

TECHNICAL INFORMATION

Model 2596 Automatic Self-cleaning Strainers

Revolutionary Arm

Model 2596 Strainer: How it Works

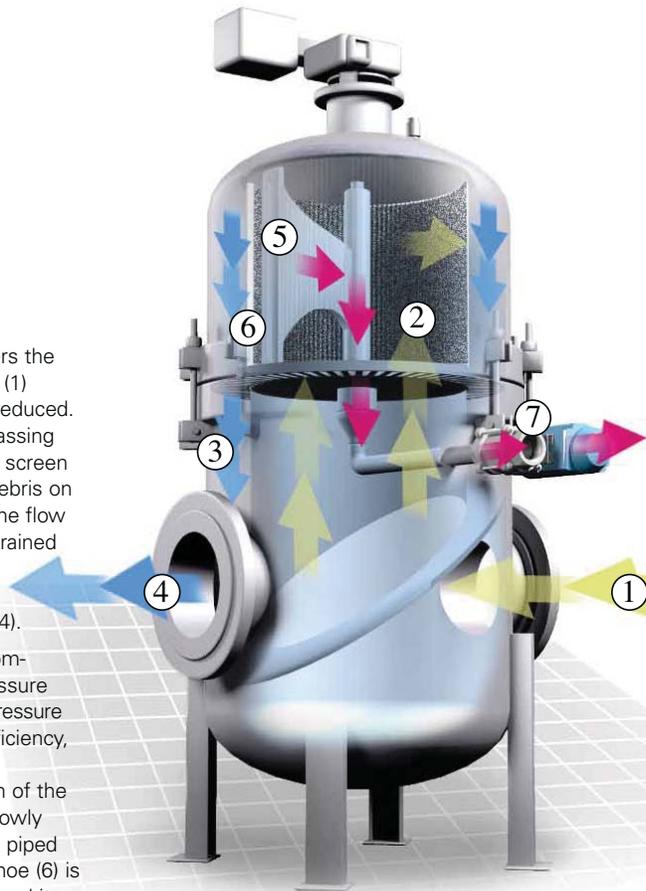
The debris-laden fluid enters the strainer's bottom chamber (1) where the line velocity is reduced. Flow continues upward, passing radially through the sealed screen element, (2) which traps debris on the inside of the screen. The flow is uninterrupted and the strained fluid flows to the outer annulus (3) and exits through the outlet nozzle (4).

Backwash cleaning is accomplished by utilizing the pressure differential between line pressure and atmosphere. A high-efficiency, full flow backwash arm (5) extending the entire length of the screen element, rotates slowly inside of the screen and is piped to atmosphere. The port shoe (6) is in proximity to the screen and its opening is equivalent to the "debris collector" sections created by the convolutions and/or vertical collector bars in the element.

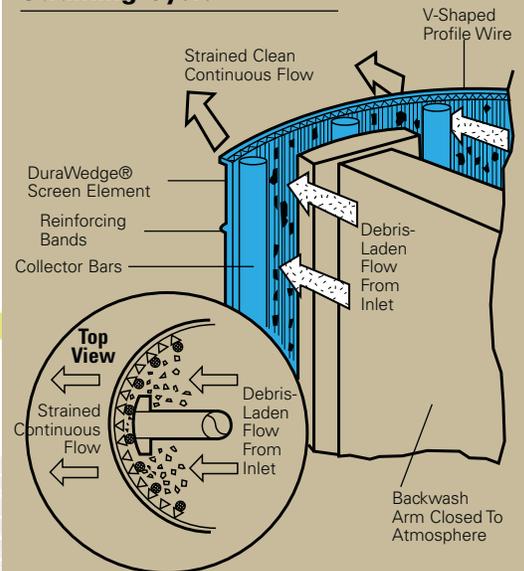
When cleaning is required the automatic backwash valve opens the system to atmosphere, causing a high velocity reverse flow across the isolated section of the screen. Dirt and debris are dislodged from this segment of the screen into the backwash arm and out the strainer through the backwash piping (7). During the backwashing cycle the main flow is uninterrupted and continues to be strained in the normal manner.



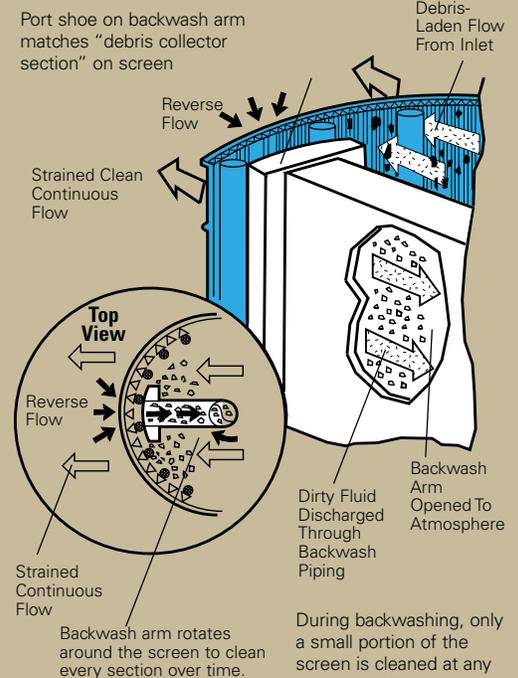
Designed to monitor and operate the backwash cleaning system, Eaton automatic control systems are simple to operate, reliable, and easily maintained. They are set to clean on differential pressure with a timed backup. The design allows field adjustments to suit the demands of the service conditions, ensuring effective cleaning with a minimum use of backwash fluid. Systems are available in automatic intermittent or continuous backwashing modes.



Straining Cycle



Backwashing Cycle



During backwashing, only a small portion of the screen is cleaned at any given time. The majority of the screen continues to screen as normal.

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Sizes 2" Thru 8" Cast Construction Model 2596 Automatic Self-cleaning Pipeline Strainers

Strainers are available for six different pipeline sizes. The 4"L size is designed for applications where the combination of flow rate and open area requirements may be too great for a standard 4" size. Flow rates up to 1,800 GPM.



Fabricated Model 2596 Automatic Self-cleaning Strainers are available in eight different sizes from 10" to 36", 48" and 60". Custom designs and exotic materials are also available on request, consult Eaton.

Model 2596 Automatic Self-cleaning Strainers in 10" to 16" cast models provide flow rates up to 6500 GPM.



Model 2596 Flow Rate Comparison Chart

I/O Size & Construction	GPM flow rate*
2" cast	50 - 120
3" cast	100 - 260
4"/4L" cast	170 - 450
6" cast	370 - 1000
8" cast	500 - 1800
10" cast	900 - 2800
12" cast	1200 - 4000
14" cast	1600 - 5000
16" cast	2000 - 6500
10" fabricated	900 - 2800
12" fabricated	1200 - 4000
16" fabricated	2000 - 6500
18" fabricated	2500 - 8500
20" fabricated	2900 - 10,200
24" fabricated	3200 - 15,000
30" fabricated	5000 - 24,000
36" fabricated	7800 - 35,000

* Pressure drop data is approximate and indicates results to be expected with clean water, under normal flows with standard straining media and in clean strainer. For DuraWedge and sinter bonded elements, consult Eaton

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