

PENWAY



AIR RECEIVERS

ASME CODE SECTION VIII PRESSURE VESSELS

About Us

Penway Inc. has been serving the pressure vessel industry since 1989. We are dedicated to excellent quality, on-time delivery, customer service, and overall satisfaction. We have served many industries including; industrial air power, vacuum, water storage, steam service, HVAC service, plastics, oil and gas, chemical, and chemical processing.

All Pressure Vessels are built to the latest addenda of ASME Pressure Vessel Code Section VIII Division 1 and are stamped with a "U" Stamp. We also have a National Board of Boiler and Pressure Vessel Inspectors "R" Stamp for repairs of vessels.

Penway Inc. has over 50 years of pressure vessel experience including professional engineers on staff within our engineering department. We are fully capable of sealing documents with a Professional Engineering stamp at your request. Penway also uses the latest engineering and design software which includes the latest updates to the ASME Boiler and Pressure Vessel Code.

This catalog includes Vertical and Horizontal Air Receivers used in the Air Compressor and Vacuum Pump industries. All our standard Air Receivers can be built to higher pressures, with different nozzle sizes/types, and special supports. Contact our sales people for special design quotations. We also offer a wide variety of custom designed pressure vessels used in many different industries.

All of our Air Receivers come with a primer coating on the outside surface. Special external and internal coatings are available on request.

PENWAY

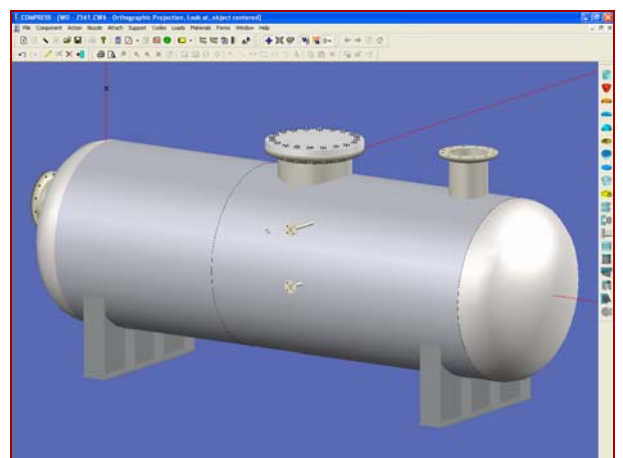
www.penway-inc.com
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Multiple Tanks of the Same Design



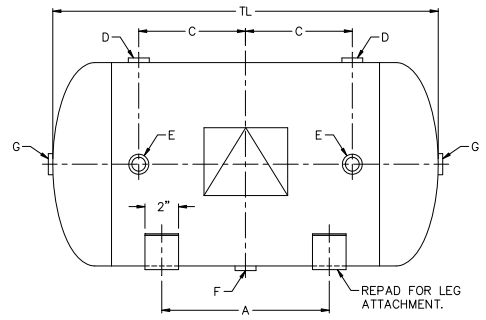
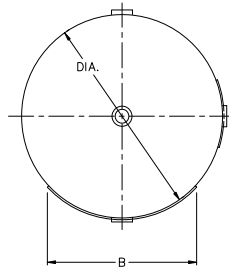
Large Custom Vessels



Specialty Engineering Software

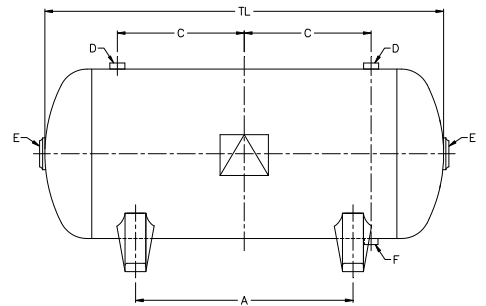
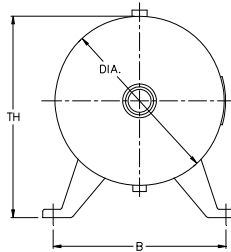
Vertical-Horizontal Air Receivers 3 – 15 Gallons

