

STANDARD CHARACTERISTIC

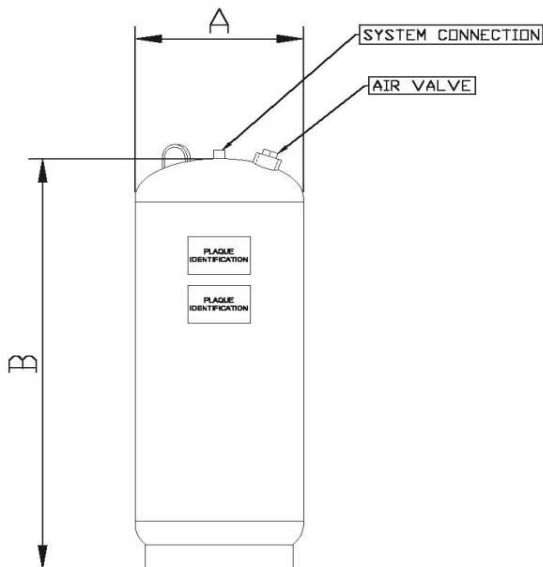
- CONSTRUCTED IN ACCORDANCE WITH THE ASME CODE, SEC VIII 2010 11a, DIV.1, PARAG. UW-12(C)
- CONSTRUCTED IN ACCORDANCE WITH CSA B.51
- DESIGNED PRESSURE : 125 PSI (862 kPa)
- EXTERNAL FINISH : CLEANED WITH SOLVENT AND APPLICATION OF ONE COAT OF GREY PRIMER
- DESIGNED TEMPERATURE : 240 °F (115°C)
- CARBON STEEL CONSTRUCTION
- BUTYL DIAPHRAGM

OPTIONS

- HORIZONTAL WITH STRAPS (CEILING MOUNTING) (suffix C)
- HORIZONTAL WITH SADDLES (FLOOR MOUNTING) (suffix F)
- OTHER DESIGNED PRESSURES (suffix SPE)
- SIGHT GLASS (suffix X)
- EXTERNAL EPOXY FINISH (suffix E)
- ANTI-SEISMIC BRACKETS (suffix AB)

_____ PSI (_____ kPa)

DIMENSIONS



QUANTITY : _____
 MODEL: RD- _____
 OPTIONS (suffix) : _____
 PRECHARGE : _____

MODEL	VOLUME				DIMENSIONS		SYSTEM CONNECTION		WEIGHT	
	TOTAL		ACCEPTANCE		A X B		in.	mm	lbs	kg
	gal.	lts	gal.	lts	in X in	mm X mm				
RD-15V	8	30	4	15	12 X 25	305 X 635	0.5	12,7	60	27
RD-20V	12	45	4	15	12 X 35	305 X 889	0.5	12,7	80	36
RD-40V	25	95	10	38	16 X 34	406 X 863	1	25,4	112	51
RD-60V	35	132	10	38	16 X 46	406 X 1168	1	25,4	145	66
RD-80V	45	170	16	61	20 X 39	508 X 991	1	25,4	165	75
RD-100V	60	227	16	61	20 X 50	508 X 1270	1	25,4	198	90
RD-120V	70	265	39	148	24 X 43	610 X 1092	1	25,4	260	118

PROJECT INFORMATION

REPRESENTATIVE: _____

JOB NAME: _____

TAGGING INFO: _____

ENGINEER: _____

CONTRACTOR: _____

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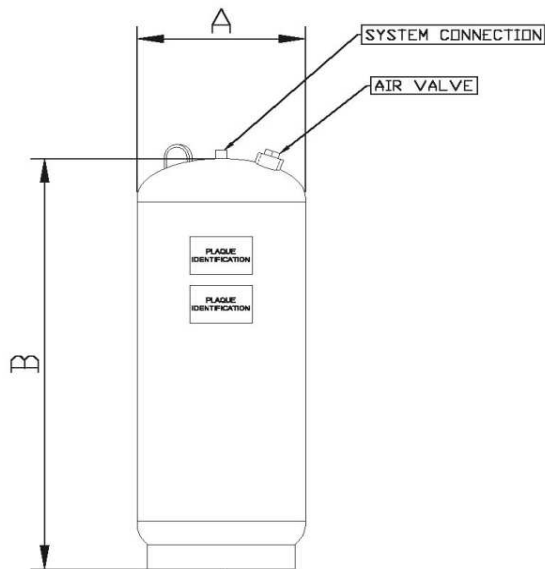
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_____ PSI (_____ kPa)

