Restrictor Check

The **DFT® Restrictor Check Valve (RCV)** is a versatile, all-purpose, spring-assisted, non-slam check valve for applications that require higher cracking pressures to open the check valve than those offered by other DFT check valves. Cracking pressures are available from 2 to 40 psi depending on valve size. Like the Basic-Check® valve, the Restrictor Check provides reliable, low maintenance service for a wide range of fluids and gases at various pressure/temperature combinations. The valve consists of a guard cage, spring, valve disc, retaining ring and seat. It can be combined with pipe fittings such as couplings, drain elbows, etc. (not provided by DFT) to form a complete check valve unit ideally suited for a broad range of applications. The RCV should not be considered a substitute for a Pressure Relief Valve.



FEATURES:

- Higher cracking pressures (2 to 40 psi — See chart)
- 1/4" to 2 1/2" Line size
- 450 to 2500 CWP
- Threaded ends

- Stainless steel construction
- Spring-assisted silent closing
- Horizontal or vertical installation
- Tight shutoff lapped disc & seat
- Easy maintenance

- Versatile
- Options:
 - Soft seat (for bubble-tight shutoff)

Warning: Use with extra deep, bell reducer only



Typical Installation

COLD, NON-SHOCK PRESSURE RATING (1)

Size	1/4", 3/8", 1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Rated Working Pressure	2500	2000	1500	850	700	450	450

Consult pages 48 and 49 for Pressure/Temperature ratings and soft seat materials.



Restrictor Check

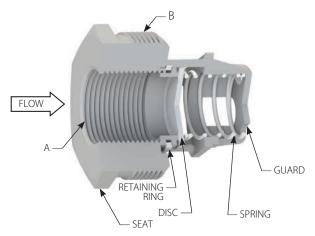
Sat. Steam Pressure (PSIG) Ref. (2)	Temperature (°F)	Adjusted Rating as Percent of Cold Rating
-3	200	86%
15	250	82%
52	300	78%
232	400	71%
407	450	69%
665	500	66%
1526	600	62%
3075	700	60%

All stainless steel construction is suitable for cryogenic service. For pressure rating at elevated temperatures for standard metal-seated valves, reduce above rating per chart above.

Maximum valve temperature rating is limited by soft seal (if any) and spring materials in chart below. For ratings of soft seals using some other elastomers, consult DFT.

MATERIALS OF CONSTRUCTION

Component	Restrictor Check
Seat	303 SS
Disc	316 SS
Guard	CF8M
Spring	302 SS
Retaining Ring	316 SS



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SOFT SEAT Maximum operating temperatures of materials			
MATERIALS	MAX. TEMP. (°F)		
BUNA-N	-70 to 250		
EPDM	-75 to 300		
VITON® & TFE-Encapsulated VITON®	-40 to 400		
ZELON®	37 to 470		

	Restrictor Check	
	A	0.25
<u> </u>	В	1
1/4″	Weight	0.38
	Cv	5.8
	СР	3.3 to 20.4
_	A	0.38
<u> </u>	В	1
3/8"	Weight	0.38
	Cv	5.8
	СР	3.3 to 20.4
	Α	0.50
	В	1
1/2″	Weight	0.38
_	Cv	5.8
	СР	3.3 to 20.4
_	A	0.75
	В	1.50
3/4"	Weight	0.88
	Cv	13.2
	СР	3.3 to 15.5
	<u>A</u>	1.00
	В	2.00
1"	Weight	1.25
	Cv	23.1
	СР	4.2 to 40.7
_	A	1.25
4 4 / 4 //	В	2.50
1 1/4"	Weight	2.25
_	Cv	36
	CP	1.8 to 18.8
	A	1.50
1 1 / 2 //	B	3.00
1 1/2"	Weight	3.75
_	Cv CP	57.4
	A	2.4 to 19.1
_	B B	2.00
2"	Weight	4.00 7.00
_	Cv	90
_	CP	1.7 to 9.4
	A	2.50
_	В	4.00
2 1/2"	Weight	7.00
£ 1/£	Cv	90
	CV CP	4.6 to 10.8
	CF	4.0 10 10.0

Not recommended for use on discharge of reciprocating compressors.

- 1. Contingent on service ratings of matching pipe and fittings.
- 2. Saturated steam pressure is given for reference only; pressure limit of valve is the adjusted rating at the given temperature.

All dimensions are in inches. Weights are in pounds. For metric measurements, visit www.dft-valves.com. CP: Cracking Pressure (psig)

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