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Hygienic Components

Y-Strainers

Small Footprint, Big Increase in Productivity

Sani-Matic Y-Strainers are designed to solve a variety of system requirements. Whether your process is pre-existing, if piping revisions / modifications aren't an option, or maybe space simply doesn't provide the room for any other option, our Y-Strainers are an excellent consideration to address the needs of your application.

Sani-Matic Y-Strainers are engineered and manufactured with a close-tolerance fit (0.010") at the base of the Element and do not require an O-Ring (unless a filter tube is used). Fewer parts result in simpler maintenance and less downtime – increasing production performance and saving you time and money.



Sani-Matic's standard Y-Strainers are authorized to carry a 3-A symbol when a perforated element is used.



QUICK TIPS

How do you install a Y-Strainer?

The Y-Strainer should be installed in the process line with the Element's handle pointing toward the floor.

Why are Y-Strainers perfect for manufacturing chocolate?

The Y-Strainer's hot water jacket option can help keep confectionery products, such as chocolate, flowing through the production lines.

GOOD TO KNOW

- **Strainer & Element Material:** 316Lss
- **Sanitary ID Finish:** 32 μ in Ra
- **Maximum Temperature Rating:** 250 °F
- **Full Assembly Maximum Pressure Rating (Standard Tri-Clamp):** 125 psi (4" Body) / 75 psi (6" Body)
- **Full Assembly Maximum Pressure Rating (High Pressure Tri-Clamp):** 200 psi (4" and 6" body)
- **Hot Water Jacket Maximum Temperature and Pressure Rating:** 125 psi @ 250 °F
- Wedgewire elements have some interior surfaces greater than 32 μ in Ra due to the construction process.
- Hot water jacket is available in 4" body size and 1.5"-3.0" connection sizes.
- For wedgewire element sizing, it is recommended that the slot size is 30-50% smaller than the particle size to increase capture efficiency (e.g., to capture a 0.010" particle, use 0.005" or 0.007" wedgewire).
- Perforated or wedgewire strainer elements are interchangeable.
- Filter tubes are FDA-compliant, and when used with perforated elements $\frac{3}{32}$ " or larger maintain overall strainer assembly 3-A authorization.
- Tuf-Flex® Gaskets are PTFE gaskets with an EPDM core - they help reduce "stickiness" of the gasket allowing for an easier and quicker strainer element removal process.
- Y-Strainer filter tubes require a custom strainer element to hold the filter tube in place.



Y-Strainer Model Number Key

Example Model #: YX15T3-P125X04000



| | | |
|---------------|----------------------------|---|
| 1 | Strainer Model | Y Y-Strainers |
| 2 | Body Length | X Standard Body |
| 3, 4 | Connection Size | 15 1.5" 20 2.0" 25 2.5" 30 3.0" 40 4.0" |
| 5 | Connection Type | T Tri-Clamp (Standard) H Tri-Clamp - High Pressure Clamp W Butt Weld* |
| 6 | Finish / Polish | 3 32 µin Ra / Mechanical Polish (Standard) 1 20 µin Ra / Mechanical Polish* 8 32 µin Ra / Electropolish* 4 15 µin Ra / Electropolish* |
| 7-10 | Element Type / Size | P062 Perforated / 0.0625" (1/16")* P093 Perforated / 0.09375" (3/32")* P125 Perforated / 0.125" (1/8") P250 Perforated / 0.25" (1/4") F125 Perforated / 0.125" (1/8") / For Use with Filter Tubes* F250 Perforated / 0.25" (1/4") / For Use with Filter Tubes* W010 Wedgewire / 0.010" W015 Wedgewire / 0.015" W020 Wedgewire / 0.020"* W030 Wedgewire / 0.030" W040 Wedgewire / 0.040"* W060 Wedgewire / 0.060" |
| 11 | Flow Direction | X Standard Flow |
| 12 | Seal Kit | 0 EPDM (Standard) T Tuf-Flex Gasket 1 Viton 3 Buna-N |
| 13, 14 | Body Size | 40 4.0" 60 6.0" |
| 15 | Option #1 | 0 None (Standard) H Hot Water Jacket |
| 16 | Option #2 | 0 None (Standard) 2 Dual Sight Glass* D Drain / Sample Port* 3 Dual Sight Glass & Drain / Sample Port* |

***Non-stock product option. Longer lead times will apply. Non-returnable.**

NOTE: 4.0" Connection Size is the only size that uses a 6.0" Body Size.

NOTE: Filter Tube Elements include a Silicone O-Ring.

