Liquid Storage Solutions

Metal Circular and Rectangular Liner Storage Tank Solutions 76

Hot Dip Galvanised Tanks 82

Epoxy Fused Steel Tanks 86

GRP Rectangular Sectional Panel Tanks 88

GRP Premiere Rectangular Sectional Panel Tanks 90

Fibreglass Circular Panel Tank 92

Polyethylene Circular Tank Systems 94

Polyethylene Below Ground Storage Tank Systems 96

Fiberglass Below Ground Storage Tank Systems 98

Concrete Tank Liner Systems 102

Potable and Non-Potable Storage Liners 104

Automatic Control Valves Heavy Duty Pilot Operated 106

Marke Conductive Level Sensing Probes 108

Case Study: Karratha Health Campus 110



Allied Pumps

LIQUID STORAGE SOLUTIONS

Metal Circular and Rectangular Liner Storage Tanks

Allied Pumps liquid storage tanks are manufactured from heavy gauge steel and engineered in capacities from 10kL to 2ML across a range of configurations. Rectangular and circular tanks are built to relevant Australian Standards, with in-house design, production, site installation and commissioning, and the capability to reach remote locations where access is difficult.



KEY FEATURES

- Complete Packaged Solution
- Ladders and Platforms to AS1657
- Capacities From 10kL to 2ML
- Galvanised or Zincalume Sheeting for Long Service Life
- Customised Pipe Connection Sizes, Types and Locations
- Full Maintenance Support, AS1851 Compliant Servicing
- Heavy Duty Reinforced PVC Liner Welded to Internal Wall
- Rectangular or Circular, Engineered to the Application

PRODUCT APPLICATIONS

- Fire Protection Storage
- Potable Water Storage
- Rainwater and Town Water Storage
- Stormwater Detention
- Mining, Commercial and Agricultural Process Water



Circular steel liner panel tank in galvanised sheeting, configured for fire water storage.

STANDARDS COMPLIANCE

Every tank is designed and manufactured to the relevant Australian Standards, covering fire protection, structural design, access and materials in contact with drinking water:

- AS2304, AS2419.1 and AS2118 for fire protection storage, hydrants and sprinklers
- AS4100 and AS4600 for steel and cold form steel structures
- AS1170.1, 1170.2 and 1170.4 for structural, wind and earthquake loads
- AS1657 for platforms, walkways, stairways and ladders
- AS/NZS4020 for products in contact with drinking water
- AS2239 for galvanic anodes and cathodic protection

Compliance is designed in from the outset rather than certified after the fact, so the tank meets its obligations on the day it is commissioned and holds them for the life of the installation.

Circular Liner Storage Tanks

Model No.	Diameter (m)	Panels in Circumference	Tank Height (m)							
			1.70	2.30	2.85	3.45	4.00	4.60	5.15	5.75
			Gross Capacity (kL)							
APCST 293	2.93	4	11.5	15.5	19.2	23.2	26.9	31.0	34.7	38.7
APCST 366	3.66	5	17.9	24.2	30.0	36.3	42.1	48.4	54.2	60.5
APCST 439	4.39	6	25.8	34.9	43.2	52.3	60.6	69.7	78.1	87.2
APCST 512	5.12	7	35.1	47.4	58.8	71.2	82.5	94.9	106.2	118.6
APCST 586	5.86	8	45.8	62.0	76.8	93.0	107.8	123.9	138.8	154.9
APCST 659	6.59	9	58.0	78.4	97.2	117.7	136.4	156.9	175.6	196.1
APCST 732	7.32	10	71.6	96.8	120.0	145.3	168.4	193.7	216.8	242.1
APCST 805	8.05	11	86.6	117.2	145.2	175.8	203.8	234.3	262.4	292.9
APCST 879	8.79	12	103.1	139.4	172.8	209.2	242.5	278.9	312.2	348.6
APCST 952	9.52	13	121.0	163.7	202.8	245.5	284.6	327.3	366.4	409.1
APCST 1025	10.25	14	140.3	189.8	235.2	284.7	330.1	379.6	425.0	474.5
APCST 1098	10.98	15	161.0	217.9	270.0	326.8	378.9	435.8	487.9	544.7
APCST 1171	11.71	16	183.2	247.9	307.2	371.8	431.1	495.8	555.1	619.7
APCST 1245	12.45	17	206.8	279.9	346.8	419.8	486.7	559.7	626.6	699.6
APCST 1318	13.18	18	231.9	313.7	388.8	470.6	545.6	627.5	702.5	784.4
APCST 1391	13.91	19	258.4	349.6	433.2	524.4	608.0	699.1	782.7	873.9
APCST 1464	14.64	20	286.3	387.3	480.0	581.0	673.6	774.7	867.3	968.3
APCST 1537	15.37	21	315.6	427.0	529.2	640.6	742.7	854.1	956.2	1,067.6
APCST 1611	16.11	22	346.4	468.7	580.8	703.0	815.1	937.4	1,049.4	1,171.7
APCST 1684	16.84	23	378.6	512.3	634.7	768.4	890.9	1,024.5	1,147.0	1,280.6
APCST 1757	17.57	24	412.3	557.8	691.1	836.6	970.0	1,115.5	1,248.9	1,394.4
APCST 1830	18.30	25	447.3	605.2	749.9	907.8	1,052.5	1,210.4	1,355.2	1,513.0
APCST 1903	19.03	26	483.8	654.6	811.1	981.9	1,138.4	1,309.2	1,465.7	1,636.5
APCST 1977	19.77	27	521.8	705.9	874.7	1,058.9	1,227.7	1,411.8	1,580.7	1,764.8
APCST 2050	20.50	28	561.1	759.2	940.7	1,138.8	1,320.3	1,518.4	1,699.9	1,898.0
APCST 2123	21.23	29	601.9	814.4	1,009.1	1,221.6	1,416.3	1,628.8	1,823.5	2,035.9
APCST 2196	21.96	30	644.2	871.5	1,079.9	1,307.3	1,515.7	1,743.0	1,951.4	2,178.8

