

Fluid Cooling Shell & Tube EKT Series

0916

COPPER & STEEL CONSTRUCTION

Performance Notes

- HPU, in-tank cooler
- Compact size
- EK style & size
- High efficiency finned bundle design
- Serviceable
- Removable
- In-tank design minimizes space requirements and reduces plumbing
- Internal aluminum fins increase performance
- Removable end bonnets allow water passage servicing
- High strength steel shell



OPTIONS

Patented built-in
Surge-Cushion® bypass
SAE or BSPP Connections Available

Ratings

Maximum Operating Pressure - Shell Side
75 PSI

Maximum Operating Pressure - Tube Side
150 PSI

Test Pressure - Shell Side
75 PSI

Test Pressure - Tube Side
150 PSI

Maximum Operating Temperature
250°F

Materials

Shell Steel

Tubes Copper

Fins Aluminum

Tubesheets Steel

Baffles Steel

End Bonnets Cast iron

Gaskets Nitrile rubber/cellulose fiber

Optional Surge-Cushion®

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, but it is not intended to bypass the total oil flow.

How to Order

| | | | | |
|--|---|----------------------------|---|---|
| <input type="text"/> | - | <input type="text"/> | - | <input type="text"/> |
| Model Series EKT EKTS EKTm | | Model Size Selected | | Surge Cushion Blank - None R - Surge Cushion |

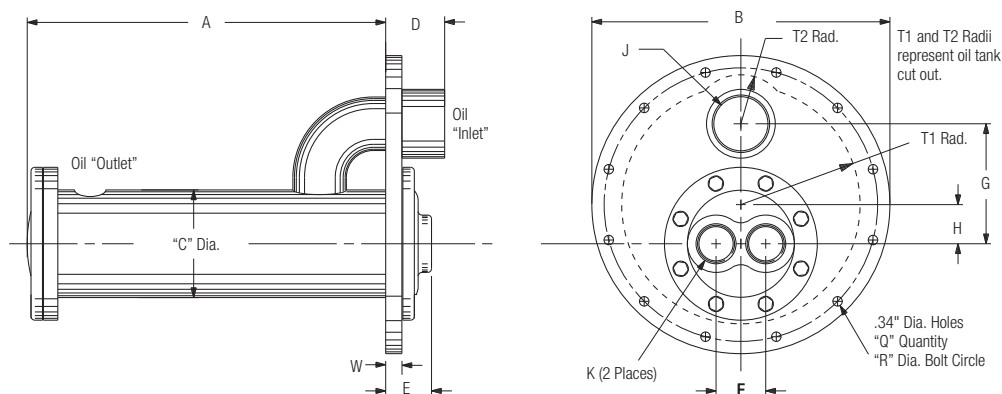
EKT = NPT Connections.
EKTS = SAE Oil Connections.
EKTm = All Metric Connections.

GS GLOBAL RESOURCES
Foremost in Machine Performance for Life

GS Global Resources • 1-800-261-8735 • gsglobalresources.com
926 Perkins Drive, Mukwonago, WI 53149

© GS GLOBAL RESOURCES, INC. ALL RIGHTS RESERVED.

Dimensions



| Model | A | B | C | D | E | F | G | H | J | | K | Q | R | T1 | T2 | W | Approx. Weight (LBS) | |
|----------|-------|-------|------|------|------|------|------|------|-------------|-----|-----|----|------|------|------|-----|----------------------|----------|
| | | | | | | | | | NPT BSPF | SAE | | | | | | | Net | Shipping |
| EKT-508 | 8.87 | 6.79 | 2.55 | 1.84 | 1.68 | 1.12 | 2.44 | .50 | 3/4 | #12 | 3/8 | 6 | 5.60 | 2.25 | .79 | .62 | 11 | 14 |
| EKT-518 | 18.87 | 6.79 | 2.55 | 1.84 | 1.68 | 1.12 | 2.44 | .50 | 3/4 | #12 | 3/8 | 6 | 5.60 | 2.25 | .79 | .62 | 14 | 16 |
| EKT-708 | 8.72 | 9.75 | 3.52 | 2.22 | 1.67 | 1.62 | 3.94 | 1.25 | 1½ | #24 | 3/4 | 12 | 4.00 | 4.00 | — | .70 | 23 | 27 |
| EKT-188 | 18.72 | 9.75 | 3.52 | 2.22 | 1.67 | 1.62 | 3.94 | 1.25 | 1½ | #24 | 3/4 | 12 | 4.00 | 4.00 | — | .70 | 30 | 34 |
| EKT-1012 | 12.55 | 10.38 | 5.05 | 2.22 | 2.23 | 2.38 | 4.69 | 1.19 | 1½ | #24 | 1 | 12 | 4.38 | 4.38 | 1.12 | .70 | 42 | 46 |
| EKT-1024 | 24.55 | 10.38 | 5.05 | 2.22 | 2.23 | 2.38 | 4.69 | 1.19 | 1½ | #24 | 1 | 12 | 4.38 | 4.38 | 1.12 | .70 | 58 | 63 |

NOTE: We reserve the right to make reasonable design changes without notice. Certified drawings are available upon request. All dimensions in inches.
Tank gasket is included. BSPP threads are 55° full form whitworth.

Selection Procedure

Performance 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.

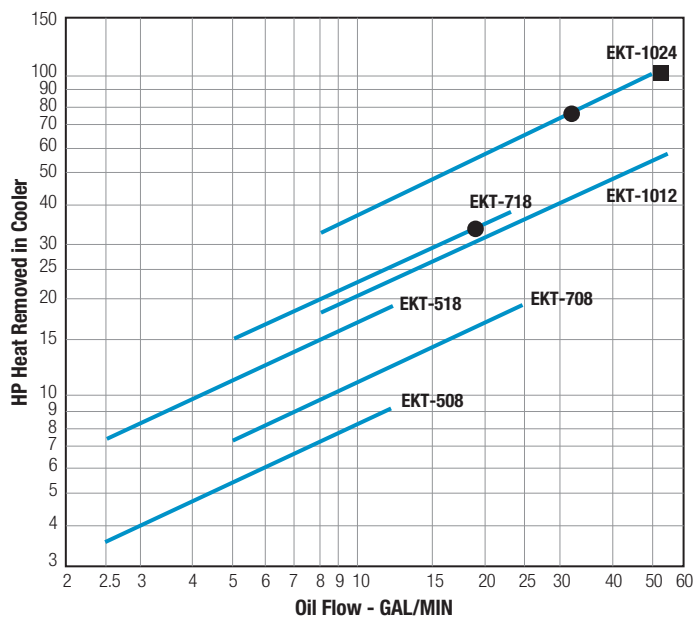
STEP 1 Corrections for approach temperature and oil viscosity.

HP_{Heat Removed in Cooler} =

$$HP_{Actual} \times \left[\frac{40^\circ F}{\text{Oil out and } ^\circ F - \text{Water in } ^\circ F} \right] \times \text{Correction A}$$

STEP 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.

Performance Curves



Viscosity Corrections

| Average 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 |

Maximum Flow Rates

| Unit Size | Shell Side GPM | Tube Side GPM |
|-----------|-------------------|------------------|
| 500 | 20 | 6 |
| 700 | 70 | 12 |
| 1000 | 100 | 28 |

If maximum allowable flow rates are exceeded, premature failure may occur.