

Aftercoolers and Separators

## Water-Cooled Aftercoolers



### Cool, Dry Air

High temperature compressed air exiting the compressor can be cooled in a Kaeser aftercooler to safe, usable levels. Water-cooled aftercoolers can be sized as a single source cooler or as a trim cooler with an air-cooled aftercooler during extremely hot weather. Also, they cool the air to a maximum of 120°F before introducing it into a dryer or filter for further treatment.

Kaeser water-cooled aftercoolers consist of a shell-and-tube heat

exchanger which cools the compressed air to within 15°F of the cooling water in the shell. As the air cools, up to 70% of the water vapor present condenses to a liquid, which can then be removed by a separator.

Optional features include automatic water regulating valves and other construction materials.

### Standard Features:

*Single pass, counter-flow, shell-and-tube design provides close approach temperatures and maximum heat removal from expensive cooling water.*

- Counter-flow design maximizes air to water temperature difference for high heat exchange efficiency
- Copper heat exchange surfaces provide excellent heat transfer rate
- Single pass design and smooth surface copper tubes minimize fouling and provide low pressure drops

*Premium materials and careful construction ensure long service life*

- Heat exchanger made from nonferrous materials eliminates rust, galvanic corrosion, and reduces stress due to different rates of thermal expansion
- Seamless shells have maximum rupture strength and corrosion resistance
- Tubes rolled into tube sheet eliminates thermal stresses from brazing

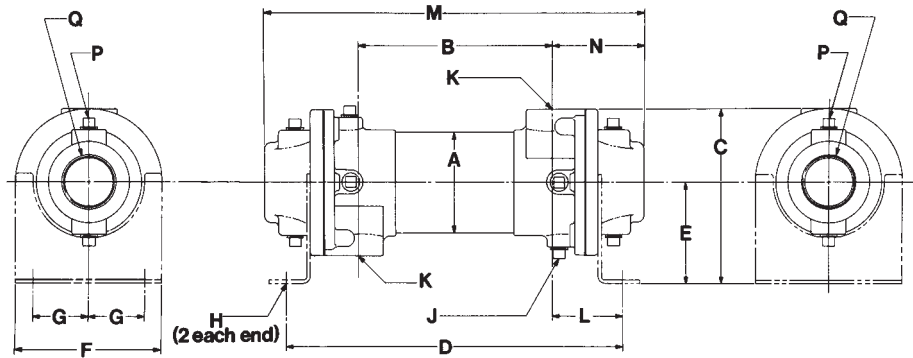
### Easy to Service and Install

- Removable end bonnets facilitate cleaning and servicing
- Models KWC-1250 and up have large 3/8" inch tubes that reduce fouling and are easy to clean
- Compact design
- Mounting brackets supplied as standard
- Can be mounted in vertical or horizontal positions

# Capacity Selection Chart

Model	Capacity* in Tubes (scfm)	Δ P, psi at Rated Capacity
KWC-40	58	0.1
KWC-80	110	0.6
KWC-150	205	2.0
KWC-310	439	1.6
KWC-440	654	0.5
KWC-640	955	0.6
KWC-1250	1690	1.9
KWC-1600	2280	0.9
KWC-2100	3080	1.7
KWC-2800	3170	2.0

\*Based on ambient air at 60°F, 14.7 psia, and 50% relative humidity. Compressed air cooled to within 15°F of inlet water temperature based on 200°F inlet air temperature. Water flow rate 3 gpm per 100 scfm air flow.



## Models, Dimensions, and Weights

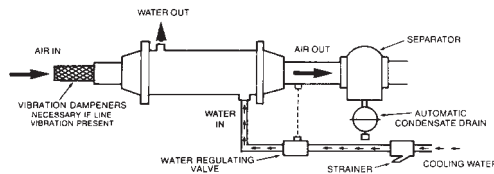
Model	A	B	C	D	E	F	G	H	J (NPT)	K (NPT)	I	M	N	P (NPT)	Q (NPT)	Weight (lbs)
KWC-40	2.13	25.62	3.5	29.06	1.94	2.62	0.88	.41 Dia.	--	.5	1.72	33.36	3.87	--	1.5	13
KWC-80		34.62		38.06								42.36				16
KWC-150	3.66	43.62	6.25	47.06	3.62	5.25	1.5	.44 x 1	(2) .38	1	2.69	51.36	3.7	--	2.5	40
KWC-310		43		48.38								50.4				80
KWC-440	5.13	51.5	7.38	57.62	4	6.75	2	.44 x .88	(6) .38	1.5	3.06	59.6	4.05	(4) .5	3	130
KWC-640	6.13	50.5	8.81	57.38	4.75	7.5	2.5			2	3.44	60.25	4.88			150
KWC-1250	8	59.6	12.13	66.38	6.5	8.62	3.5	.44 x 1	(6) .38	3	4.39	62.62	6.52	(4) .5	5	259
KWC-1600		49.6		58.38								62.62				270
KWC-2100	8	58.6	12.13	67.38	6.5	8.62	3.5	.44 x 1	(6) .38	3	4.39	71.62	6.52	(4) .5	5	315
KWC-2800		67.6		76.38								80.62				315

All dimensions in inches.

## Automatic Water Regulating Valves

Water regulating valves maintain a desired compressed air discharge temperature by regulating the water flow to the heat exchanger. No external power source is needed as the valve opens automatically in response to temperature increase at the sensing

bulb. Not to be used with salt water. Water-cooled aftercoolers can be mounted as shown. Consult Kaeser Filter Literature for required separator (KFS).



Valve	Connection Size	For Use with Models
50070	1/2"	KWC-40 and KWC-640
50080	3/4"	KWC-1250
50090	1"	KWC-1600
50100	1 1/4"	KWC-2100
50110	1 1/2"	KWC-2800

Specifications are subject to change without notice.



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