



Automatic Strainers

98 Series

ASME "U" or "UM" Fabricated Automatic Strainers

- Carbon or Stainless Steel
- Suitable for flow rates up to 36,000 GPM
- Pipe sizes from 1" to 42"

Automatic, motorized self cleaning strainers offer continuous removal of debris from fluid processes that require full-time uninterrupted flow



SUITABLE USES



Air & Gas



Desalination



Coolant



Water



Electronics



Coatings



Oil & Gas



Chemical



Pulp & Paper



Power



Marine



Equipment

RATINGS

- ASME Class 150
 - ASME Class 300
- *Higher ratings available, please contact Fil-Trek.

CERTIFICATIONS

U, UM, CE, NB, CRN, CE

DESIGN PRESSURE

Up to 740 PSI @ 400° F (204° C)

AVAILABLE MATERIALS

Carbon or Stainless Steel 304 or 316, C276, AL6XN, 2205, 2507 & Monel 400 and Titanium and more.

ADDITIONAL FEATURES

- Offset inlet/outlet orientation.
- Easily adjustable in-field to suit any unexpected changes in service conditions or applications.
- Uninterrupted cleaning cycle (no backwash cycle) with low system pressure losses.
- Customizable control and automation packages as well as skid packaging options.
- Available in both standard and custom engineered designs.

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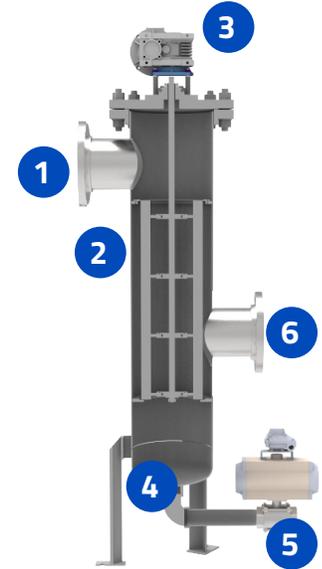
STANDARD SPECIFICATIONS

All models include the following:

	AUTOMATIC	MANUAL
Inlet/Outlet	1" - 42" Flange <i>Contact Fil-Trek for alternative sizing</i>	
Vent (1)	1/2" NPT Includes ball valve <i>Custom port sizes available</i>	
Gauges (2)	1/2" NPT Includes DP gauge assembly	
Dirty Drain (1)	Automatic ball valve	Manual ball valve
	<i>Port size varies based on vessel size</i>	

HOW IT WORKS

- 1 Unfiltered fluid enters the strainer through the inlet and flows into the centre of wedge wire strainer basket.
- 2 Particulate and debris will collect against the screen as clean fluid passes through.
- 3 As more unwanted particulate builds up against the screen, the differential pressure will increase and the cleaning cycle will initiate automatically at desired set point.
- 4 The internal scraper will rotate against the screen removing all unwanted buildup and collects at the bottom sump.
- 5 After the scraping cycle, the fast acting blowdown valve is automatically opened to flush out the sump.
- 6 Clean fluid continues to cycle through the vessel and out through the outlet moving towards the next stage of processing.



STRAINER SIZING & FLOW RATE

FLANGE SIZE	FLOW RATE (GPM)
1"	<100
2"	<150
3"	<250
4"	300-450
6"	600-1,000
8"	1,000-2,000
10"	2,000-2,500
12"	2,500-4,000
14"	3,000-5,000
16"	4,000-6,000
18"	5,000-7,500
20"	6,000-9,000
24"	8,000-12,500
30"	12,500-18,500
42"	26,500-36,000



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For more information, e-mail: info@fil-trek.com or visit Fil-Trek.com

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STRAINER SPECIFICATIONS AND OPTIONS

STRAINER BODY AND INTERNALS

Configuration	98 - Offset w/ ANSI thru bolt closure <i>Alternative configurations available, contact Fil-Trek</i>	Wetted Internal Construction	<i>Mechanical shaft seal</i> SS316 <i>Or matching body MOC</i>
Inlet/Outlet	1" TO 42" Flange <i>Larger sizes available, contact Fil-Trek</i>	Internals	SS316 <i>Optional Titanium or matching body MOC</i>
MOC	(Blank) - Carbon steel S4 - SS304 S6 - SS316 <i>Also available in Hastelloy C276, AL6XN, 2205, 2507 & Monel 400 and Titanium</i>	Blowdown Valve	Pneumatic actuated or electrical actuated
Screen	Wedge wire, SS316 <i>Also available in Monel 400, Hastelloy C276, 2205, 2507 and 254 SMO.</i>	Gasket Options	Spiral Wound Flexitallic, Garlon, Vegetable Fibre <i>Other materials available, contact factory</i>
Screen Size	500 micron <i>Micron sizes available in increments of 20 from 100 to 1,000 micron</i>	Finish Options	(-) External paint "Fil-Trek Blue" (std for CS) (-) Bead Blast (std for SS304 and SS316) <i>Custom finishes available, contact Fil-Trek</i>
Scraper Mechanism	Blades, Brushes <i>Material to match application</i> <i>Both easily replaceable in field</i>	Certifications	U, UM, CE, NB, CRN, CE