Model No.	Tank Height (m)									
	6.30	6.90	7.45	8.05	8.60	9.20	9.75	10.35	10.90	11.50
	Gross Capacity (kL)									
APCST 293	42.4	46.5	50.2	54.2	57.9	62.0	65.7	69.7	73.4	77.5
APCST 366	66.3	72.6	78.4	84.7	90.5	96.8	102.6	108.9	114.7	121.0
APCST 439	95.5	104.6	112.9	122.0	130.3	139.4	147.8	156.9	165.2	174.3
APCST 512	130.0	142.3	153.7	166.1	177.4	189.8	201.1	213.5	224.9	237.2
APCST 586	169.8	185.9	200.7	216.9	231.7	247.9	262.7	278.9	293.7	309.9
APCST 659	214.8	235.3	254.1	274.5	293.3	313.7	332.5	353.0	371.7	392.2
APCST 732	265.2	290.5	313.7	338.9	362.1	387.3	410.5	435.8	458.9	484.2
APCST 805	320.9	351.5	379.5	410.1	438.1	468.7	496.7	527.3	555.3	585.8
APCST 879	381.9	418.3	451.7	488.0	521.4	557.8	591.1	627.5	660.8	697.2
APCST 952	448.3	491.0	530.1	572.8	611.9	654.6	693.7	736.4	775.6	818.3
APCST 1025	519.9	569.4	614.8	664.3	709.7	759.2	804.6	854.1	899.5	949.0
APCST 1098	596.8	653.6	705.7	762.6	814.7	871.5	923.6	980.4	1,032.6	1,089.4
APCST 1171	679.0	743.7	803.0	867.6	926.9	991.6	1,050.9	1,115.5	1,174.8	1,239.5
APCST 1245	766.6	839.6	906.5	979.5	1,046.4	1,119.4	1,186.3	1,259.3	1,326.3	1,399.3
APCST 1318	859.4	941.2	1,016.3	1,098.1	1,173.1	1,255.0	1,330.0	1,411.8	1,486.9	1,568.7
APCST 1391	957.5	1,048.7	1,132.3	1,223.5	1,307.1	1,398.3	1,481.9	1,573.1	1,656.7	1,747.9
APCST 1464	1,061.0	1,162.0	1,254.6	1,355.7	1,448.3	1,549.4	1,642.0	1,743.0	1,835.6	1,936.7
APCST 1537	1,169.7	1,281.1	1,383.2	1,494.6	1,596.8	1,708.2	1,810.3	1,921.7	2,023.8	2,135.2
APCST 1611	1,283.8	1,406.0	1,518.1	1,640.4	1,752.5	1,874.7	1,986.8	2,109.1	2,221.1	2,343.4
APCST 1684	1,403.1	1,536.8	1,659.3	1,792.9	1,915.4	2,049.0	2,171.5	2,305.1	2,427.6	2,561.3
APCST 1757	1,527.8	1,673.3	1,806.7	1,952.2	2,085.6	2,231.1	2,364.4	2,509.9	2,643.3	2,788.8
APCST 1830	1,657.8	1,815.6	1,960.4	2,118.3	2,263.0	2,420.9	2,565.6	2,723.5	2,868.2	3,026.1
APCST 1903	1,793.0	1,963.8	2,120.3	2,291.1	2,447.6	2,618.4	2,774.9	2,945.7	3,102.2	3,273.0
APCST 1977	1,933.6	2,117.8	2,286.6	2,470.7	2,639.5	2,823.7	2,992.5	3,176.7	3,345.5	3,529.6
APCST 2050	2,079.5	2,277.5	2,459.1	2,657.1	2,838.7	3,036.7	3,218.3	3,416.3	3,597.9	3,795.9
APCST 2123	2,230.7	2,443.1	2,637.9	2,850.3	3,045.1	3,257.5	3,452.3	3,664.7	3,859.4	4,071.9
APCST 2196	2,387.2	2,614.5	2,822.9	3,050.3	3,258.7	3,486.0	3,694.4	3,921.8	4,130.2	4,357.6



RECTANGULAR TANK SPECIFICATION

Parameter	Range
Height (H)	1m to 8m in 0.5m increments
Length (L)	1m to 30m in 0.5m increments
Width (W)	1m to 30m in 0.5m increments
Capacity Range	1m^3 to 1,600m^3
Baffle	Available
Triangular	Available



Rectangular steel liner panel tank showing panel construction, side wall access and ladder arrangement.

CONSTRUCTION DETAIL

Tank longevity comes down to the detail. Roof vents and a wall mounted condensation strip control condensation in the roof void, bolt cover strips protect bolt heads, and vermin proofing keeps out insects and dust. Corrosion is controlled by magnesium anodes around the circumference and a plastic membrane between the tank wall and the concrete foundation. Access hatches are available in 600mm, 750mm and 900mm.

POTABLE WATER

Designed and constructed for harsh Australian conditions, Allied Pumps potable tanks are proven in mining, commercial and agricultural applications covering rainwater, town water storage, stormwater detention and water treatment. Food grade, BPA free liners made from reinforced PVC deliver safe, clean drinking water, with geofabric reinforcement not found in standard liners available elsewhere.

FIRE PROTECTION

A fire suppression system is only as good as the water behind it. Storage tanks for active fire protection are a critical component in protecting lives and equipment across residential, commercial and industrial sites. Thirty years in the fire industry underpins full compliance with AS2419 and AS2304, with detailed attention to air gaps, overflow sizing, overflow crest height and the Australian Standard margin over vortex plate.

Guidance extends beyond the tank. Allied Pumps can advise on the fire protection equipment best suited to a specific site and supply the complete package, so storage and pumping are engineered together rather than procured separately.

Hot Dip Galvanised Tanks

Zinc bonded corrosion protection for raw and potable water storage

Allied Pumps Hot Dip Galvanised Tanks are heavy gauge steel panel tanks engineered for raw, potable and process water on mining camps, truck wash facilities and industrial sites. Panels are fully immersed in molten zinc, bonding corrosion protection into every surface inside and out.

Each tank is configured to site. Choose circular or rectangular, from 11kL, with panel thickness increased to suit greater heights and diameters. Cyclone rated design and insulated wall and roof systems are available for exposed and high temperature locations, and an AS/NZS4020 compliant liner can be specified where the tank holds drinking water. Side wall access hatches are offered in 600mm, 750mm and 900mm, with ladder and platform arrangements to suit. A coloured finish or surface treatment can be applied over the galvanised coating.

KEY FEATURES

- Metallurgically Bonded Zinc Coating to AS/NZS4680
- Full Immersion Delivers 100% Zinc Coverage Inside and Out
- Sacrificial Protection Holds at Scratches and Minor Impact Damage
- Coating Substantially Thicker Than Electro Galvanised Equivalents
- Single Thickness Shell With No Laminations to Trap Condensation
- Geofabric Lining to Base and Walls
- Ladders and Platforms to AS1657
- Cost Effective Alternative to Glass Fused Tanks

PRODUCT APPLICATIONS

- Raw and Potable Water Storage
- Mine Camp Water Supply
- Process Water
- Truck Wash
- Dust Suppression



THE GALVANISING PROCESS

After fabrication, each steel panel is fully immersed in a bath of molten zinc. The zinc reacts with the iron in the carbon steel to form a series of zinc iron alloy layers, finished with a surface layer of pure zinc. The coating is bonded into the steel rather than applied over it, and it is substantially thicker than an electro galvanised equivalent. Because zinc corrodes in preference to steel, the coating continues to protect at scratches and minor impact damage, which is common handling wear on mining sites.

STANDARDS COMPLIANCE

Every tank is built to the Standards that apply to its duty, covering the galvanised coating, safe access and the materials in contact with stored water:

- Coating Thickness, Finish and Adherence to AS/NZS4680
- Fixed Ladders and Platforms to AS1657
- Potable Water Liner Testing to AS/NZS4020
- Fire Protection Storage to AS2304



A galvanised panel tank finished in a dark coating at a commercial site, with external ladder and cage. Coloured finishes and surface treatments can be applied over the galvanised coating

