

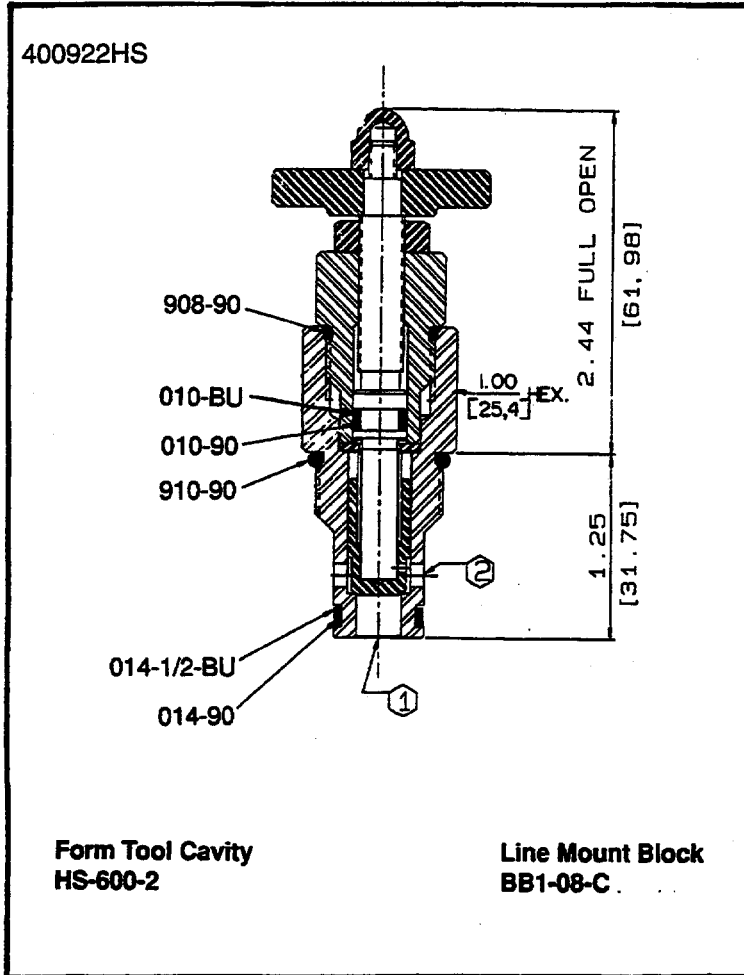
12.5 USGPM Δ 100 PSI
 (47,4 LPM Δ 6,9 Bar)

HSNC600



Data Sheet

Needle Check Valve



Application

A HSNC valve prevents flow in one direction while providing an adjustable orifice in the other direction.

Operation

When differential pressure at port 1 is higher than at port 2, the main spool is forced against an inner-chamber spring and opens port 1 to port 2. The spool travel (orifice opening) is adjusted by turning the knob counter clockwise (screw turns outward) to increase flow. A reversal flow, with higher differential pressure at port 2, forces the spool closed and blocks flow.

Features

The HSNC Cartridge Valve is constructed of steel parts. Operating parts are hardened and ground as required. The cartridge is designed for easy service and field repair.

Specifications

Nominal flow with 14 psi (1,0 bar) spring - 12.5 gpm (47,4 lpm)

Maximum operating pressure - 5000 psi (345 bar)

Rotation, full shut to open - 4-3/4 turns

Torque to adjust valve when under maximum pressure - 17 in. lb. (1921 Nmm).

Viscosity Range - 27-30 SSU at 100° F
 35-2000 SSU at 100° F

Seals - Viton

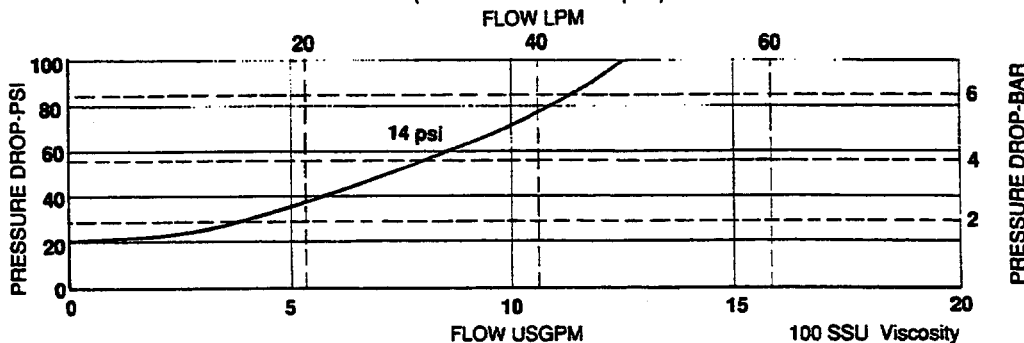
Operating temperature - 40° F to 350° F
 (-39,6° C to 175° C)

Filtration - Maintain SAE Class 6, ISO 18/15

Seal kit - HSK-600-AE

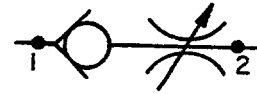
Performance Curve

(Needle valve at full open)



