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Toronto, Ontario
CANADA M9W 6N9
Tel.: 416.734.3300
Fax.: 416.231.1626
Toll Free: 1.877.682.8772
www.tssa.org

April 12, 2017

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

Service Request Type.: BPV-National AB
Service Request No.: 2015948
Your Reference No.: R-0644 AVCO BALL VALVES
Registered to.: ALLOY VALVES & CONTROL INC – AVCO

Dear SCOTT ISLIP,

Please find enclosed the original response from AB, registered under the CRN No.: 0C19055.52.

As all jurisdictional fees are handled by the Technical Standards and Safety Authority (TSSA), you do not pay any jurisdictions directly.

Should you have any questions or require further assistance, I will be happy to assist you.
For general enquiries, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Tanya Francis
Administrative Assistant_ BPV Engineering
Tel. : 416-734-3423
Fax : 416-231-6183
Email : tfrancis@tssa.org

March 14, 2017

Attention: Tanya Francis
TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO, ON M9W 6N9

Email: tfrancis@tssa.org

The design submission, tracking number 2017-00590, originally received on February 01, 2017 was surveyed and accepted for registration as follows:

CRN : 0C19055.52

Accepted on: March 14, 2017

Reg Type: New Design

Expiry Date: January 05, 2027

Drawing No. : CATALOG- AVCO BALL VALVES As Noted

Fitting type: VALVE

Design registered in the name of : AVCO VALVES & CONTROL INC

The registration is conditional on your compliance with the following notes:

As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction are B16.34 and ASME B31.3.

This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.

This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date.

Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

The registration is for the valves only and do not include clamp. The BEP ferrule is not to be used alone. The clamp used for the ferrule connection shall have its CRN rated equal or higher than the ferrule valve and is suitable for the ferrule connection.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

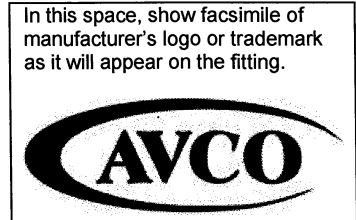
Enclosed are stamped prints for your reference.

Sincerely,



LIU, XING, P. Eng.

STATUTORY DECLARATION Registration of Fittings



I, MARK WEINER, CEO of AVCO VALVES & CONTROL, INC. located at 3210 S. SUSAN ST., SANTA ANA, CA, 92704

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

- comply with the requirements of ASME B16.34, ASME B31.3 which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, 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

(title of code of construction or other applicable document) data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, ISO:9001:2015 ANAB as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are

CATEGORY C - VALVES

(brief description of fittings)

In support of this application, the following information, calculations and/or test data are attached:

SCOPE OF CRN REGISTRATION, DESIGN REPORTS, DRAWINGS, CALCULATIONS

DECLARED before me at in the of this day of (Month) (Year) (city) (province or state)

(print) (a Commissioner of Oaths or Notary Public)

(sign) (a Commissioner of Oaths or Notary Public)

Mark Weiner (signature of applicant)

For ABSA Office Use Only:

NOTES:

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category

Registration Number: 0019055.52

(Signature of the Administrator/SCO)

Date Registered: 2017-03-14

Expiry Date: 2027-01-05

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 16th day of MAY, 2016
Date Month Year

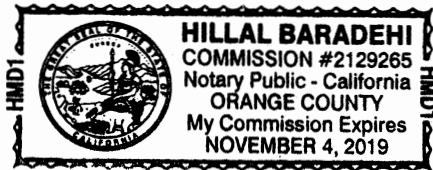
by MARK WEINER

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.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____

Number of Pages: _____

Signer(s) Other Than Named Above: _____

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



05-Jan-17

PAGE 1 OF 3

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 A494-CW12MW Hastelloy C	230 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 A494-CW12MW Hastelloy C	600 psig at 100F	-20

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



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	Size 1/2" thru 2-1/2"	-20
							200 psig at 100F 165 psig at 250F	
							Size 3"	
							200 psig at 100F 150 psig at 250F	
							Size 4"	
							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	Size 1/2" thru 1"	-20
							1500 psig at 100F	
							Size 1-1/2" and 2"	
							1000 psig at 100F	
							Size 2-1/2"	
800 psig at 100F								
							Size 3"	
							700 psig at 100F	
							Size 4"	
							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	Size 1/2" thru 1"	-20
							1500 psig at 100F	
							Size 1-1/2" and 2"	
							1000 psig at 100F	
							Size 2-1/2"	
850 psig at 100F								
							Size 3"	
							700 psig at 100F	
							Size 4"	
							700 psig at 100F	

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



15-Dec-16

PAGE 3 OF 3

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	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
	2700						Size 1-1/2" 1000 psig at 100F	
	2800						Size 2" 850 psig at 100F	
	2900						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.

PROVINCE OF ALBERTA
 REGISTRATION OF FITTINGS
 REGISTRATION NO. 0019055-52
 DATE OF REGISTRATION Catalogue
 TYPE OF FITTING Valve
 DATE 2017-03-14 INITIALS [Signature]
 DESIGN SURVEY ENGINEER