

7721 / 7722 / M21 / M22 MECHANICAL TEE

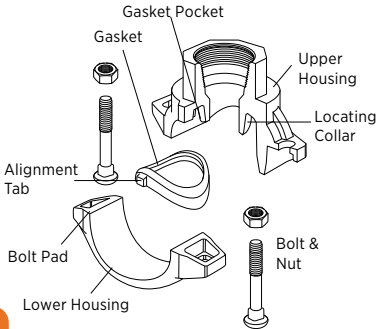
HOLE SIZES

MECHANICAL TEES RUN X BRANCH	HOLE DIMENSIONS		A. SURFACE PREPARATION	MECHANICAL TEES RUN X BRANCH	HOLE DIMENSIONS		A. SURFACE PREPARATION
	HOLE SAW SIZE	MAX DIA. ALLOWED			HOLE SAW SIZE	MAX DIA. ALLOWED	
in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm
2 x 1/2 50 x 15	1-1/2 38	1-5/8 41	3-1/2 89	4 x 1 100 x 25	1-1/2 38	1-5/8 41	3-1/2 89
2 x 3/4 50 x 20	1-1/2 38	1-5/8 41	3-1/2 89	4 x 1-1/4 100 x 32	2 51	2-1/8 54	4 102
2 x 1 50 x 25	1-1/2 38	1-5/8 41	3-1/2 89	4 x 1-1/2 100 x 40	2 51	2-1/8 54	4 102
2 x 1-1/4 50 x 32	13/4* 45	1-7/8* 47	4 102	4 x 2 100 x 50	2-1/2 64	2-5/8 67	4-1/2 114
2 x 1-1/2 50 x 40	1-3/4* 45	1-7/8* 47	4 102	4 x 2-1/2 100 x 65	2-3/4 70	2-7/8 73	4-3/4 121
2-1/2 x 1/2 65 x 15	1-1/2 38	1-5/8 41	3-1/2 89	4 x 3 100 x 80	3-1/2 89	3-5/8 92	5-1/2 140
2-1/2 x 3/4 65 x 20	11/2 38	1-5/8 41	3-1/2 89	5 x 2 125 x 50	2-1/2 64	2-5/8 67	4-1/2 114
2-1/2 x 1 65 x 25	1-1/2 38	1-5/8 41	3-1/2 89	5 x 2-1/2 125 x 65	2-3/4 70	2-7/8 73	4-3/4 121
2-1/2 x 1-1/4 65 x 32	2 51	2-1/8 54	4 102	6 x 1-1/4 150 x 32	2 51	2-1/8 54	4 102
2-1/2 x 1-1/2 65 x 40	2 51	2-1/8 54	4 102	6 x 1-1/2 150 x 40	2 51	2-1/8 54	4 102
3 x 1/2 80 x 15	1-1/2 38	1-5/8 41	3-1/2 89	6 x 2 150 x 50	2-1/2 64	2-5/8 67	4-1/2 114
3 x 3/4 80 x 20	1-1/2 38	1-5/8 41	3-1/2 89	6 x 2-1/2 150 x 65	2-3/4 70	2-7/8 73	4-3/4 121
3 x 1 80 x 25	1-1/2 38	1-5/8 41	3-1/2 89	6 x 3 150 x 80	3-1/2 89	3-5/8 92	5-1/2 140
3 x 1-1/4 80 x 32	2 51	2-1/8 54	4 102	6 x 4 150 x 100	4-1/2 114	4-5/8 118	6-1/2 165
3 x 1-1/2 80 x 40	2 51	2-1/8 54	4 102	8 x 2 200 x 50	2-3/4* 70	2-7/8* 73	4-3/4 121
3 x 2 80 x 50	2-1/2 64	2-5/8 67	4 1/2 114	8 x 2-1/2 200 x 65	2-3/4 70	2-7/8 73	4-3/4 121
4 x 1/2 100 x 15	1-1/2 38	1-5/8 41	3 1/2 89	8 x 3 200 x 80	3-1/2 89	3-5/8 92	5-1/2 140
4 x 3/4 100 x 20	1-1/2 38	1-5/8 41	3-1/2 89	8 x 4 200 x 100	4-1/2 114	4-5/8 118	6-1/2 165

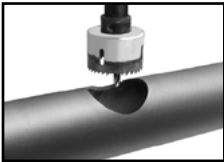
*Important: Make special note of the hole saw size and maximum diameter allowed on these sizes, deviation could lead to joint failure.

