




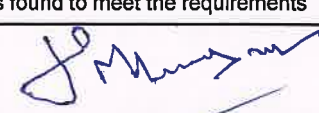




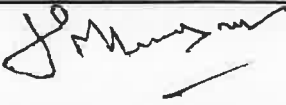


2009651 7968113

	VINAYAKA ELECTRO ALLOYS (I) PVT LTD 2/27A, CHENNIMALAI ROAD, NEAR POWER HOUSE, INGUR, PERUNDURAI-638058, ERODE DT. Phone: 04294-230789, Fax: 04294-230609, E-Mail: lab@vinayaka.co, website : www.vinayaka.co											ISO 9001 - 2015 Certified By TUV NORD			
	MATERIAL TEST CERTIFICATE FORM III F Certificate of Manufacture and Testing of Castings - Regulations 73 - 80														
Customer : SEVERN GLOCON INDIA PRIVATE LIMITED											T.C. No : C1465/CUS-3				
											T.C. Date : 30/07/2020				
P.Order : PO2000494 Dt. 03/05/2020											Heat No : C1465				
											Pour Date : 15/05/2020				
Specification : ASTM A216-2018 Gr.WCB/WCC											CASTING PROCESSED BY INDUCTION MELTING				
											FOUNDRY IDENTIFICATION : VEA				
CHEMICAL COMPOSITION %															
Element	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V	Ceq	Res			
Minimum	---	---	---	---	---	---	---	---	---	---	---	---			
Maximum	0.220	1.280	0.600	0.030	0.025	0.300	0.500	0.500	0.200	0.030	0.420	1.000			
Actual	0.181	0.910	0.370	0.021	0.009	0.030	0.120	0.340	0.010	0.002	0.413	0.502			
HEAT TREATMENT : Normalized, Heated to 920°C Soaked for 5 hrs and atmospheric air cooled															
Cycle No: 8894 Dt 22.05.2020															
MECHANICAL PROPERTIES															
Requirements	Yield Strength		Tensile Strength		% Elongation	% Reduction	Hardness	Bend Test	Impact Test in (J)						
	Ksi	Mpa	Ksi	Mpa	GL : 50 mm	In Area	HBW	At 120 ° D=3t	(10mm X 10mm X 55mm)						
	0.2 % Rp		---		---	---	---	---							
Minimum	40	275	70	485	22	35	---	---							
Maximum	---	---	95	655	---	---	200	---	1	2	3	Avg			
Actual	48.51	334.49	79.19	546.01	31.84	64.31	152	PASSED	---	---	---				
ITEM DESCRIPTION															
SL.No	Description					Drawing No.		Part No.		T.D.C No		Quantity			
1	18" 300# BODY CASTING DF BODY SHORT					2S1A074 ISS2		2S1A074-C1020-IBR1		RM001 Iss.1		1			
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>  </div> <div> REVIEWED & ACCEPTED SIGN / DATE A. THANGAM 19/6/20 </div> <div>  </div> </div>															
Remarks : Visual inspection as per MSS SP-55 Type II-XII a & ASME Sec V Article 9 & SGI/OP/130 - Satisfactory. Castings are free from radioactive contamination / radiation. Confirms to NACE MR0175/ISO15156 & NACE MR0103/ISO17945 Carbon Steel fully Killed and fine grained No major weld repair has been carried out on the castings. Dimension confirmed as per drawing															
We Confirm that the material was manufactured sampled, tested & inspected in accordance with the TDC, drawings, customer order requirements, material specification ASTM A216 Gr WCB / WCC & Indian Boiler Regulation 1950 and was found to meet the requirements															
 A. Rakkiyannan - QA / QC Manager Maker's Representative										 T. Magudeeswaran - Production Manager Maker					
Well known Foundry under IBR 1950 upto 2100 Kgs / piece. CBB No. 372 - Dt. 05th Sep 2016, Valid upto 09th June 2021															

