

T H E E C O N O M I C S O F I N N O V A T I O N



**PRESSURE  
VESSELS  
& AIR  
RECEIVERS**



# WHY MANCHESTER TANK?

## ASME Code:

All pressure vessels and air receivers listed in this catalog have been built in accordance with the ASME Section VIII Division I code latest addition. Vessels listed are "U" stamped and registered with the National Board.

## Other Codes:

Manchester also builds pressure vessels to many other codes such as ABS, USCG, DOT, UN, SAE-J10 and others.

## Canadian Registration Number:

Most all pressure vessels and air receivers listed in this catalog are already approved for use in Canada. Please contact a customer service representative for further details.

## Paint Specifications:

The exterior surface of all vessels listed in this catalog have been painted with one coat of standard shop primer. Special interior and exterior coatings per customer specifications can be quoted.

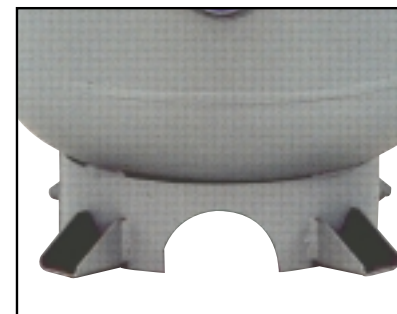
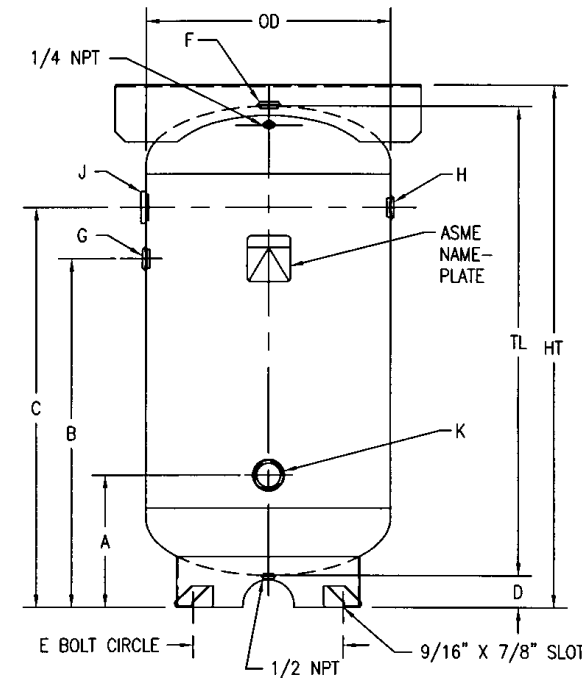
## Capabilities:

Manchester is capable of producing carbon and stainless steel pressure vessels as small as 3" in diameter, rated @ 3,000-psi, to as large as 120" in diameter rated @ 200-psi. Please contact a customer service representative to confirm your particular needs or requirements.

## Custom Designs:

With a generous scope of size and working pressure ranges, Manchester has the ability to fabricate a variety of private designs. We have a full engineering staff willing and able to assist you in any way necessary. For fast and thorough attention, simply submit your requirements to one of our customer service representatives.

# VERTICAL AIR RECEIVERS 10-120 GALLONS



Base Ring



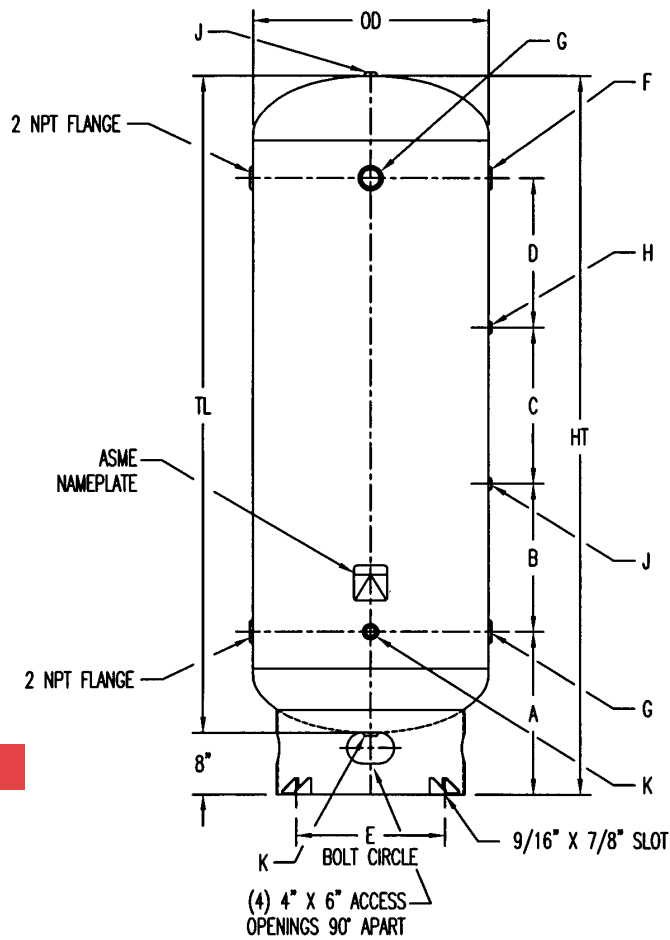
See NEMA Frame Sizes on p. 14

10-120 Gallon "M-3049"

NOM. CAP. GAL.	CU. FT.	PART NO.	MAWP	TOP PLATE	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS					
						OD	TL	HT	A	B	C	D	E	F	G	H	J	K			
50	7.34	302400	200	NONE	37	70.00	30.00	32.28	N/A	N/A	24.38	2.38	71.25	3/4	N/A	3/4	3/4	N/A			
50	7.34	302401	200	NONE	41	70.00	30.00	32.28	N/A	N/A	24.38	2.38	71.25	3/4	N/A	3/4	3/4	N/A			
55	2.81	302402	200	NONE	48	72.00	33.00	35.28	N/A	N/A	27.38	2.38	72.75	3/4	N/A	3/4	3/4	N/A			
55	2.81	302403	200	NONE	60	72.00	33.00	35.28	N/A	N/A	27.38	2.38	72.75	3/4	N/A	3/4	3/4	N/A			
20	2.87	302404	200	NONE	60	74.00	33.00	35.25	10.25	N/A	27.25	2.25	75.00	3/4	N/A	3/4	3/4	1-1/2	1-1/2		
30	2.87	302405	200	NONE	87	74.00	33.00	35.25	10.25	N/A	27.25	2.25	75.00	3/4	N/A	3/4	3/4	1-1/2	1-1/2		
30	4.81	302406	200	NONE	85	76.00	38.00	40.81	12.00	35.00	30.00	2.81	75.00	3/4	3/4	3/4	3/4	1-1/2	1-1/2		
30	4.81	302407	200	NONE	117	76.00	38.00	40.81	12.00	35.00	30.00	2.81	75.00	3/4	3/4	3/4	3/4	1-1/2	1-1/2		
30	4.81	302408	200	10X10X24	107	76.00	38.00	41.81	12.50	35.00	30.00	2.81	75.00	3/4	3/4	3/4	3/4	1-1/2	1-1/2		
30	4.81	302409	200	10X10X24	126	76.00	38.00	41.81	12.50	35.00	30.00	2.81	75.00	3/4	3/4	3/4	3/4	1-1/2	1-1/2		
80	8.82	302410	200	NONE	106	20.00	48.00	60.75	12.75	33.75	38.75	2.75	77.00	3/4	3/4	3/4	2	2			
80	8.82	302411	200	NONE	219	20.00	48.00	60.75	12.75	33.75	38.75	2.75	77.00	3/4	3/4	3/4	2	2			
80	8.82	302412	200	10X13.5X30	192	20.00	48.00	62.00	13.75	33.75	38.75	2.75	77.00	3/4	3/4	3/4	2	2			
80	8.82	302413	200	10X13.5X30	252	20.00	48.00	62.00	13.75	33.75	38.75	2.75	77.00	3/4	3/4	3/4	2	2			
80	10.70	302414	200	NONE	198	20.00	63.00	68.75	12.25	48.25	55.25	2.75	77.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
80	10.70	302415	200	NONE	208	20.00	63.00	69.75	13.25	49.25	56.25	2.75	77.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
80	10.70	302417	200	NONE	220	24.00	48.00	49.19	12.00	34.31	38.31	3.19	21.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
80	10.70	302418	200	NONE	202	24.00	48.00	48.19	12.00	34.31	38.31	3.19	21.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
80	10.70	302419	200	10X13.5X30	202	24.00	48.00	61.25	12.00	34.31	38.31	3.19	21.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
80	10.70	302420	200	10X13.5X30	319	24.00	48.00	61.25	12.00	34.31	38.31	3.19	21.00	1-1/4	1-1/4	1-1/4	1-1/4	2	2		
120	16.04	302422	200	NONE	355	30.00	48.00	54.00	21.00	35.00	41.00	8.00	27.00	2	2	2	2	2	2		
120	16.04	302424	200	25X15X40	415	30.00	48.00	55.50	21.00	35.00	41.00	8.00	27.00	2	2	2	2	2	2		
120	16.04	302425	200	25X15X40	538	30.00	48.00	68.00	21.00	35.00	41.00	8.00	27.00	2	2	2	2	2	2		



