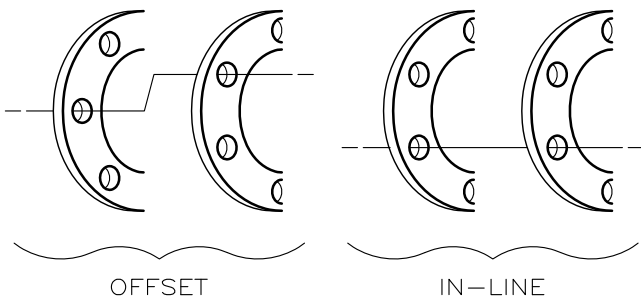


VALVES ADJACENT TO FITTINGS SHALL BE RESTRAINED IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS LISTED BELOW:

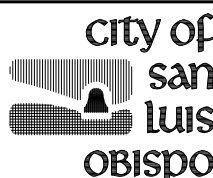
- METHOD 1 – May be used only with in-line bolt alignment of valve & fitting. See chart below for number of all threads. All-threads and nuts shall be stainless steel and shall be coated with Henry's #204 roof cement, or equal. This method may be used only with approval of the City Utilities Department.
- METHOD 2 – May be used with either offset or in-line bolt alignment.
- METHOD 3 – Flange-to-flange bolted connection may be used.
- METHOD 4 – Retainer glands may be used with ductile iron pipe only, subject to City approval. Retainer glands may NOT be used on fire hydrant laterals.
- METHOD 5 – Swivel gland & integral retaining lip connections may be used.



BOLT HOLE ALIGNMENT

METHOD 1	
PIPE SIZE (inches)	No. of ALL-THREADS (min.)
4	2
6, 8, 10	4
12, 14	6
over 14	TO BE DETERMINED IN FIELD

REVISIONS	BY	APP	DATE
New border	JDL	WAP	9-97
Method 1, thrust block	MDW	WAP	10-93
Rev note in Method #1	DVB	BL	11-06
STANDARD CURRENT AS OF:		January 2010	



VALVE to FITTING RESTRAINT