8022-003-001

2009651, T9651/13

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Minimum	—	—	—	—	—	—	—	—	—	—	—	—		
Maximum	0.220	1.280	0.600	0.030	0.025	0.300	0.500	0.500	0.200	0.030	0.420	1.000		
Actual	0.181	0.910	0.370	0.021	0.009	0.030	0.120	0.340	0.010	0.002	0.413	0.502		
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Requirements	Yield Strength		Tensile Strength		% Elongation	% Reduction	Hardness	Bend Test	Impact Test In (J)					
	Ksi	Mpa	Ksi	Mpa	GL : 50 mm	In Area	HBW	At 120 ° D=3t	(10mm X 10mm X 55mm)					
	0.2 % Rp		—		—	—	—	—	—					
Minimum	40	275	70	485	22	35	—	—	—					
Maximum	—	—	95	655	—	—	200	—	1	2	3	Avg		
Actual	48.51	334.49	79.19	546.01	31.84	64.31	152	PASSED	—	—	—			
ITEM DESCRIPTION														
SL.No	Description					Drawing No.		Part No.		T.D.C No		Quantity		
1	18" 300# BODY CASTING DF BODY SHORT					2S1A074 ISS2		2S1A074-C1020-IBR1		RM001 Iss.1		1		
							REVIEWED & ACCEPTED SIGN / DATE A. THANGAM							
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Well known Foundry under IBR 1950 upto 2100 Kgs / piece. CBB No. 372 - Dt. 05th Sep 2016, Valid upto 09th June 2021														

SGI/IBR-293

TABLE 1: PARTS LIST

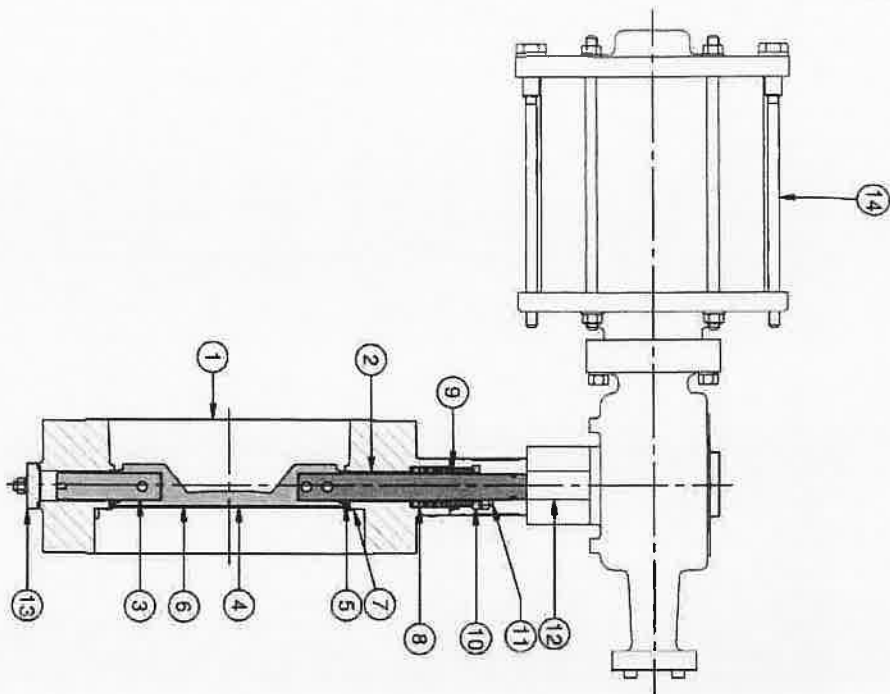
ITEM NO	TITLE	MATERIAL	QTY	ITEM NO	TITLE	MATERIAL	QTY
1	BODY	ASTM A216 WCC	1	9	GLAND FOLLOWER	316 SS	1
2	BEARING	Metel Polymer (DU Bush)	2	10	GLAND FLANGE	316 SS	1
3	SHAFT	17-4 PH	2	11	GLAND STUD / NUT	316 SS	2
4	DISC	316 SS	1	12	COUPLING	316 SS	1
5	GASKET	Spiral Wound SS316L/Graphite	1	13	COVER PLATE	316 SS	1
6	SEAT	Metel (316 SS)	1	14	ACTUATOR	Carbon Steel	1
7	SEAT RETAINER	316/ 316L	1	15			
8	PACKING	Graphite	1	16			

