



## ***STRAINERS***

### A. Strainer Definition and Purpose

Strainers are used normally for the protection of pipeline and petroleum process equipment installed downstream of the strainer. The equipment protected by our strainers is generally more expensive than the total installation cost of a strainer. Also this equipment is critical to the pipeline or process operation.

Strainers use perforated and/or wire mesh media for straining purposes. These materials are "two dimensional", meaning they do not have a "Depth" or "Dirt Holding" capacity. This means that when a debris particle is caught in the straining media the opening is blocked or plugged. This results in reduced available opening for flow. Strainer sizing and selection are critical to insure your cleaning cycle time, particle size retention and pressure drop requirements are achieved.

### B. Straining Media Selection for Basket

The following is a general guideline of media normally used in various applications:

Liquid Turbine Meters	1/8" dia. perforated support with 40 x 40 mesh liner
Gas Turbine Meters and Regulators	1/8" dia. perforated support with 80 x 80 mesh liner
P.D. Meters	1/8" dia. perforated
Centrifugal Pumps	
Service: Crude Oil	1/4" dia. perforated
Refined Products	1/8" dia. perforated
Coke Fines	3/4" flattened expanded metal
Water	1/8" dia. to 3/8" dia. perforated
Natural Gas Compressors	Varies by manufacturer recommendations, 1/8" dia. perforated to 50 microns

### C. Strainer Design and Selection

WeamcoMetric Fabricated Strainers are manufactured in several styles or types to meet various applications. Strainer type selection should be based upon your requirements. A general guideline as follows:

<u>Application Description or Requirement</u>	<u>Style</u>	<u>WeamcoMetric Type</u>
1. Pumps, Flow Meters, Compressors & Control Valve Protection, Low Pressure Drop, High Capacity, ease of maintenance, several optional features.	Vertical Basket	FV or FT Strainers
2. Pump Suction & Gas Regulator Protection, relative clean product, very adaptable to various piping arrangements.	Tee Strainers	TSF or TSW TLF or TLW TVF or TVW



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<u>Application Description or Requirement</u>	<u>Style</u>	<u>WeamcoMetric Type</u>
3. Pump Suction, HVAC, various types of Water Service, Boiler Feedwater, and industrial piping systems, relative clean product, blowdown required for basket cleaning.	Y-Strainers	FYW or FYF
4. Temporary Service for Start-up of Piping Systems and Permanent Compressor Packages, permanent service in clean natural gas applications.	Temporary Cone and Basket Strainers	CP, CWI, CWO BP, BWI, BWO
5. Low Flow & Small Pipe Size, Temporary Service only.	Flat Strainers	FP or F-PF



## Strainer Inquiry Form

Please complete the following information below and Fax to WEAMCO at (918) 445-4617.

We will be happy to recommend a Strainer for your application.

You can also visit our website at [www.weamco.com](http://www.weamco.com).

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/Town \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_

e-mail address \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_

Fax (\_\_\_\_) \_\_\_\_\_

1. Flow Rate \_\_\_\_\_
2. Product Service & Equipment Strainer is Protecting \_\_\_\_\_
3. Design Pressure \_\_\_\_\_
4. Design Temperature \_\_\_\_\_
5. Line Size \_\_\_\_\_
6. Flange Rating \_\_\_\_\_
7. Strainer Housing Material \_\_\_\_\_
8. Strainer Media Material for Basket \_\_\_\_\_
9. Size of Particles to Remove from Stream \_\_\_\_\_
10. Maximum Pressure Drop Allowed \_\_\_\_\_
11. WEAMCO Type Strainer \_\_\_\_\_
12. Manufacturing Design Code \_\_\_\_\_
13. Paint Requirements \_\_\_\_\_
14. Temporary Strainer % Open Area \_\_\_\_\_
15. Any other information or Optional Accessories \_\_\_\_\_

All WEAMCO strainers are fabricated "on-order", and we can custom design a unit to match your dimensional and service requirement. – JUST ASK!!

(918) 445-1141  
(800) 331-3790  
Fax: (918) 445-4617  
[www.weamco.com](http://www.weamco.com)

# Materials Data

## Perforated and Wire Cloth

### PERFORATED PATTERNS NORMALLY STOCKED

PATTERN		% OPEN AREA	# HOLES PSI	MATERIAL/GAUGE		
DIA	CENTERS			C.S.	304SS	316SS
1/16	1/8	23	74	16	22	-
1/8	3/16	40	33	14,11	14	14*
3/16	1/4	51	18	14	16	-
1/4	3/8	40	8	11	14,11	14,11
3/8	9/16	40	3,7	11	11	-
1/2	11/16	48	2,4	11	11	-

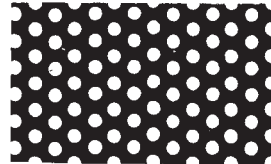
\* Also in Monel



1/8" DIA. on 3/16" CTR



1/4" DIA. on 3/8" CTR



1/16" DIA. on 1/8" CTR



3/8" DIA. on 9/16" CTR

### EXPANDED METAL NORMALLY STOCKED

For Straining or Fine Mesh Wire Cloth Support

SIZE	GAUGE	% OPEN AREA	MATERIAL
1/2	16 Flattened	62	C.S.; 304SS
3/4	13 Flattened	72	C.S.; 304SS

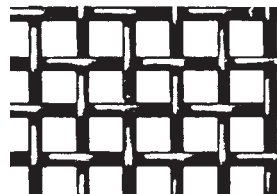


1/2" EXPANDED

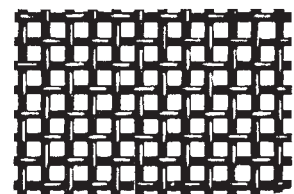
### WIRE CLOTH NORMALLY STOCKED

Coarse mesh for straining or support

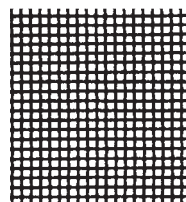
MESH*	WIRE DIA.	OPENING	% OPEN AREA
3 x 3	.080	.2533	57.6
4 x 4	.063	.1870	56.0
8 x 8	.035	.0900	51.8
8 x 8	.047	.0780	38.9
10 x 10	.035	.0650	42.3



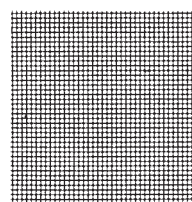
4 x 4 Mesh



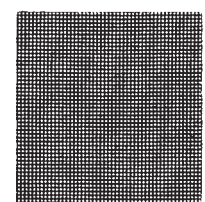
8 x 8 Mesh



20 x 20 Mesh



40 x 40 Mesh



60 x 60 Mesh

Fine mesh requiring support

MESH*	WIRE DIA.	OPENING	% OPEN AREA
20 x 20	.016	.0340	46.2
30 x 30	.013	.0203	37.1
40 x 40	.010	.0150	36.0
60 x 60	.0075	.0092	30.5
80 x 80	.0055	.0070	31.4
100 x 100	.0045	.0055	30.3

\* Number of wires per linear inch. All meshes shown are available, 304 S.S. and 316 S.S. Many other meshes and materials are available. All dimensions in inches. C.S.= Carbon Steel.

**IF YOU DON'T SEE WHAT YOU ARE  
LOOKING FOR, PLEASE CONTACT US**



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Bulletin AC303