

VIKING PUMP® DUPLEX FUEL OIL SYSTEMS & CONTROL PANELS

DFO



- CSA B139-15/19 COMPLIANT
- 30+ YEARS EXPERIENCE
- SINGLE SOURCE RESPONSIBILITY
- COMPACT INTEGRATED SYSTEM

- FACTORY-BUILT / LOCAL SUPPORT
- FLOW RATES FROM 1.5 TO 32 GPM
- PRESSURE TO 450 PSI
- TEMPERATURE RANGE OF -20°C TO +40°C

VIKING PUMP CANADA

STANDARD EQUIPMENT PUMP SETS

BASIC Pump Sets:

Include equipment as follows:

- **SG405 / SG407**--Spur Gear pumps in cast iron construction, cUL/UL 343 Listed, heat treated steel gears, case-hardened shafts, needle bearings, Viton® Mechanical seal, plain head
- Viking M drive brackets to allow pumps to be close-coupled to C faced motors (2)
- Motors - Totally Enclosed Fan Cooled, foot mounted, NEMA C or TC, UL, CSA, CSA/US
- Common steel baseplate shall be made of heavy gauge steel plate with 1 1/2" high drip-lip and 1/2" NPT drain (1)

Suction Line Equipment

- cUL/UL 331 listed Basket Strainers, cast iron body, 40 mesh stainless steel basket (2)
- Ball Valves, 600 PSI pressure rated, full port (2), cUL/UL 842 listed
- Compound Gauges, 30" Hg-0-30 PSI 2.5" dial, liquid filled (2), CRN
- Gauge Valves - brass ball valves, 600 PSI rated (2), cUL/UL 842 listed

Discharge Line Equipment

- Ball Cone Type Check Valves, 400 PSI pressure rated (3), CRN
- Ball Valves, 600 PSI pressure rated, full port (2), cUL/UL 842 listed
- Relief Valves - continuous bypass type, cast iron body, stainless steel spring (2), CRN
- Pressure Gauges, 0-100 PSI, 2.5" dial, liquid filled (2), CRN
- Gauge Valves - brass ball valves, 600 PSI rated (2), cUL/UL 842 listed

Suction and Discharge Piping

- Schedule 80 ASTM A53 or ASTM A106 piping and nipples, ANSI/ASME B16.3 or B16.39 Class 150 iron screwed fittings

Unit to be coated with Vinyl Toluene Alkyd, quick dry enamel.

Duplex pump set to be leak tested with 100 PSI air and soap water.

High pressure units available up to 450 PSI
(special skid construction required over 300 PSI, consult factory)



STANDARD Pump Sets:

Include all equipment from Basic Pump Sets, as well as:

Pressure Switch - Dual Stage - High & Low, EEMAC1 enclosure, installed

Magnetic Float Switch with Alarm for Drip Tray Leak Detection

PREMIUM Pump Sets:

Include all equipment from Standard Pump Sets, as well as:

- API 607 Steel Ball and API 602 Check Valves - installed

BOILER Pump Sets:

Include all equipment from Basic Pump Sets, as well as:

Flow switch, UL/CSA, NEMA 7, brass housing, stainless steel paddle, CSA approved junction box

Pump Model	Flow @ 1750 RPM 100 PSI (GPM)	Req'd HP @ 100 PSI	Max. Pressure (PSI)
SG-40570	2.54	1/2	450
SG-40510	3.49	1/2	350
SG-40519	6.28	1.00	200
SG-40782	7.32	1.00	450
SG-40711	10.01	1.00	450
SG-40716	15.04	1.50	275
SG-40722	19.37	1.50	450
SG-40732	29.85	3.00	275

STANDARD EQUIPMENT CONTROL PANELS

BASIC Control Panels:

Include equipment as follows:

- Magnetic motor starters (2)
- Hand-Off-Auto selector switches (2)
- Power on pilot light (white)
- Run pilot light (green) (2)
- Control circuit fuse
- Lead pump failure pilot light & manual reset, lag pump start
- P1 - Auto - P2 alternating selector switch
- Provision to connect 4 float switches (normally closed)

BOILER Panels:

