

GREEN SAVER

PRODUCT DATA SHEET

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GREEN SAVER STEAM TRAPS

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WHY GREEN SAVER?

Overview

The Steam ESCO Green Saver is a precision engineered and manufactured Venturi nozzle steam trap, guaranteed for performance and reliability. It is fabricated from solid stainless steel stock, and is resistant to most corrosive atmospheres.*

Advantages include increased productivity due to constant temperature and thus increased throughput, lower energy consumption. It has no moving parts to wear out, eliminating the need to maintain an inventory of spare parts and lowering maintenance time.



Applications

The Steam ESCO Green Saver is one of the most efficient traps available today. Its design promotes the efficient removal of condensate from the steam system while effectively preventing the escape of live steam.

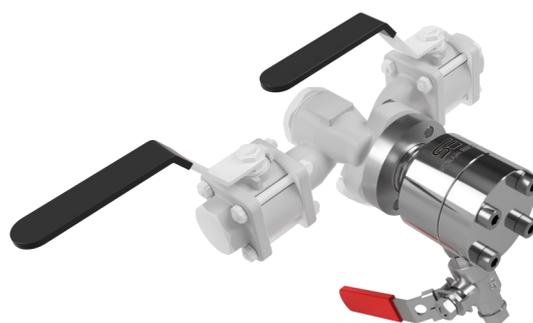
It is suitable for most industrial and commercial applications involving saturated steam. In addition, the Green Saver has no moving parts to wear out.

PHYSICAL DATA

- Material: 303 Stainless Steel, ASTM A581/A582.
- Tensile Strength: 6,207 barg (90,000psi)
- Hardness: 145 BHN, B76
- *Optional:* 316L Stainless Steel, ASTM A276, tensile strength 5,517 barg (80,000psi), hardness 142 BHN, B78
- Operating Pressure:
 - ◆ to 10 barg (145 psi) Clean steam
 - ◆ to 30 barg (435 psi) QRT
 - ◆ to 40 barg (600 psi) Flanged standard
 - ◆ to 100 barg (1500 psig) Flanged high pressure
 - ◆ to 80 barg (1160 psi) Threaded
 - ◆ to 100 barg (1500 psi) Butt/Socket Weld, Sandwich
- Operating Temperature: to 425°C (797°F) *
- Capacity: Design capacities can exceed 25,000 kg/h (55,000 lbs/h)
- Sizes: 15mm to 125mm
- Thread: BSPT, NPT, ISO to order
- Flange: Standard PN / ANSI
- Welded : SW / BW

*Higher temperature materials available on request

Complimentary blowdown valve is 3rd party item with its own data sheet.
Data sheet subject to change without notice.



Features

- Manufactured from long lasting stainless steel
- Guaranteed to last for a minimum of 15 years
- Resistant to most corrosives
- Compact size makes installation simple and attractive
- Can be installed both horizontally and vertically
- Custom engineered for each application

INTERNATIONAL STANDARDS

FOR STEAM TRAPS

User and designer have full knowledge of steam traps characteristics and that it meets legislation requirements. Steam ESCO's products fully comply with the requirements of the European Pressure Equipment Directive 2014/68/EU.

Steam Trap Material Certification

Trap bodies are precision machined from stainless steel bar stock and are traceable.

Material certification type 3.1 according to BS EN 10204:2004 (E) are available on request.

Shell material designation:

Nominal Pressure (PN), Maximum operating pressure



Other Standards of lesser relevance

- Face-to-face dimensions for flanged automatic steam traps EN 26554: 1991 ISO 6554: 1980
- Face-to-face dimensions for steam traps DN15, DN20, DN25, DN32, DN40, DN50 EN1092-1 ASME B16.5
- Classification of automatic steam traps ISO 6704:1982, EN 26704:1991

Methods for determination of discharge capacity of automatic steam traps ISO 7842:1988, EN27842:1991

- Production and performance characteristic tests for automatic steam traps ISO 6848:2015, EN:2694:2016

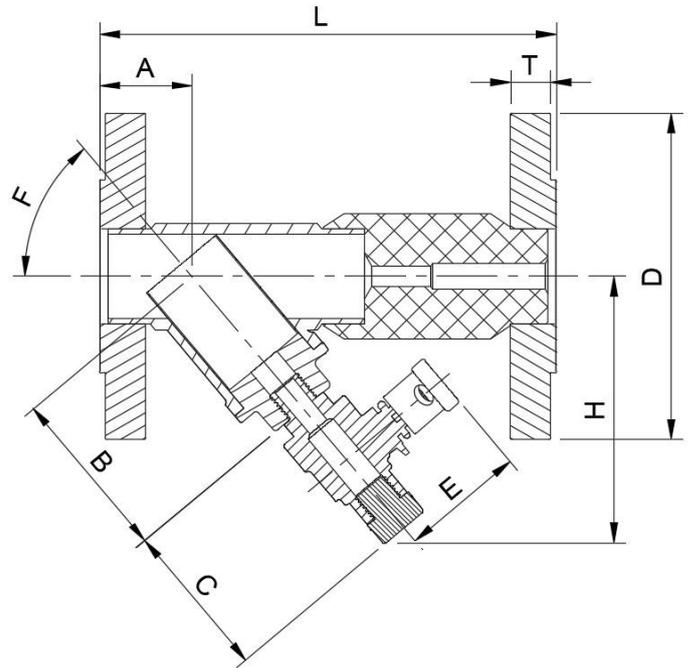
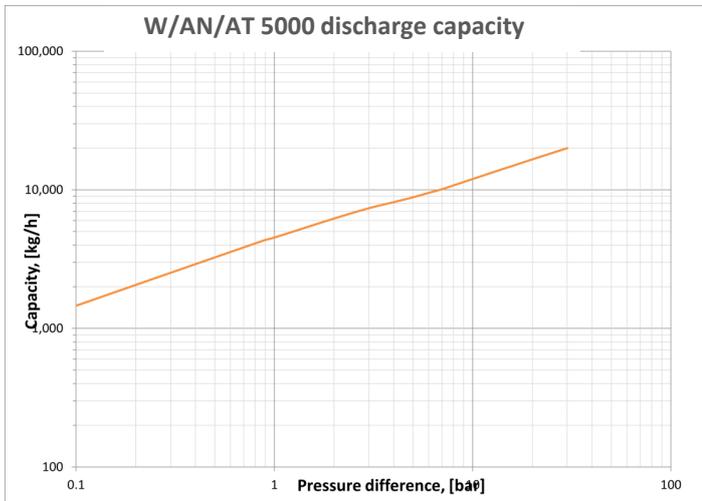
MARKING OF STEAM TRAPS