NOTE: The Hot Water Jacket option cannot be combined with a 6.0" Body Size or any of the Sight Glass Options.

Reference: Former Part Number & New Model Number Comparison

Reference Model Number Key for selections to be made. Selections are designated by empty green boxes in the table below.

| Perforated Strainer Elements | | | | | | |
|------------------------------|-----------------|------------|---|----------|---|---|
| Strainer Body Size | Connection Size | Old Part # | New Model Key # | Max. gpm | Y-Strainer w/ Dual Sight Glass Old Part # | Y-Strainer w/ Dual Sight Glass New Model Key # |
| 4" | 1.5" | Y10015 | YX15T3-P <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 70 | Y10115 | YX15T3-P <input type="text"/> X <input type="text"/> 4002 |
| 4" | 2.0" | Y10020 | YX20T3-P <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 130 | Y10120 | YX20T3-P <input type="text"/> X <input type="text"/> 4002 |
| 4" | 2.5" | Y10025 | YX25T3-P <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 205 | Y10125 | YX25T3-P <input type="text"/> X <input type="text"/> 4002 |
| 4" | 3.0" | Y10030 | YX30T3-P <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 300 | Y10130 | YX30T3-P <input type="text"/> X <input type="text"/> 4002 |
| 6" | 4.0" | Y10040 | YX40T3-P <input type="text"/> X <input type="text"/> 600 <input type="text"/> | 450 | Y10140 | YX40T3-P <input type="text"/> X <input type="text"/> 6002 |

| Wedgewire Strainer Elements | | | | | | |
|-----------------------------|-----------------|------------|---|----------|---|---|
| Strainer Body Size | Connection Size | Old Part # | New Model Key # | Max. gpm | Y-Strainer w/ Dual Sight Glass Old Part # | Y-Strainer w/ Dual Sight Glass New Model Key # |
| 4" | 1.5" | Y20015 | YX15T3-W <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 70 | Y20115 | YX15T3-W <input type="text"/> X <input type="text"/> 4002 |
| 4" | 2.0" | Y20020 | YX20T3-W <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 130 | Y20120 | YX20T3-W <input type="text"/> X <input type="text"/> 4002 |
| 4" | 2.5" | Y20025 | YX25T3-W <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 205 | Y20125 | YX25T3-W <input type="text"/> X <input type="text"/> 4002 |
| 4" | 3.0" | Y20030 | YX30T3-W <input type="text"/> X <input type="text"/> 400 <input type="text"/> | 300 | Y20130 | YX30T3-W <input type="text"/> X <input type="text"/> 4002 |
| 6" | 4.0" | Y20040 | YX40T3-W <input type="text"/> X <input type="text"/> 600 <input type="text"/> | 450 | Y20140 | YX40T3-W <input type="text"/> X <input type="text"/> 6002 |

NOTE: 4.0" Connection Size is the only size that uses a 6.0" Body Size.

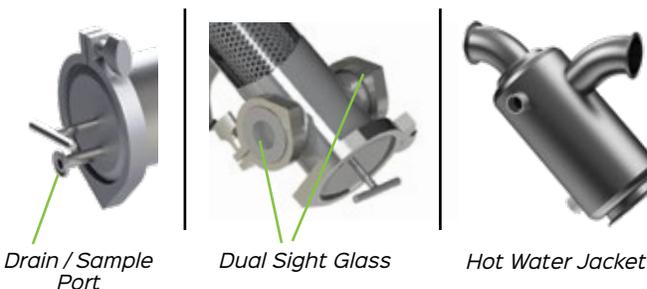
NOTE: If using filter tubes, the maximum recommended flow rate (gpm) may decrease depending on process conditions.

Y-Strainer Options

The **Drain / Sample Port** helps operators drain the majority of liquid from the strainers before removing the element for cleaning. Adding a sample valve with this option is recommended to easily drain or sample.

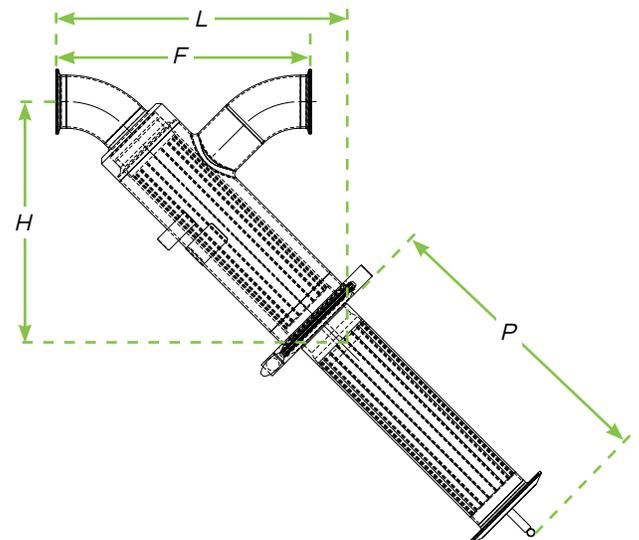
Dual Sight Glasses provide visual access to particulate buildup levels.