TABLE 2: PRESSURE TEMPERATURE CHART

Temperature °C	Working Pressure for 300# WCC Kg/Cm ² (g)	Hydro Pressure Kg/Cm ² (g)
-29 to 38	52.7	80
100	52.5	*
150	51.2	*
200	49.6	*
250	47.2	*
300	43.7	*
350	40.8	*
375	38.5	*
400	35.4	*

TABLE 3: DRAWING DETAILS

Body Casting No	251A074
Body Machining No	8A01074



- NOTES :
1. DESIGN,MANUFACTURING,INSPECTION ARE AS PER IBR 1950.
 2. ALL DIMENSIONS ARE IN INCHES
 3. STRESS RELIEVING HEAT TREATMENT SHALL BE PERFORMED AS PER IBR 1950.



GENERAL ARRANGEMENT DRAWING



SELVAKUMAR S
Assistant Manager - Product Engg & Design
Severn Glocon India Pvt.Ltd.
F96 & 97, SIPCOT Industrial Park,
Irungatikottai - 602 117.

APPROVED
1051411293
Date : 06.05.2020



CHANGE RECORD

ISS NO	ECO No.	DATE	DRAWN	CHECKED	APPROVED
1	NA	18.04.2020	IGWTHM	DEEPAN	SELVA

DRAWING NO
DESCRIPTION

SGI/IBR-293

18" 300# RF Butterfly Dbl Flange Assembly

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

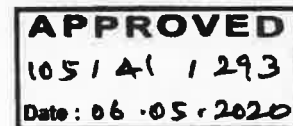
C = Minimum Positive Tolerance for cast Steel = 5 mm

Chest Diameter 500.0 mm

Temp	Working Pressure for WCC in	Allowable Strees Value f in	Shell Thickenss T	Thickness as per drawing in
°C	Kg/cm ² (g)	(Kg/cm ²)	(mm)	mm
38	52.7	11.26	16.4	30.0
100	52.5	11.26	16.4	30.0
150	51.2	11.26	16.1	30.0
200	49.6	11.26	15.8	30.0
250	47.2	11.26	15.3	30.0
300	43.7	11.26	14.5	30.0
350	40.8	11.01	14.1	30.0
375	38.5	10.03	14.4	30.0
400	35.4	8.24	15.5	30.0

Valve Size : 18"
Drawing No : 2S1A074
IBR No : 293
Description : Body 18inch 300# Flanged