CONTROL PANEL & MOTOR OPTIONS

L1 | SEMI-AUTOMATIC, NON-CONFIGURABLE

- Input**
- Dual voltage 120V/240V, single phase
- Control Panel**
- NEMA 4X panel
 - TENV motor, aluminium gearbox
- Blowdown Valve**
- Electric
- Automation/Operation**
- Field adjustable;
 - DP setpoint for clean cycle start
 - Clean cycle duration
 - Blowdown valve duration
 - Manual override options

L2 | AUTOMATIC, CONFIGURABLE

- Input**
- Dual voltage 120V/240V, single phase
380V, 480V and 575V optional
- Control Panel**
- SS304 NEMA 4X panel
 - TENV motor, aluminium gearbox
Stainless washdown optional
- Blowdown Valve**
- Pneumatic
Electric optional
- Automation/Operation**
- PLC controlled, field adjustable
 - Scraper cycle and duration
 - Blowdown cycle duration
 - Variable scraping speed to match process conditions
 - Manual override

L3 | AUTOMATIC, CUSTOMIZED

- Includes all of L2 options plus any additional customization to meet your specifications such as;
- SCADA compatible installation
 - ATEX explosion proof
 - Continuous duty cleaning

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PRESSURE & TEMPERATURE DESIGNATION*

DESIGNATION	MOC	PSI	TEMP (°F)	ANSI RATING	DESIGNATION	MOC	PSI	TEMP (°F)	ANSI RATING
PT1	CS	280	100	ANSI 150	PT4	CS	630	400	ANSI 300
	SS304/SS316	270				SS304/SS316	490		
PT2	CS	195	400	ANSI 150	PT5	CS	1475	100	ANSI 600
	SS304/SS316	185				SS304/SS316	1435		
PT3	CS	735	100	ANSI 300	PT6	CS	1260	400	ANSI 600
	SS304/SS316	715				SS304/SS316	990		

*Based on ANSI flange ratings, max temperature may be limited to gasket material.

WEDGE WIRE SCREEN OPENINGS



FACTORS TO CONSIDER

1 Purpose

If the strainer is being used for protection rather than direct filtration, standard screens will suffice in most applications.

2 Service

Careful attention should be given to ensure overstraining does not occur. As a general rule, the specified level of filtration should be no smaller than half the size of the particle to be removed. If too fine a filtration is specified, the pressure drop through the strainer will increase very rapidly, possibly causing damage to the screen.

AVAILABLE SIZES

Available in micron ratings between 100 and 1,000 in increments of 20 microns. 500 Micron is the default micron size.

PRODUCT NOMENCLATURE

*For sizing for your application, please contact factory

S6	98	12 F	500	S6	PT1	L1
BODY MOC	MODEL	INLET/OUTLET SIZE & STYLE	SCREEN SIZE	SCREEN MOC	DESIGN PRESSURE	CONTROL PANEL
(-) CS S4 - SS304 S6 - SS316 M4 - Monel 400 H2 - Hastelloy C276 2205 - UNS S32205 2207 - UNS S32750 254 - 254 SMO	98 Automatic Scraper Strainers	See table F - Flange for sizing	Micron sizes available in increments of 20 from 100 to 500	S6 - SS316 M4 - Monel 400 H2 - Hastelloy C276 2205 - UNS S32205 2207 - UNS S32750 254 - 254 SMO	See Pressure & Designation table	L1 - Semi-automatic L2 - Automatic L3 - Custom automatic

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STRAINER APPLICATION WORKSHEET

The information below is the standard 98 Series operating parameters and guidelines. Modified or custom designs are available on customer request. Please consult the factory for any help with sizing requirements outside of the normal operating parameters and guidelines noted below.

Sizing Requirements

Name of Fluid* _____

Max. Operating Flow Rate* _____ @ _____ Pressure (PSIG)

Specific Gravity (Water = 1)* _____ Viscosity (CPS/SSU) _____

Min. Operating Pressure (PSIG)* _____ Max. Operating Pressure (PSIG) _____

Min. Operating Temperature (F) _____ Max. Operating Temperature (F)* _____

Max. Allowable Clean Pressure Drop** _____ Type of Particulate Hard Soft Fibrous Sticky

Amount of Particulate Present (Parts per 100 scf) _____ Size of Particulate _____

**Standard = 2 PSID Flange to Flange

Strainer Construction

ASME Code Required?* _____ Corrosion Allowance (in) _____

Inlet/Outlet Type Flanged Threaded Other (Please specify) _____

Inlet/Outlet Size (in) _____ Screen Size (Slot Size in Microns) _____

Vessel MOC CS SS304 SS316 Other (Please specify) _____

Internals MOC SS316 Titanium Other (Please specify) _____

Controls

All control panel options include the following: Dual voltage 120V/240V, S/S NEMA 4X panel, TENV motor, aluminum gearbox, manual override options. Field adjustable; DP setpoint for clean cycle start, clean cycle duration, blowdown valve duration.

L1 | SEMI-AUTOMATIC, NON-CONFIGURABLE

L2 | AUTOMATIC, CONFIGURABLE Voltage 120V/240V 380V 480V 575V

Control Panel Aluminum S/S 316

Blowdown Valve Pneumatic Electric

L3 | AUTOMATIC, CUSTOMIZED Options: _____

Other Requirements



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