Winters Accessories

Adjustable Snubber

Cooling Tower

Mini Ball Valve

Needle Valve

Overpressure Protector

Snubbers

Stainless Steel Needle Valves

Syphons

Gauge Options

WINTERS 1953

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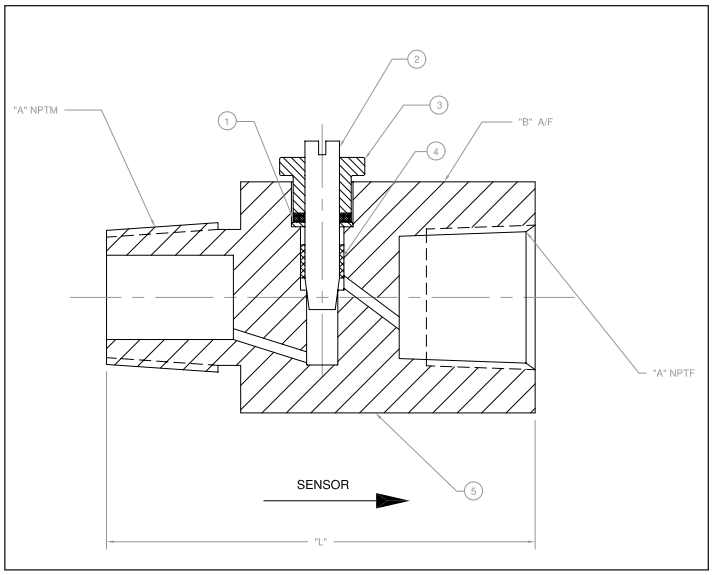
Adjustable Snubber

NEW!

Description

The Winters Adjustable Snubber significantly lessens the damaging effects of pulsation on pressure gauges, transducers, transmitters, manometers and pressure switches. These Adjustable Snubbers can be used to change the amount of restriction. Adjustments to the valve can be made even while the snubber is in service. The use of snubbers will improve the reading accuracy of the instrument (i.e. pressure gauges).

Winters Adjustable Snubbers will prolong the life of pressure instruments especially in demanding industrial applications including; pumps, compressors, hydraulic presses or fluid power applications.



Specifications			
SR. No	Description	St/St	Brass
1	Gland Seal	Teflon	Teflon
2	Stem	St/St 316	St/St 316
3	Gland	St/St 316	Brass
4	Gland Washer	St/St 316	St/St 316
5	Body	St/St 316	Brass

SR. No.	"A"	"L"	"B"
1.00	1/2" NPT	62mm/2.44"	32mm/1.26"
2.00	1/4" NPT	52mm/2.05"	22mm/0.87"

CAUTION:
WHEN ADJUSTING VALVE DO NOT ADJUST MORE THAN TWO TURNS FROM THE CLOSED POSITION AS LEAKAGE WILL OCCUR.

How to order: Specify product code

Product Code	Material / Connection NPT	Seal	Pressure Rating
A540	Brass 1/4" MxF	Teflon	6,000psi/41,368kPa
A541	Brass 1/2" MxF	Teflon	6,000psi/41,368kPa
A542	St/St 1/4" MxF	Teflon	6,000psi/41,368kPa
A543	St/St 1/2" MxF	Teflon	10,000psi/68,947 kPa

Temperature Rating: -40F - 248F (-40C-120C)

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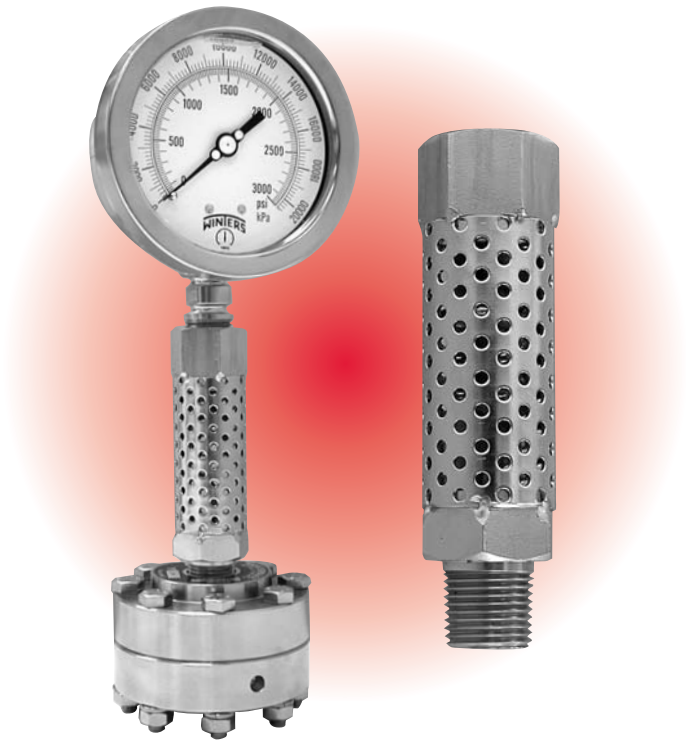
09/03