12.5 USGPM Δ 100 PSI
 (47,4 LPM Δ 6,9 Bar)

HSNC600

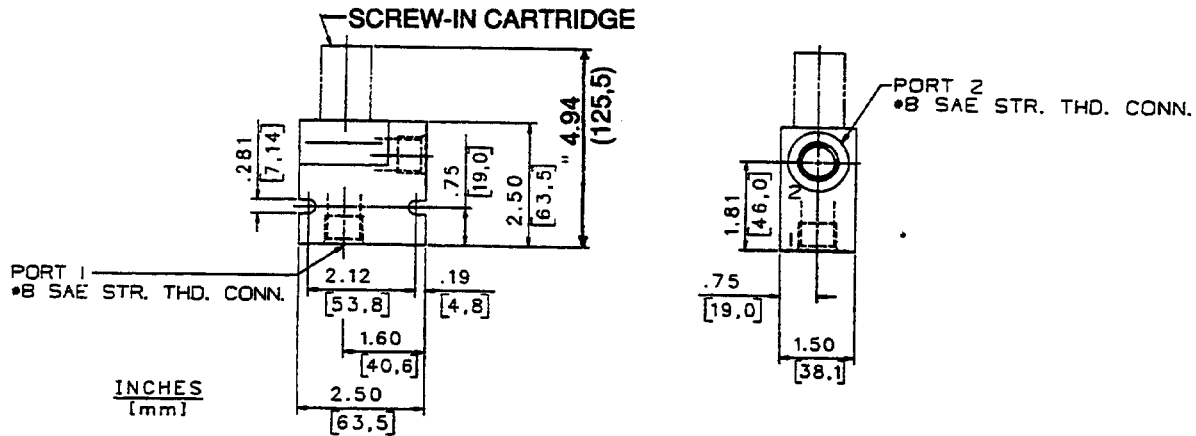


Data Sheet

Needle Check Valve

Line Mounted Specifications

HSNC600/BB1-08-C



How To Order

Screw-in Cartridge Only

HSNC600 -

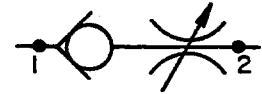
	Cracking Pressure	
	psi	bar
Blank	14	1,0

Cartridge With Line Mount Block

HSNC600 ____ /BB1-08-C

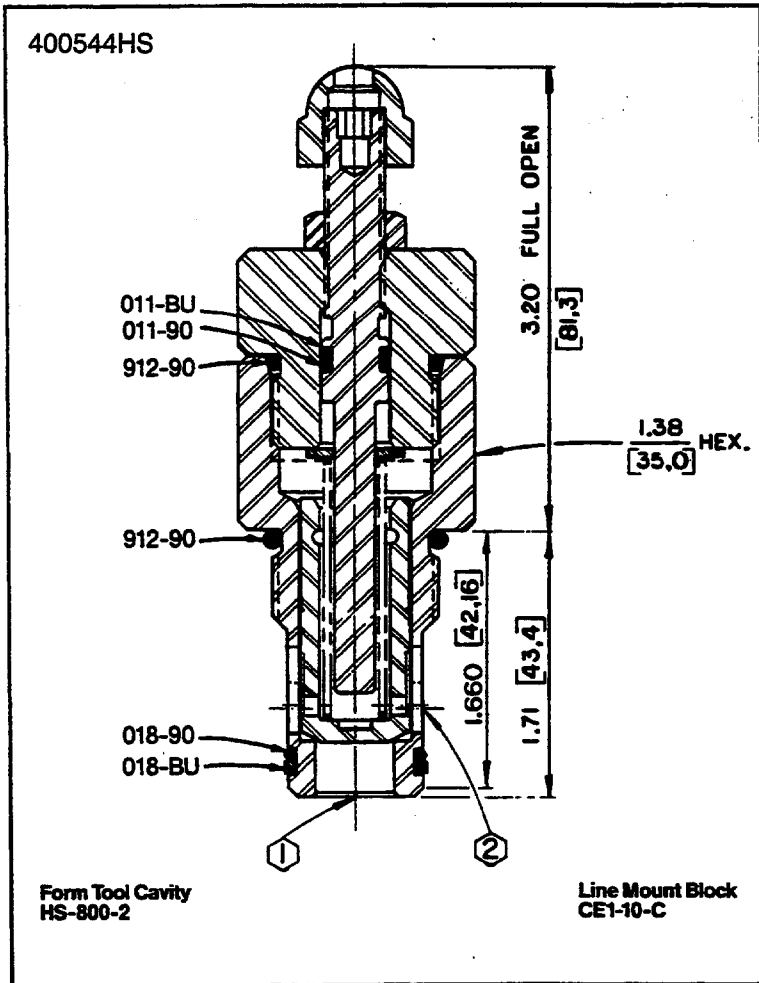
38 GPM Δ 100 PSI
(144 LPM Δ 6,9 Bar)

HSNC802



Data Sheet

Needle Check Valve



Application

A HSNC valve prevents flow in one direction while providing an adjustable orifice, in the other direction.

Operation

When differential pressure at port 1 is higher than at port 2, the main spool is forced against an inner-chamber spring and opens port 1 to port 2. The spool travel (orifice opening) is adjusted by a screw which can be turned outwards to increase flow. A reversal flow, with higher differential pressure at port 2, forces the spool closed and blocks flow.

