

TANK TYPE <input checked="" type="checkbox"/> Diaphragm <input type="checkbox"/> Simple PMD <input type="checkbox"/> Complex PMD <input type="checkbox"/> Pressurant <input type="checkbox"/> Composite <input type="checkbox"/> Other	MOUNT TYPE <input type="checkbox"/> Bosses <input type="checkbox"/> Lugs <input type="checkbox"/> Tabs <input type="checkbox"/> Flange <input type="checkbox"/> Strap <input checked="" type="checkbox"/> Standoff	MOUNT LOC <input type="checkbox"/> Polar <input type="checkbox"/> Girth <input type="checkbox"/> Off Axis <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Other...	PMD DEVICE <input type="checkbox"/> Vane <input type="checkbox"/> Channel <input type="checkbox"/> Trap <input type="checkbox"/> Screen <input type="checkbox"/> Sponge <input type="checkbox"/> Other...
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PSI PART NUMBER 80225-1

SIZE 15.38 in ID SPHERE

PSI ANALYSIS Stress Fracture None

TOOLING OWNED BY PSI

APPLICABLE DOCUMENTS Accept Test Procedure 50-000222 Accept Test Plan Qual Test Procedure 50-000184 Qual Test Report 56-000068 Forging Qual Test Plan/Proc. Forging Qual Report Contamination Control Plan QA Program Plan Weld Qualification Report Protoflight Test Proc. Protoflight Test Report Weld Procedure, EB Cleaning Proc., CPP 3441 Pre-Weld Cleaning Proc. 90-000022 Fusion Welding 90-000003 Radiographic Accept Std 90-000004 Radiographic Inspection 90-000006 Radiographic, Fract Crit. Penetrant, Fracture Critical Pre-Pene Etch, Fract Crit. Heat Treat Proc. Identification 90-000047 Stress/Fracture Report Diaph. Matl, Proprietary Diaph. Mixing, Proprietary 90-000087 Acceptance Test Procedure 50-000183 ERNO Equipment Spec EQ-01-6-12 Fluorescent Penetrant 65-000019 Surface Preparation 65-000030	TANK CHARACTERISTICS Note (1) <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>OPER. PRESS</td><td>319 psig</td> <td>TOTAL VOLUME</td><td>1866 ci</td> </tr> <tr> <td>PROOF PRESS</td><td>511 psig</td> <td>PROP. VOLUME</td><td>1375 ci</td> </tr> <tr> <td>CRYO PROOF</td><td>NO</td> <td>MAX DESIGN WT</td><td>8.16 lbs</td> </tr> <tr> <td>BURST PRESS</td><td>682 psig</td> <td>MIN WALL</td><td>0.019 in</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">DIAPHRAGM INFORMATION</td> <td colspan="2" style="text-align: center;">PROGRAM INFORMATION</td> </tr> <tr> <td>DIAPHRAGM P/N</td><td>80-225017-1</td> <td>PROGRAM</td><td>OTS (1), MARECS (2)</td> </tr> <tr> <td>DIAPH MOLD</td><td>T-1647</td> <td>CUSTOMER</td><td>ERNO</td> </tr> <tr> <td>DIAPH GROSS WT</td><td>1.19 lbs</td> <td>CUST P/N</td><td>SK 365-011D</td> </tr> <tr> <td>DIAPH MATL</td><td>AF-E-332</td> <td>CUST INSTALLED DEVICE</td><td>NO</td> </tr> <tr> <td></td><td></td> <td>CUST CONTROLLED DESIGN</td><td>NO</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4" style="text-align: center;">MATERIALS</td> </tr> <tr> <td style="text-align: center;"><u>FORGINGS</u></td> <td style="text-align: center;"><u>FORGING SUPPLIER</u></td> <td colspan="2" style="text-align: center;"><u>COMPOSITE MATL</u></td> </tr> <tr> <td>80-225061-1 (2 EA)</td> <td>ARCTURUS</td> <td style="text-align: center;"><u>WRAP</u></td> <td style="text-align: center;"><u>LINER</u></td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> Aluminum</td> <td><input type="checkbox"/> Steel</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> Titanium</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;"><u>RING FORGINGS</u></td> <td colspan="2" style="text-align: center;"><u>RING DIMENSION</u></td> </tr> <tr> <td>80-225063-1</td> <td>15.63 + 0.12 OD X 14.37 - 0.12 ID x 1.28 + 0.12 LONG</td> <td></td> <td></td> </tr> <tr> <td>80-225065-1</td> <td>9.5 + 0.09 OD X 7.12 - 0.09 ID X 2.2 + 0.09 LONG</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;"><u>TITANIUM TUBE</u></td> <td style="text-align: center;"><u>TUBE DIA.</u></td> <td style="text-align: center;"><u>TRANSITION TUBE</u></td> <td style="text-align: center;"><u>DIA.</u></td> </tr> <tr> <td>80-225015-3 (Prop)</td> <td>.250 OD x .035 Wall</td> <td></td> <td></td> </tr> <tr> <td>80-225080-3 (Pres)</td> <td>.251 ID</td> <td></td> <td></td> </tr> </table>	OPER. PRESS	319 psig	TOTAL VOLUME	1866 ci	PROOF PRESS	511 psig	PROP. VOLUME	1375 ci	CRYO PROOF	NO	MAX DESIGN WT	8.16 lbs	BURST PRESS	682 psig	MIN WALL	0.019 in	DIAPHRAGM INFORMATION		PROGRAM INFORMATION		DIAPHRAGM P/N	80-225017-1	PROGRAM	OTS (1), MARECS (2)	DIAPH MOLD	T-1647	CUSTOMER	ERNO	DIAPH GROSS WT	1.19 lbs	CUST P/N	SK 365-011D	DIAPH MATL	AF-E-332	CUST INSTALLED DEVICE	NO			CUST CONTROLLED DESIGN	NO	MATERIALS				<u>FORGINGS</u>	<u>FORGING SUPPLIER</u>	<u>COMPOSITE MATL</u>		80-225061-1 (2 EA)	ARCTURUS	<u>WRAP</u>	<u>LINER</u>			<input type="checkbox"/> Aluminum	<input type="checkbox"/> Steel			<input type="checkbox"/> Titanium		<u>RING FORGINGS</u>		<u>RING DIMENSION</u>		80-225063-1	15.63 + 0.12 OD X 14.37 - 0.12 ID x 1.28 + 0.12 LONG			80-225065-1	9.5 + 0.09 OD X 7.12 - 0.09 ID X 2.2 + 0.09 LONG			<u>TITANIUM TUBE</u>	<u>TUBE DIA.</u>	<u>TRANSITION TUBE</u>	<u>DIA.</u>	80-225015-3 (Prop)	.250 OD x .035 Wall			80-225080-3 (Pres)	.251 ID			ENVIRONMENTAL TEST <input checked="" type="checkbox"/> Random Vibration <input type="checkbox"/> Sine Vibration <input type="checkbox"/> Acceleration <input type="checkbox"/> Cryogenic <input type="checkbox"/> Pyro Shock <input type="checkbox"/> Acoustic
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Notes:

- (1) Actual burst pressure was 680 psig
- (2) Launch Vehicle = Delta 3914 & Ariane