Hot Dip Galvanised Tanks

Model No.	Diameter (m)	Panels in Circumference	Tank Height (m)							
			1.70	2.30	2.85	3.45	4.00	4.60	5.15	5.75
			Gross Capacity (kL)							
APCST 293	2.93	4	11.5	15.5	19.2	23.2	26.9	31.0	34.7	38.7
APCST 366	3.66	5	17.9	24.2	30.0	36.3	42.1	48.4	54.2	60.5
APCST 439	4.39	6	25.8	34.9	43.2	52.3	60.6	69.7	78.1	87.2
APCST 512	5.12	7	35.1	47.4	58.8	71.2	82.5	94.9	106.2	118.6
APCST 586	5.86	8	45.8	62.0	76.8	93.0	107.8	123.9	138.8	154.9
APCST 659	6.59	9	58.0	78.4	97.2	117.7	136.4	156.9	175.6	196.1
APCST 732	7.32	10	71.6	96.8	120.0	145.3	168.4	193.7	216.8	242.1
APCST 805	8.05	11	86.6	117.2	145.2	175.8	203.8	234.3	262.4	292.9
APCST 879	8.79	12	103.1	139.4	172.8	209.2	242.5	278.9	312.2	348.6
APCST 952	9.52	13	121.0	163.7	202.8	245.5	284.6	327.3	366.4	409.1
APCST 1025	10.25	14	140.3	189.8	235.2	284.7	330.1	379.6	425.0	474.5
APCST 1098	10.98	15	161.0	217.9	270.0	326.8	378.9	435.8	487.9	544.7
APCST 1171	11.71	16	183.2	247.9	307.2	371.8	431.1	495.8	555.1	619.7
APCST 1245	12.45	17	206.8	279.9	346.8	419.8	486.7	559.7	626.6	699.6
APCST 1318	13.18	18	231.9	313.7	388.8	470.6	545.6	627.5	702.5	784.4
APCST 1391	13.91	19	258.4	349.6	433.2	524.4	608.0	699.1	782.7	873.9
APCST 1464	14.64	20	286.3	387.3	480.0	581.0	673.6	774.7	867.3	968.3
APCST 1537	15.37	21	315.6	427.0	529.2	640.6	742.7	854.1	956.2	1,067.6
APCST 1611	16.11	22	346.4	468.7	580.8	703.0	815.1	937.4	1,049.4	1,171.7
APCST 1684	16.84	23	378.6	512.3	634.7	768.4	890.9	1,024.5	1,147.0	1,280.6
APCST 1757	17.57	24	412.3	557.8	691.1	836.6	970.0	1,115.5	1,248.9	1,394.4
APCST 1830	18.30	25	447.3	605.2	749.9	907.8	1,052.5	1,210.4	1,355.2	1,513.0
APCST 1903	19.03	26	483.8	654.6	811.1	981.9	1,138.4	1,309.2	1,465.7	1,636.5
APCST 1977	19.77	27	521.8	705.9	874.7	1,058.9	1,227.7	1,411.8	1,580.7	1,764.8
APCST 2050	20.50	28	561.1	759.2	940.7	1,138.8	1,320.3	1,518.4	1,699.9	1,898.0
APCST 2123	21.23	29	601.9	814.4	1,009.1	1,221.6	1,416.3	1,628.8	1,823.5	2,035.9
APCST 2196	21.96	30	644.2	871.5	1,079.9	1,307.3	1,515.7	1,743.0	1,951.4	2,178.8

Model No.	Tank Height (m)									
	6.30	6.90	7.45	8.05	8.60	9.20	9.75	10.35	10.90	11.50
	Gross Capacity (kL)									
APCST 293	42.4	46.5	50.2	54.2	57.9	62.0	65.7	69.7	73.4	77.5
APCST 366	66.3	72.6	78.4	84.7	90.5	96.8	102.6	108.9	114.7	121.0
APCST 439	95.5	104.6	112.9	122.0	130.3	139.4	147.8	156.9	165.2	174.3
APCST 512	130.0	142.3	153.7	166.1	177.4	189.8	201.1	213.5	224.9	237.2
APCST 586	169.8	185.9	200.7	216.9	231.7	247.9	262.7	278.9	293.7	309.9
APCST 659	214.8	235.3	254.1	274.5	293.3	313.7	332.5	353.0	371.7	392.2
APCST 732	265.2	290.5	313.7	338.9	362.1	387.3	410.5	435.8	458.9	484.2
APCST 805	320.9	351.5	379.5	410.1	438.1	468.7	496.7	527.3	555.3	585.8
APCST 879	381.9	418.3	451.7	488.0	521.4	557.8	591.1	627.5	660.8	697.2
APCST 952	448.3	491.0	530.1	572.8	611.9	654.6	693.7	736.4	775.6	818.3
APCST 1025	519.9	569.4	614.8	664.3	709.7	759.2	804.6	854.1	899.5	949.0
APCST 1098	596.8	653.6	705.7	762.6	814.7	871.5	923.6	980.4	1,032.6	1,089.4
APCST 1171	679.0	743.7	803.0	867.6	926.9	991.6	1,050.9	1,115.5	1,174.8	1,239.5
APCST 1245	766.6	839.6	906.5	979.5	1,046.4	1,119.4	1,186.3	1,259.3	1,326.3	1,399.3
APCST 1318	859.4	941.2	1,016.3	1,098.1	1,173.1	1,255.0	1,330.0	1,411.8	1,486.9	1,568.7
APCST 1391	957.5	1,048.7	1,132.3	1,223.5	1,307.1	1,398.3	1,481.9	1,573.1	1,656.7	1,747.9
APCST 1464	1,061.0	1,162.0	1,254.6	1,355.7	1,448.3	1,549.4	1,642.0	1,743.0	1,835.6	1,936.7
APCST 1537	1,169.7	1,281.1	1,383.2	1,494.6	1,596.8	1,708.2	1,810.3	1,921.7	2,023.8	2,135.2
APCST 1611	1,283.8	1,406.0	1,518.1	1,640.4	1,752.5	1,874.7	1,986.8	2,109.1	2,221.1	2,343.4
APCST 1684	1,403.1	1,536.8	1,659.3	1,792.9	1,915.4	2,049.0	2,171.5	2,305.1	2,427.6	2,561.3
APCST 1757	1,527.8	1,673.3	1,806.7	1,952.2	2,085.6	2,231.1	2,364.4	2,509.9	2,643.3	2,788.8
APCST 1830	1,657.8	1,815.6	1,960.4	2,118.3	2,263.0	2,420.9	2,565.6	2,723.5	2,868.2	3,026.1
APCST 1903	1,793.0	1,963.8	2,120.3	2,291.1	2,447.6	2,618.4	2,774.9	2,945.7	3,102.2	3,273.0
APCST 1977	1,933.6	2,117.8	2,286.6	2,470.7	2,639.5	2,823.7	2,992.5	3,176.7	3,345.5	3,529.6
APCST 2050	2,079.5	2,277.5	2,459.1	2,657.1	2,838.7	3,036.7	3,218.3	3,416.3	3,597.9	3,795.9
APCST 2123	2,230.7	2,443.1	2,637.9	2,850.3	3,045.1	3,257.5	3,452.3	3,664.7	3,859.4	4,071.9
APCST 2196	2,387.2	2,614.5	2,822.9	3,050.3	3,258.7	3,486.0	3,694.4	3,921.8	4,130.2	4,357.6

Epoxy Fused Steel Tanks

Thermally cured epoxy coating for corrosive and potable liquids

Allied Pumps Epoxy Fused Steel Tanks are bolted panel tanks finished with an electrostatically applied, thermally cured epoxy coating. The two coat process produces a hard, smooth surface that resists UV, abrasion and corrosion without fracturing under impact. Panels are sealed with gasket or silica seals, and the interior finish removes the need for a separate liner.

Roof configuration is selected to suit the site, with conical, domed and flat or near flat profiles available, the latter with a gradient allowance for water flow or in confined spaces. Nozzles and nozzle penetrations, sealed gaskets, and galvanised or stainless steel ladders are specified to your requirements, and the epoxy finish can be supplied in almost any colour.

Every tank is supplied as a complete package. Documentation covers technical drawings, panel roof and base details, sealant, steel thickness and material specifications, bolting and nozzle details in poly galvanised or stainless steel, and installation detail.

KEY FEATURES

- Electrostatically Applied Two Coat Epoxy, Thermally Cured
- Hard, Smooth Finish That Resists Scratching and Impact
- No Separate Liner Required
- Bolted Panel Construction With Gasket or Silica Seals
- UV and Abrasion Resistant
- Suitable for Aggressive and Contaminated Liquids
- Panel Floor or Walls Grouted Into a Concrete Recess

PRODUCT APPLICATIONS

- Potable Water
- Raw Water
- Reuse Water
- Raw Sewage
- Chemical Storage



STANDARDS COMPLIANCE

Every tank is built to the Standards that apply to its duty, covering the epoxy coating, safe access and the materials in contact with stored water:

- Potable Water Coating Testing to AS/NZS4020
- Fixed Ladders and Platforms to AS1657

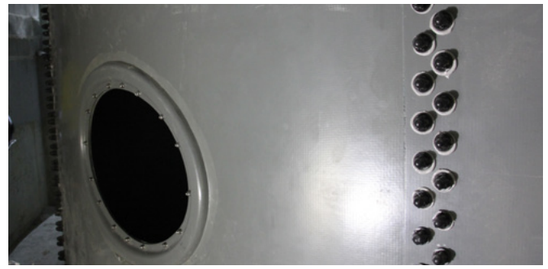
THE EPOXY PROCESS

Epoxy is applied electrostatically to each steel panel, then thermally cured in two coats to a controlled micron thickness. The charge draws the coating evenly across the surface, including edges and penetrations, and curing bonds it hard. The result is a smooth finish that withstands UV, constant water movement and abrasion in service.

