

# ULRM Series

Rear-Mount Oil Coolers for Industrial Applications



## Extend Component Lifespan and Increase System Performance.

High hydraulic fluid temperatures can damage system components, as well as significantly alter the way your hydraulic system performs – leaving you with costly repairs and downtime. The Parker ULRM Series provides durable rear-mount coolers designed to fit behind standard TEFC electric motors. Engineered for case drain applications or applications requiring minimal cooling, the ULRM Series affordably removes heat from your hydraulic fluid to protect your system.

The ULRM Series offers robust and efficient bar and plate construction. Designed to the standard dimensions found on NEMA frame motors, it significantly reduces your installation time, so you can get up and running faster.



## Contact Information:

Parker Hannifin Corporation  
**Accumulator & Cooler Division**  
10711 North Second Street  
Machesney Park, IL 61115

**phone 815 636 4100**  
**fax 815 636 4111**

[www.parker.com/coolers](http://www.parker.com/coolers)

## Product Features:

- Robust, efficient bar and plate construction
- Flexible mounting options (for horizontal and vertical units)
- Custom under-motor mount for easy installation (vertical mount)
- Ability to rotate core 90 degrees for multiple port configurations
- Universal mounting brackets (adjustable on two axes)
- Optional removable air filter

## Design Engineering:

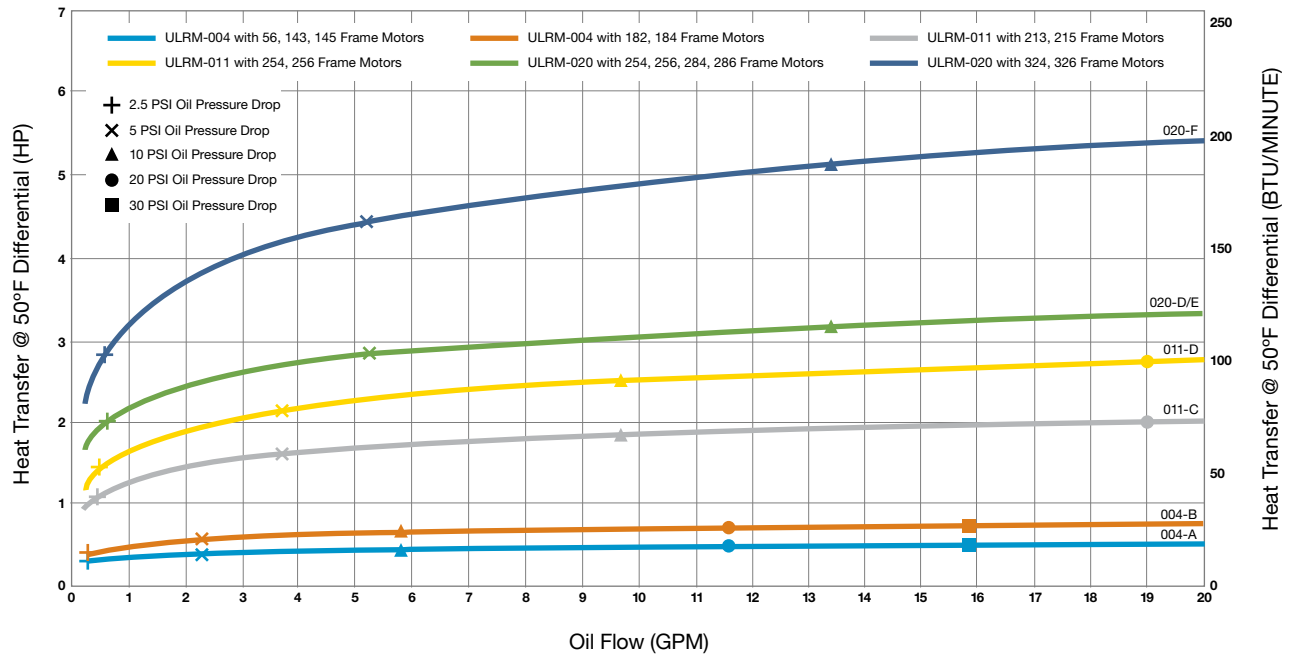
- Innovative design for reduced installation times
- Custom sizing and 3D models available
- Application engineers on hand for design assistance and technical support



