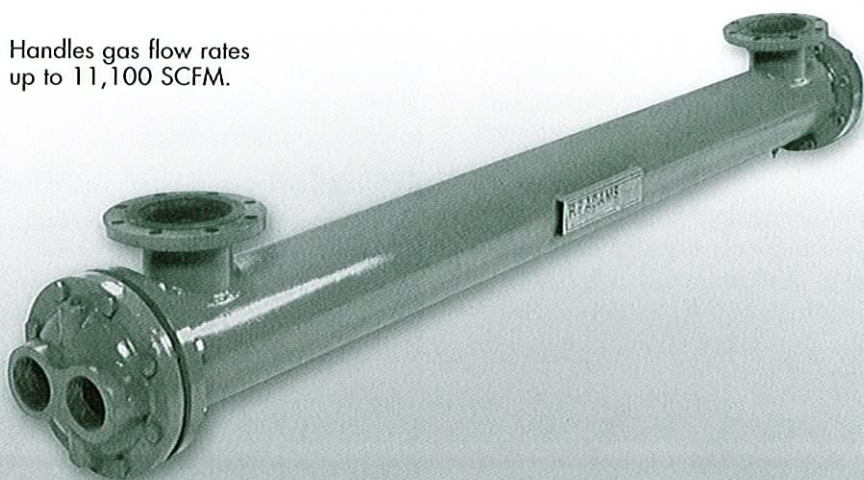


R E L I A B I L I T Y B Y D E S I G N

Handles gas flow rates
up to 11,100 SCFM.



**Efficiently Cool
Compressed
Air or Gas
Using Corrosive
or Dirty
Coolants.**

Model SAR Removable Bundle Aftercoolers from R.P. ADAMS

R.P. ADAMS Model SAR Aftercoolers are designed to effectively cool compressed air or gas when dirty or corrosive liquid coolant must be used, such as sea water, hard water, river water, etc. The compressed gas is on the shell side while the dirty or corrosive coolant flows in the tubes. By having the corrosive coolant in the tubes, exotic alloy materials used for corrosion protection are limited to the tubes, tubesheets, and bonnets, thereby keeping capital equipment costs to a minimum. In addition, this configuration allows accessibility to the coolant side for inspection and simplifies cleaning.

SAR Aftercoolers have a removable tube bundle design using straight tubes and a reversing head to create a two pass configuration on the tubeside. This arrangement creates optimum liquid tubeside velocities that provide superior heat transfer performance and greater resistance to fouling.

Standard SAR Aftercoolers can cool compressed gas to within 10°F of the inlet coolant temperature. Closer approach temperatures are attainable using the R.P. ADAMS DAR Aftercooler twin shell design which uses two single shell SAR units with interconnecting piping for the coolant side. For more information on the DAR, please consult R.P. ADAMS.

SAR Aftercoolers come in twenty standard sizes featuring admiralty tubes, a design pressure of 150 PSIG and a design temperature of 350°F. Custom units are available with higher design pressures and temperatures as well as different materials of construction.

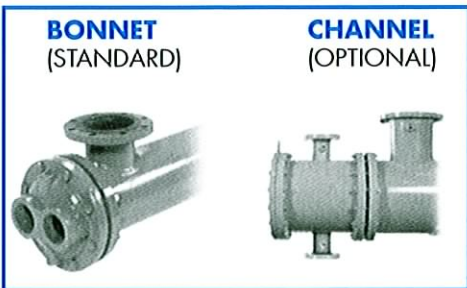
B E N E F I T S A T A G L A N C E

- ⊕ Coolant on the tubeside reduces the risk of fouling and keeps corrosive-resistant materials costs to a minimum.
- ⊕ Removable tube bundle allows for ease of inspection, cleaning and maintenance.
- ⊕ Rear floating tubesheet eliminates stress effects of tube bundle thermal expansion and contraction.
- ⊕ Large rubber packing rings prevent leaks.
- ⊕ Tell-tale vent ring eliminates cross-contamination of fluids.
- ⊕ Tube (coolant) side available with bonnet or channel ends.
- ⊕ Available with optional separator and support cradles for mounting.
- ⊕ Designed and certified to ASME Code, Section VIII, Division 1.
- ⊕ Standard 150 PSIG design pressure units are available for shipment from stock.
- ⊕ Designed and manufactured by R.P. ADAMS, the standard of the aftercooler industry for more than 60 years.

F E A T U R E S

Head types.

A bonnet head type is standard on all SAR aftercoolers. Channel heads are also available as an option and allow for easy in-place inspection and cleaning of the tubes without having to disconnect process piping. The standard material of construction for the bonnet is cast iron for models up to the SAR-14414. Carbon steel is used for all larger models and for channel heads. Other materials are available on request. In addition, a number of internal coatings can be used on these bonnets and channels.



Service life is extended with smooth bare tubes.

The smooth surfaces of a 5/8" diameter bare tube provide extended trouble-free service. By contrast, extended surface designs featuring fins or tube inserts, which project into the flow stream, can promote corrosion and must be cleaned through chemical treatment.

All units are equipped with standard inhibited admiralty tubes for enhanced corrosion protection. Other available materials include 90/10 cupro-nickel, 70/30 cupro-nickel, 304 ss, 316 ss and carbon steel.

Protection against cross-contamination.

A tell-tale vent ring prevents cross-contamination of fluids in the unlikely event of a packing leak. Thick, square rubber packing on opposite sides of the ring create large contact surfaces to ensure proper sealing.

