



APACHE

STAINLESS EQUIPMENT CORPORATION

An Employee Owned Company



ASME Portable Stainless Steel Pressure Vessels



We were founded in 1975 and have built a sterling reputation within the industry as a manufacturer of superior small vessels and portable tanks. Our products are designed to ASME code and fabricated from stainless steel and other high alloy materials.

Our customers come to us because of our outstanding customer service, high quality construction, experienced craftsmen, finishing capabilities, competitive prices and application support.

Industries:

- Biofuels
- Chemical
- Cosmetics
- Confectionery
- Personal Care
- Pharmaceutical
- Water Purification

Top Located Fittings

Four 1/4" Female NPT Fittings are located on the top head to accommodate pressure in, product out, a safety or relief valve and the forth fitting is available for a gauge or other item.

Easy Open Large Mouth Closure



Apache's large mouth
4 7/8" x 5 7/8" closure opening
provides easy filling, cleaning
and inspection.

Closure Options

- Models 90, 120 and 180 feature our large mouth 4 7/8" x 5 7/8" oval design opening for easy filling, cleaning and inspection.
- Model 93 features our 3 1/4" x 3 7/8" small mouth oval design that allows for more or larger fittings on a 9" diameter vessel.
- All models include our standard easy open closure with bail assembly. A vacuum/low pressure closure is available on all models when vacuum or low pressure applications are needed.
- Our Model 99 features a 2" stainless steel nipple with stainless steel plug and 3" aluminum nut. This closure allows both vacuum or low pressure operation.

Easy Open Small Mouth Closure



Apache's small mouth
3 1/4" x 3 7/8" closure opening
allows for more or larger
fittings on a 9" diameter vessel.

Features

- Product Contact Surfaces that are either 304L or 316L Stainless Steel
- Four 1/4" Female NPT Fittings
- EPDM Closure O-Rings
- Fully Passivated, White Pickle Finish

MODEL 90,93,99 with 9" DIAMETER			
Type of Stainless Steel	Maximum Operating Temperature		Maximum Allowable Working Pressure
	FAHRENHEIT	CELSIUS	
304L	100°F	38°C	165
304L	200°F	93°C	160
304L	300°F	149°C	150
316L	100°F	38°C	165
316L	200°F	93°C	165
316L	300°F	149°C	155

Model 90 Specifications

- 9" Inside Diameter
- 165 psi Maximum Allowable Working Pressure
- 3/8" MNPT x 1/4" FNPT Dip Tube
- Molded Rubber Foot Ring
- Large 4 7/8" x 5 7/8" Oval Opening

MODEL 90 SPECIFICATIONS			
Catalog Number	Capacity		Overall Height (in.) - A
	GALLONS	LITERS	
90-1	1	5.00	9 1/4
90-2	2	7.57	11 13/32
90-3	3	11.36	15
90-4	4	15.14	18 5/8
90-5	5	18.93	22 1/4
90-6	6	22.71	25 7/8
90-7	7	26.50	29 15/32



Model 93 Specifications

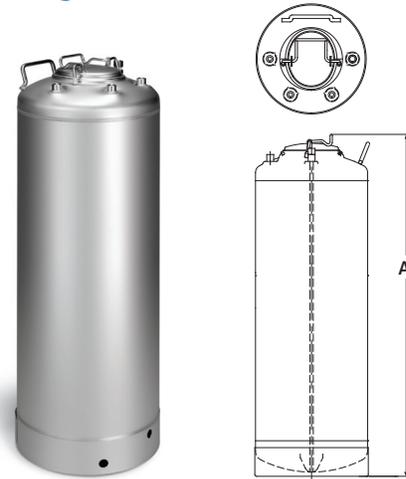
- 9" Inside Diameter
- 165 psi Maximum Allowable Working Pressure
- 3/8" MNPT x 1/4" FNPT Dip Tube
- Molded Rubber Foot Ring
- Small 3 1/4" x 3 7/8" Oval Opening

