VIKING® GENERAL PURPOSE SPECIAL MOUNTED PUMPS
75 AND 475 SERIES

FEATURES

VIKING CLOSE-COUPL ED
PUMP FEATURES
SAVES SPACE
Over-all space (length, height and width) is cut to a minimum with Viking’s close-coupled pumps. Complete unmounted pump in all five sizes, 5 to 30 GPM, requires only approximately 5” of space.

NO DRIVE EQUIPMENT NEEDED
No couplings, bases, gears or outboard bearings. Standard motor shafts are keyed directly to the Viking rotor pump gear eliminating all extra drive equipment. Simple and compact.

SERIES 75 and 475
Lip and Mechanical Seal
Unmounted Pumps
“G” and “GG” sizes

Pressure Range
50 PSI (3 BAR) (SERIES 75)
100 PSI (7 BAR) (SERIES 475)

Temperature Range
-20°F. to +350°F. (-29°C. to +177°C.)

Viscosity Range
28 SSU to 2500 SSU
(1.0 cP to 550 cSt)

GPM 5-7-10-13-15-20-30
(m³/hr 1-1.5-2-3-3.5-4.5-7)
(Nominal Rating)

For compactness, less weight and simplicity of mounting, Viking’s line of close-coupled pumps are ideal for direct connecting to other pieces of equipment. The positive, smooth delivery, of these pumps makes them preferred for many types of applications including filtering, circulating, transferring, lubricating or booster service.

The five sizes of Viking close-coupled pumps from 5 to 30 GPM are available in this unmounted type ready to connect on other equipment with standard NEMA “C” flange mounting.

All pumps are available with rotor bore to fit the shaft of a standard motor or other piece of equipment. Bores are furnished in ½” and ¾”.

By using a full length key between drive shaft and rotor bore, rigid and positive alignment of pump and drive shaft is assured.

All five pumps operating at 1800 RPM and pumping liquids up to 750 SSU deliver 7, 10, 15, 20 and 30 GPM.

① See following pages or consult factory for specific recommendations on individual models or sizes.
② Nominal capacities based on handling thin liquids.

Metric conversions are based on US measurements and rounded to the nearest whole number.

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VIKING® GENERAL PURPOSE SPECIAL MOUNTED PUMPS
75 AND 475 SERIES

MOUNTED AND UNMOUNTED PUMPS

This advanced design of Viking’s line of close-coupled pumps is unique in its field for it permits use of STANDARD, unmodified NEMA “C” flange ball bearing motors in 1800 and 1200 RPM speeds, 56C, 143TC and 145TC frame sizes.

It is extremely close-coupled, reducing needed space, cutting overall weight, eliminating bases, couplings, outboard bearings or any drive equipment and at the same time saves cost of these many items.

These Viking “gear-within-a-gear”, self-priming, positive displacement pumps are ideal for filtering, circulating, transferring, lubricating or booster service.

All five sizes are equipped with opposite ports. Only two casing sizes are used for all five pumps. The two smaller pumps use one casing and the three larger pumps use the other.

All five pumps are built to accept a compact, integral relief valve mounted on top of casing to maintain extreme compactness.

All pumps are available with either mechanical seal suitable for 100 PSI pressure or a lip seal suitable for 50 PSI. No modification of parts are needed to convert from one seal to the other.

Dimensions for Unmounted Pumps and “M” Drive Units —See Page 320.6.
Performance Data for Unmounted Pumps and “M” Drive Units—See Pages 320.15 thru 320.19.

CONSTRUCTION — 75 AND 475 SERIES (“G” THROUGH “HL” SIZES)

<table>
<thead>
<tr>
<th>Pump Construction</th>
<th>Casing</th>
<th>Head</th>
<th>Rotor</th>
<th>Idler</th>
<th>Idler Bushing</th>
<th>Internal Relief Valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>Iron</td>
<td>Iron</td>
<td>Iron</td>
<td>Iron</td>
<td>© Iron</td>
<td>Bronze</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Buna N</td>
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<td></td>
<td></td>
<td></td>
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<td>Iron</td>
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</tbody>
</table>

SPECIFICATIONS — “M” DRIVE UNITS AND UNMOUNTED PUMPS (“G” THROUGH “HL” SIZES)