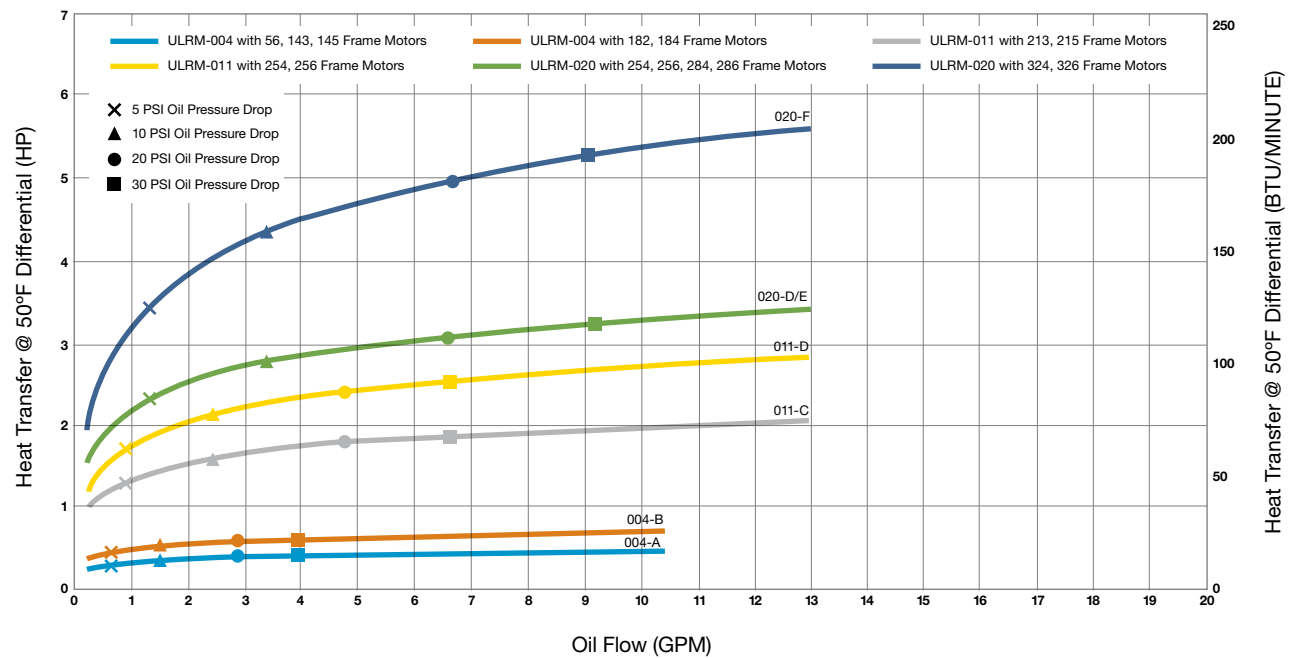
ENGINEERING YOUR SUCCESS.

