

Inserta Products, Inc.

CHECK VALVES THREAD-IN TYPE

INSERTA® ICT Check Valves, Thread-In Type, with external SAE threads, can be inserted in manifolds, subplates, flanges or integrated valve systems. This compact design eliminates external leak points associated with line mounted check valves.

These disc check valves are also available with a fixed orifice for customer's specific quantity requirement.

INSERTA® ICT Check Valves, Thread-In Type, are all steel construction with hardened, lapped discs and seats providing positive fluid shut off. They come complete with a sealing O-ring.



ORDERING INFORMATION

INSERTA®
CHECK VALVES
THREAD-IN TYPE

DESIGN CODE

NOMINAL SIZE (Thread Size)

| | |
|------------------|------------------|
| 02 = 5/16 - 24 | 16 = 1 5/16 - 12 |
| 03 = 3/8 - 24 | 20 = 1 5/8 - 12 |
| 04 = 7/16 - 20 | 24 = 1 7/8 - 12 |
| 06 = 9/16 - 18 | 32 = 2 1/2 - 12 |
| 08 = 3/4 - 16 | 40 = 3 - 12 |
| 10 = 7/8 - 14 | 48 = 3 1/2 - 12 |
| 12 = 1 1/16 - 12 | |

ICT-B-24-N015-RØ

FLOW CONTROL OPTION

R = FIXED RESTRICTIVE ORIFICE
Ø = DIAMETER (INCH) OF THE FIXED ORIFICE. CUSTOMER MUST SPECIFY THE ORIFICE DIAMETER.
SEE "RØ" ON DATA SHEET FOR ORIFICE DATA.
(OMIT FOR STANDARD CHECK VALVE)

CRACKING PRESSURE

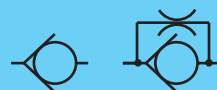
| | |
|-------------------------|----------------------------------|
| 003 = 3 PSI | |
| 007 = 7 PSI | |
| 015 = 15 PSI (STANDARD) | |
| 030 = 30 PSI | |
| 060 = 60 PSI | } Optional Longer Check Valve |
| 090 = 90 PSI | |

