

2014803, 714803A)

DOC Ref: PK-QC-03 Rev.2 dt. 01/11/2013



PEEKAY STEEL CASTINGS(P) LTD

Nallalam, Kozhikode - 673027, India

ISO 9001:2015
Certified by TUV NORD

FORM IIIIF

Certificate of Manufacture and test of Castings (Regulations 73 to 80)

Customer : M/s. SEVERN GLOCON INDIA PVT LTD
Tamilnadu.Pan No:AAHCS9495H

TC No. : IBR-1689

TC Date : 07-09-2020

Heat No. : H26868

Date of Pouring : 26-06-2020

Order Reference : PO1924585, PO Sln.1,19-03-2020

Material Specification & Grade : ASTM A 217 C12A-2020,
PTS RM006 Iss.1, SGI/OP/130 Iss.04 & 7815 Iss.1

Casting Processed By Electric Induction Melting with AOD Facility

Chemical Composition (%)

Element	C	Mn	Si	P	S	Cr	Ni	Mo	Ti	Al	N	V	Nb	Zr
Specified	Min.	0.080	0.300	0.200	---	---	8.000	---	0.850	---	0.030	0.180	0.060	---
	Max.	0.120	0.600	0.500	0.025	0.010	9.500	0.400	1.050	0.010	0.020	0.070	0.250	0.100
Actual Values		0.120	0.452	0.458	0.015	0.004	8.606	0.255	0.921	0.001	0.019	0.036	0.201	0.074

Heat Treatment : Normalizing at 1070°C Soaking 11 Hrs Normal Air Cooled, Tempering at 745°C Soaking 12 Hrs Normal Air Cooled.

Mechanical Properties

Requirements	Tensile Strength (Rm) MPa	Yield Strength (Rp 0.2%) MPa	Elongation % GL=50mm	Reduction of Area %	Hardness HBW	Bend Test Angle 120°	Impact value CVN in Joules Specimen size 10X10X55mm			
							Single Value			Avg. Value
Specified	Min.	585.00	415.00	18.00	45.00	185	D=3T			---
	Max.	760.00	---	---	---	248	1	2	3	Avg.
Actual Values		739.24	611.23	22.02	61.62	229	Satisfactory	---	---	---

Sl.No.	Item Description	Drawing No./Part No.	Quantity	MPI No	RT No.
1	20" CL2500 BWE GLOBE BODY	2B99051 Iss 2 2B99051-A3020-7815	1	M76666	PKS7202

Remarks :

Test bar as per spec.

ASTM A 703/A703M-2018 & ASTM A1067/A1067M-12a

Test as per spec.

ASTM A370-2019

Visual inspection of Casting : Satisfactory According to ANSI/MSS-SP-55 2011, ASME Sec V 2019 Article 9 & SGI/OP/130 Iss.4

Castings are free from radioactive contamination, "No major welding has been carried out on this casting".

Material meets ANSI/NACE MR0175 / ISO 15156 : 2015 & ANSI/NACE MR0103/ISO 17495-1:2016.

SEVERN
GLOCON INDIA

REVIEWED & ACCEPTED

QUALITY

SIGN / DATE
A. THANGAM

Foundry Identification : PK

We here by declare that the items mentioned above have been tested and inspected in our presence and are found to be in accordance with drawings, specifications and satisfy the requirements of the INDIAN BOILER REGULATIONS 1950

Daneesh.M

Asst.Manager (QA)

Makers Representative

Peekay Steel Castings (P) Ltd. Kozhikode -27



Sabeeh.M

COO (Foundry)