Cooling Tower



NEW!

Description

Winters Cooling Tower is a 316 stainless steel accessory designed to protect instruments in high temperature applications. It may be used for process media temperatures up to 570°F, and can reduce the media temperature by as much as 500°F*.

Specifications	
Body:	316 Stainless Steel
Maximum Operating Pressure:	50,000 psi**
Maximum Process Temperature:	570°F (300°C)
Connection:	1/4" NPT male x 1/4" NPT female or 1/2" NPT male x 1/2" NPT female

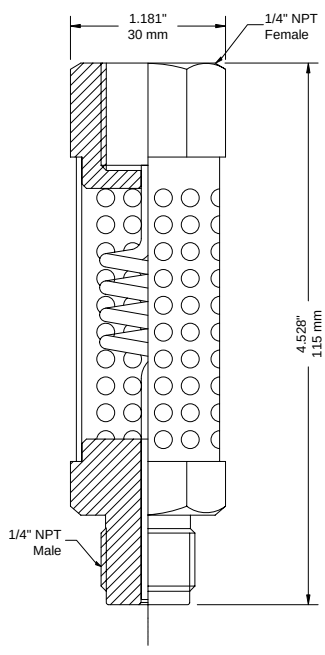
**Please note: Cooling Tower may be utilized in various applications. When Cooling Tower is used with a diaphragm seal, the pressure rating of the diaphragm seal must be acknowledged.

How to order: Specify product code

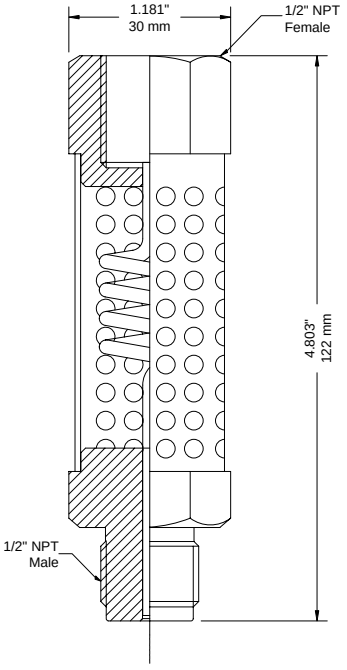
Product Code	Description
CT-400	1/4" NPT Male x 1/4" NPT Female
CT-500	1/2" NPT Male x 1/2" NPT Female

Other connections available upon request.

¼" NPT Male x ¼" NPT Female



½" NPT Male x ½" NPT Female



(*Degree of cooling is dependent on ambient conditions)

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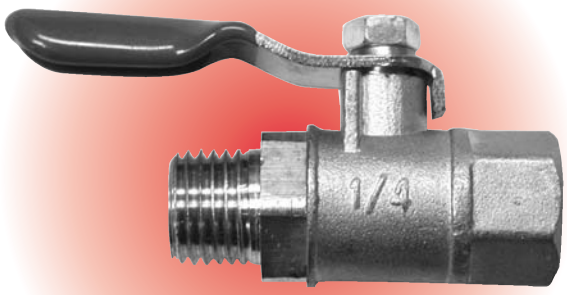
Mini Ball Valve

