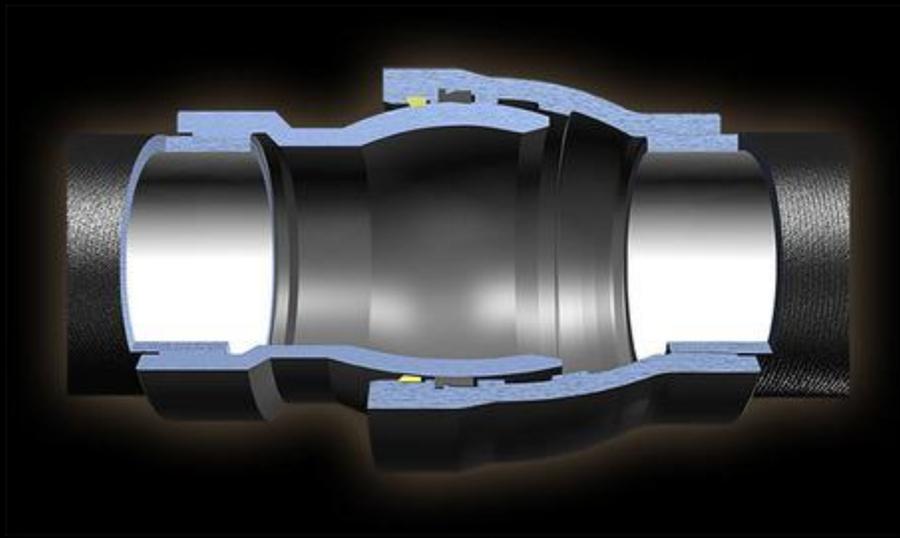


Flex-Lok Ball Joint Pipe



DETAILS

Product Description

AMERICAN Flex-Lok ball joint pipe incorporates a very flexible ball-and-socket type joint for use in installations such as subaqueous pipeline construction. The provision for liberal changes in alignment, with available joint deflections of up to 15° in any direction, as well as its rugged features, make Flex-Lok ball joint pipe especially tough and adaptable.

Manufactured in 4" through 60"¹ sizes, Flex-Lok ball joint pipe is designed and manufactured to ensure the greatest economy in difficult installations with maximum performance reliability. This ductile iron pipe meets all applicable requirements of AWWA C151 and is designed to withstand severe installation and service conditions encountered in river crossings, outfall waste lines, water supply intakes, swamps, floodlands and rugged terrain where variable joint deflection may be required.

Spherical Socket

The spherical socket of the AMERICAN Flex-Lok joint is cast of superstrength AMERICAN ductile iron and is accurately machined to accommodate the ball of the adjoining pipe. The thick bell section provides superior strength to minimize stresses resulting from installation and service conditions.

The gasket recess in the socket is designed and manufactured to provide easy insertion and positive seating of the gasket to avoid displacement during assembly and for constant compression of the gasket through the entire range of deflection of the assembled joint. The ductile iron spherical socket, manufactured in accordance with applicable material requirements of ASTM A536, is threaded onto² the ductile iron pipe barrel with threads conforming to ANSI B2.1 adapted to standard ductile iron pipe diameters.

Spherical Ball

The ball end of the AMERICAN Flex-Lok joint is threaded onto² or integrally cast with the pipe barrel and is accurately machined to fit into the adjoining pipe socket and to provide constant compression of the gasket through the entire range of deflection of the assembled joint. The inside surface of the ball is shaped so that the waterway will not be significantly obstructed at any angle of joint deflection. Extra metal thickness is provided at

the juncture of the ball and barrel for additional strength to minimize the stress induced when the joint is subjected to metal binding at maximum deflection.

Locking Systems

Two types of locking systems are used to prevent longitudinal joint separation of the AMERICAN Flex-Lok joint, depending on pipe size. In the 4" through 24" sizes, the locking system employs a substantial external ductile iron locking gland. For 30" through 60" sizes, the joint is restrained with a ductile iron retainer ring fitted into a mating groove inside the heavy-section bell.

4"-24" Flex-Lok Ball Joint Pipe

The locking gland is cast of AMERICAN ductile iron. The gland has internal lugs that interlock with external lugs on the bell. The lugs on the gland are passed between and beyond the lugs on the bell periphery and the gland is then rotated to lock the joint and prevent separation.

30"-60" Flex-Lok Ball Joint Pipe

A substantial split retainer ring manufactured of AMERICAN ductile iron fits into a mating groove inside the heavy-section bell to provide restraint against longitudinal joint separation. This ring is shipped secured to the ball with steel straps. These straps must be removed to free the ring for assembly. After the ring is fitted into the groove inside the bell, a locking clip, held in place by a stainless steel spring, is inserted into the space between the ends of the ring to securely lock it into the groove.

Joint Lubricant

Sufficient special AMERICAN joint lubricant for underwater installation is furnished with each order to provide ample lubrication for assembly and joint flexing. This special insoluble, nontoxic lubricant is different from regular Fastite lubricant, and it will neither impart taste or odor to the conveyed liquid nor have a deleterious effect on the rubber gasket.

¹ Check with AMERICAN for 64" requirements.

² The spherical ball and socket ends of 60" Flex-Lok ball joint pipes are fastened to the barrels of the pipe with a Fastite gasket and locking snap-ring arrangement instead of threads.