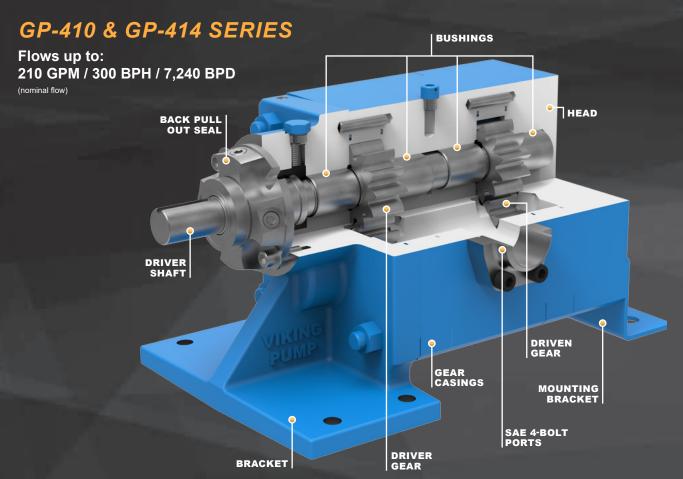
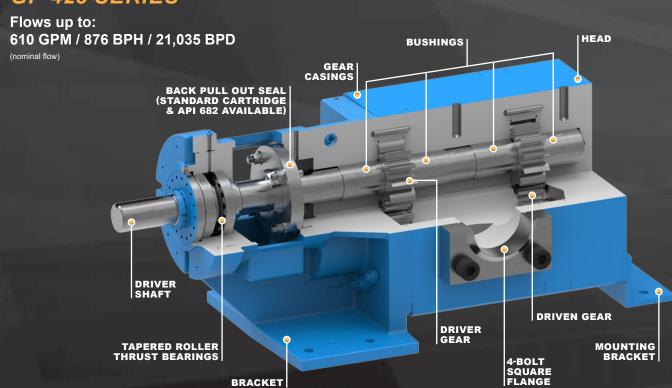




# PIPELINE INJECTION PUMP



# **GP-425 SERIES**



## FEATURES & BENEFITS

## **Multiple Sealing Options**

- Single component mechanical seal standard on all GP-410/414 Series models
  - Cartridge seals and balanced seals available
- Single cartridge mechanical seal standard on GP-425 Series models
  - API Size 7 seal bore as standard to accept API 682 seal if required
- Double and tandem cartridge mechanical seals available
- Additional seal face material options available

#### **Durable Construction**

- Heat treated gears and shafts for reliability and increased service life
- Internal surfaces are Vitek hardened to increase wear resistance
- GP-425 Series standard with tapered roller bearings for thrust control
- GP-414 Series with balanced mechanical seal also includes thrust bearing for elevated inlet pressure conditions

## **Modular Port Design**

- GP-410/414 Series uses bolt on port adapters for maximum connection modularity
  - Available in 2" & 3" with SAE to weldneck adapters, 4" 3000 Series
- GP-425 Series has bolt on port adapters standard 6" to weldneck fittings
- All pumps have 180° port orientation for suction and discharge piping
- Bolt on port adapter design allows for multiple flange options

### **Compact Footprint**

- External gear design is significantly more compact than progressing cavity, screw, reciprocating, and centrifugal technologies
- Direct drive, motor-speed operation eliminates the need for gearboxes or belt drives
- Standard inverter duty rated motors on all complete units

#### **Reduced Maintenance**

- Back pull-out seal design and spacer coupling eliminate the need to disturb piping or perform alignments during seal changes
- No pulsation dampeners, gear reducers, belt drives, or additional equipment to service and maintain

Please contact your Viking Pipeline Injection Pump Specialist for additional curves & pump selection assistance

## **PERFORMANCE**

| GP-410<br>& GP-414<br>Models | Ports* | Nominal Flow<br>@ 750 PSI<br>(1775 rpm) on<br>4 cP Viscosity |     |       | Nominal Flow<br>@ 1,500 PSI<br>(1775 rpm) on<br>4 cP Viscosity |     |       | Maximum<br>Continuous<br>Pressure | Maximum<br>Recommended<br>Temperature | Approximate<br>Shipping<br>Weight<br>(Pump Only) |
|------------------------------|--------|--|-----|-------|--|-----|-------|-----------------------------------|---------------------------------------|--|
| Ductile<br>Iron              | Inch   | GPM  | ВРН | BPD   | GPM  | ВРН | BPD   | PSI                               | Deg. F                                | Lbs.   |
| GP-41013                     | 2" SAE | 22   | 32  | 760   | 20   | 29  | 683   | 1500                              | 350                                   | 61   |
| GP-41026                     | 2" SAE | 44   | 63  | 1,520 | 40   | 57  | 1,366 | 1500                              | 350                                   | 85   |
| GP-41415                     | 2" SAE | 46   | 66  | 1,587 | 39.7   | 57  | 1,362 | 1500                              | 350                                   | 170  |
| GP-41420                     | 2" SAE | 60   | 85  | 2,045 |  |     |       | 750                               | 350                                   | 170  |
| GP-41430                     | 2" SAE | 94   | 134 | 3,208 | 81   | 116 | 2,779 | 1500                              | 350                                   | 270  |
| GP-41440                     | 3" SAE | 120  | 172 | 4,138 |  |     |       | 750                               | 350                                   | 284  |
| GP-41445                     | 3" SAE | 141  | 201 | 4,833 | 122  | 175 | 4,202 | 1500                              | 350                                   | 395  |
| GP-41455                     | 3" SAE | 168  | 240 | 5,760 |  |     |       | 750                               | 350                                   | 403  |
| GP-41460                     | 4"     | 182  | 260 | 6,230 | _  | - 1 | -     | 750                               | 350                                   | 447  |