DIMENSIONS



QUANTITY : _____
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MODEL	VOLUME				DIMENSIONS		SYSTEM CONNECTION		WEIGHT	
	TOTAL		ACCEPTANCE		A X B		in.	mm	lbs	kg
	gal.	lts	gal.	lts	in X in	mm X mm				
RD-144V	80	303	39	148	24 X 48	610 X 1220	1	25,4	285	130
RD-180V	90	341	39	148	24 X 53	610 X 1346	1	25,4	305	139
RD-200V	115	435	39	148	24 X 67	610 X 1702	1	25,4	365	166
RD-240V	140	530	39	148	24 X 76	610 X 1930	1	25,4	401	183
RD-260V	158	598	60	227	30 X 64	762 X 1626	1	25,4	495	225
RD-280V	211	799	85	322	30 X 82	762 X 2083	1	25,4	665	302

PROJECT INFORMATION

REPRESENTATIVE: _____

JOB NAME: _____

TAGGING INFO: _____

ENGINEER: _____

CONTRACTOR: _____

ORDER No: _____



DIAPHRAGM EXPANSION

TANK, RD SERIES

SIZING OF HEATING OR COOLING EXPANSION TANKS

REQUIRED INFORMATION : **SELECTION:**

<p>1) TOTAL SYSTEM WATER CONTENT : _____ GALLONS _____ L</p> <p>2) TYPE OF LIQUID : _____</p> <p>3) MINIMUM TEMPERATURE : _____ °F _____ °C (temperature of liquide when system is filled)</p> <p>4) MAXIMUM TEMPERATURE : _____ °F _____ °C (maximum operating temperature)</p> <p>5) MINIMUM PRESSURE : _____ PSIG _____ KPAG (minimum pressure at tank, fill pressure +/- level of tank)</p> <p>6) MAXIMUM PRESSURE : _____ PSIG _____ KPAG (relief valve less 10%)</p>	<p>7) SYSTEM VOLUME : _____ (LINE 1)</p> <p>8) EXPANSION FACTOR : _____ (SEE TABLE 1,2 OR 3,4)</p> <p>9) MULTIPLY LINE 7 BY LINE 8 : _____ (EXPANDED VOLUME)</p> <p>10) ACCEPTANCE FACTOR : _____ (SEE TABLE 5 OR 6)</p> <p>11) DIVIDE LINE 9 BY LINE 10 : _____ (TOTAL VOLUME REQUIRED)</p>
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CHOICE

LINE 11 IS THE TOTAL TANK VOLUME REQUIRED _____

LINE 9 IS THE ACCEPTANCE VOLUME REQUIRED, FOR DIAPHRAGM EXPANSION TANK ONLY. _____

LINE 5 IS THE PRECHARGE REQUIRED IN EXPANSION TANK FOR A PROPER OPERATION _____

MODEL RD- _____ V- _____ (OPTIONS IF REQUIRED) PRECHARGE _____ PSI OR KPA
(LINE 5)

