

# Inserta Products, Inc.

## SLIP-IN CHECK VALVE RETAINING PLUG FLANGE TYPE

INSERTA® IGSP Slip-in Check Valve Retaining Plug, Flange Type, provides an effective means to retain an INSERTA® IGS Slip-In Check Valve in a cavity for use with a right angle flow path (axial fluid flow at the valve inlet, radial fluid flow at the valve outlet). The INSERTA® IGS Slip-In Check Valve is preferred (in nominal sizes-16 and above) over the INSERTA® ICS Slip-In Check Valve for the right angle flow path typical of hydraulic cartridge check valves.

INSERTA® IGS Slip-in Check Valves can offer significantly lower pressure drops over typical hydraulic cartridge check valves, resulting in lower operating costs and less waste heat generation.

The INSERTA® IGS Slip-In Check Valve cavity does not require dedicated cavity form tools. A four bolt flange pattern (long axis perpendicular to the valve outlet radial flow direction) consistent with SAE J518 is used at the surface of the cavity. The retaining plug is inserted in the cavity after placement of the Slip-In check valve, and the valve and retaining plug are then held in place by an SAE J518 flange, using fasteners to engage the four-bolt flange pattern at the cavity surface. The retaining plug offsets the check valve from the cavity surface to allow for a flange or threaded port to be placed at the valve outlet, should this be desired.

The INSERTA® IGS Slip-In Check Valve is installed using both of its O-rings. The O-ring at the valve inlet provides sealing with the valve operating in the checked direction. The opposite O-ring does not contribute to sealing when the valve is used with a right angle flow path, however it does contribute to a frictional interface between the valve and retaining plug that opposes fluid forces tending to rotate the valve in the cavity during operation.

The Retaining Plug is all steel construction, and is supplied with a standard J518 flange and SHCS fasteners.



## ORDERING INFORMATION IGSP – A – 61 24 – N – 1

INSERTA®  
SLIP-IN CHECK VALVE  
RETAINING PLUG  
FLANGE TYPE

DESIGN CODE

MOUNTING PATTERN  
61 = SAE J518-1: CODE 61  
62 = SAE J518-2: CODE 62

NOMINAL SIZE

16 = 1  
20 = 1 1/4  
24 = 1 1/2  
32 = 2

SURFACE FINISH  
1 = ZINC CHROMATE

SEAL COMPOUND  
N = BUNA-N (STANDARD)  
V = VITON

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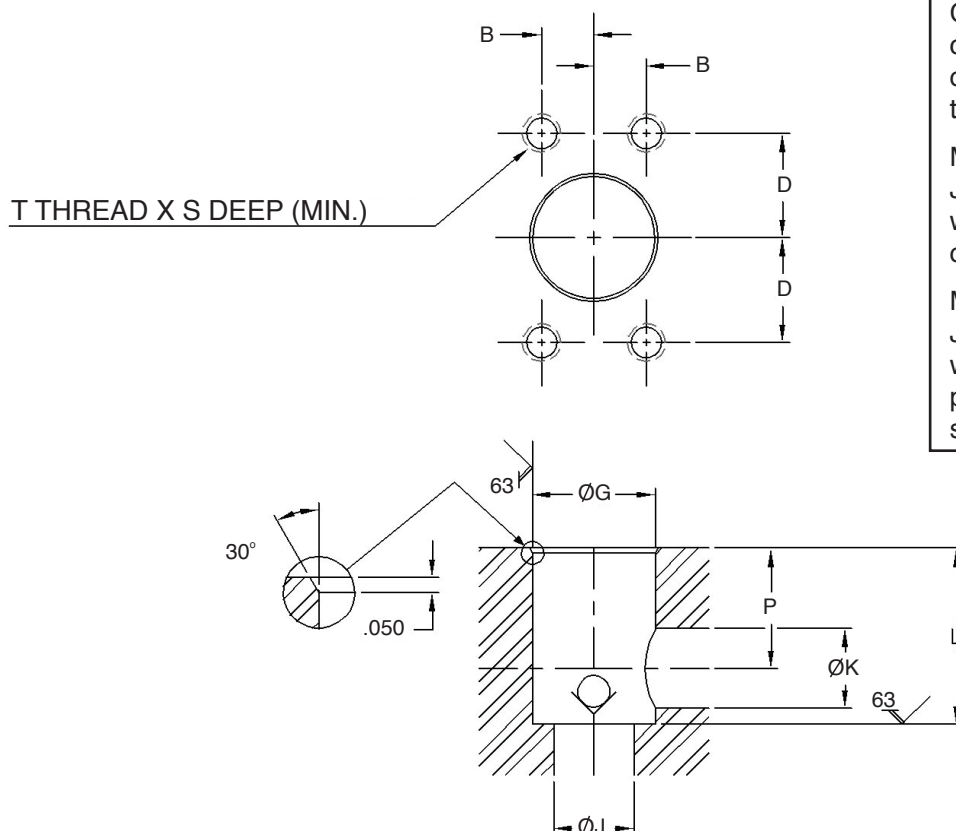
CHECK VALVES  
GUIDED DISC  
SLIP-IN TYPE

**CAUTION**

Care must be exercised when installing check valve to insure the free flow path of the slip-in check valve is correct for the system in which it is installed.

Maximum Working Pressure per SAE J518, or 6000 psi, whichever is lower, when using an IGS Check Valve in steel or ductile iron cavities.

Maximum working pressure per SAE J518, or 5000 psi, whichever is lower, when using an ICS Check Valve (not preferred for 90° flow applications) in steel or ductile iron cavities.

**CODE 61**

VALVE SIZE	B	D	G	J MAX	K MAX	L +.002/- .000	P	T	S(MIN)
6116	0.515	1.031	1.2008 / 1.2032	0.787	0.787	1.735	1.184	3/8-16UN-2B	0.87
6120	0.594	1.156	1.5551 / 1.5575	1.031	1.102	2.296	1.470	7/16-14UN-2B	0.98
6124	0.703	1.375	1.7717 / 1.7741	1.250	1.250	2.640	1.637	1/2-13UN-2B	1.06
6132	0.844	1.531	2.3927 / 2.3960	1.750	1.750	3.363	1.934	1/2-13UN-2B	1.06

**CODE 62**

VALVE SIZE	B	D	G	J MAX	K MAX	L +.002/- .000	P	T	S(MIN)
6216	0.547	1.125	1.2008 / 1.2032	0.787	0.787	1.955	1.404	7/16-14UN-2B	1.06
6220	0.625	1.312	1.5551 / 1.5575	1.031	1.102	2.386	1.560	1/2-13UN-2B	0.98
6224	0.719	1.562	1.7717 / 1.7741	1.250	1.250	2.908	1.905	5/8-11UN-2B	1.38
6232	0.875	1.906	2.3927 / 2.3960	1.750	1.750	3.708	2.279	3/4-10UN-2B	1.50

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