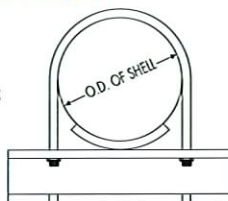
Corrosion-resistant baffles.

Thick, non-metallic baffles provide generous tube support while eliminating the potential for tube cuts caused by pulsation or vibration.

A C C E S S O R Y I T E M S

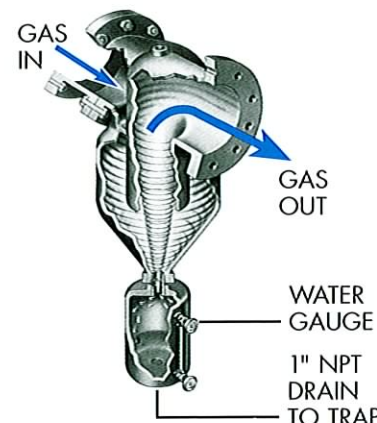
SUPPORT CRADLE OPTION

Support cradles feature a bolt-on design that simplifies installation without requiring welding to mount the cooler.

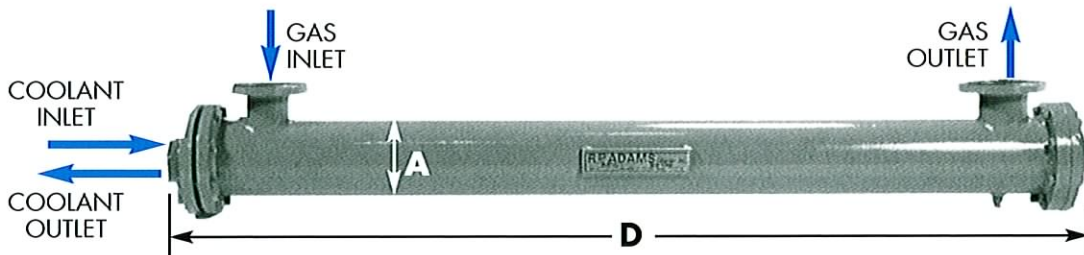


SEPARATOR OPTION

A cyclone separator is available for models up to SAR-14416. For larger units an integral separator comes standard with the aftercooler.



Cyclone separator for models up to SAR-14416.



MODEL	Air Capacity in SCFM						A Shell Diameter (inch)	D Shell Length (inch)	Gas Inlet Conn. (inch)*	Gas Outlet Conn. (inch)*	Water Inlet/Outlet Conn. (inch)	After-Cooler Shipping Weight (lbs.)	Separator Size** (inch)
	For operating pressures between 100 to 150 PSIG												
	180°F		250°F		350°F								
10°	15°	10°	15°	10°	15°								
SAR-9606	410	410	300	400	260	325	6.625	101	4	4	2 Δ	410	4
SAR-12906	575	575	430	560	340	440	6.625	134	4	4	2 Δ	500	4
SAR-14406	575	575	550	575	440	575	6.625	149	4	4	2 Δ	545	4
SAR-9608	1,050	1,100	800	1,000	660	860	8.625	102.375	5	5	3 Δ	610	5
SAR-12908	1,350	1,350	1,060	1,300	830	1,100	8.625	135.375	5	5	3 Δ	720	5
SAR-14408	1,350	1,350	1,350	1,350	1,100	1,350	8.625	150.375	5	5	3 Δ	790	5
SAR-9610	1,650	1,650	1,300	1,600	1,100	1,345	10.75	103.625	6	6	3 Δ	920	6
SAR-12910	2,250	2,900	1,500	2,150	1,150	1,600	10.75	136.625	6	6	3 Δ	1,100	6
SAR-14410	3,090	3,090	2,100	2,900	1,550	2,100	10.75	151.625	6	6	3 Δ	1,200	6
SAR-9612	2,350	2,350	1,750	2,250	1,450	1,800	12.75	104	8	8	3 Δ	1,225	8
SAR-12912	3,250	3,760	2,300	3,200	1,750	2,300	12.75	137	8	8	3 Δ	1,515	8
SAR-14412	3,760	3,760	3,100	3,760	2,300	3,200	12.75	152	8	8	3 Δ	1,655	8
SAR-12914	3,850	3,850	2,800	3,850	2,100	2,800	14	13.875	8	8	3 Δ	1,900	8
SAR-14414	3,850	3,850	3,750	3,850	2,800	3,850	14	153.875	8	8	3 Δ	2,065	8
SAR-12916	5,450	7,000	3,900	5,450	3,000	4,000	16	146	10	10	3 Δ	2,350	10
SAR-14416	7,310	7,310	5,000	7,000	3,700	5,100	16	161	10	10	3 Δ	2,555	10
SAR-12918	7,700	7,700	5,800	7,600	4,250	5,800	18	146.875	12	12	4 *	3,100	Integral
SAR-14418	7,700	7,700	7,600	7,700	5,700	7,700	18	161.875	12	12	4 *	3,365	Integral
SAR-12920	11,100	11,100	8,100	11,000	6,150	8,300	20	150	14	14	4 *	3,750	Integral
SAR-14420	11,100	11,100	11,100	11,100	8,400	11,100	20	165	14	14	4 *	4,090	Integral

*ANSI 150# R.F. Flange, Δ= NPT **Integral separator standard on units with shell diameters 18" or larger. Cyclone separator available as an option on smaller units.



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