Makers

Peekay Steel Castings (P) Ltd. Kozhikode -27

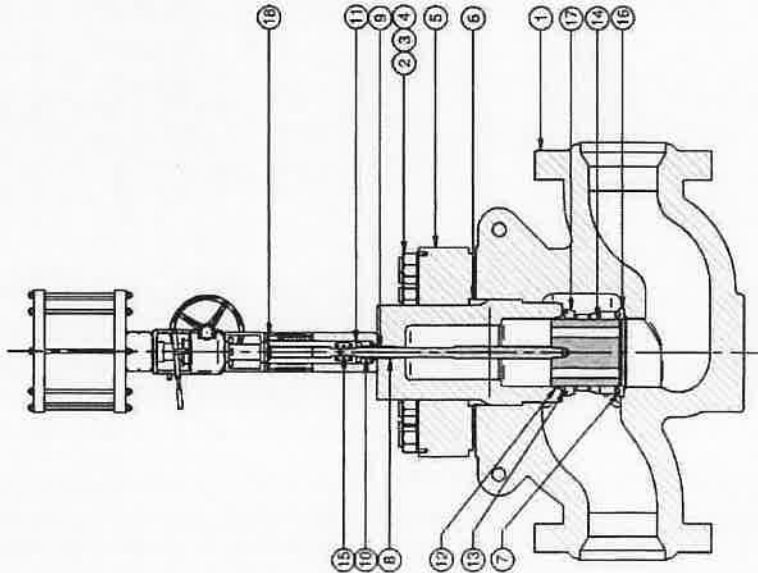
IBR WELLKNOWN FOUNDRY UPTO 12000 Kg/piece CBB No.404 Dated 18-07-2017, Valid up to 07 June 2021.

100-100-5182

ITEM NO	TITLE	MATERIAL	QTY	ITEM NO	TITLE	MATERIAL	QTY
1	BODY	ASTM A217 C12A	1	10	GLAND FOLLOWER	316 SS + STELLITE	1
2	STUD	ASTM A193 Gr B16	16	11	GLAND FLANGE	CFRM	1
3	NUT	ASTM A194 Gr 7L	16	12	BALANCE SEAL	Graphite	1
4	WASHER	316 SS	16	13	SEAL RETAINER	316 SS + STELLITE	1
5	BONNET	ASTM A217 C12A	1	14	PLUG HEAD	316 SS + STELLITE	1
6	METAL SEAL	INCONEL 625	1	15	PLUG STEM	316 SS	1
7	GASKET SEAT	Spiral Wound SS316L/Graphite	1	16	SEAT	316 SS + STELLITE	1
8	PACKING GUIDE	316 SS + STELLITE	1	17	CAGE	316 SS	1
9	PACKING RING	Graphite	1	18	ACTUATOR	Carbon Steel	1

Temperature °C	Working Pressure for 2500# C12A Kg/Cm ² (g)	Hydr. Pressure Kg/Cm ² (g)
-29 to 38	439.4	560
100	437.9	-
150	426.5	-
200	413.4	-
250	393.8	-
300	364.2	-
350	341.9	-
375	328.6	-
400	310.9	-

Body Casting No	2801145
Body Machining No	2899051



Sehr hoch

SELVAKUMAR S
Assistant Manager - Product Engg & Design
Seyern Global India Pvt.Ltd,
F96 & 97, SIPCOT Industrial Park,
Irungattukottai - 602 117.

APPROVED
105 / 43 / 283
Date: 17.03.2020

[illegible]

GENERAL ARRANGEMENT DRAWING



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GLOGON GROUP

SC117-PCDE/016R - 1552

SHELL THICKNESS CALCULATION AS PER IBR 290-D

$$T = (WP \times D) / (2f + WP) + C$$

Where

T = Shell Thickness
WP = Allowable Maximum Pressure for Service Temperature of Material
D = Outside Chest Diameter of Valve Body
F = Allowable Stress for material to be taken from ASME SEC. II - D for corresponding temperature in degree C
C = Minimum Positive Tolerance for cast Steel = 5 mm

Chest Diameter 615.7 mm

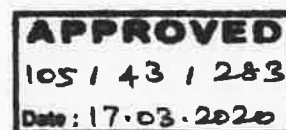
Temp	Working Pressure for C12A in	Allowable Stress Value f in	Shell Thickness T	Thickness as per drawing in
°C	Kg/cm ² (g)	(Kg/cm ²)	(mm)	mm
38	439.4	14.44	86.3	130.0
100	437.9	14.44	86.1	130.0
150	426.5	14.03	86.2	130.0
200	413.4	13.87	84.9	130.0
250	393.8	13.87	81.6	130.0
300	364.2	13.79	76.8	130.0
350	341.9	13.38	74.8	130.0
375	329.6	13.13	73.6	130.0
400	310.9	12.73	72.0	130.0

Valve Size : 20"
Drawing No : 2B99051
IBR No : 283
Description : Body 20inch 2500# BWE

