# Sump Strainers

## 48 Series Male Thread

**1-2. Steel Hex Pipe Nipple:**
In a full range of NPT sizes, 3/8" thru 3". Welded on.

**3. Steel Support Tube:**
Provides rigidity, permits easy cleaning and better flow.

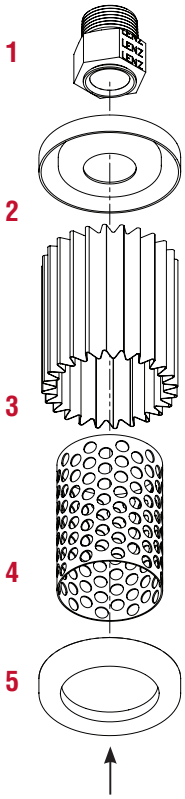
**4. Pleated, Reusable Stainless Wire Cloth:**
Keeps its shape and allows better flow. For use with hydraulic fluids, oils, coolants, cutting oils and lubricants. Excellent for mobile equipment. Easily cleaned. Choice of 30, 60, 100 or 200 mesh. See Ordering Code.

**5. Plated Steel Cap End:**
Epoxy-bonded for one-piece construction.

**Trouble-Free Positive Protection:**
No organic elements to deteriorate. These smooth, one-piece, epoxy-bonded units are carefully and compactly constructed with quality materials throughout. They assure trouble-free, positive protection for the entire system. Excellent for mobile equipment.

**Easily Installed and Cleaned:**
Easily removed and cleaned with gasoline and similar solvents.

**Operating Temperature**
15°F (-9°C) to 212°F (100°C)




**OPTIONAL**
**Built-in relief valve to prevent pump starvation**
**Add R3 or R5**

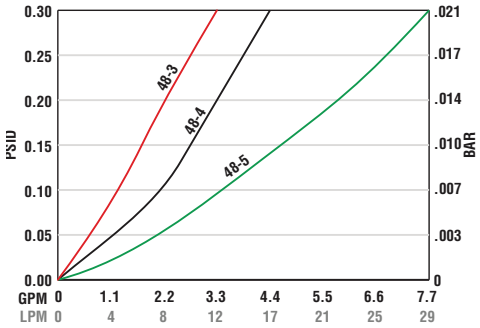
**48-XX-XXX-MAG**

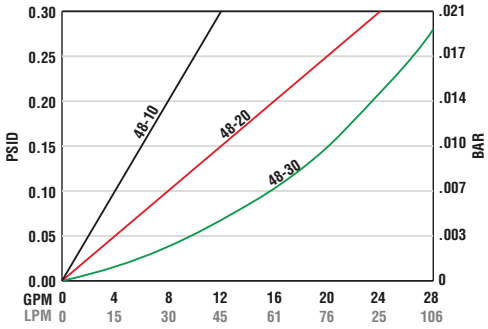
**OPTIONAL:**

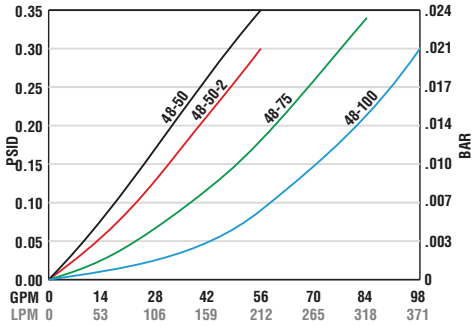
**Bypass Valves**
3 PSI/ 6" HG 5 PSI/ 10" HG ± 10%

**Magnetic Bands**
Optional magnets are available

**48 Series Performance Graphs**




**Temperature 100° F Viscosity 150 SUS**
**Average pressure drop through clean strainer**

See Technical Bulletin TB.FIL17.708, TB.FIL19.708, or further information at (Technical Data – www.lenzinc.com)