The **Hot Water Jacket** option adds a 304ss jacket with 0.75" FNPT inlet and outlet connections to the outside of the Y-strainer body. Hot water can be circulated through the jacket to maintain product temperatures within the strainer for applications such as chocolate, corn syrup, and more. Hot water jackets have a heat transfer surface area of approximately 143 in².



| Y-Strainer Dimensions | | | | |
|-----------------------|-----|-----------|-----------|-----|
| Connection Size | F | H | L | P |
| 1.5" | 10" | 11 1/32" | 12 15/32" | 14" |
| 2.0" | 11" | 11 9/32" | 13 1/32" | 14" |
| 2.5" | 12" | 11 1/2" | 13 9/16" | 14" |
| 3.0" | 14" | 11 23/32" | 14 3/32" | 14" |
| 4.0" | 17" | 12 9/32" | 15 13/32" | 14" |

NOTE: Face-to-Face Dimension (F) is for Tri-Clamp connection type. Contact Sani-Matic for Butt Weld dimensional information.

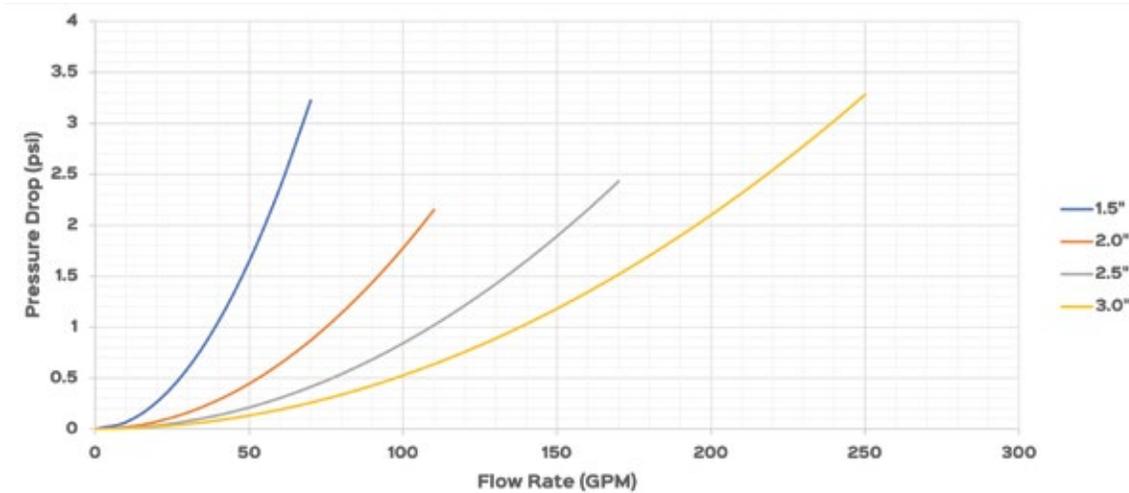


Cv Values & Pressure Drops for Y-Strainers

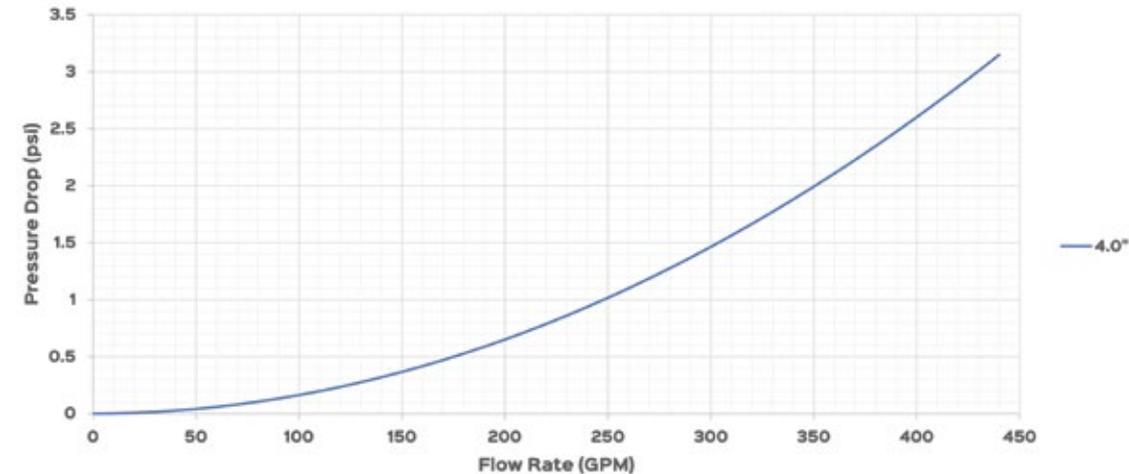
Cv values or the provided pressure drop tables can be used to estimate the pressure drop across a strainer at a given flow rate. Cv values are for water at 70 °F. Contact Sani-Matic for inquiries on pressure drops for fluids with other viscosities.

