# LOCK RELEASE VALVE 

## model LR3/LR5

## Features

Lock release valve to eliminate steamlocking of steam traps J3X/JF3X, J3S-X S Series and J5X/JF5X if installed on cylinder dryers, presses and other steamusing equipment prone to steam-locking.

1. Fine-adjustment to keep steam loss low.
2. Maintenance and repair is possible without removing the valve from the steam trap.
3. Simple construction and compact design.
4. All parts made of stainless steel.


## Specifications

| Model | LR3 | LR5 |  |
| :--- | :--- | :--- | :--- |
| For Steam Trap Model | J3X, JF3X, J3S-X S Series | J5X, JF5X |  |
| Maximum Operating Pressure MPaG | PMO |  | $2.1^{*}$ |
| Maximum Operating Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | TMO |  | $220^{\star}$ |

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: $2.1^{*} \quad 1 \mathrm{MPa}=10.197 \mathrm{~kg} / \mathrm{cm}^{2}$ Maximum Allowable Temperature ( ${ }^{\circ} \mathrm{C}$ ) TMA: $220^{*}$

* Values are for the lock release valve itself. Actual PMO/TMO and PMA/TMA are limited to the specifications of the trap it is installed on.


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

| No. | Description | Material | JIS | ASTM/AISI* |
| :---: | :--- | :--- | :--- | :---: |
| $(1)$ | Gland Case | Stainless Steel | SUS303 | AISI303 |
| $(2)$ | Gasket | Fluorine Resin | PTFE | PTFE |
| $(3)$ | Gland Packing | Graphite | - | - |
| (4) | Snap Ring | Stainless Steel | SUS304 | AISI304 |
| (5) | Element Retainer | Stainless Steel | SUS303 | AISI303 |
| $(6)$ | Gland Retainer Nut | Stainless Steel | SUS303 | AISI303 |

* Equivalent



## Dimensions

-LR3, LR5



LR3, LR5

| Model | L | $\mathrm{L}_{1}$ | $\mathrm{~W}_{1}$ | Weight (kg) |
| :---: | :---: | :---: | :---: | :---: |
| LR3 | 58 | 23 | 22 | 0.08 |
| LR5 | 66 |  |  |  |

Trap Capacity with Lock Release Valve

- J(F)3X (LR3)



## - J(F)5X (LR5)



- J3S-X S Series (LR3)


1. Line numbers within the graph refer to orifice numbers.
2. Differential pressure is the difference between the inlet and outlet pressure of the trap.
3. Capacities are based on continuous discharge of condensate $6{ }^{\circ} \mathrm{C}$ below saturated steam temperature.
4. Recommended safety factor: at least 1.5.

## CAUTION

DO NOT use traps under conditions that exceed maximum differential pressure, as condensate backup will occur!

## Steam/Air Discharge through trap air vent (Lock Release Valve fully open)



1. Differential Pressure is the difference between the inlet and outlet pressure of the trap.

- Air Differential Pressure ( $\mathrm{kg} / \mathrm{cm}^{2}$ )


1. Differential Pressure is the difference between the inlet and outlet pressure of the trap.
2. Capacities are equivalent capacities of air at $20^{\circ} \mathrm{C}$ and atmospheric pressure.
