

Bushing and Ball Cage (CFM) Type II Selection Chart

The selection of the proper bushing assembly is based on the operating conditions, guide post diameter and required stroke distance. Using the selection chart on page 55:

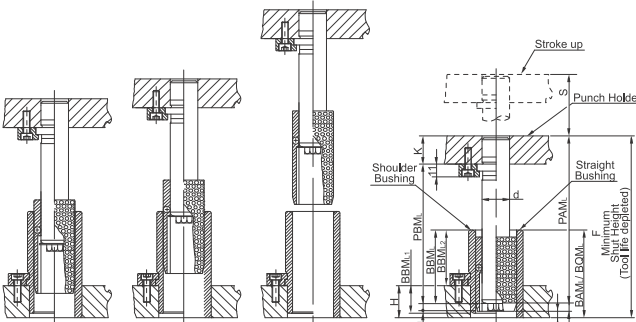
1. Determine the required operating conditions.
2. Locate the column for required stroke distance "S", (note: add any necessary grinding allowance when determining stroke length).
3. Locate the row for the required guide post diameter "d".

Ball Cage selection:

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

Ball Bushing selection:

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

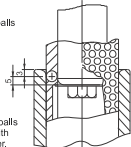


- Based on Shoulder Bushing:
Guide Post PAM₁ / PBM₁ = F - C₁ - X - H + BBM₁
- Based on Straight Bushing:
Guide Post PAM₁ / PBM₁ = F - C₂ - X
- Straight Bushing:
BAM₁ / BQM₁ + K must be smaller than F
Maximum BAM₁ / BQM₁ = F - K
- Shoulder Bushing:
BBM₂ + H + K must be smaller than F
Maximum BBM₂ = F - H - K

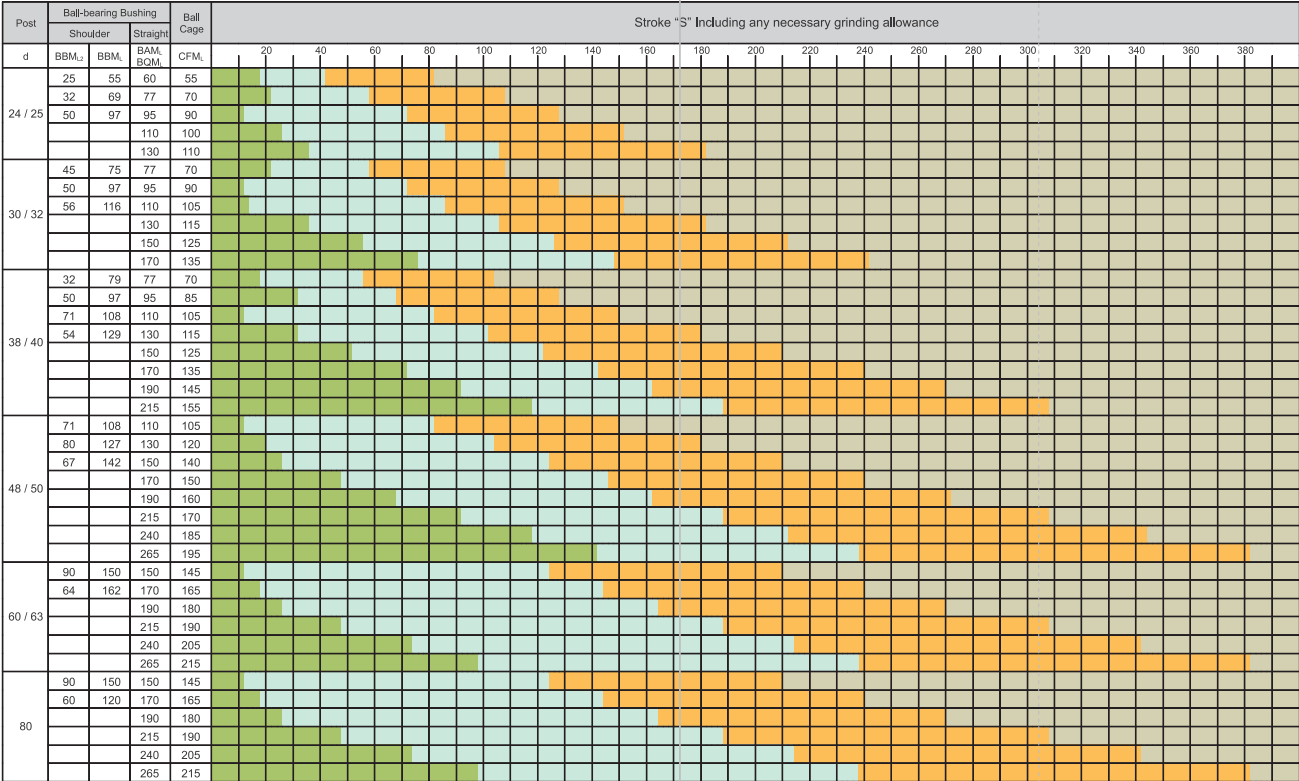
d	X	C ₁ / C ₂
24 / 25	10.5	3.5
30 / 32		
38 / 40		
48 / 50	13	4
60 / 63		
80		

Above this line balls are free.

Below this line, balls are in contact with nominal diameter.



Bushing and Ball Cage CFM (Type II) Selection Chart



■ Type II components provide Type I operating condition. ■ Partial pre-load ■ Pre-load Relieved ■ Unlimited Stroke (Cage Leaves Bushing)