Phone: 937/277-9364 FAX: 937/277-6516 www.lenzinc.com

# Strainer Ordering Code

**48 — 20 — R3 — 100 — MAG**

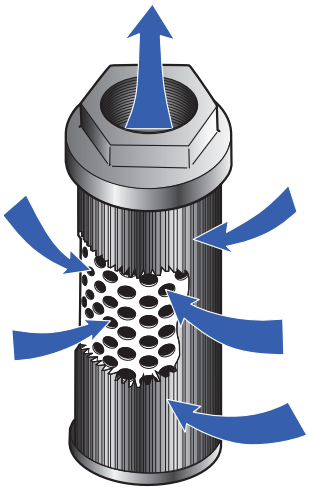
| Series |
|---|
| 48 |

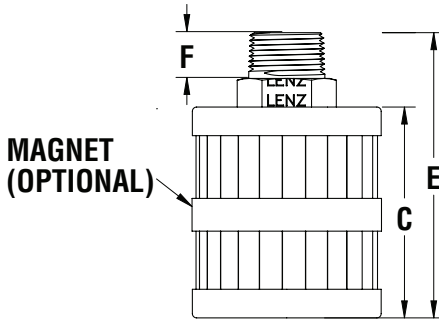
| Flow | Size |
|---|---|
| 3 | 3/8" NPT |
| 4 | 1/2" NPT |
| 5 | 3/4" NPT |
| 10 | 1" NPT |
| 20 | 1 1/4" NPT |
| 30 | 1 1/2" NPT |
| 50 | 1 1/2" NPT |
| 50-2 | 2" NPT |
| 75 | 2 1/2" NPT |
| 100 | 3" NPT |

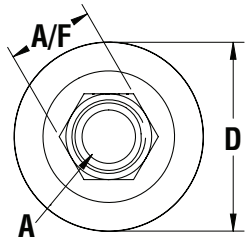
| Bypass | |
|---|---|
| Omit | NO Bypass |
| R3 | 3 PSI Bypass |
| R5 | 5 PSI Bypass |

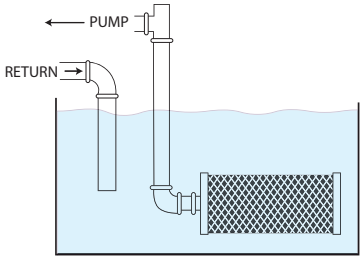
| Mesh | |
|---|---|
| 100 | 100 Mesh (STANDARD) |
| 30 | 30 Mesh |
| 60 | 60 Mesh |
| 200 | 200 Mesh |