Rating : 300 #



For Severn Glocon India Pvt Ltd,

Selvakumar.S
Selvakumar.S
Assistant Manager - Product Engineering & Design



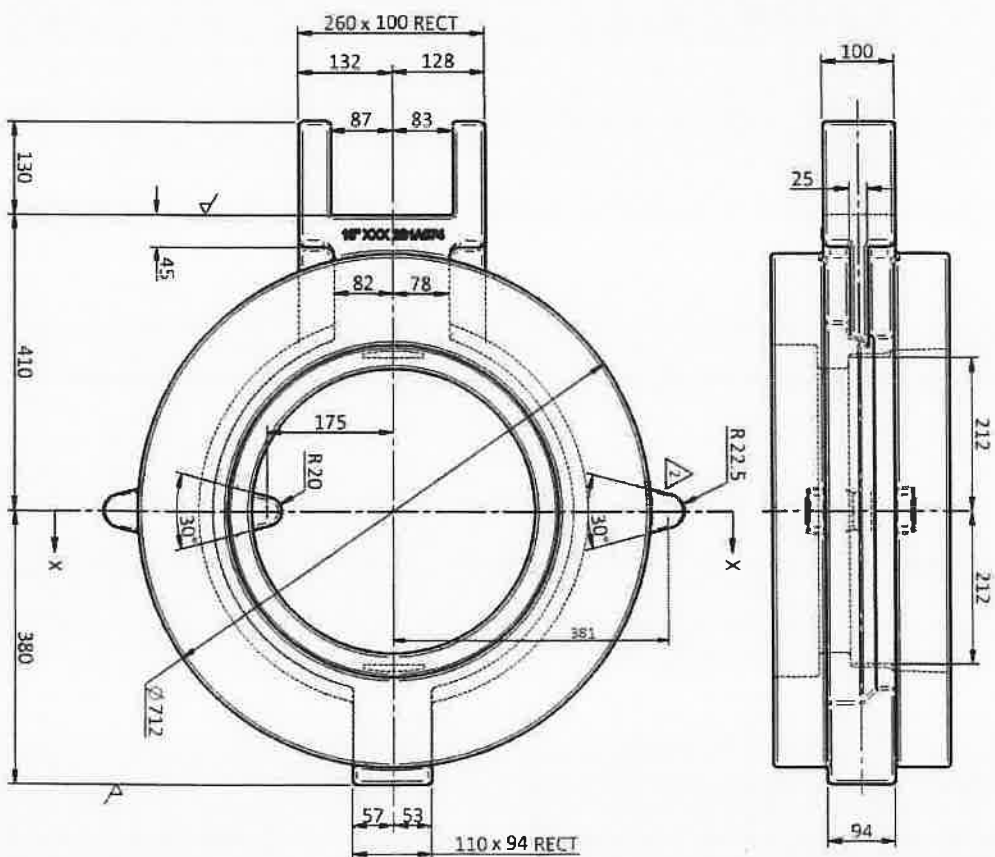
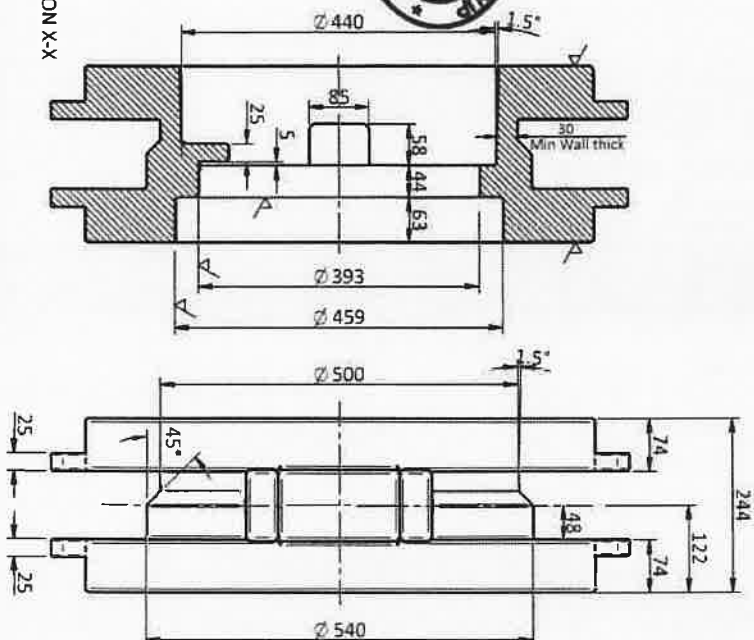
John King

Address: Michigan, Portland, Oregon 97201
 E-mail: edward.henry@portlandia.com
 Phone: 503-253-2211
 Fax: 503-253-2211
 Internet: <http://www.portlandia.com>

APPROVED
105 / 41 / 293
Date: 06.05.2020



SECTION X-X



NOTE:

- 1) Foundry identification, Part Number, Heat Number, Material Grade must be placed here by either cast form / low stress stamped
- 2) This Drawing shows the casting exactly as required in its rough condition
- 3) No additional allowances to be made for machining
- 4) We will be machining on surfaces marked ✓



