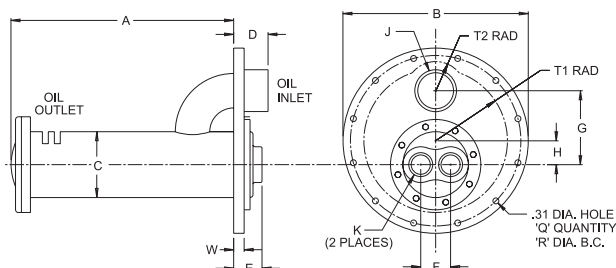
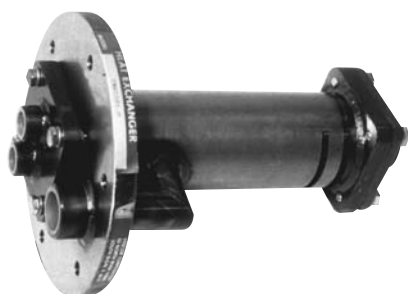




IN TANK-COOLERS (WATER COOLED)



- In-tank design minimizes space requirements and reduces plumbing
- Internal aluminum fins dramatically increase performance
- Removable end bonnets allow water passage servicing
- Steel shell for high strength
- T1 & T2 Radii represent required reservoir cutout

Options

SAE or BSPF connections available

Internal oil flow bypass-relief (Surge-Cushion®) Surge-Cushion is a registered trademark.

The Surge-Cushion® is a patented protective device designed to internally bypass a portion of the oil flow during cold start conditions, or when sudden flow surges temporarily exceed the maximum flow allowed for a given cooler. This device may replace an external bypass valve, but it is not intended to bypass the total oil flow.

Model	A	B	C	D NPT or SAE	D BSPF	E	F	G	H	J NPT or BSPF	J SAE	K NPT or BSPF	Q	R	T1	T2	W
TMWC001	8.58	6.75	2.55	1.28	1.52	1.59	1.12	2.44	.50	3/4"	#12	3/8"	6	5.60	2.25	.79	.53
TMWC002	18.58	6.75	2.55	1.28	1.52	1.59	1.12	2.44	.50	3/4"	#12	3/8"	6	5.60	2.25	.79	.53
TMWC003	8.15	9.75	3.52	1.50	1.93	1.50	1.62	3.94	1.28	1 1/2"	#24	1"	12	8.94	4.00	-	.63
TMWC004	18.15	9.75	3.52	1.50	1.93	1.50	1.62	3.94	1.28	1 1/2"	#24	1"	12	8.94	4.00	-	.63
TMWC005	12.50	10.38	5.05	1.62	2.05	2.16	2.38	4.68	1.19	1 1/2"	#24	1 1/2"	12	9.62	4.38	1.12	.66
TMWC006	24.50	10.38	5.05	1.62	2.05	2.16	2.38	4.68	1.19	1 1/2"	#24	1 1/2"	12	9.62	4.38	1.12	.66

All all dimensions in inches. Tank gasket is included. BSPF Threads are 55° Full Form Whitworth.

NOTE: We reserve the right to make reasonable design changes without notice. Certified drawings are available upon request.

SPECIFICATIONS

Materials

Shell - Steel
Tubes - Copper
Fins - Aluminum
Tubesheets - Steel
Baffles - Steel
End Bonnets - Cast Iron
Gaskets - Nitrile Rubber/
Cellulose Fiber

Ratings

Operating Pressure - PSI
Shellside - 75
Tubeside - 150
Test Pressure - PSI
Shellside - 75
Tubeside - 150
Max. Temperature - 250°F

Maximum Flow Rates

Model Size	Shell Side (GPM)	Tube Side (GPM)
TMWC001/002	20	6
TMWC003/004	65	12
TMWC005/006	100	28

How To Order

Model Series

TMWC001
to
TMWC006

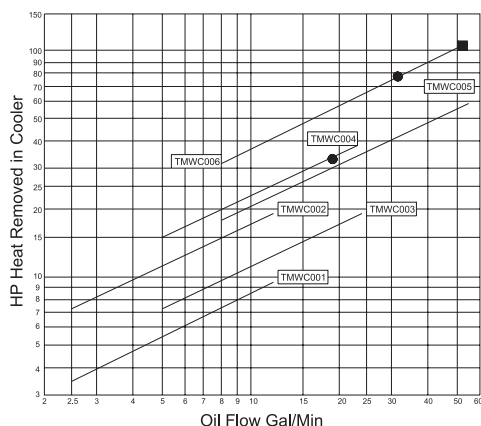
Connections

P = NPT Conn.
S = SAE Oil Conn.
M = Metric Conn.

Surge-Cushion®

Omit - No Surge-Cushion®
"R" - Surge-Cushion®

Cooler Performance Curves



Cooler Selection Procedure

1. Curves are based on a 40°F approach temperature, a 2:1 oil to water ratio and an average oil viscosity of 100 SSU. Example: oil leaving cooler at 125°F with 85°F cooling water (125°F - 85°F = 40°F). The 2:1 oil to water ratio means that for every GPM of oil circulated, a minimum of 1/2 GPM of water must be circulated to obtain the curve results.
2. Oil pressure drop coding: ● = 5 PSI, ■ = 10 PSI. Curves having no pressure drop symbol indicate that the oil pressure drop is less than 5 PSI to the highest oil flow rate for that curve. Multiply curve oil pressure drop by Correction B.
3. Corrections for approach temperature and oil viscosity:

$$\text{HP Heat Removed in Cooler} = \text{HP actual} \times \left\{ \frac{40^\circ\text{F}}{\text{Oil out}^\circ\text{F} - \text{Water in}^\circ\text{F}} \right\} \times \text{Correction A}$$

VISCOSITY CORRECTIONS

Avg. Oil SSU	A	B
50	0.84	0.6
100	1.00	1.0
200	1.14	2.0
300	1.24	3.1
400	1.31	4.1
500	1.37	5.1

NOTE: WITH VESCORS' POLICY OF CONSTANTLY IMPROVING ITS PRODUCTS, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.