MODEL 93 SPECIFICATIONS			
Catalog Number	Capacity		Overall Height (in.) - A
	GALLONS	LITERS	
93-1	1	5.00	9 1/4
93-2	2	7.57	11 13/32
93-3	3	11.36	15
93-4	4	15.14	18 5/8
93-5	5	18.93	22 1/4
93-6	6	22.71	25 7/8
93-7	7	26.50	29 15/32



Model 120 Specifications

- 12" Inside Diameter
- Standard Stainless Steel Skirt
- 190 psi Maximum Allowable Working Pressure
- Large 4 7/8" x 5 7/8" Oval Opening
- 3/8" MNPT x 1/4" FNPT Dip Tube



MODEL 120 SPECIFICATIONS			
Catalog Number	Capacity		Overall Height (in.) - A
	GALLONS	LITERS	
120-6	6	22.71	17 9/32
120-7	7	26.50	19 7/16
120-8	8	30.28	21 3/8
120-9	9	34.07	23 1/2
120-10	10	37.85	25 7/16
120-11	11	41.64	27 7/16
120-12	12	45.42	29 1/2
120-13	13	49.21	31 19/32
120-14	14	52.99	33 9/16
120-15	15	56.78	35 19/32
120-16	16	60.56	37 21/32

MODEL 120 - 12" DIAMETER			
Type of Stainless Steel	Maximum Operating Temperature		Maximum Allowable Working Pressure
	FAHRENHEIT	CELSIUS	
304L	100°F	38°C	190
304L	200°F	93°C	185
304L	300°F	149°C	175
316L	100°F	38°C	190
316L	200°F	93°C	190
316L	300°F	149°C	180

Model 180 Specifications

- 18" Inside Diameter
- Standard Stainless Steel Skirt
- 140 psi Maximum Allowable Working Pressure
- Large 4 7/8" x 5 7/8" Oval Opening
- 3/8" MNPT x 1/4" FNPT Dip Tube



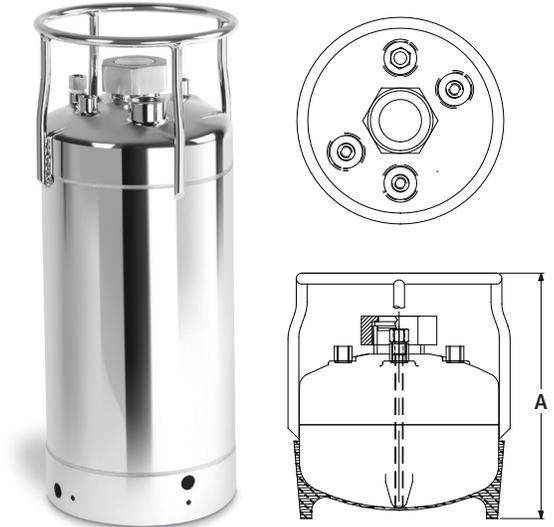
MODEL 180 SPECIFICATIONS			
Catalog Number	Capacity		Overall Height (in.) - A
	GALLONS	LITERS	
180-20	20	75.70	25 9/16
180-25	25	95.63	30 1/4
180-30	30	113.60	34 15/16
180-35	35	132.53	39 1/2
180-37.4	37.4	141.61	41 3/16

MODEL 180 - 18" DIAMETER			
Type of Stainless Steel	Maximum Operating Temperature		Maximum Allowable Working Pressure
	FAHRENHEIT	CELSIUS	
304L	100°F	38°C	140
304L	200°F	93°C	140
304L	300°F	149°C	135
316L	100°F	38°C	140
316L	200°F	93°C	140
316L	300°F	149°C	135

Model 99 Specifications

Capacities	1 – 10 gallon
Inside Diameter	9"
4 NPT Female Pipe Fittings On Top Head*	¼" – 18 NPT
Skirt or Foot Ring	Rubber
O-Ring Material	Teflon
Maximum Allowable Working Pressure Rating	165 psi
Surface Finish	White Pickle
FNPT Dip Tube	1/4" x 3/8" MNPT

