Snap N Strut

SALES MANUAL

UL Listed

One-piece Hangers for Pipe, Cable, & Conduit

snapnstrut.com

Welcome!

Welcome to Snap N Strut pipe hanger fittings and accessories. We are the home of the fastest, most versatile, and thoroughly engineered one-piece hinged pipe hangers, cable hangers, and conduit hangers ever made. For engineers and contractors alike, Snap N Strut has it all!

Products are available in
Black, Gray, or White

STRUT-N-ROD + PIPE HANGER SUPPORT

This patented hanger can either be snapped into a strut, or threaded onto a rod, without the use of extra hardware or tools! The pipe is simply snapped into the hanger and locked in place using the snug-fit size-adjusting lock arm.

HANDY-SNAP PIPE HANGER SUPPORT

Used for supporting conduits on flat surfaces, such as beams, walls, machinery or the flat side of a strut. Like the Strut-N-Rod Hanger, Handy-Snap hangers accept several different pipe sizes. Offset design allows space for fittings and couplings.

PIPE HANGER SUPPORT MATERIAL

The Snap N Strut line of pipe hangers is produced from a high-performance, UV stabilized 6/6 nylon resin possessing exceptional long term stress resistance and chemical stability over a wide range of temperatures.

Design Features

NO NUTS REQUIRED

When used in a strut, Strut-N-Rod hangers are self-gripping. When used on a rod, the hanger itself is threaded onto the rod. When the pipe is inserted into the hanger, the hanger can no longer turn. Thus, even the need for a lock nut is eliminated.

GREATER LOADS & EXTREME TEMPERATURES

Produced from a specialty engineered, high strength, high temperature nylon resin, the Snap N Strut pipe hangers allow for larger factors of safety: at 250°F, working temperatures and for intermediate temperatures up to 480°F. For refrigeration, allowable working temperatures down to -70°F.

ADJUSTABILITY & FIT

The hinged, snap-on lock arm adjusts for pipe O.D. variations, affording each hanger the ability to accommodate several different pipe sizes. The pipe is nestled in a snug fit without any crimping of its wall.

CORROSION-PROOF & CHEMICAL-RESISTANT

With a totally non-metallic design, there is no need to isolate copper tubing. Eliminate the concern for galvanic corrosion. The Snap N Strut hangers will withstand most commonly encountered chemicals and refrigerants, including Freon and Ammonia.

VIBRATION ABSORBENT

The nature of the nylon material utilized, combined with the uniquely engineered design, absorbs vibration and acts as a cushion between the piping and its supporting structure.

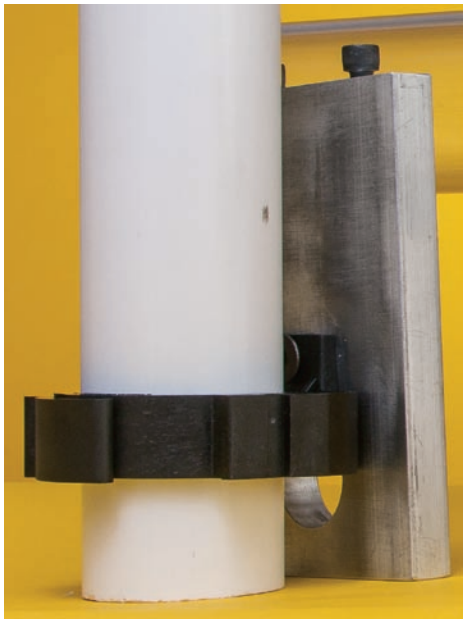
SELF-GRIPPING MECHANISM

When used in a strut, the upper and lower engagement plates are designed to grip the strut and restrain lateral movement along its length.

VERSATILITY & ADAPTABILITY FOR SUPPORTS

Each Strut-N-Rod hanger is threaded to receive a rod and each can be snapped into a strut. Handy-Snap hangers possess two receptacles for screw mounting to a flat surface (i.e., walls, beams, flat side of strut or machinery) while automatically positioning pipe centerline to allow space for fittings. Each hanger accommodates several different sizes and all types of pipe, conduit and tubing. Versatile hangers for many different jobs means less inventory required.

Product Sizes



Snap N Strut Pipe Hanger Support (P, E & U sizes)

This patented hanger can either be snapped into a strut, or threaded onto a rod, without the use of extra hardware or tools! The pipe is simply snapped into the hanger and locked into place using the Snug-fit size-adjusting lock arm.