# VERTICAL AIR RECEIVERS 120-500 GALLONS

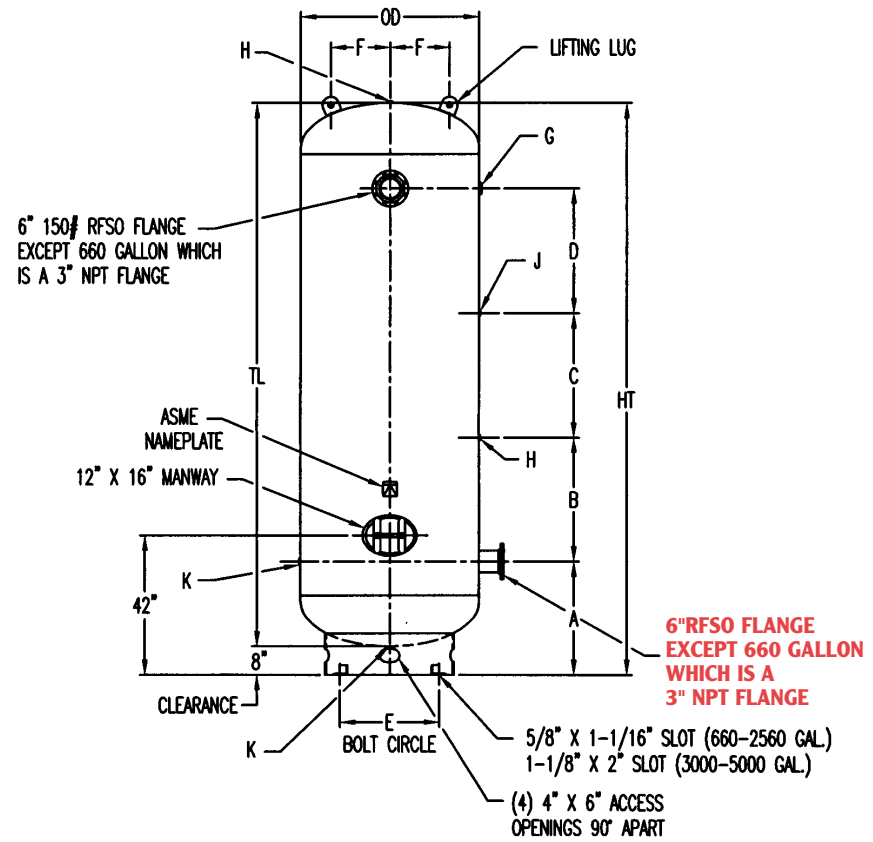


Industrial Base Ring

120-500 Gallon "M-3059"

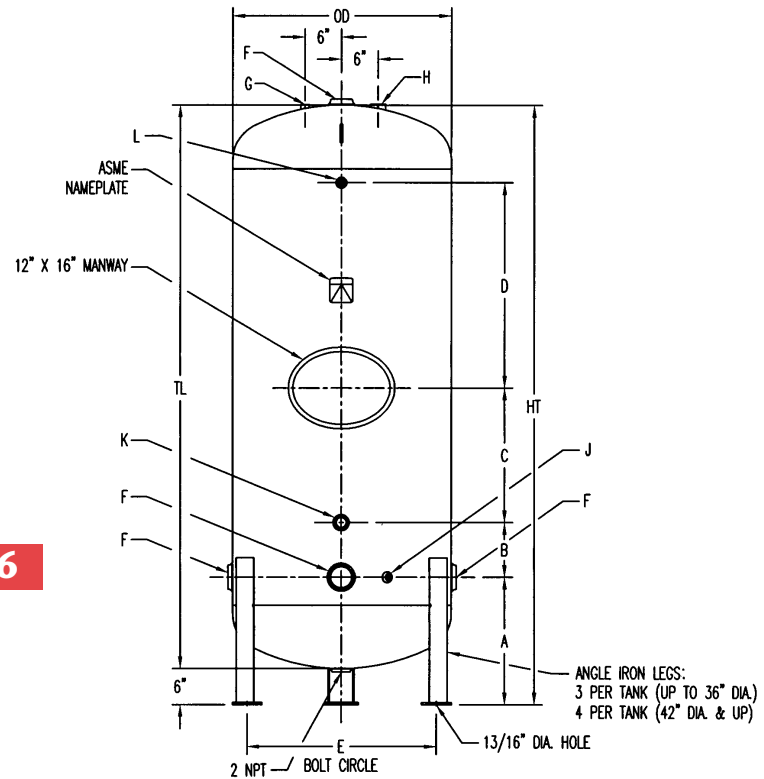
NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS				
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K		
120	16.04	302421	200	329	24.00	67.00	75.00	21.00	12.00	14.00	13.00	21.00	1-1/2	2	1/4	1/2	?		
120	16.04	302422	300	379	24.00	67.00	75.00	21.00	12.00	14.00	13.00	21.00	1-1/2	2	1/4	1/2	?		
200	26.74	302426	200	525	20.00	72.00	80.00	21.00	15.00	16.00	15.00	27.00	1-1/2	3	1/4	1/2	?		
200	26.74	302427	300	720	20.00	72.00	80.00	21.00	15.00	16.00	15.00	27.00	1-1/2	3	1/4	1/2	?		
240	32.09	302428	200	570	20.00	84.00	92.00	21.00	19.00	20.00	19.00	27.00	1-1/2	3	1/4	1/2	?		
240	32.09	302429	300	930	20.00	84.00	92.00	21.00	19.00	20.00	19.00	27.00	1-1/2	3	1/4	1/2	?		
400	53.48	302432	165	660	26.00	93.00	101.00	23.00	21.00	21.00	21.00	33.00	1-1/2	3	1/4	1/2	?		
400	53.48	302433	300	881	26.00	93.00	101.00	23.00	21.00	21.00	21.00	33.00	1-1/2	3	1/4	1/2	?		
400	53.48	302434	300	1100	26.00	93.00	101.00	23.00	21.00	21.00	21.00	33.00	1-1/2	3	1/4	1/2	?		
500	66.84	302436	165	950	26.00	118.00	124.00	26.00	26.00	24.00	24.00	33.00	1-1/2	3	1/4	1/2	?		
500	66.84	302437	200	1050	26.00	118.00	124.00	26.00	26.00	24.00	24.00	33.00	1-1/2	3	1/4	1/2	?		