With Repad for Bracket Attachment



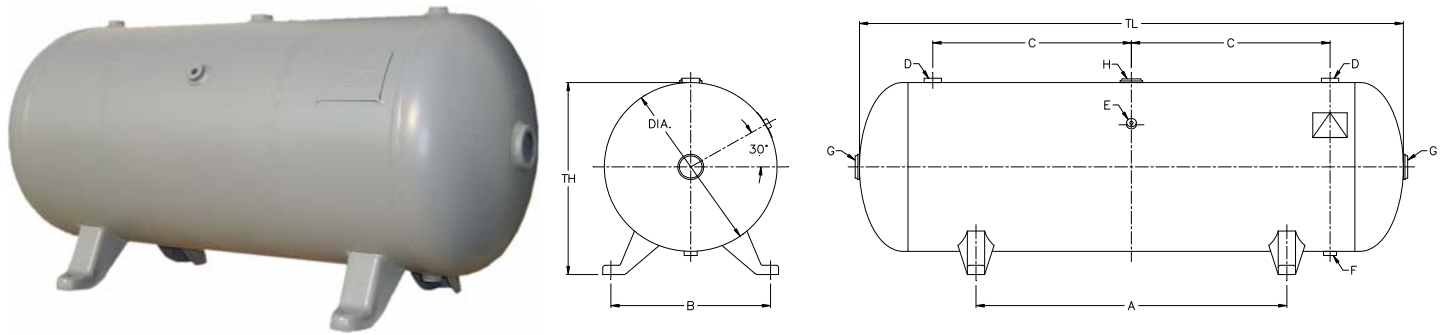
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	GAL	DIA	TL	A	B	C	D	E	F	G		
A21008016400	3	8	16	7	7	3 3/4	3/4	1/2	1/2	3/4	400 PSI	17
A21010016320	5	10	16	6	8	3 3/8	3/4	1/2	1/2	3/4	320 PSI	22
A21012023265	10	12	23	10	10	6	3/4	1/2	1/2	3/4	265 PSI	35
A21014026230	15	14	26	12	12	7	3/4	1/2	1/2	1 1/2	230 PSI	45

Horizontal Air Receivers 10-20 Gallons



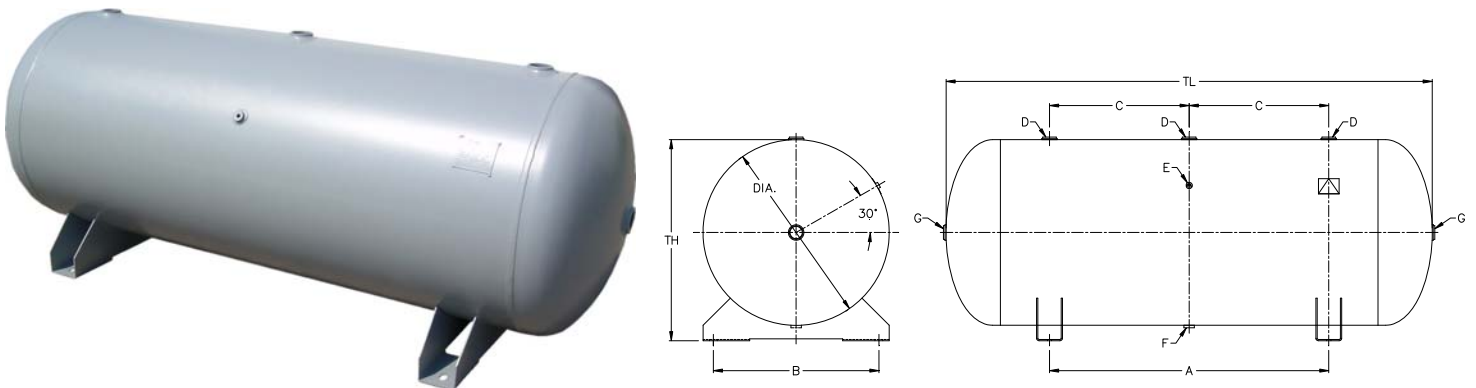
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		GAL	DIA	TL	TH	A	B	C	D	E	F	
A22110030300	300 PSI	10	10	30	11 9/16	18	8 1/2	9 1/2	1/2	3/4	1/4	39
A22112033250	250 PSI	15	12	33	13 3/16	20	11	11	1/2	3/4	1/4	46
A22114033200	200 PSI	20	14	33	16 1/4	18	14	10 1/2	1/2	1 1/2	1/4	61

Horizontal Air Receivers 30 -120 Gallons



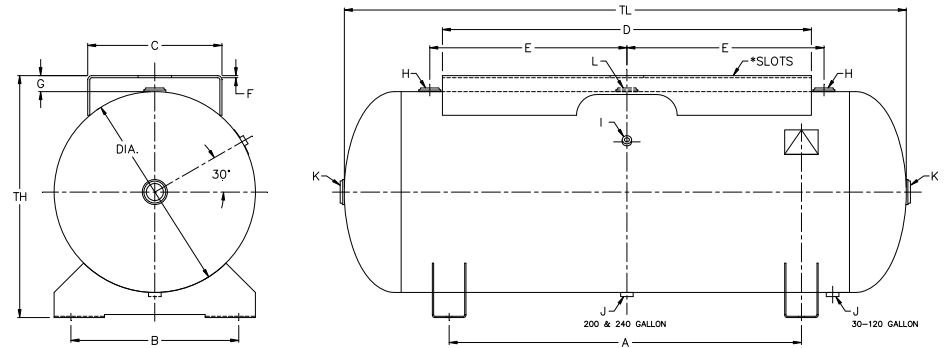
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		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	
A22216038200	200	30	16	38	18 1/2	22	14	13 1/4	1/2	1/4	1/4	1 1/2	3/4	77
A22220048200	200	60	20	48	22 3/4	26	18 1/2	16 3/4	3/4	1/4	1/2	2	1	163
A22220063200	200	80	20	63	22 3/4	36	18 1/2	23	1	1/4	3/4	2	1 1/2	187
A22224067200	200	120	24	67	26 1/2	42	20 1/4	23 1/2	1 1/2	1/4	3/4	2	1 1/2	287

