

# Inserta Products, Inc.

## MODULAR CONNECTORS UNIFIED CODE U61 2-BOLT FLANGE TYPE

INSERTA® UNIFIED CODE U61 2-Bolt Modular Connectors are used in integrated hydraulic systems in place of welded and threaded pipe fittings. These 2-Bolt Modular Connectors offer great flexibility and additional options for making compact integrated hydraulic system. The 2-Bolt Modular Connectors should be used whenever the features of the 4-Bolt design are not required.

INSERTA® UNIFIED CODE U61 2-Bolt Modular Connectors use the upper right and lower left threaded holes of the INSERTA® UNIFIED CODE U61 4-Bolt port pattern for the 2-Bolt connections.

Design-A and Design-B Modular Connector elbows, run tees, branch tees, crosses, and port spacers are held in place by bolts (Socket Head Cap Screws) that extend from Face 1 to Face Ø in the 2-bolt flange pattern.

Design-A incorporates the 2-bolt clamp face groove and sealing O-ring on Face Ø and a plain face on Face 1. This design permits the stacking of various INSERTA® inline modules together with a minimum of O-ring seals to virtually eliminate leaks associated with pipe threads. The task is further enhanced because large wrenches with high torque normally needed to install pipe fittings are no longer necessary since the components bolt together.

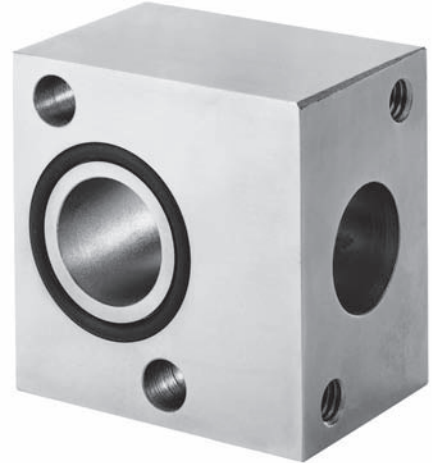
Design-B eliminates the 2-bolt clamp face groove and O-ring on Face Ø for those applications that require this geometry.

Design-C eliminates the Face 1 to Ø thru hole characteristics of Designs A & B. Design-C has port faces on all designated faces, and therefore are not held together by thru bolts, but are port faces that other flange type components are fastened. The nesting of the 2-bolt mounting holes on adjacent port faces makes these Design-C 2-Bolt Modular Connectors more compact than the Design C 4-Bolt Modular Connectors.

INSERTA® UNIFIED CODE U61 2-Bolt Port Spacers should also be used between CODE 61 and CODE U61 4-Bolt Ports and the connected ADAFLANGE™ UNIFIED CODE U61 2-BOLT Adapters to cover and protect the two unused mounting holes.

The INSERTA® UNIFIED CODE U61 2-Bolt Retainer Connector uses the same two threaded holes to retain either 2 or 4-Bolt Flange Type modules, and has the bolt holes counter-bored to recess the heads of the Socket Head Cap Screws. These Retainer Connectors have the other two diagonal holes of the 4-Bolt Port pattern threaded for fastening an ADAFLANGE™ UNIFIED CODE U61 2-Bolt Adapter. This Retainer Connector feature is also available as a built in option in the INSERTA® ICX and ITR Modular Connectors.

Standard INSERTA® Unified CODE U61 2-Bolt Modular Connectors have all flange ports of the same size, and are made of steel.