Rating : 2500 #

For Severn Glocon India Pvt Ltd,


Selvakumar.S
Assistant Manager - Product Engineering & Design



SHELL THICKNESS CALCULATION AS PER IBR 290-D

$$T = (WP \times D) / (2f + WP) + C$$

Where

T = Shell Thickness
WP = Allowable Maximum Pressure for Service Temperature of Material
D = Outside Chest Diameter of Valve Body
F = Allowable Stress for material to be taken from ASME SEC. II - D for corresponding temperature in degree C
C = Minimum Positive Tolerance for cast Steel = 5 mm

Chest Diameter 1066.8 mm

Temp	Working Pressure for C12A in	Allowable Stress Value f in	Shell Thickness T	Thickness as per drawing in
°C	Kg/cm ² (g)	(Kg/cm ²)	(mm)	mm
38	439.4	14.44	145.9	228.6
100	437.9	14.44	145.5	228.6
150	426.5	14.03	145.7	228.6
200	413.4	13.87	143.4	228.6
250	393.8	13.87	137.6	228.6
300	364.2	13.79	129.5	228.6
350	341.9	13.38	125.9	228.6
375	329.6	13.13	123.9	228.6
400	310.9	12.73	121.1	228.6

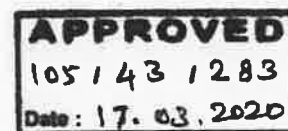
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Rating : 2500 #