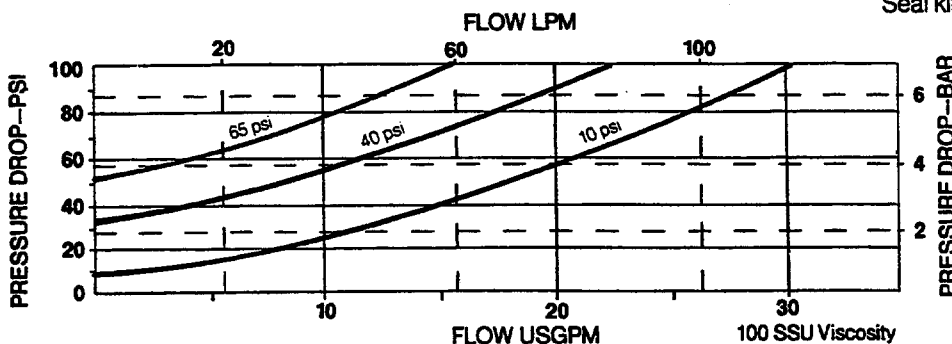
Features

Several cracking pressure (port 1 to 2) settings are available. The HSNC Cartridge Valve is constructed of steel parts. Operating parts are hardened and ground as required. The cartridge is designed for easy service and field repair.

Specifications

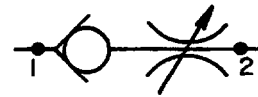
- Nominal flow with 10 psi (0,7 bar) spring—38 gpm (144 lpm)
- Nominal flow with 40 psi (2,8 bar) spring—34 gpm (129 bar)
- Nominal flow with 65 psi (4,5 bar) spring—31 gpm (117 lpm)
- Maximum operating pressure—5000 psi (345 bar)
- Rotation, full shut to open—9.6 turns
- Torque to adjust valve when under maximum pressure—30 in. lb. (3390 Nmm)
- Viscosity range—27-30 SSU at 100°F
35-2000 SSU at 100°F
- Seals—Viton
- Operating temperature—-40°F to 350°F
(-39,6°C to 175°C)
- Filtration—Maintain SAE Class 6, ISO 18/15
- Seal kit—HSSK-800-B

Performance Curve



38 GPM Δ 100 PSI
 (144 LPM Δ 6,9 Bar)

HSNC802

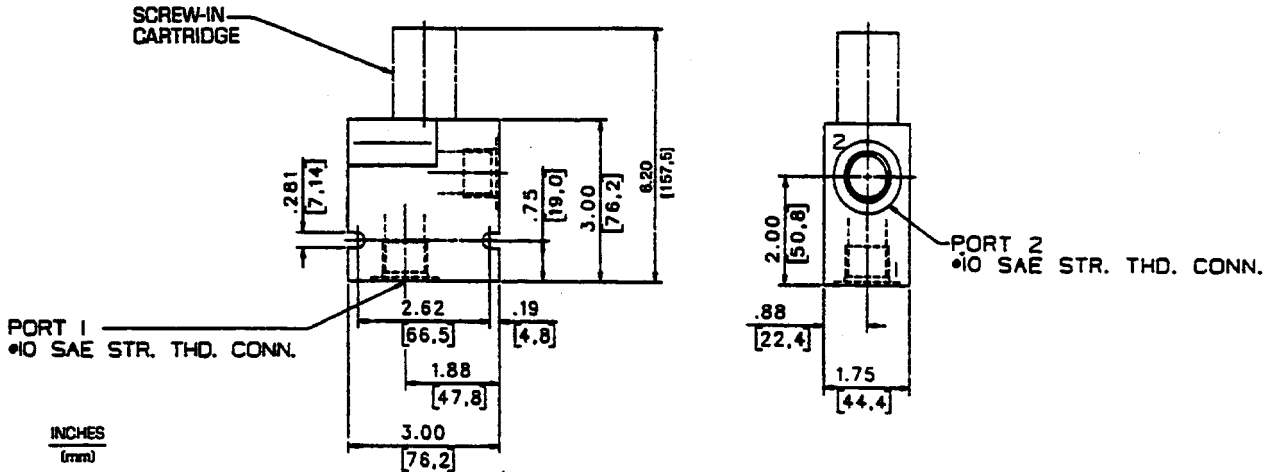


Data Sheet

Needle Check Valve

Line Mount Specifications

HSNC802/CE1-10-C



How To Order

Screw-In Cartridge Only

HSNC802- _____

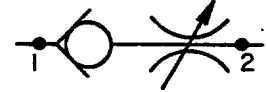
	Cracking Pressure	
	psi	bar
Blank	10	0,69
40	40	2,76
65	65	4,48

