



VERTICAL OR HORIZONTAL CRYOGENIC VESSEL (U-MODEL) STANDARD SIZE



Available in vertical or horizontal configuration incorporating the following standard manufacturing features:

Design code

- Inner Vessel : ASME SECTION VIII DIV.1 2015 latest Edition (APPENDIX 44 : Cold Stretching)
- Inner Vessel : AS1210-2010 Class 1S
- Outer Vessel : ASME SECTION VIII DIV.1 2010 latest Edition
- Outer Vessel : AS1210-2010 Class 3

Insulation : Evacuated Perlite

- Typical Vacuum Level :
Ambient condition: Maximum 50 microns
Cold shock Condition : 20-30 microns
- Two years warranty for General structure and three years warranty for vacuum insulation.

Content services

- Liquid Oxygen (LOX)
- Liquid Nitrogen (LIN)
- Liquid Argon (LAR)
- Liquefied Natural Gas (LNG)
- Liquid Carbon dioxide (LCO₂)

NDE

- 100% RT for Inner Vessel
- Helium Leak Test
- Vacuum Test
- Hydrostatic Test

Safety

- Dual safety relief valve system with Burst disc.

Optional

- ASME "U" / AI (if require)
- Make to order as per non standard size

VERTICAL SPECIFICATION at MAWP 1700 kPa @ MDMT -196 °C

MODEL	GROSS CAPACITY		NET CAPACITY @ 90 %		OUTER DIMENSION (mm)		TARE WEIGHT	MATERIAL	
	Ltrs	US Gal	Ltrs	US Gal	Diam.	TL-TL Height	kgs	Inner Vessel	Outer Vessel
U-3000	3,247	859	2,922	773	1,600	3,500	3,155	SA240 TP304	SA283 Gr.C or Eq.
U-6000	6,615	1,750	5,954	1,575	1,300	5,100	5,371	SA240 TP304	SA283 Gr.C or Eq.
U-10000	11,614	3,072	10,453	2,765	2,000	6,150	6,436	SA240 TP304	SA283 Gr.C or Eq.
U-20000	19,699	5,211	17,729	4,690	2,400	7,150	12,629	SA240 TP304	SA283 Gr.C or Eq.
U-30000	30,256	8,004	27,230	7,204	2,400	7,150	16,402	SA240 TP304	SA283 Gr.C or Eq.
U-50000	51,346	13,584	46,211	12,225	2,400	10,950	26,024	SA240 TP304	SA283 Gr.C or Eq.

V1 - TOP FILL VALVE
V1A - TOP FILL ISOLATION VALVE
V2 - BOTTOM FILL VALVE
V3 - FULL TRYLOCK VALVE
V4 - GAS VENT VALVE
V5 - P.B.INLET VALVE & FILL ISOLATION
V6 - P.B.OUTLET VALVE
V7 - LIQUID WITHDRAWAL VALVE
V8 - LEVEL GAUGE VALVE (LIQUID PHASE)
V9 - LEVEL GAUGE VALVE (GAS PHASE)
V10 - EQUALIZATION VALVE
V11 - FIWNG NOSE DRAIN VALVE
V12 - THREE WAY VALVE
V13 - ECONOMIZER VALVE
V17 - VACUUM GAUGE VALVE
PI - PRESSURE INDICATOR
LLI - LIQUID LEVEL INDICATOR
PSV-1A - PRESSURE SAFETY VALVE VESSEL
PSV-1B - PRESSURE SAFETY VALVE VESSEL
PSV-2 - LIQUID LOCK FOR REUEF VALVE
PSV-3 - LIQUID LOCK FOR RELIEF VALVE
PSV-4 - LIQUID LOCK FOR RELIEF VALVE
PSV-5 - LIQUID LOCK FOR REUEF VALVE

PSV-6 - LIQUID LOCK FOR RELIEF VALVE
PSE-1A - BURSTING DISC (INNER VESSEL)
PSE-1B - BURSTING DISC (INNER VESSEL)
JR1 - JACKET RELIEF VALVE (OUTER VESSEL)
PCV-1 - PRESSURE CONTROL VALVE (PRESSURE BUILDING)
PCV-2 - PRESSURE CONTROL VALVE (ECONOMIZATION)
PRE-1 - PRESSURE RAISING EVAPORATOR
S1 - STRAINER
CV2 - ECONOMIZER CHECK VALVE
FCV-1 - FIWNG CHECK VALVE
VP1 - VACUUM PORT EVACUATION
C1 - LIQUID PHASE AUXIRIARY CAP.
C2 - GAS PHASE AUXIRIARY CAP.
VR1 - VACUUM READING

Flow Diagram