For Severn Glocon India Pvt Ltd,

Selvakumar.S

Selvakumar.S
Assistant Manager - Product Engineering & Design



DRAWING NO

2B99051

THIRD ANGLE PROJECTION

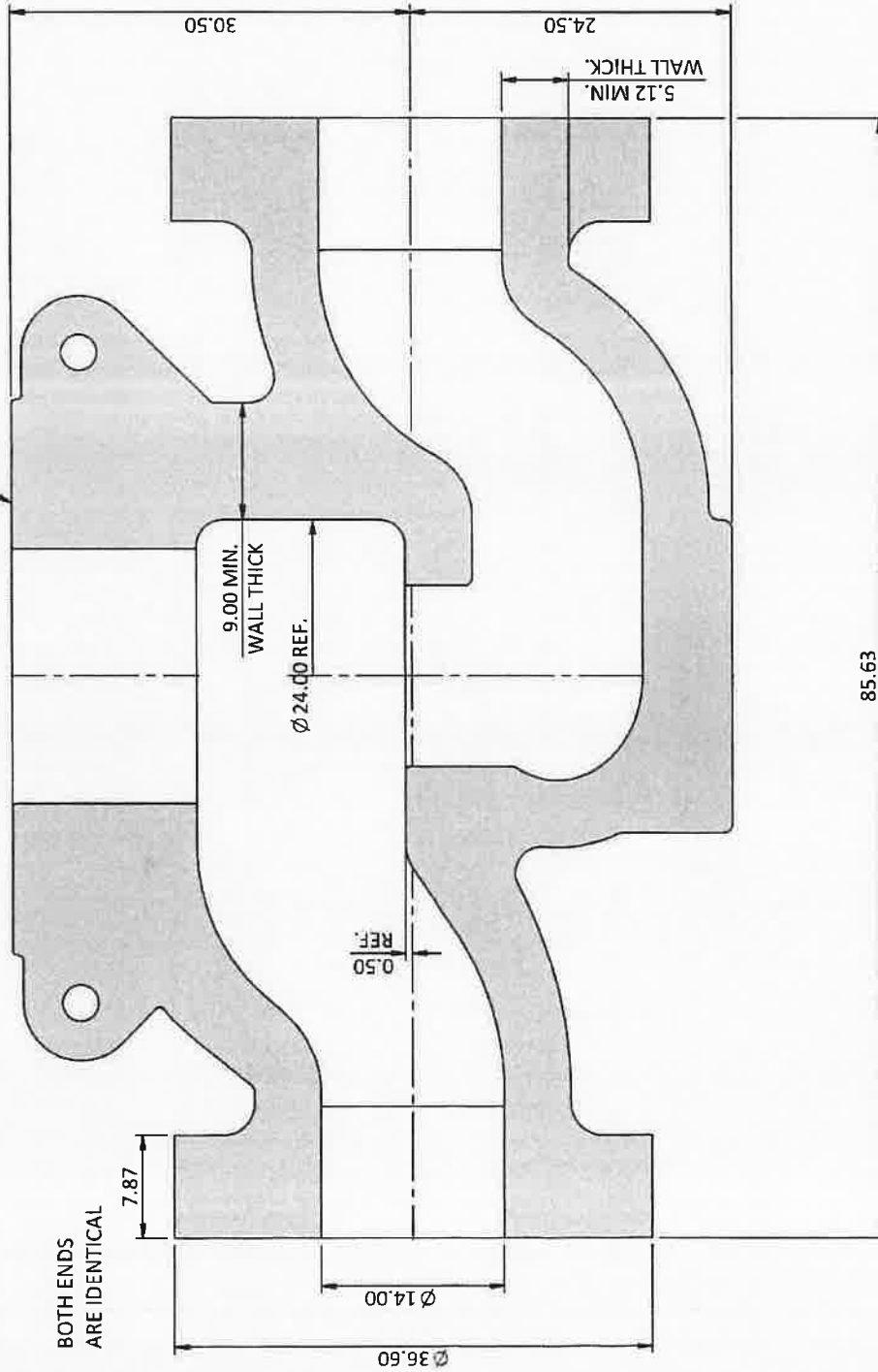


IF IN DOUBT ASK

DO NOT SCALE THIS PRINT

NOTES:

1. GENERAL CASTING RADII TO BE 0.25"
2. ALL DIMENSIONS SHOWN ARE MINIMUM METAL REQUIREMENTS.
3. CASTING PRODUCED MUST CONFORM TO THE REQUIREMENTS STATED WITHIN THE PTS AS A MINIMUM
4. ALL EXTERNAL DIMENSIONS TO BE $\pm 0.08"/\pm 0.00"$
5. ALL INTERNAL DIMENSIONS TO BE $\pm 0.08"/\pm 0.00"$
6. MAXIMUM PERMISSIBLE CORE SLIP (MIS-ALIGNMENT) = 0.12"
7. LOGO & LETTERING TO BE RAISED PROFILE
8. MARKINGS STRICTLY IN ACCORDANCE WITH MSS-SP 25
9. WALL THICKNESS SPECIFIED ARE MINIMUMS

FOR OTHER DIMENSIONS
REFER 130177

SELVAKUMAR S.
Assistant Manager - Product Engg & Design
Severn Glocon India Pvt Ltd,
F&B & 97, SIPCOT Industrial Park,
Irungattukottai - 602 117

APPROVED
105143 1283
Date: 17.03.2020



SHEET NO: 1 OF 1

SEVERN
GLOCON GROUP PLC
O. YMPUS PARK, QUEDGELEY,
GLOUCESTER, G12 4NF,
UNITED KINGDOM.
TEL: +44 (0)845 223 2040

THIS DRAWING IS THE PROPERTY OF SEVERN GLOCON LIMITED AND
MUST NOT BE USED IN ANY WAY DETRIMENTAL TO THEIR INTERESTS

UNLESS OTHERWISE STATED

X ± 0.06 ALL DIMENSIONS IN INCHES
XX ± 0.02 REMOVE SHARP EDGES 125
XXX ± 0.005 ALL MACHINED SURFACES
ANGULAR ± 0.5°

SEVERN
GLOCON - INDIA
F-96&97, SIPCOT INDUSTRIAL PARK,
IRUNGATTUKOTTAI, SRIPERUMBUDUR,
TAMIL NADU, INDIA.
TEL: +91 (0)44 47104200

TITLE BODY CASTING 20 inch ASME 2500#
GLOBE BUTT WELD END

ISS	NEW	MM	ADK	17.03.2020	DRAWN	DEEPAK	SIZE	SIMILAR TO
1	ECO No	DRN	CKD	DATE	DATE	17.03.2020	A3	201198, 2B99015
CHANGE RECORD								
PERFORM ALL CHANGES ON CAD								
SOLID EDGE								
WEIGHT SCALE NTS								
8738.4 kg								
APPROVED								
DATE 17.03.2020								
SELVA								
2B99051								

DRAWING NO.

