

## GENERAL INFORMATION & REFERENCE:

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## CATALOG SECTION INDEX (BY PUMPING PRINCIPLE)

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### INTERNAL GEAR PUMPS:

#### CAST IRON

##### **Universal Product Line:**

**1401** — (Non-Jacketed) 124A Series™, 1124A Series™, 4124A Series™, 4124B Series™, 324A Series™, 1324A Series™, 4324A Series™

**1402** — (Jacketed) 224A Series™, 1224A Series™, 4224A Series™, 4224B Series™, 324A Series™, 1324A Series™, 4324A Series™

**1403** — 8124A Series™

##### **Motor Speed Product Line:**

**1441** — 495 Series™, 4195 Series™

**1442** — 456 Series™

**1443** — 895 Series™

**1444** — 32 Series™, 432 Series™

**1445** — 75 Series™, 475 Series™

**1446** — 855 Series™

#### DUCTILE IRON

##### **Universal Product Line:**

**1601** — (Non-Jacketed) 126A Series™, 4126A Series™

#### STEEL

##### **Universal Product Line:**

**1303** — 8123A Series™

**1304** — 4223AA Series™, 4323AA Series™

**1305** — 4223AX Series™, 4323AX Series™

**2301** — (Non-Jacketed) 123C Series™, 4123C Series™

**2302** — (Jacketed) 123C Series™, 4123C Series™

##### **Motor Speed Product Line:**

**1341** — 493 Series™, 4193 Series™

**1343** — 893 Series™

#### STAINLESS STEEL

##### **Universal Product Line:**

**1703** — 8127A Series™

**1706** — 724 Series™, 4724 Series™

**2701** — (Non-Jacketed) 127C Series™, 1127C Series™, 4127C Series™

**2702** — (Jacketed) 227A Series™, 1227C Series™, 4227A Series™

##### **Motor Speed Product Line:**

**1741** — 4197 Series™

**1743** — 897 Series™

#### LIQUID-SPECIFIC PRODUCT LINE

**1461** — 4624B Series™ (Abrasive Liquid)

**1464** — 34 Series™ (Asphalt)

**1465** — 124E Series™, 324E Series™ (Electrically Heated Asphalt)

**1467** — 4924A Series™ (Refrigeration Ammonia)

**1468** — 1224A-ASP Series™, 1324A-ASP Series™ (Asphalt)

### EXTERNAL GEAR PUMPS:

##### **Spur Gear Product Line:**

**1253** — CMD Series™ (Composite Mag Drive)

**1451** — SG-04 Series™, SG-05 Series™, SG-07 Series™, SG-10 Series™, SG-14 Series™ (Single Pumps)

**1453** — SG-805 Series™, SG-807 Series™ (Mag Drive)

### VANE PUMPS:

##### **Vane Product Line:**

**1761** — LVP Series™ (Stainless Steel)

### ACCESSORIES:

##### **Guards:**

**1985** — Orange Peel Rotating Shaft Guards

##### **Reducers:**

**1984** — A, B & C Reducers

**1988** — 60 Hz Nord Reducers

**1989** — 50 Hz Nord Reducers

##### **Strainers:**

**1986** — Lid-Ease Simplex Basket Strainers

**1987** — Bolted-Lid Simplex Basket Strainers

### GENERAL INFORMATION:

**1510** — Engineering Data

### TERMS & CONDITIONS / WARRANTY INFORMATION

#### Sales T&Cs

<https://www.vikingpump.com/sales-terms-conditions>

#### Warranty

<https://www.vikingpump.com/warranty>