TABLE 1

WATER

TABLE 2

WATER

MAX. TEMP. °F	EXPANSION FACTOR						
	MINIMUM TEMPERATURE °F						
	40	50	60	70	80	90	100
70	0,0015	0,0014	0,0009	-----	-----	-----	-----
80	0,0026	0,0025	0,0021	0,0011	-----	-----	-----
90	0,0041	0,0040	0,0035	0,0026	0,0015	-----	-----
100	0,0058	0,0057	0,0052	0,0043	0,0032	0,0017	-----
110	0,0077	0,0077	0,0072	0,0062	0,0051	0,0037	0,0020
120	0,0100	0,0100	0,0095	0,0086	0,0074	0,0060	0,0043
130	0,0124	0,0123	0,0118	0,0109	0,0098	0,0083	0,0066
140	0,0150	0,0150	0,0145	0,0135	0,0124	0,0110	0,0093
150	0,0179	0,0178	0,0173	0,0164	0,0153	0,0133	0,0121
160	0,0209	0,0209	0,0204	0,0194	0,0181	0,0165	0,0148
170	0,0242	0,0241	0,0236	0,0227	0,0216	0,0201	0,0184
180	0,0276	0,0276	0,0271	0,0261	0,0250	0,0236	0,0219
190	0,0313	0,0312	0,0307	0,0298	0,0287	0,0272	0,0255
200	0,0351	0,0350	0,0346	0,0336	0,0325	0,0311	0,0294
210	0,0391	0,0391	0,0386	0,0376	0,0365	0,0351	0,0334
220	0,0434	0,0433	0,0428	0,0419	0,0408	0,0393	0,0376
230	0,0476	0,0476	0,0471	0,0461	0,0450	0,0436	0,0419
240	0,0522	0,0521	0,0517	0,0507	0,0496	0,0482	0,0465

MAX. TEMP. °C	EXPANSION FACTOR						
	MINIMUM TEMPERATURE °C						
	4	10	15	20	25	30	35
30	0,0034	0,0033	0,0029	0,0022	0,0012	-----	-----
35	0,0048	0,0048	0,0044	0,0037	0,0027	0,0014	-----
40	0,0065	0,0065	0,0060	0,0053	0,0043	0,0031	0,0017
45	0,0084	0,0083	0,0079	0,0072	0,0062	0,0050	0,0035
50	0,0104	0,0103	0,0099	0,0092	0,0082	0,0070	0,0055
55	0,0126	0,0126	0,0121	0,0114	0,0104	0,0091	0,0078
60	0,0150	0,0149	0,0145	0,0138	0,0128	0,0116	0,0102
65	0,0176	0,0175	0,0171	0,0165	0,0154	0,0142	0,0127
70	0,0203	0,0202	0,0198	0,0191	0,0181	0,0169	0,0154
75	0,0232	0,0230	0,0226	0,0219	0,0209	0,0197	0,0183
80	0,0262	0,0262	0,0257	0,0250	0,0240	0,0228	0,0214
85	0,0294	0,0293	0,0289	0,0282	0,0272	0,0260	0,0246
90	0,0327	0,0327	0,0323	0,0316	0,0308	0,0293	0,0279
95	0,0363	0,0362	0,0358	0,0351	0,0341	0,0329	0,0314
100	0,0399	0,0399	0,0394	0,0387	0,0377	0,0365	0,0351
105	0,0437	0,0437	0,0433	0,0426	0,0416	0,0403	0,0389
110	0,0476	0,0476	0,0471	0,0464	0,0454	0,0442	0,0428
115	0,0517	0,0517	0,0513	0,0505	0,0496	0,0483	0,0469

TABLE 3

GLYCOL 50% - WATER 50%

Table with columns: MAX. TEMP. °F and EXPANSION FACTOR MINIMUM TEMPERATURE °F (ranging from -20 to 140). Rows show expansion factors for temperatures from 70 to 240.

TABLE 4

GLYCOL 50% - WATER 50%

Table with columns: MAX. TEMP. °C and EXPANSION FACTOR MINIMUM TEMPERATURE °C (ranging from -20 to 60). Rows show expansion factors for temperatures from 30 to 115.

TABLE 5

Table with columns: MAX. PRES. psig, ACCEPTANCE FACTOR MINIMUM PRESSURE psig, and FOR THE PRESSURES NOT SHOWN, USE FORMULA. Rows show acceptance factors for pressures from 30 to 125 psig.

TABLE 6

Table with columns: MAX. PRES. kPa man, ACCEPTANCE FACTOR MINIMUM PRESSURE kPa man., and FOR THE PRESSURES NOT SHOWN, USE FORMULA. Rows show acceptance factors for pressures from 200 to 862 kPa man.