

APV Paraflow Plate Heat Exchangers

For Chemical Process and Industrial Applications

Combat Corrosion and Ensure Efficiency for Even the Most Challenging Applications

From ultra-pure water to acid cooling to amine, APV combines the widest range of materials (both plate and gasket) and styles with an unmatched level of application experience to deliver optimal performance and maximum protection against process downtime.

Experienced APV engineers will work with you every step of the way from system design to start-up and beyond to ensure you get a solution customized for your specific process.

Advantages for Chemical and Industrial Applications

- Wide selection of gasket and plate materials to stand up to aggressive process fluids
- Ease of cleaning and inspection
- Welded and weld-free plate pairs available
- Limited use of gaskets by design reduces chance of leakage
- Flexible configurations can be adapted to meet your changing process needs
- Efficient operation
- High thermal efficiency saves money through reduction in required heat transfer area
- Low liquid hold-up improves start-up time and reduces operating fluid costs
- Achieves up to 97% heat recovery
- Eliminates complicated maintenance such as x-ray, ultrasonic and other non-destructive test procedures
- Corrosion resistant material reduces inspection and maintenance while ensuring reliable operation
- No moving parts eliminates vibration and reduces maintenance
- Lower capital costs when compared to traditional shell and tube
- Compact design saves space
- Life cycle cost reduction
- Reduced fouling leads to higher thermal efficiency, reducing maintenance and operating costs



Applications

- Bauxite to alumina
- Chlorine alkaline
- Coke oven plant applications
- Soda ash
- Steel plant applications
- Mining applications
- Sulphuric acid
- Titanium dioxide/pigments
- Chloride process
- Zinc
- Acrylic fibers
- Caprolactam (monomer for production of nylon 6)
- Desulphurization
- Ethylene glycol
- Ethylene oxide
- Formaldehyde and formaldehyde resins
- Crude oil treatment
- Dehydration/desalting
- Gas compression
- Gas treatment

Efficiency and Reliability Come in All Sizes, Materials, and Configurations

Applications Continued ...

- Gas/oil/water separation
- Oil and gas production
- Polyester
- Polyols
- Polystyrene
- PVC
- Alkylation
- Desulphurization
- MTBE
- Refinery
- Waste water treatment
- Viscose (viscose rayon is regenerated cellulose)
- Distillery pretreatment
- Fermentation
- Alcohol/ethanol
- Pulp and paper
- Beet and cane sugar
- Textiles
- Metal Finishing
- Automotive

Materials

A wide variety of plate and gasket materials are available depending on your application. Following is a partial list of the more common gasket and plate materials:

Gasket Materials

- Paradur (fluoropolymer)
- Paracent (FDA compliant fluoropolymer)
- EPDM Low halide
- Paraflor (high fluorine fluoropolymer)
- CSP (Hypalon)
- Silicone
- Paratemp (resin cured EPDM)
- Peroxide cured EPDM
- Paramine
- Paratile (peroxy cured nitrile)
- Paracil (sulfur cured nitrile)
- Paraprene (Neoprene)
- Paratherm (Resin cured butyl)
- Parator (Hydrogenated nitrile)

