



Strainers



General

In piping systems build up particles cause unwanted wear and tear to the system and damage expensive and sensitive components. The result is a shorter lifetime of installed components, increasing maintenance and down time. The installation of strainers is a simple and effective solution.

LWS Solution strainers are fabricated and feature flexible design. This makes customized sizing and installation of strainers into existing pipe systems as one of the advantages of the LWS Solution strainers. For every process we will create an unique solution and guarantee optimal in line protection.



Advantages

- easily adapted to your demands
- minimum pressure loss
- selection of materials
- selection of internal and external coating
- selection of pressure classes
- selection of closures
- dimensions may be adjusted
- multiple connections available

Applications

LWS strainers are installed in all processes, where protection of sensitive systems and parts is required, like the protection of:

- pumps
- flow meters
- heat exchangers
- burners
- spray nozzles
- bearings

Strainers can also be used as:

- pre filter for other filtration techniques
- pre filter for membrane installations
- general safety filter

Working Principle

LWS Strainers are typically installed on the pressure side. A strainer removes all particles of a certain size out of liquids and gasses. Once the basket creates a certain pressure loss the basket is cleaned and the strainer is fully operational again.

Features

Design Horizontal single basket strainer (1/2" - 24")
 Duplex strainers (1" - 24")
 T-type strainers (6" - 24")
 Y-strainers (4" - 12")

Standard units are available in:
 Carbon steel or Stainless 316L

Other materials:

- A105N / A350LF2 / A182-F5, F11, F22, F91 / C21
- A106Gr.B / A333Gr.6 / A335Gr.P5, P11, P22, P91



Options

Standard Screens

Closing options

LWS Strainers offers two standard closing: bolted and the swing bolted. The choice of closing is depending on the expected frequency of emptying the basket.

Cover options

LWS strainers offer two closing options.

The Blind Flange version is economic and can be used when emptying of the basket is not frequent. This version is standard provided with two grips for manually lifting of the cover.

The Dome shaped strainer with swing bolts is easier to open and to clean.

Cover Removal options for heavier types

On larger strainers when it is to dangerous to lift the cover manually there are two options: the Hinged Cover and the Davit construction.

Nozzle placement options

For existing systems it can be difficult to use a strainer from the standard range. On request inlet and outlet nozzles can be fabricated offset and/or a rotation may be installed.

Support Option

When a support is essential the customer can consult our engineering for suitable height and anchor plan.

Backflush Option

Standard strainers can be supplied with a Backflush system for periodical emptying of the basket, without interrupting the process.

This option is especially useful when heavy particles easily accumulate on the bottom.

When a Backflush system is applied, the basket is connected with a purge pipe. After opening the valve on the purge side, the pressure differential between the operating system and the Backflush system forces the collected particles into the purge piping.



Strainer Types

Simplex Basket Strainers

LWS Solutions Simplex strainers are available in a standard range of 150 and 300Lbs. For higher pressure, please contact LWS Solutions.

Duplex Strainers

When a process cannot be interrupted for emptying a strainer basket, the use of a Duplex strainer provides a solution. A Duplex strainer is built out of two standard basket strainers within a bypass system with butterfly valves.

When one basket is full the flow can be diverted to the empty strainer. In the mean time the other strainer can be cleaned. The LWS Duplex range have a standard configuration. On request of the customer our engineers can design a configuration on customer demands.

Tee strainers

Tee strainer are typically applied for protection of pumps and applications with a low solid load and demand for a low pressure drop. LWS Solutions fabricates Tee strainers on customer demand; taking consideration of all required process conditions.

Y Strainers

LWS Solutions designs fabricated Y strainers for demanding and high quality applications.

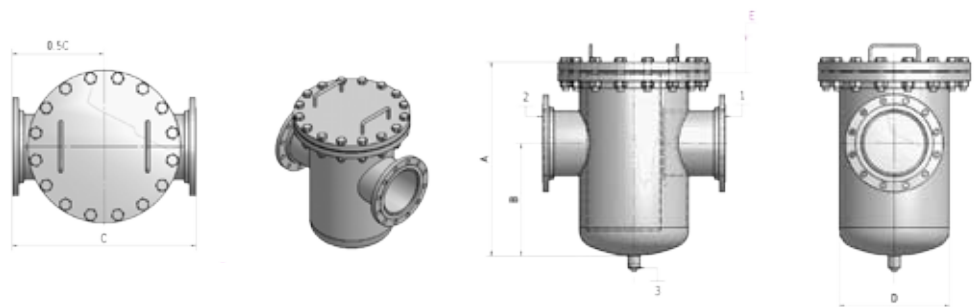


Simplex Basket Strainers

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1	2	3	A	B	C	D	E	TYPE	PERFORATION	NOMINAL AREA OF PIPE	GROSS SCREEN AREA	FREE AREA	RATIO FREE AREA
2	60	15	375	225	324	168	320	2	3	2856	68722	27489	9,6
3	89	15	410	246	356	168	355	3	3	6207	76740	30696	4,9
4	114	25	466	281	406	219	395	4	3	10261	130900	52360	5,1
5	141	25	456	278	457	273	370	5	3	15681	156534	62614	4,0
6	168	25	583	347	508	324	465	6	3	22246	247564	99026	4,5
8	219	40	708	425	610	406	565	8	3	37703	398317	159327	4,2
10	273	40	827	500	762	457	670	10	3	58535	510509	204204	3,5
12	324	40	937	568	889	508	765	12	3	82346	650135	260054	3,2
14	356	50	950	577	1067	610	760	14	3	99315	839503	335801	3,4
16	406	50	1187	723	1067	610	985	16	3	129717	1094758	437903	3,4
18	457	50	1365	837	1181	660	1155	18	3	164173	1361902	544761	3,3
20	508	50	1476	896	1321	762	1215	20	3	202683	1694606	677842	3,3
24	610	50	1746	1062	1626	914	1435	24	3	291864	2284418	913767	3,1

Above mentioned data are indications only.



Micro Drum Filters and Separators

Beside Strainers we also develop and produce standard and custom made Micro Drum Filters and Separators. If you are interested in our products please contact us by phone or by email.



LWS Solutions BV



LWS Solutions BV

postal address: P.O. Box 193
7480 AD Haaksbergen
address: Metaalstraat 16
7483 PD Haaksbergen
The Netherlands

phone: +31 (0)53 574 21 21
fax: +31 (0)53 574 07 47
internet: www.lws-solutions.com
e-mail: info@lws-solutions.com