

NR-040 PN 16 **NR-042** PN 25

NR-044 PN 40 **NR-064** PN 64



Check Valve with Removable Cover

Description

The NR-040 series Swing-Type Check Valve allows for one-directional flow and prevents the return flow of the liquid to its source.

The check valve is designed with a removable top cover which allows for cleaning and maintenance of the check valve without the need to remove it from the pipeline.

The disc is attached to the check valve body with the aid of an arm. The check valve seals with the closure of the disc against the sealing ring which is located at the opening of the check valve body.

Applications

- Pump stations for potable water and wastewater
- Filtration systems
- Service line connections to the main line

Operation

- Liquid flow through the check valve raises the disc to its open position and allows for the flow of liquids to the pipeline.
- Two Possible Situations for Disc Closure
 1. Regular quiet closure of the disc.
 2. Closure during the return flow of the water column, a situation that can cause slam of the disc and damage to the check valve.
- In order to prevent this destructive phenomenon, it is recommended to install a counterweight on the shaft of the check valve. With this addition, the disc will close at the point of water flow cessation and before the water column returns. The returning wave will impact on a closed disc and the acceleration of the disc closure will result in a minimal slam effect.
- Another option is to install a hydraulic piston to control the closure of the disc.

Main Features

- Maximum working temperature: 60° C.

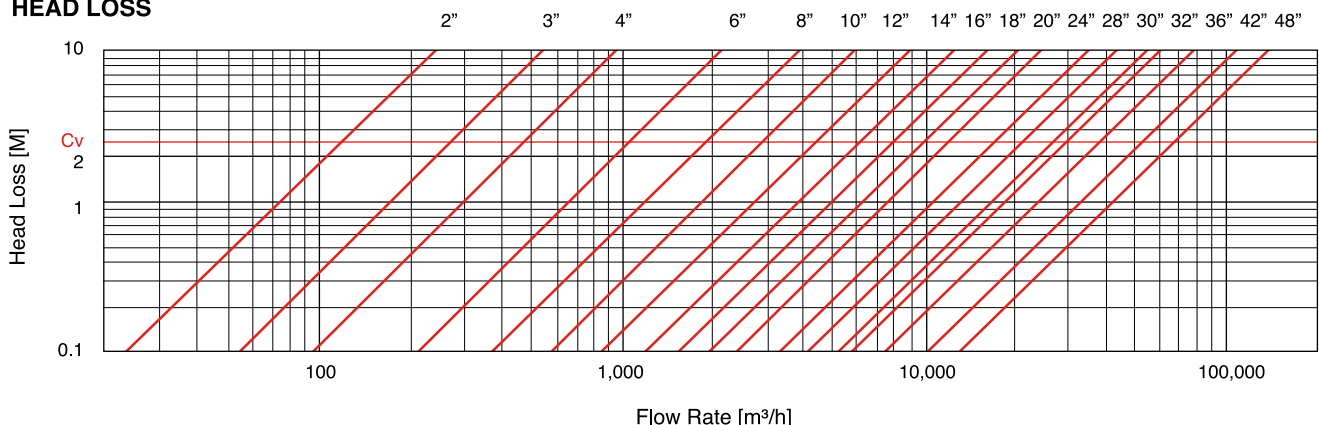
- Maximum intermittent temperature: 90° C.
- Surge-resistant cast iron body.
- Bronze or ductile iron disc with natural rubber flap seal, seals at low pressures and eliminates wear and tear of the flap.
- Corrosion-resistant inner parts ensure long term service under adverse conditions.
- Fusion-bonded epoxy coating according to standard DIN 30677-2.
- Removable top cover allows for easy cleaning, maintenance, and seat replacement and eliminates the need to remove the valve from the system.
- Can be installed in either a horizontal or vertical position (vertically, only when the flow rate is in an upward direction and a counterweight is installed).
- Stainless steel extended shaft on both sides of the valve body.