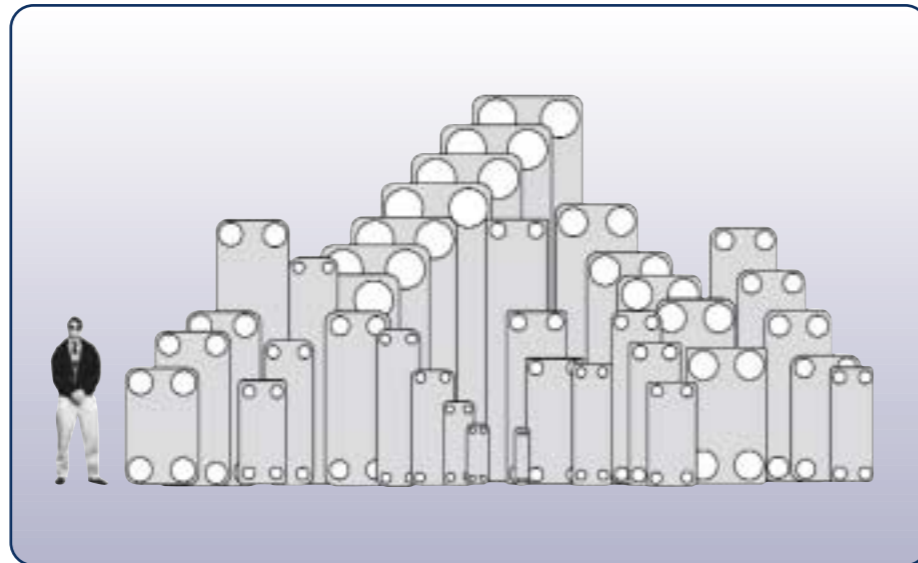


Plate Materials – Austenetic Stainless

- Stainless steel (Gr. 304, 316, 317, 304L, 316L, 317 TI)
- Alloy AL6XN
- Alloy 654 SMO
- Alloy 904L
- Alloy 254 SMO

Nickel Alloys

- Nickel 200
- Alloy G-30
- Alloy B-2
- Alloy C-276
- Alloy C-2000
- Alloy 33

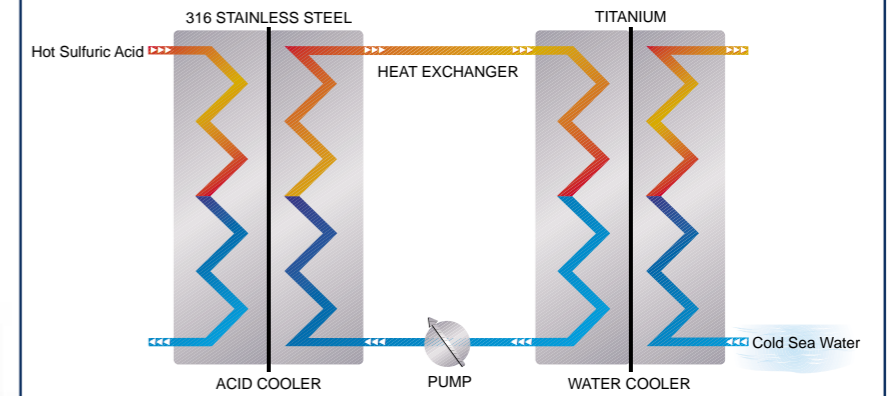
Other

- Titanium (Gr. 1)
- Titanium palladium (Gr. 11 and 17)

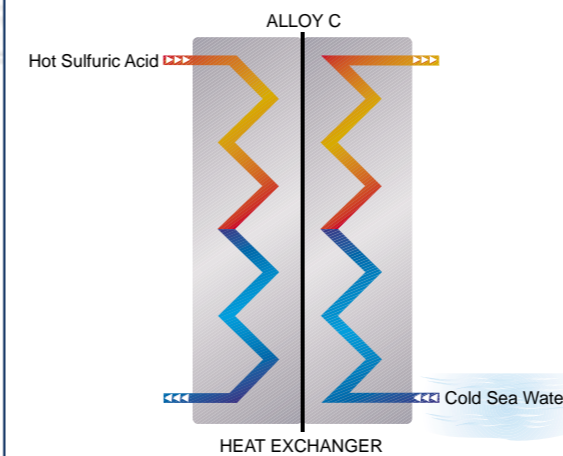
Start Benefiting Today

APV plate heat exchangers reduce maintenance and operating expenses while minimizing down time, delivering the benefits you need to improve the profitability of your process. APV's knowledgeable engineers will work with you every step of the way from system design to implementation and beyond, to ensure you get the optimal performance from your system. To learn more about how APV can help improve your profitability, [call our information line at 888-278-9087](tel:888-278-9087).

