

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1 Page 1 of 2

1. Manufactured and certified by Sewon Cellontech Co., Ltd. 211, Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do 642-370
Republic of Korea
(Name and address of Manufacturer)

2. Manufactured for _____
(Name and address of Purchaser)

3. Location of installation _____
(Name and address)

4. Type Horizontal D0644-07 W9916.2 D0644-3AV3173-D-01 Rev.<4> 1003 2015
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2010 Ed.
Year N/A
to 2011 Add. (July, 01, 2011) N/A
(Addenda, if applicable (date)) (Code Case number) (Special service per UG-120(d))

6. Shell: SA516-70N 10mm 1.6mm 609.6mm 4877mm
(Material Spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))

7. Seams: Sngl., Butt (Type 1) SPOT 85 - Sngl., Butt (Type 1) SPOT 85 2
(Long. (Welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (H.T. Temp.) (Time, hr) (Girth (Welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (No. of Courses)

8. Head: (a) Material SA516-70N, Seamless (b) Material SA516-70N, Seamless
(Spec. no., grade) (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	8.5mm	1.6mm	-	-	2:1	-	-	-	Convex/Concave
(b)	End	8.5mm	1.6mm	-	-	2:1	-	-	-	Convex/Concave

If removable, bolt used (describe other fastenings) N/A
(Material Spec. number, grade, size, number)

9. MAWP 1782 kPag 103 kPag at max. temp. 93 °C 93 °C
(Internal) (External) (Internal) (External)

Min. design metal temp. -45 °C at 1782 kPag Hydro, pneu., or comb. test pressure 2549.73 kPag
Proof test N/A

10. Nozzle, inspection and safety valve openings: (See attached form U-4)

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
VENT CONNECTION, GLYCOL FILL UP (N1,N2)	2	NPS 2	Cl.150 lwn.	SA350-LF2 CL.1	SA350-LF2 CL.1	13.45mm	1.6mm	Inherent	Fig.UW-16.1 (c)	Integral	-
DRAIN (N3)	1	NPS 2	Cl.150 lwn.	SA350-LF2 CL.1	SA350-LF2 CL.1	13.45mm	1.6mm	Inherent	Fig.UW-16.1 (c)	Integral	-

11. Supports: Skirt N/A Lugs N/A Legs N/A Others 2-Saddles Attached Welded to Shell
(Yes or no) (Number) (Number) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: _____
(Name of part, item number, Manufacturer's name and identifying stamp)

- Item No. : 3A-V-3173, Sewon Job No. : D-0644
 - Overpressure protection is provided by others.
 - Impact test for all pressure parts was exempted in accordance with UCS-66(a),(c) and Fig. UCS-66 General Notes(c).
 - Pressure retaining cover
- N6A/B: 4" ASME 150# BL'D. RF, SA350-LF2 CL.1, Stud B/ Heavy Hex.2NS, SA320-L7M/SA194-7M, U5/8-11UNCx100L(mm), 8Sets/each.

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 22125
Expires Aug. 25, 2017
Date Nov. 03, 2015 Co. name Sewon Cellontech Co., Ltd. Signed J.H. Kim
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Sewon Cellontech Co., Ltd. at #211, Gongdan-ro, Sungsan-gu, Changwon-si, Gyeongsangnam-do 642-370 Republic of Korea
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of OHIO and employed by HSB Global Standards
have inspected the component described in this Manufacturer's Data Report on Feb. 6, 2015, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Date Nov. 3, 2015 Signed JH Commissions NB # 14376 (A, N)
(Authorized Inspector) (National Board (incl. endorsements))

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1 **Page 2 of 2**

1. Manufactured and certified by Sewon Cellontech Co., Ltd. #211, Gongdan-ro, Sungsan-gu, Changwon-si, Gyeongsangnam-do 642-370
 Republic of Korea
(Name and address of Manufacturer)

2. Manufactured for _____
(Name and address of Purchaser)

3. Location of installation _____
(Name and address)

4. Type Horizontal Tank D0644-07
(Horizontal, vertical, or sphere) (Tank, separator, heat exch., etc.) (Manufacture's serial number)

W9916.2 D0644-3AV3173-D-01 Rev.<4> 1003 2015
(CRN) (Drawing number) (National Board number) (Year built)

Data Report
 Item Number

10. Nozzle, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
LEVEL TRANSMITTER AND LEVEL GUAGE (N4A/B)	2	NPS 3	Cl.150 flg.	SA333-6	SA350-LF2 CL.1	11.13mm	1.6mm	Inherent	Fig.UW-16.1 (c)	Butt (Type1), None	-
PROCESS IN/OUTLET (N5)	1	NPS 10	Cl.150 flg.	SA333-6	SA350-LF2 CL.1	15.09mm	1.6mm	SA516-70N	Fig.UW-16.1 (c)	Butt (Type1), None	-
INSPECTION OPENINGS C.W (W/B.F) (N6A)	2	NPS 4	Cl.150 flg.	SA333-6	SA350-LF2 CL.1	11.13mm	1.6mm	SA516-70N	Fig.UW-16.1 (c)	Butt (Type1), None	Shell
INSPECTION OPENINGS C.W (W/B.F) (N6B)	2	NPS 4	Cl.150 flg.	SA333-6	SA350-LF2 CL.1	11.13mm	1.6mm	SA516-70N	Fig.UW-16.1 (c)	Butt (Type1), None	Head

Certificate of Authorization : Type U No. 22125 Expires Aug. 25, 2017

Date Nov. 03, 2015 Name Sewon Cellontech Co., Ltd. Signed J.H. Kim
(Manufacturer) (Representative)

Date Nov. 3, 2015 Name [Signature] Commissions NB #14376 (A, N)
(Authorized Inspector) [National Board (incl. endorsements)]