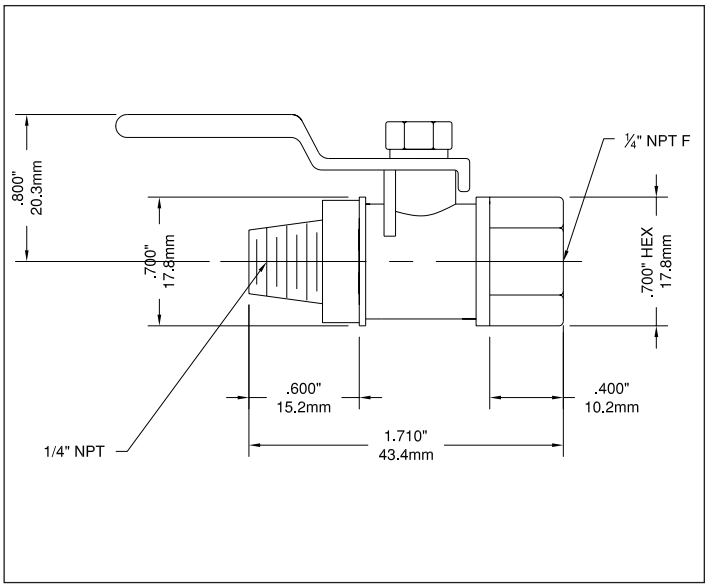


CRN

Description

Winters Mini Ball Valve is an economical isolation valve for controlling any non-corrosive application. The compact size and easy to use handle makes Winters Mini Ball Valve ideal for use with pressure gauges, transmitters and transducers.

Specifications	
Body:	#59-1 forged brass
Ball:	Stainless steel
Gaskets:	Teflon
Handle:	Steel, plated, plastic covered
Process Temperature:	-9°F to 212°F (-23°C to 100°C)
Maximum Operating Pressure:	400 psi (2,758 kPa)
Connection:	1/4" NPT female x 1/4" NPT male



How to order: Specify product code

A500

Other sizes and materials available upon request.

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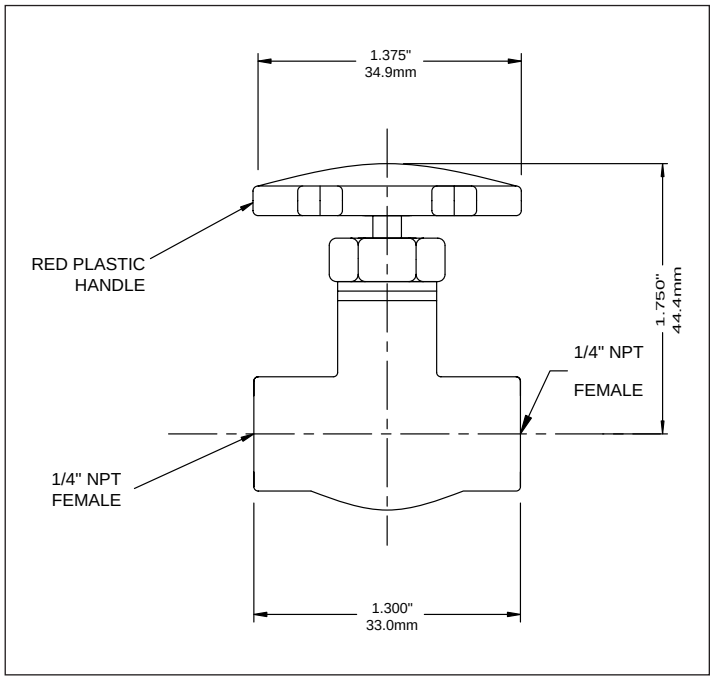
Needle Valve

CRN

Description

Winters Needle Valve provides precision flow control for any non-corrosive application up to 400 psi (2, 758 kPa). Except for severe applications, the valve can also be used to throttle pulsation.

Specifications	
Body:	#59-1 forged brass
Handle:	ABS plastic, dyed red
O-ring:	Rubber
Shaft:	#59-1 brass
Nut:	#59-1 brass
Process Temperature:	-9°F - 212°F (-23°C - 100°C)
Maximum Operating Pressure:	400 psi (2,758 kPa)
Connection:	1/4" NPT female



How to order: Specify product code:

A510

Other configurations & materials available upon request.