### ORDERING INFORMATION UNIFIED WITH SAME SIZE OUTLETS

INSERTA® — ICX — A — U261 24 \* — N — G\* — T\*

**PRODUCT TYPE**

- CX = CROSS
- EL = ELBOW
- RC = RETAINING CROSS
- RT = RETAINING TEE RUN
- TR = TEE, RUN
- TB = TEE, BRANCH
- PS = PORT SPACER (A & B DESIGN)
- PN = PORT CONNECTOR (C DESIGN)
- PR = PORT RETAINER (A & B DESIGN)

**MOUNTING DESIGN CODE**

- A = SEAL GROOVE & O-RING ON FACE Ø WITH 2-BOLT PATTERN THRU HOLES FROM FACE 1 TO FACE Ø
- B = PLAIN FACE Ø WITH 2-BOLT PATTERN THRU HOLES FROM FACE 1 TO FACE Ø
- C = 2-BOLT FLANGE PORTS ON ALL DESIGNATED FACES

**MOUNTING PATTERN**

U 261 = UNIFIED CODE U61 2-BOLT

**TEST PORT**

T = #4 SAE (7/16-20) or P=1/4 NPTF  
\* = 1, 3, 4 and 5 PORT FACE POSITIONS  
(See Page 20 for Selection Availability)

**GAUGE PORT**

G = #6 SAE (9/16-18)  
\* = 1, 3, 4 and 5 PORT FACE POSITIONS  
(See Page 20 for Selection Availability)

**SEAL COMPOUND**  
(OMIT FOR B & C DESIGNS)

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

**NOMINAL SIZE**

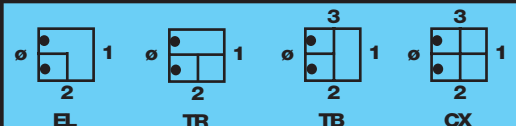
02 = 1/8	16 = 1
04 = 1/4	20 = 1 1/4
06 = 3/8	24 = 1 1/2
08 = 1/2	32 = 2
12 = 3/4	

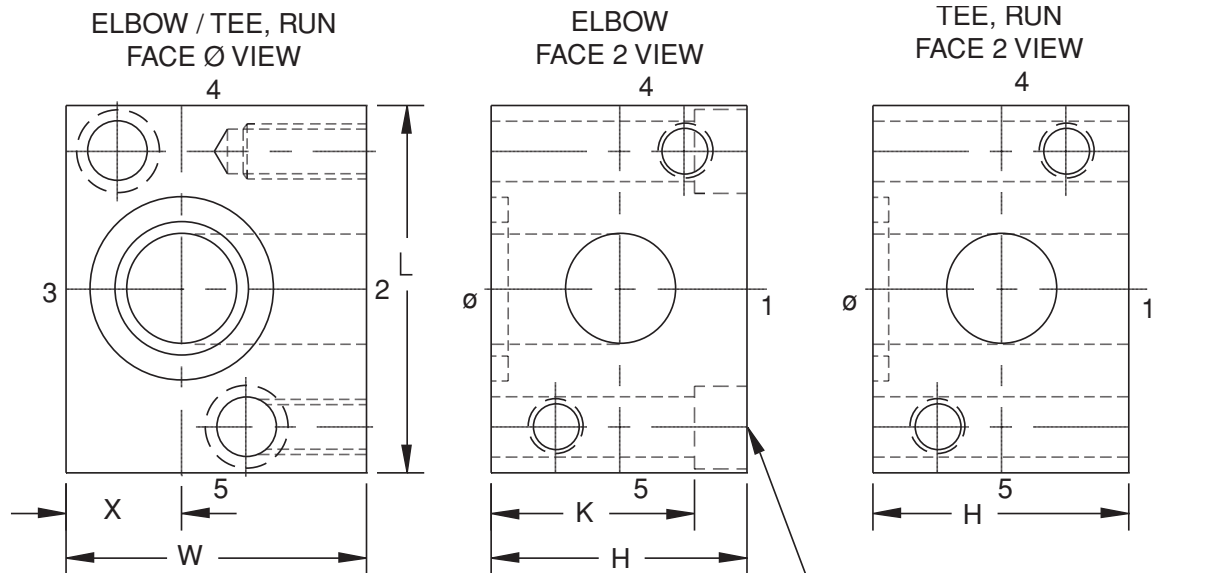
**PORT SPACER/CONNECTOR**  
h, DIMENSION (1/4 INCREMENTS)

