

OPERATING MANUAL

FOR

Y TYPE STRAINER

MODEL: YM1, YSF



# SAFETY

The following warnings and cautions are shown at appropriate places in this manual.



**WARNING**

Failure to observe this type of precaution may lead to serious injury or death.



**CAUTION**

Failure to follow this type of precaution can lead to injury or damage to equipment and property.

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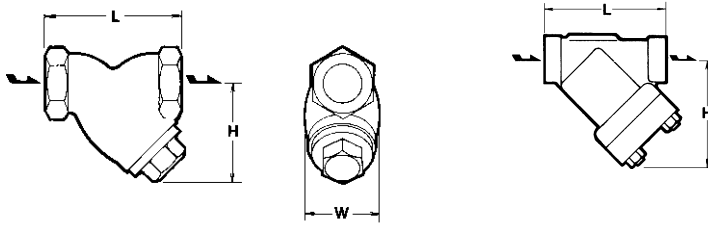
## 1. Introduction

MIYAWAKI Y Type Strainers are installed ahead of the equipment, they protect the working parts of temperature and pressure regulators, steam traps, pumps, meters, burners, compressed air equipment, hydraulic systems, lubricators, and nozzles. They remove dirt, pipe line scale and other entrainment automatically thereby reducing maintenance and downtime.

The Strainer screen have an extremely large free area, so that the time interval between cleaning lengthens. On the other hand, large size strainers are designed for off-center blow connections, therefore, these strainers permit to drain nearly complete removal of liquid and dirt when blowing down the strainer.

MIYAWAKI Model Y Type Strainers assure efficient of all types of pipe lines.

## 2. Dimensions and Specifications



| Model No. | Connection  | Size<br>mm<br>(inch) | Max<br>Operating<br>Pressure<br>(MPa) | Maximum<br>Temperature<br>°C(°F) | Material<br>of<br>Body           | Dimensions<br>(mm) |     |     | Weight<br>(kg)         |
|-----------|-------------|----------------------|---------------------------------------|----------------------------------|----------------------------------|--------------------|-----|-----|------------------------|
|           |             |                      |                                       |                                  |                                  | L                  | H   | W   |                        |
| YM1       | Screwed     | 15(1/2)              | 2.0                                   | 220<br>(428)                     | Ductile<br>Cast Iron<br>(FCD450) | 75                 | 55  | 42  | 0.6                    |
|           |             | 20(3/4)              |                                       |                                  |                                  | 90                 | 70  | 50  | 0.9                    |
|           |             | 25(1)                |                                       |                                  |                                  | 110                | 85  | 62  | 1.4                    |
| YSF-F     | Flanged     | 15(1/2)              | 4.9                                   | 425<br>(797)                     | Forged<br>Steel<br>(A105)        | 230                | 125 | 82  | *Refer<br>to<br>Table1 |
|           |             | 20(3/4)              |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 25(1)                |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 32(1-1/4)            |                                       |                                  | Forged<br>Steel<br>(S25C)        | 310                | 170 | 115 | *Refer<br>to<br>Table1 |
|           |             | 40(1-1/2)            |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 50(2)                |                                       |                                  |                                  |                    |     |     |                        |
| YSF-W     | Socket Weld | 15(1/2)              | 4.9                                   | 425<br>(797)                     | Forged<br>Steel<br>(A105)        | 140                | 125 | 82  | 5.0                    |
|           |             | 20(3/4)              |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 25(1)                |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 32(1-1/4)            |                                       |                                  | Forged<br>Steel<br>(S25C)        | 190                | 170 | 115 | 9.5                    |
|           |             | 40(1-1/2)            |                                       |                                  |                                  |                    |     |     |                        |
|           |             | 50(2)                |                                       |                                  |                                  |                    |     |     |                        |