- BS EN ISO 6553:2017 requires certain minimum basic marking and identification of steam traps.
- To conform to this standard, all traps should be marked with the following:
 - ◆ Manufacturer's name and/or trademark
 - ◆ Maximum allowable pressure (PMA)
 - ◆ Maximum allowable temperature (TMA)
 - ◆ Indication of flow direction
 - ◆ Shell material designation
 - ◆ Nominal size
 - ◆ Nominal pressure
- Optional Markings:
 - ◆ Maximum operating pressure

GREEN SAVER FLANGED UNIT (W/AN/AT)

Technical Specifications

The Green Saver Flanged Unit is suitable for lower pressure, low to intermediate condensate flow, for both drainage and process applications.



PHYSICAL DATA

- Material: Trap Body 303 SS, Strainer* / Flanges 316 SS Mesh 304 SS 0.5mm or 0.25mm

- Operating Parameters:
 - ◆ PMA 40barg (600psi)
 - ◆ TMA 425°C (797°F)
 - ◆ PED Category SEP

- Model designation:
 - W = PN16 / PN40
 - AN = ANSI #150
 - AT = ANSI #300

* Exact filter shape may vary depending on specification

Dimensions the same for W/AN/AT except for D

Serial Number	W/AN/AT 1500	W/AN/AT 2000	W/AN/AT 2500	W/AN/AT 3200	W/AN/AT 4000	W/AN/AT 5000
DN	15 / 1/2"	20 / 3/4"	25 / 1"	32/1-1/4"	40/1-1/2"	50 / 2"
L (mm)	150	150	160	230	230	230
D (W) (mm)	95	105	115	140	150	165
D (AN) (mm)	90	100	110	115	125	150
D (AT) (mm)	95	115	125	135	155	165
H* (mm)	82	87	101	105	117	124
T (mm)	12	14	14	16	15	17
A (mm)	27	27	31	37	42	48
F (degrees)	50	50	50	50	50	50
B (mm)	42	49	68	75	86	99
C* (mm)	57	57	57	57	57	57
E (mm)	42	42	42	42	42	42
Bolt size/Qty	M12 x 8	M12 x 8	M12 x 8	M16 x 8	M16 x 8	M16 x 8
Unit Weight	2.2kg	3kg	3.5kg	5.5kg	7kg	9.5kg

Suitable Applications:

- ◆ Suitable for all standard PN / ASME flanged application
- ◆ Operates at lower and intermediate pressure up to 40 barg
- ◆ Suitable for line drainage and process applications
- ◆ Suitable for low and intermediate condensate flow rates up to 17,000kg/h
- ◆ Designed to fit standard steam trap dimensions, but bespoke units can be made to fit existing flange to flange dimensions

