	1440 psig at 100F	-20
						ASTM A351-CF3M Stainless Steel	1440 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	1200 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	1200 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	1200 psig at 100F	-20
Three Piece Ball Valve	1100 1900	ASME B16.34	1-1/2" thru 4"	300	FNPT, Socket Weld, CL.150, CL.300 Flanged, Buttweld	ASTM A216-WCB Carbon Steel	740 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	720 psig at 100F	-20
						ASTM A351-CF3M Stainless Steel	720 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	600 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	600 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	600 psig at 100F	-20
Bottom Entry and Side Entry Diverter Valve	1700 1800	ASME B16.34	1/4" thru 1-1/4"	600	FNPT, Socket Weld, CL.150, CL.300, CL.600 Flanged, Buttweld	ASTM A216-WCB Carbon Steel	1480 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	1440 psig at 100F	-20
						ASTM A351-CF3M Stainless Steel	1440 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	1200 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	1200 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	1200 psig at 100F	-20
Bottom Entry and Side Entry Diverter Valve	1700 1800	ASME B16.34	1-1/2" thru 4"	300	FNPT, Socket Weld, CL.150, CL.300 Flanged, Buttweld	ASTM A216-WCB Carbon Steel	740 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	720 psig at 100F	-20
						ASTM A351-CF3M Stainless Steel	720 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	600 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	600 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	600 psig at 100F	-20
Flanged Ball Valve	9100 9900	ASME B16.34	1/2" thru 10"	150	CL.150 Flanged	ASTM A216-WCB Carbon Steel	285 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	275 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	230 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	230 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	230 psig at 100F	-20
						ASTM A216-WCB Carbon Steel	740 psig at 100F	-20
Flanged Ball Valve	9100 9900	ASME B16.34	1/2" thru 10"	300	CL.300 Flanged	ASTM A216-WCB Carbon Steel	740 psig at 100F	-20
						ASTM A351-CF8M Stainless Steel	720 psig at 100F	-20
						ASTM A351-CN7M Alloy 20	600 psig at 100F	-20
						ASTM A494-M35-1 Monel 400	600 psig at 100F	-20
						ASTM A494-CW12MW Hastelloy C	600 psig at 100F	-20
						ASTM A216-WCB Carbon Steel	740 psig at 100F	-20

**AVCO VALVES & CONTROL, INC.**  
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 SANTA ANA, CALIFORNIA  
 USA, 92704



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15-Dec-16

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**SCOPE OF CRN REGISTRATION CONTINUED**

Product Description	AVCO Series	Design Code	Size Range	Body Class	End Connection (Note 1,2)	Material Specification	MAWP (psig)	MDMT (F)
ASME BPE Three Piece Ball Valve, Bottom Entry and Side Entry Diverter Valve.	2100 2700 2800 2900	ASME BPE, ASME B31.3.	1/2" thru 4"	N/A	ASME BPE Clamp Ferrule (Note 6)	ASTM A351-CF8M Stainless Steel ASTM A351-CF3M Stainless Steel ASTM A351-CN7M Alloy 20 ASTM A494-M35-1 Monel 400 ASTM A494-CW12MW Hastelloy C	<b>Size 1/2" thru 2-1/2"</b> 200 psig at 100F 165 psig at 250F	-20
							<b>Size 3"</b> 200 psig at 100F 150 psig at 250F	
							<b>Size 4"</b> 200 psig at 100F 125 psig at 250F	
ASME BPE Three Piece Ball Valve, Bottom Entry and Side Entry Diverter Valve.	2100 2700 2800 2900	ASME BPE, ASME B31.3.	1/2" thru 4"	N/A	Tube End, Sizes 1/2" thru 3": 0.065" wall tube, Size 4": 0.085" wall tube (Note 7)	ASTM A351-CF8M Stainless Steel ASTM A351-CF3M Stainless Steel	<b>Size 1/2" thru 1"</b> 1500 psig at 100F	-20
							<b>Size 1-1/2" and 2"</b> 1000 psig at 100F	
							<b>Size 2-1/2"</b> 800 psig at 100F	
							<b>Size 3"</b> 700 psig at 100F	
							<b>Size 4"</b> 650 psig at 100F	
ASME BPE Three Piece Ball Valve, Bottom Entry and Side Entry Diverter Valve.	2100 2700 2800 2900	ASME BPE, ASME B31.3.	1/2" thru 4"	N/A	Tube End, Sizes 1/2" thru 3": 0.065" wall tube, Size 4": 0.085" wall tube (Note 7)	ASTM A494-CW12MW Hastelloy C	<b>Size 1/2" thru 1"</b> 1500 psig at 100F	-20
							<b>Size 1-1/2" and 2"</b> 1000 psig at 100F	
							<b>Size 2-1/2"</b> 850 psig at 100F	
							<b>Size 3"</b> 700 psig at 100F	
							<b>Size 4"</b> 700 psig at 100F	



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**SCOPE OF CRN REGISTRATION CONTINUED**

Product Description	AVCO Series	Design Code	Size Range	Body Class	End Connection (Note 1,2)	Material Specification	MAWP (psig)	MDMT (F)
ASME BPE Three Piece Ball Valve, Bottom Entry and Side Entry Diverter Valve.	2100 2700 2800 2900	ASME BPE, ASME B31.3.	1/2" thru 4"	N/A	Tube End, Sizes 1/2" thru 3": 0.065" wall tube, Size 4": 0.085" wall tube (Note 7)	ASTM A351-CN7M Alloy 20 ASTM A494-M35-1 Monel 400	Size 1/2" thru 1" 1500 psig at 100F	-20
							Size 1-1/2" 1000 psig at 100F	
							Size 2" 850 psig at 100F	
							Size 2-1/2" 700 psig at 100F	
							Size 3" 550 psig at 100F	
Size 4" 550 psig at 100F								

**Note 1:** In all cases the pressure-temperature ratings of the valves may be limited by the seat and seal materials. Consult AVCO literature.

**Note 2:** In all cases the pressure-temperature ratings of a flanged valve are limited by the pressure-temperature ratings of the flange.

**Note 3:** Consult factory for valve ratings with butt-weld end connections below ASME B16.10M schedule 10.

**Note 4:** For valve series 1100, 1700, 1800, 1900, 9100 and 9900 other ASME B16.34 materials may be supplied. When this is the case the pressure-temperature ratings of the valves are in accordance with the applicable ASME B16.34 Table 2 ratings.

**Note 5:** For valve series 1100, 1700, 1800, 1900, 9100 and 9900 the pressure-temperature ratings above 100F are in accordance with the applicable ASME B16.34 Table 2 ratings.

**Note 6:** The assembly clamp is not part of the CRN. Pressure-Temperature ratings may be limited by the clamp type used in the joint assembly. Consult Clamp Manufacturer for clamp Pressure-Temperature ratings.

**Note 7:** Above 100F the pressure-temperature ratings of tube end valves are to be calculated in accordance with para. 304.1 of ASME B31.3.