

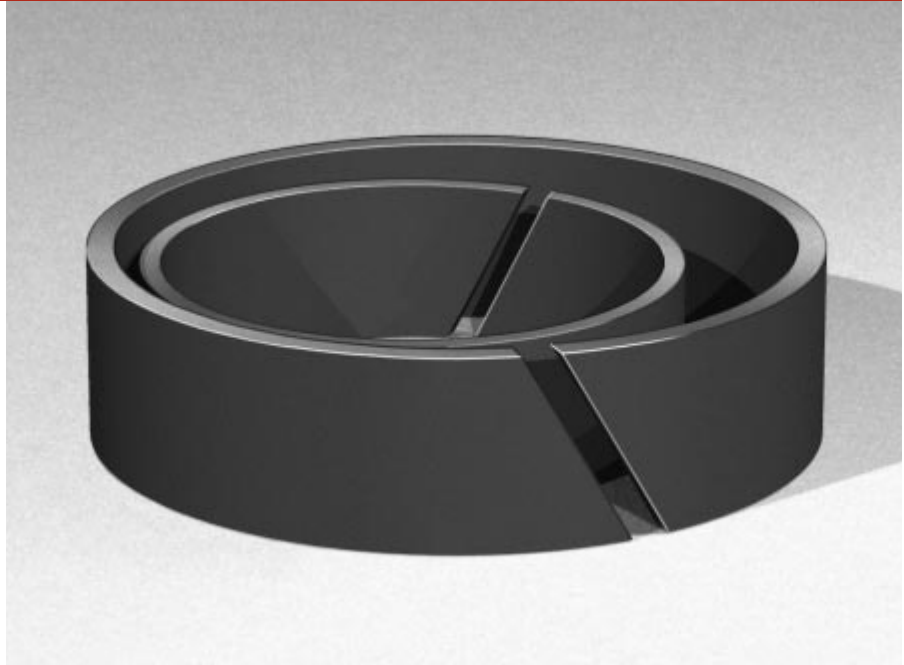
Bearing Bands

Bearing Bands – Product Data

Chesterton® Bearing Bands are the solution to costly cylinder machining and repairs. They extend cylinder life by preventing direct metal-to-metal contact of the moving parts. When installed during cylinder repair the risk of reoccurring damage is significantly reduced.

Advantages when compared to conventional bearing materials:

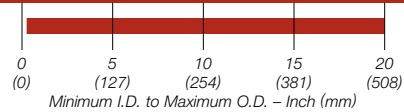
- Manufactured from glass fiber reinforced thermoplastic polyamide resin. (Heat stabilized nylon)
- Metal particles are entrapped and absorbed.
- Same load carrying capacity yet less expensive, and easier to install than bronze.



Available Material and Seal Sizes

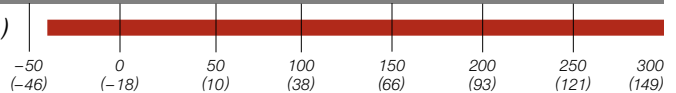
Material

GFN (Glass Filled Nylon)



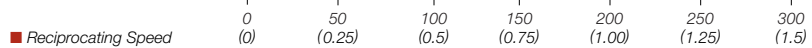
Operating Temperature Range – °F (°C)

GFN (Glass Filled Nylon)



Approximate Operating Speeds – ft/min (m/sec)

GFN (Glass Filled Nylon)



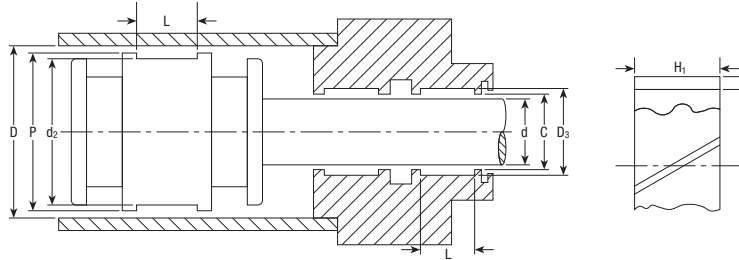
■ Reciprocating Speed

Bearing Bands

Bearing Bands – Rod and Piston Configuration

Figure 1:

Note:
Figure 1 is a diagram for dimensional purposes only and should not be used for designing a rod or piston gland.