*Optional fittings also available



Optional Electropolish Finish and Stainless Steel Skirt shown above

Rubber bottom shown in drawing also available

MODEL 99 SPECIFICATIONS			
Catalog Number	Capacity		Overall Height (in.) - A
	GALLONS	LITERS	
99-01	1	5.00	11 1/4
99-02	2	5.75	13 3/8
99-03	3	11.36	17
99-04	4	15.14	20 5/8
99-05	5	18.93	24 1/4
99-06	6	22.71	27 7/8
99-07	7	26.50	31 1/2
99-08	8	30.28	35 1/8
99-09	9	34.07	38 3/4
99-10	10	37.85	42 3/8

Shipping / Dispensing Vessels

Apache shipping and dispensing vessels are built in accordance with the DOT/UN (Dept. of Transportation/United Nations) and ASME Code specifications. A stainless steel ring chime protects fittings during shipment. We can also custom build to customer specifications.

Material Finishing Capabilities



A small / portable vessel emerges from Apache's in-house electropolishing tank.

Electropolishing

We are uniquely equipped to offer our customers a variety of material finishing services in-house. These capabilities provide efficiencies in producing vessels with quick turnaround. Our capabilities range from mechanical polishing and bead blasting to pickling or passivation and electropolishing.

Our mechanical polishing capabilities meet ASME surface designations ranging from SFW1-SFW6 and our electropolishing proficiencies range from ASME SFW4-SFW6 surface designations.

The electropolishing process provides a microscopically smooth surface for improved:

- Corrosion resistance through the removal of surface contaminants and the formation of a protective layer of surface oxide rich in chromium
- Sterilization by providing a micro-finish that eliminates surface pits and crevices and reduces the buildup of bacteria
- Cleaning time and effort due to the reduction in residual product buildup

Pickling/Passivation

We also specialize in and offer Pickling or Passivation; a finishing process that improves and enhances:

- Corrosion-resistance through an acid mixture containing oxidizing agents that form a natural molecular layer found within stainless steel.

It also removes all—carbon content, weld discoloration, anti-spatter, and light-duty scratches.

Surface Finishes Available:

Apache Number	Finish Designation	ASTM Number	RA Micron	RA Micro Inch	ISO Designation
1	White Pickle	-	-	15-30	-
2	EP*	-	-	10-16	-
3	180 Grit	-	.600 - .625	20-25	-
4	3 + EP	-	-	10-16	-
5	240 Grit	#6	.375 - .500	15-20	-
6	5 + EP	-	-	8-12	-
7	320 Grit	#7	.200 - .300	8-12	N4
8	7 + EP	-	-	6-12	-

Precise RA values are dependt upon the gauge of the original material.

*EP = Electropolish

Options and Modifications

In-House Engineering

Standard Apache Pressure Vessels are designed to meet most applications for dispensing or transferring liquids; but, because special needs arise we offer the following options as modifications.



Dip Tube – Special types, sizes, NPT, sanitary clamp, and additional dip tubes are available.



Special Skirts – Extra long stainless steel skirts with four 4" hand holes when fittings or valves are required on the bottom. Black rubber foot ring is also available.



Fittings – Additional fittings, larger size, sanitary, or special fittings can be added to top, bottom or side.



Small/Large Mouth and Vacuum/Low Pressure Closures – Allows the vessel to function under full vacuum or low pressure as well as normal pressure conditions.



Stainless Steel Cart Assembly
Wheels provide for easy transport of the vessel without lifting.



Closure O-Ring Materials – For specific applications, Nitrile, VITON®, and TEFLON® encapsulated VITON are available. EPDM is standard.

More Options!

Lifting lugs or eyes
Sight gauges
Brackets
Legs
Stands
Platforms

Internal heating or cooling coils
Agitators
Conventional or Dimpled jackets
Insulated shrouds

Custom Specifications and Sizes

APPLICATION ASSISTANCE

Our in-house engineering staff can provide technical support to help build a vessel that will work for your specific industrial application.

CUSTOM BUILT

We can custom build stainless steel tanks, process vessels, containers and pressure vessels from 1 gallon capacity up to 165,000 gallons or more.



Custom Mixing Vessel



APACHE
STAINLESS EQUIPMENT
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Specifications subject to change without notice.