Because the coating flexes with the steel rather than sitting on it as a brittle layer, it tolerates handling and installation impact without chipping or spalling.

SIZING AND CONFIGURATION

Epoxy Fused Steel Tanks are engineered to the capacity, diameter and height your site requires. Panel thickness is selected to suit the tank dimensions and the stored liquid. Contact Allied Pumps with your capacity, liquid type and site conditions, and our engineers will confirm the configuration and provide a full specification.



Detail of the epoxy coated interior surface, showing the sealed side wall across opening and bolted panel seam

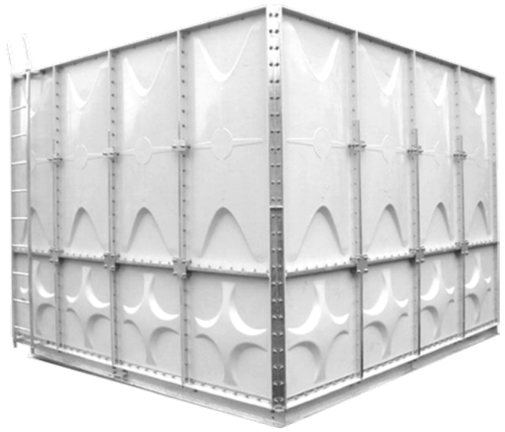
GRP Rectangular Sectional Panel Tanks

Allied Pumps GRP Rectangular Sectional Panel Tanks are built from hot press moulded glass reinforced plastic panels, bolted into a modular structure and supported by internal stainless steel tie rods. Capacities run from 1 kL 1,000 kL in almost any configuration, and the sectional format allows transport and assembly in locations a single piece tank cannot reach.



PRODUCT SPECIFICATION

Parameter	Values
Capacity Range	1 kL to 1,000 kL
Insulated U Value	0.6 W/m²K
Maximum Stored Water Temperature	38°C
Refrigerant Content	CFC and HCFC Free
Colour	White



Assembled GRP sectional tank showing the moulded panel profiles, bolted panel joints and external galvanised box section framing

PRODUCT OPTIONS

Each tank is configured to suit the site, with the following specified to your requirements:

- Internal Tank Divisions
- Panel Insulation
- Anti Vortex Assemblies
- Raised Ball Valve Hatches
- Internal or External Bolted Panels
- Ladders, Fittings and Valves

THE MANUFACTURING PROCESS

Panels are hot press moulded from isophthalic unsaturated polyester resin with E-glass reinforcement, cured at up to 150°C. The result is a fully cured panel, dimensionally accurate and smooth on both faces with sharply defined profiles. Drilling and finishing are completed in a purpose built controlled area using automated equipment, holding tolerances tight enough that panels assemble without on site adjustment.
All materials are tested for potable water compatibility, and installation is carried out on site by Allied Pumps trained installers.

KEY FEATURES

- Hot Press Moulded Glass Reinforced Plastic Panels
- Modular Sectional Assembly for Restricted Access Sites
- Stainless Steel Internal Tie Rods With Galvanised External Box Sections
- Resistant to Bacterial Growth and Osmotic Attack
- UV Stabilised for Australian Conditions

PRODUCT APPLICATIONS

- Potable Water Storage
- Fire Protection Storage
- Process Water
- Chilled and Insulated Water Storage
- Internal and Plant Room Installations

LIQUID STORAGE SOLUTIONS

GRP Premier Rectangular Sectional Panel Tanks

Sheet moulded compound panels with no internal tie rods

Allied Pumps GRP Premier Rectangular Sectional Panel Tanks are moulded from sheet moulded compound using a hot press metal matched mould, producing panels strong enough to carry the full design load without internal tie rods. Load is taken instead by external hot dip galvanised framing, so no metal contacts the stored water.

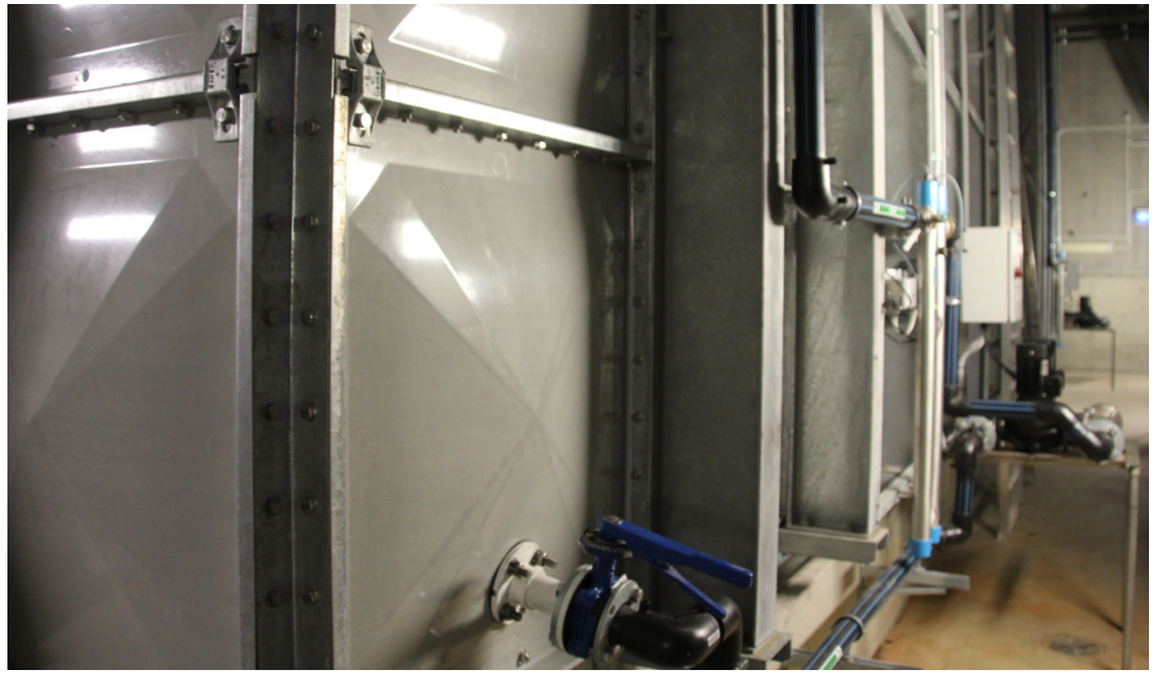
The result is an unobstructed interior that drains completely, cleans down easily and can be inspected from all sides including the base. Construction is fully sealed against dust and insects, and panels block light entirely to prevent algae growth. Capacities run from 1 kL to 10,000 kL in almost any configuration.

KEY FEATURES

- No Internal Tie Rods or Metal Components
- Sheet Moulded Compound Panels, Hot Press Metal Matched Mould
- External Hot Dip Galvanised Support Framing
- Convex Base Panels for Complete Free Flow Drainage
- Panel Strength to Eight Times Anticipated Pressure Load
- Sealed Construction, Dust and Insect Proof
- Zero Light Transmittance to Prevent Algae Growth

PRODUCT APPLICATIONS

- Municipalities and Reservoirs
- Hospitals and Hotels
- Industrial Liquids
- Agriculture and Aquaculture
- Commercial Buildings



PRODUCT SPECIFICATION

Tank Depth (m)	Panel Strength (kPa)	Hydrostatic Pressure (kPa)
1.0	59 (minimum)	6.9
1.5	98	12
2.0	130	16
2.5	170	21
3.0	210	25
3.5	250	30
4.0	280	35

THE MANUFACTURING PROCESS

Panels are formed from sheet moulded compound in a hot press metal matched mould at 150°C under high pressure, producing a uniform panel of solid homogeneous construction rather than a laminate. Glass content is high enough that panels carry the full design load in compression, tension and torsion without internal bracing, so load is carried by external hot dip galvanised framing instead.