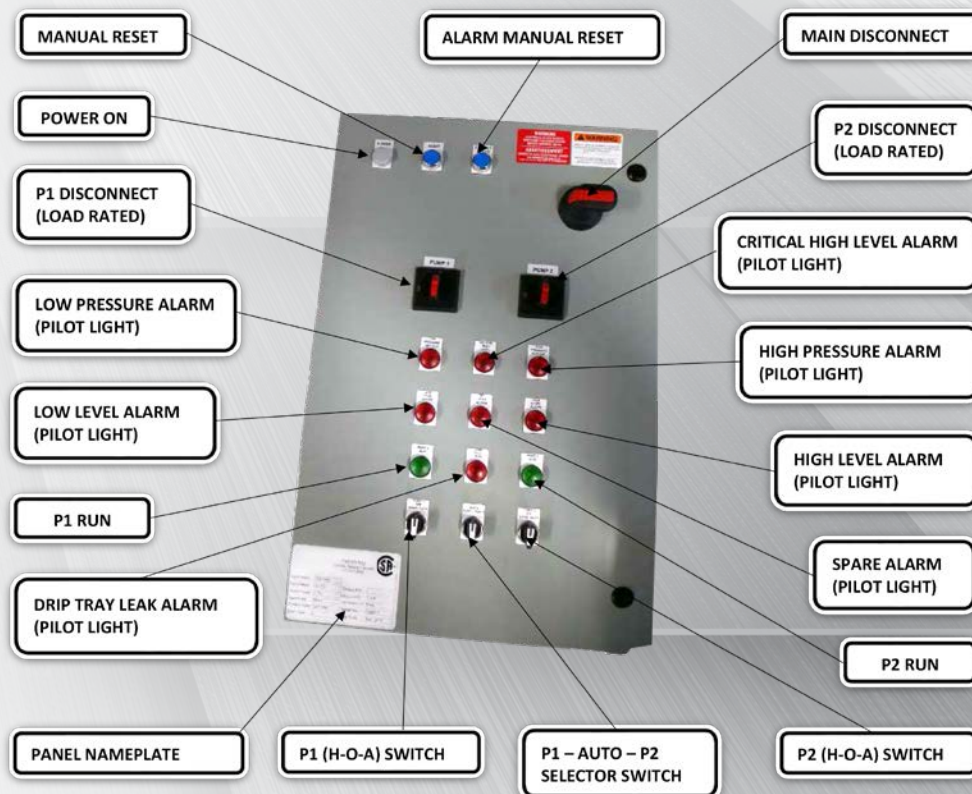
Include all Basic Control Panel items (except for float control), as well as:

- Provision to connect a flow switch (N/C) with alarm signal, LED pilot light, manual reset
- Remote start/stop contacts to start lead pump upon call for fuel from boiler

STANDARD Control Panels:

Include all Basic Control Panel items, as well as:

- Provision to connect 4 float switches and 1 single point float switch - normally closed
- Low, high and critical high level alarm signal & red pilot light
- High pressure cut out - red pilot light & manual reset
- Low pressure cut out - red pilot light & override timers (2) (manual reset)
- Low and high pressure alarm signals
- Provision to solenoid connect valve (each)
- Redundant Contactors
- Drip tray leak detection alarm signal & red pilot light



DUPLEX FUEL OIL ADVANTAGES

Viking Duplex Fuel Oil systems:

- Fueling diesel generators for backup electrical power generation
- Boosting low pressure fuel oil on oil-fired boilers and oil-fired furnaces
- Fuel oil transfer from storage to day tank

Viking Advantages:

- Experience – Viking Pump has been worldwide leaders of PD pumping solutions since 1911 and have 30+ years of engineering and manufacturing DFO systems
- One Source-One Responsibility – With a Viking DFO set we pre-engineer, pre-plumb, and with available pre-wiring give you a complete “plug-n-play” system so you don't have to worry about sourcing and assembling the components
- Compact – The Viking DFO set provides you with a compact integrated system that allows you mounting flexibility
- Factory-Built / Local Support – With Viking's extensive Distributor network we can provide you with local support and start-up assistance for you Viking DFO set

Customer Benefits:

- Reliable fuel delivery with plumbed-and-wired standby pump
- Alternate pumps automatically minimize run time on any one pump
- Proven, factory manufactured sets built custom to your order
- UL-CSA electrical control panels
- Quick access comparison sheets, specification sheets and illustration drawings
- Easily requested CAD submittal drawings

Typical Applications:

- Emergency Generators



- Boilers



**VIKING
PUMP
CANADA**

IDEX

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