



Data Sheet UFS-600C

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NITROGEN-PAC MODEL SC-W

FEATURES

- Fully factory assembled, adjusted, and tested
- No field assembly required
- Mounts on wall – no floor space required
- Long-life low maintenance oilless air compressor
- Membrane-based nitrogen generation
- Rugged steel construction
- Built-in air compressor cooling
- Built-in particulate and coalescing filters
- Single drain connection

BENEFITS

- Saves installation, assembly, and testing time
- Quicker commissioning – just mount, connect, and it's ready
- Nitrogen generation and sprinkler initial fill (per NFPA 13) from just one unit
- Reliable, long lasting nitrogen generation
- Best available air drying and filtration for long life and low maintenance
- 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-W** is a completely self-contained nitrogen-based sprinkler corrosion inhibiting system. The unit is factory assembled and tested, and is ready for connection to sprinkler system riser(s). The system contains an air compressor, filters, and a membrane device to perform nitrogen separation. The system 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.

SC-W Cabinet

See **Figure 1**. The **Model SC-W Cabinet** contains the basic hardware for proper nitrogen generation, a manually-operated valve for directing the air compressor output to the nitrogen generation system or sending compressed air directly to the cabinet outlet, and manual adjustments for commissioning. See **Table 3** for features included in Model **SC-W** systems.

SC-W Nitrogen Receiver

Each **Model SC-W** system requires one of two compatible nitrogen receivers: **UNITED Fire Systems Model NR-5** or **NR-10**. This provides a reservoir of nitrogen, and reduces the number of compressor starts and the total compressor run time. This lengthens the life of the compressor and reduces utility and maintenance costs.

Specifications

System Sizing – See **Table 1**.

Component Dimensions and Weights – See **Table 2**.

IMPORTANT

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

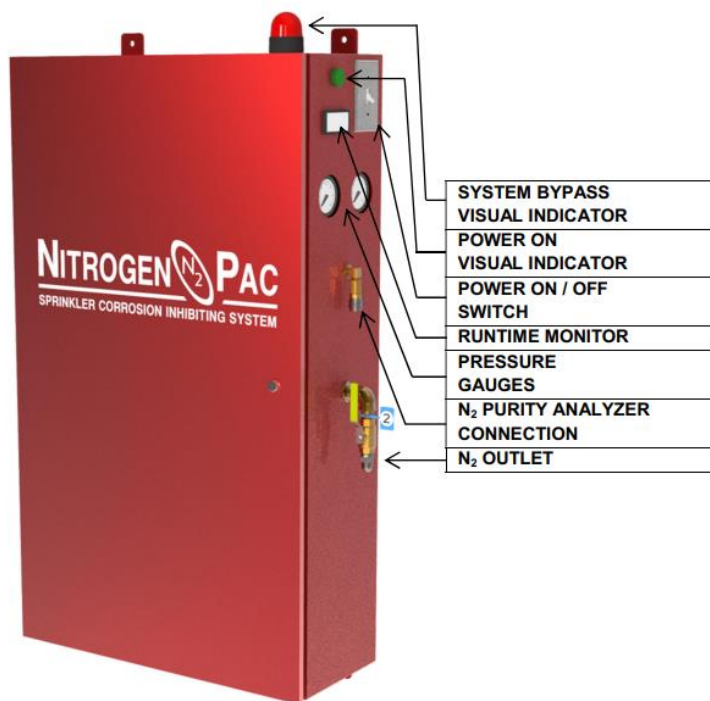


FIGURE 1
NITROGEN-PAC™ MODEL SC-W Cabinet

For downloadable architect's specifications and drawing details, go to:
www.unitedfiresystems.com/sc-w

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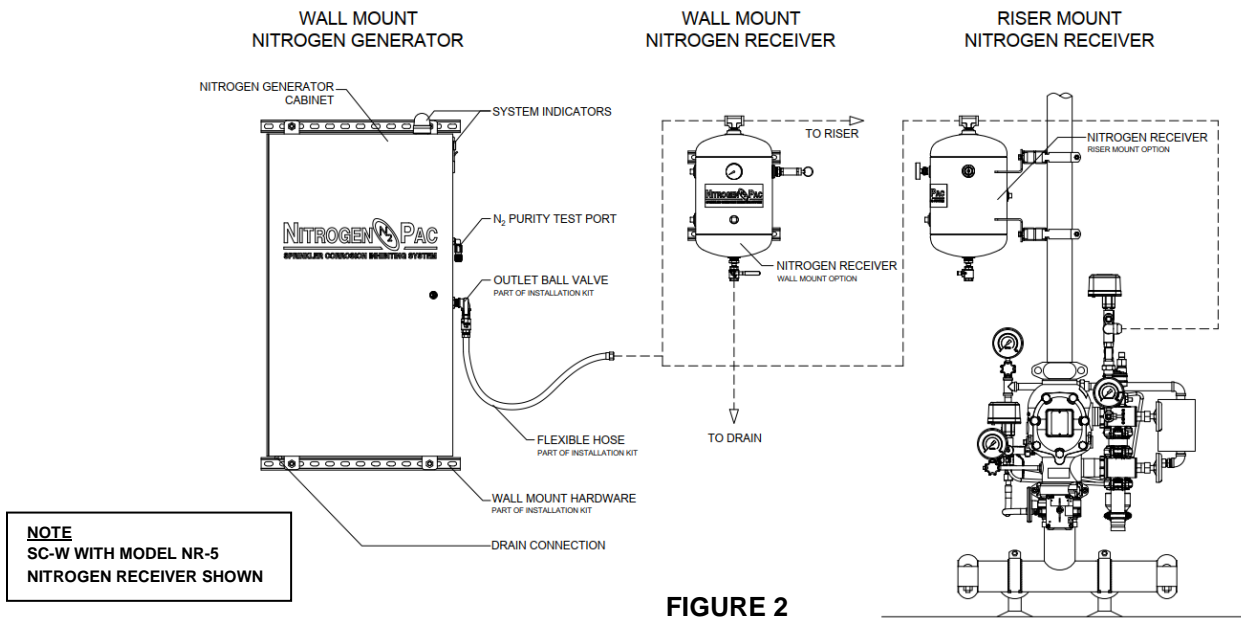
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NITROGEN-PAC MODEL SC-W



NOTE
SC-W WITH MODEL NR-5
NITROGEN RECEIVER SHOWN

FIGURE 2
NITROGEN-PAC™ MODEL SC-W Schematic

Table 1 – System Sizing

Model No.	FOR NITROGEN GENERATION		FOR INITIAL FILL ** WITH AIR	
	Maximum Volume* – All Sprinkler System Risers	Guideline – Maximum Number of Sprinkler Risers	Maximum Volume – Largest Riser Filled to 20 PSIG	Maximum Volume – Largest Riser Filled to 40 PSIG
SC-W	900 Gallons	2	500 Gallons	200 Gallons

* Maximum volume 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.
** Initial-fill capacity in 30 minutes or less with air per NFPA 13 – 2016 7.2.6.3.2.2

Table 2 – Component Dimensions, Weights, and Current Draw Specification

Item	Height	Width or Diameter	Depth	Approx. Shipping Weight	Approx. Installed Weight	Approx. Current Draw (115 VAC 60 Hz. Single-Phase Three-Wire)
Model SC-W Cabinet	42 in.	24 in.	8.5 in.	150 lbs.	125 lbs.	6 A

Table 3 – Ordering Information

P / N	Item	Includes
SC-W	Model SC-W Cabinet	Rugged powder-coated enclosure with lock.
		Integral oil-less air compressor.
		Built-in compressor cooling – lengthens compressor life.
		Aftercooler and water separator to produce dry air.
		Display of compressor runtime in hours.
		Particulate and coalescing filters –lengthens membrane life.
		Manual valve for nitrogen generation bypass.
		Red flashing indicator showing nitrogen bypass.
		Outlet ball valve and vibration-controlling flexible hose.
		Single drain outlet connection.
		Installation, commissioning, and maintenance manual.

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