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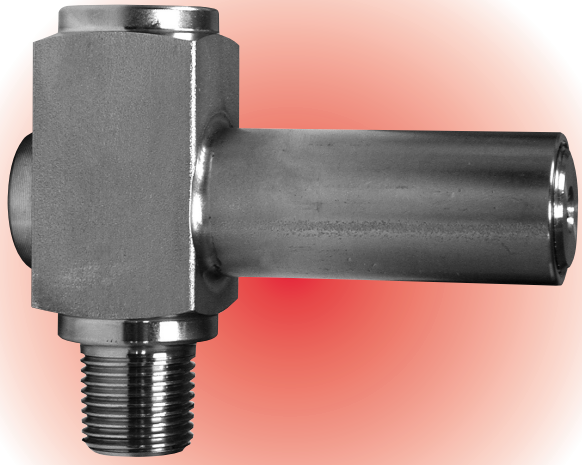
Over Pressure Protector

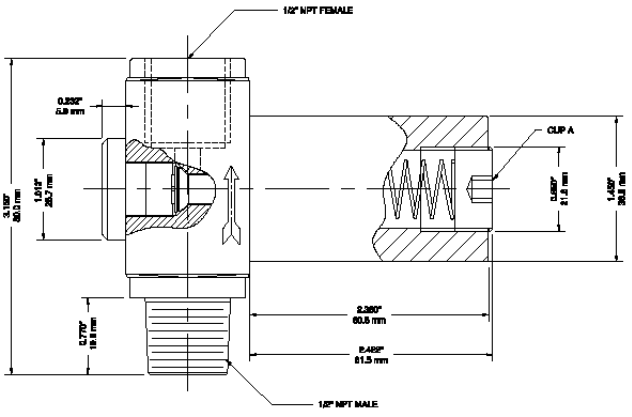


NEW!

Description

Winters' Over Pressure Protector is utilized to protect pressure instruments against surges and pulsations. Setpoint adjustments are made by manipulating an external adjusting screw and lock nut. The protector automatically shuts off pressure to the instrument once the adjustable preset pressure is exceeded. This instrument is available in Bellows and Piston type.

Specifications:	
Body:	Bellows Type: 316 stainless steel Piston Type: 316 stainless steel
Burst Pressure:	10, 000 psi/kPa
Connection:	1/4" x 1/4" NPT or 1/2" x 1/2" NPT



Cup A - Turn clockwise to increase set point value
Turn counterclockwise to decrease set point value

How to order: Specify product code

Bellows Type		
Part Number	**Connection NPT**	**Adjustable Pressure Range**
AGP32025	1/4" x 1/4"	3-20 psi
AGP159025	1/4" x 1/4"	15-90 psi
AGP32050	1/2" x 1/2"	3-20 psi
AGP159050	1/2" x 1/2"	15-90 psi
Piston Type		
Part Number	**Connection NPT**	**Adjustable Pressure Range**
AGP9023025	1/4" x 1/4"	90-230 psi
AGP14039525	1/4" x 1/4"	140-395 psi
AGP435116025	1/4" x 1/4"	435-1160 psi
AGP870149325	1/4" x 1/4"	870-1493 psi
AGP1450580025	1/4" x 1/4"	1450-5800 psi
AGP9023050	1/2" x 1/2"	90-230 psi
AGP14039550	1/2" x 1/2"	140-395 psi
AGP435116050	1/2" x 1/2"	435-1160 psi
AGP870149350	1/2" x 1/2"	870-1493 psi
AGP1450580050	1/2" x 1/2"	1450-5800 psi

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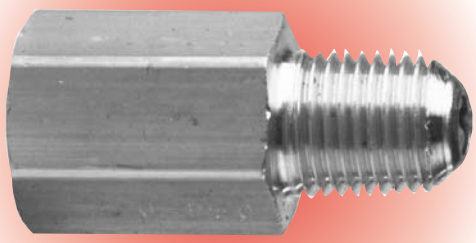
Snubbers



CRN

Description

Winters' Snubbers significantly lessen the damaging effects of pulsation on gauges, transducers, transmitters, manometers and pressure switches. Winters' Snubbers incorporate a sintered porous 316 stainless steel snubbing element with a large surface area to ensure long term effectiveness on most pressure media.

