

INDUSTRIAL

COOLING SYSTEMS

CLOSED-LOOP FLUID COOLING SYSTEM & PUMPING STATION



Aircel

LEADING THE WAY IN COOLING TECHNOLOGY

AS ONE OF THE WORLD'S LEADING MANUFACTURERS

of compressed air purification equipment, Aircel LLC has built a comprehensive engineering, manufacturing, and customer support network to meet the most demanding applications. Aircel LLC manufactures an

efficient Industrial Closed-Loop Fluid Cooling System and Pumping Station that extends the life of your fluid-cooled machinery by eliminating organic, mineral scale and corrosion problems.

► CLOSED LOOP FLUID COOLING SYSTEM

AIRCEL INDUSTRIAL CLOSED-LOOP FLUID COOLING SYSTEM IS THE MOST COST-EFFECTIVE COOLING SYSTEM AVAILABLE FOR VIRTUALLY ANY FLUID. USING AMBIENT AIR TO REMOVE HEAT FROM THE COOLANT, IT EFFICIENTLY COOLS FLUIDS TO 15-20°F OF THE AMBIENT TEMPERATURE. LOWER TEMPERATURES CAN BE ACHIEVED WHEN USED IN CONJUNCTION WITH CITY WATER. COMBINING A CLOSED-LOOP FLUID COOLING SYSTEM WITH A TRIM-COOLER CAN PROVIDE A COST-EFFECTIVE AND VERSATILE COOLING SYSTEM FOR YOUR APPLICATION THROUGHOUT THE YEAR.



- ◄ Extends the life of water-cooled machinery.
- ◄ Eliminates organic, mineral scale and corrosion problems.
- ◄ Significantly reduces water consumption and sewer costs.
- ◄ Reduces maintenance cost and downtime, since there is no need to shut down the system for cleaning.
- ◄ Adaptable to heat recovery.
- ◄ Easy installation.
- ◄ Provides cooler water when used with a trim cooler.
- ◄ Custom designed system to your specific application requirements.



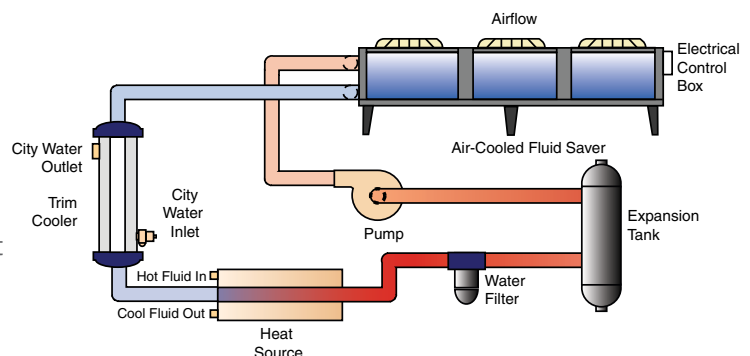
► **DUPLEX PUMPING STATION**

AIRCEL LLC PUMPING STATION IS OFFERED IN TWO SERIES: SIMPLEX (SPS) OR DUPLEX (TPS), WHICH ARE PRE-PIPED AND MOUNTED ON A SINGLE SKID WITH ALL THE CONTROLS. BOTH PUMPING SYSTEMS PROVIDE FULLY-AUTOMATIC OPERATION FOR APPLICATIONS WITH 20 TO 800 GPM AND REQUIRE HEAD PRESSURE OF 10-150 FEET. COMBINING THE LATEST TECHNOLOGY, AIRCEL PUMPING STATION DELIVERS EXCELLENT EFFICIENCY AND PROVIDES LOW MAINTENANCE COSTS BY COMBINING HIGHLY SERVICEABLE DESIGN AND HIGH QUALITY COMPONENTS FOR LONG SERVICE LIFE.

- ▲ NEMA 1 electrical
- ▲ No flow indicator
- ▲ Pumps isolation valves
- ▲ Back-flow preventor
- ▲ Pump failure indicator
- ▲ Pump ON/OFF switch
- ▲ Pump sequencer (TPS series)
- ▲ Automatic lead/lag (TPS series)
- ▲ Adjustable timing sequencer (TPS series)

HOW THE CLOSED-LOOP FLUID COOLING SYSTEM AND PUMPING STATION WORKS

Glycol/water mixture cools the water leaving the industrial processes in the heat source. It then exits the heat source and enters the optional water filter for scales and particulate removal. The glycol mixture then flows through the expansion tank and then to the inlet side of the pump, which keeps the water/glycol mixture flowing through the entire closed loop system. It then enters the fluid saver to be cooled within 5°F to 25°F of the ambient temperature. It later enters the trim cooler (optional), which further cools the glycol mixture if necessary during extreme ambient temperature conditions through a thermostatic water regulating valve (standard with trim cooler). The valve regulates the flow of city water or chilled water through the trim cooler. The glycol mixture then enters the heat source and the process is continuously repeated.