\*Table1

| Size<br>(mm) | Flange Standard               | Weight<br>(kg) |
|--------------|-------------------------------|----------------|
| 15           | JIS 10K/16K/20K FF·RF         | 6.3            |
|              | JIS 30K/40K RF                |                |
|              | ASME·JPI 150lb/300lb/600lb RF | 7.0            |
| 20           | JIS 10K/16K/20K FF·RF         | 8.0            |
|              | JIS 30K/40K RF                |                |
|              | ASME·JPI 150lb/300lb/600lb RF | 8.0            |
| 25           | JIS 10K/16K/20K FF·RF         | 8.0            |
|              | JIS 30K/40K RF                |                |
|              | ASME·JPI 150lb/300lb/600lb RF | 8.0            |
| 32           | JIS 10K/16K/20K FF·RF         | 16             |
|              | JIS 30K/40K RF                |                |
|              | ASME·JPI 150lb/300lb/600lb RF | 16             |
| 40           | JIS 10K/16K/20K FF·RF         | 17             |
|              | JIS 30K/40K RF                | 17             |
|              | ASME·JPI 150lb/300lb/600lb RF | 16             |
| 50           | JIS 10K/16K/20K FF·RF         | 17             |
|              | JIS 30K/40K RF                |                |
|              | ASME·JPI 150lb/300lb/600lb RF | 17             |

### 3. Installations


- 1) Always install in the way of the arrow on the body.
- 2) Install ahead as close to the equipment as possible.
- 3) Install in an accessible location for maintenance.

### 4. Maintenance, Disassembling and Assembling

|  |   |
|--|---|
|  <b>WARNING</b> | When disassembling a hot Y Type Strainer, be sure to release the pressure inside to atmospheric pressure, and cool the Y Type Strainer before the work. |
|--|---|


#### A) Model YM1


- 1) Dismantle the Cap(2).
- 2) Take out the Screen(3) from the Body(1).
- 3) Clean out the Screen(3) if clogged with dirt.
- 4) Replace with a new one if the Screen(3) ragged.
- 5) Reassemble the Screen(3) according to reverse order of preeding, after cleaning up the inner parts.

|   |  |
|---|--|
|  <b>CAUTIONS</b> | When reassembling always replace Gasket(4) to new one. |
|---|--|

#### B) Model YSF

- 1) Dismantle the Bolt, Nut(6) and dismantle the Cover(2).
- 2) Take out the Punchin Plate(3) and Net Screen(4) from the Body(1).
- 3) Clean out the Punchin Plate(3) and Net Screen(4) if clogged with dirt.
- 4) Replace with a new one if the Punchin Plate(3) and Net Screen(4) ragged.
- 5) Reassemble the Punchin Plate(3) and Net Screen(4) according to reverse order of preeding, after cleaning up the inner parts.

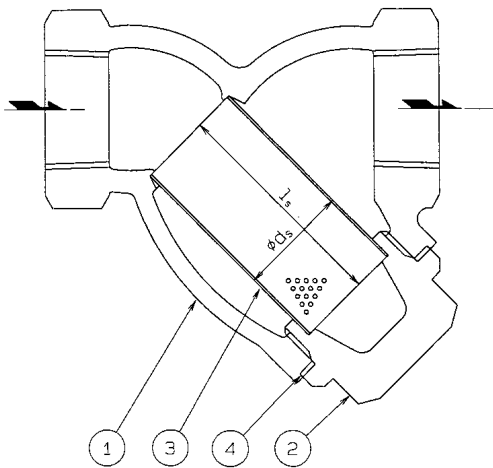
|   |  |
|---|--|
|  <b>CAUTIONS</b> | When reassembling always replace Gasket(5) to new one. |
|---|--|

|   |   |
|---|---|
|  <b>CAUTIONS</b> | Also Bolt, Nut(6) should be tightened evenly. |
|---|---|

| Model No.    | Size(mm) | No. | Parts     | Size | Shape   | Clamp Torque | Tools  |
|--------------|----------|-----|-----------|------|---------|--------------|--------|
| YSF-15·20·25 | 15·20·25 | 6   | Bolt, Nut | 19mm | Haxagon | 98N·m        | Wrench |
| YSF-32·40·50 | 32·40·50 | 6   | Bolt, Nut | 22mm | Haxagon | 117N·m       | Wrench |