 <sup>\* 2&</sup>quot; & 3" SAE Ports use J518 Code 61 SAE Flange Ports.
 4" Port uses 3000 Series Square Flange.

Note: GP-410 & GP-414 Series motor speed - 1775 RPM.

| GP-425<br>Models | Ports* | Nominal Flow<br>@ 750 PSI<br>(1190 rpm) on<br>4 cP Viscosity |     |        | Nominal Flow<br>@ 1,500 PSI<br>(1190 rpm) on<br>4 cP Viscosity |     |        | Maximum<br>Continuous<br>Pressure | Maximum<br>Recommended<br>Temperature | Approximate<br>Shipping<br>Weight<br>(Pump Only) |
|------------------|--------|--|-----|--------|--|-----|--------|-----------------------------------|---------------------------------------|--|
| Ductile<br>Iron  | Inch   | GPM  | ВРН | BPD    | GPM  | ВРН | BPD    | PSI                               | Deg. F                                | Lbs.   |
| GP-42525         | 6"     | 175  | 249 | 5,948  | 155  | 221 | 5,305  | 1,500                             | 350                                   | 1370   |
| GP-42550         | 6"     | 344  | 491 | 11,794 | 305  | 435 | 10,457 | 1,500                             | 350                                   | 1815   |
| GP-42575         | 6"     | 520  | 744 | 17,843 | 464  | 663 | 15,915 | 1,500                             | 350                                   | 2500   |

<sup>\* 6&</sup>quot; Port uses 3000 Series Square Flange.

Note: GP-425 Series motor speed - 1190 RPM.

## COMMON PORT LOCATION

Viking's CPL baseplate design allows customers to retrofit pumps with lower flow rates onto existing baseplates with no piping changes required. Please contact your Viking Pump representative for more information on this drive package option.



Note: CPL only available on GP-414 & GP-425 Series, and larger port sizes available as special order on some models.

## FEATURES & BENEFITS: SG-05 SERIES

## Hardened Steel Gears and Shafts

• Heat treated gears and shafts offer long service life and resistance to wear

### **Internal Pressure Relief Valve**

 Protects system from over pressurization and eliminates the need for external relief valves

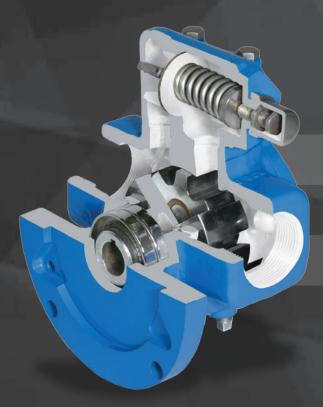
## **High Pressure Capability**

• Differential pressures up to 500 PSI

## **Compact Design**

• Close-coupled design offers space savings





## FEATURES & BENEFITS: 475 SERIES

## **NEMA C-Face Mounting**

• Small footprint, positive alignment, and motor-speed operation

## **Simple Construction**

• Minimal parts for increased reliability

## **Self-Priming, Positive Displacement**

• Ideal for filtering, circulation, and transfer of liquids

### **Internal Pressure Relief Valve**

 Protects system from over pressurization and eliminates the need for external relief valves