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- 1253** — CMD Series™ (Composite Mag Drive)
- 1303** — 8123A Series™
- 1304** — 4223AA Series™, 4323AA Series™
- 1305** — 4223AX Series™, 4323AX Series™
- 1341** — 493 Series™, 4193 Series™
- 1343** — 893 Series™
- 1401** — (Non-Jacketed) 124A Series™, 1124A Series™, 4124A Series™, 4124B Series™, 324A Series™, 1324A Series™, 4324A Series™
- 1402** — (Jacketed) 224A Series™, 1224A Series™, 4224A Series™, 4224B Series™, 324A Series™, 1324A Series™, 4324A Series™
- 1403** — 8124A Series™
- 1441** — 495 Series™, 4195 Series™
- 1442** — 456 Series™
- 1443** — 895 Series™
- 1444** — 32 Series™, 432 Series™
- 1445** — 75 Series™, 475 Series™
- 1446** — 855 Series™
- 1451** — SG-04 Series™, SG-05 Series™, SG-07 Series™, SG-10 Series™, SG-14 Series™ (Single Pumps)
- 1453** — SG-805 Series™, SG-807 Series™ (Mag Drive)
- 1461** — 4624B Series™ (Abrasive Liquid)
- 1464** — 34 Series™ (Asphalt)
- 1466** — 124E Series™, 324E Series™ (Electrically Heated Asphalt)
- 1467** — 4924A Series™ (Refrigeration Ammonia)
- 1510** — Engineering Data
- 1601** — (Non-Jacketed) 126A Series™, 4126A Series™
- 1703** — 8127A Series™
- 1706** — 724 Series™, 4724 Series™
- 1741** — 4197 Series™
- 1743** — 897 Series™
- 1761** — LVP Series™ (Stainless Steel)
- 1984** — A, B & C Reducers
- 1985** — Orange Peel Rotating Shaft Guards
- 1986** — Lid-Ease Simplex Basket Strainers
- 1987** — Bolted-Lid Simplex Basket Strainers
- 1988** — 60 Hz Nord Reducers
- 1989** — 50 Hz Nord Reducers
- 2301** — (Non-Jacketed) 123C Series™, 4123C Series™, 323A Series™, 4323A Series™
- 2301** — (Jacketed) 123C Series™, 4123C Series™, 323A Series™, 4323A Series™
- 2701** — (Non-Jacketed) 127C Series™, 1127C Series™, 4127C Series™, 327A Series™, 1327A Series™, 4327A Series™
- 2702** — (Jacketed) 227A Series™, 1227C Series™, 4227A Series™, 327A Series™, 1327A Series™, 4327A Series™

## GENERAL INFORMATION & REFERENCE:

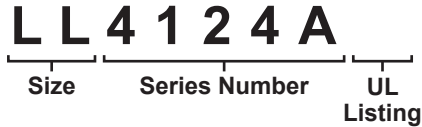
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## VIKING MODEL NUMBER SYSTEMS

The model numbering systems for different pumping principles are explained below.

### INTERNAL GEAR PUMPS

Viking model numbers for internal gear pumps begin with the pump size (capacity), followed by the pump series and any UL listing. An example is shown below. A detailed listing of options for each section of the model number follows.



**Pump Size (Capacity):** The first one to three alpha characters in the model number indicate the pump size (capacity). Note that the nominal capacities and maximum speed (RPM) are different for Universal and Motor Speed Product Lines. Sizes are listed in order of increasing displacement per revolution.