| OPTIONS | |
|---|---|
| Omit | |
| MAG | MAGNETS |

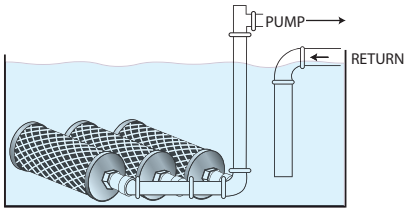





Typical Single Unit Installation




Typical Multiple Unit Installation

## Dimensional Details

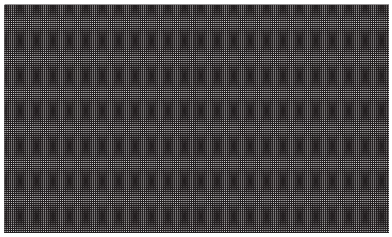
| Model | Flow GPM / LPM | | Npt Port A | C | D | E | F | Hex Dia A/F | Area in² cm² | Optional Magnet Quantity | Optional Magnet Part# |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 48-3 | 3 GPM | in | 3/8 | 1.2 | 2.0 | 2.2 | 0.6 | 1.0 | 34 | 1 | 1.9-100 |
| | 11 LPM | mm | | 30 | 52 | 56.4 | 16 | 25.4 | (219) | | |
| 48-4 | 5 GPM | in | 1/2 | 1.9 | 2.6 | 2.9 | 0.6 | 1.0 | 62 | 1 | 4-10 |
| | 20 LPM | mm | | 48 | 66 | 74 | 16 | 25.4 | (400) | | |
| 48-5 | 8GPM | in | 3/4 | 2.9 | 2.6 | 3.9 | 0.6 | 1.2 | 86 | 2 | 4-10 |
| | 30 LPM | mm | | 74 | 66 | 99.7 | 16 | 30 | (555) | | |
| 48-10 | 10 GPM | in | 1 | 4.6 | 2.6 | 5.6 | 0.6 | 1.5 | 110 | 2 | 4-10 |
| | 40 LPM | mm | | 117 | 66 | 142.8 | 16 | 38 | (710) | | |
| 48-20 | 20 GPM | in | 1 1/4 | 6.1 | 3.3 | 7.4 | 0.8 | 2.2 | 162 | 2 | 3.4-100 |
| | 80 LPM | mm | | 155 | 85 | 189 | 21.5 | 55 | (1045) | | |
| 48-30 | 30 GPM | in | 1 1/2 | 7.2 | 3.9 | 8.8 | 0.9 | 2.2 | 225 | 2 | 30-50 |
| | 120 LPM | mm | | 183 | 100 | 222.9 | 23 | 55 | (1452) | | |
| 48-50 | 50 GPM | in | 1 1/2 | 9.1 | 3.9 | 10.7 | 0.9 | 2.2 | 340 | 2 | 30-50 |
| | 200 LPM | mm | | 231 | 100 | 271 | 23 | 55 | (2193) | | |
| 48-50-2 | 50 GPM | in | 2 | 9.1 | 3.9 | 10.7 | 0.9 | 2.6 | 340 | 2 | 30-50 |
| | 200 LPM | mm | | 231 | 100 | 271.1 | 23 | 65 | (2193) | | |
| 48-75 | 75 GPM | in | 2 1/2 | 9.1 | 5.1 | 10.9 | 1.2 | 3.3 | 400 | 3 | 5-100 |
| | 285 LPM | mm | | 231 | 130 | 277 | 30 | 85 | (2581) | | |
| 48-100 | 100 GPM | in | 3 | 10.4 | 5.1 | 12.2 | 1.2 | 3.9 | 500 | 3 | 5-100 |
| | 380 LPM | mm | | 264 | 130 | 310 | 30 | 100 | (3226) | | |

# FILTERS – ACTUAL SIZE MESH

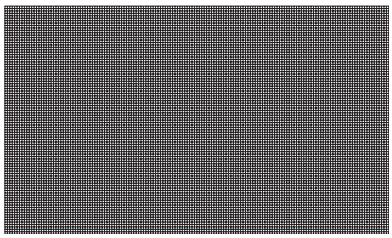
LENZ Cleanable Wire Cloth Filters are equipped with Stainless Steel Wire Cloth Elements. The filtering insert elements are available from a coarse 30 mesh up to a fine 200 mesh. To better illustrate mesh sizes, we have shown below the actual size mesh of the 100, 80, 60, 50, 40, and 30 mesh stainless steel wire screen. **The most common are 200, 100, 60, and 30 Stainless Steel Wire Mesh Screen. (100 Mesh LENZ Standard)**

**200 Mesh**
Wire diameter .0021
Width of opening .0029
Microns = 74
33.6% of open area

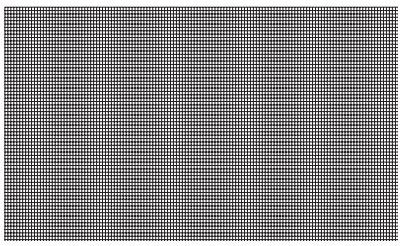
**150 Mesh**
Wire diameter .0026
Width of opening .0041
Microns = 105



