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### NITROGEN-PAC™ MODEL SC-W

## FEATURES

- **FM Approved**
- **CSFM Listing No. 7510-2143:0501**
- Fully factory assembled, adjusted and tested
- No field assembly required
- Mounts on wall – no floor space required
- Nitrogen storage receiver mounts on wall or sprinkler riser – the ONLY unit available requiring no floor space for nitrogen receiver
- Membrane based nitrogen generation
- Long-life low maintenance oilless air compressor
- Rugged steel construction
- Built-in active air compressor cooling
- Built-in particulate and coalescing filters
- Aftercooler with fan and water separator for effective moisture removal
- Single drain connection
- Lift-off door hinge pins for easy removal

## BENEFITS

- Saves installation, assembly, and testing time
- Quick installation – 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
- No floor space needed for generator or nitrogen receiver
- Lift-off door allows mounting anywhere with 6 or more inches of clearance – even directly behind sprinkler riser
- 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.

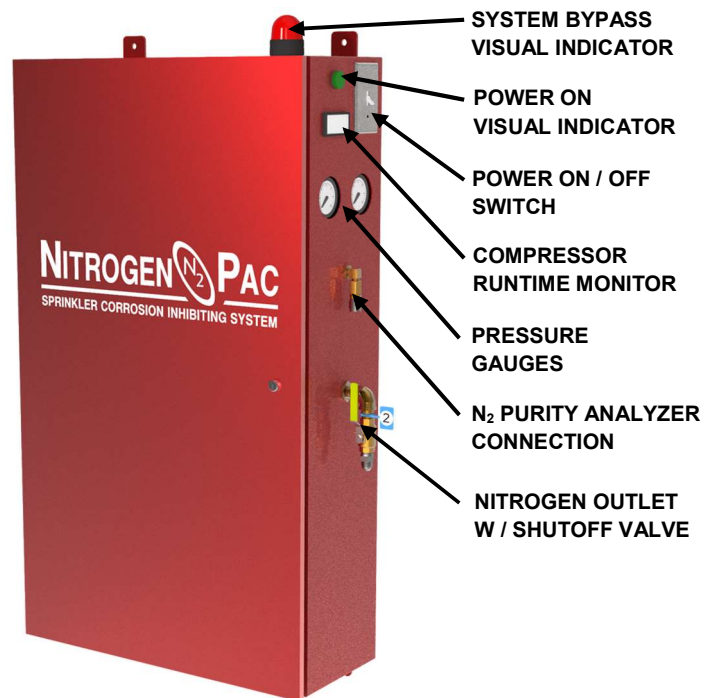
### Specifications

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:

[unitedfiresystems.com/sc-w](http://unitedfiresystems.com/sc-w)

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## UNITED Fire Systems

Division of United Fire Protection Corporation

1 MARK ROAD

KENILWORTH, NJ 07033 USA

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

[unitedfiresystems.com](http://unitedfiresystems.com)



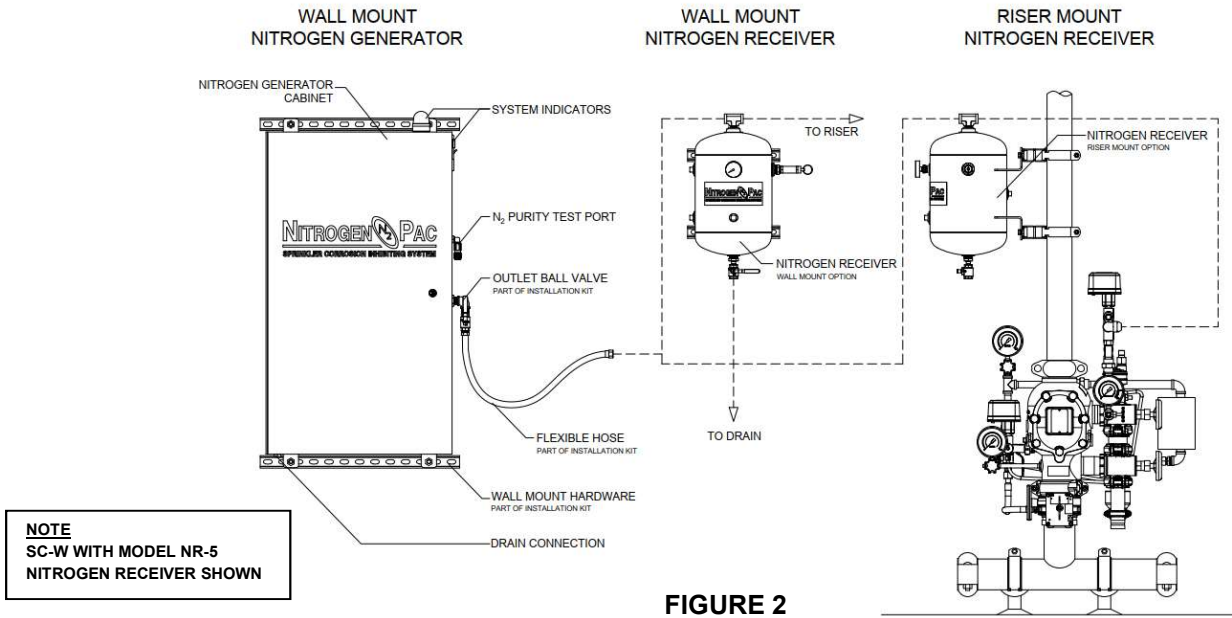
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**NITROGEN-PAC™ MODEL SC-W**



**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	Data Sheet	Includes
SC-W	UFS-600C	Model SC-W Cabinet – 115 VAC 60 Hz Single-Phase – <b>FM Approved</b> Model SC-W Installation, Commissioning, Operation Manual
	UFS-316B	Model NA-2 Hand-Held Nitrogen Analyzer
NR-5	UFS-313D	Model NR Nitrogen Receiver – Wall- or Riser-Mount
NR-10	UFS-313F	Model NR Nitrogen Receiver – Floor-Mount
NAMD-1	UFS-318B	Model NAMD-1 Nitrogen / Air Maintenance Device – <b>FM Approved</b>
PVA-4	UFS-314D	Model PVA Purge Vent Assembly – Manual Purity Checking
PVA-2		Model PVA Purge Vent Assembly – For Use with Model TAP-G3
TAP-G3	UFS-317B	Model TAP-G3 TRUE ADVANCED PURGE™ (TAP) Device
CMA-1	UFS-315A	Model CMA-1 Corrosion Monitor Assembly

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1 MARK ROAD

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[unitedfiresystems.com](http://unitedfiresystems.com)

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