| PUMP SIZE | NOMINAL CAPACITY       |                   |      |                          |                   |      |
|-----------|------------------------|-------------------|------|--------------------------|-------------------|------|
|           | Universal Product Line |                   |      | Motor Speed Product Line |                   |      |
|           | GPM                    | m <sup>3</sup> /h | RPM  | GPM                      | m <sup>3</sup> /h | RPM  |
| C         | —                      | —                 | —    | 0.5                      | 0.11              | 1750 |
| F         | —                      | —                 | —    | 1.5                      | 0.34              | 1750 |
| FH        | —                      | —                 | —    | 3                        | 0.68              | 1750 |
| GS        | 5                      | 1.1               | 1750 | —                        | —                 | —    |
| G         | 8                      | 1.82              | 1750 | 8                        | 1.8               | 1750 |
| GG        | 10                     | 2.27              | 1750 | 10                       | 2.3               | 1750 |
| H         | 15                     | 3.4               | 1750 | 15                       | 3.4               | 1750 |
| HJ        | 20                     | 4.5               | 1750 | 20                       | 4.5               | 1750 |
| HL        | 30                     | 6.8               | 1750 | 30                       | 6.8               | 1750 |
| AS        | 52                     | 11.8              | 1750 | 55                       | 12                | 1750 |
| AK        | 75                     | 17                | 1750 | 85                       | 20                | 1750 |
| AL        | 112                    | 25                | 1750 | 115                      | 26                | 1750 |
| KS        | 30                     | 6.8               | 520  | —                        | —                 | —    |
| KE        | —                      | —                 | —    | 150                      | 34                | 1750 |
| K         | 75                     | 17                | 780  | —                        | —                 | —    |
| KKE       | —                      | —                 | —    | 205                      | 47                | 1750 |
| KK        | 100                    | 23                | 780  | —                        | —                 | —    |
| LQE       | —                      | —                 | —    | 235                      | 53                | 1150 |
| L / LQ    | 135                    | 31                | 640  | —                        | —                 | —    |
| LL        | 140                    | 32                | 520  | —                        | —                 | —    |
| LSE       | —                      | —                 | —    | 350                      | 80                | 1150 |
| LS        | 200                    | 45                | 640  | —                        | —                 | —    |
| Q         | 390                    | 88                | 640  | 460                      | 104               | 750  |
| QS        | 580                    | 132               | 640  | 580                      | 132               | 640  |
| M         | 420                    | 95                | 420  | —                        | —                 | —    |
| N         | 600                    | 136               | 350  | —                        | —                 | —    |
| R         | 1100                   | 250               | 280  | —                        | —                 | —    |
| RS        | 1600                   | 363               | 250  | —                        | —                 | —    |

### UL Listing

Certain series may be UL Listed for specific fluids, with a letter designation, as follows:

| UL LETTER | UL CLASSIFICATION | APPLICABLE SERIES |
|-----------|-------------------|-------------------|
| -X        | Fuel Oil          | 432-X, 474-X      |

### EXTERNAL (SPUR) GEAR PUMPS

External gear pumps are found in three catalog sections, where detailed model numbering systems for each series are provided.

| Series                             | CATALOG SECTION |
|------------------------------------|-----------------|
| CMD                                | 1253            |
| SG-04, SG-05*, SG-07, SG-10, SG-14 | 1451            |
| SG-805, SG-807                     | 1453            |

\* SG-05 pumps may be UL Listed for Fuel Oil, in which case the model number is followed by -X.

### VANE PUMPS

Vane pumps are found in one catalog section, where detailed model numbering systems for the series is provided.

| Series | CATALOG SECTION |
|--------|-----------------|
| LVP    | 1761            |

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## GENERAL INFORMATION & REFERENCE:

### VIKING INTERNAL GEAR PUMP DISPLACEMENT & ELEMENT SIZE TABLE

For metering applications, it can be useful to know the displacement per revolution to calculate capacity at different operating speeds. That information is provided in the table below. For critical metering, actual displacement should be determined through calibration under normal operating conditions.

To aid in determining the pump size for unlabeled spare rotors or idlers, or to determine the size of a pump whose nameplate is missing, the approximate dimensions of the rotor and idler are also provided in the table below.