- 1 = 1/4 THICK
- 2 = 1/2 THICK
- OMIT = The non 1/4 increment standard PS or PC

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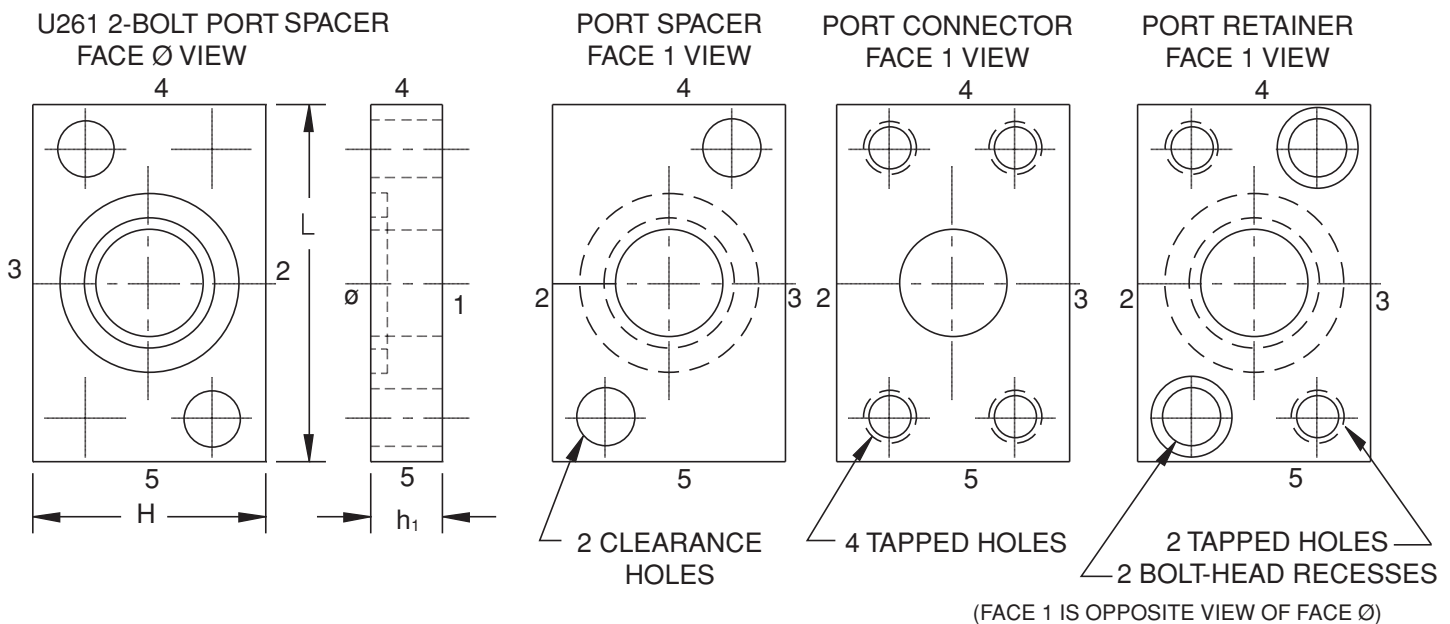




BOLT-HEAD RECESS-ELBOW

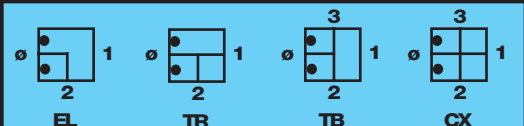
DESIGN A = AS SHOWN on drawings above and the title block schematics below.  
 DESIGN B = Eliminates seal groove and O-Ring from Face-Ø.  
 \*NOTE: Port Spacer available in 2 standard h<sub>1</sub> sizes.