Cartridge With Line Mount Block

HSNC802-__/CE1-10-C

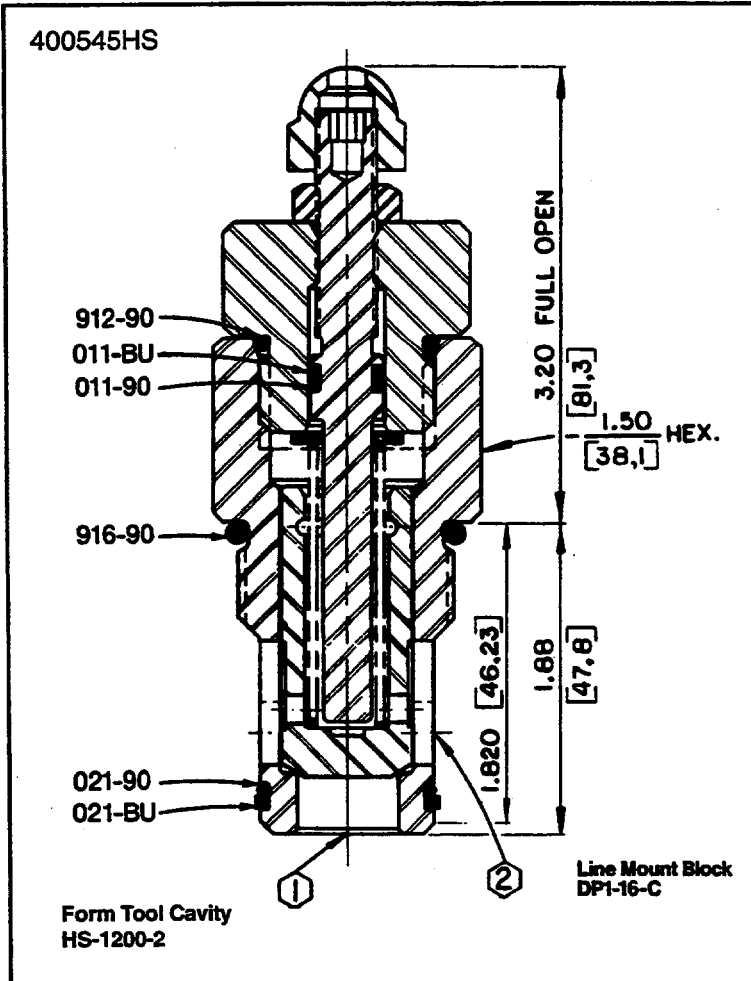
73 GPM Δ 100 PSI
(277 LPM Δ 6,9 Bar)

HSNC1202



Data Sheet

Needle Check Valve



Application

A HSNC valve prevents flow in one direction while providing an adjustable orifice, in the other direction.

Operation

When differential pressure at port 1 is higher than at port 2, the main spool is forced against an inner-chamber spring and opens port 1 to port 2. The spool travel (orifice opening) is adjusted by a screw which can be turned outwards to increase flow. A reversal flow, with higher differential pressure at port 2, forces the spool closed and blocks flow.

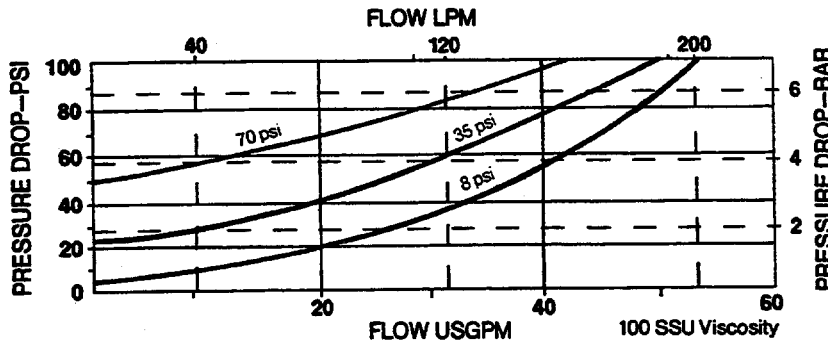
Features

Several cracking pressure (port 1 to 2) settings are available. The HSNC Cartridge Valve is constructed of steel parts. Operating parts are hardened and ground as required. The cartridge is designed for easy service and field repair.

Specifications

- Nominal flow with 8 psi (0,6 bar) spring— 73 gpm (277 lpm)
- Nominal flow with 35 psi (2,4 bar) spring— 67 gpm (254 lpm)
- Nominal flow with 70 psi (4,8 bar) spring— 60 gpm (227 lpm)
- Maximum operating pressure— 5000 psi (345 bar)
- Rotation, full shut to open—10.0 turns
- Torque to adjust valve when under maximum pressure—70 in. lb. (7910 Nmm)
- Viscosity range—27-30 SSU at 100°F
35-2000 SSU at 100°F
- Seals—Viton
- Operating temperature—-40°F to 350°F
(-39,6°C to 175°C)
- Filtration—Maintain SAE Class 6, ISO 18/15
- Seal kit—HSSK-1200-B