| Pump Size         | Theoretical ①<br>Displacement per<br>Revolution |          | Theoretical ①<br>Displacement per 100<br>Revolutions |          | Approximate Size of Elements |       |            |       |              |       |
|-------------------|-------------------------------------------------|----------|------------------------------------------------------|----------|------------------------------|-------|------------|-------|--------------|-------|
|                   | Gal.                                            | Liters   | Gal.                                                 | Liters   | Rotor O.D.                   |       | Idler O.D. |       | Tooth Length |       |
|                   |                                                 |          |                                                      |          | Inches                       | mm    | Inches     | mm    | Inches       | mm    |
| <b>C</b>          | .00036                                          | .001398  | .0369                                                | .1398936 | 1                            | 25.4  | 3/4        | 19    | 1/4          | 6.3   |
| <b>F</b>          | .00115                                          | .004352  | .1150                                                | .4352750 | 1-1/2                        | 38.1  | 1-1/16     | 27    | 5/16         | 7.9   |
| <b>FH</b>         | .00209                                          | .007918  | .2092                                                | .7918220 | 1-1/2                        | 38.1  | 1-1/16     | 27    | 9/16         | 14.3  |
| <b>GS</b>         | .00430                                          | .0161    | .430                                                 | 1.61     | 2-1/2                        | 63.5  | 1-13/16    | 46    | .40          | 10.0  |
| <b>G</b>          | .00538                                          | .020359  | .5379                                                | 2.035951 | 2-1/2                        | 63.5  | 1-13/16    | 46    | 1/2          | 12.7  |
| <b>GG</b>         | .00672                                          | .025446  | .6723                                                | 2.544655 | 2-1/2                        | 63.5  | 1-13/16    | 46    | 5/8          | 15.9  |
| <b>H</b>          | .00948                                          | .035900  | .9485                                                | 3.590072 | 3-3/8                        | 85.7  | 2-5/8      | 66.7  | 5/8          | 15.9  |
| <b>HJ</b>         | .01328                                          | .050264  | 1.328                                                | 5.026480 | 3-3/8                        | 85.7  | 2-5/8      | 66.7  | 7/8          | 22.2  |
| <b>HL / HLE ②</b> | .01898                                          | .071839  | 1.898                                                | 7.183930 | 3-3/8                        | 85.7  | 2-5/8      | 66.7  | 1-1/4        | 31.7  |
| <b>A ②</b>        | .02113                                          | .08      | 2.1134                                               | 8.0000   | 4-5/8                        | 117.5 | 3-3/8      | 85.7  | 3/4          | 19.1  |
| <b>AS</b>         | .03426                                          | .129674  | 3.426                                                | 12.96741 | 4-5/8                        | 117.5 | 3-3/8      | 85.7  | 1            | 25.4  |
| <b>AT / ATE ②</b> | .0385                                           | .144     | 3.85                                                 | 14.4     | 4-5/8                        | 117.5 | 3-3/8      | 85.7  | 1-1/8        | 28.6  |
| <b>AK</b>         | .05138                                          | .194473  | 5.138                                                | 19.44733 | 4-5/8                        | 117.5 | 3-3/8      | 85.7  | 1-1/2        | 38.1  |
| <b>AL / ALE ②</b> | .06866                                          | .259878  | 6.866                                                | 25.98781 | 4-5/8                        | 117.5 | 3-3/8      | 85.7  | 2            | 50.8  |
