

**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**

1. Manufactured and certified by Melco Steel, Inc.  
Melco Steel, Inc. 1100 W. Foothill Blvd., Azusa, CA 91702  
(Name and address of Manufacturer)
2. Manufactured for AquaHydrex, Inc. 1797 Boxelder Street, Louisville, CO 80027  
(Name and address of Purchaser)
3. Location of installation Unknown  
(Name and address)
4. Type Horizontal 4484 n/a 4484-01-V, Rev 1 1623 2021  
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Div. 1 2019 - No Addenda n/a n/a  
[Edition and Addenda, if applicable (date)] (Code Case number) [Special service per UG-120(d)]
6. Shell SA 516 Gr70 7/8" 0" 4' - 6" 5' - 0"  
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))

Body Flanges on Shells													
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

7. Seams Type 1 spot 0.85 n/a n/a Type 1 spot 0.85 1  
(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. Heads: (a) Material SA 516 Gr70 (b) Material SA 516 Gr70  
(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	0.75"	0"	n/a	n/a	2:1	n/a	n/a	n/a	Concave
(b)	End	0.75"	0"	n/a	n/a	2:1	n/a	n/a	n/a	Concave

Body Flanges on Heads													
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
(a)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
(b)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

9. MAWP 500 psi 14.7 psi at max. temp. 200 °F 200 °F  
(Internal) (External) (Internal) (External)

Min. design metal temp. 2 °F at 500 psi. Hydro., pneu., or comb. test pressure 650 psi.

Proof test n/a.

10. Nozzles, 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	
Misc.	2	1/2"	CPLG	SA 105	n/a	3000#	0"	n/a	16.1 y-2	n/a	Shell
Misc.	1	24"	CI 600	SA 106B	SA 105	0.969"	0"	SA 516 Gr70	16.1 h	CAT C	Head
Misc.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

11. Supports: Skirt No Lugs 0 Legs 0 Other Two Saddles Attached Welded- 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: Autoclave furnished with Harris Quick Opening Door(SA 266 Gr. 4 & SA 516 Gr70). Safety device per UG-35.2. Loadings per  
(Name of part, item number, Manufacturer's name and identifying stamp)

UG-22 (c)-(h) by others. Impact test exempt per UCS-66b. Safety Relief Valve by others. Misc. Brackets are SA 36. Autoclave Vessel.

## FORM U-1A

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Manufactured by Melco Steel, Inc.  
Manufacturer's Serial No. 4484 CRN n/a National Board No. 1623

## CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made 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 11,143 expires March 23, 2022.

Date 4/20/21 Co. name Melco Steel, Inc. Signed [Signature]  
(Manufacturer) (Representative)

## CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Melco Steel, Inc. at 1100 W. Foothill Blvd., Azusa, CA 91702.  
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by DOSH - CA of State of California

have inspected the component described in this Manufacturer's Data Report on APRIL 20, 2021, 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 APRIL 20, 2021 Signed [Signature] Commissions 16295 CA: 2257  
(Authorized Inspector) (National Board Authorized Inspector Commission number)