

February 02, 2021

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

The design submission, tracking number 2020-05142, originally received on October 23, 2020 was surveyed and accepted for registration as follows:

<b>CRN :</b> 0C16914.2	<b>Accepted on:</b> February 02, 2021
<b>Reg Type:</b> NEW DESIGN	<b>Expiry Date:</b> February 02, 2031
<b>Drawing No. :</b> REGISTRATION SCOPE	
<b>Fitting type:</b> CBG SERIES CHECK VALVES	
Design registered in the name of : PARKER HANNIFIN	

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

*\*\* The end connectors for the CBG series valves are covered under CRN's for Parker's A-Lok and CPI compression ends (0A6793.52), and for Parker's pipe ends (0A2205.52)*

*As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction is other engineering analysis.*

- It is our understanding that the fitting(s), included as the scope of this submission, that is(are) subject to the Safety Codes Act shall comply with the requirements of the indicated Standard or Code of Construction on the AB-41 Statutory Declaration as supported by the attached data which identifies the dimensions, materials of construction, press./temp. ratings and the basis for such ratings, and the identification marking of the fittings.*
- 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.*

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

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3337 or fax (780) 437-7787 or e-mail Dick@absa.ca.

Sincerely,



DICK, ASHLING, P. Eng.  
DOP Cert. No. D00007936

**STATUTORY DECLARATION  
Registration of Fittings**  
Single or Multiple Fitting Designs within one Fitting Category

I, Craig Beckwith, Division General Manager  
(name of applicant) (position title) (must be in a position of authority)  
of Parker Hannifin Corporation - Instrumentation Products Division  
(name of manufacturer)  
located at 1005 A Cleaner Way, Huntsville, AL, 35805, USA  
(plant address)

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.

**P**

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

- ☐ comply with the requirements of \_\_\_\_\_ which specifies the dimensions, (title of recognized North American Standard) materials of construction, pressure/temperature ratings and identification/markings of the fittings, or
- ☒ are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with MSS-SP-105 as supported by the (title of code of construction or other applicable document) attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

**Quality Program Verification and Manufacturing Sites**

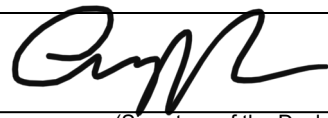
A copy of the Quality Certificate from each manufacturing site must be included

Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	CBG Series Check Valves	ISO 9001:2015	Design, Manufacture, and Service of Instrumentation Products, Pressure and Temperature Systems, Pneumatic Pumps, Power Supplies, and Anhydrous	April 7, 2021	DNV-GL	2625 AL Hwy 21 N, Jacksonville, AL 36265, USA

			Ammonia/Propane Valves.			
2.						

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

Scope of Registration



(Signature of the Declarer)

11/7/20

(Date)

DECLARED before me at Huntsville in the Madison County of Alabama  
(city) (province, territory, or state)

this \_\_\_\_\_ day of \_\_\_\_\_, 2020  
(Month) (Year)

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

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

\_\_\_\_\_  
(expiry date (mm/dd/yy))

Commissioner of Oaths / Notary Public in and for: \_\_\_\_\_  
(province, territory, or state)

**For ABSA Office Use Only:**

NOTES: \*\* See attached Scope of Registration

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category \_\_\_\_\_.

CRN: \_\_\_\_\_

Registered Date: \_\_\_\_\_

Expiry Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

2020-05142

**ABSA**

SAFETY CODES ACT - PROVINCE OF ALBERTA

**ACCEPTED: 0C16914.2**

**See acceptance letter for conditions of registration.**

Date: 2021-02-02

By:



ASHLING DICK, P. Eng.

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.

**Table 1\*\* Scope of Fitting Designs**

Item #	Primary Pressure Bearing / Retaining Component	Material of Construction	Port Connections and Size Range	MDMT	Rated Pressure		Pressure Class(es) / Schedule(s)	Design Code(s) of Construction	Reference Catalogue (pages) or Drawing(s)
					At Ambient Temperature	At Maximum Temperature			
CBG Series	Body	ASTM A479, Type 316	Refer to Catalogue	N/A	Refer to Scope of Registration	Refer to Scope of Registration	Refer to Scope of Registration	MSS-SP-105	Refer to Scope of Registration
	Cap	ASTM A479, Type 316	Refer to Catalogue	N/A	Refer to Scope of Registration	Refer to Scope of Registration	Refer to Scope of Registration	MSS-SP-105	Refer to Scope of Registration