| <b>J ②</b>        | .05271                                          | .199507  | 5.271                                                | 19.95073 | 6-3/16                       | 157   | 4-1/2      | 114.3 | 3/4          | 19    |
| <b>KS</b>         | .08792                                          | .332813  | 8.792                                                | 33.2813  | 6-3/16                       | 157   | 4-1/2      | 114.3 | 1-1/4        | 31.8  |
| <b>KE</b>         | .0917                                           | .344     | 9.17                                                 | 34.4     | 6-3/16                       | 157   | 4-1/2      | 114.3 | 1-1/2        | 38.1  |
| <b>K</b>          | .10550                                          | .399317  | 10.55                                                | 39.93175 | 6-3/16                       | 157   | 4-1/2      | 114.3 | 1-1/2        | 38.1  |
| <b>KKE</b>        | .122                                            | .458     | 12.2                                                 | 45.8     | 6-3/16                       | 157   | 4-1/2      | 114.3 | 2            | 50.8  |
| <b>KK</b>         | .14070                                          | .532549  | 14.07                                                | 53.25495 | 6-3/16                       | 157   | 4-1/2      | 114.3 | 2            | 50.8  |
| <b>LQE</b>        | .217                                            | .815     | 2.17                                                 | 81.5     | 8-1/4                        | 209.5 | 6          | 152.4 | 2            | 50.8  |
| <b>L / LQ</b>     | .23730                                          | .898180  | 23.73                                                | 89.81805 | 8-1/4                        | 209.5 | 6          | 152.4 | 2            | 50.8  |
| <b>LL</b>         | .29660                                          | 1.122631 | 29.66                                                | 112.2631 | 8-1/4                        | 209.5 | 6          | 152.4 | 2-1/2        | 63.5  |
| <b>LSE</b>        | 0.323                                           | 1.22269  | 32.3                                                 | 122.269  | 8-1/4                        | 209.5 | 6          | 152.4 | 3            | 76.2  |
| <b>LS</b>         | .35595                                          | 1.347271 | 35.60                                                | 134.7271 | 8-1/4                        | 209.5 | 6          | 152.4 | 3            | 76.2  |
| <b>Q</b>          | .65890                                          | 2.493936 | 65.89                                                | 249.3936 | 11                           | 279.4 | 8          | 203.2 | 3            | 76.2  |
| <b>QS</b>         | .98835                                          | 3.740904 | 98.83                                                | 374.0904 | 11                           | 279.4 | 8          | 203.2 | 4-1/2        | 114.3 |
| <b>M</b>          | 1.09600                                         | 4.148360 | 109.6                                                | 414.8360 | 13-3/4                       | 349.2 | 10         | 254   | 3            | 76.2  |
| <b>N</b>          | 1.82700                                         | 6.915190 | 182.7                                                | 691.5190 | 13-3/4                       | 349.2 | 10         | 254   | 5            | 127   |
| <b>R</b>          | 4.27300                                         | 16.17330 | 427.3                                                | 1617.330 | 19-15/16                     | 506.4 | 14-1/2     | 368.3 | 6            | 152.4 |
| <b>RS</b>         | 6.0534                                          | 22.912   | 605.3                                                | 2291.2   | 19-15/16                     | 506.4 | 14-1/2     | 368.3 | 8-1/2        | 215.9 |
| <b>P ②</b>        | 7.58200                                         | 28.7010  | 758.2                                                | 2870.10  | 24                           | 609.6 | 17-3/8     | 441.3 | 7            | 177.8 |