Valve Selection

- Size range 3"-40"
- Available in pressure ratings of 16 bar (Cast Iron Body / Ductile Iron), 25 bar (Ductile Iron Body), 40 and 64 bar (Cast Steel Body).
- Flanges are available in BS/ISO/ANSI standards.
- Can be adapted to various types of liquid upon request.
- Options:
 - A. Bronze on bronze or stainless steel on stainless steel disc and seat seal for adverse working conditions.
 - B. Available with enamel-coated body or stainless steel body.
 - C. Additional counterweight for slam protection and/or NR-040 LS electric limit switch indicator for transmitting a flow/no flow signal.
 - D. Hydraulic Controlled Check Valve NR-040-HC is available.
- For best suitability, it is recommended to send the fluid chemical properties along with the valve request.

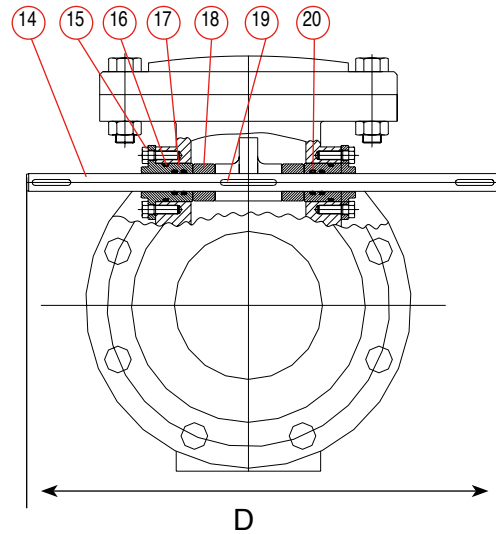
Upon ordering, please specify: model, size, working pressure, threads standard and type of liquid.

HEAD LOSS



PARTS LIST AND SPECIFICATIONS

No.	Part	Material
1.	Counterweight	Cast Iron / Steel
2.	Lifting Ring	Steel
3.	Cover	Ductile Iron ASTM A-536-50-40-18
4.	Bolt, Nut & Washer	Steel Zinc Cobalt Coated
5.	Cover O-Ring	BUNA-N
6.	Body	Cast Iron / Ductile Iron
7.	Cotter Pin	Stainless Steel SAE 304
8.	Arm Pin	Stainless Steel SAE 303
9.	Arm	Bronze ASTM B-62 / Ductile Iron
10.	Disc	Bronze ASTM B-62 + Natural & Synthetic Rubber / Ductile Iron + Natural & Synthetic Rubber
11.	Bolt	Stainless Steel SAE 304
12.	Sealing Ring	Bronze ASTM B-62 / Stainless Steel on Bronze ASTM B-62 / Stainless Steel on Stainless Steel
13.	Stopper	Natural & Synthetic Rubber
14.	Shaft	Stainless Steel SAE 303
15.	Plug Bolt	Stainless Steel SAE 304
16.	Plug O-Ring	BUNA-N
17.	Bearing	Stainless Steel
18.	Spacer	Brass ASTM B-124
19.	Disc Arm Key	Stainless Steel SAE 303
20.	Plug	Brass ASTM B-124



DIMENSIONS AND WEIGHTS

Nominal Size	Dimensions mm				Weight Kg.
	A	B	C	D	
3" (80 mm)	242	252	316	300	20.0
4" (100 mm)	262	280	347	320	28.5
6" (150 mm)	356	360	505	400	57.0
8" (200 mm)	420	453	638	500	101.0
10" (250 mm)	479	537	670	550	166.0
12" (300 mm)	553	622	727	600	242.5
14" (350 mm)	838	701	862	700	352.0
16" (400 mm)	760	734	910	700	364.0
18" (450 mm)	978	850	1210	860	756.0
20" (500 mm)	865	892	1110	1000	640.0
24" (550 mm)	1295	1090	1320	1120	1239.0
28" (650 mm)	1448	1312	1700	1310	1670.0
32" (750 mm)	1850	1374	1783	1300	2200.0
36" (800 mm)	1956	1504	1985	1410	2500.0
40" (900 mm)	2250	1680	2090	1500	3350.0