Performance Curve



73 GPM Δ 100 PSI
 (277 LPM Δ 6,9 Bar)

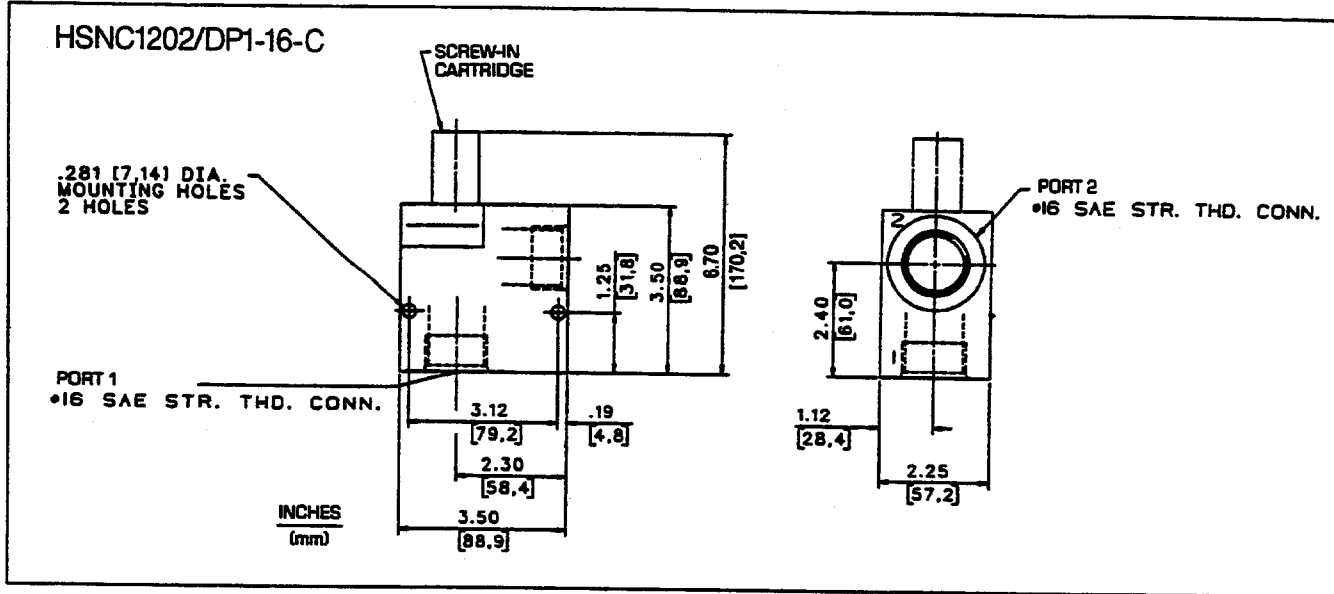
HSNC1202



Data Sheet

Needle Check Valve

Line Mount Specifications



How To Order

Screw-In Cartridge Only

HSNC1202-_____

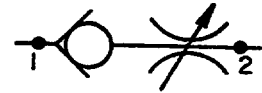
	Cracking Pressure	
	psi	bar
Blank	8	0.55
35	35	2.41
70	70	4.83

Cartridge With Line Mount Block

HSNC1202-___/DP1-16-C

90 GPM Δ 100 PSI
(341 LPM Δ 6,9 Bar)

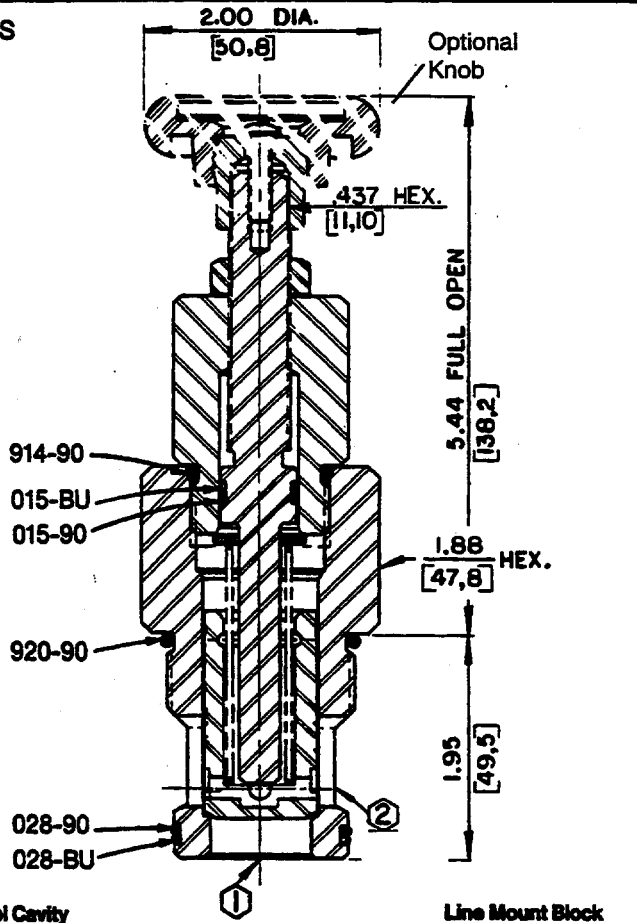
HSNC1603



Data Sheet

Needle Check Valve

400551HS



Line Mount Block
3000 psi - EU1-24-C
5000 psi - EU1-68-C

Application

A HSNC valve prevents flow in one direction while providing an adjustable orifice, in the other direction.

Operation

When differential pressure at port 1 is higher than at port 2, the main spool is forced against an inner-chamber spring and opens port 1 to port 2. The spool travel (orifice opening) is adjusted by a screw which can be turned outwards to increase flow. A reversal flow, with higher differential pressure at port 2, forces the spool closed and blocks flow.

Features

Several cracking pressure (port 1 to 2) settings are available. The HSNC Cartridge Valve is constructed of steel parts. Operating parts are hardened and ground as required. The cartridge is designed for easy service and field repair.

Specifications

Nominal flow with 10 psi (0,7 bar) spring—
90 gpm (341 lpm)

Nominal flow with 30 psi (2,1 bar) spring—
80 gpm (303 lpm)

Nominal flow with 60 psi (4,1 bar) spring—
19 gpm (72 lpm)

Maximum operating pressure—
5000 psi (345 bar)

Rotation, full shut to open—18.2 turns

Torque to adjust valve when under maximum
pressure—110 in. lb. (12430 Nmm)