# **PERFORMANCE**

|              | Port Size |           | Nominal Capacity at Maximum Speed | Maximum Speed | Maximum Differential Pressure | Maximum Temperature | Approximate Shipping Weight (Pump Only) |
|--------------|-----------|-----------|-----------------------------------|---------------|-------------------------------|---------------------|---|
| Model Number | Inches    | Port Type | GPM                               | RPM           | PSI                           | °F                  | Pounds                                  |
| SG-0550      | 0.5       | NPT       | 2                                 | 1,750         | 500                           | 225                 | 7                                       |
| SG-0570      | 0.5       | NPT       | 2.8                               | 1,750         | 500                           | 225                 | 7                                       |
| SG-0510      | 0.5       | NPT       | 4                                 | 1,750         | 400                           | 225                 | 8                                       |
| SG-0514      | 0.75      | NPT       | 5.6                               | 1,750         | 200                           | 225                 | 9                                       |
| G475         | 1         | NPT       | 7                                 | 1,750         | 100                           | 225                 | 17                                      |
| GG475        | 1         | NPT       | 10                                | 1,750         | 100                           | 225                 | 17                                      |
| H475         | 1.5       | NPT       | 15                                | 1,750         | 100                           | 225                 | 24                                      |
| HJ475        | 1.5       | NPT       | 20                                | 1,750         | 100                           | 225                 | 24                                      |
| HL475        | 1.5       | NPT       | 30                                | 1,750         | 100                           | 225                 | 26                                      |



## FEATURES & BENEFITS

#### **Low Pressure Drop**

 Inclined basket design for low pressure drop and high system efficiency

## **Easy to Clean**

• Top basket removal eliminates the need to drain the strainer and minimizes product loss

## **Multiple Flange Options Available**

 Offered in Class 150 and Class 300 ANSI flange ratings with raised faces standard

#### **Standard Features**

 Vent, differential pressure gauge ports, and drain are standard

## **Viking Quality Ductile Iron Construction**

 Rigorous construction standards and quality testing completed before strainer is shipped from factory



# PERFORMANCE

| Model       | Port<br>Size | Port         | ① Nominal<br>Capacity<br>Suction Rating | ② Rated<br>System<br>Pressure | ③<br>Maximum<br>Temperature | Approximate<br>Shipping<br>Weight |
|-------------|--------------|--------------|---|-------------------------------|-----------------------------|-----------------------------------|
| Number      | Inches       | Туре         | GPM                                     | PSI                           | °F                          | Pounds                            |
| F-1020-RDUC | 2            | Class 150 RF | 100                                     | 250                           | 350                         | 28                                |
| F-1020-HDUC | 2            | Class 300 RF | 100                                     | 640                           | 350                         | 31                                |
| F-1030-RDUC | 3            | Class 150 RF | 200                                     | 250                           | 350                         | 58                                |
| F-1030-HDUC | 3            | Class 300 RF | 200                                     | 640                           | 350                         | 65                                |
| F-1040-RDUC | 4            | Class 150 RF | 400                                     | 250                           | 350                         | 81                                |
| F-1040-HDUC | 4            | Class 300 RF | 400                                     | 640                           | 350                         | 96                                |

- ① Capacity based on approx. 1 PSI pressure drop with 40 mesh basket and 4 cP liquid.
- System pressure ratings for temperature range of 0°F to 100°F per ANSI B16.42
  Ductile Iron Pipe Flanges and Flanged Fittings.
- ③ Fluoroelastomer (FKM) elastomers are standard



## FEATURES & BENEFITS

## **Motor Speed Operation\***

- Compact design
- Optional close-coupled design eliminates the need for unit alignment

### **Simple Construction**

- Internal gear design with only two moving pump elements
- 40% average fewer parts than other gear pump types

### **One-Piece Casing & Bracket**

 Rigid one-piece design ensures alignment for maximum bearing and seal life

## **Heavy Duty Design**

- Sealed anti-friction bearings eliminate the need for lubrication maintenance
- Enables end clearance adjustment for viscosity or to compensate for wear over time

## **Pressure Lubricated Idler Pin**

 Lubricates the idler pin / bushing interface to extend life on thin liquids



## **PERFORMANCE**

| Model     | Port<br>Size | ②<br>Port | 60 Hz |     | Maximum<br>Differential<br>Pressure | Maximum<br>Hydrostatic<br>Pressure | ③<br>Maximum<br>Temperature | Approximate<br>Shipping Weight<br>(Pump Only) |
|-----------|--------------|-----------|-------|-----|-------------------------------------|------------------------------------|-----------------------------|---|
| Number    | Inches       | Type      | RPM   | GPM | PSI                                 | PSI                                | °F                          | Pounds  |
| ① KE4195  | 4            | Flange    | 1750  | 150 | 250                                 | 300                                | 225                         | 132   |
| ① KKE4195 | 4            | Flange    | 1750  | 205 | 250                                 | 300                                | 225                         | 133   |
| ① LQE4195 | 4            | Flange    | 1150  | 235 | 250                                 | 300                                | 225                         | 220   |
| ① LSE4195 | 4            | Flange    | 1150  | 350 | 250                                 | 300                                | 225                         | 222   |
| Q4195     | 6            | Flange    | 640   | 390 | 250                                 | 300                                | 225                         | 443   |
| QS4195    | 6            | Flange    | 640   | 580 | 250                                 | 300                                | 225                         | 450   |

- ① KE, KKE, LQE, LSE 4195 models have both mounting flange for motor bracket and a mounting foot.
- ② Flange ports are suitable for use with Class 125 ANSI cast iron companion flanges or flanged fittings.
- ③ FKM elastomers are standard.