SEVERN
GLOCON GROUP PLC

OLYMPUS PARK, QUEDEGELEY
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. ±1.50 ALL DIMENSIONS IN MM

.X ±0.50 REMOVE SHARP EDGES

ALL MACHINED SURFACES

ANGULAR $\pm 0.5^\circ$

ALL DIMENSIONS IN MM
REMOVE SHARP EDGES
ALL MACHINED SURFACES

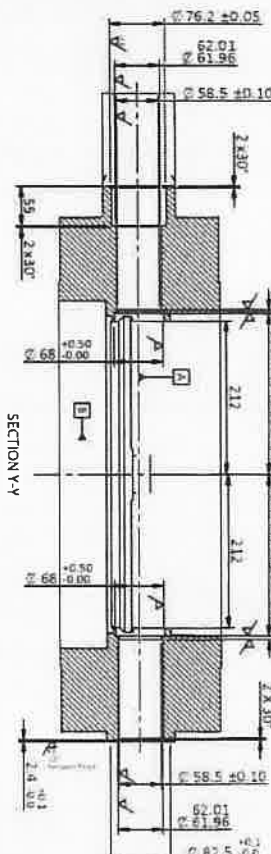
3.2 Δ



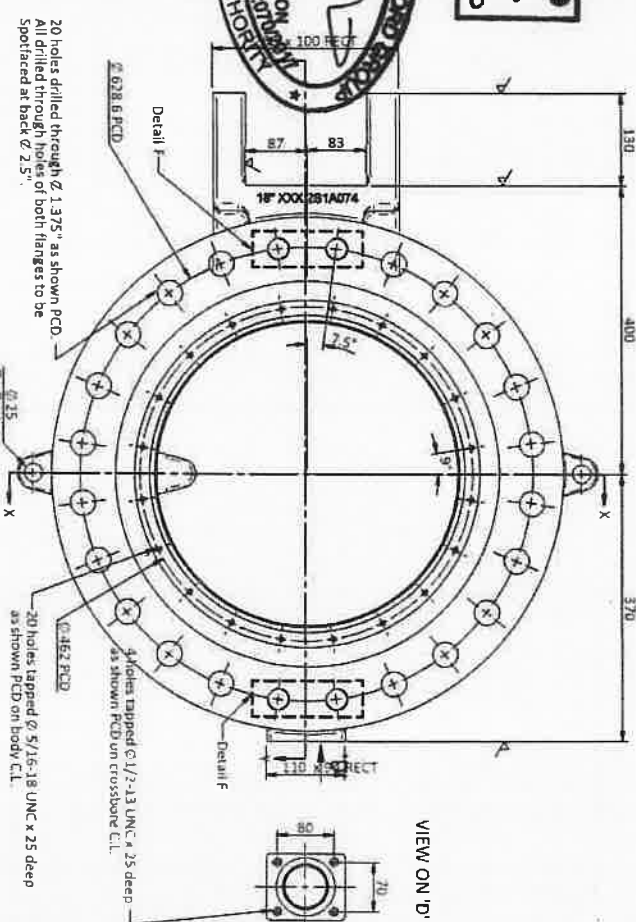
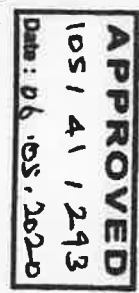
SEVERN
GLOCON • INDIA

F-98887, SIPCOT INDUSTRIAL PARK,
IRUNGATTUKOTTAI, SRIPERUMBUDUR
TAMIL NADU, INDIA.
TEL: +91 (0)44 47104200

[illegible]



John Long



Detail F
4 holes tapped $\varnothing 1\frac{1}{4}$ - 8 UN x 32 deep
drilled flat bottom off ctrs. as shown P.C.D.

SEE 351A074 FOR CASTING

Body M/c, 18in 300#, DF, RF

				TITLE
1	NEW	SN	VSP	02 04 2020

F-96A97, SIPCOT INDUSTRIAL PARK,
IRUNGATTUKOTTAI, SRIPELUMBUDUR
TAMIL NADU, INDIA.

SGI/FA/DE/005D - 166 3

				TITLE	
				Body M/c, 18in 300#, DF, RF	
1	NEW	S/N	V/P	DRAWN	SUNDARA
ISS	EEO No.	DBN	CKD	ISS DATE	DATE
					02.04.2020
CHANGE RECORD					
PERFORM ALL CHANGES ON CAD					
				CHECKED	SIVA
				DATE	02.04.2020
SOLID EDGE		WEIGHT	SCALE	APPROVED	SEIVA
		291.027 kg	NITS	DATE	02.04.2020
				SIZE	A3
				DRAWING NO	ISS
					1
					8A01074