# VERTICAL AIR RECEIVERS 660-5000 GALLONS

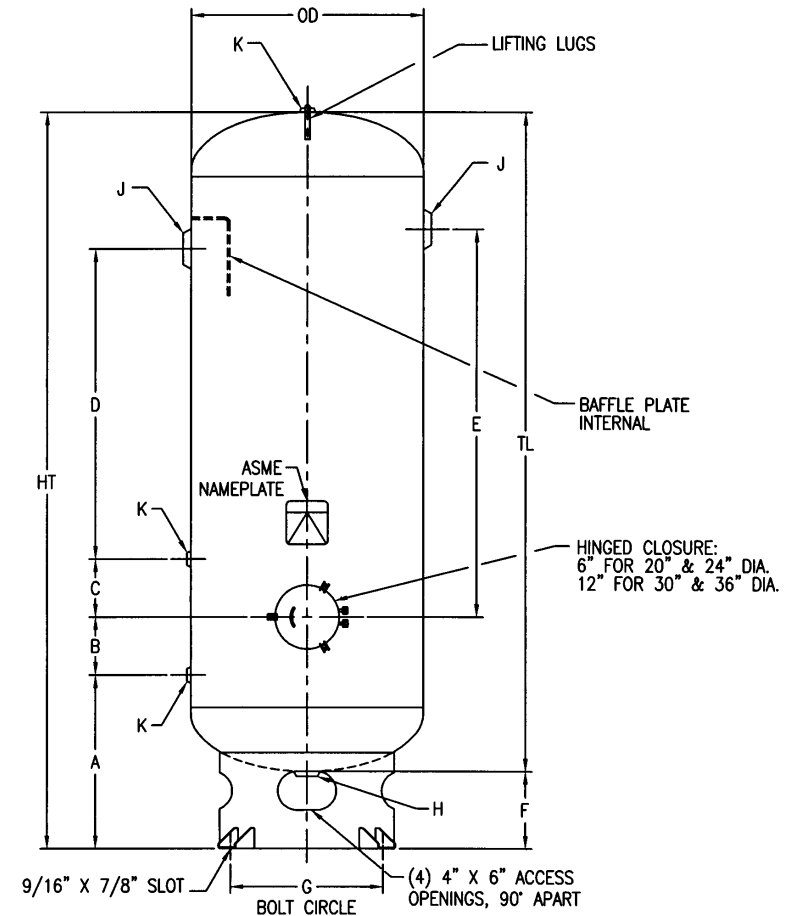


NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS				
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K		
660	88.24	302438	137	1180	42.00	117.00	125.00	20.00	26.00	26.00	25.00	38.50	14.00	3	?	1/4	?		
660	88.24	302439	165	1365	42.00	117.00	125.00	20.00	26.00	26.00	25.00	38.50	14.00	3	?	1/4	?		
880	88.24	302440	200	1570	42.00	117.00	125.00	20.00	26.00	26.00	25.00	38.50	14.00	3	?	1/4	?		
880	88.24	302441	300	1984	42.00	117.00	125.00	20.00	26.00	26.00	25.00	38.50	14.00	3	?	1/4	?		
1060	141.71	302442	137	1780	48.00	144.00	152.00	22.00	32.00	32.00	32.00	42.50	18.00	3	?	1/4	?		
1060	141.71	302443	165	1780	48.00	144.00	152.00	22.00	32.00	32.00	32.00	42.50	18.00	3	?	1/4	?		
1060	141.71	302444	200	1780	48.00	144.00	152.00	22.00	32.00	32.00	32.00	42.50	18.00	3	?	1/4	?		
1550	207.22	302445	150	2580	54.00	166.00	174.00	24.00	38.00	38.00	38.00	42.50	18.00	3	?	1/4	1-1/4		
1550	207.22	302446	165	2580	54.00	166.00	174.00	24.00	38.00	38.00	38.00	42.50	18.00	3	?	1/4	1-1/4		
1550	207.22	302447	200	2700	54.00	166.00	174.00	24.00	38.00	38.00	38.00	42.50	18.00	3	?	1/4	1-1/4		
2200	294.12	302448	137	3450	60.00	190.00	198.00	24.00	42.00	42.00	42.00	48.00	20.00	3	?	1/4	1-1/4		
2200	294.12	302449	165	3535	60.00	190.00	198.00	24.00	42.00	42.00	42.00	48.00	20.00	3	?	1/4	1-1/4		
2200	294.12	302450	200	4100	60.00	190.00	198.00	24.00	42.00	42.00	42.00	48.00	20.00	3	?	1/4	1-1/4		
2560	342.25	302451	137	3600	66.00	220.00	228.00	24.00	56.00	56.00	56.00	48.00	20.00	3	?	1/4	1-1/4		
2560	342.25	302452	165	3750	66.00	220.00	228.00	24.00	56.00	56.00	56.00	48.00	20.00	3	?	1/4	1-1/4		
2560	342.25	302453	200	4375	66.00	220.00	228.00	24.00	56.00	56.00	56.00	48.00	20.00	3	?	1/4	1-1/4		
3000	401.07	302454	137	5700	66.00	214.00	222.00	26.00	56.00	56.00	56.00	53.00	22.00	3	?	1/4	1-1/4		
3000	401.07	302455	165	5700	66.00	214.00	222.00	26.00	56.00	56.00	56.00	53.00	22.00	3	?	1/4	1-1/4		
3000	401.07	302456	200	6500	66.00	214.00	222.00	26.00	56.00	56.00	56.00	53.00	22.00	3	?	1/4	1-1/4		
3800	508.02	302457	137	6500	72.00	228.00	236.00	28.00	56.00	56.00	56.00	53.00	24.00	3	?	1/4	1-1/4		
5000	668.45	302458	137	7950	84.00	232.00	240.00	46.00	50.00	50.00	50.00	53.00	28.00	3	?	1/4	1-1/4		
5000	668.45	302459	165	10500	84.00	232.00	240.00	48.00	50.00	50.00	50.00	53.00	28.00	3	?	1/4	1-1/4		

