NITROGEN N2 PAC
SPRINKLER CORROSION INHIBITING SYSTEM

FM APPROVED

UNITED FIRE SYSTEMS

NITROGEN–PAC SC SERIES

SELF-CONTAINED NITROGEN-PAC™
MODEL SC-2

FEATURES

- **FM Approved**
- Fully factory assembled, adjusted, and tested
- No field assembly required
- Just attach AC power and run piping to sprinkler riser
- Built-in UL Listed oilless air compressor
- UL Listed refrigerated dryer delivers -40°F dew point air
- Membrane-based nitrogen generation
- Built-in particulate and coalescing filters

- Single or multiple riser capable
- Nominal 20 gallon nitrogen receiver
- Digital compressor runtime monitor
- Visual indicators of system status:
  - o **GREEN** = Normal (system is supplying nitrogen)
  - o **RED** = Bypass (system is supplying air for initial fill)
- Leveling feet
- Rugged steel construction

BENEFITS

- Saves installation, assembly, and testing time
- Smallest footprint complete nitrogen system available today
- Quicker commissioning – just place, connect, and it's ready
- Nitrogen generation and sprinkler initial fill (per NFPA 13) from just one unit

- Best available air drying and filtration for long life and low maintenance
- Reliable, long lasting nitrogen generation
- Easy inspection and maintenance
- Reliable, dependable protection that functions as designed
- Expert technical support

Description

The **FM Approved UNITED Fire Systems NITROGEN-PAC™ Model SC-2** is a completely self-contained nitrogen-based sprinkler corrosion inhibiting system. The unit is factory assembled and tested, and is ready for connection to the sprinkler system riser. The assembly consists of a compressor, refrigerated air dryer, nitrogen generator, and nitrogen receiver. The assembly provides dry air for system initial fill and nitrogen for filling the interior of a dry or preaction sprinkler system with nitrogen at 98% or greater purity.

Technical Specifications

Model No.	Initial Fill* Capacity to 40 PSIG (gallons)	Initial Fill* Capacity to 20 PSIG (gallons)	Maximum Total System Capacity for N2 Generation** (gallons)	Guideline – Maximum Number of Sprinkler Risers
SC-2M	475	950	1600	3
SC-2L	475	950	4000	5