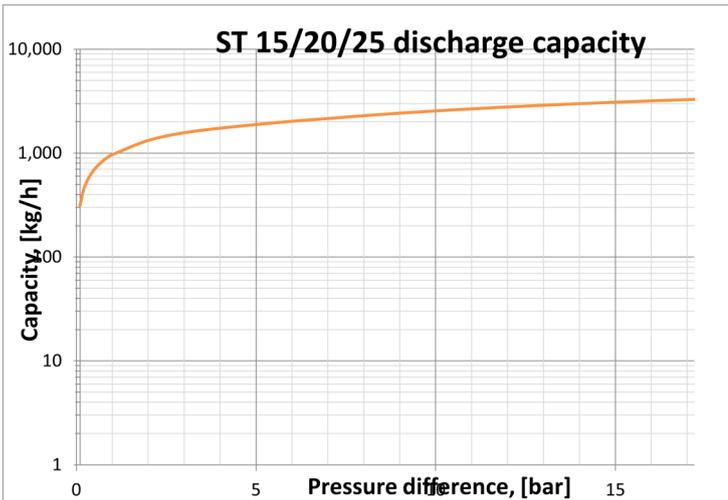
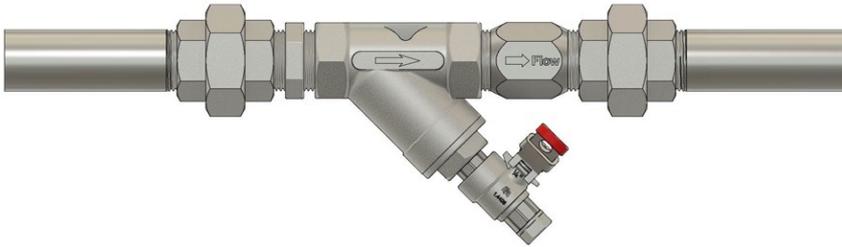
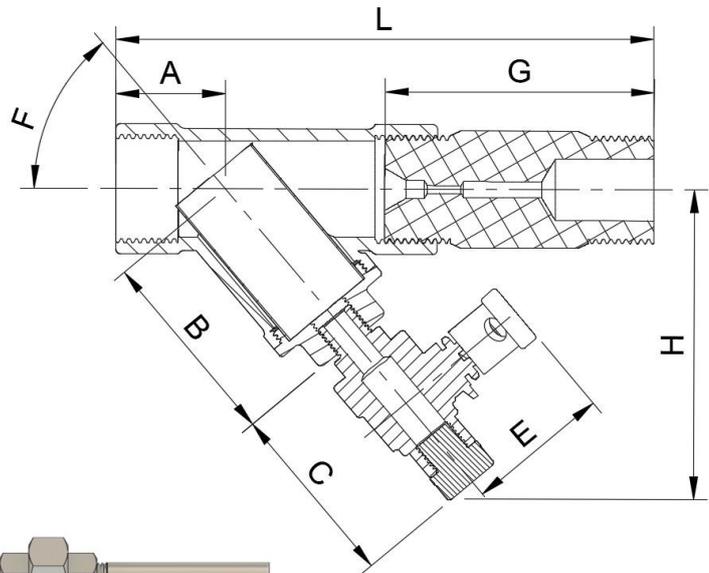
GREEN SAVER THREADED UNIT (ST / NT)

Technical Specifications

The Green Saver Threaded Unit is suitable for low, intermediate and high pressure, low to intermediate condensate flow, for both drainage and process applications.

PHYSICAL DATA

- Material: Trap Body 303ss, Strainer 316ss, Mesh 304ss - 0.25mm.
- Operating Parameters:
 - ◆ PMA 80barg (1160psi)
 - ◆ TMA 425°C (797°F)
- Thread to order BSPT, NPT, ISO7/1 and ISO228/1 and any other specifications as required



As the largest standard threaded Green Saver is 25mm, installation in existing steam systems is simple and fast. The 25mm Green Saver can replace traditional mechanical traps that are 50mm and larger, thus allowing trap assembly to fit into smaller spaces.

Serial	ST/NT 1500	ST/NT 2000	ST/NT 2500
DN	15	20	25
L (mm)*	125	145	155
H (mm)*	81	100	104
G (mm)	72	82	82
A (mm)	22	23	28
B (mm)	53	67	78
F (degrees)	45	45	45
C (mm)*	52	52	59
E (mm)*	42	42	42
Trap Unit Weight	0.16kg	0.34kg	0.52kg
Strainer + bdv weight	0.4kg	0.52kg	0.84kg

* Dimensions may vary due to threaded connection

Suitable Applications:

- ◆ Suitable for BSPT, NPT, ISO7/1 and ISO228/1 threaded connection (other specifications as required).
- ◆ Operates at all pressures up to 80 barg
- ◆ Suitable for line drainage and process applications.
- ◆ Suitable for low and intermediate condensate flow rates up to 5,000kg/h.

GREEN SAVER QUICK RELEASE TRAP (QRT)

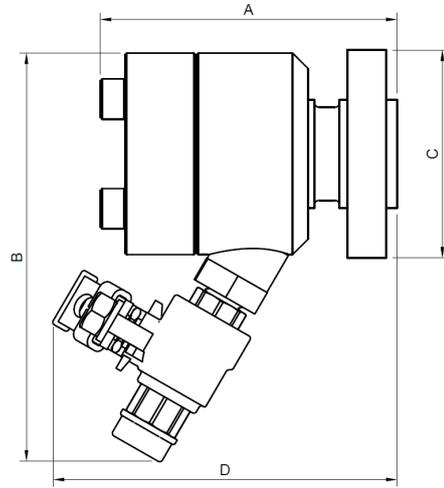
Technical Specifications

The Green Saver QRT Unit with universal connector to fit a variety of pipeline connectors is suitable for lower pressure, low to intermediate condensate flow, for both drainage and process applications.

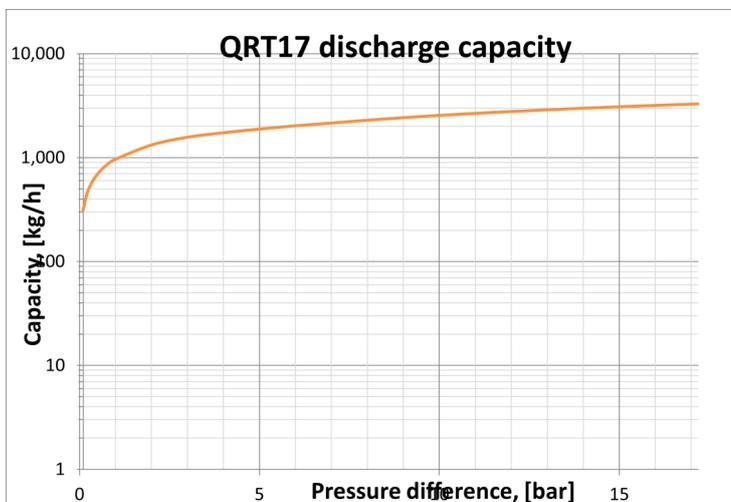
PHYSICAL DATA

- Material: Trap Body / Cap / Flange 303ss / 316Lss Stainless Steel*
- Operating Parameters:
 - ◆ PMA 30 barg (435psi)
 - ◆ TMA 236°C (457°F)
- Suitable for DN15, DN20 and DN25 inline connectors for Quick Fit Assembly

*316L available on request



Model Number	QRT17
Suitable for DN	15 / 20 / 25
A (mm)	95
B (mm)	133
C (mm)	67
D (mm)	110



Available accessories:

Compact Trapping Station, including upstream and downstream valve, strainer and check valve, blow down valve.