PUMPING STATION DIMENSIONS & SPECIFICATIONS

MODEL	HP	GPM FT/HEAD	EXPANSION TANK (GALLON)	CONNECTIONS (FNPT/ANSI)	DIMENSIONS (INCHES)			WEIGHT (LBS)
					LENGTH	WIDTH	HEIGHT	
SPS-3.0	1/3	23@35	6	1-1/2"	35	30	45	200
SPS-5.0	1/2	23@45	6	1-1/2"	35	30	45	250
SPS-7.5	3/4	38@58	10	1-1/2"	35	30	45	275
SPS-10	1	45@60	10	1-1/2"	35	30	45	300
SPS-15	1.5	60@60	10	1-1/2"	35	30	45	350
SPS-20	2	70@70	15	1-1/2"	45	35	53	390
SPS-30	3	85@82	15	1-1/2"	45	35	53	420
SPS-50	5	120@120	15	2"	45	35	53	460
SPS-75	7.5	180@110	25	2"	35	30	45	530
SPS-100	10	240@100	25	3"	52	39	58	560
SPS-150	15	300@140	25	3"	52	39	58	600
SPS-200	20	350@150	40	3"	52	39	58	650
SPS-250	25	480@120	40	3"	52	39	58	700
SPS-300	30	500@160	40	4" FLG	52	39	58	780
SPS-400	40	660@150	60	4" FLG	60	45	65	890
SPS-500	50	800@170	60	4" FLG	60	45	65	1050
TPS-3.0	1/3	23@35	6	1-1/2"	60	30	45	320
TPS-5.0	1/2	23@45	6	1-1/2"	60	30	45	400
TPS-7.5	3/4	38@58	10	1-1/2"	60	30	45	440
TPS-10	1	45@60	10	1-1/2"	60	30	45	480
TPS-15	1.5	60@60	10	1-1/2"	60	30	45	560
TPS-20	2	70@70	15	1-1/2"	60	30	45	624
TPS-30	3	85@82	15	1-1/2"	65	40	53	672
TPS-50	5	120@120	15	2"	65	40	53	736
TPS-75	7.5	180@110	25	2"	65	40	53	848
TPS-100	10	240@100	25	3"	76	49	58	896
TPS-150	15	300@140	25	3"	76	49	58	960
TPS-200	20	350@150	40	3"	76	49	58	1040
TPS-250	25	480@120	40	3"	76	49	58	1120
TPS-300	30	500@160	40	4" FLG	76	49	58	1248
TPS-400	40	660@150	60	4" FLG	85	55	65	1424
TPS-500	50	800@170	60	4" FLG	85	55	65	1680