SHURJOINT® INSTALLATION INSTRUCTIONS

7721 & 7722 MECHANICAL TEES



Please read these instructions carefully before installation.



1. HOLE CUT:

Determine the location for the hole on the pipe. The hole must be directly positioned in the center of the pipe. Any offset can cause the hole to be oblong and cause leak-age. Use the correct size hole saw as specified on page 81 for cutting the hole.



2. REMOVE BURRS:

Remove burrs and clean the pipe surface within 5/8" (16 mm) around the hole where the gasket is to be seated.

⚠ CAUTION ⚠

The hole must be clearly cut and shall have a smooth edge. Never use a hand torch for cutting a hole as this could affect proper sealing.



3. CHECK GASKET GRADE AND LUBRICATE:

Check the color code of the gasket and make sure that the gasket supplied is correct for the intended service. Then, apply a thin layer of Shurjoint lubricant to the sealing lip of the gasket.

The standard factory supplied gasket is grade E EPDM, which is green stripe coded and is suitable for water services.

Refer to page 36 or additional information on gaskets.

▲ CAUTION ▲

Do not use EPDM gaskets for hydrocarbons or petroleum services as this could result in a leak or joint failure.



4. INSERT GASKET:

Insert the gasket into the gasket pocket of the housing. The alignment tabs on the side of the gasket should properly fit into the recesses.



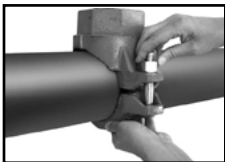
5. PREPARE TO ASSEMBLE:

Assemble the coupling housings loosely leaving one nut and bolt off to allow for a “swing-over” installation.



6. POSITION UPPER HOUSING:

Place the upper housing on the pipe so that the locating collar engages properly into the hole. Then apply the lower housing from the opposite side of the pipe.



7. INSERT BOLT & NUT:

Insert the remaining bolt and apply the nut hand-tight. Make sure that the oval neck of the bolt engages into the bolt hole of the housing.



8. CHECK LOCATING COLLAR:

Double check to ensure the locating collar is properly seated in the hole. This may be checked by rocking the upper housing in the hole. Also make sure that the oval neck of the bolts engages into the bolt hole of the housing.

SHURJOINT® INSTALLATION INSTRUCTIONS

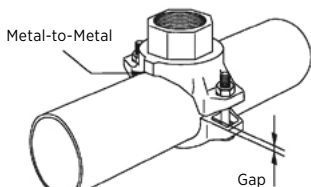
7721 & 7722 MECHANICAL TEES



9. TIGHTEN NUTS:

Tighten nuts alternately and equally until the outlet housing comes to contact the outer surface of the pipe, metal-to-metal contact. Gaps between bolts pads are acceptable but the gaps shall be equal on both sides. Use a torque wrench and tighten the nuts to following torque values.

Always fasten the bolts to the required torque.



It is normal to see bolt pad gaps

7721 & 7722 MECHANICAL TEES REQUIRED TORQUE

NOM. SIZE IN / MM	BOLT		TORQUE LB-FT / NM
	SIZE IN	NO.	
2 / 50	3/8	2	30 / 40
2-1/2 / 65	1/2	2	50 / 68
3 / 80	1/2	2	
4 / 100	1/2	2	
5 / 125	5/8	2	
6 / 150	5/8	2	
8 / 200	3/4	2	

⚠ CAUTION ⚠

Do not exceed the above torque values by more than 25% as excessive torque could lead to bolt and/or joint failure.

7721 & 7722 MECHANICAL TEE OUTLET FLOW CHARACTERISTICS

OUTLET SIZE	EQUIVALENT LENGTH		OUTLET SIZE	EQUIVALENT LENGTH	
	#7721	#7722		#7721	#7722
in	ft	ft	in	ft	ft
mm	m	m	mm	m	m
1	3.0	3.0	2 1/2	15.0	15
25	0.9	0.9	65	4.6	4.6
1-1/4	6.0	6.0	3	16.0	16
32	1.8	1.8	80	4.9	4.9
1-1/2	8.0	8.0*	4	17.0	17
40	2.4	2.4	100	5.2	5.2
2	9.0	9			
50	2.7	2.7			

Feet and meter of Schedule 40 steel outlet pipe with a Hazen-Williams coefficient of friction value of 120.

*Equivalent length for #7721 with a 1-1/2" outlet and 2" or 2-1/2" main run size is 13 feet (4 meters)