**Table 2 Additional Scope Information**

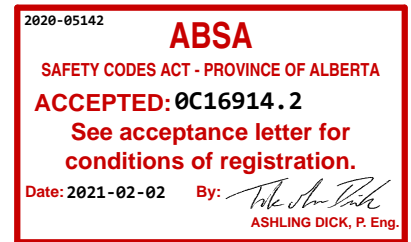
List/Attach Additional Detail and References (Product Configurations, Options, Illustrations, etc.)
Example: Series X Options
See attached scope of registration and catalog pages

\*\* For additional alternatives of Table 1, refer to Form AB-41a, Guide for Completing Form AB-41

## Registration Scope

Parker Hannifin  
Instrumentation Products Division

Based on the above we seek registration for the following scope.



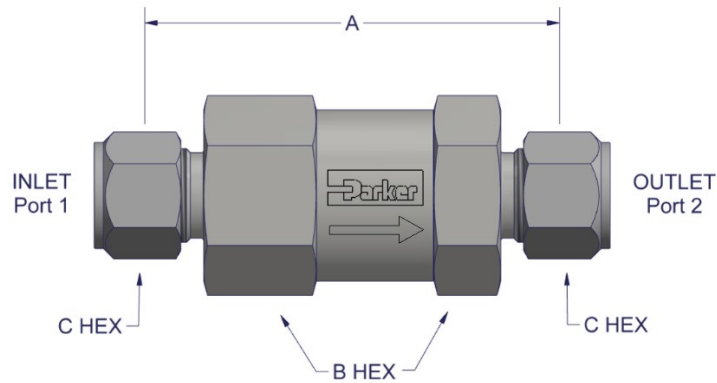
This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.

Series/Model	Size	Shell Pressure Rating, CWP	Body Material	Cap material
CBG4	1/4"	3000 psi	ASTM A479, Type 316	ASTM A479, Type 316
CBG6	3/8"	3000 psi	ASTM A479, Type 316	ASTM A479, Type 316
CBG8	1/2"	3000 psi	ASTM A479, Type 316	ASTM A479, Type 316
CBG12	3/4"	3000 psi	ASTM A479, Type 316	ASTM A479, Type 316

## Summary

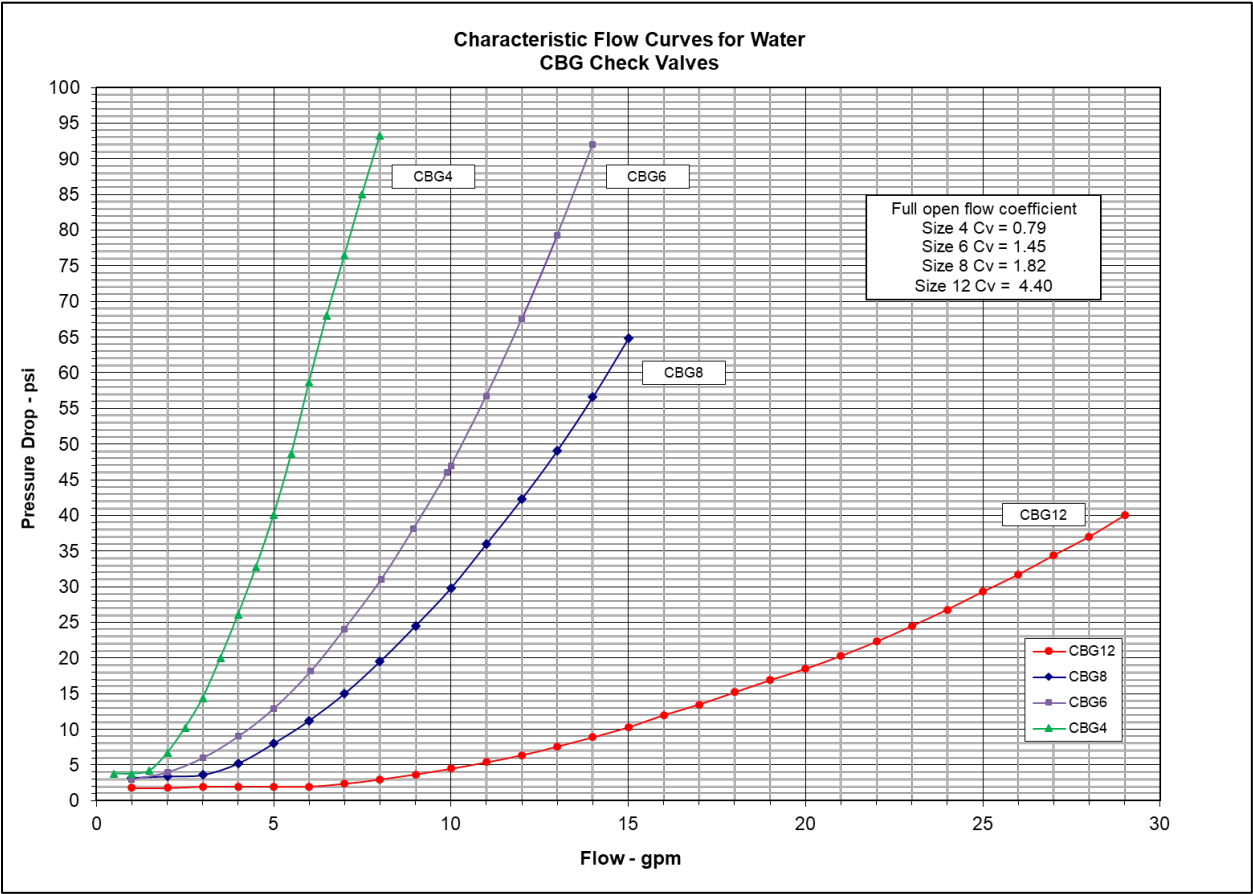
Table 1 below shows the valve part number description. For this valve the valve bodies are available only in one material (ASTM A479 Type 316). The valve is available in four sizes (1/4", 3/8", 1/2", and 3/4") designated as 4, 6, 8, and 12 in the part number. The minimum wall thickness for all valves in this line is at the undercut of the thread on the valve body. The Cold Working Pressure (CWP) is established by burst testing in accordance with MSS SP-105.