Viscosity range—27-30 SSU at 100°F
35-2000 SSU at 100°F

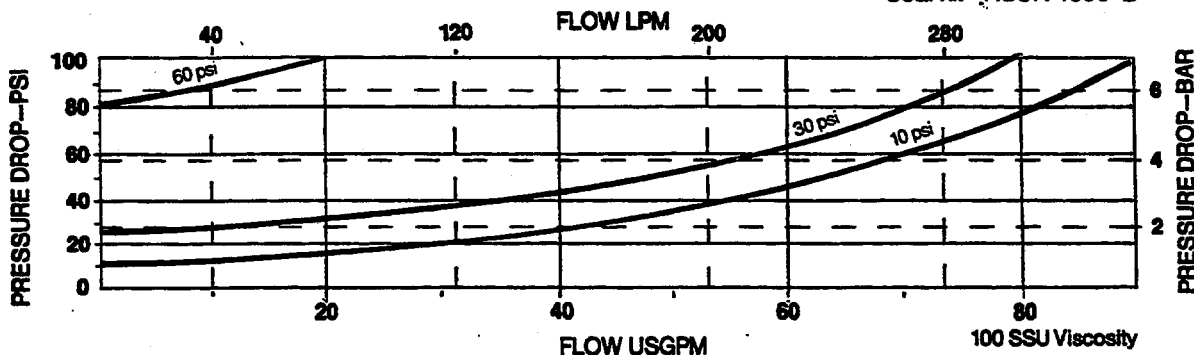
Seals—Viton

Operating temperature—-40°F to 350°F
(-39,6°C to 175°C)

Filtration—Maintain SAE Class 6, ISO 18/15

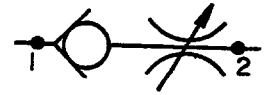
Seal kit—HSSK-1600-B

Performance Curve



90 GPM Δ 100 PSI
(341 LPM Δ 6,9 Bar)

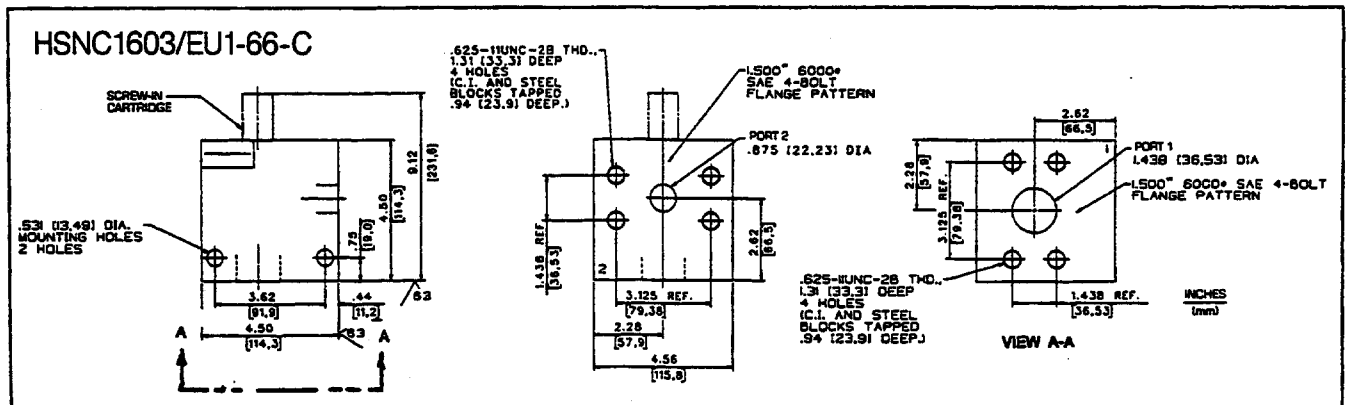
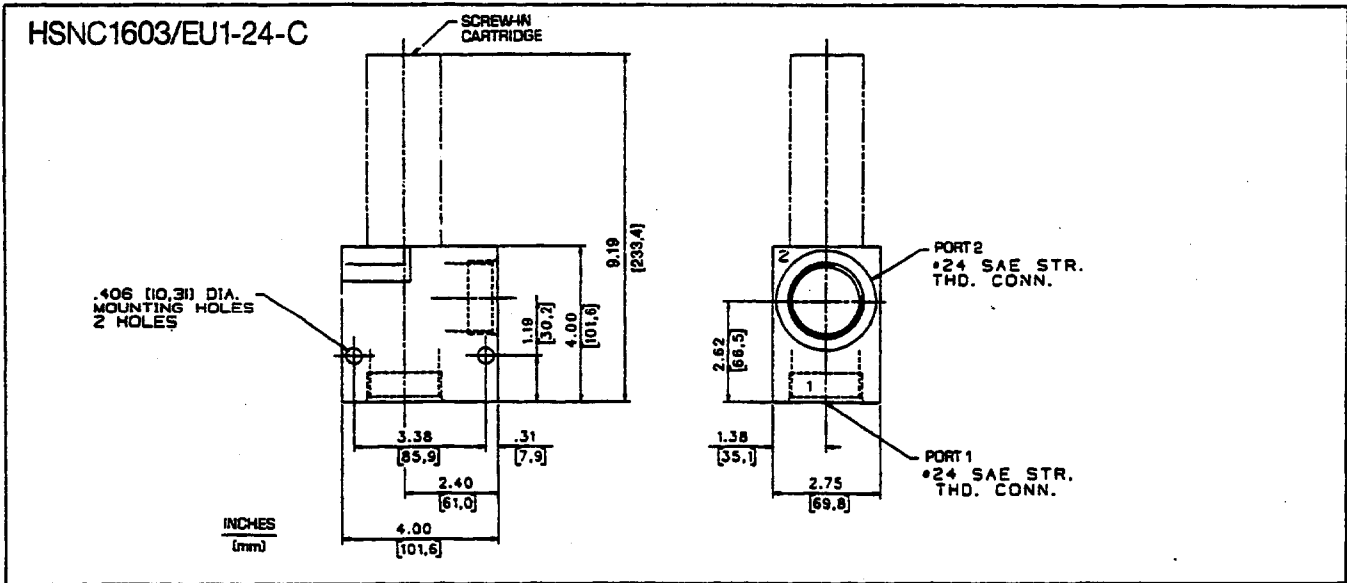
HSNC1603