# ULRM Series Cooling Performance

## ULRM One Pass Cooler Performance



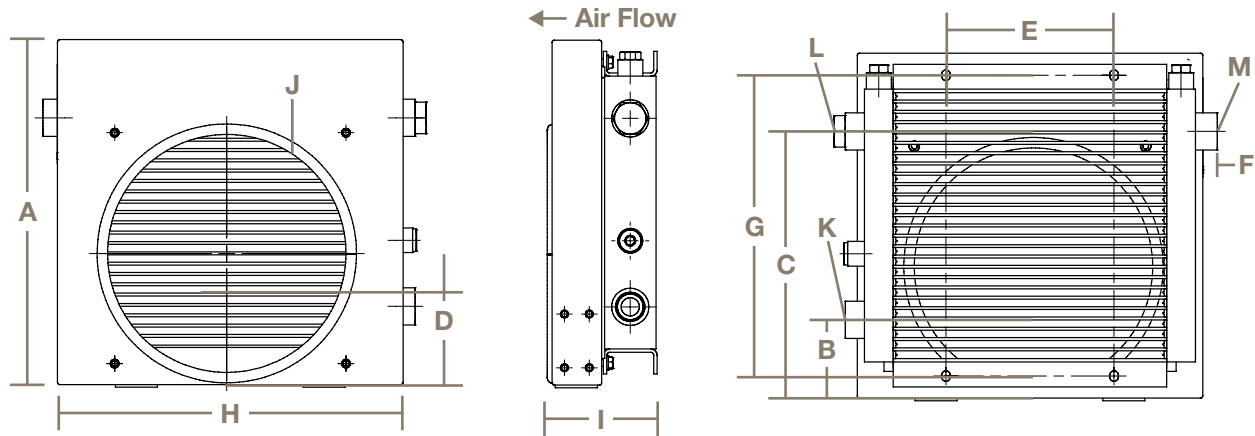
## ULRM Two Pass Cooler Performance



Note: The Cooling capacity curves are based on an Entering Temperature Difference (ETD) of 50°F and ISO VG46 oil.

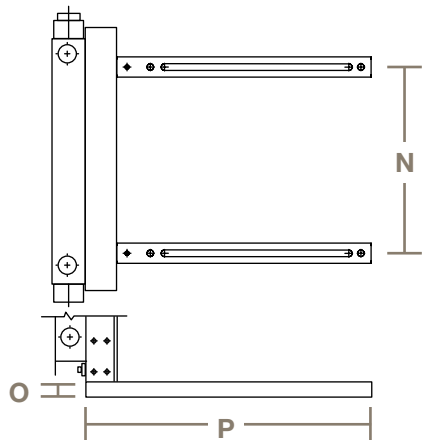
$$\text{Head Load (hp)} \times \frac{50}{\text{ETD (Actual)}} = \text{Curve hp}$$

# ULRM Series Dimensions



| Type     | One Pass |     |      | Two Pass |      | D           | E   | F   | G    | H    | I   | J           | One Pass |         |        | Two Pass |   |   | Weight lbs. (approx.) |
|----------|----------|-----|------|----------|------|-------------|-----|-----|------|------|-----|-------------|----------|---------|--------|----------|---|---|-----------------------|
|          | A        | B   | C    | B        | C    |             |     |     |      |      |     |             | K        | L       | M      | K        | L | M |                       |
| ULRM-004 | 11.1     | –   | 7.5  | 3.6      | 7.5  | See Chart A | 6.0 | 1.3 | 9.0  | 11.1 | 5.0 | See Chart A | SAE #8   | SAE #16 | SAE #8 | –        | – | – | 13                    |
| ULRM-011 | 16.4     | 3.8 | 12.8 | 4.9      | 11.6 |             | 8.0 | 0.9 | 14.3 | 16.4 | 5.0 |             | SAE #16  | SAE #16 | SAE #8 | –        | – | – | 28                    |
| ULRM-020 | 20.8     | 6.0 | 17.0 | 6.1      | 14.8 |             | 8.0 | 0.9 | 18.7 | 20.8 | 5.0 |             | SAE #16  | SAE #16 | SAE #8 | –        | – | – | 45                    |

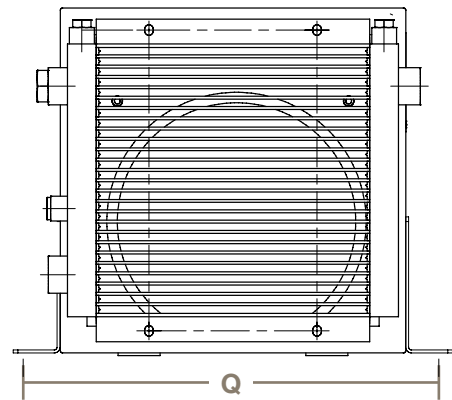
## Under Motor Mount



| Type     | N           | O   | P    | Weight lbs. (approx.) |
|----------|-------------|-----|------|-----------------------|
| ULRM-004 | See Chart A | 1   | 18.8 | 20                    |
| ULRM-011 |             | 1.2 | 24.8 | 35                    |
| ULRM-020 |             | 1.2 | 24.8 | 52                    |

Includes bolts and blocks for mounting motor.