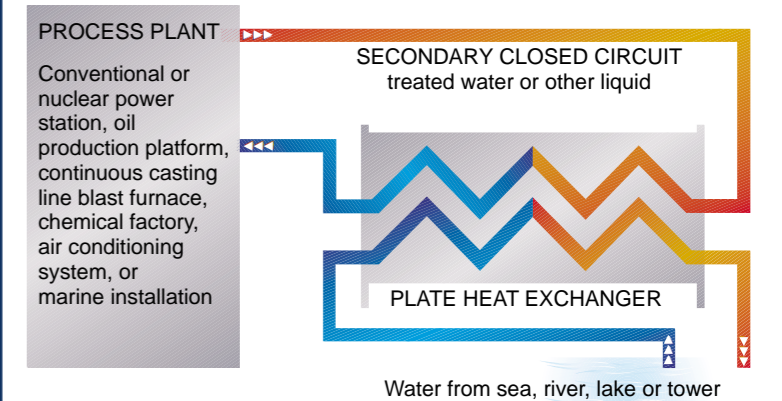
INDIRECT COOLING



DIRECT COOLING



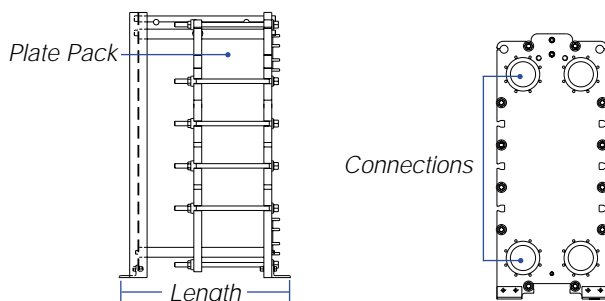
CLOSED CIRCUIT COOLING SYSTEM



A Wide Range of Plate Heat Exchangers for Chemical Process and Industrial Applications

Model Type	Connection Diameter (Inches)	Maximum US GPM	Active Area Per Plate ft ²	G	W	D	Standard Frame Length (Inches)**		Maximum Plate Capacity***
							Minimum	Maximum	
APV - TR1	1.5	125	0.65	X		X	17	31	178
APV - SR1	1.5	125	0.92	X			17	31	128
APV - SR2	2.0	200	1.87	X	X	X	20	59	335
APV - N35	3.0	460	3.75	X		X	16	98	507
APV - Q030	4.0	800	3.12	X			40	104	486
APV - SR6GH	4.0	800	3.62	X		X	40	104	388
APV - LR4	4.0	800	4.05		X		24	66	304
APV - R5*	4.0	800	5.60	X			37	220	700
APV - ER5*	4.0	800	5.67	X			37	220	700
APV - Q055	4.0	800	5.92	X		X	40	104	475
APV - SR6GL	4.0	800	6.00	X		X	40	104	396
APV - Q080	4.0	800	8.83	X			40	104	471
APV - SR6AG	4.0	800	9.57	X			40	104	415
APV - SR6AA	4.0	800	10.77	X			40	104	413
APV - A055	6.0	1800	5.92	X			30	98	453
APV - A085	6.0	1800	9.15	X			30	98	453
APV - A145	6.0	1800	15.63	X			30	98	441
APV - J060	8.0	3100	5.64	X			39	136	692
APV - TR9GL	8.0	3100	5.77	X	X		46	110	530
APV - SR9*	8.0	3100	8.69	X			46	136	365
APV - J092	8.0	3100	9.00	X			39	136	692
APV - TR9GN	8.0	3100	9.10	X	X		46	110	554
APV - J107	8.0	3100	10.67	X			39	136	692
APV - TR9AV	8.0	3100	12.50	X	X		46	110	536
APV - TR9AL	8.0	3100	15.75	X	X		46	110	551
APV - J185	8.0	3100	19.91	X			39	136	692
APV - B063	12.0	7000	6.78	X	X		46	197	899
APV - B110	12.0	7000	11.84	X	X		46	197	896
APV - B134	12.0	7000	14.42	X	X		46	197	889
APV - B158	12.0	7000	17.00	X	X		46	197	883
APV - B205	12.0	7000	22.06	X	X		46	197	718
APV - P105	14.0	9600	11.30	X			58	179	541
APV - P190	14.0	9600	20.50	X			58	179	541
APV - SR23AO	16.0	11000	15.40	X			127	244	740
APV - SR23AN	16.0	11000	19.30	X			127	244	735
APV - SR23PV	16.0	11000	23.30	X			127	244	735
APV - SR23PD	16.0	11000	27.30	X			127	244	730
APV - SR23VA	16.0	11000	31.20	X			127	244	730
APV - SR23VO	16.0	11000	35.20	X			127	244	727
APV - SR23VN	16.0	11000	39.20	X			127	244	727

- * Wide Gap
- ** 150# ASME Frame Design as Basis
- *** Based on Standard Plate Thickness
- G - Gasketed
- W - Welded Plate Pair
- D - Duo-Safety



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