The process also leaves a smooth, mirror finished surface that resists dirt adhesion and bacterial growth, while convex base panels drain the tank completely rather than retaining contaminated water after cleaning.

MAINTENANCE

With no internal tie rods, the tank interior is accessible from all sides including the base for visual inspection. Maintenance is limited to external bolt tension adjustment and internal cleaning. Panel joints are sealed with flexible rubber sealant, which accommodates movement and keeps the tank leak free in service. Repairs are carried out externally without interrupting supply, and the modular construction allows individual panels to be replaced rather than the tank.

Fibreglass Circular Panel Tanks

Modular fibreglass plate tanks for water and chemical storage

Allied Pumps Fibreglass Circular Panel Tanks are assembled from modular fibreglass plates bolted into a circular shell and supplied as a complete package for efficient site installation. The material resists corrosion and oxidation without an internal liner, making the tanks suitable for water and chemical duty.

Every tank ships as a complete package: moulded plates, assembly accessories, and all nuts, bolts, washers and seals. Plates are joined with an elastic seal, anchored to a concrete base with sealing mortar and mortar sealing paint, and secured with floor anchors rated for wind loading.

Because the shell is bolted rather than welded, a tank can be expanded, relocated or dismantled on site. Manhole covers, fibreglass reinforced plastic flanges and pipe connections are supplied with the package and fitted during assembly.

KEY FEATURES

- Modular Bolted Plate Construction
- Corrosion and Oxidation Resistant Without an Internal Liner
- Expandable in Service
- Transportable, Assembled and Dismantled on Site
- Complete Package Including Plates, Hardware and Accessories
- Hydraulic and Mechanical Load Tested
- Minimum Maintenance

PRODUCT APPLICATIONS

- Industrial Wastewater
- Urban Wastewater
- Industrial Liquids
- Bulk Dry Products
- Agriculture and Food Industry



PRODUCT SPECIFICATION

Model No.	Plates in Circumference	Diameter (m)	Tank Height (m)				
			1	2	3	4	5
			Gross Capacity (kL)				
APFWT 6	6	4.0	13	25	38	50	63
APFWT 8	8	5.3	22	44	67	89	111
APFWT 11	11	7.3	42	84	126	168	210
APFWT 14	14	9.3	68	136	204	273	341
APFWT 17	17	11.3	100	201	301	402	502
APFWT 20	20	13.3	139	278	417	556	695
APFWT 24	24	16.0	200	400	601	801	1,001

Larger sizes available on application

QUALITY TESTING

Every production run is tested before dispatch. Plates undergo hydraulic load testing to confirm performance under working pressure, and mechanical testing for traction, flexion and fatigue. Raw material is validated on receipt, so plate composition is confirmed before moulding begins rather than inferred from the finished product.

LIQUID STORAGE SOLUTIONS

Polyethylene Circular Tank Systems

One piece moulded tanks from 250 L to 60,000 L

Allied Pumps Polyethylene Circular Tank Systems are one piece moulded tanks for above ground water storage. The corrugated wall gives strength and a traditional profile, and the material is impact resistant and UV stabilised for outdoor service. Tanks are supplied pre-assembled and tested as a complete package for efficient site installation.

Each tank is configured to suit the site. Specify an access ladder, a level sight glass or external indicator, a high and low level alarm, a direct acting or pilot operated fill valve, anti vortex suction assemblies, and inlet, outlet, vent, drain and overflow connections. An airtight manhole cover, cyclone tie down and extra heavy duty thickened wall are also available.

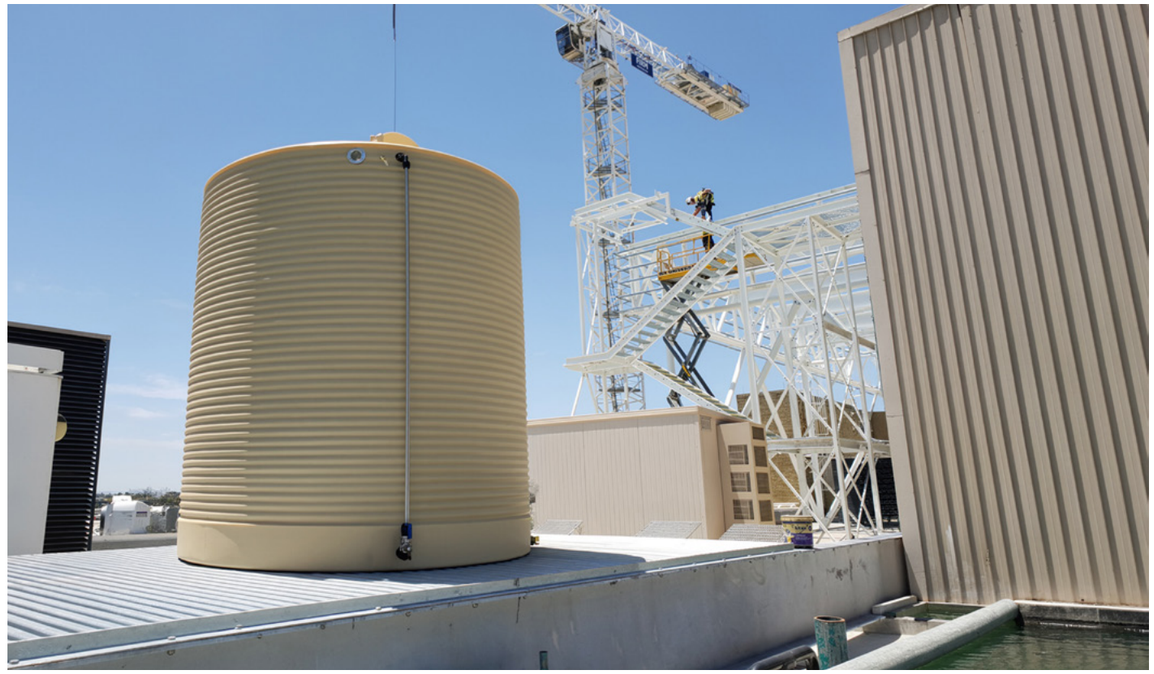
Capacities run from 250 L to 60,000 L, with a locking manhole cover fitted as standard. Twelve standard colours are available, with custom colours on request. Contact Allied Pumps for the current colour chart.