**Table 1: Dimensions**



Basic Part Number	End Connections	Dimensions			Optional	
	Inlet & Outlet Port 1 & Port 2	A	B Hex	C Hex	Crack Pressure	Seat Material
4A-CBG4L-1-PC-SS	1/4 A-LOK	2.40	1	9/16	1 psi	
4Z-CBG4L-1-PF-SS	1/4 CPI			---	5 psi	
4M-CBG4L-1-PC-SS	1/4 MALE NPT			---	5 psi	
4A4F5-CBG4L-1-PF-SS	1/4 A-LOK X 1/4 MALE SAE			9/16	10 psi	PF Parkerfill
6A-CB4L-1-PF-SS	3/8 A-LOK			11/16	50 psi	PC Parker Carbon
6A6M-CBG4L-1-PC-SS	3/8 A-LOK X 3/8 MALE NPT			11/16	100 psi	
8A6M-CBG4L-1-PF-SS	1/2 A-LOK X 3/8 MALE NPT			7/8	OEM specific	
8A8G5-CBG4L-1-PC-SS	1/2 A-LOK X 1/2 FEMALE SAE			7/8		
8A-CB4L-1-PC-SS	1/2 A-LOK			7/8		
6A-CBG6L-1-PC-SS	3/8 A-LOK	2.69	1-1/8	11/16	1 psi	
6Z-CBG6L-1-PF-SS	3/8 CPI			11/16	5 psi	
6A6M-CBG6L-1-PC-SS	3/8 A-LOK X 3/8 MALE NPT			11/16	10 psi	PF Parkerfill
8A6M-CBG6L-1-PF-SS	1/2 A-LOK X 3/8 MALE NPT			7/8	50 psi	PC Parker Carbon
8A-CBG6L-1-PC-SS	1/2 A-LOK			7/8	100 psi	
8A8G5-CBG6L-1-PF-SS	1/2 A-LOK X 1/2 FEMALE SAE			7/8	OEM specific	
8A8M-CBG6L-A-PC-SS	1/2 A-LOK X 3/8 MALE NPT			7/8		
8A-CBG8L-1-PC-SS	1/2 A-LOK	3.30	1-3/8	7/8		
8Z-CBG8L-1-PF-SS	1/2 CPI			7/8		
10A-CBG8L-1-PC-SS	5/8 A-LOK			1	1 psi	
10Z-CBG8L-1-PF-SS	5/8 CPI			1	5 psi	
12A-CBG8L-1-PC-SS	3/4 A-LOK			1-1/8	10 psi	PF Parkerfill
12Z-CBG8L-1-PF-SS	3/4 CPI			1-1/8	50 psi	PC Parker Carbon
8F8M-CBG8L-1-PC-SS	1/2 FEMALE NPT X 1/2 MALE NPT			---	100 psi	
12X12G5-CBG8L-1-PF-SS	3/4 FLARED X 3/4 FEMALE SAE			7/8	120 PSI	
8A8G5-CBG8L-1-PF-SS	1/2 A-LOK X 1/2 FEMALE SAE			1	OEM specific	
10A8G5-CBG8L-1-PF-SS	5/8 A-LOK X 1/2 FEMALE SAE	3.41	1-5/8	7/8		
10G58A-CBG8L-1-PF-SS	5/8 FEMALE SAE X 1/2 A-LOK			7/8		
10G510A-CBG8L-1-PF-SS	5/8 FEMALE SAE X 5/8 A-LOK			1		
12A12G5-CBG8L-1-PF-SS	3/4 A-LOK X 3/4 FEMALE SAE			1-1/8		
12F512G5-CBG8L-1-PF-SS	3/4 MALE SAE X 3/4 FEMALE SAE			---		
12A-CBG12L-1-PF-SS	3/4 A-LOK	4.42	1-5/8	1-1/8	1 psi	
12Z-CBG12L-1-PC-SS	3/4 CPI			1-1/8	5 psi	
16A-CBG12L-1-PF-SS	1 A-LOK			1-1/2	10 psi	PF Parkerfill
16Z-CBG12L-1-PC-SS	1 CPI			1-1/2	50 psi	PC Parker Carbon
12G512A-CBG12L-1-PF-SS	3/4 FEMALE SAE X 3/4 A-LOK			1-1/8	100 psi	
12G516A-CBG12L-1-PF-SS	3/4 FEMALE SAE X 1 A-LOK			1-1/2	120 PSI	
					OEM specific	