Winters' Snubbers are available in the three standard viscosity classifications of heavy oil, water and air. Brass or stainless steel housings can be specified depending upon pressure media and operating pressure.

How to order: Specify product code

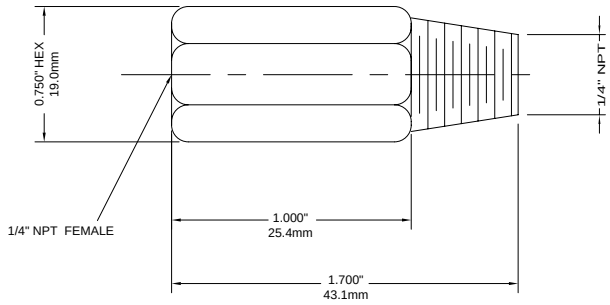
PRODUCT CODES

PRESSURE SNUBBERS			
Model	Heavy Oil	Water	Air
1/4" Brass	A517	A515	A516
1/4" St/St	A520	A518	A519
1/2" Brass	A514	A512	A513
1/2" St/St	A531	A529	A530

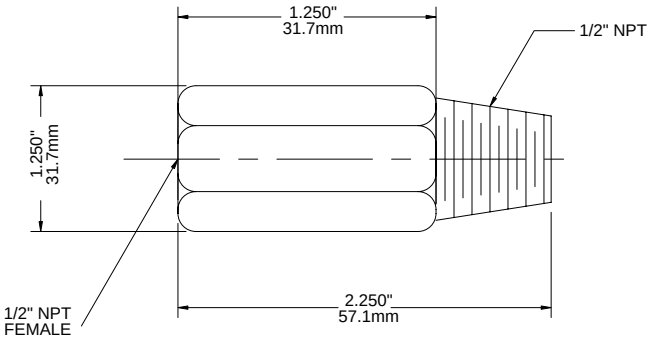
Stainless Steel Specifications	
Operating Temperature:	-320°F to 1,500°F (-195°C to 815°C)
Operating Pressure:	Maximum 20,000 psi (137,900 kPa)
Burst Pressure:	60,000 psi (413,700 kPa)
Housing:	300 series stainless steel
Snubbing Element:	Sintered, porous type 316 stainless steel
Retainer:	300 series stainless steel

Brass Specifications	
Operating Temperature:	-65°F to 650°F (-53°C to 343°C)
Operating Pressure:	Maximum 10,000 psi (68,950 kPa)
Burst Pressure:	30,000 psi (206,850 kPa)
Housing:	Brass
Snubbing Element:	Sintered, porous type 316 stainless steel
Retainer:	300 series stainless steel

1/4" Snubber



1/2" Snubber



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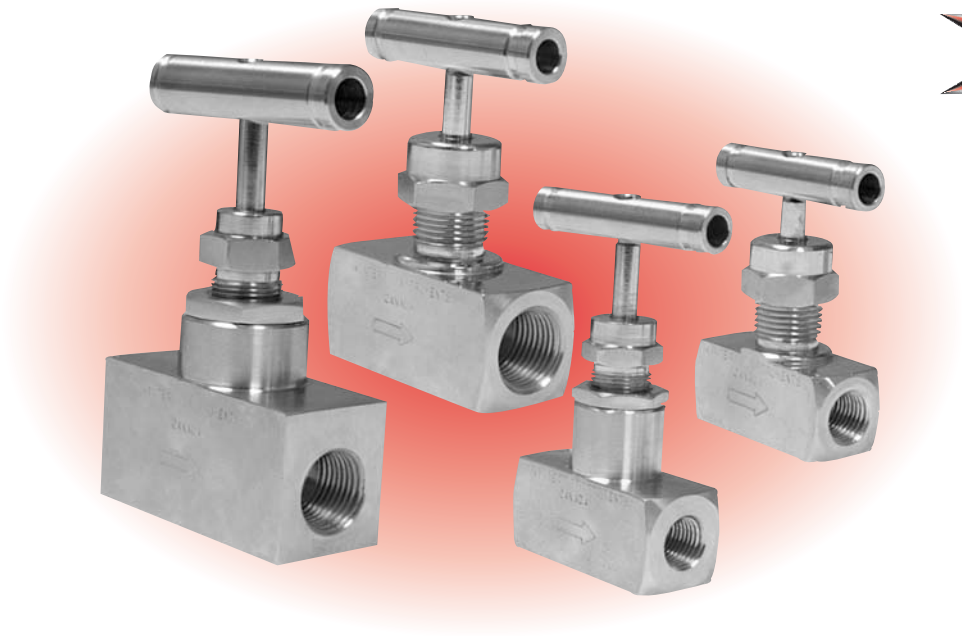
Stainless Steel Needle Valve

NEW!