Installation is a "Snap"

1. Snap in a strut and twist ¼ turn
2. Snap the pipe into the hanger.
3. Snap the lock closed.

This product can be top mounted and snap-in, top or bottom mounted and screwed in, or threaded onto a rod.

P sizes have a 3/8" -16/tpi

E sizes have a ¼' -20/tpi

U sizes have no thread

Handy-Snap Pipe Hanger Support (HS sizes)

Used for supporting conduits on flat surfaces, such as beams, walls, machinery or the flat side of a strut. Like the Snap N Strut Hanger, Handy-Snap hangers accept several different pipe sizes. Offset design allows space for fittings and couplings.

Snap N Strut Specific Installations

DE-IONIZED WATER AND RESIDENTIAL WATER LINES

- Culligan Water Systems, copper tube, stainless steel tube

METRO TRANSIT SYSTEMS

- San Francisco Bay Area Rapid Transit (BART) Radix Cable
- Prudential Tunnel, Boston, MA
- Fiberglass Conduit approved for:
- Washington D.C. Transit System
- Baltimore Transit System

PNEUMATIC AIR LINES

- Henry Dorley Zoo
- Omaha Copper Tube
- Decoster Farms, Livestock Containment, Nebraska, Iowa, S. Dakota
- Hotels and Schools
- Amazon Warehouses

PHARMACEUTICAL CHEMICAL

- Pfizer / GlaxoSmithKline
- Stainless steel pipe
- DuPont Chemical, Wilmington, OE

MEDICAL GAS LINES

- Georgetown University Hospital, Washington, D.C.
- Children's Hospital, Philadelphia, PA
- University of Pennsylvania Hospital, Philadelphia, PA
- Hamilton Hospital, Hamilton, NJ
- Rehabilitation Center, Harvey, IL
- St. Francis Hospital, Indianapolis, IN

GOVERNMENT INSTALLATIONS

- Department of Agriculture & Veterinary Science Bldg., Beltsville, MD
- Kennedy Space Center, FL

Corrosion Resistance

SNAP N STRUT PRODUCTS MADE WITH NYLON 6/6 HAVE AN EXCELLENT RATING FOR RESISTANCE TO THE FOLLOWING CHEMICALS:

Acetic Acid (5%), Acetone, Ammonia, Ammonium Chloride (10%), Amyl Acetate, Barium Sulphide, (10%), Benzene, Boric Acid (10%), Butylene Glycol, Camphor, Carbon Disulphide, Carbon Tetrachloride, Cyclohexane, Cyclohexanol, Dimethyl Formamide, Diesel Oil, Dioctyl Phthalate, Dioxan, Edible Oils, Ethanol (90%), Ether, Ethyl Acetate, Ethylene Chloride, Freon (12%), Formaldehyde (30%), Gasoline, Gasohol W/10% Ethanol, Glycerine, Heptane, Hexane, Lactic Acid (10%), Linseed Oil, Magnesium Chloride (10%), Methanol, Methyl Acetate, Methyl Ethyl Ketone, Milk, Mineral Oil, Parafin, Pechlorethylene, Potassium Bromide (10%), Potassium Carbonate (60%), Potassium Hydroxide (50%), Potassium Hydroxide (10%), Potassium Nitrate (10%), Propanol, Salicyclic Acid, Silicone Oils, Sodium Bicarbonate Aq. (50%), Sodium Bisulphite, Sodium Carbonate (10%), Sodium Chloride (10%), Sodium Hydroxide (10% & 50%), Sodium Nitrate (10%), Sodium Phosphate (90%), Sodium Sulphate (90%), Sulphur, Tataric Acid (10%), Tetrachlorethylene, Toluene, Turpetine, Urea, Vaseline, Water, Wax Molten, Wine and Xylene

SNAP N STRUT PRODUCTS MADE WITH NYLON 6/6 HAVE A GOOD RATING FOR RESISTANCE OF THE FOLLOWING CHEMICALS:

Butyl Acetate, Calcium Chloride (10%), Clorox Bleach, Formaldehyde (40%), Fruit Juices, Hydrogen Sulfide, Isopropyl Alcohol, and Tar

"We believe this information is the best currently available on the subject. It is subject to revision as additional knowledge and experience are gained. Beloit Plastics makes no guarantee of results and assumes no obligation of liability whatsoever in connection with this information. Anyone intending to use recommendations contained in this publication should first satisfy himself that the recommendations are suitable for his use and meet all appropriate safety and health standards. This publication is not a license to operate under, or intended to suggest infringement of any existing patents"

ONLINE CERTIFICATIONS DIRECTORY

DWMU.E218244
Conduit and Cable Hardware

Page Bottom

Conduit and Cable Hardware

See General Information for Conduit and Cable Hardware

SNAP-N-STRUT LTD E218244
4115 HWY 51 N
JANESVILLE, WI 53545 USA

Hangers, Cat. Nos. 21-24, 25-29, 30-34, 35-38, 40-44, 48-54, 56-63, 66-76, 79-93, 101-115, may be followed by a P or E.

Last Updated on 2002-11-11

Questions? Print this page Terms of Use Page Top

Component - Plastics
File Number: E157012

RAVAGO MANUFACTURING AMERICAS L L C
405 PARKTOWER RD, MANCHESTER TN 37355-6483

Hylon: 6609, 6609H, N1000TL, N1000THL, N1000THL, N1000TL-HF, N1000THL-HF
Polyamide 66 (PA66), pellets

Flammability	Value	Test Method
Flame Rating		
1.50 mm, NC	HB	UL 94
1.50 mm, NC	HB75	IEC 60695-11-10, -20
Thermal	**Value**	**Test Method**
RTI Elec (1.50 mm)	65.0 °C	UL 746
RTI Imp (1.50 mm)	65.0 °C	UL 746
RTI Str (1.50 mm)	65.0 °C	UL 746

Underwriters Laboratories Inc.®

Research Triangle Park Division
12 Laboratory Drive
P.O. Box 13995
Research Triangle Park, NC 27709-3995 USA
www.ul.com
tel: 1 919 549 1400
fax: 1 919 547 6000
Customer service: 1 877 854 3577

4/5/2004

Ms. S Witkowski
Snap-N-Strut Ltd
4115 Hwy 51 N
Janesville WI 53545

Our Reference: File E218244
Your Reference: S WITKOWSKI
Subject: Preliminary Evaluation

Dear Ms. Witkowski:

We have completed our preliminary evaluation of your product and have the following comments.

For the record we are investigating the above subject product, using requirements from our standard for Hardware for the Support of Conduit, Tubing, and Cable, UL 2239. Please note that all paragraphs referenced below are from this Standard.

The constructions submitted are identical to the constructions currently covered in File E218244. This investigation is for the construction type 30-34 and smaller. These samples are being submitted to our Northbrook office for testing to the requirements for Smoke and Heat Release as described in Section 6.9.

MARKINGS

Provided that the tested constructions comply with the applicable requirements of the Standard, the following marking may be applied on the smallest unit carton or installation instructions:

"Suitable for use in Air Handling Spaces in accordance with Section 300.22 (C) and (D) of the National Electrical Code, and Rules 12-010 (3), (4), and (5), and 12-020 of the Canadian Electrical Code, Part 1" or an equivalent wording.

Please advise how you intend to provide these markings.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Bryan L. Tatum
Senior Project Engineer
Department: 3015ERTP
Tel: 919-549-1939
Fax: 919-547-0637
E-mail: bryan.l.tatum@us.ul.com

Reviewed by:

Vincent L Quiett
Staff Engineer
Department: 3015ERTP
E-mail: vincent.l.quiett@us.ul.com

UNIVERSITY OF WISCONSIN - MADISON
Structures and Materials Testing Laboratory

2266 Engineering Hall, 1415 Johnson Drive, Madison, WI 53706-1691
Telephone: (608)-262-7711, Fax: (608)-262-5199, E-mail: cramer@engr.wisc.edu

September 6, 1995

Ms. Linette Scott
Snap-N-Strut
P.O. Box 8301
Janesville, WI 53547-8301

Dear Ms. Scott:

We have completed the testing you requested for the conduit hangars being considered for the San Francisco application. Herein is brief description of the test and attached is a certificate of test completion.

Three hangars were fastened in their normal mounting on a test fixture consisting of two aluminum plates (3/4 inch thick). The plates were fastened to form a right angle and were mounted to the table of the electrodynamic vibration exciter. An accelerometer was mounted on the test fixture to provide feedback for maintaining a constant acceleration level during the test. A second accelerometer was mounted on one specimen to monitor the acceleration level at the specimen. A thermocouple was mounted on one of the specimens at the mounting point to monitor temperature levels throughout the test.