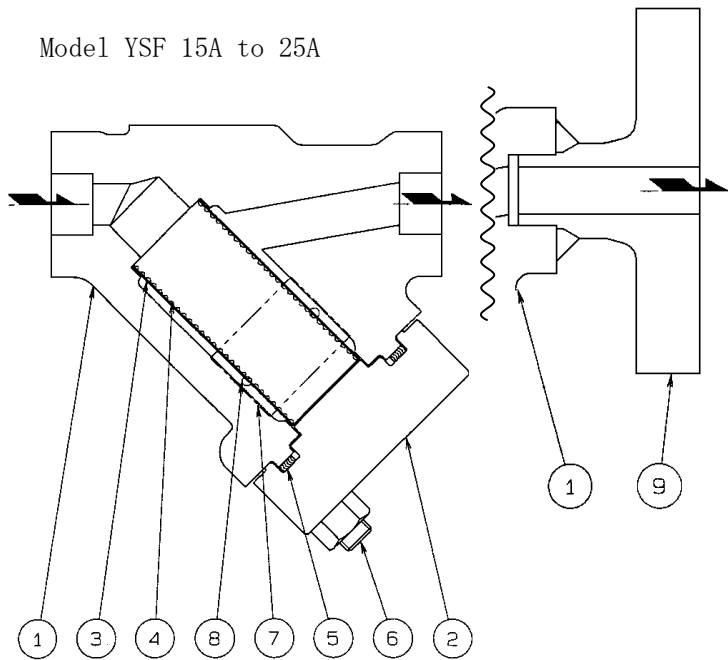
5. Construction

Model YM1



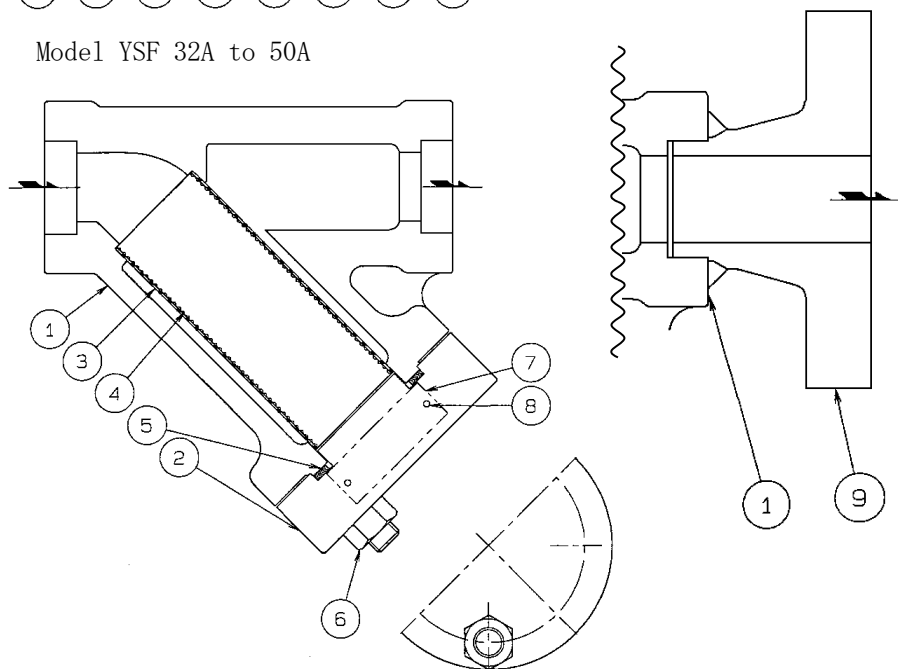
- 1. Body
- 2. Cap
- 3. Screen
- 4. Gasket

Model YSF 15A to 25A



- 1. Body
  - 2. Cover
  - 3. Punching Plate
  - 4. Net Screen
  - 5. Gasket
  - 6. Bolt, Nut
  - 7. Name Plate
  - 8. Rivet
  - 9. Flange
- (For only Flanged Type)

Model YSF 32A to 50A



## 6. Warranty

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### 6.1 Warranty period

The warranty period is 18 months after shipment or 12 months after installation, whichever occurs first.