Description

Winters Stainless Steel Needle Valve construction provides corrosion resistance, has excellent flow regulation and is leak tight. The one piece body construction (no welding) provides high strength and full safety. This instrument has slow opening which prevents sudden pressure surge and instrument damage.

The Needle Valves are available in Soft Seat (up to 6,000 psi, Delrin Seat) and Hard Seat (up to 10,000 psi, Metal Seat). Hard Seat Needle Valves are also available with a Carbon Steel construction.

Common applications include refineries, liquid petroleum gas, processing plant systems difficult to shut off due to solid contents such as dust, rust, dirt, etc.

Soft Seat Needle Valve 6,000 psi Temperature Rating: -20°F - 250°F (-29°C - 121°C)		
Product Code	**Material**	**NPT Connection**
ANV25SFFS	Stainless Steel	1/4" Female x 1/4" Female
ANV5SFFS	Stainless Steel	1/2" Female x 1/2" Female
ANV25SMFS	Stainless Steel	1/4" Male x 1/4" Female
ANV5SMFS	Stainless Steel	1/2" Male x 1/2" Female
Hard Seat Needle Valve 10,000 psi Temperature Rating: -65°F - 200°F (-50°C - 93°C)		
Product Code	**Material**	**NPT Connection**
ANV25SFFH	Stainless Steel	1/4" Female x 1/4" Female
ANV5SFFH	Stainless Steel	1/2" Female x 1/2" Female
ANV25SMFH	Stainless Steel	1/4" Male x 1/4" Female
ANV5SMFH	Stainless Steel	1/2" Male x 1/2" Female
ANV25CFFH	Carbon Steel	1/4" Female x 1/4" Female
ANV5CFFH	Carbon Steel	1/2" Female x 1/2" Female
ANV25CMFH	Carbon Steel	1/4" Male x 1/4" Female
ANV5CMFH	Carbon Steel	1/2" Male x 1/2" Female

- Other configurations available
- Needle Valves can be supplied to meet current revision of MR-01-75 NACE (Sour gas service)
- Graphoil packaging for high temperature applications available.

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Stainless Steel Needle Valve

Soft Seat Stainless Steel Needle Valve		
Drawing Number	**Description**	**Material**
1	Body:	AISI 316 stainless steel
2	Panel Nut:	AISI 316 stainless steel
3	Stem:	AISI 316 stainless steel
4	Packing:	Teflon
5	Washer:	AISI 316 stainless steel
6	Gland Nut:	AISI 316 stainless steel
7	Grub Screw:	Steel Plated
8	Handle:	AISI 304 stainless steel
	Seat Material:	Delrin

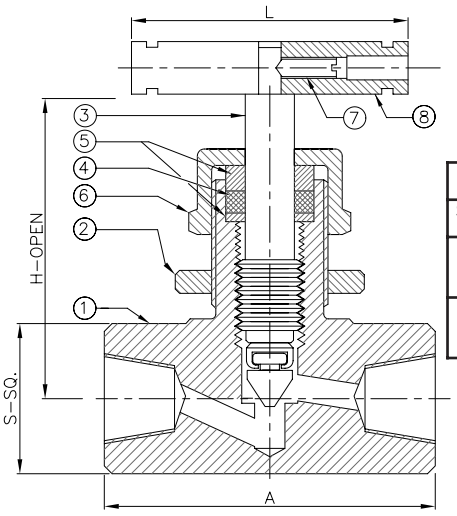

Table of Dimensions				
Size	A	S-SQ	H-Open	L
¼"	1.95" (50mm)	0.86" (22mm)	2.69" (69mm)	1.95" (50mm)
½"	2.65" (68mm)	1.17" (30mm)	3.23" (83mm)	2.34" (60mm)