Horizontal Air Receivers 200 – 400 Gallons



PART #	DESIGN PRESSURE	DESCRIPTIONS				DIMENSIONS			OPENINGS (NPT)				WT. (LBS)
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	
A22330072200	200 PSI	200	30	72	33	42	26	24	2	1/4	1	2	545
A22330084200	200 PSI	240	30	84	33	54	26	30	2	1/4	1	2	621
A22336094150	150 PSI	400	36	94	39	54	32	27	2	1/4	1	2	701
A22336094200	200 PSI	400	36	94	39	54	32	27	2	1/4	1	2	920

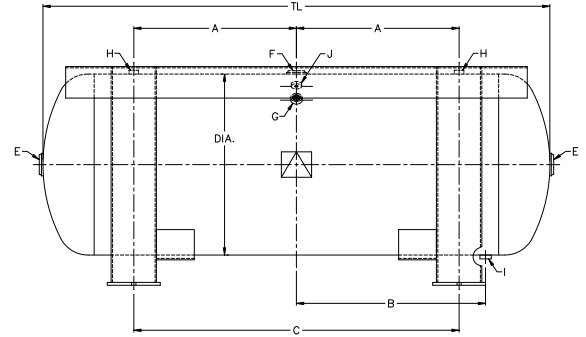
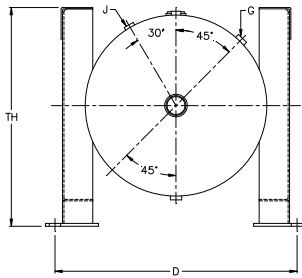
Horizontal Air Receivers 30 – 240 Gallons



Available with or without NEMA Slots
*Slotted Platform Design

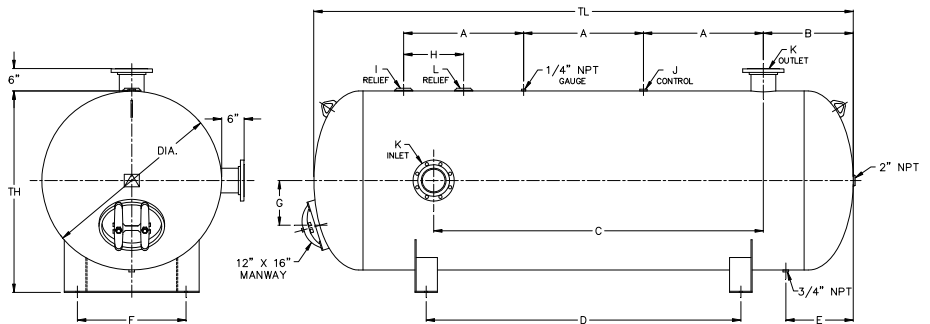
PART #	DESIGN PRESSURE	DESCRIPTION				DIMENSIONS (INCHES)							OPENINGS (NPT)					WT. (LBS)	*NEMA SLOTS
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I	J	K	L		
A22416038200	200	30	16	38	20 3/8	22	13	12	24	13 1/4	3/16	1 7/8	1/2	1/4	1/4	1 1/2	3/4	105	NO SLOTS
*A22416038201																			56, 182T, 184T, 213T
A22420048200	200	60	20	48	24 3/4	26	17	14	30	16 1/4	3/16	1 3/4	3/4	1/4	1/2	2	1	196	NO SLOTS
*A22420048201																			56, 182T, 184T, 213T, 215T
A22420063200	200	80	20	63	24 7/8	36	17	14	40	23	3/16	1 7/8	1	1/4	3/4	2	1 1/2	250	NO SLOTS
*A22420063201																			182T, 184T, 213T, 215T, 254T
A22524067200	200	120	24	67	29	42	20	16	44	23 1/2	1/4	2	1 1/4	1/4	3/4	2	1 1/4	375	NO SLOTS
*A22524067201																			182T, 184T, 213T, 215T, 254T
A22530072200	200	200	30	72	35	42	26	18	44	24	1/4	2	2	1/4	1	2	2	550	NO SLOTS
*A22530072201																			215T, 254T, 256T
A22530084200	200	240	30	84	35	54	26	18	48	30	1/4	2	2	1/4	1	2	2	610	NO SLOTS
*A22530084201																			215T, 254T, 256T

Horizontal Grasshopper Tanks



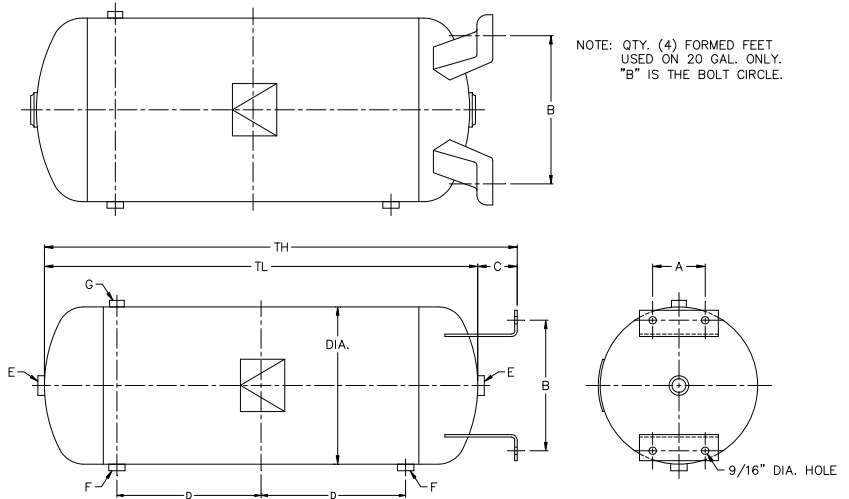
PART #	DESIGN PRESSURE	DESCRIPTION				DIMENSIONS (INCHES)				OPENINGS (NPT)						WT. (LBS)
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I	J	
A28020048200	200 PSI	60	20	48	25	13 1/2	15 1/2	27	26 1/2	2	1 1/2	3/4	1/2	1/2	1/8	216
A28020063200	200 PSI	80	20	63	25	21	23	42	26 1/2	2	1 1/2	3/4	1/2	3/4	1/8	275
A28024067200	200 PSI	120	24	67	29	21 1/2	25	43	32	2	1 1/2	3/4	1/2	3/4	1/8	413
A28030072200	200 PSI	200	30	72	35	21	25	42	40	2	1 1/2	3/4	1/2	1	1/8	661
A28030084200	200 PSI	240	30	84	35	27	31	54	40	2	2	3/4	2	1	1/8	758

Large Industrial Horizontal Air Receivers 660–5000 Gallons



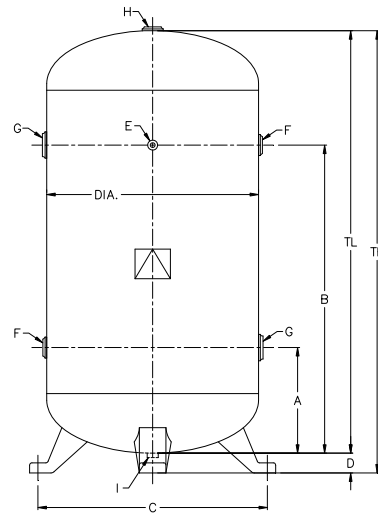
PART #	DESIGN PRESSURE	DESCRIPTION				DIMENSIONS								OPENINGS				WT. (LBS)
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I	J	K	L	
A22642117165	165 PSI	660	42	117	48	27	18	73	70	16	25	10 1/2	X	3 NPT	1 NPT	4 FLG	X	1324
A22648144165	165 PSI	1060	48	144	54	32	24	88	84	18	29	12	X	3 NPT	1 NPT	6 FLG	X	2056
A22654166165	165 PSI	1550	54	166	60	38	26	104	98	19	33	13 1/2	X	3 NPT	1 NPT	6 FLG	X	2806
A22660190165	165 PSI	2200	60	190	66	44	29	121	116	21	37	15	X	3 NPT	1 NPT	6 FLG	X	3780
A22660220165	165 PSI	2560	60	220	66	54	29	148	146	21	37	15	X	3 NPT	1 NPT	6 FLG	X	4215
A22666214150	150 PSI	3000	66	214	72	51	30	153	128	23	40	16 1/2	X	3 NPT	1 NPT	6 FLG	X	5481
A22672228150	150 PSI	3800	72	228	78	56	30	168	136	24	44	18	X	3 NPT	1 NPT	6 FLG	X	6668
A22672305150	150 PSI	5000	72	305	78	82	30	245	213	26	44	18	26	3 NPT	1 NPT	6 FLG	3 NPT	8550
A22684229150	150 PSI	5000	84	229	90	52	36	160	138	29	58	29	26	3 NPT	1 NPT	6 FLG	3 NPT	8600

Vertical Air Receivers 10-20 Gallons



PART #	DESIGN PRESSURE	DESCRIPTION				DIMENSIONS (INCHES)				OPENINGS (NPT)			WT. (LBS)
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	
A21110030300	300 PSI	10	10	30	33	4	8 ½	3	9 ½	¾	½	¼	39
A21112033250	250 PSI	15	12	33	36	4	10	3	11	¾	½	¼	49
A21114033200	200 PSI	20	14	33	34 ¾	-	17	1 ¾	10 ½	1 ½	½	¼	56

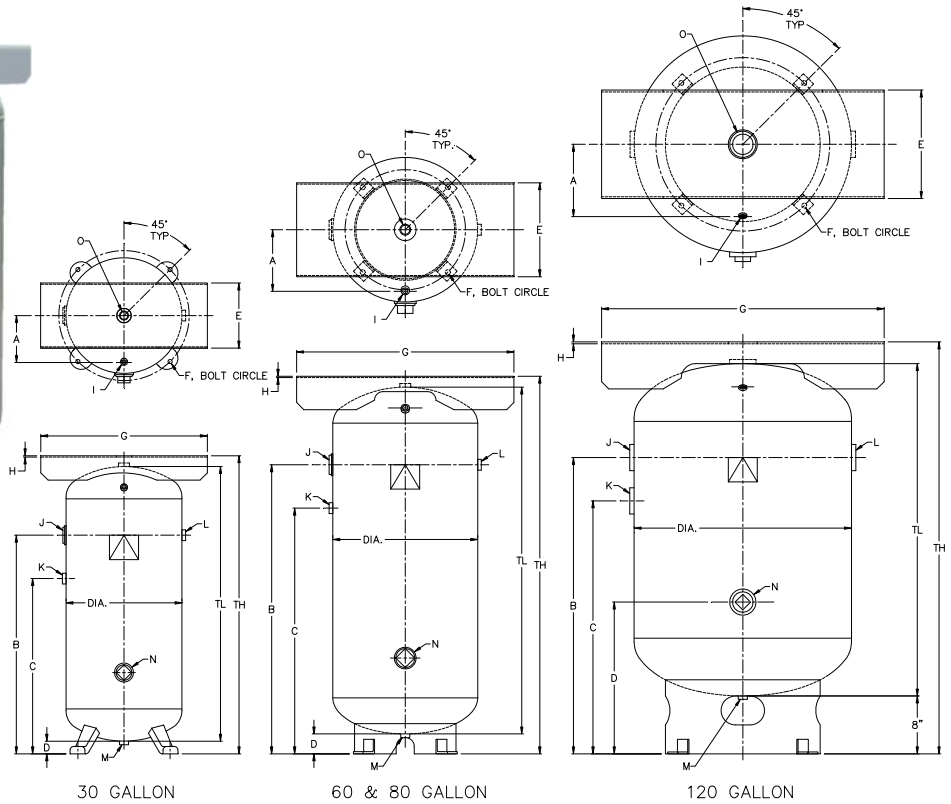
Vertical Air Receivers 30-80 Gallons



NOTE: QTY (4) FORMED FEET

PART #	DESIGN PRESSURE	DESCRIPTION				DIMENSIONS (INCHES)				OPENINGS (NPT)					WT. (LBS)
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I	
A21216038200	200 PSI	30	16	38	40 5/8	9	29	18	2 5/8	¼	¾	1 ½	1 ½	½	83
A21220048200	200 PSI	60	20	48	50 1/8	10	38	23	2 1/8	¼	¾	2	1 ½	½	132
A21224048200	200 PSI	80	24	48	50 1/4	12	35	26	2 1/4	¼	1 ¼	2	1 ¼	½	200
A21220063200	200 PSI	80	20	63	65 1/8	10	53	23	2 1/8	¼	1	2	1 ½	½	175

Vertical Air Receivers with Platform & Feet or Basing 30 - 120 Gallons

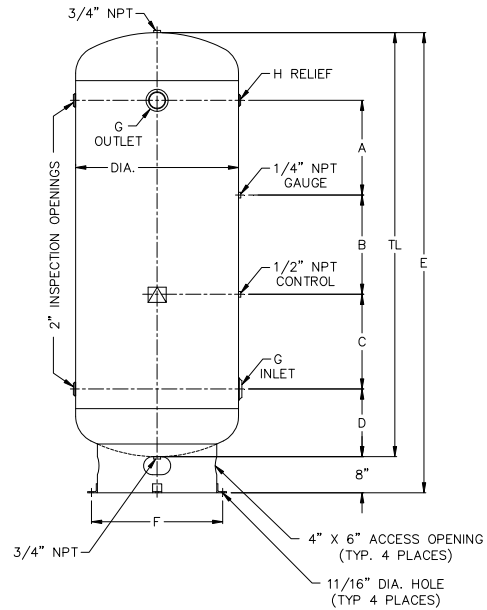


Available with or without NEMA slots
Note: Item N is plugged
*Slotted Platform Design

GAL	DESIGN PRESSURE	PART #	WT. (LBS)	*NEMA SLOTS
30	200 PSI	A21316038200	101	NO SLOTS
		*A21316038201		56, 182T, 184T, 213T
60	200 PSI	A21320048200	166	NO SLOTS
		*A21320048201		56, 182T, 184T, 213T, 215T
80	200 PSI	A21324048200	211	NO SLOTS
		*A21324048201		56, 182T, 184T, 213T, 215T
120	200 PSI	A21430046200	470	NO SLOTS
		*A21430046201		184T, 213T, 215T, 254T

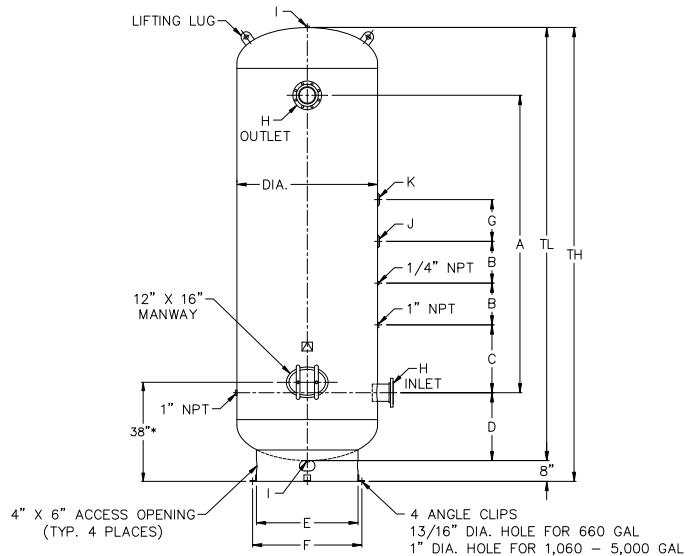
DESCRIPTION				DIMENSIONS (INCHES)								OPENINGS (NPT)							
GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
30	16	38	41 7/8	6 1/2	31 1/8	25 1/8	2 5/8	9	18	23	3/16	1/4	1 1/2	3/4	3/4	1/2	1 1/2	3/4	
60	20	48	52 1/4	8 1/2	40	34	2 3/4	13	16 5/8	30	3/16	1/4	2	3/4	3/4	1/2	2	3/4	
80	24	48	53 1/4	9	40 5/16	35 5/16	3 3/16	13	20 5/8	30	3/16	1/4	2	1 1/4	1 1/4	1/2	2	1 1/4	
120	30	46	57	10	41	35	21	15	24	39	1/4	1/4	2	2	2	1/2	2	2	

Vertical Air Receivers 120 - 500 Gallons



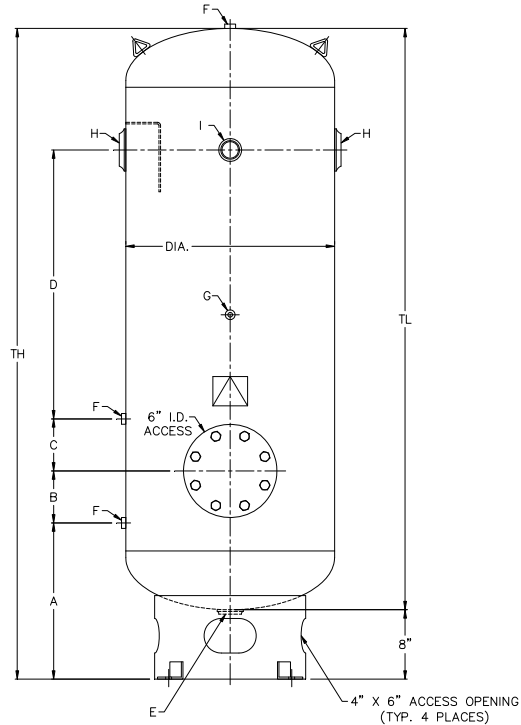
PART #	DESIGN PRESSURE	DESCRIPTION			DIMENSIONS (INCHES)						OPENINGS		WT. (LBS)
		GAL	DIA	TL	A	B	C	D	E	F	G	H	
A21524067200	200 PSI	120	24	67	13	14	13	13	75	20	2 NPT	1 1/2 NPT	286
A21530072200	200 PSI	200	30	72	15	16	15	13	80	24	3 NPT	1 1/2 NPT	517
A21530084200	200 PSI	240	30	84	19	20	19	13	92	24	3 NPT	1 1/2 NPT	533
A21536094150	150 PSI	400	36	94	21	22	21	15	102	29	3 NPT	1 1/2 NPT	644
A21536094200	200 PSI	400	36	94	21	22	21	15	102	29	3 NPT	1 1/2 NPT	875
A21536118165	165 PSI	500	36	118	25	25	25	20	126	29	3 NPT	2 1/2 NPT	815
A21536118200	200 PSI	500	36	118	25	25	25	20	126	29	3 NPT	2 1/2 NPT	1055

Large Vertical Industrial Air Receivers 660 - 5000 Gallons



PART #	PRES (PSI)	DESCRIPTION				DIMENSIONS (INCHES)						OPENINGS			WT (LBS)		
		GAL	DIA	TL	TH	A	B	C	D	E	F	G	H	I		J	K
A21642117165	165	660	42	117	125	77	16	26	20	33	36	X	4 FLG	1 NPT	3 NPT	X	1397
A21648144165	165	1060	48	144	152	96	16	26	24	39	42 1/2	X	6 FLG	1 NPT	3 NPT	X	2110
A21654166165	165	1550	54	166	174	114	16	26	26	39	42 1/2	X	6 FLG	1 1/4 NPT	3 NPT	X	2950
A21660190165	165	2200	60	190	198	140	16	26	26	45	48 1/2	X	6 FLG	1 1/4 NPT	3 NPT	X	3740
A21660220165	165	2560	60	220	228	168	16	26	26	45	48 1/2	X	6 FLG	1 1/4 NPT	3 NPT	X	4243
A21666214150	150	3000	66	214	222	158	16	26	28	49	52 1/2	X	6 FLG	1 1/4 NPT	3 NPT	X	6492
A21672228150	150	3800	72	228	236	168	16	26	30	55	58 1/2	X	6 FLG	1 1/4 NPT	3 NPT	X	6996
A21672305150	150	5000	72	305	313	245	16	26	30	55	58 1/2	22	6 FLG	1 1/4 NPT	3 NPT	3 NPT	8500
A21684229150	150	5000	84	229	237	168	16	26	30 1/2	67	70 1/2	24	6 FLG	1 1/4 NPT	3 NPT	3 NPT	7642

Vacuum Receivers



DESCRIPTION					DESIGN PRESSURE	DIMENSIONS (INCHES)				OPENINGS					
PART #	GAL	DIA	TL	TH		A	B	C	D	E	F	G	H	I	WT
A7060	60	20	48	56	150 PSI & F.V.	17	6	6	14	2	½	¼	3 NPT	1 ½	260
A7080	80	20	63	71	150 PSI & F.V.	17	6	6	29	2	½	¼	3 NPT	1 ½	295
A7120	120	24	67	75	150 PSI & F.V.	18	6	6	31	2	½	¼	3 NPT	1 ½	360
A7240	240	30	84	92	150 PSI & F.V.	19	6	6	44	2	½	¼	6 FLG	1 ½	554
A7400	400	36	93	101	150 PSI & F.V.	21	6	6	50	2	½	¼	6 FLG	1 ½	565

Formulas

1.) Receiver Pump-Up Time (Minutes) = $\frac{V(\text{Tank Size in Gallons}) \times (\text{Final Tank Pressure} - \text{Initial Tank Pressure})}{7.48 \times \text{Atmospheric Pressure (PSIA)} \times \text{Pump Delivery (CFM)}}$

2.) Cubic Feet = Gallons × .134

3.) 14.5 PSI = 1 BAR = 100 KPa = 0.1 MPa

4.) 35 Cubic Feet per Minute (CFM) = 1 Cubic Meter per Minute (m³/min)

5.) Air Receiver Sizing Formula: Volume of Receiver (Gallons) = $\frac{14.7 \times t \times (Q_r - Q_c)}{P_{max} - P_{min}} \times 7.481$

t = time receiver can supply required amount of air (Minutes)

Q_r = consumption rate of pneumatic system (CFM)

Q_c = output flow rate of compressor (CFM)

P_{max} = maximum pressure in Receiver (PSI)

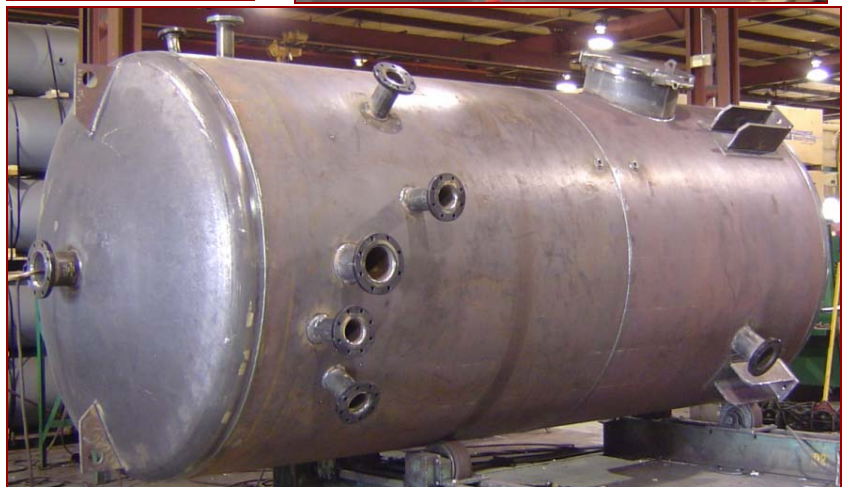
P_{min} = minimum pressure in Receiver (PSI)

Compressor Motor Mounting Chart for Slotted Platforms

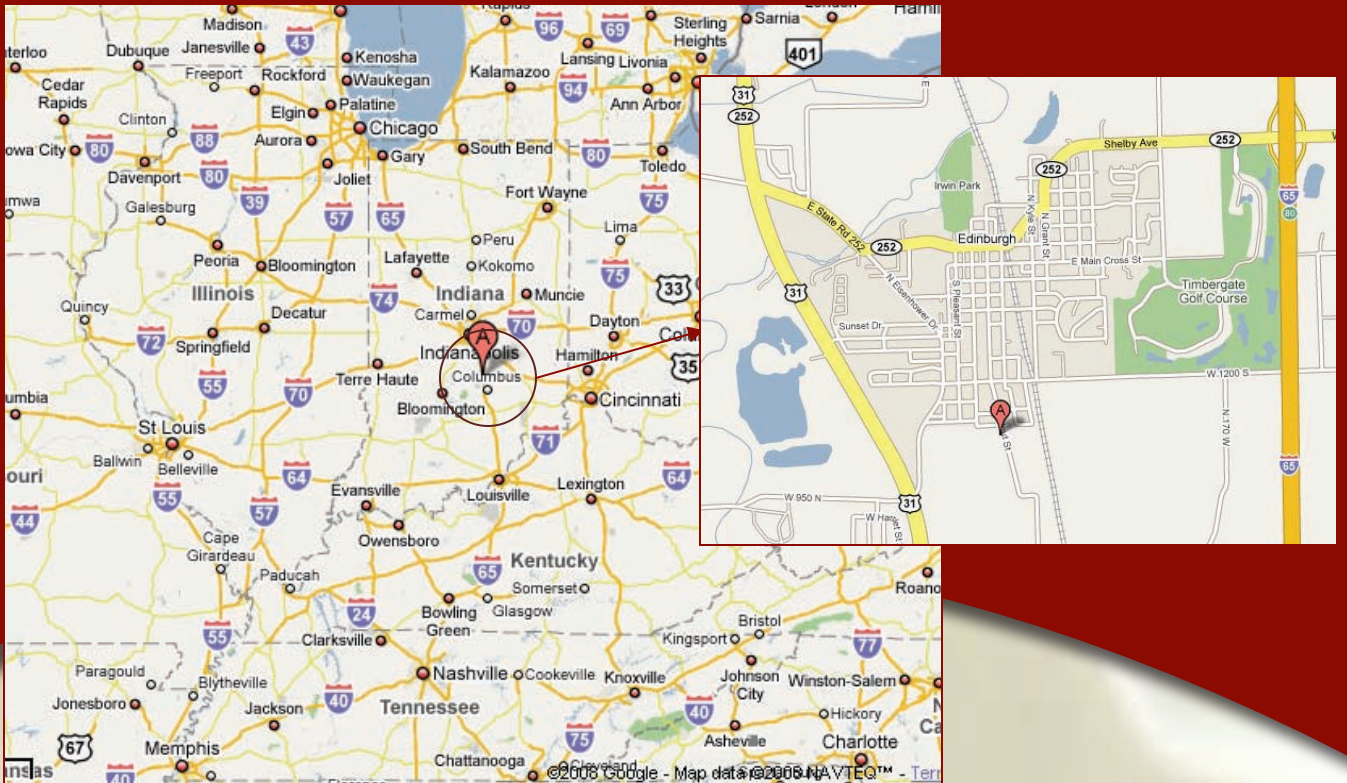
NEMA SLOTS	ELECTRIC MOTOR HP RANGE	30 GAL VT	60 GAL VT	80 GAL VT	120 GAL VT	30 GAL HZ	60 GAL HZ	80 GAL HZ	120 GAL HZ	200 GAL HZ	240 GAL HZ
56	¼ - 1 HP	X	X	X		X	X				
182T	3 HP	X	X	X		X	X	X	X		
184T	5 HP	X	X	X	X	X	X	X	X		
213T	7.5 HP	X	X	X	X	X	X	X	X		
215T	10 HP		X	X	X		X	X	X	X	X
254T	15 HP				X			X	X	X	X
256T	20 HP									X	X

Custom Fabrication

- **ASME CODE SECTION VIII "U" Stamp Pressure Vessels**
 - Up to 1 ¼" Thickness
 - Carbon Steel and Stainless Steel
 - Up to 84" Diameter
 - Maximum weight of 10,000 lbs
 - 35,000 Sq. Ft. of Manufacturing Space
 - In house welding capabilities for GMAW, SAW, FCAW, GTAW, and SMAW with power sources up to 1000 amps
 - American Bureau of Shipping, U.S. Coast Guard, and Canadian Registrations are available
 - Specialty Coatings – Epoxies, Enamels, Galvanized, FDA & NSF Approved Coatings for Potable Water Applications
 - Custom Engineering – Seismic and Wind Loadings, WRC 107 Analysis, and FEA Nozzle Analysis



Contact Us



Penway Inc. is located in the center of the industrial Midwest. Our plant is located 35 miles south of Indianapolis, just off I-65 in Edinburgh, Indiana. We have easy access to I-70 going East and West, as well as I-65 going North and South. Our closest Major Airport is the Indianapolis International Airport.

PENWAY

www.penway-inc.com

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