### 6.2 Details of the warranty

If the product stops working correctly within the warranty period, we will repair or replace the product free of charge if the cause of the trouble is not one of the following items.

- 1) The precautions described in this manual were not observed
- 2) User's errors or mistakes such as an inappropriate installation or incorrect handling, or an excessively large impact caused by dropping
- 3) Problems caused by devices or equipment other than ours, or a disallowed use environment
- 4) When a repair or modification has been performed by anyone other than us or people who are authorized to make such repairs
- 5) Intrusion of salt or other substances that promote significant rust or corrosion or problems from fluids that contain the same substances
- 6) Consumable parts such as Packing, Gasket, O-ring, Diaphragm, etc
- 7) Attachment or accumulation of foreign matter in the pipe, such as dust and scale
- 8) Problems from fires, natural disasters, or other force majeure which is not our responsibility

### 6.3 Warranty limitation

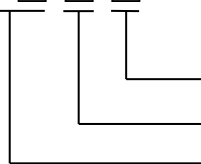
The remedy available under the warranty shall not exceed the sales price of the products delivered, for any cause whatsoever.



## 7. Serial number (S.No.) designation

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**S.No.** □ □ □ □



Represents the day.

Represents the month.

Represents the year. (last two digits of the year according to the Western calendar)

### Month designation system

| Symbol | Month | Symbol | Month | Symbol | Month | Symbol | Month |
|--------|-------|--------|-------|--------|-------|--------|-------|
| 1      | 1     | 4      | 4     | 7      | 7     | X      | 10    |
| 2      | 2     | 5      | 5     | 8      | 8     | Y      | 11    |
| 3      | 3     | 6      | 6     | 9      | 9     | Z      | 12    |

### Day designation system

| Symbol | Day | Symbol | Day | Symbol | Day | Symbol | Day |
|--------|-----|--------|-----|--------|-----|--------|-----|
| 1      | 1   | 9      | 9   | H      | 17  | Q      | 25  |
| 2      | 2   | A      | 10  | J      | 18  | R      | 26  |
| 3      | 3   | B      | 11  | K      | 19  | S      | 27  |
| 4      | 4   | C      | 12  | L      | 20  | T      | 28  |
| 5      | 5   | D      | 13  | M      | 21  | U      | 29  |
| 6      | 6   | E      | 14  | N      | 22  | V      | 30  |
| 7      | 7   | F      | 15  | O      | 23  | W      | 31  |
| 8      | 8   | G      | 16  | P      | 24  |        |     |

Example of serial number designation

1 7 1 1 → Jan 1, 2017

2 9 X M → Oct 21, 2029

## 8. Guidance for reading special product name

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**Special symbol:**  
**Symbol apply only to special product**  
**(Please refer to table 1 for details)**

English letter after “-“

**Model symbol:**  
**Product model number**

Table 1 Symbol description

| Suffix | Special contents  |
|--------|---|
| A      | Trap for high-pressure gas installed property (only for Gas Trap)   |
| C      | Blow valve attached   |
| K      | Change of gasket  |
| L      | Special face to face dimension                                      |
| M      | Change of parts material  |
| P, T   | Change of operating pressure, temperature, condensate capacity, etc |
| R      | Change of screen mesh   |
| V      | Change of air vent  |
| X      | Other than mentioned above or complex of special contents above     |

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- For any questions about the product that you purchased or about the details in this user's manual, please contact the following.
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  - Some special specifications of the product you have, may found to be different from the ones in the user's manual. If you have any question, please contact MIYAWAKI, our local authorized agent, or the place where you purchased.
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