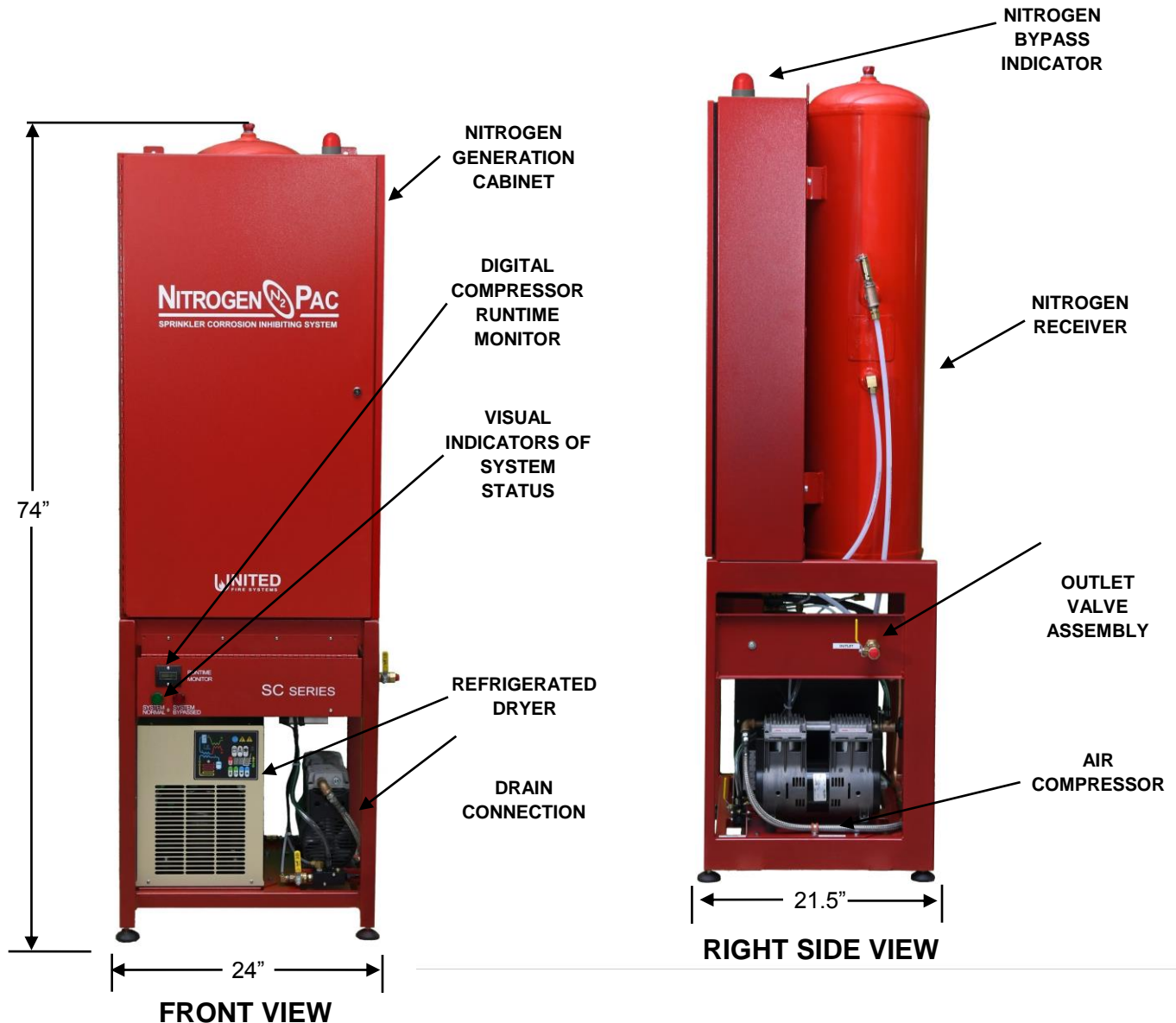* Initial fill capacity in 30 minutes or less with air per NFPA 13 – 2016 7.2.6.3.2.
** Maximum capacity values are based on sprinkler piping leakage not exceeding NFPA 13 – 2016 25.2.2 acceptance requirement of maximum 1-1/2 PSIG air pressure loss in 24 hours starting at 40 PSIG.

- Approximate shipping weight = 450 lbs.
- Approximate installed weight = 385 lbs.
- Compressor = 2/3 HP
- Refrigerated dryer capacity = 7 Standard Cubic Feet per Minute
- Nitrogen receiver = 20 gallons, ASME Coded
- Compressor motor and refrigerated dryer power = 115 VAC single phase
- Approximate current draw = 16.3 amps

IMPORTANT

UNITED Fire Systems recommends performing a leakage test on each fire sprinkler system, and correcting excess leakage, before designing, installing, and commissioning a **NITROGEN-PAC™** system.

NITROGEN BYPASS INDICATOR

NITROGEN GENERATION CABINET

DIGITAL COMPRESSOR RUNTIME MONITOR

NITROGEN RECEIVER

VISUAL INDICATORS OF SYSTEM STATUS

74"

OUTLET VALVE ASSEMBLY

REFRIGERATED DRYER

DRAIN CONNECTION

AIR COMPRESSOR

21.5"

RIGHT SIDE VIEW

24"

FRONT VIEW

External Connections

- Qty. (1) Outlet for Air / Nitrogen
- Qty. (1) 5 Foot Length of Flexible Conduit and Wire for Single-Point Connection of 115 VAC Single Phase Power for All Power Requirements – Accessible from Either Side
- Qty. (1) Single-Point Drain Connection for Refrigerated Dryer, Nitrogen Generator, and Nitrogen Receiver Drains
- Qty. (1) Dry Contact (NO – closes upon activation) for Supervision of Nitrogen Bypass (Optional)

Ordering Information

Models SC-2M and SC-2L include:

- Qty. (1) NITROGEN-PAC™ SC-2 Assembly
- Qty. (1) Installation Kit with:
  - o Outlet Valve Assembly
  - o Flexible Hose
- Qty. (1) Installation, Commissioning, and Maintenance Manual