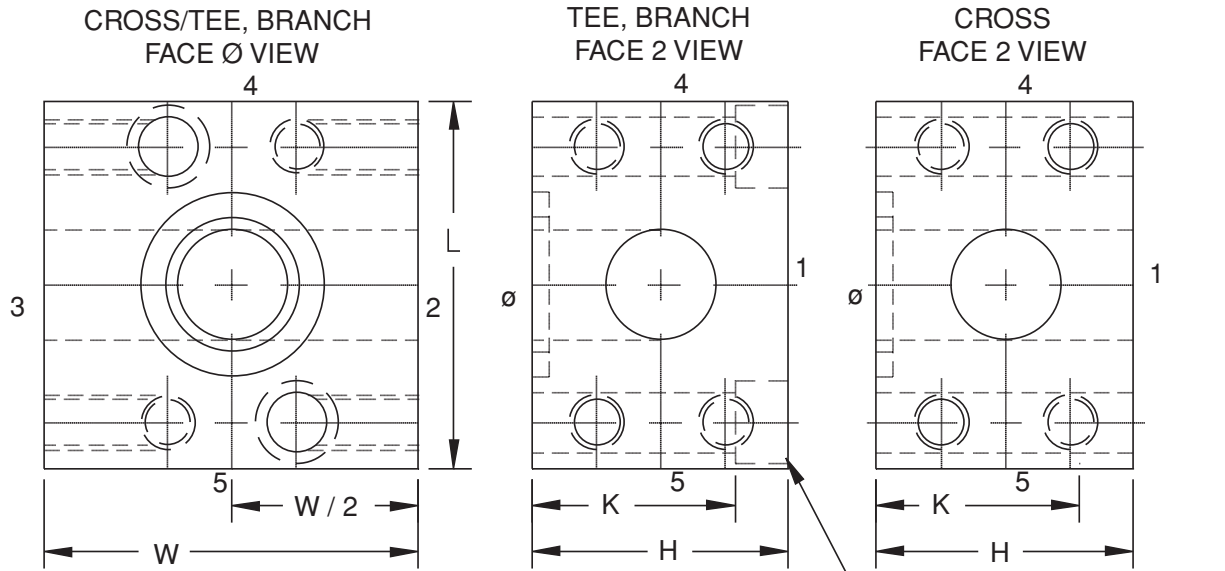
NOMINAL PATTERN SIZE	H	L	W	X	K	h <sub>1</sub>			K	O-RING SIZE NO.	ELBOW CLAMP FACE BOLT KITS (2 BOLTS)	PR BOLT LENGTHS
						EL	PS*	PN				
U26102	.62	1.00	1.00	.31	.37	.12/.25	.34	.50	.31	010	IBK-SH2008-32x0.62	0.62
U26104	.75	1.25	1.12	.38	.50	.12/.25	.38	.50	.31	011	IBK-SH2010-24x0.87	0.62
U26106	.87	1.50	1.38	.44	.62	.12/.25	.50	.50	.25	014	IBK-SH2025-20x1.00	0.62
U26108	1.31	2.12	2.00	.66	1.00	.25/.50	.62	1.00	.69	210	IBK-SH2031-18x1.50	1.25
U26112	1.62	2.56	2.38	.81	1.12	.25/.50	.75	1.00	.62	214	IBK-SH2038-16x1.75	1.25
U26116	1.87	2.75	2.50	.94	1.38	.25/.50	.75	1.00	.62	219	IBK-SH2038-16x2.00	1.25
U26120	2.12	3.12	2.88	1.06	1.66	.25/.50	.88	1.00	.56	222	IBK-SH2044-14x2.50	1.25
U26124	2.50	3.69	3.38	1.25	1.94	.25/.50	1.00	1.00	.50	225	IBK-SH2050-13x2.75	1.25
U26132	3.00	4.00	3.75	1.50	2.44	.25/.50	1.00	1.00	.50	228	IBK-SH2050-13x3.25	1.25