# EPOXY-LINED WATER TANKS 140-535 GALLONS



# VACUUM RECEIVERS 60-400 GALLONS



Clean Out

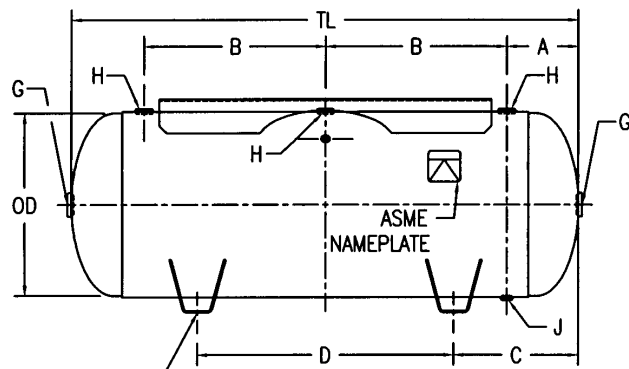
NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS			
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K	
140	18.72	302512	150	350	24.00	75.00	87.00	16.00	10.00	16.63	28.12	24.00	2-1/2	3/4	1-1/2	1/2	1-1/4	
190	25.40	302513	150	460	30.00	66.00	72.00	18.75	8.00	16.25	17.75	30.00	2-1/2	3/4	1-1/2	1/2	1-1/4	
225	30.08	302514	150	510	30.00	78.00	84.00	18.75	10.00	16.25	27.75	30.00	2-1/2	3/4	1-1/2	1/2	1-1/4	
268	35.83	302515	150	810	26.00	68.00	74.00	20.04	8.09	16.38	16.88	36.00	3	3/4	1-1/2	1/2	1-1/4	
320	42.78	302516	150	890	26.00	80.00	86.00	21.06	8.09	16.25	25.75	36.00	3	3/4	1-1/2	1/2	1-1/4	
388	51.87	302517	150	860	26.00	93.00	99.00	21.19	8.06	22.25	33.75	36.00	3	3/4	1-1/2	1/2	1-1/4	
375	50.12	302518	150	880	42.00	70.75	76.75	23.38	6.00	14.66	18.00	42.00	3	3/4	1-1/2	1/2	1-1/4	
450	60.16	302519	150	1110	42.00	83.75	89.75	22.31	8.09	12.88	28.00	42.00	3	3/4	1-1/2	1/2	1-1/4	
535	71.52	302520	150	1225	42.00	96.00	102.00	22.44	8.09	13.88	41.30	42.00	3	3/4	1-1/2	1/2	1-1/4	

NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	VACUUM RATING	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS			
						OD	TL	HT	A	B	C	D	E	F	G	H	J	K	
60	8.82	300995	150	29.9" Hg.	205	20.00	48.00	56.00	17.00	8.00	6.00	14.00	22.00	8.00	17.00	2	2	1/2	
80	10.70	300957	150	29.9" Hg.	220	20.00	62.00	71.00	17.00	3.00	9.00	29.00	28.00	8.00	17.00	2	2	1/2	
720	16.04	300958	150	29.9" Hg.	385	24.00	67.00	75.00	18.00	8.00	6.00	31.00	29.00	8.00	21.00	2	2	1/2	
240	32.09	300999	150	29.9" Hg.	750	33.00	84.00	92.00	19.00	8.00	8.00	44.00	52.00	8.00	27.00	2	2	1/2	
400	53.48	300980	150	29.9" Hg.	900	35.00	93.00	101.00	21.00	8.00	4.00	50.00	56.00	8.00	31.00	2	2	1/2	

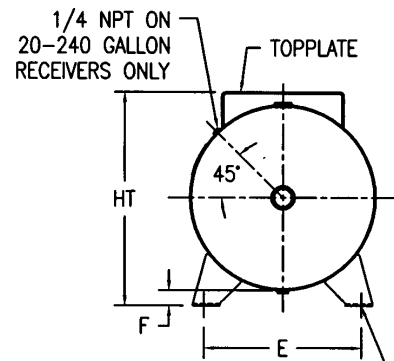
# HORIZONTAL AIR RECEIVERS 10-240 GALLONS



Wing Feet



- 7/16" DIA. HOLE (10-15 GALLON)
- 7/16" X 3/4" SLOT (20-30 GALLON)
- 9/16" X 1-1/2" SLOT (60-80 GALLON)
- 11/16" X 1-3/4" SLOT (120 GALLON)
- 13/16" X 1-1/2" SLOT (200-240 GALLON)

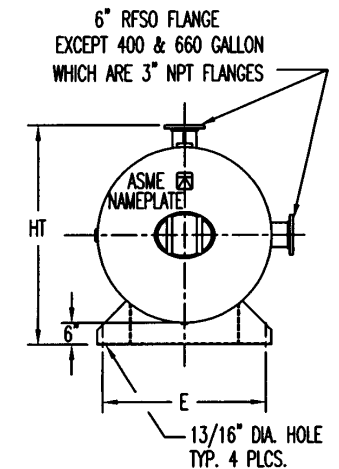
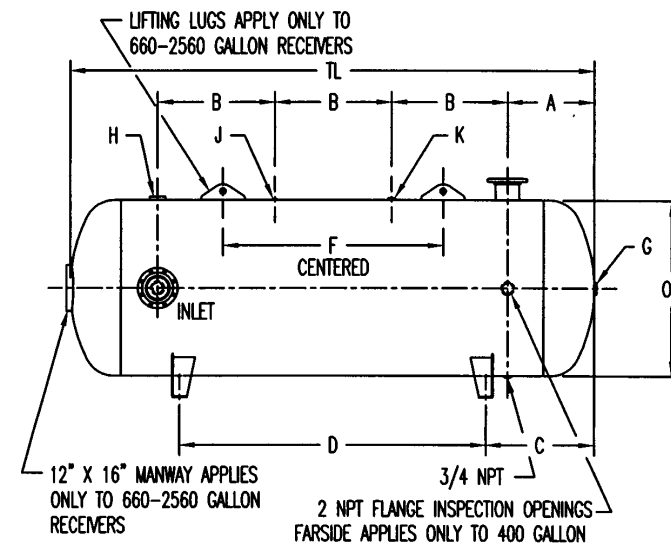


- 1/4 NPT ON 20-240 GALLON RECEIVERS ONLY
- TOPPLATE
- PRESSED STEEL FEET (10-15 GALLON)
- WING FEET (20-120 GALLON)
- SADDLES (200-240 GALLON)

