

A.R.I. NR-040 FS

 **Aquestia**
Directing the Flow

 **madshean**



Wastewater

Check Valve for Wastewater

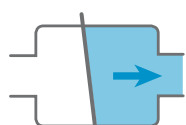
Description

A.R.I. NR-040 FS is a Swing-type Check Valves designed specifically for wastewater systems, that allows for one-directional flow; preventing the return flow of liquid to its source. The valve has a triple-shaft sealing design, flexible bearings and removable lid; which makes it accurate and durable in long-term harsh conditions. The removable lid enables cleaning and maintenance without removing the valve from the pipeline.

Installation

- Pumping stations for irrigation water, wastewater, reclaimed water and sludge.
- At consumer connections and as an isolation valve along the pipeline
- Filtration systems and water treatment facilities

Operation



One-way

Features and Benefits

| | |
|------------------------------|--|
| Disc anchored at two points | Prevents fluttering and turbulent flow |
| Removable upper cover | Easy maintenance without removing valve from the pipeline |
| Built from special materials | High durability in long-term, harsh conditions — withstands water hammer effects |
| Disc fully opens | Minimal energy loss, without pockets to catch debris |
| Unique seal design | Seals at low pressure, prevents wear of sealing area & coating damage |
| Flexible installation design | Enables both horizontal & vertical installation (upward flow only) |

Technical Specifications

| | |
|------------------------|---|
| Size range | 3" – 40" |
| Working pressure range | Working pressure range: 16/25/40/64 bar Testing pressure: 1.5 times maximum working pressure |
| Temperature | Maximum working temperature: 90° C |
| Valve coating | Fusion bonded epoxy coating in compliance with standard DIN 30677-2 |

For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid.

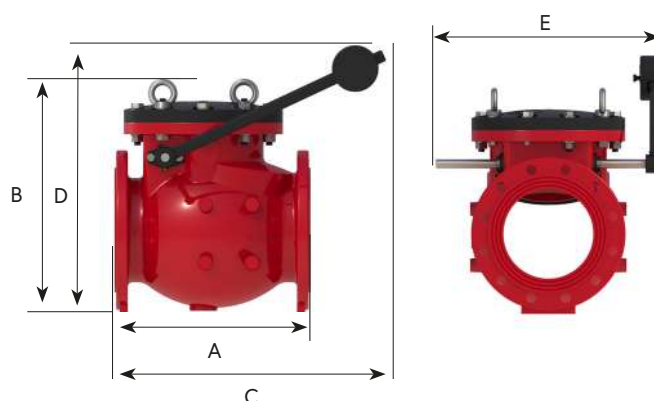
Valve Selection Options

- Additional counterweight
- Manufactured according to any standard flange requirement
- Limit switch add-on:
 - NR-40 FS 3"- 4" - Model LS 403
 - NR-40 FS 6"- 12" - Model LS 406
 - NR-40 FS 14"- 16" - Model LS 414
 - NR-40 FS 18"- 40" - Model LS 420