Connections	Material	DN
SCW BSP	304 SS	1/2"
SCW BSP	304 SS	3/4"
SCW BSP	304 SS	1"
Flanged EN	304 SS	15
Flanged EN	304 SS	20
Flanged EN	304 SS	25

Spares - Gasket kit containing 3 gaskets

Suitable Applications:

- ◆ Suitable for inline connectors DN15, DN20 and DN25, universal connector to fit variety of pipeline connectors.
- ◆ Operates at lower and intermediate pressures up to 30 barg.
- ◆ Suitable for line drainage and process applications.
- ◆ Suitable for low and intermediate condensate flow rates up to 4,000kg/h.

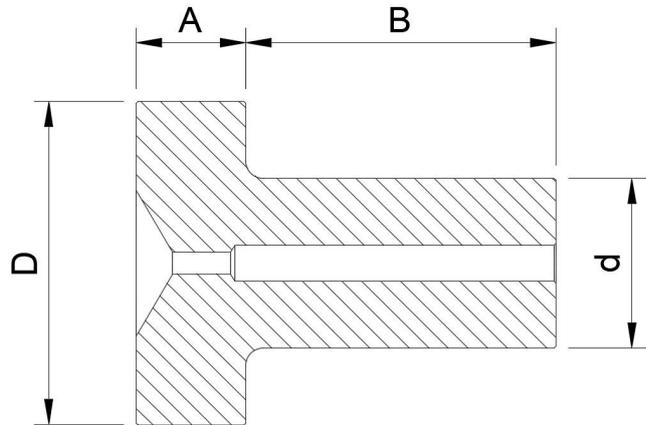
GREEN SAVER SANDWICH UNIT (F)

Technical Specifications

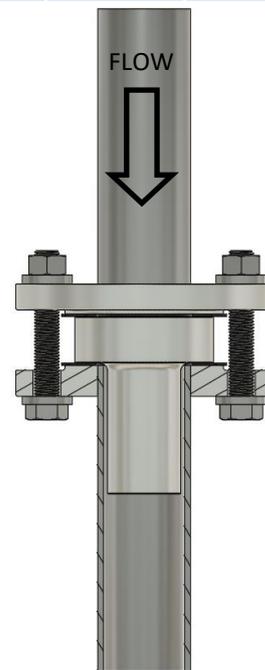
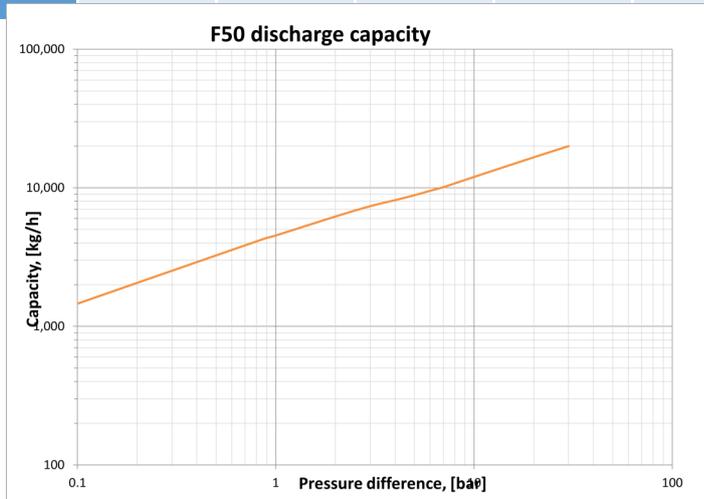
The Green Saver Sandwich Unit is suitable for high pressure, high condensate flow process applications and is designed to be installed between two flanges.

PHYSICAL DATA

- Material: Trap Body 303 Stainless Steel
- Operating Parameters:
 - ◆ PMA 100barg (1500psi)
 - ◆ TMA 425°C (797°F)
 - ◆ PED Category SEP



Serial Number	F1500	F2000	F2500	F4000	F5000	F6500	F8000	F10000	F12500
DN	15	20	25	40	50	65	80	100	125
A (mm)	20	20	20	30	30	30	30	40	40
B (mm)	32	44	62	84	84	85	92	100	100
D (mm)	40	50	60	75	90	105	127	158	188
d (mm)	13	16	21	36	47	56	73	97	127
Unit	0.2kg	0.35kg	0.6kg	1.5kg	2.5kg	3.8kg	4.8kg	8.2kg	11.3kg



Suitable Applications:

- ◆ Suitable for all standard PN / ASME flanged application.
- ◆ Operates at high pressure up to 100 barg.
- ◆ Suitable for process applications, and higher condensate flow rates between 2,500kg/h to 25,000kg/h.
- ◆ Any face to face length can be accommodated with a spool piece.
- ◆ On low capacity applications a Y-Strainer with appropriately sized mesh basket must be fitted upstream of our sandwich units