KEY FEATURES

- One Piece Moulded Construction
- Corrugated Wall for Strength and Traditional Profile
- Impact Resistant Polyethylene
- UV Stabilised for Outdoor Service
- Designed to AS4766
- Locking Manhole Cover Fitted ASStandard
- Twelve Standard Colours With Custom Colours Available
- Supplied Pre-assembled and Tested

PRODUCT APPLICATIONS

- Fire Protection
- Rainwater and Stormwater
- Drinking Water Storage
- Wastewater Retention
- General Liquid Storage



PRODUCT SPECIFICATION

Model No.	Capacity (L)	Diameter (mm)	Wall Height (mm)	Peak Height (mm)	Construction
APT250	250	600	1,000	1,100	Polyethylene
APT1000	1,000	1,000	1,300	1,500	Polyethylene
APT2500	2,500	1,400	1,750	2,000	Polyethylene
APT3500	3,500	1,600	1,800	2,100	Polyethylene
APT4500	4,500	1,850	1,800	2,100	Polyethylene
APT9000	9,000	2,400	2,050	2,400	Polyethylene
APT9500	9,500	2,600	1,800	2,150	Polyethylene
APT13500	13,500	2,950	1,900	2,300	Polyethylene
APT22500	22,500	3,550	2,350	2,750	Polyethylene
APT32000	32,000	3,950	2,600	3,100	Polyethylene
APT45000*	45,000	4,880	2,440	2,440	Glass Reinforced Plastic
APT50000	50,000	4,600	2,900	3,450	Polyethylene
APT60000*	60,000	4,880	3,400	3,400	Glass Reinforced Plastic

** APT45000 and APT60000 are glass reinforced plastic rather than polyethylene and with limited colour selection. All other models are polyethylene in twelve standard colours with custom colours on request, and capacities are nominal pending confirmation of whether they are gross or usable.*

Polyethylene Below Ground Storage Tank Systems

Allied Pumps Polyethylene Below Ground Storage Tank Systems are rotomoulded tanks engineered for burial, tested to withstand ground and water pressure at depth. The polyethylene shell resists chemical attack and holds its stiffness in Australian ground conditions. Tanks connect in series for larger volumes, so storage capacity is not limited by the footprint available on site.



PRODUCT SPECIFICATION

Model No.	Volume (L)	Length A (mm)	Width B (mm)	Height C (mm)
URT4000B	4,000	2,800	1,800	2,200
URT7000B	7,000	4,000	1,800	2,200
URT15000B	15,000	5,945	1,983	1,700
URT19000B	19,000	8,170	1,770	1,983
URT23000B	23,000	12,620	1,983	1,770
URT27000B	27,000	14,845	1,983	1,770
URT31000B	31,000	17,070	1,770	1,983



Rotomoulded polyethylene tank, showing the ribbed shell, sealed access riser and moulded support feet

PRODUCT OPTIONS

Each tank is configured to suit the site. Specify an anchoring system where the water table is high, a standard filter to reduce the frequency of maintenance access, and a stainless steel submersible pump with its discharge arrangement. Inlet, outlet and overflow connections, and connections between tanks, are set out to your requirements.

INSTALLATION

Tanks are set on a prepared base and backfilled, with only the access cover visible at ground level once complete. The sealed locking lid gives maintenance access without excavation, and the inlet and overflow are positioned to suit site levels. Where the water table is high, an anchoring system resists uplift. Multiple tanks are connected in series to increase storage.

KEY FEATURES

- Rotomoulded Polyethylene Construction
- Tested for Ground and Water Pressure at Depth
- Connectable in Series for Larger Volumes
- Sealed Locking Tamper Proof Lid Rated to 5 kN
- Chemical Resistant and Stiff Under Load
- Designed to AS4766
- Complies With AS15461 for Septic Tanks

PRODUCT APPLICATIONS

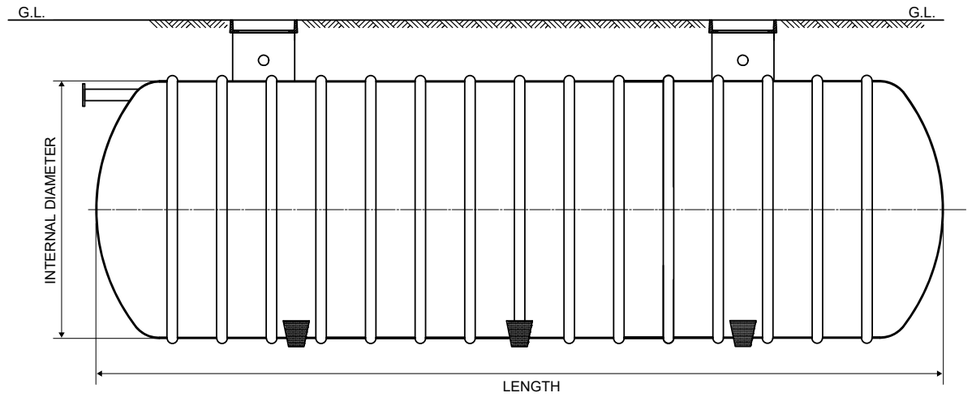
- Water Retention and Detention
- Sewage Treatment
- Dust Suppression
- Irrigation and Playing Fields
- Commercial and Residential Development

LIQUID STORAGE SOLUTIONS

Fibreglass Below Ground Storage Tank Systems

Allied Pumps Fibreglass Below Ground Storage Tank Systems are filament wound for circumferential strength and delivered in one piece, so there are no jointed seams to leak. The non-porous shell resists corrosion, aggressive soils and bacterial growth, and the tanks are light enough to place with a smaller crane and lower freight cost than equivalent capacity in other materials.





Dimension reference showing tank length and internal diameter, with access risers and deadman anchor points shown relative to ground level

PRODUCT OPTIONS

Each tank is configured to suit the site. Specify a dual skin shell where secondary containment is required, and an access riser height matched to the finished ground level so the cover sits flush once backfilled. A deadman anchor is available for sites with a high water table or seasonal ground water. Access positions are set out to suit your pipework, and a wide range of accessories can be supplied and fitted with the tank.

INSTALLATION

Tanks arrive in one piece and are set into a prepared excavation, so there is no site assembly and no jointed seams to seal. Lower weight than an equivalent capacity in other materials means a smaller crane and simpler handling on site. The access riser is built to accommodate the finished ground level, and where the water table is high, a deadman anchor holds the tank down against uplift before and after backfilling.

KEY FEATURES

- Filament Wound for Circumferential Strength
- Delivered in One Piece With No Jointed Seams
- Non-porous and Chemical Resistant
- Resists Aggressive Soils and Bacterial Growth
- Lightweight, Reducing Crane Size and Freight Cost
- Access Riser Adjustable to Suit Ground Level
- Deadman Anchor for High Water Table Sites

PRODUCT APPLICATIONS

- Water Retention and Detention
- Sewage Treatment
- Fuel and Chemical Storage
- Process Water
- Commercial and Residential Development

PRODUCT SPECIFICATION

Fibreglass Below Ground Storage Tank Systems

Model No.	Capacity (L)	Length (mm)	Internal Diameter (mm)	Empty Weight (kg)
1000UG	1,000	1,500	1,000	100
2000UG	2,000	1,400	1,500	200
2500UG	2,500	1,700	1,500	225
3000UG	3,000	2,000	1,500	250
4000UG	4,000	2,600	1,500	300
5000UG	5,000	2,900	1,500	350
10000UG	10,000	4,200	1,850	600
12000UG	12,000	4,900	1,850	708
16000UG	16,000	6,400	1,850	870
20000UG	20,000	5,050	2,470	1,400
25000UG	25,000	6,100	2,470	1,600
30000UG	30,000	7,150	2,470	1,800
35000UG	35,000	8,200	2,470	2,000
40000UG	40,000	9,300	2,470	2,200
45000UG	45,000	10,300	2,470	2,400
50000UG	50,000	11,200	2,470	2,600
100000UG	100,000	14,800	3,000	4,300
110000UG	110,000	16,200	3,000	4,700
120000UG	120,000	17,600	3,000	5,500
150000UG	150,000	17,500	3,500	6,500

Tanks are available in a range of capacities and dimensions from 1,000 L to 150,000 L. Contact Allied Pumps to confirm the configuration for your site.



Concrete Tank Liner Systems

Single piece PVC liners for cast in situ concrete tanks

Allied Pumps supplies complete liner packages for cast in situ concrete tanks. The liner is a single piece of PVC on Elvaloy, heavy duty and impervious, with geofabric fixed to the walls and floor to protect it from cracked or uneven concrete. Packages are installed and commissioned by Allied Pumps trained installers and cover fire, potable and raw water duty.