① Actual capacity may be less due to internal clearances in the pump. Variations in fluid viscosity and discharge pressure may also affect capacity.

② Pump sizes no longer part of current product offering.

## GENERAL INFORMATION & REFERENCE:

### VIKING EXTERNAL GEAR PUMP DISPLACEMENT & ELEMENT SIZE TABLE

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For metering applications, it can be useful to know the displacement per revolution to calculate capacity at different operating speeds. That information is provided in the table below. For critical metering, actual displacement should be determined through calibration under normal operating conditions.

To aid in determining the pump size for unlabeled spares, or to determine the size of a pump whose nameplate is missing, the approximate dimensions of the gears are also provided in the table below.

| Pump Size | Theoretical Displacement |                      | Theoretical Displacement (per 100 rev) |        | Approximate Size of Elements |    |             |     |
|-----------|--------------------------|----------------------|----------------------------------------|--------|------------------------------|----|-------------|-----|
|           |                          |                      |                                        |        | Gear O.D.                    |    | Gear Length |     |
|           | in <sup>3</sup> /rev     | cm <sup>3</sup> /rev | Gal.                                   | Liters | Inches                       | mm | Inches      | mm  |
| 0417      | 0.008                    | 0.13                 | 0.0035                                 | 0.0131 | 1.03                         | 26 | 0.18        | 4.6 |
| 0418      | 0.017                    | 0.28                 | 0.0074                                 | 0.0279 |                              |    | 0.18        | 4.6 |
| 0425      | 0.024                    | 0.39                 | 0.0104                                 | 0.0393 |                              |    | 0.25        | 6.4 |
| 0435 ④    | 0.033                    | 0.54                 | 0.0143                                 | 0.0541 |                              |    | 0.35        | 8.9 |
| 0450      | 0.048                    | 0.79                 | 0.0208                                 | 0.0787 |                              |    | 0.50        | 13  |
| 0470      | 0.067                    | 1.10                 | 0.0290                                 | 0.1098 |                              |    | 0.70        | 18  |
| 0518      | 0.097                    | 1.59                 | 0.0420                                 | 0.1588 | 1.17                         | 30 | 0.18        | 4.6 |
| 0525      | 0.137                    | 2.24                 | 0.0591                                 | 0.2237 |                              |    | 0.25        | 6.4 |
| 0535      | 0.191                    | 3.13                 | 0.0827                                 | 0.3132 |                              |    | 0.35        | 8.9 |
| 0550      | 0.273                    | 4.47                 | 0.1182                                 | 0.4474 |                              |    | 0.50        | 13  |
| 0570      | 0.382                    | 6.26                 | 0.1655                                 | 0.6265 |                              |    | 0.70        | 18  |
| 0510      | 0.547                    | 8.96                 | 0.2366                                 | 0.8956 |                              |    | 1.0         | 25  |
| 0514      | 0.765                    | 12.53                | 0.3310                                 | 1.2530 |                              |    | 1.4         | 36  |
| 0519      | 1.038                    | 17.00                | 0.4492                                 | 1.7004 |                              |    | 1.9 ①       | 48  |
| 0528      | 1.529                    | 25.06                | 0.6620                                 | 2.5059 |                              |    | 2.8 ②       | 71  |
| 0729      | 0.410                    | 6.72                 | 0.1776                                 | 0.6723 | 1.71                         | 43 | 0.29        | 7.4 |
| 0741      | 0.577                    | 9.45                 | 0.2497                                 | 0.9452 |                              |    | 0.41        | 10  |
| 0758      | 0.808                    | 13.23                | 0.3496                                 | 1.3234 |                              |    | 0.58        | 15  |
| 0782      | 1.154                    | 18.90                | 0.4994                                 | 1.8904 |                              |    | 0.82        | 21  |
| 0711      | 1.615                    | 26.47                | 0.6992                                 | 2.6468 |                              |    | 1.1         | 28  |
| 0716      | 2.307                    | 37.80                | 0.9987                                 | 3.7805 |                              |    | 1.6         | 41  |
| 0722      | 3.230                    | 52.94                | 1.3984                                 | 5.2935 |                              |    | 2.2 ③       | 56  |
| 0732      | 4.614                    | 75.61                | 1.9974                                 | 7.5610 |                              |    | 3.2 ③       | 81  |
| 1009      | 2.11                     | 34.58                | 0.9134                                 | 3.4577 | 2.40                         | 61 | 0.85        | 22  |
| 1013      | 3.30                     | 54.08                | 1.4286                                 | 5.4077 |                              |    | 1.3         | 33  |
| 1024      | 6.145                    | 100.69               | 2.659                                  | 10.069 |                              |    |             |     |
| 1026      | 6.60                     | 108.2                | 2.8571                                 | 10.815 |                              |    | 2.6         | 66  |
| 1027      | 6.838                    | 112.05               | 2.960                                  | 11.205 | 3.50                         | 89 |             |     |
| 1420      | 9.24                     | 151.4                | 4.0000                                 | 15.142 |                              |    | 2.0         | 51  |
| 1436      | 16.5                     | 270.4                | 7.1429                                 | 27.039 |                              |    | 3.6         | 91  |
| 1456      | 25.0                     | 409.7                | 10.8225                                | 40.968 |                              |    | 5.6         | 142 |

① 0519 size has 2 gears each shaft.

② 0528 size has 2 gears on driver shaft and 3 gears on driven shaft.

③ 0722 and 0732 sizes are double pumps.

④ Pump size no longer part of current product offering.