# HORIZONTAL AIR RECEIVERS 400-2560 GALLONS



Tank Saddles



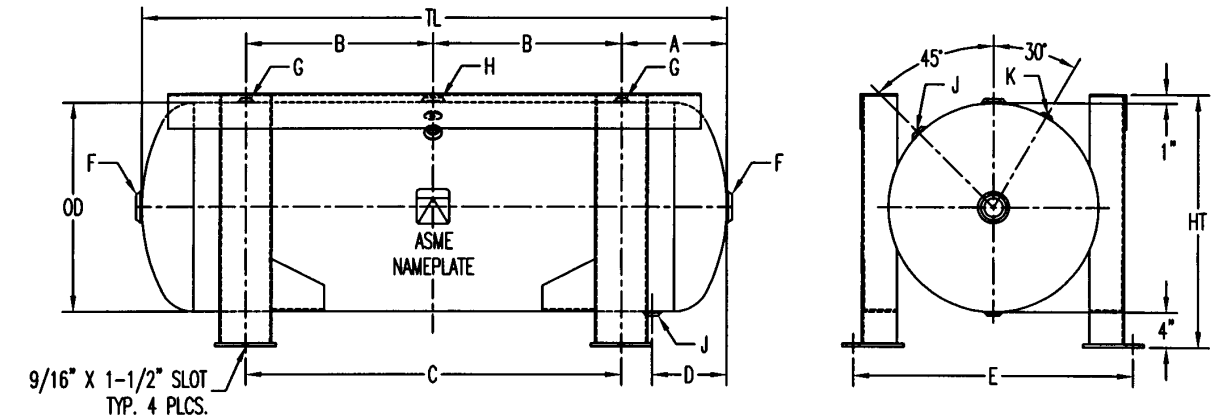
10-240 GALLON M-3050

NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	TOP PLATE	T.W.	DIMENSIONS IN INCHES											N.P.T. OPENINGS				
						OD	TL	HT	A	B	C	D	E	F	G	H	J	K			
10	1.34	302460	200	NOMC	32	13.00	30.00	11.50	5.50	9.50	6.00	18.00	9.25	1.50	3/4	1/2	1/4				
10	1.34	302461	200	F3X9X1E	43	13.00	30.00	13.00	5.50	9.50	6.00	18.00	9.25	1.50	3/4	1/2	1/4				
10	1.34	302462	200	F3X9X1E	46	13.00	30.00	13.00	5.50	9.50	6.00	18.00	9.25	1.50	3/4	1/2	1/4				
15	2.07	302463	200	NOMC	51	13.00	33.00	13.00	5.50	11.00	6.50	20.00	11.00	1.50	3/4	1/2	1/4				
15	2.07	302464	200	F3X9X1E	51	13.00	33.00	14.50	5.50	11.00	6.50	20.00	11.00	1.50	3/4	1/2	1/4				
15	2.07	302465	200	F3X9X1E	66	13.00	33.00	14.50	5.50	11.00	6.50	20.00	11.00	1.50	3/4	1/2	1/4				
20	2.67	302466	200	NOMC	66	14.00	33.00	16.00	5.00	10.50	8.50	16.00	11.00	2.00	1-1/2	1/2	1/2				
20	2.67	302467	200	F3X9X20	79	14.00	33.00	18.00	5.00	10.50	8.50	16.00	11.00	2.00	1-1/2	1/2	1/2				
20	2.67	302468	200	F3X9X20	85	14.00	33.00	18.00	5.00	10.50	8.50	16.00	11.00	2.00	1-1/2	1/2	1/2				
30	4.07	302469	200	NOMC	89	15.00	38.00	18.00	5.75	13.25	9.00	20.00	12.81	2.00	1-1/2	3/4	1/2				
30	4.07	302470	200	F6X10X24	111	15.00	38.00	20.00	5.75	13.25	9.00	20.00	12.81	2.00	1-1/2	3/4	1/2				
30	4.07	302471	200	F6X10X24	140	15.00	38.00	20.00	5.75	13.25	9.00	20.00	12.81	2.00	1-1/2	3/4	1/2				
60	8.52	302472	200	NOMC	170	16.00	48.00	22.21	7.75	16.25	12.00	24.00	16.50	2.31	2	3/4	1/2				
60	8.52	302473	200	F6X13.5X30	204	16.00	48.00	24.44	7.75	16.25	12.00	24.00	16.50	2.31	2	3/4	1/2				
60	8.52	302474	200	F6X13.5X30	225	16.00	48.00	24.44	7.75	16.25	12.00	24.00	16.50	2.31	2	3/4	1/2				
80	10.70	302475	200	NOMC	214	16.00	63.00	22.21	9.00	22.50	15.00	32.00	18.50	2.31	2	1	1/2				
80	10.70	302477	200	25X15X48	263	16.00	63.00	24.00	9.00	22.50	15.00	32.00	18.50	2.31	2	1	1/2				
80	10.70	302478	200	25X15X48	350	16.00	63.00	24.00	9.00	22.50	15.00	32.00	18.50	2.31	2	1	1/2				
120	16.04	302479	200	NOMC	311	16.00	67.00	26.25	9.50	24.00	16.00	34.00	20.63	2.25	2	1-1/2	3/4				
120	16.04	302480	200	25X15X44	352	16.00	67.00	27.94	9.50	24.00	16.00	34.00	20.63	2.25	2	1-1/2	3/4				
200	26.74	302482	200	NOMC	538	18.00	72.00	33.00	11.63	24.38	17.00	38.00	23.50	3.00	2	2	1				
200	26.74	302483	200	25X19X48	632	18.00	72.00	35.00	11.63	24.38	17.00	38.00	23.50	3.00	2	2	1				
240	32.09	302484	200	NOMC	618	18.00	84.00	33.00	11.63	20.38	20.00	44.00	23.50	3.00	2	2	1				
240	32.09	302485	200	25X19X48	716	18.00	84.00	35.00	11.63	20.38	20.00	44.00	23.50	3.00	2	2	1				

400-2560 GALLON M-3058

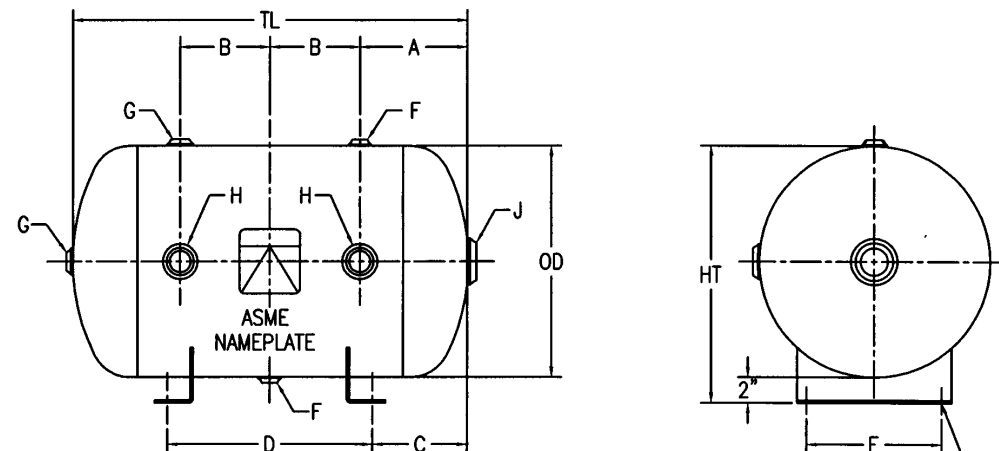
NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES											N.P.T. OPENINGS					
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K				
400	53.48	302486	137	670	36.00	93.00	42.00	15.00	21.00	20.50	52.00	32.00	N/A	2	3-1/2	1/4	1/2				
400	53.48	302487	165	750	36.00	93.00	42.00	15.00	21.00	20.50	52.00	32.00	N/A	2	3-1/2	1/4	1/2				
400	53.48	302488	200	925	36.00	93.00	42.00	15.00	21.00	20.50	52.00	32.00	N/A	2	2-1/2	1/4	1/2				
660	86.34	302489	137	1375	42.00	117.00	48.00	18.00	27.00	23.50	70.00	39.00	57.00	2	3	1/4	1/2				
660	86.34	302490	165	1375	42.00	117.00	48.00	18.00	27.00	23.50	70.00	39.00	57.00	2	3	1/4	1/2				
660	86.34	302491	200	1375	42.00	117.00	48.00	18.00	27.00	23.50	70.00	39.00	57.00	2	3	1/4	1/2				
1080	141.71	302492	137	2150	48.00	144.00	60.00	24.00	32.00	30.00	84.00	45.00	60.00	2	3	1/4	1/2				
1080	141.71	302493	165	2200	48.00	144.00	60.00	24.00	32.00	30.00	84.00	45.00	60.00	2	3	1/4	1/2				
1080	141.71	302494	200	2500	48.00	144.00	60.00	24.00	32.00	30.00	84.00	45.00	60.00	2	3	1/4	1/2				
1550	207.22	302495	137	2600	54.00	166.00	66.00	26.00	36.00	34.00	96.00	51.00	76.00	2	3	1/4	1/2				
1550	207.22	302496	165	2700	54.00	166.00	66.00	26.00	36.00	34.00	96.00	51.00	76.00	2	3	1/4	1/2				
2200	294.12	302497	137	4000	60.00	196.00	72.00	29.00	44.00	37.00	116.00	57.00	98.00	2	3	1/4	1/2				
2200	294.12	302498	165	4200	60.00	196.00	72.00	29.00	44.00	37.00	116.00	57.00	98.00	2	3	1/4	1/2				
2560	342.25	302499	137	4500	60.00	220.00	72.00	29.00	54.00	44.50	131.00	67.00	118.00	2	3	1/4	1/2				
2560	342.25	302500	165	4500	60.00	220.00	72.00	29.00	54.00	44.50	131.00	67.00	118.00	2	3	1/4	1/2				

