

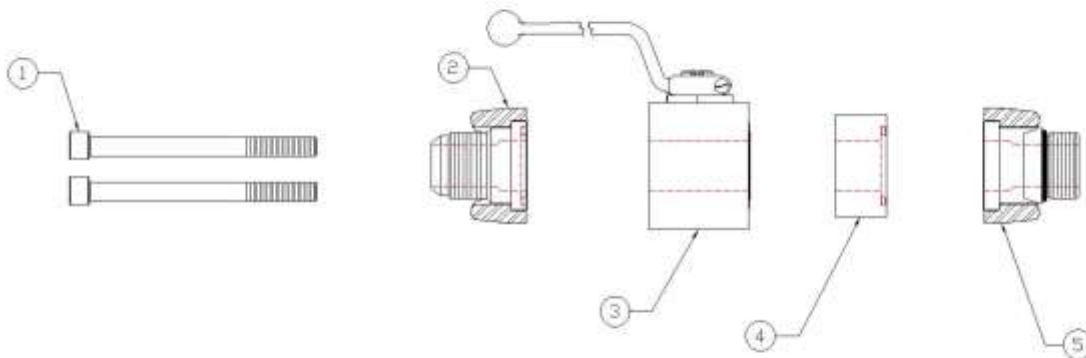
## Ball Valve Assemblies with Male Threaded Ends

Inserta® Flange type 2-Port Ball Valves may be shipped with other components in kit form to allow for the creation of a Ball Valve Assembly with Male Threaded Ports. Adaconn® Flange Adapters are available with a variety of male threaded ends, including SAE J1926 O-ring stud end, SAE J514 37°, SAE J1453 ORS, and NPTF. These may be mixed as required for a particular application.



## Ball Valve Assemblies with Male Threaded Ends

The following is a component selection guide, using a Code 61, one-inch ball valve as an example. These components will result in a Ball Valve Assembly with one SAE J514 37° male end, and one SAE J1926 O-ring male end.



1. ABK OR IBK-4038-16 X 4.50
2. AFO-K16-F16-1.88-S1-B-AS1 (Adapter with O-ring Face Seal, Clamp Type Flange)
3. IBF-B-6116-N-D-\* -OS
4. IPS-A-61164-N
5. AFP-K16-S16-1.88-S1-B-BS1 (Adaflangeport™ Adapter, Threaded Companion Flange)



## Ball Valve Assemblies with Male Threaded Ends

The length of the fastener may be determined by adding the following three dimensions, and rounding up to the next standard fastener length:

- A. Ball Valve Depth, 'H'  
(see dimensional table on Inserta® IBF Flange type 2-port Ball Valves product literature)<sup>1</sup>
- B. IPS Port Spacer Thickness, 'h'  
(see dimensional table on Inserta® IPS Modular Connector product literature)<sup>2</sup>
- C. Adaflange™ Bolt Kit Length for flange size and code  
(see dimensional table on Adaflange™ Socket Head Flange Adapter product literature)<sup>3</sup>

Alternately see the accompanying table for bolt kit recommendation.

It is recommended that an IPS Port Spacer be used between Face 0 of the ball valve, and the opposing Adaconn® Adapter, as the Adapter head diameter is very close to the Ball Valve Sealing Spacer diameter on several sizes. This could result in unintended excessive compression of the ball-ball seal complex, with resultant difficulty in actuating the valve. A one-piece, Unified flange adapter (AFO-UK416-F16-2.25-S1-B) may be substituted at Face 0, and the IPS omitted, if desired. (An Inserta® IGC Gender Changer must be used in this configuration).

The example above would lend itself to adding a ball valve to a J1926 O-ring port on a manifold, cylinder or other component. A typical installation sequence is:

1. Thread the J1926 male end of the Adaflangeport™ Adapter (with Threaded Companion Flange) into the female port using an Adaflange™ wrench, taking advantage of the hex drive system.
2. Bring the O-ring Face 0 of the IPS Port Spacer in contact with the Adaflangeport™ Adapter.
3. Bring Face 0 of the IBF in contact with Face 1 of the IPS Port Spacer. Orientation of the position of the ball valve may be performed until the fasteners are fully torqued.
4. Bring the Adaflange™ Adapter (with Clamp Type Flange) in contact with Face 1 of the ball valve.
5. Thread and tighten fasteners (Socket Head Cap Screws shown, Hex Head fasteners are an alternative) while maintaining the desired orientation of the ball valve.
6. A hose or tube may now be connected to the J514 37° threaded end.

Please note the pressure ratings of the assembly may be affected by the pressure rating of the male thread.

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## BALL VALVE ASSEMBLIES WITH MALE THREAD ENDS-BOLT LENGTH

SIZE	AFO FASTENER LENGTH	IBF 'H' DIMENSION	IPS 'h'	NEXT LONGER AVAILABLE FASTENER	SUGGESTED ABK HEX BOLT KIT	SUGGESTED IBK SOCKET HEAD BOLT KIT
6108	1.25	1.50	1.00	3.75	ABK-B4031-18 X 3.75	IBK-SH4031-18 X 3.75
6112	1.25	2.00	1.00	4.5	ABK-B4038-16 X 4.50	IBK-SH4038-16 X 4.50
6116	1.25	2.00	1.00	4.5	ABK-B4038-16 X 4.50	IBK-SH4038-16 X 4.50
6120	1.50	2.25	1.00	5	ABK-B4044-14 X 5.00	IBK-SH4044-14 X 5.00
6124	1.50	2.75	1.00	5.5	ABK-B4050-13 X 5.50	IBK-SH4050-13 X 5.50
6132	1.50	3.50	1.00	6	ABK-B4050-13 X 6.00	IBK-SH4050-13 X 6.00
6208	1.25	1.50	1.00	3.75	ABK-B4031-18 X 3.75	IBK-SH4031-18 X 3.75
6212	1.50	2.00	1.00	4.5	ABK-B4031-18 X 4.50	IBK-SH4031-18 X 4.50
6216	1.75	2.00	1.00	5	ABK-B4044-14 X 5.00	IBK-SH4044-14 X 5.00
6220	2.00	2.25	1.00	5.5	ABK-B4050-13 X 5.50	IBK-SH4050-13 X 5.50
6224	2.25	2.75	1.00	6	ABK-B4063-11 X 6.00	IBK-SH4063-11 X 6.00
6232	2.75	3.50	1.00	8	ABK-B4075-10 X 8.00	IBK-SH4075-10 X 8.00

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## Ball Valve Assemblies with Male Threaded Ends

Referenced Product Literature available at [www.inserta.com](http://www.inserta.com) / [www.adaconn.com](http://www.adaconn.com)

<sup>1</sup> Reference : Inserta® IBF Flange type 2-port Ball Valves

<http://www.inserta.com/PDF/AI-2PORT-BV1.pdf>

<sup>2</sup> Reference : Inserta® IPS Modular Connector

<http://www.inserta.com/PDF/AI-MC-61-62-4BOLT-SPLIT.pdf>

<sup>3</sup> Reference : Adaflange™ Adapter AFO

<http://www.inserta.com/PDF/ai-adfl-adpt-port.pdf>

### **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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