CLOSED-LOOP FLUID COOLING SYSTEM DIMENSIONS AND SPECIFICATIONS

MODEL NUMBER	FAN DATA		CAPACITY ¹ (SCFM)		WATER CONNECTION (FNPT)	MAX. FLOW RATE (GPM)	DIMENSIONS (INCHES)			WEIGHT (LBS)	SELECTION FOR ROTARY AIR COMP. (MAX HP)
	QTY.	HP	1140 RPM	825 RPM ²			LENGTH	WIDTH	HEIGHT		
FS50-H	1	1/2	3000	2540	1"	4	48	48	46	165	20
FS75-H	1	1/2	4250	2040	1"	6	48	48	46	188	25
FS100-H	1	1/2	3850	2850	1"	8	48	48	46	204	30
FS150-H	2	1/2	7700	5700	1 1/4"	12	104	48	46	303	40
FS200-H	2	1/2	7400	5480	1 1/4"	16	104	48	46	328	50
FS250-H	2	1/2	7000	5110	1 1/4"	20	104	48	46	352	60
FS300-V	2	1	15,400	11,500	1 1/4"	24	104	48	46	693	75
FS400-V	2	1.5	21,000	15,700	2"	32	104	48	46	709	100
FS500-V	2	1.5	20,500	15,380	2"	40	104	48	46	748	125
FS600-V	2	1.5	20,000	14,900	2 1/2"	48	104	48	46	791	150
FS700-V	3	1.5	32,000	23,900	2 1/2"	56	152	48	46	948	200
FS800-V	3	1.5	31,500	23,500	2 1/2"	64	152	48	46	972	250
FS900-V	3	1.5	31,000	23,100	2 1/2"	72	152	48	46	1062	275
FS1000-V	4	1.5	40,500	30,200	2 1/2"	80	104	96	46	1365	300
FS1100-V	4	1.5	40,000	29,700	3"	88	104	96	46	1420	350
FS1300-V	6	1.5	64,000	47,700	3"	104	152	96	46	1809	400
FS1500-V	6	1.5	63,000	47,000	3"	120	152	96	46	1929	450
FS1800-V	6	1.5	62,000	46,200	4" FLG	144	152	96	46	2349	500
FS2000-V	8	1.5	81,000	60,400	4" FLG	160	200	96	46	2510	600
FS2200-V	8	1.5	80,000	59,700	4" FLG	176	200	96	46	2620	700
FS2500-V	10	1.5	100,000	74,600	4" FLG	200	248	96	46	3075	900
FS3000-V	12	1.5	120,000	89,600	4" FLG	240	296	96	46	3750	1000

Standard voltage is 460/60/3.

¹ Capacity based on 250° F temperature approach with 90-95° F temperature and 140° F inlet water temperature.

² 825 RPM available optional.

CLOSED-LOOP FLUID COOLING SYSTEM & PUMPING STATION OPTIONS

- ▲ Water inlet temperature gauge
- ▲ Water inlet pressure gauge
- ▲ No-flow shutdown
- ▲ Low-water level shut down
- ▲ Mixing valve
- ▲ Totally enclosed fan controlled motor
- ▲ Audible alarm for high temperature
- ▲ Pressure relief bypass
- ▲ Sight glass
- ▲ Flip-top hinged fan panels
- ▲ Water outlet temperature gauge
- ▲ Fan cycling control (per fan to be cycled)
- ▲ Two pump auto start (TPS series only)
- ▲ Automatic fill
- ▲ Larger expansion tank
- ▲ High outlet temperature warning light
- ▲ High efficiency water filter
- ▲ Water strainer
- ▲ NEMA 7 explosion proof motor
- ▲ NEMA 4 or 12 electrical for single pumping station
- ▲ NEMA 4 or 12 electrical for twin pumping station
- ▲ Circuit breaker
- ▲ Fused disconnect switch

TRUST AIRCEL LLC® TO DELIVER A COMPLETE RANGE OF COMPRESSED AIR PURIFICATION SOLUTIONS THAT IMPROVE

AIR QUALITY THROUGHOUT YOUR PLANT - from the compressor room to all points of use. Aircel LLC manufactures a complete line of drying and filtration equipment in an innovative, cutting-edge design with energy efficient operation and reliable performance to increase your productivity and lower your operating cost for the air volume that fits your needs.

Aircel LLC offers a wide variety of solutions to reduce your energy costs, improve your productivity, guarantee production quality and help preserve the environment.

PRODUCTS

- ▲ **Activated carbon filters**
- ▲ **Adsorption dryers**
- ▲ **Breathing-air purifiers**
- ▲ **Cartridge filters**
- ▲ **Chillers**
- ▲ **Condensate drains**
- ▲ **Coolers**
- ▲ **Cyclone separators**
- ▲ **Demisters**
- ▲ **Disposable filters**
- ▲ **Elements**
- ▲ **Emulsion separators**
- ▲ **Filters**
- ▲ **Fine filters**
- ▲ **Filter housing**
- ▲ **High-performance filters**
- ▲ **High-pressure filters**
- ▲ **Medical vacuum filters**
- ▲ **Membrane dryers**
- ▲ **Oil/vapor absorbers**
- ▲ **Oil/water separation systems**
- ▲ **Pre-filters**
- ▲ **Pre-separators**
- ▲ **Process filter elements**
- ▲ **Process filter housing**
- ▲ **Pure gas filters**
- ▲ **Refrigeration compressed air dryers**
- ▲ **Silicon-free filters**
- ▲ **Steam filters**
- ▲ **Sterile filters**
- ▲ **Submicro filters**
- ▲ **Systems engineering**
- ▲ **System solution**
- ▲ **Vacuum filters**
- ▲ **Vent filters**



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