# HORIZONTAL AIR RECEIVERS 1-30 GALLONS



NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS				
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K		
120	16.04	302481	200	480	24.00	87.00	29.00	12.00	21.50	43.00	8.50	32.00	2	1/2	1-1/2	3/4	1/8		

10

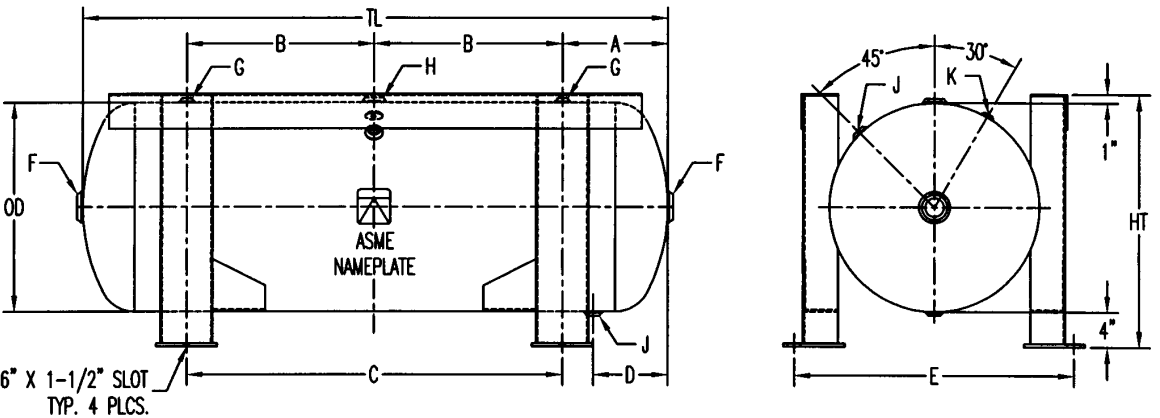


7/16" DIA. HOLES (1-15 GALLON)  
9/16" DIA. HOLES (19-30 GALLON)

1-30 GALLON M-3062

NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS			
					OD	TL	HT	A	B	C	D	E	F	G	H	J		
1	0.13	304978	200	15	6.00	11.00	8.00	4.00	1.50	2.00	7.00	3.50	1/2	3/4	3/4	1		
2	0.27	304980	200	17	8.00	11.00	10.00	4.50	1.00	2.00	7.00	4.50	1/2	3/4	3/4	1		
3	0.40	304982	200	22	8.00	16.00	10.00	5.50	2.50	3.00	10.00	4.50	1/2	3/4	3/4	1		
5	0.67	304932	200	25	10.00	16.00	12.00	4.88	3.13	3.00	10.00	6.50	1/2	3/4	3/4	1		
7	0.94	304934	200	29	12.00	17.00	14.00	6.00	2.50	3.50	10.00	6.50	1/2	3/4	3/4	1		
10	1.34	304936	200	35	12.00	23.00	14.00	6.00	5.50	6.50	10.00	6.50	1/2	3/4	3/4	1		
13	1.74	304938	200	45	14.00	22.00	16.00	6.70	5.13	4.00	15.00	8.50	1/2	3/4	1-1/2	1		
15	2.01	304940	200	51	14.00	26.00	16.00	7.00	6.00	5.50	15.00	8.50	1/2	3/4	1-1/2	1		
19	2.54	304942	200	59	16.00	25.00	18.00	7.00	5.50	4.50	16.00	10.50	1/2	3/4	1-1/2	2		
24	3.21	304944	200	72	16.00	31.00	18.00	7.00	8.50	7.50	16.00	10.50	1/2	3/4	1-1/2	2		
30	4.01	304946	200	85	18.00	31.00	20.00	7.50	8.00	7.50	16.00	10.50	1/2	3/4	1-1/2	2		

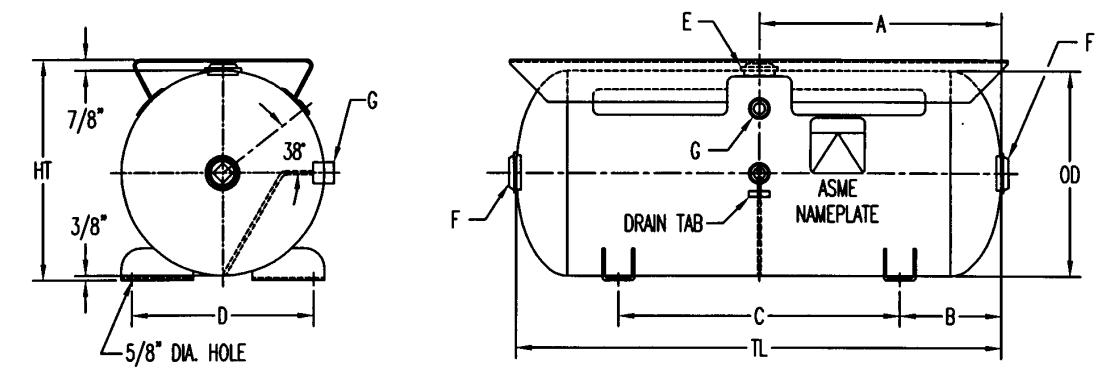
# HORIZONTAL GRASSHOPPER TANK



NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS				
					OD	TL	HT	A	B	C	D	E	F	G	H	J	K		
120	16.04	302481	200	480	24.00	87.00	29.00	12.00	21.50	43.00	8.50	32.00	2	1/2	1-1/2	3/4	1/8		

11

# HORIZONTAL GAS DRIVEN TANK



NOM. CAP. GAL.	CU.FT.	PART NO.	MAWP	TOP PLATE	T.W.	DIMENSIONS IN INCHES										N.P.T. OPENINGS		
						OD	TL	HT	A	B	C	D	E	F	G			
30	4.01	302472	200	25X8.88X39	160	16.00	38.00	17.25	19.00	8.00	22.00	13.13	1-1/4	1-1/2	1/4			