## Universal Feet



| Type     | Q    | Weight lbs. (approx.) |
|----------|------|-----------------------|
| ULRM-004 | 13.1 | 15                    |
| ULRM-011 | 18.4 | 30                    |
| ULRM-020 | 22.8 | 47                    |



Chart A

| NEMA Frame Size                      | Cooler Size  | Motor Mount Bolts | Motor Center (D) | Motor Opening (J) | Under Motor Mount Spacing (N) | Adapter Plate |
|--------------------------------------|--------------|-------------------|------------------|-------------------|-------------------------------|---------------|
| 56, 56H, 143T, 145T                  | ULRM-004     | 5/16-18 UNC       | 3-1/2"           | 6-1/4"            | 4-7/8", 5-1/2"                | Y             |
| 182, 182T, 184, 184T                 | ULRM-004     | 3/8-16 UNC        | 4-1/2"           | 8-1/4"            | 7-1/2"                        | N             |
| 213, 213T, 215, 215T                 | ULRM-011     | 3/8-16 UNC        | 5-1/4"           | 9-3/4"            | 8-1/2"                        | Y             |
| 254T, 254U, 256T, 256U               | ULRM-011/020 | 1/2-13 UNC        | 6-1/4"           | 11-3/4"           | 10"                           | 020 only      |
| 284T, 284TS, 284U, 286T, 286TS, 286U | ULRM-020     | 1/2-13 UNC        | 7"               | 13-1/4"           | 11"                           | Y             |
| 324T, 324TS, 324U, 326T, 326TS, 326U | ULRM-020     | 5/8-11 UNC        | 8"               | 15-1/4"           | 12-1/2"                       | N             |

# ULRM Series Specifications

## Order Key

| <b>ULRM</b> |             |             |                               |                       |
|-------------|-------------|-------------|-------------------------------|-----------------------|
| Model       | Cooler Size | # of Passes | NEMA Motor Frame Size         | Mounting              |
|             | 004         | 1           | A = 56-145T (004 only)        | W = No feet           |
|             | 011         | 2           | B = 182-184T (004 only)       | X = Universal feet    |
|             | 020         |             | C = 213-215T (011 only)       | Y = Under Motor Mount |
|             |             |             | D = 254T-256U (011, 020 only) |                       |
|             |             |             | E = 284T-286U (020 only)      |                       |
|             |             |             | F = 324T-326U (020 only)      |                       |

### Technical Specifications

#### Fluid Combinations

Mineral oil  
Oil/water emulsion  
Water glycol  
Phosphate ether

#### Material

Cooler core Aluminum  
Other parts Steel  
Surface treatment Electrostatically powder-coated

#### Cooler Core

Maximum static working pressure 300 PSI  
Dynamic working pressure 200 PSI\*  
\*Tested in accordance with ISO/DIS 10771-1  
Heat transfer tolerance  $\pm 6\%$   
Maximum oil inlet temperature 250°F

#### Contact Parker for advice on

Oil temperatures > 250°F  
Aggressive environments  
Environments with heavy airborne particulates  
High-altitude locations

### Filter Kits (sold separately)

(Includes air filter and brackets)

Size 004: Part# AFK-004  
Size 011: Part# AFK-011  
Size 020: Part# AFK-020

### Filter Service Parts

Spare Filter (1pc)  
Size 004: Part# FIL-004  
Size 011: Part# FIL-011  
Size 020: Part# FIL-020

### Mounting Service Kits

#### Universal Feet Kit

(Brackets [2pc] and hardware)  
Part# UFK-RM

#### Under Motor Mount Kit

(Skis [2pc] and hardware)  
Size 004-A: Part# UMM-S-5/16"  
Size 004-B: Part# UMM-S-3/8"  
Size 011-C: Part# UMM-S-3/8"  
Size 011-D: Part# UMM-L-1/2"  
Size 020-D: Part# UMM-L-1/2"  
Size 020-E: Part# UMM-L-1/2"  
Size 020-F: Part# UMM-L-5/8"

### Adapter Service Kits

#### Motor Seal Plate Kit

(Seal plate and hardware)  
Size 004-A: Part# MSP-004-A  
Size 011-C: Part# MSP-011-C  
Size 020-D: Part# MSP-020-D  
Size 020-E: Part# MSP-020-E