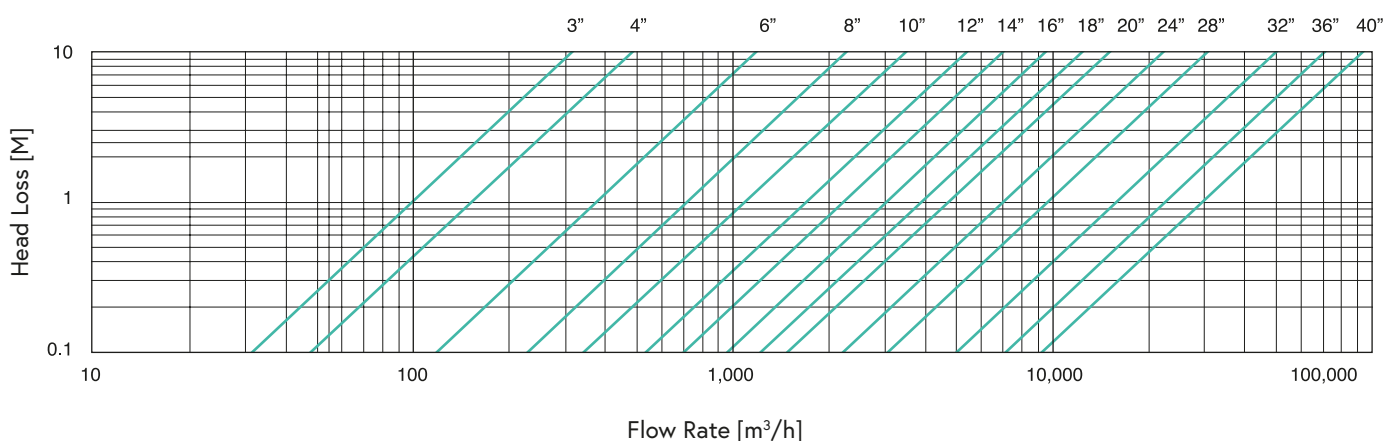
Dimensions and Weight

| Size | Dimensions (mm) | | | | | Weight (kg) |
|---------------|-----------------|------|------|------|------|-------------|
| | A | B | C | D | E | |
| 3" (80 mm) | 241 | 252 | 330 | 310 | 310 | 19.5 |
| 4" (100 mm) | 262 | 284 | 324 | 340 | 328 | 27 |
| 6" (150 mm) | 356 | 360 | 552 | 531 | 410 | 51 |
| 8" (200 mm) | 424 | 450 | 580 | 600 | 508 | 98 |
| 10" (250 mm) | 479 | 537 | 630 | 630 | 555 | 175 |
| 12" (300 mm) | 553 | 622 | 624 | 731 | 605 | 257 |
| 14" (350 mm) | 838 | 700 | 645 | 907 | 705 | 361 |
| 16" (400 mm) | 760 | 734 | 641 | 842 | 705 | 373 |
| 18" (450 mm) | 978 | 880 | 890 | 1200 | 885 | 770 |
| 20" (500 mm) | 865 | 892 | 700 | 1110 | 1000 | 660 |
| 24" (600 mm) | 1295 | 1150 | 885 | 1300 | 1135 | 1280 |
| 28" (700 mm) | 1448 | 1315 | 1250 | 1700 | 1342 | 1670 |
| 32" (800 mm) | 1850 | 1377 | 1400 | 1790 | 1339 | 2200 |
| 36" (900 mm) | 1956 | 1507 | 1400 | 1980 | 1440 | 2349 |
| 40" (1000 mm) | 2250 | 1680 | 1290 | 2000 | 1545 | 3350 |

NOTE All product weights and dimensions are approximate, due to the differences in flange standards, materials and variable accessories.



Head Loss



Parts List and Specifications

| No. | Part | Material |
|-----|------------------------|---|
| 1 | Cover Assembly | |
| 1a | Lifting Ring | Steel, Zinc coated |
| 1b | Cover | Reinforced Nylon / Ductile Iron |
| 2 | Disc Assembly | |
| 2a | Disc | Stainless Steel 316 + Vulcanized Rubber |
| 2b | Stopper | EPDM |
| 2c | Disc Arm | Stainless Steel 316 |
| 2d | Pin | Stainless Steel 316 |
| 3 | Shaft Assembly | |
| 3a | Bearing Assembly | Stainless Steel 316, EPDM, Bronze / Acetal, Reinforced Nylon, Brass |
| 3b | Shaft | Stainless Steel 316 |
| 3c | Disc Arm Key | Stainless Steel 316 |
| 3d | Counterweight Assembly | Ductile Iron |
| 4 | Body Assembly | |
| 4a | O-ring Seal | EPDM |
| 4b | Bolts, Nuts & Washers | Steel, Zinc coated |
| 4c | Body | Ductile Iron / Cast Steel |
| 4d | O-ring Seal | EPDM |
| 4e | Seat | Stainless Steel 316 |
| 4f | Seat Bolts | Stainless Steel 316 |