SEAL COMPOUND

N = BUNA-N (STANDARD)
V = VITON

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Blue Bell, Pa. 19422

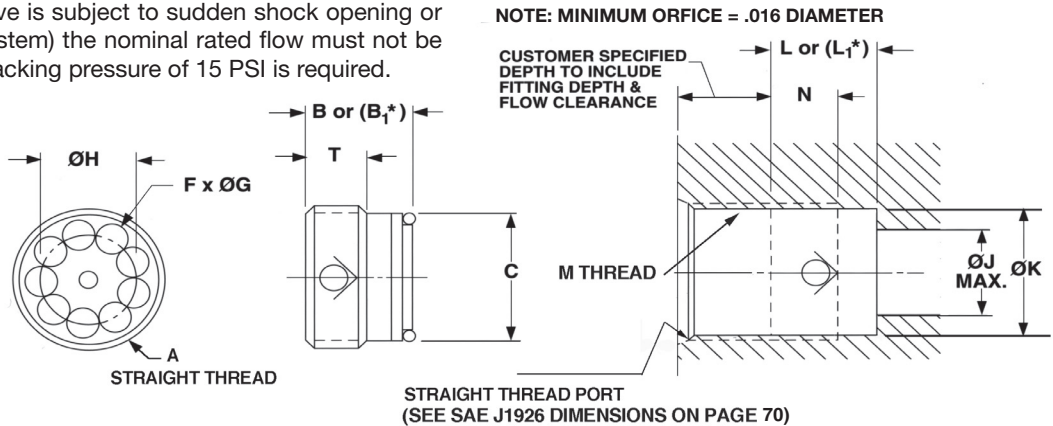
CHECK VALVES
THREAD-IN
TYPE



| VALVE SIZE | NOMINAL FLOW (GPM) | VALVE DIMENSIONS | | | | | | | | RØ MAX | T | O-RING SIZE NO. (mm) | INSTALLATION TOOL | SEATING TORQUE LB-FT |
|------------|--------------------|------------------|-------|-------|-------|----|-----|-------|------|--------|---------|----------------------|-------------------|----------------------|
| | | A | B | B1 * | C | F | G | H | | | | | | |
| 02 | 1.0 | 5/16-24 | .412 | — | .245 | 4 | .06 | .175 | .024 | .270 | (4.5x1) | IMT-C-02 | .5-1 | |
| 03 | 1.8 | 3/8-24 | .428 | — | .333 | 4 | .07 | .224 | .039 | .270 | (6.2X1) | IMT-C-03 | .5-1 | |
| 04 | 3.0 | 7/16-20 | .435 | .630 | .376 | 4 | .10 | .228 | .039 | .255 | 010 | IMT-C-04 | 1-2 | |
| 06 | 6.0 | 9/16-18 | .455 | .710 | .494 | 6 | .12 | .328 | .078 | .255 | 012 | IMT-C-06 | 1-2 | |
| 08 | 12 | 3/4-16 | .535 | .750 | .673 | 8 | .15 | .453 | .078 | .285 | (13x2) | IMT-C-08 | 2-3 | |
| 10 | 17 | 7/8-14 | .630 | .770 | .787 | 8 | .17 | .565 | .078 | .350 | (16x2) | IMT-C-10 | 7-8 | |
| 12 | 25 | 1 1/16-12 | .750 | 1.045 | .963 | 8 | .22 | .693 | .140 | .430 | 116 | IMT-D-12 | 16-17 | |
| 16 | 35 | 1 5/16-12 | .910 | 1.340 | 1.210 | 9 | .28 | .875 | .218 | .510 | 213 | IMT-D-16 | 27-29 | |
| 20 | 63 | 1 5/8-12 | 1.420 | 2.440 | 1.535 | 10 | .31 | 1.161 | .275 | .940 | 219 | IMT-E-20 | 45-50 | |
| 24 | 80 | 1 7/8-12 | 1.655 | 3.000 | 1.769 | 10 | .37 | 1.340 | .394 | 1.055 | 222 | IMT-E-24 | 80-90 | |
| 32 | 135 | 2 1/2-12 | 2.520 | — | 2.391 | 10 | .50 | 1.804 | .394 | 1.531 | 227 | IMT-E-32 | 90-100 | |
| 40 | 155 | 3-12 | 2.988 | — | 2.883 | 10 | .59 | 2.187 | .394 | 1.750 | 231 | IMT-E-40 | 300-340 | |
| 48 | 175 | 3 1/2-12 | 3.113 | — | 3.385 | 10 | .69 | 2.562 | .394 | 1.750 | 235 | IMT-E-48 | 400-430 | |

In applications where the valve is subject to sudden shock opening or closing (e.g. Accumulator System) the nominal rated flow must not be exceeded and a minimum cracking pressure of 15 PSI is required.

NOMINAL FLOW RATES ARE WITH A ΔP OF 30 TO 40 PSI



SEE PAGE 64 FOR INSTALLATION TOOL ORDERING INFORMATION

| MACHINED CAVITY DIMENSIONS | | | | | | |
|----------------------------|-------|---------|-------|-------|-----------|-------|
| VALVE SIZE | J | K -.005 | L | L1* | M | N |
| 02 | .125 | .255 | .412 | — | 5/16-24 | .291 |
| 03 | .190 | .345 | .428 | — | 3/8-24 | .291 |
| 04 | .188 | .389 | .435 | .630 | 7/16-20 | .275 |
| 06 | .281 | .508 | .455 | .710 | 9/16-18 | .275 |
| 08 | .406 | .689 | .535 | .750 | 3/4-16 | .335 |
| 10 | .500 | .804 | .630 | .770 | 7/8-14 | .415 |
| 12 | .625 | .978 | .750 | 1.045 | 1 1/16-12 | .495 |
| 16 | .813 | 1.228 | .910 | 1.340 | 1 5/16-12 | .590 |
| 20 | 1.031 | 1.541 | 1.420 | 2.440 | 1 5/8-12 | 1.025 |
| 24 | 1.250 | 1.798 | 1.655 | 3.000 | 1 7/8-12 | 1.420 |
| 32 | 1.750 | 2.416 | 2.520 | — | 2 1/2-12 | 1.750 |
| 40 | 2.062 | 2.895 | 2.988 | — | 3-12 | 1.875 |
| 48 | 2.500 | 3.395 | 3.113 | — | 3 1/2-12 | 1.875 |

MOUNTING POSITION: OPTIONAL
MAXIMUM OPERATING PRESSURE: 5000 PSI (Contact the Factory for pressures up to 7250 PSI)
TEMPERATURE RANGE: -22°F (-30°C) To 175°F (80°C) (Depending on seal material)

OPERATING MEDIUM: HYDRAULIC FLUID
VISCOSITY RANGE: 50 SSU TO 2000 SSU
CRACKING PRESSURE: 3 PSI, 7 PSI, 15 PSI (STANDARD) OR 30 PSI. *60 PSI & 90 PSI, OPTIONAL WITH LONGER CHECK VALVE.

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|---|---|--|