

DESIGN FACTORS

MOVEMENT:

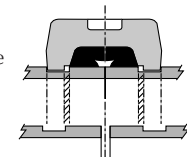
Each flexible design Gruvlok coupling can provide for pipe system movement up to the design maximum for the specific size and type coupling being utilized. Movement is possible in the Gruvlok coupling due to two factors: (1) designed-in clearance between the key of the coupling and the groove diameter and groove width, and (2) the gap between pipe ends joined by the coupling.

LINEAR MOVEMENT:

FLEXIBLE COUPLING LINEAR MOVEMENT

Linear movement is accommodated within the coupling by allowing the pipe ends to move together or apart in response to pressure thrusts and temperature changes. The available linear movement provided by Standard Gruvlok couplings is shown below:

Sizes	LINEAR MOVEMENT	
	Roll Groove Pipe	Cut Groove Pipe
1" thru 3½"	⅛"	⅛"
4" thru 24"	⅜"	⅜"

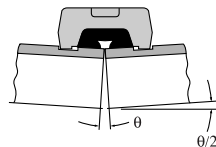


 Represents Linear Movement Capabilities

ANGULAR MOVEMENT:

FLEXIBLE COUPLING ANGULAR MOVEMENT

Designed-in clearances allow limited deflection of the pipe joint within the coupling, without introducing eccentric loads into the coupling joint.



The maximum available angular movement of Gruvlok coupling joints is shown in the performance data for each coupling type. The amount of angular flexibility varies for each coupling size and type. For design purposes the published figures should be reduced by the below listed factors to account for pipe, groove and coupling tolerances.

Sizes	ANGULAR MOVEMENT	
	Design Factor	
	Roll Groove	Cut Groove
1" thru 3½"	Reduce 50%	Reduce 50%
4" thru 24"	Reduce 50%	Reduce 25%

RIGID COUPLINGS

Gruvlok rigid couplings Fig. 7400, Fig. 7401 and Fig. 7004 HPR are designed to provide a joint with the attributes of a welded or flanged connection. Therefore, these joints would remain in strict alignment and would resist deflection and linear movement during service.

FLEXIBLE COUPLINGS

Figs. 7000, 7001, 7003, 7010 are the flexible couplings provided in the Gruvlok product line. The following information on movement applies to these flexible couplings.