Hard Seat Stainless Steel Needle Valve		
Drawing Number	**Description**	**Material**
1	Body:	AISI 316 stainless steel
2	Stem:	AISI 316 stainless steel - Stellited V Tip
3	Packing Washer:	AISI 316 stainless steel
4	Gland Packing:	AISI 316 stainless steel
5	Lock Nut:	AISI 316 stainless steel
6	Gland Retainer:	AISI 316 stainless steel
7	Handle:	AISI 304 stainless steel
7	Dust Cover:	Plastic
	Seat Material:	Metal

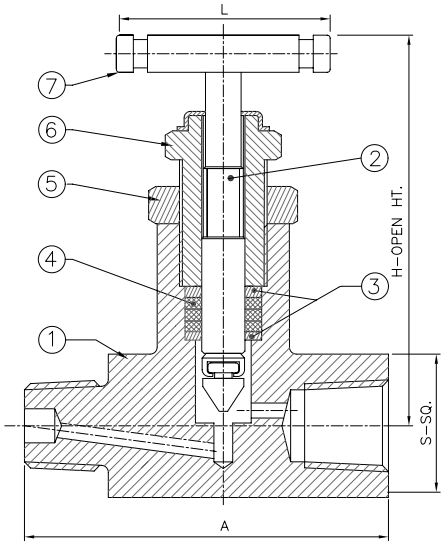

Table of Dimensions				
Size	A	S-SQ	H-Open HT	L
¼"	2.36" (60mm)	0.98" (25mm)	3.35" (86mm)	2.36" (60mm)
½"	3.23" (82mm)	1.33" (34mm)	3.82" (98mm)	2.73" (70mm)

Carbon Steel Needle Valve		
Drawing Number	**Description**	**Material**
1	Body:	Carbon Steel
2	Stem:	AISI 316 stainless steel - Stellited V Tip
3	Packing Washer:	AISI 316 stainless steel
4	Gland Packing:	Glass Filled PTFE
5	Lock Nut:	Carbon Steel
6	Gland Retainer:	Carbon Steel
7	Handle:	Aluminum Black Anodized
7	Dust Cover:	Plastic
	Seat Material:	Metal

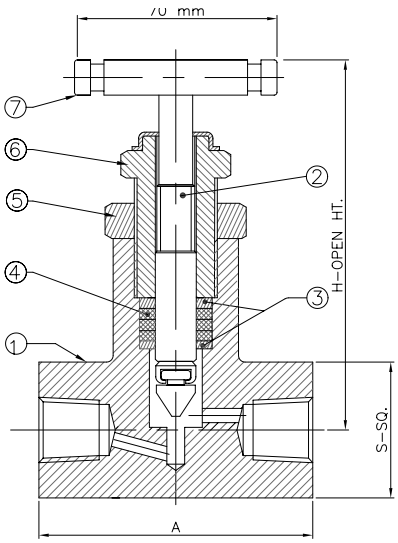

Table of Dimensions				
Size	A	S-SQ	H-Open HT	A
¼"	2.15" (55mm)	0.98" (25mm)	3.35" (86mm)	2.36" (60mm)
½"	2.93" (75mm)	1.33" (34mm)	3.82" (98mm)	2.73" (70mm)

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Syphons

CRN

Description

Winters' Syphons are recommended for applications involving temperatures above +100°F (+37°C). On steam service, the syphon will prevent hot steam from entering a pressure gauge, diaphragm seal or transmitter. Winters' Syphons are available in steel for non-corrosive applications and stainless steel for corrosive applications.

How to order: Specify product code:

PRODUCT CODES

Material	Connection	Code
Sched. 40 Brass	1/4" NPT	A545
Sched. 40 Brass	1/2" NPT	A559
Sched. 40 Steel (welded)	1/4" NPT	A525
Sched. 40 Steel	1/2" NPT	A555
Sched. 40 304 St/St	1/4" NPT	A535
Sched. 40 304 St/St	1/2" NPT	A585
Sched. 40 316 St/St	1/4" NPT	A554
Sched. 40 316 St/St	1/2" NPT	A557
Sched. 80 Carbon Steel	1/4" NPT	A556
Sched. 80 304 St/St	1/4" NPT	A595

