

# Compressed Air Cooling Air AB Series

## COPPER TUBE CONSTRUCTION

### Performance Notes

- Compressed air and gas aftercoolers
- For water to air cooler
- All brass hubs and shell assemblies: reduce or eliminate galvanic and other types of corrosion
- Copper nickel tubes available for sea water service



### Ratings

**Maximum Operating Pressure - Tubes**

250 PSI

**Maximum Operating Pressure - Shell**

250 PSI

**Maximum Operating Temperature**

350°F

### Materials

**Tubes** Copper

**Shell** Brass

**End Hubs** Brass

**End Bonnets** Cast iron

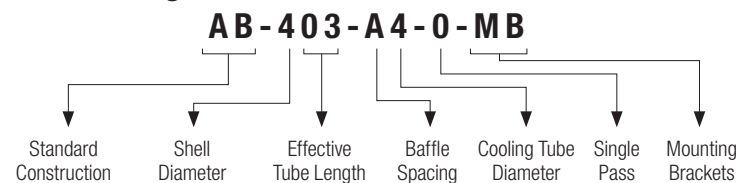
**Baffles** Brass

**Gaskets** Nitrile rubber

**Nameplate** Aluminum foil

**Mounting Brackets (optional)** Steel

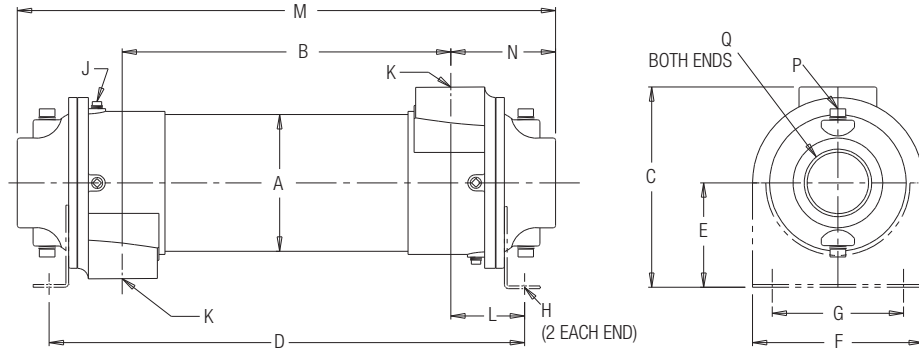
### Unit Coding



### How to Order

<b>AB</b>	-	[ ]	-	[ ]	-	[ ]	-	[ 0 ]	-	[ ]
<b>Model Series</b> AB		<b>Model Size Selected</b> 403 404 405 705 1006 1206 1207 1606 1607 1608		<b>Baffle Spacing</b> A - 1.125 B - 2.25 C - 4.5 D - 9.0		<b>Tube Diameter Code</b> 4 - 1/4" (400 & 700 models only) 6 - 3/8" (1000, 1200 & 1600 models only)		<b>Tubeside Passes</b>		<b>MB or Blank</b>

# Dimensions



NOTE: Mounting brackets are optional.

Model	A Dia.	B	C	D*	E*	F*	G*	H*	J NPT	K NPT	L	M	N	P NPT	Q NPT	Weight (LBS)
AB-403-A4-0	2.12	25.62	3.50	29.06	1.94	2.62	1.76	.41 Dia.	—	.50	1.72	33.36	3.87	(4) .50	1.50	13
AB-404-A4-0	2.12	34.62	3.50	38.06	1.94	2.62	1.76	.41 Dia.	—	.50	1.72	42.36	3.87	(4) .50	1.50	16
AB-405-B4-0	2.12	43.62	3.50	47.06	1.94	2.62	1.76	.41 Dia.	—	.50	1.72	51.36	3.87	(4) .50	1.50	18
AB-705-B4-0	3.66	43.00	6.25	48.38	3.62	5.25	3.00	.44 x 100	(2) .38	1.00	2.69	50.40	3.70	(4) .50	2.50	40
AB-1006-B6-0	5.12	51.50	7.38	57.62	4.00	6.75	4.00	.44 x 100	(6) .38	1.50	3.06	59.60	4.05	(4) .50	3.00	80
AB-1206-C6-0	6.12	50.50	8.81	57.38	4.75	7.50	5.00	.44 x .88	(6) .38	2.00	3.44	60.25	4.88	(4) .50	3.00	130
AB-1207-C6-0	6.12	59.60	8.81	66.38	4.75	7.50	5.00	.44 x .88	(6) .38	2.00	3.44	69.25	4.88	(4) .50	3.00	150
AB-1606-C6-0	8.00	49.60	12.13	58.38	6.50	8.62	7.00	.44 x 100	(6) .38	3.00	4.39	62.62	6.52	(4) .50	5.00	259
AB-1607-D6-0	8.00	58.60	12.13	67.38	6.50	8.62	7.00	.44 x 100	(6) .38	3.00	4.39	71.62	6.52	(4) .50	5.00	270
AB-1608-D6-0	8.00	67.60	12.13	76.38	6.50	8.62	7.00	.44 x 100	(6) .38	3.00	4.39	80.62	6.52	(4) .50	5.00	315

NOTE: We reserve the right to make reasonable design changes without notice. All dimensions in inches.

## Selection Example

### Specified

Two stage compressor with a 340 SCFM air delivery at 100 PSIG and a 250°F discharge temperature. Maximum allowable pressure loss is 2 PSI. Water flow rate to be determined.

### Solution

**STEP 1** From the 2-stage compressor column select model **AB-1006-B6-0** with 440 SCFM capacity.

**STEP 1** To determine  $\Delta P$ : Read column to right of SCFM capacity selected.  
 **$\Delta P = 0.3$  PSI**

**STEP 1** Water flow rate required  
**340 SCFM x .03 = 10.2 GPM**

## Capacity Selection

Model	2-Stage Recip 250°F Inlet Air		Rotary Screw 200°F Inlet Air	
	SCFM Capacity* in Tubes	$\Delta P$ , PSI, at Rated Capacity	SCFM Capacity* in Tubes	$\Delta P$ , PSI, at Rated Capacity
AB-403-A4-0	40	0.1	58	0.1
AB-404-A4-0	80	0.3	110	0.6
AB-405-B4-0	150	1.2	205	2.0
AB-705-B4-0	310	1.0	439	1.6
AB-1006-B6-0	440	0.3	654	0.5
AB-1206-C6-0	640	0.3	955	0.6
AB-1207-C6-0	1250	1.1	1690	1.9
AB-1606-C6-0	1600	0.5	2280	0.9
AB-1607-D6-0	2100	1.0	3080	1.7
AB-1608-D6-0	2800	1.6	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. Water flow rate 3 GPM per 100 SCFM air flow. For single stage compressor type, 300°F inlet, use 2-stage SCFM capacities with a 15% reduction.

## Piping Diagram

Thermal Transfer Aftercoolers can be mounted in either of the positions shown. Separators should be used as shown. Consult factory for separator recommendations.

