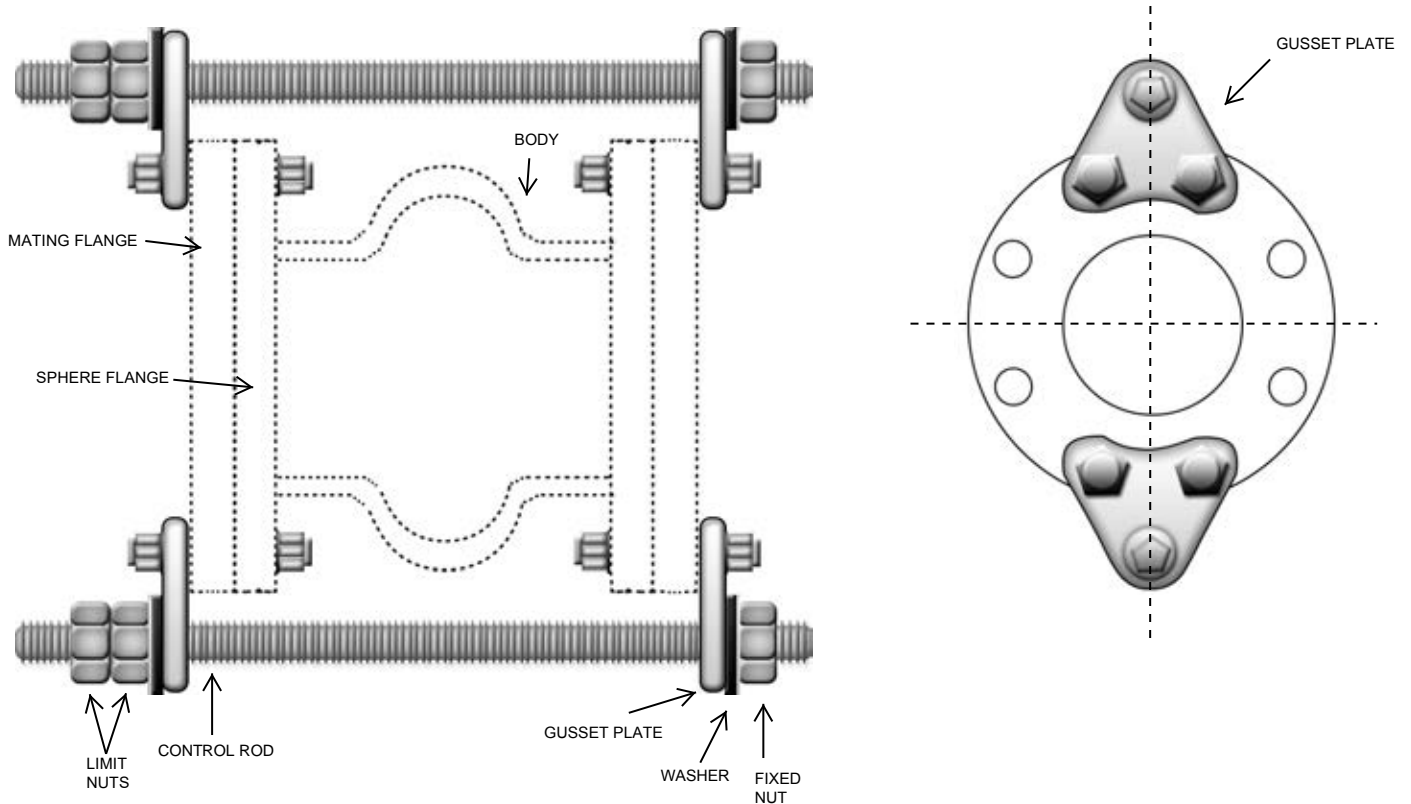


### CONTROL RODS MS1

Control rods are required in un-anchored applications to prevent elongation of the joint due to pressure thrust and internal forces. Control rods are designed to limit excessive movement to an expansion joint or damage to equipment. They must be used where pressures exceed the stated pressure in Chart #1. Nuts should be hand tightened till snug, while the joint is at 0 PSI.



PIPE SIZE	ROD THICKNESS	ROD LENGTH	PLATE THICKNESS
1" - 5"	5/8"	14"	3/8"
6"	5/8"	14"	1/2"
8"	7/8"	15"	1/2"
10" - 20"	1"	15"	3/4"
24"	1"	15"	1"

CHART #1		
PIPE SIZE	MS1 PSIG	MS2 PSIG
1" - 4"	180	135
5" - 10"	135	135
12" - 14"	90	90
16" - 24"	45	45

DRAWN BY:

DRAWING NUMBER:

REV:

SIGNATURE:

DATE:

PO NUMBER:

PROJECT:

CUSTOMER:

NOTES: