

Simplex Smart Filter/*Compact* Series

Automated Diesel Filtration Systems

Model SFG20C

- Filtration, maintenance system for fuel oil in bulk, long-term storage
- For permanent, on-site installation, outdoor
- Comprehensive system: pump, filter and water removal elements, controller
- Fully automated
- 20 GPM
- 5 micron final filtration
- 15 ppm water removal
- Single-tank filtration
- Outdoor, heated enclosure

The SFG20C combines several elements to form a comprehensive, integrated, automated system:

- Multi-stage, progressive particulate filtration and water removal
- Integrated, high-performance pump
- Flow control and monitoring devices
- User-programmable controller

The SFG20C uses a progressive filtration and conditioning regime:

1. Coarse straining through 40 mesh washable screen
2. Pre-filtration through 10 micron disposable media filter
3. Final filtration through 5 micron disposable media filter
4. Water coalescing to 15 PPM.
5. Water separation

Fuel circulation and transfer is accomplished via an on-board, high-performance, cast-iron, positive-displacement gear pump direct-driven via an industrial, heavy-duty motor. The pump combines high vacuum prime maintenance with linear flow versus pressure performance. Drive motors are NEMA class industrial type, conservatively applied and include ball-bearings, class H insulation, continuous duty ratings.

The SFG20C includes shutoff ball valves, check valves, flow switches, pressure and differential pressure transducers, and differential pressure sensors across each filtration element.

The UL508 listed and labeled industrial control panel features a user programmable cycle timer and rugged, industrial-analog operator interface. The controller provides full automatic operation of the system and is operator field programmable to set filtration cycle duration, time of day, day of week operation. Manual override capability is included. Differential pressure sensors across each filtration element, and a high water level sensor are included with alarms.

System Includes

- Outdoor, weatherproof, pad-mountable enclosure, also suitable for indoor installation. 1.5-inch NPT.
- On-board, integrated controller, UL508. See Controller Section
- Inlet, outlet ball-type shutoff valves
- Check valve
- Pressure differential gauges across pre-filter and across final filter-separator
- Differential pressure switches, high water detector. See Controller Section
- Circulation pump, 20 GPM and 2.0 hp
- Filtration elements:
 - Strainer, 40 mesh, wye-type
 - Pre-filter, 10 micron, spin-on type, disposable media
 - Final filter-separator, 5 micron, 15 PPM, canister type with replaceable cartridge
 - 115v cabinet heater with thermostat

Controller, UL508 Listed, TYPE-3R enclosed:

1. Auto-off-manual switch
2. Time of day, day of week, interval programmable timing
3. Control devices
 - a. Pump motor starter
 - b. Control power fuses
 - c. Terminal blocks
 - d. Valve control relays
4. Heated control box
5. High pressure differential alarms
6. Main power disconnect switch