<table>
<thead>
<tr>
<th>Unit Model Number</th>
<th>Unmounted Pumps Model No.</th>
<th>Port Size</th>
<th>Nominal Pump Rating</th>
<th>Motor H.P. Required at Rated Speed Pumping 100 SSU Liquid</th>
<th>Maximum Recommended Discharge Pressure PSIG (BAR)</th>
<th>Maximum Recommended Temperature for Cataloged Pump “F” (°C)</th>
<th>Maximum Recommended Viscosity for 1800 and 1200 RPM Operation SSU</th>
<th>Shipping Weight</th>
<th>With Valve Pounds (KG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G75M G475M</td>
<td>G75 G475</td>
<td>1</td>
<td>5 (1)</td>
<td>1200</td>
<td>7 (1.5)</td>
<td>1800</td>
<td>½</td>
<td>½</td>
<td>50 (3)</td>
</tr>
<tr>
<td>GG75M GG475M</td>
<td>GG75 GG475</td>
<td>1</td>
<td>7 (1.5)</td>
<td>1200</td>
<td>10 (2)</td>
<td>1800</td>
<td>½</td>
<td>½</td>
<td>50 (3)</td>
</tr>
<tr>
<td>H75M H475M</td>
<td>H75 H475</td>
<td>1½</td>
<td>10 (2)</td>
<td>1200</td>
<td>15 (3.5)</td>
<td>1800</td>
<td>¼</td>
<td>½</td>
<td>1</td>
</tr>
<tr>
<td>HJ75M HJ475M</td>
<td>HJ75 HJ475</td>
<td>1½</td>
<td>10 (2)</td>
<td>1200</td>
<td>15 (3.5)</td>
<td>1800</td>
<td>¼</td>
<td>½</td>
<td>1</td>
</tr>
<tr>
<td>HL75M HL475M</td>
<td>HL75 HL475</td>
<td>1½</td>
<td>20 (4.5)</td>
<td>1200</td>
<td>30 (7)</td>
<td>1800</td>
<td>½</td>
<td>2</td>
<td>50 (3)</td>
</tr>
</tbody>
</table>

© “G” and “GG” size have steel idlers.
© Mechanical Seal pump will withstand a hydrostatic test pressure of 400 PSI (28 BAR).
© Lip Seal pump should not be subjected to hydrostatic test. Neither type pump should be used on an application having a suction pressure greater than 25 PSIG (180 BAR).
© Temperatures to 350° F. can be handled with special construction.
© Includes 56C Frame Motor.
© Includes 143TC Frame Motor.
© Includes 145TC Frame Motor.

Metric conversions are based on US measurements and rounded to the nearest whole number.
**DIMENSIONS**

These dimensions are average and not for construction purposes. Certified prints on request.

For specifications, see pages 320.3 and 320.4.

**DIMENSIONS – 75 AND 475 SERIES**

**UNMOUNTED PUMPS AND (“M” DRIVE)**

| MODEL NUMBERS | MOTOR MOUNTED | UNMOUNTED | MOTOR FRAME SIZE | A  | B     | C    | D    | E    | F    | G    | H    | J    | K    | L    | M    | N    | O    | P    | U    | V    | W    | X    |
|---------------|---------------|-----------|-----------------|----|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| G475M         | G75M          | G475      | G75             | 56C| 1     | 2½   | 3½   | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    |
| OR            | OR            | OR       | OR              | 143TC| 1     | 2½   | 3½   | 2½   | 4    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    |
| GG475M        | GG75M         | GG475    | GG75            | 145TC| 1     | 2½   | 3½   | 2½   | 5    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    |
| H475M         | H75M          | H475     | H75             | 56C | 1½    | 3¼   | 3¾   | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    |
| HJ475M        | HJ75M         | HJ475    | HJ75            | 143TC| 1½    | 3¼   | 3¾   | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    | 2¾   | 4    |
| HL475M        | HL75M         | HL475    | HL75            | 145TC| 1½    | 3¼   | 3¾   | 2¾   | 5    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    | 2½   | 3    |
| H475M         | H75M          | H475     | H75             | 182C| 1½    | 3¼   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   |
| HJ475M        | HJ75M         | HJ475    | HJ75            | 182TC| 1½    | 3¼   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   |
| HL475M        | HL75M         | HL475    | HL75            | 184C | 1½    | 3¼   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   | 3¾   | 4½   | 3¾   |

Note: 182TC and 184TC frame motors require a special shaft, ⅜” shaft U dimension, 2½” AH dimension and also a 4½” rabbet for 75 and 475 pumps.