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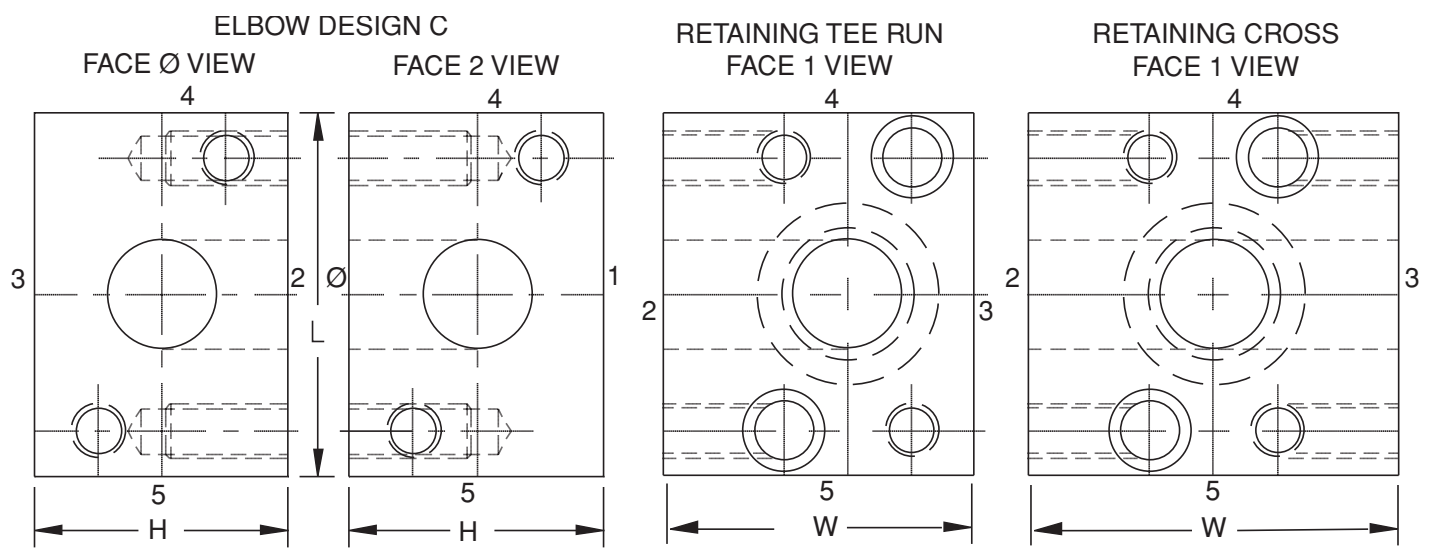


DESIGN A = AS SHOWN on drawings above and the title block schematics below.  
 DESIGN B = Eliminates seal groove and O-Ring from Face-Ø.  
 \*NOTE: Tee Branch has Bolt-Head recesses on Face 1.

BOLT-HEAD RECESS-TEE, BRANCH

NOMINAL PATTERN SIZE	H	L	W	W/2	K TB, RC, RT	O-RING SIZE NO.	TB, RT, RC CLAMP FACE BOLT KITS (2 BOLTS)
U26102	.62	1.00	1.25	.37	.44	010	IBK-SH2008-32x0.62
U26104	.75	1.25	1.50	.50	.56	011	IBK-SH2010-24x0.87
U26106	.87	1.50	2.00	.62	.62	014	IBK-SH2025-20x1.00
U26108	1.31	2.12	2.50	1.00	1.00	210	IBK-SH2031-18x1.50
U26112	1.62	2.56	3.00	1.12	1.25	214	IBK-SH2038-16x1.75
U26116	1.87	2.75	3.12	1.38	1.50	219	IBK-SH2038-16x2.00
U26120	2.12	3.12	3.50	1.66	1.69	222	IBK-SH2044-14x2.50
U26124	2.50	3.69	4.00	1.94	2.00	225	IBK-SH2050-13x2.75
U26132	3.00	4.00	4.37	2.44	2.50	228	IBK-SH2050-13x3.25

DESIGN C  
 U61 2-BOLT FLANGE PORT MOUNTING SURFACE ON ALL FACES SPECIFIED. TAPPED HOLES WITHOUT O-RING GROOVE.



**GAUGE and TEST PORT AVAILABILITY**

AVAILABLE GAUGE and PORT LOCATIONS ARE THE SAME AS THOSE FOR THE CODE U61 4-BOLT MODULAR CONNECTORS (see page 25).

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