

**FORM U-DR-1 USER'S DESIGN REQUIREMENTS FOR SINGLE CHAMBER PRESSURE VESSELS**

Owner:		Operator:		Country of Installation:		State/Province of Installation:		City of Installation:									
Service:			Liquid Level: _____ Specific Gravity: _____			Item No.:											
Diameter (in.):			Length, Tangent-to-Tangent:			Type: Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Sphere <input type="checkbox"/>											
National Board Registration Required: Yes <input type="checkbox"/> No <input type="checkbox"/>		Canadian Registration Required: Yes <input type="checkbox"/> No <input type="checkbox"/>		Special Service: Lethal (L) <input type="checkbox"/> Direct Firing (DF) <input type="checkbox"/> Unfired Steam Boiler (UB) <input type="checkbox"/>			Overpressure Protection: Valve <input type="checkbox"/> Rupture Disk <input type="checkbox"/> Other <input type="checkbox"/> System Design <input type="checkbox"/>										
<b>OPERATING CONDITIONS:</b>			Minimum Pressure		Maximum Pressure		Minimum Temperature		Maximum Temperature								
Case 1																	
Case 2																	
<b>DESIGN CONDITIONS:</b>			Pressure				Temperature										
Internal Design Pressure:																	
External Design Pressure:																	
MAWP Internal:			Same as Design Pressure <input type="checkbox"/>			Calculated by Manufacturer: <input type="checkbox"/>											
MAWP External:			Same as Design Pressure <input type="checkbox"/>			Calculated by Manufacturer: <input type="checkbox"/>											
Minimum Design Metal Temperature (MDMT) – Case 1			Deg @				Due to: Process <input type="checkbox"/> Other <input type="checkbox"/> Ambient Temperature <input type="checkbox"/>										
Minimum Design Metal Temperature (MDMT) – Case 2			Deg @				Due to: Process <input type="checkbox"/> Other <input type="checkbox"/> Ambient Temperature <input type="checkbox"/>										
Corrosion Allowance:		Shell		Heads		Nozzles		Jacket		Coil		Supports		Internals		Corrosive Service?	
		Int. Ext.		Int. Ext.		Int. Ext.		Int. Ext.		Int. Ext.		Int. Ext.				Yes No <input type="checkbox"/> <input type="checkbox"/>	
Cyclic Service: Yes <input type="checkbox"/> No <input type="checkbox"/>		_____ Cycles per _____				Design Life _____ years				Fatigue Analysis? Yes <input type="checkbox"/> No <input type="checkbox"/>							
Wind Loading: ASCE 7 <input type="checkbox"/>		UBC <input type="checkbox"/>		IBC <input type="checkbox"/>		Other <input type="checkbox"/> None <input type="checkbox"/>		Wind Speed		Classification Category		Exposure Category		Topographic Factor		Elevation	
Seismic Loading: ASCE 7 <input type="checkbox"/>		UBC <input type="checkbox"/>		IBC <input type="checkbox"/>		Other <input type="checkbox"/> None <input type="checkbox"/>		Soil Profile Classification: _____			PWHT: Per Code <input type="checkbox"/> Process Required <input type="checkbox"/>		Other Loadings per UG-22: Temp. Gradients <input type="checkbox"/> Deflagration <input type="checkbox"/> Diff. Thermal Exp. <input type="checkbox"/>				
Insulated: Yes <input type="checkbox"/> No <input type="checkbox"/>		By Manufacturer <input type="checkbox"/>		By Others <input type="checkbox"/>		Type		Thickness		Density		Coating Specification _____					
						External _____		Internal _____				Permitted Prior to Pressure Test Yes <input type="checkbox"/> No <input type="checkbox"/>					
Vessel Support: Legs <input type="checkbox"/> Skirt <input type="checkbox"/> Lugs <input type="checkbox"/> Saddles <input type="checkbox"/>						Fireproofing: Yes <input type="checkbox"/> No <input type="checkbox"/>		Type:		Rating (hr):							
<b>MATERIALS</b>																	
Component		Specification				Component		Specification									
Shell						Ellipsoidal Head											
Hemispherical Head						Torispherical Head											
Toriconical Head						Conical Head											
Nozzles						Flanges											
Stiffener Rings						Pressure Retaining Bolts											
Attachments						Internals											
Reinforcing Pads						Other _____											
<b>NOZZLE SCHEDULE</b>																	
Description		Number Required	Size	Flange Type	Class	Description		Number Required	Size	Flange Type	Class						

**FORM U-DR-1 (Back)**

<b>WELDED PRESSURE JOINT REQUIREMENTS</b>				
DESIGN BASIS:	SHELL AND CONE THICKNESS BASED ON: JOINT EFFICIENCY $E =$ _____		HEAD THICKNESS BASED ON: JOINT EFFICIENCY $E =$ _____	
JOINT LOCATION UW-3		TYPE OF JOINT (Use Types as Described in UW-12)		NDE WITH COMMENTS
Category A				
Category B	Head-to-Shell			
	Other			
Category C	Body Flanges			
	Nozzle Flanges			
Category D				
<b>BODY FLANGE REQUIREMENTS</b>				
Description	Type	Facing/Surface Finish	Gasket Style	Joint Assembly (See ASME PCC-1)
<b>SKETCH</b>				
<b>GENERAL NOTES</b>				
<b>CERTIFICATION</b>				
We certify that the statements made in this form are accurate and represent all details of design as per the user or his designated agent [see U-2(a), Footnote 4]				
Date: _____			Registration Seal (Optional)	
User: _____				
Signed: _____ <span style="display: block; text-align: center; font-size: small;">(Representative)</span>				
Registration Identification: _____ <span style="display: block; text-align: center; font-size: small;">(Optional)</span>				