



Effective: May 2020

Data Sheet UFS-600A Rev. 4.01 Page 1 of 2

NITROGEN-PAC SC SERIES

**SELF-CONTAINED NITROGEN-PAC™
MODEL SC-1**

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:
 - **GREEN** = Normal (system is supplying nitrogen)
 - **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-1** 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-1S	300	600	800	3
SC-1M	300	600	1200	5

* Initial fill capacity in 30 minutes or less with air per NFPA 13 – 2016 7.2.6.3.2.

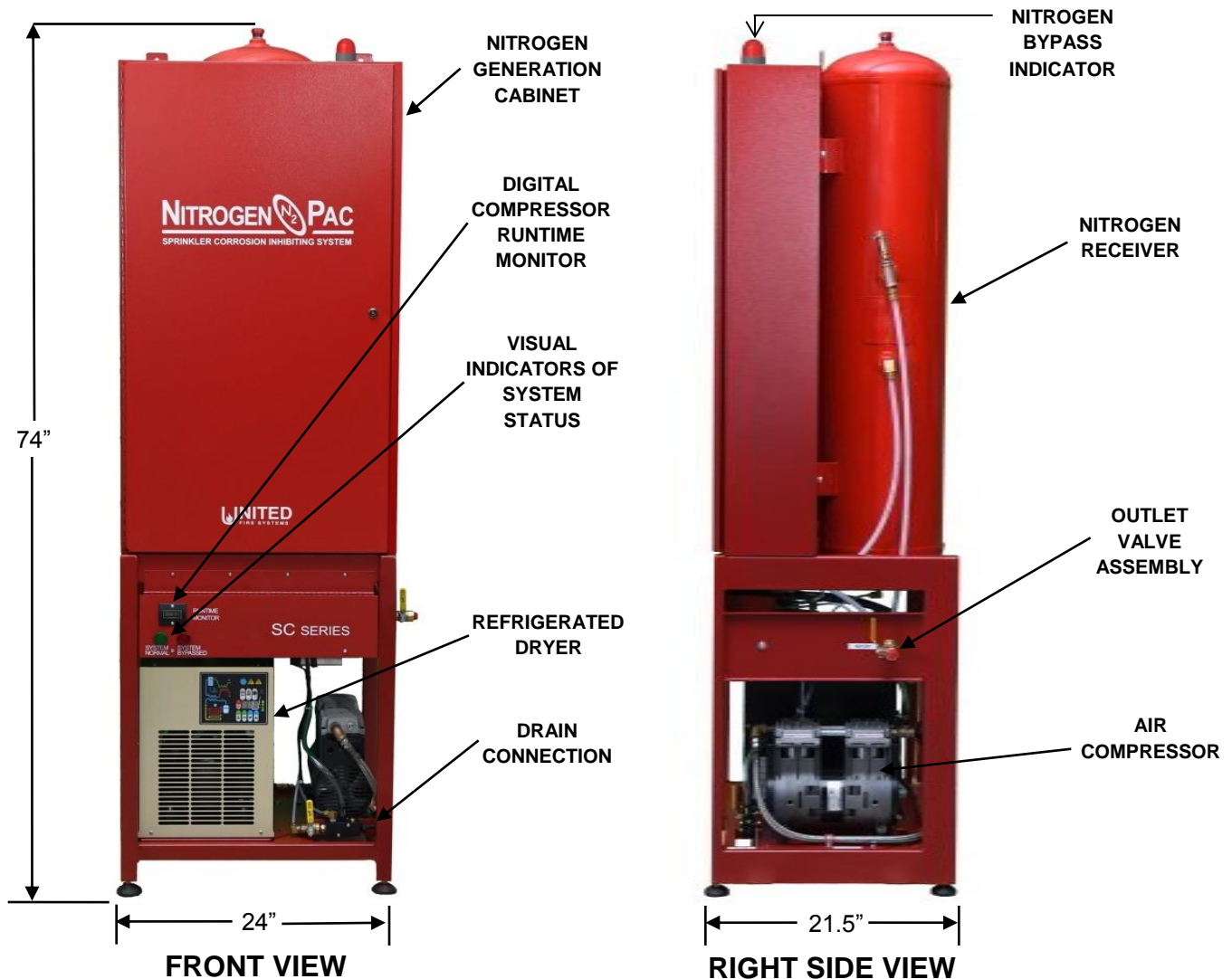
** Maximum capacity values are based on sprinkler piping leakage not exceeding NFPA 13 – 2016 25.2.2 acceptance requirement of maximum 1-1/2 PSIG air pressure loss in 24 hours starting at 40 PSIG.

- 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 = 12.9 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.





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-1S and SC-1M include:

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

UNITED Fire Systems

Division of United Fire Protection Corporation

1 MARK ROAD

KENILWORTH, NJ 07033 USA

PHONE: 908-688-0300 FAX: 908-688-0218

www.unitedfiresystems.com

This literature is provided for informational purposes only. United Fire Protection Corporation assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to perform as intended.