The selection of the proper bushing assembly is based on the guide post diameter and required stroke distance. Using the selection chart on page 53:

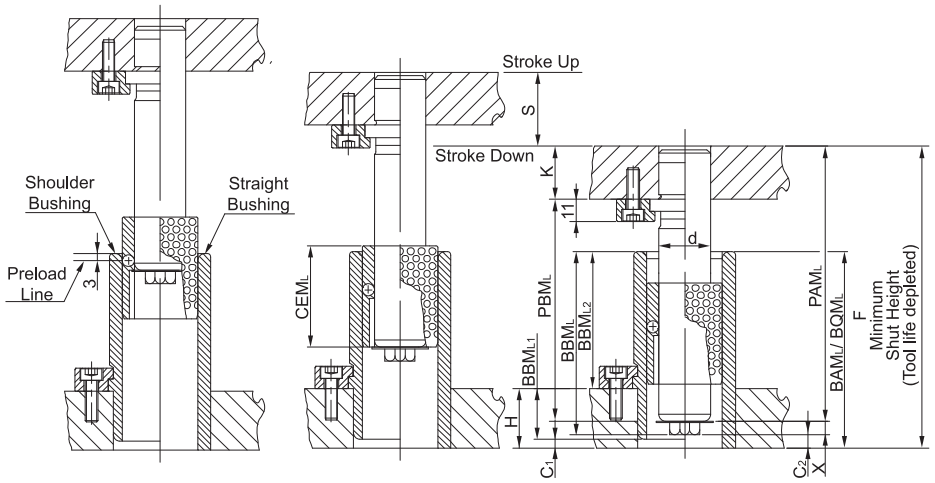
1. Locate the column for required stroke distance “S”. (note: add any necessary grinding allowance when determining stroke length).
2. Locate the row for the required guide post diameter “d”.

Ball Cage selection:

3. Move down the appropriate stroke column until reaching the colored square which corresponds to the proper guide post diameter.
4. Select the ball cage length that best matches your requirement. (note: longer ball cages provide increased life).

Ball Bushing selection:

5. Move down the appropriate stroke column until reaching the colored square which corresponds to the proper guide post diameter.
6. Select the required bushing length from the Bushing Length column.



- Based on Shoulder Bushing
  $PAM_L / PBM_L = F - C_1 - X - H + BBM_{L1}$
- Based on Straight Bushing
  $PAM_L / PBM_L = F - C_2 - X$

d	X	C_1 / C_2
24 / 25	7	3
30 / 32		
38 / 40	9.5	
48 / 50		
60 / 63		
80		

Post	Ball-bearing Bushing			Ball Cage	Stroke “S” Including any necessary grinding allowance										
	Shoulder		Straight												
d	BBM$_{L2}$	BBM$_L$	BAM$_L$ BQM$_L$	CEM$_L$	20	40	60	80	100	120	140	160			Y
24 / 25	36	59	60	36											10
	50	80	77												
	50	97	95												
			110												
			130	48											
30 / 32	45	75	77	36											
	50	97	95												10
	60	116	110												
			130												
			150												
			170	48											
38 / 40	32	79	77	48											10
	50	97	95												
	56	116	110												
	54	129	130												
			150												
			170												
			190												
			215	60											
48 / 50	37	108	110	70											10
	80	127	130												
	67	142	150												
			170												
			190												
			215												
			240												
			265	84											
60 / 63	90	150	150	98											15
	64	150	170												
			190												
			215												
			240												
			265												
80	90	150	150	98											15
			170												
			190												
			215												
			240												
			265												

If your selection ralls in blank square, use Ball Cage CFM Type II.

Y: If die grinding is not required, stroke may be increased by the amount of die grind allowance shown in “Y” column. If die grind is greater than the amount shown, stroke will shorten by the additional amount added.