# CROSS REFERENCE LIST: VERTICAL AIR RECEIVERS

NOM. CAP. GAL.	CU. FT.	DESCRIPTION	SIZE	MAWP	PART NUMBERS			COMMENTS
					OLD MT&E	OLD BRUNNER	NEW MT&E	
10	1.34	Bearing Only	10 x 30	200	N/A	26700200027	302400	Brunner design with MT&E bearing.
		"	"	300	N/A	26700300030	302401	"
15	2.01	Bearing Only	12 x 33	200	N/A	267203300092	302402	Brunner design with MT&E bearing.
		"	"	300	N/A	267203300095	302403	"
20	2.67	Bearing Only	14 x 33	200	N/A	267403300083	302404	Brunner design with MT&E bearing.
		"	"	300	N/A	267403300086	302405	"
30	4.01	Bearing Only	16 x 36	200	35543	267603600125	302406	Brunner design with MT&E bearing.
		"	"	300	N/A	267603600128	302407	"
		Bearing & TP	"	200	33622.1	267603601274	302408	Brunner design with MT&E bearing and 10x24 platform.
60	8.02	Bearing Only	20 x 48	200	35545	262004800148	302410	Brunner design with MT&E bearing.
		"	"	300	N/A	262004800152	302411	"
		Bearing & TP	"	200	33258.2	262004801884	302412	Brunner design with MT&E bearing and 13.5x30 platform.
		"	"	300	N/A	262004800149	302413	"
80	10.70	Bearing Only	20 x 63	200	N/A	262005000155	302414	Brunner design with MT&E bearing.
		"	"	300	N/A	262005000168	302415	"
		Bearing Only	24 x 48	200	35555	262404800179	302417	Brunner design with MT&E bearing.
		"	"	300	N/A	262404800182	302418	"
120	16.04	Bearing Only	20 x 63	200	35557	262404800198	302419	Brunner design with MT&E bearing and 13.5x30 platform.
		"	"	300	N/A	262404800175	302420	"
		Bearing & TP	"	200	33258.1	262404800198	302419	Brunner design with MT&E bearing and 13.5x30 platform.
200	26.74	Bearing Only	20 x 84	200	35557	263004800215	302422	Brunner design - bearing "clips" with slot in place of hole.
		"	"	300	N/A	263004800217	302423	Some changes as above, plus used MT&E's 15x40 platform.
		Bearing Only	24 x 67	200	3230	262408000291	302421	Brunner design - bearing "clips" with slot in place of hole.
240	32.09	Bearing Only	20 x 72	200	3240	273007200236	302426	Brunner design - bearing "clips" with slot in place of hole.
		"	"	300	N/A	273007200239	302427	"
240	32.09	Bearing Only	30 x 64	200	3249	273008400257	302428	Brunner design - bearing "clips" with slot in place of hole.
		"	"	300	N/A	273008400260	302429	"
400	52.48	Bearing Only	36 x 63	137	2164	273609300266	N/A	Replaced by the 150-psi version.
		"	"	165	2127	273609300270	302432	Brunner design - bearing "clips" with slot in place of hole.
		"	"	200	2129	273609300271	302433	"
		"	"	300	2121	273609300274	302434	"
600	86.84	Bearing Only	28 x 78	137	N/A	273811600228	N/A	Replaced by the 150-psi version.
		"	"	165	N/A	273811600227	302438	Brunner design - bearing "clips" with slot in place of hole.
		"	"	200	N/A	273811600228	302437	"
600	86.24	Bearing Only	42 x 117	137	2175	284211700280	302438	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	2132	284211700284	302439	"
		"	"	200	2133	284211700285	302440	"
		"	"	300	27482	284211700288	302441	"
1060	141.71	Bearing Only	48 x 144	137	2177	284814400294	302442	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	2125	284814400297	302443	"
		"	"	200	2126	284814400298	302444	"
1550	207.22	Bearing Only	54 x 168	137	2179	285416800305	N/A	Replaced by the 150-psi version.
		"	"	160	2128	N/A	302448	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	285416800308	302446	"
		"	"	200	2129	285416800309	302447	"
2200	294.12	Bearing Only	60 x 180	137	N/A	286019000316	302448	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	286019000319	302449	"
		"	"	200	N/A	286019000320	302450	"
2500	342.25	Bearing Only	60 x 220	137	2181	286022000327	302451	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	286022000330	302452	"
		"	"	200	2141	286022000331	302453	"
3800	491.07	Bearing Only	66 x 214	137	N/A	286621400333	302454	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	286621400334	302455	"
3800	508.07	Bearing Only	72 x 228	137	N/A	287222800335	302456	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	287222800336	302457	"
5000	688.40	Bearing Only	84 x 232	137	N/A	288423200337	302458	Brunner design - bearing "clips" with slot in place of hole.
		"	"	165	N/A	288423200338	302459	"
140	18.72	Epoxy-lined	24 x 75	150	N/A	202407503368	302512	Brunner design.
180	25.40	"	30 x 66	150	N/A	203006603369	302513	"
225	30.68	"	30 x 78	150	N/A	203007803370	302514	"
275	35.83	"	36 x 66	150	N/A	203606603371	302515	"
320	42.78	"	36 x 80	150	N/A	203608003372	302516	"
368	51.87	"	36 x 93	150	N/A	203609303373	302517	"
375	50.73	"	42 x 70	150	N/A	204207003374	302518	"
480	60.76	"	42 x 83	150	N/A	204208303375	302519	"
630	71.82	"	42 x 96	150	N/A	204209603376	302520	"
60	8.02	Vessant A/W's	20 x 48	150	300956	N/A	300956	MT&E design.
80	10.70	"	20 x 63	150	300957	N/A	300957	"
120	16.04	"	24 x 67	150	300958	N/A	300958	"
240	32.09	"	30 x 84	150	300959	N/A	300959	"
400	52.48	"	36 x 93	150	300960	N/A	300960	"