Data Sheet

Needle Check Valve

Line Mount Specifications



How To Order

Screw-In Cartridge Only

HSNC1603-_____

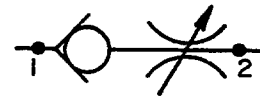
	Cracking Pressure	
	psi	bar
Blank	10	0,69
30	35	2,07
60	60	4,14

Cartridge With Line Mount Block

3000 psi (207 bar) service pressure
HSNC1603-___/EU1-24-C
5000 psi (345 bar) service pressure
HSNC1603-___/EU1-66-C

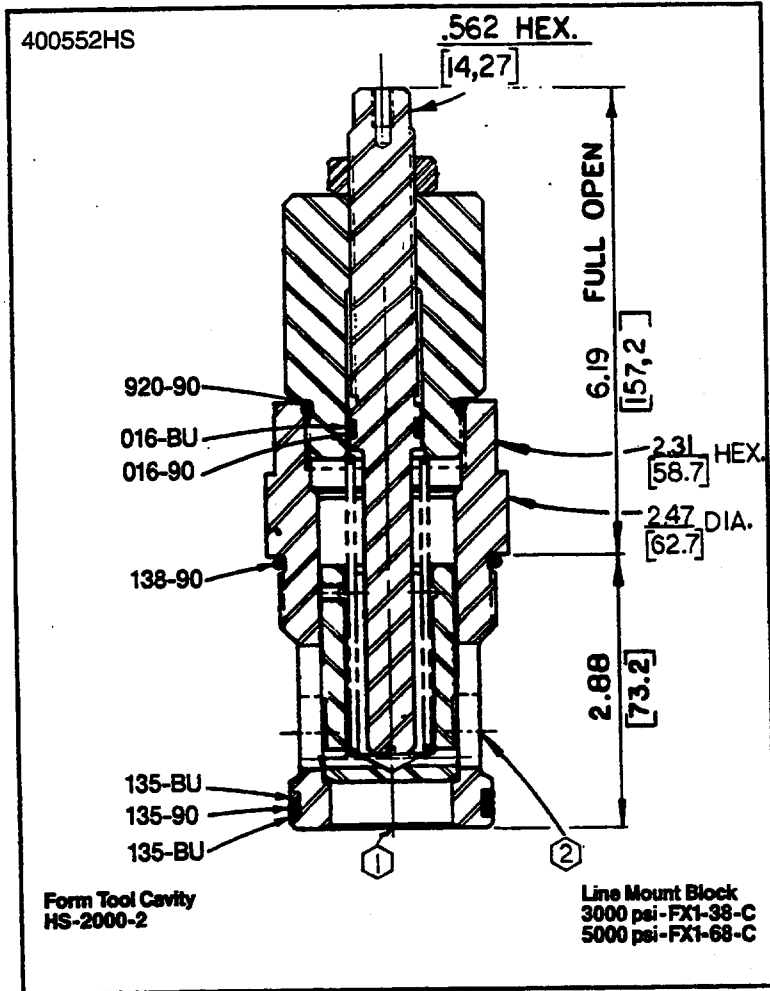
225 GPM Δ 100 PSI
(852 LPM Δ 6,9 Bar)

HSNC2003



Data Sheet

Needle Check Valve



Application

A HSNC valve prevents flow in one direction while providing an adjustable orifice, in the other direction.

Operation

When differential pressure at port 1 is higher than at port 2, the main spool is forced against an inner-chamber spring and opens port 1 to port 2. The spool travel (orifice opening) is adjusted by a screw which can be turned outwards to increase flow. A reversal flow, with higher differential pressure at port 2, forces the spool closed and blocks flow.

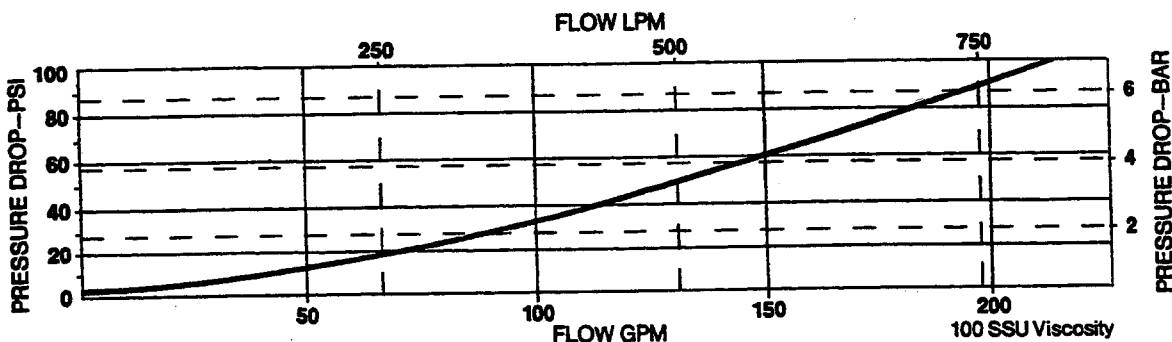
Features

Several cracking pressure (port 1 to 2) settings are available. The HSNC Cartridge Valve is constructed of steel parts. Operating parts are hardened and ground as required. The cartridge is designed for easy service and field repair.

