



## TECHNICAL ADVICE SHEET

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# FWC COUPLING ASSEMBLY

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### General:

The HOBAS PIPE FWC coupling is a structural sleeve that provides a gasket-sealed, leak-free connection. Due to its flexibility, the FWC Coupling allows a few degrees of angular deflection to allow simple grade and line corrections or gradual radius curves. See chart under point 4 for details.

If in doubt, seek advice from: HOBAS Pipe USA | 800-856-7473



**Assembly:**

1. Remove any dirt or mud buildup from the pipe spigot and the FWC gasket. Assure no stones, dirt buildup, or debris is under the FWC coupling gasket seal lips. Be careful not to damage the gasket during the cleaning process.
2. Apply lubricant on both the FWC coupling gasket and the spigot. Give special attention to the spigot bevel.
3. Most frequently the pipes are assembled by moving the bell end (coupling) over the previously installed spigot end. Place the pipe so that the coupling/bell end is in contact with the installed pipe spigot. Align the pipe sections carefully and push or pull the pipe until the coupling reaches the reference line on the pipe being joined. Be careful not to push the pipe past the center register of the coupling. If pushing directly on the spigot, protect the end with wood timbers.

The approximate joining forces for a properly aligned and lubricated coupling are shown below:

Nominal Pipe Size (in)	Average FWC Joining Force in "Straight" Alignment (lbs.)	Nominal Pipe Size (in), cont.	Average FWC Joining Force in "Straight" Alignment (lbs.), cont.	Nominal Pipe Size (in), cont.	Average FWC Joining Force in "Straight" Alignment (lbs.), cont.
18	3150	44	7700	72	12600
20	3500	45	7875	78	13650
24	4200	48	8400	84	14700
27	4725	51	8925	85	14875
28	4900	54	9450	90	15750
30	5250	57	9975	96	16800
33	5775	60	10500	104	18200
36	6300	63	11025	110	19250
41	7175	66	11550	120	21000
42	7350	69	12075	126	22000

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4. If a small change in line direction is needed, simply move the unjoined end of the pipe to the desired position. Any angular deflection within the permissible limits (see chart below) should only be done after the pipe has been completely “homed” straight. If the deviation is large, make the correction over several joints. Do not allow more than a 1-inch gap between the center register of the coupling and the pipe end.

Pipe Diameter (in.)	Max. Angle (degrees)	Max. Offset @ 20 ft.	Max. Offset @ 10 ft.
18-20	3	12	6
24-33	2	8	4
36-42	1-1/2	6	3
44-60	1	4	2
63-78	3/4	3	1-1/2
84-126	1/2	2	1

*\*\*NOTE: Always join pipes in straight alignment and then offset to the desired angle.*

**Caution:** Do not apply joining force by pushing on the FWC coupling.