# CROSS REFERENCE LIST: HORIZONTAL AIR RECEIVERS

NOM. CAP. GAL.	CU. FT.	DESCRIPTION	SIZE	MAWP	PART NUMBERS			COMMENTS
					OLD MT&E	OLD BRUNNER	NEW MT&E	
10	1.34	Legs Only	10 x 30	200	N/A	221802000020	302460	Brunner design except moved inspection ports from shell to heads.
		Legs & TP	"	200	N/A	221802000013	302461	"
15	2.01	"	"	300	N/A	221802000016	302462	"
		Legs Only	12 x 33	200	N/A	221802200030	302463	Brunner design except moved inspection ports from shell to heads.
20	2.67	Legs & TP	"	200	N/A	221802200048	302464	"
		"	"	300	N/A	221802200051	302465	"
20	2.67	Legs Only	14 x 33	200	38827	221803300076	302466	MT&E design except rated at 200-psi.
		Legs & TP	"	200	38827.1	221803300069	302467	"
		"	"	300	N/A	221803300072	302468	"
30	4.01	Legs Only	16 x 36	200	35529	221803600111	302469	MT&E design except rated at 200-psi.
		Legs & TP	"	200	33415.2	221803600102	302470	"
		"	"	300	N/A	221803600107	302471	"
60	8.02	Gas Ring Cr.	"	200	3273	261802800888	302472	MT&E design with inspection ports moved to center heads.
		Legs Only	20 x 48	200	35532	222804800126	302473	MT&E design.
80	10.70	Legs & TP	"	200	33252.3	2628048001516	302474	"
		"	"	300	N/A	222804800134	302475	"
80	10.70	Legs Only	20 x 63	200	38834	222806300188	302476	MT&E design.
		Legs & TP	"	200	22254.4	222806300101	302477	"
120	16.04	Legs Only	24 x 67	200	35536	222806700169	302478	MT&E design.
		Legs & TP	"	200	33256.3	2624066001306	302479	"
200	26.74	Grasshopper	"	200	N/A	2624066001244	302481	Brunner design.
		Legs Only	20 x 72	200	35530	223807200229	302482	MT&E design.
240	32.09	Legs & TP	"	200	33817.2	263807201303	302483	"
		Legs Only	20 x 84	200	35541	223808400250	302484	MT&E design.
400	52.48	Legs & TP	"	200	33819.1	2638084001762	302485	"
		Legs Only	28 x 83	137	3284	243808300230	302486	Brunner design.
400	52.48	"	"	165	3265	243808300263	302487	"
		"	"	200	3267	243808300264	302488	"
600	86.24	Legs Only	42 x 117	137	3275	244211700330	302489	Brunner design.
		"	"	165	3282	244211700277	302490	"
		"	"	200	3283	244211700278	302491	"
1060	141.71	Legs Only	48 x 144	137	3277	244814400340	302492	Brunner design.
		"	"	165	3285	244814400291	302493	"
		"	"	200	3286	244814400292	302494	"
1060	141.71	Legs Only	54 x 168	137	3279	248416800341	302498	Brunner design.
		"	"	165	N/A	248416800302	302496	"
2200	294.12	Legs Only	60 x 180	137	N/A	248819000342	302497	Brunner design.
2000	342.25	"	"	165	N/A	248819000313	302498	"
		Legs Only	60 x 220	137	3281	248822000343	302499	Brunner design.
1	0.13	"	"	165	N/A	248822000324	302500	"
		Legs Only	8 x 17	200	N/A	266801800588	302501	Brunner design.
2	0.27	"	8 x 17	200	N/A	266801800589	302502	"
3	0.40	"	8 x 18	200	N/A	266801800590	302503	"
5	0.67	"	10 x 16	200	N/A	261801600592	302504	"
7	0.94	"	12 x 17	200	N/A	261201700578	302505	"
10	1.36	"	12 x 22	200	N/A	261202200571	302506	"
13	1.74	"	14 x 22	200	N/A	261402200585	302507	"
15	2.01	"	14 x 26	200	N/A	261402600586	302508	"
18	2.54	"	16 x 26	200	N/A	261602600521	302509	"
24	3.27	"	18 x 30	200	N/A	261802100728	302510	"
30	4.01	"	18 x 31	200	N/A	261802100871	302511	"



# TECHNICAL AIDS

## Air Receiver Capacity in Cubic Feet of Free Air at Various Pressures

Capacity		Pressures (in pounds)					
Gals.	Cu.Ft.	75	100	125	150	200	250
30	4.0	20.5	27.3	34.2	41.0	54.7	68.3
60	8.0	41.0	54.7	68.2	82.0	109.4	136.7
80	10.7	54.7	73.0	91.2	109.4	146.0	182.4
120	16.1	82.0	109.3	136.2	164.0	218.7	273.3
200	26.8	136.7	182.2	227.8	273.4	364.5	455.6
240	32.2	164.0	218.7	273.4	328.0	437.4	546.7
400	53.6	273.4	364.5	455.6	546.7	729.0	911.2
660	88.4	451.0	601.4	751.7	902.1	1202.8	1503.4
1060	142.0	724.4	965.9	1207.3	1448.8	1931.7	2414.5
1600	214.4	1093.4	1457.9	1822.4	2186.9	2915.8	3644.8
2560	343.0	1749.0	2333.0	2916.0	3499.0	4665.0	5832.0

Capacities at other pressures are exactly in proportion. Example: at 200 lbs. pressure the capacity of a given size tank is exactly double the capacity at 100 lbs. pressure.  
 Gallons =  $\frac{\text{cu.ft.}}{.134}$  ••• cu.ft. = Gallons x .134.

## USEFUL FORMULAS - Sizing a Tank

**A) Constant Speed Operation:** Tank Size (ft<sup>3</sup>) =  $\frac{\text{Compressor Flow (CFM)}}{7}$

**B) Typical Sizing Formula:**  $V_r = \frac{14.7(Q_r - Q_c)}{P_{max} - P_{min}}$  where  $t$  = time (min) that receiver can supply required amount of air,  
 $Q_r$  = consumption rate of pneumatic system (cfm),  
 $Q_c$  = output flow rate of compressor (cfm),  
 $P_{max}$  = maximum pressure level in receiver (psi),  
 $P_{min}$  = minimum pressure level in receiver (psi),  
 $V_r$  = receiver size (ft<sup>3</sup>)

**C)** 7.48 Gallons = 1ft<sup>3</sup> Volume

**D)** 14.5 psi = 1 BAR      **E)** 35 CFM =  $\frac{1 \text{ Meter}^3}{\text{Min.}}$

**F) Pump Up Time:** Example—5 hp compressor on an 80 gallon tank, pumping from 0-100psig.

$$\frac{80 \text{ Gallon Tank}}{7.5 \text{ gal./ft}^3} \times (100 \text{ psig} - 0 \text{ psig}) = \frac{1066.67}{14.7 \text{ (the ATM Pressure)} \times 18 \text{ (the CFM of Unit)}} = 4 \text{ min}$$

NOM. CAP. GAL.	CU.FT.	Horz. Vert.	No Slots	NEMA Frame Sizes									
				56	56H	143T	145T	182T	184T	213T	215T	254T	
10	1.34	H	X										
15	2.01	H	X										
20	2.67	H	X										
30	4.01	H&V		X	X	X	X						
60	8.02	H&V					X	X	X	X			
80	10.70	V					X	X	X	X			
80	10.70	H							X	X	X	X	X
120	16.04	H&V							X	X	X	X	X
200	26.74	H	X										
240	32.09	H	X										

# DID YOU KNOW?

**Manchester Tank is the largest manufacturer of receivers in North America!**

**Manchester Tank offers a more diverse product line than it's competitors!**

A majority of our product line is sold to original equipment manufacturers. We take our customer product requirements seriously. Plus, we offer a large engineering department to work directly with customers to design the correct product for their application.

Here are some examples of our diverse product line:

- Air brake reservoirs for mass transit vehicles
- Dental instruments
- Air/Oil separators
- Valve and system activators
- Air starter tanks
- Sandblast tanks
- Tire changers
- Portable carry tanks
- Surge tanks
- Bladder tanks
- Over-the-road tire trucks
- A variety of tanks for every day industrial and commercial use

**We manufacture the largest capacity of different size and design pressures!**

From 3" diameter at 3000-psi design up to 120" diameter at 200-psi.

Ask our engineering department to design to your requirements.

**We maintain active involvement in the industry!**

Manchester Tank stays on top of industry products, requirements and issues by serving on committees in the following organizations: ASME, PVMA, and the National Board.

**We will work hard to earn your business!**

Manchester tank is dedicated to serving its customers in every way possible.

Be sure to call us before you buy anywhere else!