Table 2: Flow Characteristics



Flow Coefficients Valve Fully Open	
CBG4	Cv = 0.79
CBG6	Cv = 1.45
CBG8	Cv = 1.82
CBG12	Cv = 4.40

Table 3: Pressure-Temperature Rating

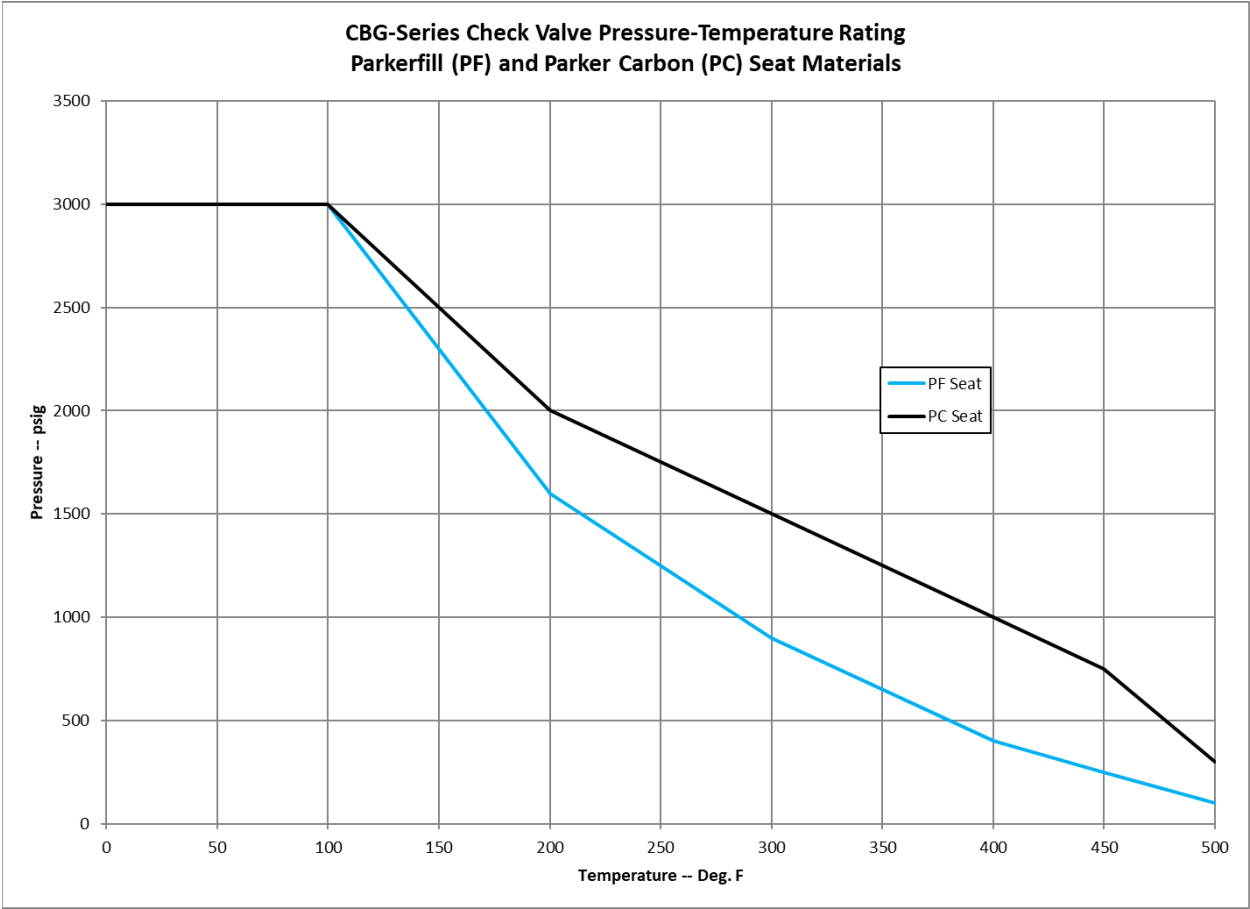
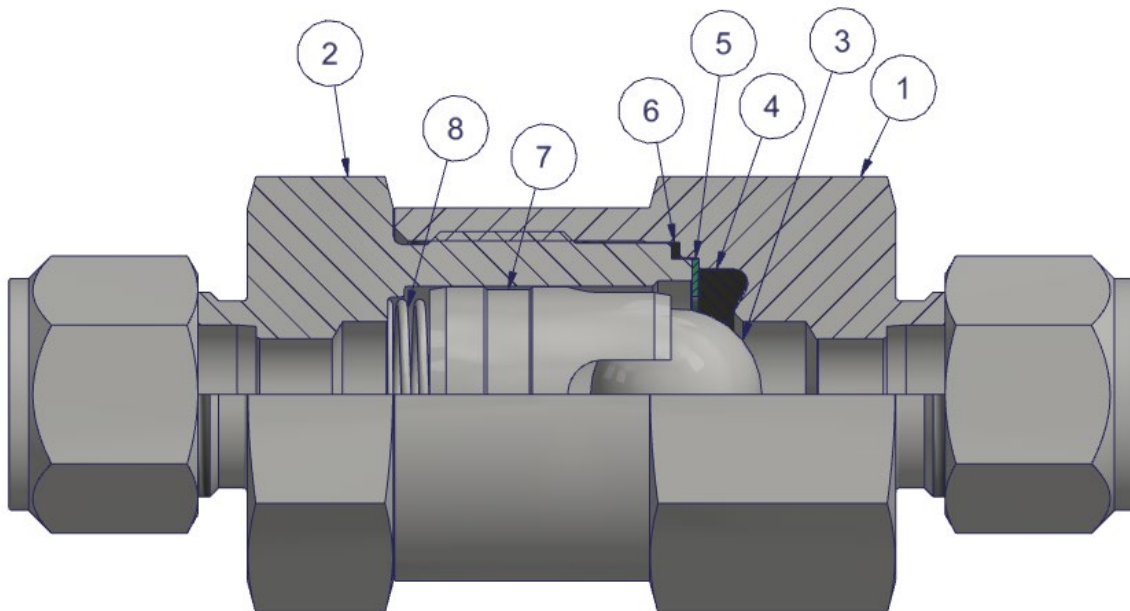


Table 4: Materials of Construction



Materials of Construction		
Item	Description	Material Specification
1	Valve Cap	ASTM A479 Type 316
2	Valve Body	ASTM A479 Type 316
3	Ball	316 Stainless Steel
4	Seat	(PF) - Carbon/Graphite Reinforced PTFE Copolymer
		(PC) - Carbon Reinforced PTFE Copolymer
5	Seat Retainer	PTFE Coated 316 Stainless Steel
6	Body Gasket	Flexible Graphite
7	Backstop	PTFE Coated 316 Stainless Steel
8	Crack Spring	316 Stainless Steel; Inconel 600; Inconel X750