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December 15, 2014

JEREMY PAYNE
ASHCROFT INC.
250 E MAIN STREET
STRATFORD CT 06614
US

Service Request Type: BPV-Fitting Registration
Service Request No.: 1537806
Your Reference No.: BULLETIN DG-5503
Registered to: ASHCROFT INC.

Dear JEREMY PAYNE,

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

CRN No.: 0F2805.75
Main Design No.: BULLETIN DG-5503, SCOPE OF REGISTRATION SR-5503 REV 0
Expiry Date: 07-Nov-2024

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. 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



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, Philip Reed Quality Assurance Manager
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Ashcroft, Inc.
(Name of Manufacturer)

Located at 250 Main Street, Stratford, Connecticut 06614, USA 203-385-0318 203-385-0662
(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 B31.3; B31.1; ANSI 82.03
(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 9001:2008 which has been verified by the following authority, Lloyd's Register Quality Assurance.

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

Type 5503 differential pressure gauge per Ashcroft bulletin DG-5503; scope of registration SR-5503-Rev0
(drawings, calculations, test reports, etc.)

Declared before me at Stratford in the state of Connecticut
 the 10th day of October AD 20 14.

Commissioner for Oaths:

Irene Ferrigno
(Printed name)
Irene Ferrigno
(Signature)

IRENE FERRIGNO
 NOTARY PUBLIC
 State of Connecticut
 My Commission Expires
 November 30, 2017

[Signature]
(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 F.

CRN: OF 2805.75

Registered by: Ruiming You

Dated: Dec. 15, 2014

NOTE: This registration expires on Nov. 7, 2024

REGISTERED
OF 2805.75
[Signature]
DEC. 15, 2014

Scope of Registration Summary – Type 5503 differential Pressure Gauges

Differential Pressure Gauge Type	Process Connection Sizes (in) ASME B1.20.1	Maximum Pressure in Temperature Range (psi)	Temperature range (°F)	Material
5503 (PN400)	¼ NPT, ½ NPT	265 bar [1] 400 bar [2]	-20 to 185	A182 F316L
5503 (PN160)		145 bar [1] 160 bar [2]		

[1] Qualified per ASME B31.1 referenced Section I, A-22 & ASME B31.3 referenced ASME Section VIII, div. 1, UG-101.

[2] Qualified per ANSI/ISA 82.03–1988 (equivalently Annex G of CSA C22.2 No. 61010-1, Sections G.2.3 (a) & (b), and Table G.1)

[3] See Ashcroft bulletin DG-5503 for product specifications

[4] See PR-5503-Rev0 for witnessed proof test reports and calculations.

I, the undersigned, hereby confirm that the above is accurate and true:

Approved by: Jeremy M. Payne Signed: 

Date Signed: 6 October 2014



Type 5503 Differential Pressure Gauge



THIS IS PART OF
CRN 0F 2805-75
 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program

- $\pm 1.6\%$ full scale accuracy
- **Stainless steel case**
- **Nace compliant option**
- **Available with custom flow monitoring dials**
- **1450 psi static pressure standard with optional static pressure to 5801 psi**
- **External zero adjust**
- **Optional liquid-filled case**
- **4" (100mm) or 6" (160mm) dial sizes**

The Ashcroft® Type 5503 differential pressure gauge is available with ranges from 16 I.W.D. to 600 psi with optional static pressure to 5801 psi. Optional wetted parts includes Hastelloy C. Typical applications include chemical, petrochemical power, food & beverage and the pulp and paper industries.

PRODUCT SPECIFICATIONS

Model Number:	5503
Accuracy:	$\pm 1.6\%$ full scale
Dial Size:	4" (100mm) or 6" (160mm)
Ranges:	0-30 IWD (inches of water differential) to 300 psid
Static Pressure:	1450 psi standard Optional 3625 psi ranges <10 psid 5801 psi ranges >10 psid
Case Material:	304 SS open front case with a bayonet ring, (316 SS case and ring optional)
Window:	Shatterproof glass
Dial:	White painted aluminum
Pointer:	Black painted aluminum with external adjust feature standard (to 25% of range)
Diaphragm Material:	316 stainless steel for ranges of 15 psi and below. High strength cobalt alloy (Duratherm 600) for ranges of 10 psi and above
Housing Material:	316 SS with a Viton® O-ring
Mounting:	Stem, wall or pipe
Connection Size:	¼, ½ NPT
Purge & Bleed Connection:	Standard on top of each pressure chamber (G½ with plug)
Connection Location:	Lower

HOW TO ORDER (Typical example)

Dial Size: 100mm (10), 160mm (16)	10	5503	S	S	02L	XXX	0/100 psid
Case Type: 5503							
Diaphragm: (S) 316 SS							
Housing, Socket: (S) 316 SS							
Connection Size, Location: ¼ (02), ½ (04), Lower (L)							
Options:							
Range: 0/100 psid							

OPTIONAL FEATURES

316 SS case and ring	(XYW)
Glycerin fill - Standard	(L)
Silicone fill - Optional	(XGV)
Weatherproof/Hermetically sealed case (IP65)	(XLJ)
Static pressure to	(XSP)
3625 psi (ranges <10 psid)	
5801 psi (ranges >10 psid)	
Wall mounting bracket	(XFW)
Pipe mounting bracket	(XTM)
(Available for ranges 5 psid and above.)	
3-way manifold	(X43)
Hastelloy C diaphragm with 316 SS housing ⁽¹⁾	(HS)
Hastelloy C diaphragm and housing	(HH)
Ranges 60 psid and above	
NACE compliant	
Electric Warning Contacts ⁽²⁾	
High and Low	(XED)
Double High	(XEE)
Double Low	(XEF)
Oxygen cleaning	(X6B)

⁽¹⁾ Only available with 1450 psi static pressure.