Design: 18K inch
Groove width (L):
 $(H_1 + 0.010) + .010/-0$
Bearing Band width tolerance (H₁):
 $0/-0.005$
Design: 19K mm
Groove width (L):
 $(H_1 + 0.25) + 0.25/-0$
Bearing Band width tolerance (H₁):
 $0/-0.05$

Inch:

Dia. Range Inch		Gland Inside Dia.	Gland Groove Dia.	Piston Dia.	Piston Groove Dia.
Min.	Max.	C	D ₃	P	d ₂
1.181	1.968	$d \begin{smallmatrix} +.020 \\ +.026 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.004 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.021 \\ -.023 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.004 \end{smallmatrix}$
1.968	3.150	$d \begin{smallmatrix} +.020 \\ +.027 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.004 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.021 \\ -.025 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.004 \end{smallmatrix}$
3.150	4.724	$d \begin{smallmatrix} +.020 \\ +.029 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.004 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.021 \\ -.026 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.005 \end{smallmatrix}$
4.724	7.086	$d \begin{smallmatrix} +.020 \\ +.030 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.004 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.021 \\ -.027 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.005 \end{smallmatrix}$
7.086	9.842	$d \begin{smallmatrix} +.020 \\ +.031 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.005 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.022 \\ -.028 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.005 \end{smallmatrix}$
9.842	12.401	$d \begin{smallmatrix} +.020 \\ +.033 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.005 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.022 \\ -.029 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.006 \end{smallmatrix}$
12.401	15.748	$d \begin{smallmatrix} +.020 \\ +.034 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.006 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.022 \\ -.030 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.006 \end{smallmatrix}$
15.748	19.685	$d \begin{smallmatrix} +.020 \\ +.036 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +.006 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.022 \\ -.031 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -.002 \\ -.006 \end{smallmatrix}$

Metric:

Dia. Range mm		Gland Inside Dia.	Gland Groove Dia.	Piston Dia.	Piston Groove Dia.
Min.	Max.	C	D ₃	P	d ₂
30	50	$d \begin{smallmatrix} +.500 \\ +.660 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +99 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.530 \\ -.610 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -100 \end{smallmatrix}$
50	80	$d \begin{smallmatrix} +.500 \\ +.690 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +106 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.530 \\ -.630 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -110 \end{smallmatrix}$
80	120	$d \begin{smallmatrix} +.500 \\ +.720 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +114 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.540 \\ -.660 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -110 \end{smallmatrix}$
120	180	$d \begin{smallmatrix} +.500 \\ +.750 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +123 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.540 \\ -.690 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -120 \end{smallmatrix}$
180	250	$d \begin{smallmatrix} +.500 \\ +.790 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +132 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.550 \\ -.720 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -130 \end{smallmatrix}$
250	315	$d \begin{smallmatrix} +.500 \\ +.820 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +141 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.560 \\ -.740 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -140 \end{smallmatrix}$
315	400	$d \begin{smallmatrix} +.500 \\ +.860 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +149 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.560 \\ -.760 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -150 \end{smallmatrix}$
400	500	$d \begin{smallmatrix} +.500 \\ +.900 \end{smallmatrix}$	$d + (2 \times S) \begin{smallmatrix} +157 \\ -0 \end{smallmatrix}$	$D \begin{smallmatrix} -.570 \\ -.790 \end{smallmatrix}$	$D - (2 \times S) \begin{smallmatrix} -60 \\ -160 \end{smallmatrix}$

All values given in 0.001 mm unless otherwise stated.