| Strainer Body Size | Connection Size | Cv |
|--------------------|-----------------|-----|
| 4.0" | 1.5" | 39 |
| | 2.0" | 75 |
| | 2.5" | 109 |
| | 3.0" | 138 |
| 6.0" | 4.0" | 248 |

Y-Strainer Pressure Drop: 4.0" Body



Y-Strainer Pressure Drop: 6.0" Body



NOTE: Cv values and charted pressure drops can be used for perforated, wedgewire, and perforated with mesh overlays or filter tubes. The clean pressure drop is minimally impacted by the element configuration in most cases. For worst-case calculations, add 20% to the calculated pressure drop.

Y-Strainer Replacement Parts

- 1 Strainer Element
- 2 TC Clamp
- 3 TC Gasket
- 4 Strainer Body
- 5 Sight Glass Replacement (Optional)
- 6 O-Ring (Only with Perforated Elements for Filter Tubes)



1 Strainer Elements

| Perforated Element | | |
|--|--|--|
| Hole Size | For 4" Strainer Body Size ¹ Part # | For 6" Strainer Body Size ² Part # |
| 1/16" | 287512* | Inquire for Info |
| 3/32" | 171904* | Inquire for Info |
| 1/8" | 700226 | 700513 |
| 1/4" | 240959 | 700524 |
| Perforated Element - For Use with Filter Tubes | | |
| Hole Size | For 4" Strainer Body Size ¹ Part # | For 6" Strainer Body Size ² Part # |
| 1/8" | 346575* | 346528* |
| 1/4" | 346576* | 346522* |
| Wedgewire Element | | |
| Slot Size | For 4" Strainer Body Size ¹ Part # | For 6" Strainer Body Size ² Part # |
| 0.010" | 700232 | 700504 |
| 0.015" | 700164 | 700505 |
| 0.020" | 700234 | 700506* |
| 0.030" | 700236 | 700507 |
| 0.040" | 700238* | 700508* |
| 0.060" | 700240 | 700509 |



¹ These elements measure 3.0" OD.

² These elements measure 4.0" OD.

*Non-stock product option. Longer lead times apply.

2 Tri-Clamp (TC) Clamps

| Clamp Type | Part # | | | |
|---------------|--|-------------------------|---------------------------|---|
| | 0.50" / 0.75" For Sample Valve / TC Cap | 2.5" For Sight Glass | 4.0" For Strainer Body | 6.0" For High-Capacity Strainer Body |
| Standard | 020224 | 020083 | 020225 | 020976 |
| High Pressure | 022235 | 020914 | 020916 | 025686 |



Standard Clamp



High Pressure Clamp

Tri-Clamp (TC) Gaskets

| Material | Part # | | | | |
|-----------------|------------|------------------|-----------------|-------------------|---------------------------------|
| | 0.50" | 0.75" | 2.5" | 3 4.0" | 3 6.0" |
| | For TC Cap | For Sample Valve | For Sight Glass | For Strainer Body | For High-Capacity Strainer Body |
| EPDM (Standard) | 021036 | 021037 | 021029 | 021031 | 022975 |
| Viton | 028724* | 028725 | 028729 | 020474 | 023847 |
| Buna-N | 031690* | 020230* | 020091 | 020226 | 020263* |
| Tuf-Flex | 046732 | 046733 | 046737 | 046739 | 046740* |



*Non-stock product option. Longer lead times apply. Non-returnable.