⁽²⁾ Specify contact arrangement. Specify if magnetic or inductive contacts.

Temperature Limits

Process: -20/185°F

Ambient: -20/185°F

Storage: -20/185°F

Viton® is a registered trademark of DuPont Co.

STANDARD RANGE TABLE*

psid	mBar	bar	I.W.D.
3	40	0.6	10
5	60	1.0	30
10	100	1.6	60
15	160	2.5	100
30	250	4	200
60	400	6	
100		10	
160		16	
200		25	
300			
400			
600			

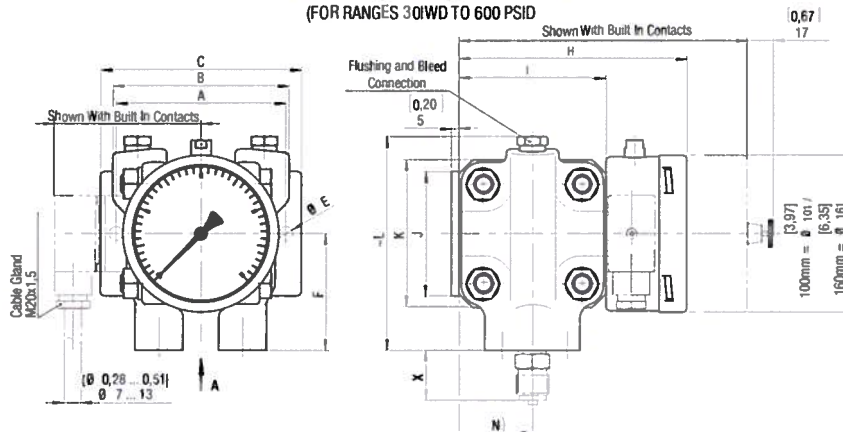
WEIGHT (lbs)

	100mm	160mm
For ranges ≤ 5 psid		
Dry	20	21
Liquid Filled	21	22
For ranges ≥ 10 psid		
Dry	9	10
Liquid Filled	10	11

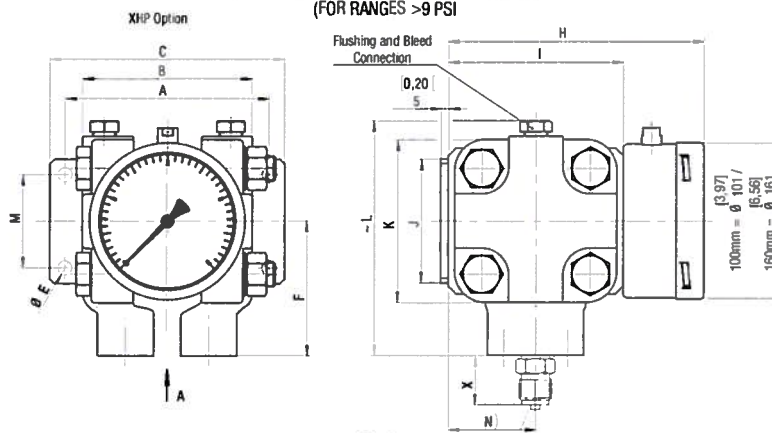
Type 5503 Differential Pressure Gauge

DIMENSIONS

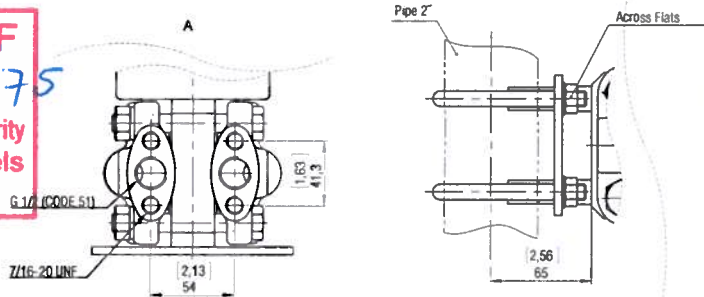
FOR MAXIMUM STATIC PRESSURE 1450 PSI
(FOR RANGES 30IWD TO 600 PSID)



FOR MAXIMUM STATIC PRESSURE 5801 PSI
(FOR RANGES >9 PSI)



THIS IS PART OF
CRN 2805.75
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program



AVAILABLE SOCKET CONNECTIONS	CODE
1/4-18 NPT MALE, DIN EN 837	02
1/2-14 NPT MALE, DIN EN 837	04
G 1/4 B MALE, DIN EN 837	13
G 1/2 B MALE, DIN EN 837	15
G 1/4 FEMALE, DIN EN 837	27
1/2-14 NPT FEMALE	50

	A	B	C	D	E	F	G	H	I	J	K	-L	M	(N)
60 + 400 mbar MAX. PN100	[5,20] 132	[4,25] 108	[5,98] 152	[4,72] 120	[10,35] 4 x Ø 9	[3,94] 100	[9,43] 239,5	[7,62] 193,5	[5,55] 141	[3,15] 80	[5,55] 141	[7,11] 181	[2,36] 60	[2,78] 70,5
MAX. PN250	[6,69] 170	[5,83] 148	[7,87] 200	-	[10,43] 4 x Ø 11	[4,72] 120	-	[8,96] 227,5	[6,89] 175	[3,94] 100	[6,69] 170	[8,62] 219	[2,36] 60	[3,44] 87,5
0.6 + 25 bar MAX. PN400	[5,20] 132	[4,33] 110	[5,98] 152	-	[10,35] 2 x Ø 9	[3,41] 86,5	-	[6,52] 165,5	[4,45] 113	[3,15] 80	[4,13] 105	[5,94] 151	-	[2,22] 56,5