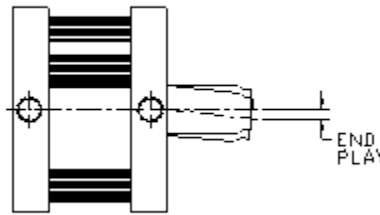




Technical Bulletins

End Play Analysis

This technical bulletin gives the maximum allowable movement of the rod (End Play) when fully stroke with no load in the vertical direction with rods aligned in horizontal direction as shown.



END PLAY ANALYSIS

BORE	FO, FOS, FOR, FS, FSS, FSR, FOP & FO2,3,4																
	STROKE LENGTH																
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
02	0.003	0.008	0.013	0.019	0.024	0.030	0.035	0.041	0.046	0.052	0.057	0.062	0.068	0.073	0.079	0.084	0.090
04	0.003	0.008	0.014	0.019	0.025	0.030	0.035	0.041	0.046	0.052	0.057	0.063	0.068	0.074	0.079	0.085	0.090
09	0.002	0.005	0.009	0.012	0.015	0.018	0.021	0.025	0.028	0.031	0.034	0.038	0.041	0.044	0.047	0.050	0.054
17	0.002	0.006	0.009	0.012	0.015	0.019	0.022	0.025	0.028	0.032	0.035	0.038	0.041	0.045	0.048	0.051	0.054
31	0.002	0.005	0.008	0.011	0.014	0.017	0.020	0.024	0.027	0.030	0.033	0.036	0.039	0.042	0.045	0.048	0.051
50	0.002	0.004	0.007	0.009	0.011	0.013	0.016	0.018	0.020	0.022	0.025	0.027	0.029	0.031	0.034	0.036	0.038
70	0.002	0.004	0.006	0.009	0.011	0.013	0.015	0.017	0.019	0.021	0.024	0.026	0.028	0.030	0.032	0.034	0.036
125	0.002	0.004	0.006	0.008	0.010	0.011	0.013	0.015	0.017	0.019	0.021	0.023	0.025	0.026	0.028	0.030	0.032

Notes:

- The maximum end play for FOD & FSD for all bore size and stroke = 0.007"(.18 mm)
- 0" stroke reflect the end play when the rod is fully retracted

Recommendation to reduce end play

If the above end play is not acceptable for the application, BIMBA recommend the use of FOD and FSD series. **The maximum end play for any given stroke and bore when fully**

extended = .007" and when fully retracted = .004". The low end play value is due to the support on both ends of the rod. Meaning that for a given clearance between the rod and the rod bushing and the tip to tip distance on the rod, the angle is smaller thus make the end play value to be very small and constant.

The information presented is in Bimba's best engineering opinion and should be used for reference only. Recommendations derived should be verified under actual operating conditions. Bimba reserves the right to change specifications without prior notice

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