



PRECISION BOILERS



— SIZING OF TANKS AND CAPACITY —

PRECISION's standard size chart accommodates the most commonly requested sizes from 125 to 5500 gallons in diameters from 24" to 96", in lengths from 68" to 192", and in design pressures of 125 PSI and 150 PSI. Larger tanks (up to 132" diameter and 40' long), and higher design pressures (up to 3000 PSI), are available upon request.

— INSULATING AND JACKETING —

PRECISION's tanks are not insulated or jacketed as a standard, but are painted with one coat of industrial grade paint prior to shipment. For tanks storing either heated or chilled water, insulation and jacket offer a good return on investment when the original cost of insulation is compared to energy savings from improved efficiency over the life of the tank. The low thermal loss with insulation and jacketing meets the energy efficiency standards of AHRAE 90b-1992.

VERTICAL & HORIZONTAL STORAGE TANKS

— VERTICAL & HORIZONTAL —

PRECISION's Lined Storage Tanks are available in both vertical and horizontal configurations, 24" to 96" diameters, and 125 to 5500 gallon capacities. Storage tanks can be used in combination with an electric or gas boiler, or some other independent heating source, for storing and/or heating domestic hot water.

When properly sized and used in the above mentioned combinations, a water heating system, which provides the right storage capacity and recovery for the time interval needed, can be designed to deliver potable hot water for any job. Because each application varies in total volume, flow rate, duration and timing of peak load period, and temperature needed, a large selection of sizes and capacities is offered by PRECISION. Larger sizes, higher design pressures, and other customizing are also available from PRECISION upon request.

— PRECISION'S TANK LININGS —

PRECISION SEAL LINING

Precision Seal is a highly water resistant polymerized epoxy material designed primarily as a tank lining for water up to 160°F and low conductivity deionized or distilled water up to 180°F. Precision Seal meets the requirements of EPA, USDA and NFS 61 qualifying as an indirect additive for drinking water and food. After complete fabrication of the tank, two separate coats of Precision Seal are applied to a minimum dry film thickness of 5-6 mils per coat. Each coat is baked and forced-cured in a high temperature oven. The lining is then 100% tested utilizing an ultra sound process. This 10-12 mils of epoxy offers protection against corrosion and leaves a smooth interior tank surface to prevent build up of algae and precipitants. This lining does not impart taste, color or odor. It is extremely tough, flexible and abrasive resistant.





PRECISION BOILERS

— PRECISION'S TANK LININGS CONT. —

SPECIFICATIONS

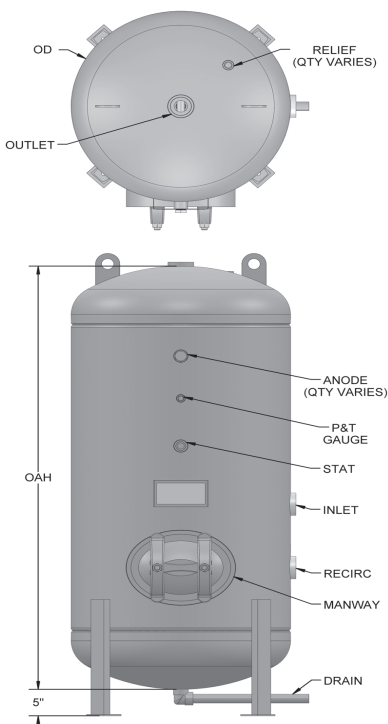
Precision Seal: After complete fabrication, the tank interior shall be lined with two(2) separate coats of Precision Seal to a minimum dry film thickness of 5-6 mils per coat. This epoxy is then baked with individual curing cycles in a high temperature oven.

ALUMINUM SILICATE CEMENT LINING

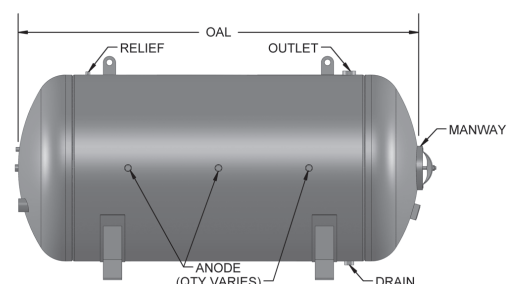
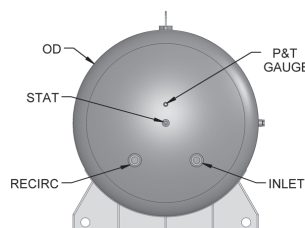
The Aluminum Silicate Cement Lining covers the inside of the fabricated tank and bonds directly to the steel forming a hard one piece lining to protect against corrosion. It is the best lining choice for high temperature service (temperatures from 180°F to 250°F), with the cement formulated to have the same coefficient of expansion as medium steel. After tank fabrication, expanded metal is tack-welded to the vessel interior, then cement is applied to a minimum thickness of 5/8". While this lining offers competitive pricing, it, like all linings, requires annual inspection to fulfill the terms of the warranty. Periodic maintenance is necessary due to the erosion of the lining caused by the flow of hot water over its surfaces.

SPECIFICATIONS

Cement: The lining shall be an aluminum silicate cement good for service temperatures to 250°F with the same coefficient of expansion as medium steel. The water absorption of the lining material shall not be more than 8% of the dryweight. The cement shall be applied to a minimum thickness of 5/8" to the interior of the Storage Tank to form a hard, one-piece lining.



Base Ring Sizing	
Tank OD	Base OD
24	20
30	24
36	30
42	30
48	36
54	42
60	48
66	54
72	60



VERTICAL & HORIZONTAL STORAGE TANKS

INSULATION AND JACKET FOR VESSELS

All Storage Tanks can be furnished with insulation and jacket for heat loss prevention and maximum thermal efficiency. With energy costs rising, it is important that all equipment reduce radiant heat losses, and the steel jackets with fiberglass insulation work well to reduce those losses. A properly insulated tank may reduce the size of the storage capacity that is required and still meet the recovery and volume demands. Thus, as thermal losses are decreased, the size of the Storage Tank may be reduced.

Storage Tanks are insulated with 2 inches of 3/4 pound density fiberglass, mounted on a structural steel base, and enclosed in a 16 gauge sheet steel cabinet which is painted with an air dried enamel.

PRECISION's insulation and jacketing meets ASHRAE 90b-1992 energy efficiency standards. As a standard, all tanks are shipped gray primed, unlined and with no insulation and jacket. All tanks with insulation and jacket include the support legs or saddles.

SUPPORTS

Welded tank supports are available in several designs for application to both horizontal and vertical pressure vessels.

1. Angle iron legs are standard with vertical tanks. Four angle iron legs are welded to the tank with a 4" (12" optional) clearance from the bottom of the vessel head to the floor. Custom lengths are available upon request and all angle legs are shipped with base plate as a standard feature.
2. Base Rings are also used with vertical tanks. The rings are sized and welded to the tank to provide a clearance of 4". Base rings are sized per the table below, and come complete with floor clips. Leg bosses for pipe stand mounting are provided as an option.
3. Saddles are used with the horizontal tanks and are available in 4" and 12" clearance from the bottom of the tank to the floor. Custom sizes are available upon request. The number of saddles will need to be specified and PRECISION recommends a maximum spacing of 10" between each saddle with a minimum of two saddles per tank. The saddles will be spaced to accommodate and distribute the tank weight evenly.

VERTICAL CONFIGURATION

TANK MODEL*	ACTUAL GAL	TANK HGT**	STANDARD WEIGHT			STRONG WEIGHT		
			PLATE THICK	MAX PRESS	SHIP WT***	PLATE THICK	MAX PRESS	SHIP WT***
V2468	125	72	0.25	160	620	-	-	-
V2480	150	84	0.25	160	690	-	-	-
V3046	125	50	0.19	150	530	0.25	160	650
V3054	150	58	0.19	150	570	0.25	160	700
V3062	175	66	0.19	150	610	0.25	160	760
V3070	200	74	0.19	150	650	0.25	160	810
V3078	225	82	0.19	150	690	0.25	160	860
V3086	250	90	0.19	150	730	0.25	160	920
V3652	200	56	0.19	125	670	0.25	160	820
V3658	225	62	0.19	125	700	0.25	160	860
V3663	250	67	0.19	125	730	0.25	160	900
V3668	275	72	0.19	125	760	0.25	160	940
V3674	300	78	0.19	125	800	0.25	160	990
V3680	325	84	0.19	125	830	0.25	160	1040
V3686	350	90	0.19	125	870	0.25	160	1090
V3691	375	95	0.19	125	900	0.25	160	1130
V3696	400	100	0.19	125	930	0.25	160	1170
V3602	425	106	0.19	125	970	0.25	160	1210
V3608	450	112	0.19	125	1000	0.25	160	1260
V4274	400	78	0.25	125	1250	0.25	150	1290
V4278	425	82	0.25	125	1290	0.25	150	1330
V4282	450	86	0.25	125	1320	0.25	150	1360
V4286	475	90	0.25	125	1360	0.25	150	1400
V4290	500	94	0.25	125	1400	0.25	150	1440
V4298	550	102	0.25	125	1470	0.25	150	1510
V4872	500	77	0.25	125	1430	0.25	150	1480
V4878	550	82	0.25	125	1490	0.25	150	1540
V4884	600	89	0.25	125	1560	0.25	150	1600
V4891	650	96	0.25	125	1630	0.25	150	1680
V4898	700	103	0.25	125	1710	0.25	150	1750
V4804	750	109	0.25	125	1770	0.25	150	1810
V4810	800	115	0.25	125	1830	0.25	150	1880
V5480	700	85	0.25	125	1840	0.31	150	2140
V5485	750	90	0.25	125	1900	0.31	150	2210
V5490	800	95	0.25	125	1960	0.31	150	2290
V5495	850	100	0.25	125	2020	0.31	150	2360
V5400	900	105	0.25	125	2080	0.31	150	2440
V5405	950	110	0.25	125	2140	0.31	150	2510
V5410	1000	115	0.25	125	2200	0.31	150	2580
V6092	1000	97	0.31	125	2590	0.38	150	3030
V6096	1050	101	0.31	125	2660	0.38	150	3110
V6000	1100	105	0.31	125	2720	0.38	150	3190
V6004	1150	109	0.31	125	2790	0.38	150	3270
V6008	1200	113	0.31	125	2850	0.38	150	3340
V6012	1250	117	0.31	125	2920	0.38	150	3420
V6016	1300	121	0.31	125	2990	0.38	150	3500
V6698	1300	103	0.31	125	3200	0.38	150	3560
V6605	1400	110	0.31	125	3330	0.38	150	3710
V6612	1500	117	0.31	125	3450	0.38	150	3860
V7202	1600	107	0.31	125	3490	0.38	150	3890
V7208	1700	113	0.31	125	3610	0.38	150	4030
V7214	1800	119	0.31	125	3730	0.38	150	4180
V7220	1900	125	0.31	125	3840	0.38	150	4320
V7226	2000	131	0.31	125	3960	0.38	150	4460
V8408	2250	113	0.38	125	4900	0.50	150	6180
V8418	2500	123	0.38	125	5180	0.50	150	6550
V8428	2750	133	0.38	125	5450	0.50	150	6920
V8439	3000	144	0.38	125	5760	0.50	150	7320
V9620	3250	125	0.50	125	8180	0.50	150	8550
V9628	3500	133	0.50	125	8520	0.50	150	8890
V9636	3750	141	0.50	125	8860	0.50	150	9230
V9644	4000	149	0.50	125	9190	0.50	150	9570

HORIZONTAL CONFIGURATION

TANK MODEL*	ACTUAL GAL	TANK HGT**	STANDARD WEIGHT			STRONG WEIGHT		
			PLATE THICK	MAX PRESS	SHIP WT***	PLATE THICK	MAX PRESS	SHIP WT***
H2468	125	28	0.25	160	670	-	-	-
H2480	150	28	0.25	160	730	-	-	-
H2494	175	28	0.25	160	810	-	-	-
H2406	200	28	0.25	160	870	-	-	-
H2420	225	28	0.25	160	950	-	-	-
H3070	200	34	0.19	150	700	0.25	160	840
H3086	250	34	0.19	150	780	0.25	160	950
H3003	300	34	0.19	150	860	0.25	160	1060
H3020	350	34	0.19	150	940	0.25	160	1170
H3674	300	40	0.19	125	850	0.25	160	1040
H3686	350	40	0.19	125	920	0.25	160	1130
H3697	400	40	0.19	125	980	0.25	160	1220
H3608	450	40	0.19	125	1050	0.25	160	1310
H3620	500	40	0.19	125	1120	0.25	160	1400
H3631	550	40	0.19	125	1180	0.25	160	1490
H3642	600	40	0.19	125	1250	0.25	160	1580
H4290	500	46	0.25	125	1470	0.25	150	1510
H4299	550	46	0.25	125	1560	0.25	150	1590
H4207	600	46	0.25	125	1630	0.25	150	1670
H4215	650	46	0.25	125	1700	0.25	150	1740
H4224	700	46	0.25	125	1790	0.25	150	1820
H4232	750	46	0.25	125	1860	0.25	150	1900
H4240	800	46	0.25	125	1930	0.25	150	1970
H4898	700	53	0.25	125	1770	0.25	150	1820
H4810	800	53	0.25	125	1900	0.25	150	1940
H4823	900	53	0.25	125	2040	0.25	150	2080
H4836	1000	53	0.25	125	2170	0.25	150	2200
H4848	1100	53	0.25	125	2300	0.25	150	2360
H5400	900	59	0.25	125	2150	0.31	150	2510
H5410	1000	59	0.25	125	2270	0.31	150	2660
H5420	1100	59	0.25	125	2390	0.31	150	2810
H5430	1200	59	0.25	125	2510	0.31	150	2950
H5440	1300	59	0.25	125	2630	0.31	150	3100
H5450	1400	59	0.25	125	2750	0.31	150	3250
H6000	1100	65	0.31	125	2760	0.38	150	3230
H6008	1200	65	0.31	125	2890	0.38	150	3380
H6016	1300	65	0.31	125	3030	0.38	150	3540
H6024	1400	65	0.31	125	3160	0.38	150	3700
H6032	1500	65	0.31	125	3290	0.38	150	3860
H6041	1600	65	0.31	125	3440	0.38	150	4040
H6049	1700	65	0.31	125	3570	0.38	150	4190
H6058	1800	65	0.31	125	3720	0.38	150	4370
H6066	1900	65	0.31	125	3850	0.38	150	4530
H6075	2000	65	0.31	125	4000	0.38	150	4710
H6632	1800	71	0.31	125	3860	0.38	150	4340
H6639	1900	71	0.31	125	3990	0.38	150	4490
H6646	2000	71	0.31	125	4120	0.38	150	4650
H6663	2250	71	0.31	125	4420	0.38	150	5020
H7226	2000	77	0.31	125	4010	0.38	150	4510
H7240	2250	77	0.31	125	4290	0.38	150	4840
H7254	2500	77	0.31	125	4570	0.38	150	5180
H7268	2750	77	0.31	125	4840	0.38	150	5510
H7282	3000	77	0.31	125	5120	0.38	150	5840
H8439	3000	89	0.38	125	5840	0.50	150	7340
H8450	3250	89	0.38	125	6140	0.50	150	7750
H8460	3500	89	0.38	125	6420	0.50	150	8120
H8470	3750	89	0.38	125	6700	0.50	150	8490
H8480	4000	89	0.38	125	6970	0.50	150	8860
H9644	4000	101	0.50	125	9210	0.50	150	9580
H9660	4500	101	0.50	125	9800	0.50	150	10250
H9676	5000	101	0.50	125	10560	0.50	150	10930
H9692	5500	101	0.50	125	11230	0.50	150	11600

* First 2 numbers of model number indicate tank diameter; second 2 numbers (with 1 understood for long tanks) indicates tank overall length (eg. V9644 is 96" DIA x 144" OAL).

** Add 5" to HEIGHT and 4" to width (DIA) & length (OAL) if insulation and jacket is required.

*** Add 25% to tank weight for cement lining. NOTE : Cement lining is not available on 24" and 30" diameter tanks.



PRECISION BOILERS

VERTICAL & HORIZONTAL STORAGE TANKS

HOW TO ORDER

All custom tank orders should include a drawing or sketch. The following decisions should be made on your submittal drawings. Submittal drawings are available from the Factory.

1. Purpose of pressure vessel; storage, flash, blowdown, etc.
2. Tank diameter: Tank overall length or height.
3. Horizontal or vertical application.
4. Location of nozzles, tank heating coils, handholes and manways.
5. Size of nozzles, tank heating coils, handholes and manways in each location.
6. Tank linings: Precision Seal, Cement.
7. Tank design pressure.
8. Type of tank support: Angle iron legs, Base Rings, Saddles.
9. Job name and location.

WHEN ordering please use the following code:

V	30	60	-	125	PS
Vertical	Diameter	Tank height or length		Design pressure	Precision Seal

1. Prefix will always be H for horizontal or V for vertical.
2. First two numbers are diameter of tank in inches.
3. Next numbers are over-all height or length of tank in inches.
4. Next 3 numbers will be the design pressure in psi.
5. Letter suffix for lining type as follows:

Precision Seal = PS

Cement = C

NOTE: In pursuing our policy of continuous development of products, PRECISION reserves the right to vary any detail in this bulletin without notice.

Represented in your area by:

Precision Boilers
5727 Superior Drive
Morristown, TN 37814



**PRECISION
BOILERS**

PHONE: **(423) 587-9390**
FAX: **(423) 581-7749**
E-mail: **sales@precisionboilers.com**
WEB: **www.precisionboilers.com**