To provide the necessary 63 lb force dynamic load to the specimens, a 6.625 lb mass was mounted in each conduit hangar specimen and an acceleration of 9.5 g's was applied to the specimens. The 6.625 lb mass was provided to simulate the conduit load.

A 70 Hz excitation frequency was ultimately chosen with the approval Mr. Jack Grice. This excitation frequency avoided exciting resonances that would occur at lower frequencies around 20 Hz. The testing proceeded through the requested 2,500,000 cycles and the test observations are summarized on the attached certificate. The response of the accelerometer attached to the hangar was monitored with an oscilloscope but a permanent record was not recorded.

Thank you for working with the University of Wisconsin-Madison. We are pleased to assist businesses in the State with their technical needs. If you have any question concerning this test program or the results please call John Dreger at 608-262-3993 or myself at 608-262-7711.

Sincerely,

Steven M. Cramer

Steven M. Cramer
Director and
Assoc Prof. of Civil Engrg.

John W. Dreger Jr.

John W. Dreger, Jr.
Test Engineer

GJ Grice Engineering
Product Design
Market Development

July 31, 2015

Malcolm Peacock
Snap-N-Strut Ltd.
2820 Prairie Ave.
Beloit, Wisconsin 53511

RE: MSS Standards Application

I have reviewed the Standard Practice of MSS SP-58 "Pipe hangers and Supports Material Design and Manufacture" as it may relate to the Snap-N-Strut line of non-metallic hangers as you requested.

As these standards were largely developed by representatives of pipe hanger manufacturers of metallic hangers, prior to the development of the non-metallic hanger by Snap-N-Strut, Ltd., naturally most of the language used is directed toward the use of various metal hangers. SP-58, however does allow for use of other materials via section 3.2 "Other material may be used provided they comply with the allowable stress requirement of Subsection 4.4 or 4.6." Tensile and Yield strength are considered equal with this material. The material consistency of the Snap-N-Strut hanger is a nylon 6/6 material with a tensile strength of 9800 psi. Per section 4.4a the allowable tensile stress would thus be 2400 psi (1/4 of minimum tensile strength at service temperature).

In accordance with Table 1 of SP-58 the minimum design load rating for rigid pipe hanger assemblies for pipe sizes 1", 1 ¼ ", 1 ½", and 2" pipe is 150 pounds. Using the worst-case scenario, the material cross section in tensile of the 1" Snap-N-Strut hanger carrying this load is 0.0742in. Thus, in the worst case, the tensile stress of the SNS Hanger with a 150-pound load would be 2021 psi, satisfying the requirement of section 4.4 (Max stress 1/5 of tensile strength versus ¼ allowable).

Importantly, the SNS hangers have been tested to and listed under UL Standard 2239 for use with "conduit tubing and cable." This standard appears to be the most relevant UL Standard which may apply to the SNS line of hangers as used for plumbing and other such conduits. The 6/6 nylon material of the SNS hangers has a UL 94 flammability rating.

In summary, it is my opinion that the SNS line of pipe hangers meets the requirements of SP-58 and further, the UL Listing to UL Standard 2239 is applicable to use with plumbing systems as well as to other types of conduit.

Sincerely,

G.J. Grice, P.E.

GJ Grice Engineering
P.O. Box 8128
Janesville, WI 53547
PH: 1-888-933-2248 FAX: 608-314-8712

ENTEC

Wednesday, September 16, 2015

Hylon® N1000H

Ravago Manufacturing Americas, LLC - *Polyamide 66*

Units English

Legend (Open)

General Information

Product Description

Nylon 66

General	
Material Status	• Commercial: Active
Availability	• North America
RoHS Compliance	• RoHS Compliant
UL File Number	• E157012

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.14	g/cm³	ISO 1183
Molding Shrinkage - Flow (0.125 in)	1.4 to 1.8	%	ISO 294-4
Water Absorption (73°F, 24 hr)	1.3	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Break)	12000	psi	ISO 527-2
Tensile Strain (Break)	30	%	ISO 527-2
Flexural Modulus	439000	psi	ISO 178
Flexural Stress	16500	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength	1.9	ft·lb/in²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Unannealed)	460	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	190	°F	ISO 75-2/A
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.0591 in	V-2		
0.118 in	V-2		

Notes

[1] Typical properties: these are not to be construed as specifications.