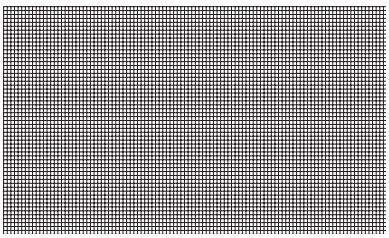
**100 Mesh**
Wire diameter .0045
Width of opening .0055 = 141 Microns
30.3% of open area



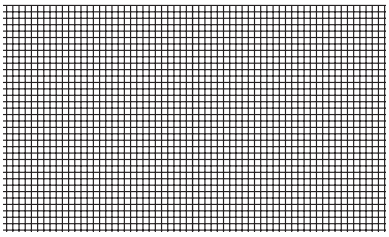
**80 Mesh**
Wire diameter .0055
Width of opening .0070 = 180 Microns



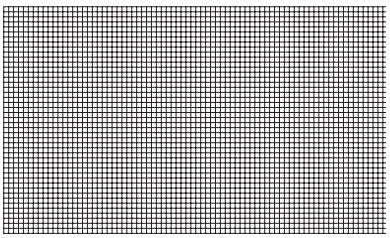
**60 Mesh**
Wire diameter .0065
Width of opening .0102 = 262 Microns
37.5% of open area



**50 Mesh**
Wire diameter .0080
Width of opening .0120 = 308 Microns



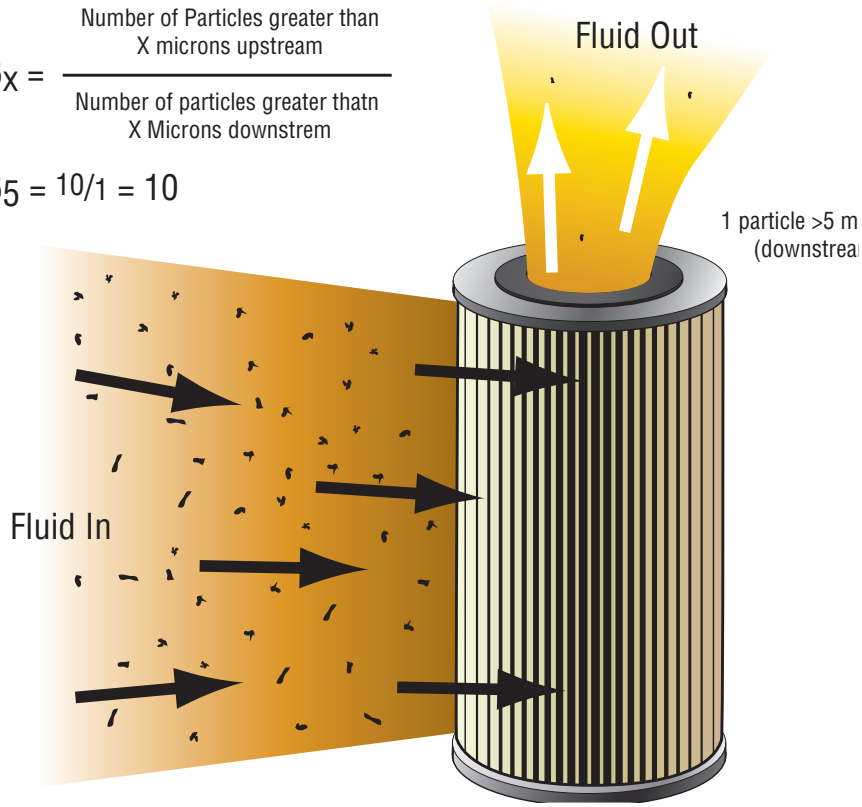
**30 Mesh**
Wire diameter .0120
Width of opening .0213 = 546 Microns
44.8% of open area



**40 Mesh**
Wire diameter .0100
Width of opening .0150 = 385 Microns
36% of open area

$$\beta_X = \frac{\text{Number of Particles greater than X microns upstream}}{\text{Number of particles greater thatn X Microns downstrem}}$$

$$\beta_5 = 10/1 = 10$$





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