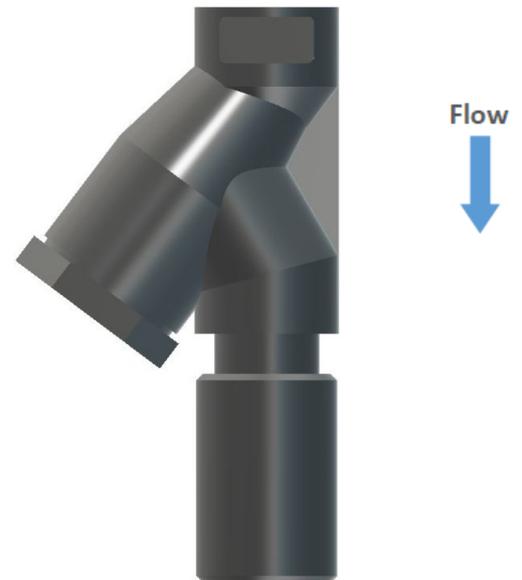
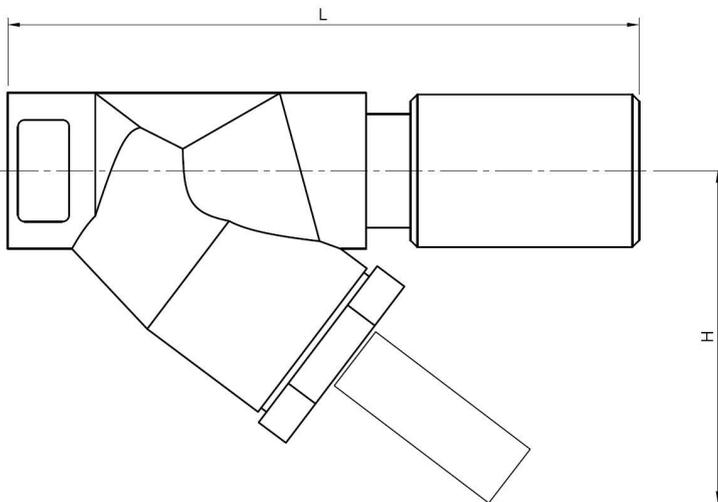
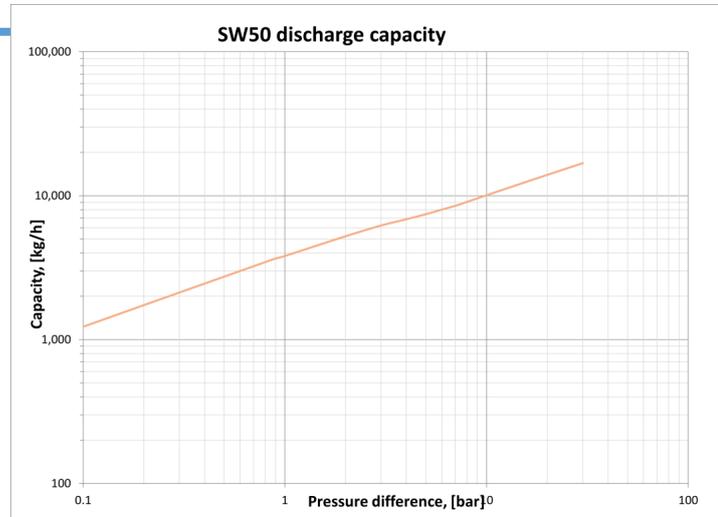
GREEN SAVER HIGH PRESSURE WELD UNIT (SW)

Technical Specifications

The Green Saver High Pressure Weld Unit is suitable for high pressure, low, intermediate and high condensate flow, for both drainage and process applications. Can be installed horizontally or vertically.

PHYSICAL DATA

- Supplied with Y-Strainer Filter
- Material: Trap Body 303 SS, Filter / Mesh 316 SS
- Operating Parameters:
 - ◆ PMA 63 barg / 900 psi or 100 barg / 1500 psi
 - ◆ TMA 425°C (797°F)
- PN 63 or PN 100 / ANSI 900# or ANSI 1500# spec
- PED Category SEP
- Socket Weld or Butt Weld connection can be supplied



Serial Number	NH1500 HP1500	NH2000 HP2000	NH2500 HP2500	NH3200 HP3200	NH4000 HP4000	NH5000 HP5000
DN	15	20	25	32	40	50
L (mm)	182	185	200	235	235	238
H (mm)	102	102	111	161	161	161

Suitable Applications:

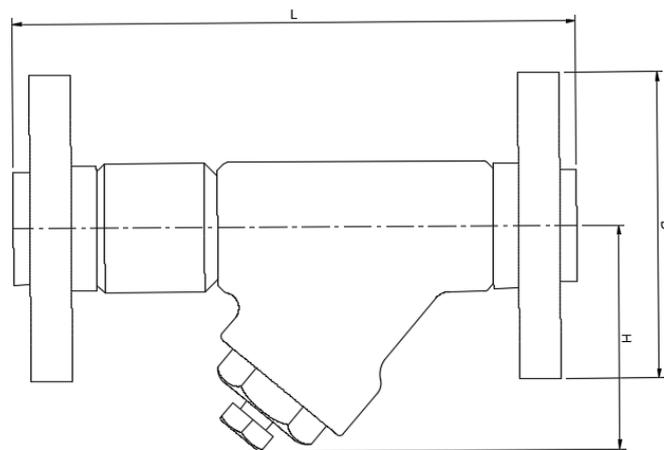
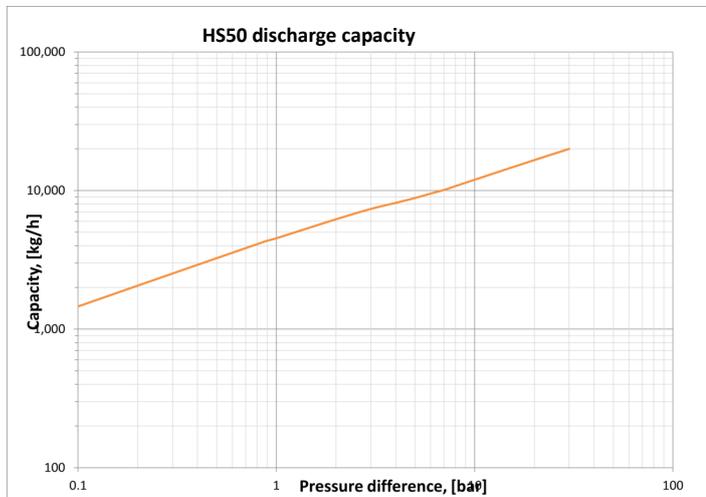
- ◆ Suitable for SW or BW connection (other specifications as required).
- ◆ Suitable for line drainage and process applications.
- ◆ Suitable for low, intermediate and high condensate flow rates up to 25,000kg/h.

- ◆ NH RANGE → PN63 / ANSI 900#
- ◆ HP RANGE → PN100 / ANSI 1500#
- ◆ Dimensions can be subject to change

GREEN SAVER PN63 FLANGED UNIT (HS)

Technical Specifications

The Green Saver High Pressure Flanged Unit is suitable for high pressure, low to high condensate flow, for both drainage and process applications.



PHYSICAL DATA

- Material: Trap Body 303 Stainless Steel, Strainer 316 Stainless Steel, Strainer mesh 316 Stainless steel 0.5mm or 0.25mm mesh*
- Operating Parameters:
 - ◆ PMA 63 barg (900psig)
 - ◆ TMA 425°C (797°F)
 - ◆ PED Category SEP

Serial Number	HS1500	HW2000	HW2500	HW4000	HW5000
DN	15	20	25	40	50
L (mm)	187	211	230	291	320
D (mm)	105	130	140	170	180
H* (mm)	67	82	93	124	144

* Exact filter shape and dimensions may vary depending on specification

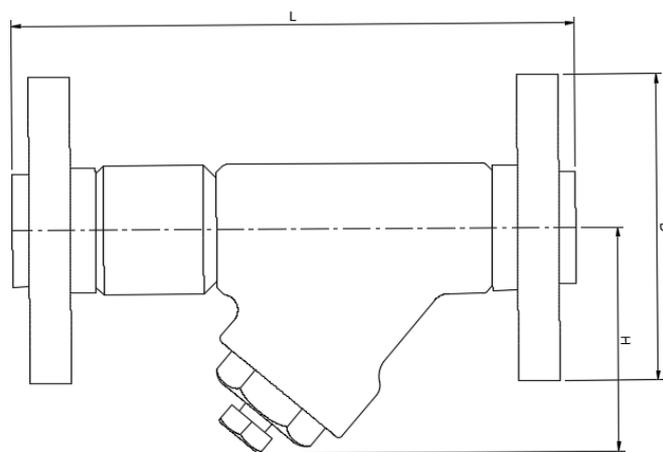
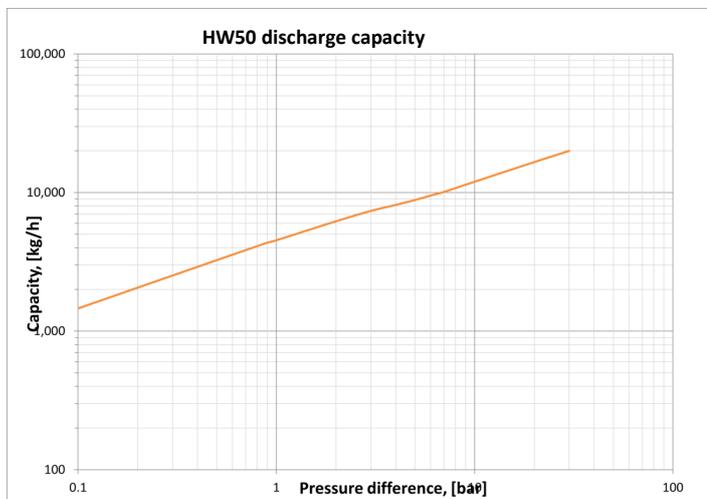
Suitable Applications:

- ◆ Suitable for all standard PN flanged application
- ◆ Operates at high pressure up to 63 barg
- ◆ Suitable for line drainage and process applications
- ◆ Suitable for low, intermediate and high condensate flow rates up to 17,000kg/h

GREEN SAVER PN100 FLANGED UNIT (HW)

Technical Specifications

The Green Saver High Pressure Flanged Unit is suitable for high pressure, low to high condensate flow, for both drainage and process applications.