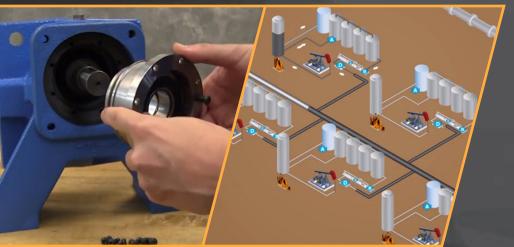
## THE VIKING ADVANTAGE



# ALL PUMPS FACTORY TESTED

- Every GP-425 pump is performance tested in our state of the art product engineering lab
- Every GP-410 & GP-414 pump is performance tested on our automated test stand
- All Viking Pipeline Injection pumps come with data matrix on the nameplate with factory saved test data





# **VIDEOS**



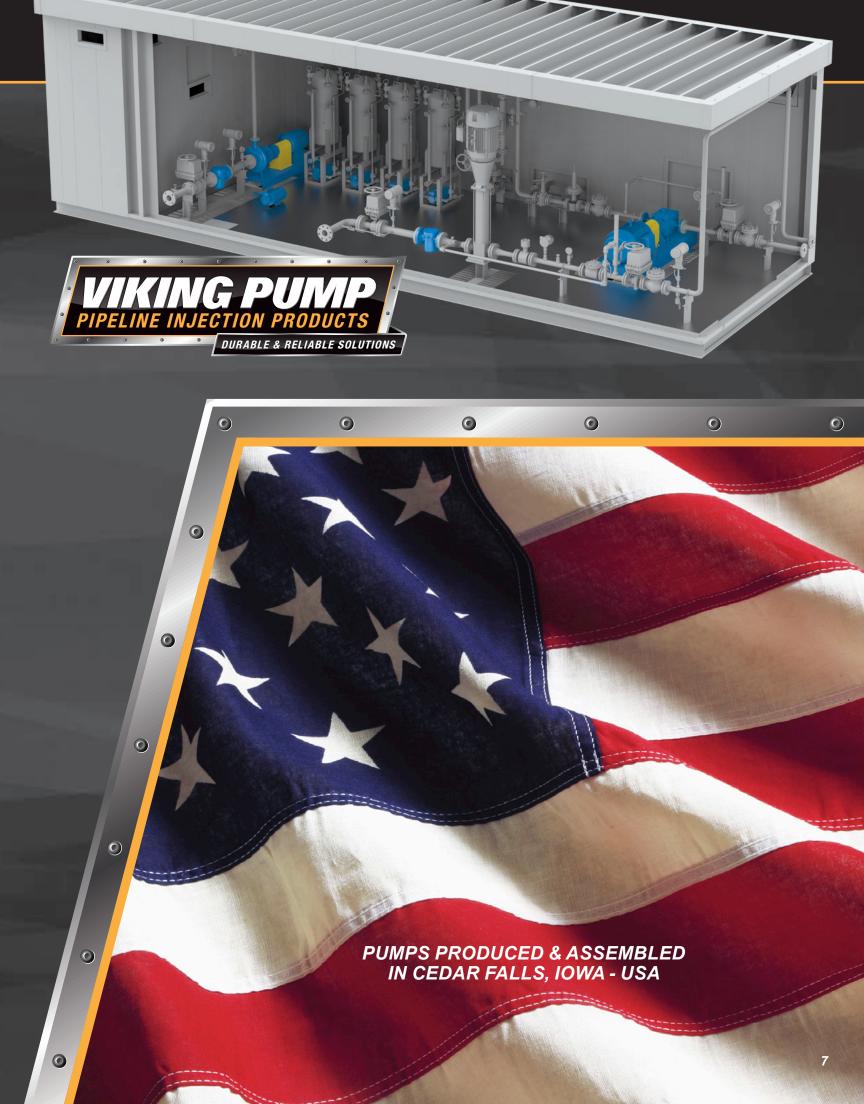


Pump application process map



# VIKING PUMP BY THE NUMBERS

- Founded in 1911
- 4 locations worldwide
- Pumps installed on all **7** continents
- 500+ employees globally
- **6,500,000** total installed pumps
- Nearly 500,000 sq. ft. dedicated to manufacturing, testing & foundries



## **VERTICALLY INTEGRATED PRODUCTION PROCESS**

Viking Pump operates two foundries, a 200,000+ sq. ft. machining, assembly and testing center, and an extensive product engineering and testing lab in its world headquarters in Cedar Falls, Iowa, USA. Our vertical integration ensures maximum product quality and the ability to accommodate individual customer needs and meet project schedules.







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