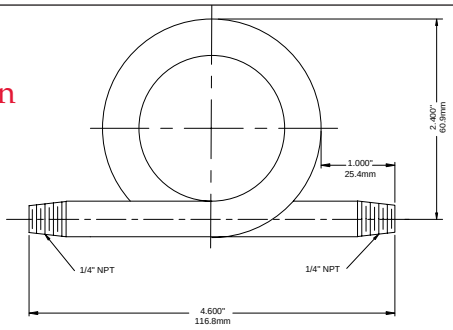
Options: **(All syphons are seamless except for the A525 which is welded)**

- 316 Stainless steel and brass
- Schedule 80, schedule 160 and Double Extra (all materials)
- 45 degree angle

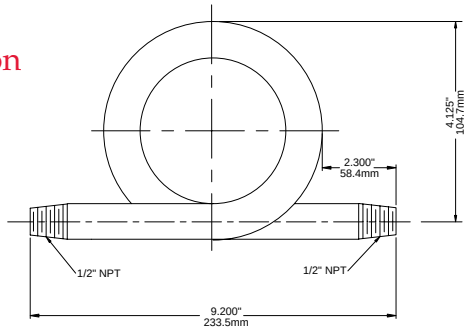
Specifications

Material:	Schedule 40 steel coil (welded) or Schedule 40 304 stainless steel (seamless). Other materials and schedules available upon request.
Style:	180 degree coil
Connection:	1/4" NPT male x 1/4" NPT male or 1/2" NPT male x 1/2" NPT male. Other connections available upon request.
Maximum Operating Pressure:	• 1/4" NPT, schedule 40 welded is suitable for 175 psi at 340°F (171°C).
	• 1/4"or 1/2" NPT, schedule 40, any seamless material is good for a working pressure of 500 psi at 680°F (360°C).
	• 1/4" or 1/2" NPT, schedule 80, any seamless material is good for a working pressure of 1650 psi at 630°F (332°C).
	• 1/2" NPT, double extra schedule, any seamless material is good for a working pressure of 3200 psi at 1100°F (548°C).

1/4" Syphon



1/2" Syphon



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12/02

Gauge Option

Gauge Options

ELECTRIC CONTACTS:	Single and double contacts are available on 6” (150mm) dial size gauges and thermometers to activate a control or alarm on pointer movement. Product Code: ECS = single contact ECD = double contact
LIQUID FILLING:	Glycerin, Silicone, Fluorolube. Other fillings available - contact us for a quotation. Product Code: G = glycerin, S= silicone, F= fluorolube
MAXIMUM ADJUSTABLE POINTER:	The red secondary pointer is carried by the indicating pointer to the maximum pressure reading. Resetting is done easily from the outside by means of a plastic knob. Product Code: MAXI
MICROMETER ADJUSTABLE POINTER:	This pointer can be precision adjusted by means of a micrometer screw. The pointer is lightweight and constructed of aluminum. Product Code: MICRO
SAFETY CASE:	The case and threaded ring assembly is constructed to NATO Naval Specification “Gage 1-0-1”. The case is made of black anodized aluminum and completely dust-proof. The threaded ring can be easily removed for pointer adjustment, and the case is suitable for surface as well as flush mounting. A clear acrylic lens is standard with this case. Product Code: SFC
OXYGEN CLEANING:	All pressure gauges can be oxygen cleaned for use on oxygen service. Oxygen cleaned gauges are shipped in a sealed wrapping to ensure cleanliness. Product Code: OXY
PRESSURE SWITCHES:	Winters is also able to directly mount customer supplied pressure switches on to Winters diaphragm seals.
RED SECONDARY (stationary) POINTER:	A fixed pointer that can be used to indicate a specified pressure. Product Code: STAT
SILICONE DAMPENING:	Silicone can be applied to the movements of pressure gauges and thermometers. Product Code: SD
OVER/UNDER STOPS:	Over or under stops are available on all Premium Series gauges to prevent damage to the gauge should over pressure or vacuum occur during operation of the gauge. Product Code: OST = Over stop UST = Under stop
STAINLESS STEEL TAGS:	All products can be supplied with stainless steel tags which are permanently marked for easy identification of product. Product Code: TAG