PHYSICAL DATA

- Material: Trap Body 303 Stainless Steel, Strainer 316 Stainless Steel, Strainer mesh 316 Stainless steel 0.5mm or 0.25mm mesh*
- Operating Parameters:
 - ◆ PMA 100barg (1,450psig)
 - ◆ TMA 425°C (797°F)**
 - ◆ PED Category SEP

Serial Number	HW1500	HW2000	HW2500	HW4000	HW5000
DN	15	20	25	40	50
L (mm)	187	211	230	291	320
D (mm)	105	130	140	170	195
H* (mm)	67	82	93	124	144

* Exact filter shape and dimensions may vary depending on specification

** Can be increased to 538°C (1000°F) by using 316 Stainless Steel for the trap body

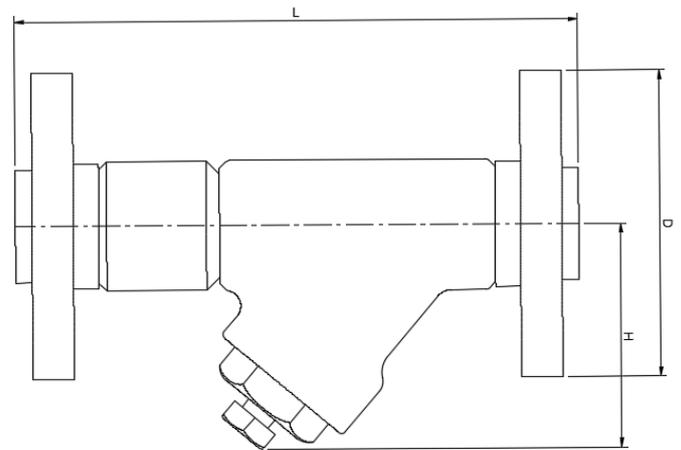
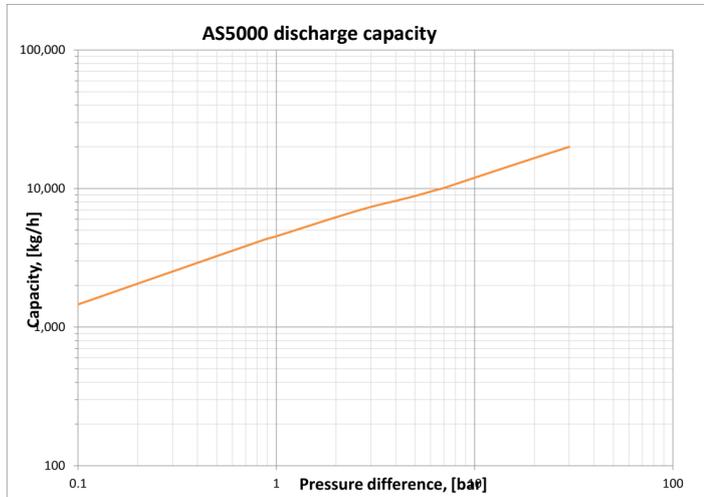
Suitable Applications:

- ◆ Suitable for all standard PN flanged application
- ◆ Operates at high pressure up to 100 barg
- ◆ Suitable for line drainage and process applications
- ◆ Suitable for low, intermediate and high condensate flow rates up to 17,000kg/h

GREEN SAVER ANSI#600 FLANGED UNIT (AS)

Technical Specifications

The Green Saver Intermediate Pressure Flanged Unit is suitable for intermediate pressure, low to high condensate flow, for both drainage and process applications.



PHYSICAL DATA

- Material: Trap Body 303 Stainless Steel, Strainer 316 Stainless Steel, Strainer mesh 316 Stainless steel 0.5mm or 0.25mm mesh*
- Operating Parameters:
 - ◆ PMA 600 psig (40 barg)
 - ◆ TMA 797°F (425°C)
 - ◆ PED Category SEP

Serial Number	AS1500	AS2000	AS2500	AS4000	AS5000
NPS	1/2"	3/4"	1"	1-1/2"	2"
L (mm)	189	215	234	301	336
D (mm)	95	115	125	155	165
H* (mm)	67	82	93	124	144

* Exact filter shape and dimensions may vary depending on specification

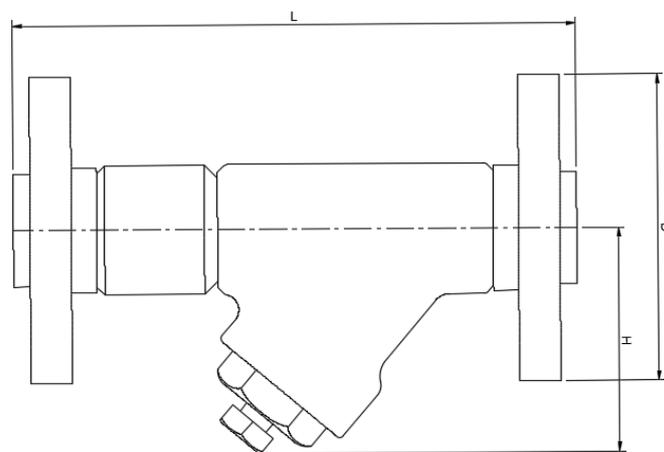
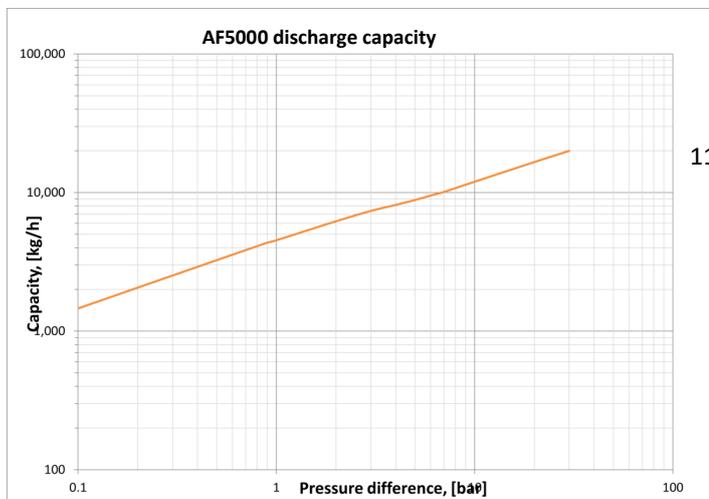
Suitable Applications:

- ◆ Suitable for ASME B16.5 flanged application
- ◆ Operates at pressures up to 600 psig
- ◆ Suitable for line drainage and process applications
- ◆ Suitable for low, intermediate and high condensate flow rates up to 25,000kg/h

GREEN SAVER ANSI#900/1500 FLANGED UNIT (AF)

Technical Specifications

The Green Saver High Pressure Flanged Unit is suitable for high pressure, low to high condensate flow, for both drainage and process applications.



PHYSICAL DATA

- Material: Trap Body 303 Stainless Steel, Strainer 316 Stainless Steel, Strainer mesh 316 Stainless steel 0.5mm or 0.25mm mesh*
- Operating Parameters:
 - ◆ PMA 1500 psig (100 barg)
 - ◆ TMA 797°F (425°C)
 - ◆ PED Category SEP

Serial Number	AF1500	AF2000	AF2500	AF4000	AF5000
NPS	1/2"	3/4"	1"	1-1/2"	2"
L (mm)	209	235	262	325	376
D (mm)	120	130	150	180	215
H* (mm)	67	82	93	124	144

* Exact filter shape and dimensions may vary depending on specification

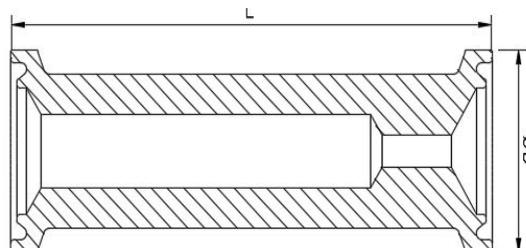
Suitable Applications:

- ◆ Suitable for ASME B16.5 flanged application
- ◆ Operates at pressures up to 1500 psig
- ◆ Suitable for line drainage and process applications
- ◆ Suitable for low, intermediate and high condensate flow rates up to 25,000kg/h

GREEN SAVER CLEAN STEAM UNIT (C)

Technical Specifications

The Green Saver Clean Steam trap is designed for hygienic clean steam applications. They have a crevice free body and no moving parts. They are FDA guideline compliant, made from stainless steel 316L, and degreased before packing in an ISO Class 7 environment and dispatched with protective end caps sealed in protective plastic bags.



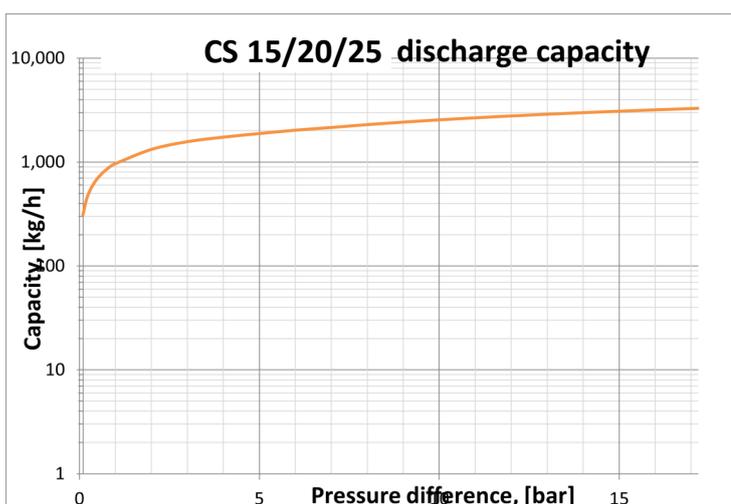
PHYSICAL DATA

- Material: Trap Body 316Lss
- Operating Parameters:
 - ◆ PMA 10 barg (145psi)
 - ◆ TMA 200°C (392°F)
- Clamp and fittings: Tri-Clover
- ASTM A479 316L / EN 10088-3 1.4404
- Smooth internal surfaces to 0.6µm Ra (25 micro-inch Ra, ASME BRE SF2)

Serial Number	CS1500	CS2000	CS2500
DN	15	20	25
D	25mm	25mm	39.5mm
L	65mm	65mm	65mm

Certification

- EN 10204 3.1 Full Validation Pack – Chargeable
- EN 10204 3.1 Material Certification Pressure Retaining Parts - Chargeable
- Specific Internal Surface Finish—Chargeable
- Typical Internal Surface Finish—F.O.C
- Certificate of Compliance to FDA guidelines, USP Class VI Testing Statement, and ADI Free Statement—F.O.C
- TSE-BSE Statement—F.O.C
- EC1935:2004 Declaration of Compliance—F.O.C
- Declaration of Conformity BS EN ISO 14644-1:2015 Class 7 Clean Room—F.O.C
- Passivation Certificate—F.O.C



Suitable Applications:

- ◆ Suitable for tri-clover connection (other specifications as required).
- ◆ Applications include block and bleed installations, main drainage and CIP/SIP of vessels and reactors and process lines. Manufactured in 316L, the crevice free body design of the Green Saver ensures full drainability.
- ◆ Operates at all pressures up to 10 barg
- ◆ Suitable for line drainage and process applications.
- ◆ Suitable for low and intermediate condensate flow rates up to 5,000kg/h.