Specifications

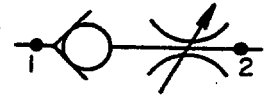
- Nominal flow with 5 psi (0,3 bar) spring—225 gpm (852 lpm)
- Nominal flow with 25 psi (1,7 bar) spring—180 gpm (681 lpm)
- Nominal flow with 50 psi (3,7 bar) spring—150 gpm (568 lpm)
- Maximum operating pressure—5000 psi (345 bar)
- Rotation, full shut to open—32.1 turns
- Torque to adjust valve when under maximum pressure—500 in. lb. (56500 Nmm)
- Viscosity range—27-30 SSU at 100°F
25-2000 SSU at 100°F
- Seals—Viton
- Operating temperature—-40°F to 350°F
(-39,6°C to 175°C)
- Filtration—Maintain SAE Class 6, ISO 18/15
- Seal kit—HSSK-2000-B

Performance Curve



225 GPM Δ 100 PSI
(852 LPM Δ 6,9 Bar)

HSNC2003

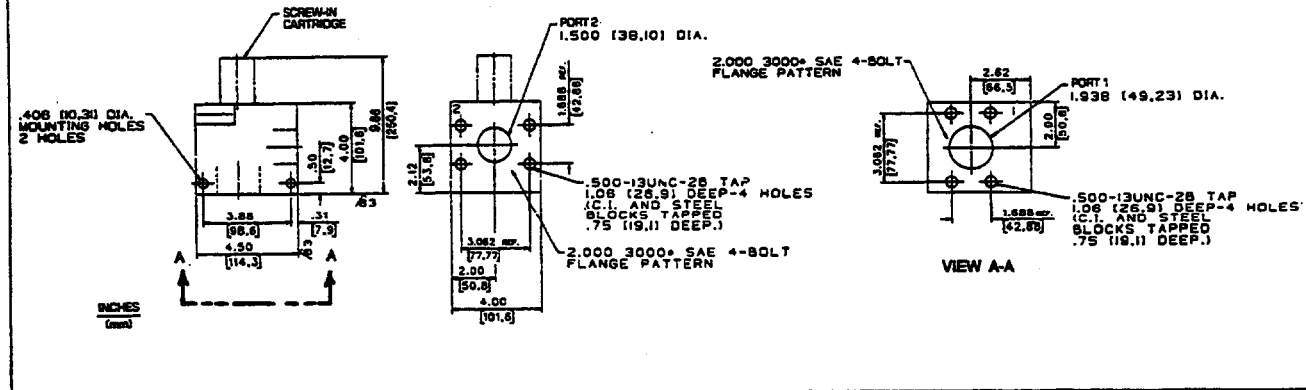


Data Sheet

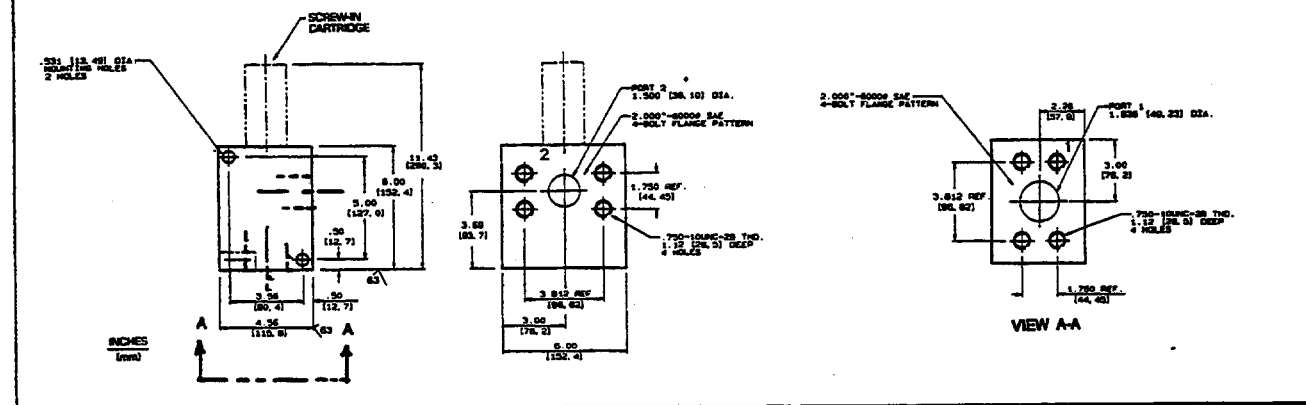
Needle Check Valve

Line Mount Specifications

HSNC2003/FX1-38-C



HSNC2003/FX1-68-C



How To Order

Screw-In Cartridge Only

HSNC2003-___

	Cracking Pressure	
	psi	bar
Blank	5	0,34
25	25	1,72
50	50	3,45

Cartridge With Line Mount Block

3000 psi (207 bar) service pressure
HSNC2003-___/FX1-38-C
5000 psi (345 bar) service pressure
HSNC2003-___/FX1-68-C