4 Strainer Body

| Connection Size | Part # | | |
|-----------------|-------------------------|----------------------------|----------------------------|
| | 4" Body Size - Standard | 4" Body Size - Sight Glass | 4" Body - Hot Water Jacket |
| 1.5" | 700249 | 103786* | 183152 |
| 2.0" | 700243 | 103779* | 138591 |
| 2.5" | 700245 | 103801* | 252287 |
| 3.0" | 700247 | 103805* | 167880 |
| Connection Size | 6" Body Size - Standard | 6" Body Size - Sight Glass | 6" Body - Hot Water Jacket |
| 4.0" | 700471 | 103810* | N/A |

*Non-stock product option. Longer lead times apply.



Standard

Sight Glass



Hot Water Jacket

5 Sight Glass Replacements

| Description | Part # |
|-------------------------------------|--------|
| VL-3A Sight Glass Assembly, 2.5" TC | 056231 |

NOTE: VL-3A Sight Glass Assemblies come with the sight glass lens, sight glass ferrule, and sight glass gasket.



VL-3A Sight Glass

6 O-Rings

Only used with perforated elements for filter tubes.

| Material | 4" Strainer Body Size Part # | 6" Strainer Body Size Part # |
|----------|------------------------------|------------------------------|
| Silicone | 037218* | 060755* |

*Non-stock product option. Longer lead times apply.

Sample Valve

| Description | Part # |
|--|---------------|
| Sample Valve, TC, 0.50" / 0.75" Process Connection, 0.5" Sample Connection | 060887 |

NOTE: Air relief sample valves are recommended for the Drain / Sample Port option.



Tri-Clamp (TC) Caps

TC Caps can be used on sample/drain port to cap the port.

| Description | Part # |
|-------------------------------|---------------|
| TC Cap, 0.50" / 0.75", 316Lss | 020529 |



ID Tag

Custom tag components with an engraved stainless steel tag, affixed to the component using ball chain. Up to 10 characters can be specified.

| Description | Part # |
|----------------------------|---------------|
| ID Tag, 2.0" x 0.5", 304ss | 720826 |



Y-Strainer Accessories

Filter Tubes: 4" Body Size • 50/Box

4 7/8" x 13 1/2" Filter Tubes (For 1.5", 2", 2.5", and 3" connections). Fits 3" x 11" Perforated Element.

NOTE: Y-Strainer filter tubes require the F125 / F150 specified filter tube element which is built for use with filter tubes.

| Material | Width | Length | Max. Temperature (°F) | Micron | Part # |
|--------------------------|--------|---------|--------------------------------|------------------|----------------|
| Nylon Multifilament | 4 7/8" | 13 1/2" | 185 continuous, 455 short term | 150 ¹ | 043742* |
| Polyester Monofilament | 4 7/8" | 13 1/2" | 270 continuous, 455 short term | 250 ¹ | 042234* |
| Plain Weave Cotton Cloth | 4 7/8" | 13 1/2" | 300 | 270 ¹ | 048601* |
| Nylon Monofilament | 4 7/8" | 13 1/2" | 275 | 400 ¹ | 031126* |
| Polyester Multifilament | 4 7/8" | 13 1/2" | 270 continuous, 455 short term | 400 ¹ | 043743* |

¹The filter tube extends past the end of the Y-Strainer Element and a gap of approximately 1/32" exists in this area to allow for the filter tube to be inserted. Due to this, filter tubes under 800 micron may have some particles up to the 800 micron size pass by this gap.

NOTE: Other micron sizes are available.

*Non-stock product option. Longer lead times apply.

Mesh Overlays (For Y-Strainers using perforated elements) 316ss Wire

| Mesh Overlay - 4" Body Size | | Mesh Overlay - 6" Body Size | |
|-----------------------------|----------------|-----------------------------|----------------|
| Mesh Size | Part # | Mesh Size | Part # |
| 10 | 032867 | 10 | 032876* |
| 20 | 032868 | 20 | 032877* |
| 30 | 032869* | 30 | 032878* |
| 40 | 032870 | 40 | 032879* |
| 50 | 032871* | 50 | 032880* |
| 60 ¹ | 032872 | 60 ¹ | 032881* |
| 80 ¹ | 032873* | 80 ¹ | 032882* |
| 100 ¹ | 032874 | 100 ¹ | 032883* |
| 120 ¹ | 032875 | 120 ¹ | 032884* |



Mesh Overlay

¹Due to the 0.010" fit of the Y-Strainer Element, mesh sizes 60 to 120 may not capture the particles intended with finer mesh.

NOTE: Use of wire mesh overlay is not compliant with 3-A.

*Non-stock product option. Longer lead times apply. Non-returnable. Minimum order quantity of (2) units.