KEY FEATURES

- Single Piece Heavy Duty PVC Liner on Elvaloy
- Geofabric Protection to Walls and Floor
- Installed and Commissioned by Allied Pumps Trained Installers
- Warranted Leak Free Installation
- Suction Connection With Anti Vortex Assembly
- Inlet Connections With Deflector
- Tank Overflow With High Capacity Bell Mouth
- Tank Drain Connector With Gate Valve
- Manufactured in Australia

PRODUCT APPLICATIONS

- Fire Protection Storage
- Potable Water Storage
- Raw Water Storage
- Sewage
- Corrosive Liquids and Chemicals



PRODUCT OPTIONS

Each package is configured to suit the tank and its duty. Specify galvanised external and internal ladders with safety cage and lockable access barrier, a tank level indicator, high and low level float switches, and tank signage. Pipe connections are supplied in stainless steel, galvanised or polyethylene to suit the liquid stored, with brackets and fixings for accessories. Liners for sewage, corrosive liquids and chemicals are available on request.

INSTALLATION

Liners are installed by Allied Pumps trained installers rather than subcontracted, so responsibility for supply and installation sits in one place. Geofabric is fixed to the walls and floor first, protecting the liner from cracked or uneven concrete. Pipe connections are inserted, sealed and commissioned as part of the package, and the completed installation is warranted leak free. Because the liner is a single piece, there are no field seams to fail.

PRODUCT ACCESSORIES



Anti-Vortex



Fill Valves



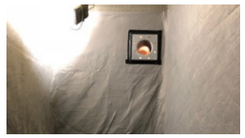
Signage



Galvanised and Stainless Steel Ladders



Tank Level Indicator



Galvanised and Stainless Steel Pipe Connectors

LIQUID STORAGE SOLUTIONS

Potable and Non-Potable Tank Liners

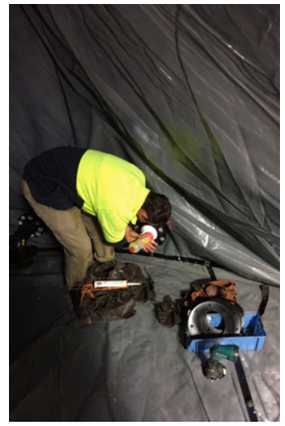
Allied Pumps supplies tank liners in two grades, potable and non-potable, both manufactured in Australia from PVC coated polyester and certified to Australian Fire Tank Standard AS 2304:2019. Liners suit steel panel and site poured concrete tanks, weld cleanly for site jointing and repair, and are supplied to your tank dimensions. Existing tanks can be relined.



MATERIAL PERFORMANCE

The non-potable grade is tested for tear strength at 260 N warp and 250 N weft, adhesion of 100 N/50 mm at 23°C, and a service temperature range of -30°C to +70°C.

The potable grade is tested for wing rip at 375 N warp and 345 N weft, elongation at break of 17 per cent warp and 29 per cent weft, and flex cracking resistance over 400,000 cycles. Testing follows AS 2001.2.10-1986 for tear and wing rip, and AS 1441.6-1973 for flex cracking. Each grade is tested to the properties relevant to its duty.



PRODUCT SPECIFICATION

Parameter	Liner Type	
	Non-Potable	**Potable**
Fabric Type	PVC coated polyester	PVC coated polyester
Base Fabric	Plain weave 1100 dtex polyester	Woven 1100 dtex polyester
Material Thickness	0.6 mm nominal	0.6 mm nominal
Nominal Weight	650 g/m²	750 g/m²
Fabric Density	8 x 8 threads per cm²	9 x 9 threads per cm²
Colour	Green	Grey
Tensile Strength (AS 2001.2.3.1-2001)	Warp 2400 N/50 mm, Weft 2500 N/50 mm	Warp 3100 N/50 mm, Weft 2500 N/50 mm
Certification	Fire Tank Standard AS 2304:2019	Fire Tank Standard AS 2304:2019 and Drinking Water Standard AS/NZS 4020:2018

KEY FEATURES

- Certified to Fire Tank Standard AS 2304:2019
- Potable Grade Approved to AS/NZS 4020:2018
- High Tensile Strength With Flexibility
- Dimensionally Stable
- Weldable and Repairable in Place
- Manufactured in Australia

PRODUCT APPLICATIONS

- Fire Protection Storage
- Potable Water Storage
- Raw and Grey Water Storage
- Steel Panel and Concrete Tanks
- Tank Refurbishment and Relining

Automatic Control Valves: Heavy Duty Pilot Operated

Direct acting valves slam shut, and the resulting shock and water hammer shorten the life of a system. Allied Pumps Automatic Control Valves close softly on a direct acting diaphragm, with infinitely adjustable opening and closing speeds. No shafts, seals or bearings sit in the water passage. Wetted cast iron components are polyester coated, and all valves are WaterMark approved to WMTS 103:2016.



PRODUCT SPECIFICATION

Model No.	Part No.	Size (mm)	Connection	Material
AV44-1.5-FL	KN301200	40	BSP	Cast Iron
AV44-2-FL	KN301300	50	BSP	Cast Iron
AV47-2-FL	KN303300	50	Table E Flange	Cast Iron
AV47-3-FL	KN303400	80	Table E Flange	Cast Iron
AV47-4-FL	KN303500	100	Table E Flange	Cast Iron
AV47-6-FL	KN303600	150	Table E Flange	Cast Iron
AV53-2-FL	KN304300	50	Rollgrooved	Cast Iron
AV53-3-FL	KN304400	80	Rollgrooved	Cast Iron
AV53-4-FL	KN304500	100	Rollgrooved	Cast Iron
AV53-6-FL	KN304600	150	Rollgrooved	Cast Iron

16 bar pressure rating, up to 25 bar on request. Natural rubber diaphragm.

WaterMark
WMTS 103: 2016
Certificate Number: 23143



Pilot operated tank fill valve with modulating float control, showing the pilot line and float arm

TANK VALVE ASSEMBLIES

Two configurations are available. Modulating Float Control holds a constant level regardless of inflow or usage rate, and is used direct off mains. Differential Float Control holds level between two adjustable set points, and is used on pumped systems to eliminate pump cycling on low flows. Both have adjustable level settings, with a range of 0 to 400 mm or 0 to 1,200 mm.

OPTIONAL CONFIGURATIONS

Valves can be supplied electrically actuated or air operated where remote or automated control is required. Hydraulic configurations cover pressure relief, pressure sustaining and flow control, and a basic valve is available where no pilot function is needed. Configuration is specified at order, since it determines the pilot arrangement fitted to the main valve body.

KEY FEATURES

- Direct Acting Diaphragm With No Shafts, Seals or Bearings in the Water Passage
- Infinitely Adjustable Opening and Closing Speeds
- Soft Closure Eliminates Water Hammer and Hydraulic Shock
- Stable in Turbulent Flow Without Rapid Cycle Chatter
- Main Valve Body Can Be Mounted Outside the Tank

PRODUCT APPLICATIONS

- Fire Tank Filling
- Potable Water Tanks
- Break Tanks
- Confined Spaces
- Systems Prone to Water Hammer

Marke Conductive Level Sensing Probes

Multi sensor probes for continuous liquid level measurement

Marke Conductive Level Sensing Probes provide continuous level measurement using one, three, four or ten sensors on a single probe body. Sensors are spaced at 100 mm increments along a PVC casing, so one cable entry and one tank penetration replace several float switches. Custom sensor counts, spacing and cable lengths are available on request.

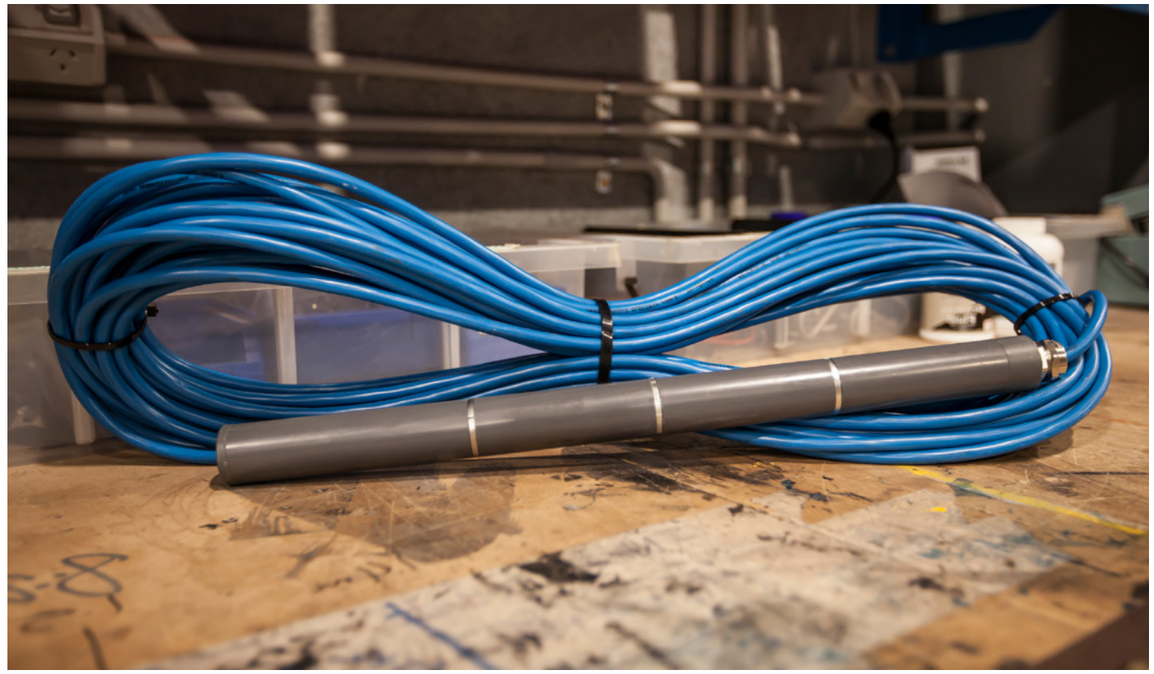
Probes operate on 3 V to 30 V with IP68 ingress protection and are submersible to 100 m. Standard cable is submersible rubber in 10 m or 30 m lengths, with longer runs to 100 m available on request. The PVC casing and sensors suit media between 0°C and 50°C. A mounting bracket and probe hook are supplied for fixing inside the tank.

KEY FEATURES

- One, Three, Four or Ten Sensors on a Single Probe
- 100 mm Standard Sensor Spacing
- Single Cable Entry for Multiple Level Points
- Custom Sensor Counts, Spacing and Cable Lengths on Request
- Mounting Bracket and Probe Hook Supplied

PRODUCT APPLICATIONS

- Fire Protection Storage
- Potable Water Storage
- Raw Water Storage
- Sewage
- Corrosive Liquids and Chemicals

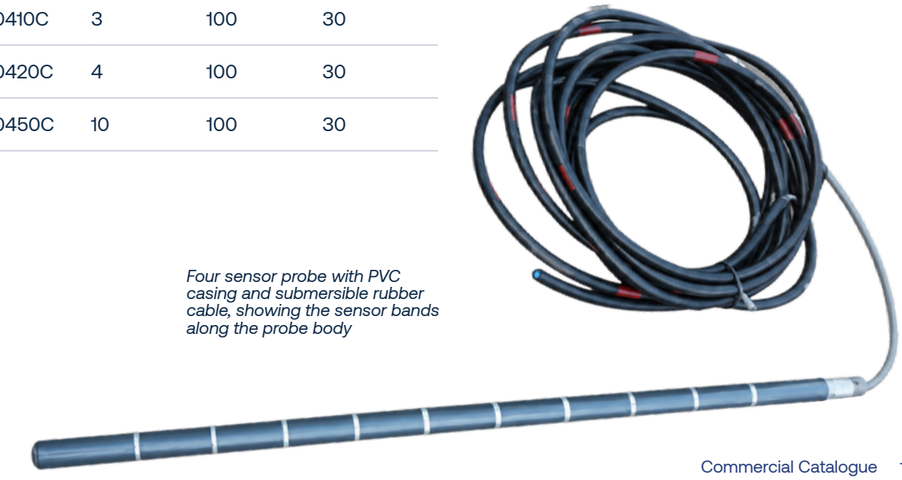


PRODUCT SPECIFICATION

Model No.	Part No.	Sensors	Sensor Spacing (mm)	Cable Length (m)
MCP-01-0-10	AC150300C	1	N/A	10
MCP-03-100-10	AC150310C	3	100	10
MCP-04-100-10	AC150320C	4	100	10
MCP-10-100-10	AC150350C	10	100	10
MCP-01-0-30	AC150400C	1	N/A	30
MCP-03-100-30	AC150410C	3	100	30
MCP-04-100-30	AC150420C	4	100	30
MCP-10-100-30	AC150450C	10	100	30

CONNECTION AND INSTALLATION

Each sensor is assigned a control function, so one probe replaces several float switches. On a four sensor probe the highest sensor is high level alarm, the second is standby pump start, the third is duty pump start, and the lowest is pump stop. One cable entry and one penetration serve all four functions, reducing installation work and the number of potential leak points.



Four sensor probe with PVC casing and submersible rubber cable, showing the sensor bands along the probe body

LIQUID STORAGE SOLUTIONS

Case Study: Karratha Health Campus

Karratha, WA



The Project

Karratha Health Campus is the largest investment in a public hospital in regional Western Australia. Located in the Pilbara, 1,535 kilometres north of Perth, it replaces the ageing Nickol Bay Hospital and the Warambie Community and Health Centre, bringing an expanded emergency department, a new surgical centre, maternity wing and medical imaging under one roof.

The Challenge

Stored water in the Pilbara heats quickly, and the campus needed it held at a safe temperature without running the cooling system continuously. A circulating pump would manage this, but only if heat penetration through the wall did not outweigh each cooling cycle. The tank had to meet Cyclone Region D, Australia's most severe rating.

Our Approach

The client had worked with us before and approached us after winning the plumbing services contract. We had supplied tanks across the Pilbara and understood the climate, but the temperature requirement and the cyclone rating could not be solved separately. Insulation thick enough to hold temperature changes how every fitting attaches to the wall, so the two were designed together.

The Solution

The result was an insulated, externally bolted circular sectional panel tank, engineered to meet both requirements cost effectively. Because it stored potable water, nozzles were supplied in polyethylene or stainless steel. The insulation meant fittings could not be bolted directly to the wall, since the liner would not seal against it, so we fabricated a steel spacer for the internal fitting to bolt to and fixed it to an external backing ring. Windborne debris testing confirmed the external skin met Region D.

The Outcome

The tank was delivered and installed to the client's requirements, holding potable water at a safe temperature through Pilbara summers and rated for the cyclone conditions the coast produces roughly every second year. The fitting detail developed for the insulated wall carries forward, because it solved a sealing problem that would otherwise limit how thick insulation can be on a bolted panel tank.

Why it mattered?

- ✓ Insulation and cyclone rating were solved as one problem, so neither requirement compromised the other.
- ✓ A new fitting detail allowed full wall insulation without losing the liner seal.

HEAD OFFICE

4 Modal Crescent (CNR Baile Rd)
Canning Vale WA 6155

POST

PO Box 1468
Canning Vale DC WA 6970

CONTACT

P: +61 (0) 8 9350 1001
E: commercialsales@alliedpumps.com.au
service@alliedpumps.com.au
W: alliedpumps.com.au

ap Commercial

PERTH I ALBANY I KALGOORLIE I DARWIN I SYDNEY I MELBOURNE

V5. Copyright 2026 Allied Pumps Pty Ltd. Allied Pumps reserves the right to modify the information and illustrations contained in this document without prior notice. This is a non-contractual document.