SNAP N STRUT VS STANDARD U-SHAPED CLAMPS

This is a testimonial of a customer in Nevada who has installed a hydronic heating system in a crawl space:

- ✔ "Using the nail pipe clamps, I got hit in the face by a flying nail, one in the eye. (Yes, I wear safety glasses). [I had] no issues of this type with [the Snap N Strut] product."
- ✔ "When re-work was necessary (removing the clamps) the nails were destroyed and not reusable. The Snap N Strut clamps were [reusable].
- ✔ "When utilizing metal struts for holding the Snap N Struts, I did not have to nail into the engineered floor joist, thus I did not have any issues with the integrity of the floor joists."
- ✔ "I found that the strength of the Snap N Strut far exceeded what was required."
- ✔ "The ability to move the Snap N Strut on the struts made the layout neat and simple."

The picture below is of the project that was recently completed using Snap N Strut products.

FTP SITE

The FTP site contains photographs, specifications, detail approvals, Solidworks ® 3D files, pdf drawings etc. You may sign up for access to the FTP site by sending an email to info@snapnstrut.com.

We at **BELOIT PLASTICS, LLC** are very proud of the fact that the Snap N Strut line of hangers are manufactured within the United States of America. Should you need additional documentation please feel free to contact us.

PLUMBING SELECTION CHART

Hanger No. (mm range)	Steel-Plastic Sch. 40 & 80	Copper Types K, L, M, DWV	Refrigeration Copper	Max Load
12-16	1/4″ .540	3/8″-1/2″ .500-.625	1/2″-5/8″ .500-.625	170
17-20	3/8″ .675	5/8″ .750	3/4″ .750	195
21-24	1/2″ .840	3/4″ .875	7/8″ .875	215
25-29	3/4″ 1.050	1″ 1.125	1-1/8″ 1.125	315
30-34	1″ 1.315			320
35-38		1-1/4″ 1.375	1-3/8″ 1.375	342
40-44	1-1/4″ 1.660	1-1/2″ 1.625	1-5/8″ 1.625	365
48-54	1-1/2″ 1.900	2″ 2.125	2-1/8″ 2.125	380
56-63	2″ 2.375			410
66-76	2-1/2″ 2.875	2-1/2″ 2.625	2-5/8″ 2.625	500
79-93	3″ 3.500	3″-3-1/2″ 3.125-3.625	3″-3-1/2″ 3.125-3.625	600
101-115	3-1/2″ to 4″ 4.000-4.500	4″ 4.125	4″ 4.125	950

NOTE: Fractional numbers reflect nominal pipe diameter, decimal numbers reflect actual O.D. in inches.

ELECTRICAL SELECTION CHART

Electric EMT	Electric Heavy Wall	Electric IMC
1/2″ .706		
3/4″ .922	1/2″ .840	1/2″ .815
	3/4″ 1.050	3/4″ 1.029
1″ 1.163	1″ 1.315	1″ 1.290
1-1/4″ 1.510		
1-1/2″ 1.740	1-1/4″ 1.660	1-1/4″ 1.638
	1-1/2″ 1.900	1-1/2″ 1.883
2″ 2.197	2″ 2.375	2″ 2.360
2-1/2″ 2.875	2-1/2″ 2.875	2-1/2″ 2.857
3″ 3.500	3″ 3.500	3″ 3.500
4″ 4.500	4″ 4.500	4″ 4.500

NOTE: Fractional numbers reflect nominal pipe diameter, decimal numbers reflect actual O.D. in inches.

Beloit Plastics, LLC

2820 Prairie Avenue
Beloit, Wisconsin USA

Toll Free: [800] 435-9148
Local: [608] 757-1464
FAX: [608] 757-1488

snapnstrut.com

LIABILITY

Beliot Plastics, LCC makes no representations or warranties, express or implied, of any kind or nature, including, but not limited to, any representation or warranties that Snap N Strut products are merchantable or fit for any particular purpose. Under no circumstances will Beliot Plastics, LCC be liable for, any incidental, indirect, special or consequential damage, loss, penalty or expense of any kind, including, but not limited to, any expense incurred for product removal or re-installation. Beliot Plastics, LCC will not be liable for any damage to or defect in any Snap N Strut product which has been subject to misuse, neglect, or accident or which has been stored, used or installed in violation of recommended installation or maintenance procedures. Patent No. 5133523 (Other patents pending)