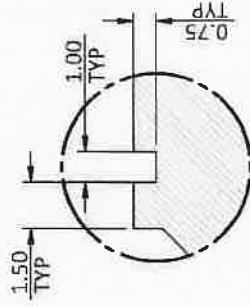
2B01145

THIRD ANGLE PROJECTION



IF IN DOUBT ASK

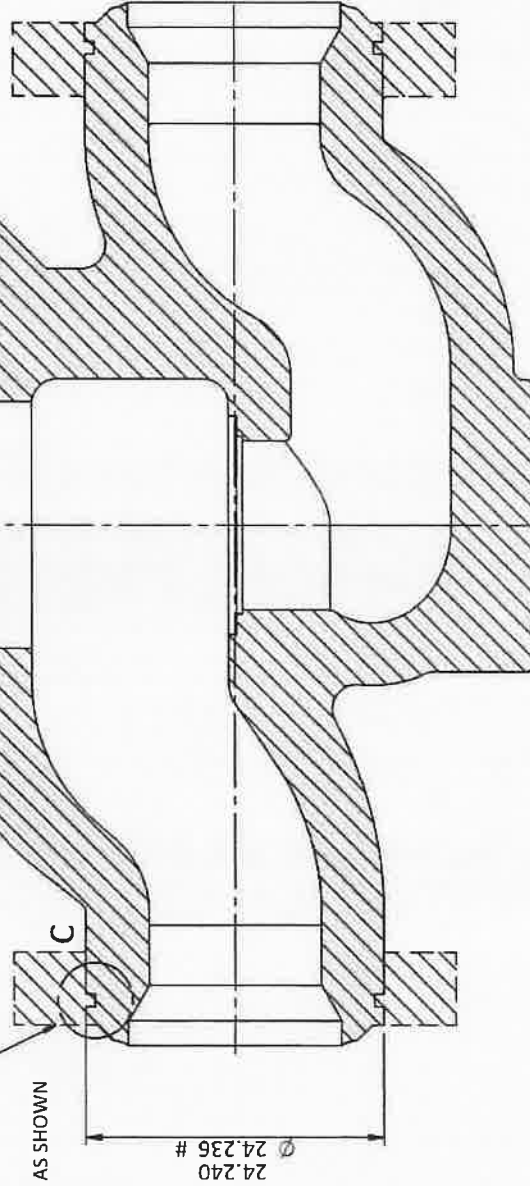
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DETAIL C

AFTER -HYDRO TESTING CUT AND REMOVE
THE FLANGES AS SHOWN

AND MAKE THE GROOVE NECK OD AS SHOWN



SELVAKUMAR S
Assistant Manager - Product Engg & Design
Severn Glocon India Pvt.Ltd.,
Irungattukottai Industrial Park,
Irungattukottai - 602 117

APPROVED

1051431283

Date: 17-03-2020



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UNLESS OTHERWISE STATED

X ± 0.06 ALL DIMENSIONS IN INCHES
.XX ± 0.02 REMOVE SHARP EDGES 1.25
.XXX ± 0.005 ALL MACHINED SURFACES
ANGULAR ± 0.5°

SEVERN
GLOCON INDIA
F-56687, SIPCOT INDUSTRIAL PARK,
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TAMIL NADU, INDIA.
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TITLE		DRAWN		DATE		DATE		DATE		DATE	
1	NEW	MM	ADK	17.03.2020	DATE	17.03.2020	DATE	17.03.2020	DATE	17.03.2020	DATE
ISS	ECO No	DRN	CKD	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHANGE RECORD											
PERFORM ALL CHANGES ON CAD											
SOLID EDGE		WEIGHT		SCALE		APP		DATE		DATE	
		R197.38 kg		N75							

BODY M/C 20" ASME 2500H BWE -120 SCH GLOBE											
SIZE		DEEPAN		DATE		DATE		DATE		DATE	
A3		17.03.2020		17.03.2020		17.03.2020		17.03.2020		17.03.2020	
DRAWING NO		ISS		DATE		DATE		DATE		DATE	
211197.130078		1		17.03.2020		17.03.2020		17.03.2020		17.03.2020	
DRAWING NO		ISS		DATE		DATE		DATE		DATE	
2B01145		1		17.03.2020		17.03.2020		17.03.2020		17.03.2020	

