

UP Precision TolerancesGMN Special Class Tighter Than HG



Phone: (800) 323-5725

Inner Ring Tolerance - Metric									
Nominal ID [mm]		2.5					80		
	Including	10	18	30	50	80	120		
Δ _{dmp} [μm]	Max	0	0	0	0	0			
Average ID tolerance	Min	-3.0	-3.0	-3.0	-3.0	-4.0			
Δ _{ds} (Bearing Series 60 & 62) [μm]	Max	0	0	0	0	0			
Single ID tolerance	Min	-3.0	-3.0	-3.0	-3.0	-4.0			
V _{dp max} (Bearing Series 618 & 619) [µm] Difference between largest and smallest ID	Max	3.0	3.0	3.0	3.0	4.0			
V _{dp max} (Bearing Series 60) [μm] Difference between largest and smallest ID	Max	3.0	3.0	3.0	3.0	4.0			
V _{dp max} (Bearing Series 62) [µm] Difference between largest and smallest ID	Max	3.0	3.0	3.0	3.0	4.0			
V _{dmp max} [μm] Difference between largest average ID and smallest average ID in different planes	Max	2.0	2.0	2.0	2.0	2.5			
K _{ia max} [μm] Assembled bearing inner ring radial runout	Max	1.5	1.5	1.5	2.0	2.0			
S _{d max} [µm] Inner ring face runout	Max	2.0	2.0	2.0	2.0	2.0			
S _{ia max} [µm] Assembled bearing inner ring axial runout	Max	2.0	2.0	2.5	2.5	2.5			
Δ _{BS} Single Bearing [μm]	Max	0	0	0	0	0			
Single inner ring width tolerance	Min	-25	-80	-120	-120	-150			
Δ _{BS} Bearing Pair [μm]	Max	0	0	0	0	0			
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-250			
V _{BS max} [µm] Difference between largest and smallest width	Max	2.0	2.0	2.0	2.0	2.0			

Outer Ring Tolerance - Metric										
Nominal OD [mm]	Above	6	18	30	50	80	120	150		
Nominal OD [mm]	Including	18	30	50	80	120	150	180		
Δ _{Dmp} [μm]	Max	0	0	0	0	0				
Average OD tolerance	Min	-3.0	-3.0	-3.0	-4.0	-4.0				
Δ _{Ds} (Bearing Series 60 & 62) [μm]	Max	0	0	0	0	0				
Single OD tolerance	Min	-3.0	-3.0	-3.0	-4.0	-4.0				
V _{Dp max} (Bearing Series 618 & 619) [μm] Difference between largest and smallest OD	Max	2.0	2.0	2.0	4.0	4.0				
V _{Dp max} (Bearing Series 60) [µm] Difference between largest and smallest OD	Max	2.0	2.0	2.0	4.0	4.0				
V _{Dp max} (Bearing Series 62) [μm] Difference between largest and smallest OD	Max	2.0	2.0	2.0	4.0	4.0				
V _{Dmp max} [µm] Difference between largest average OD and smallest average OD in different planes	Max	1.0	1.0	1.0	2.0	2.0				
K _{ea max} [μm] Assembled bearing outer ring radial runout	Max	2.0	2.0	2.0	3.0	3.0				
S _{D max} [µm] Outer ring face runout	Max	2.0	2.0	2.0	2.0	2.5				
Sea max [µm] Assembled bearing outer ring axial runout	Max	2.0	2.0	2.0	2.0	2.5				
Δ_{CS} Single Bearing [µm] Single outer ring width tolerance	Max Min	Identical to the Ass of the inner ring of the same hearing								
Δ _{CS} Bearing Pair [μm] Outer ring pair width tolerance	Max Min	Identical to the App of the inner ring of the same hearing								
V _{CS max} [µm] Difference between largest and smallest width	Max	2.0	2.0	2.0	2.0	2.0				

Inner Ring Tolerance - Imperial										
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496			
Nominal ID [inch]	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244			
Δ _{dmp} [0.0001"]	Max	0	0	0	0	0				
Average ID tolerance	Min	-1.2	-1.2	-1.2	-1.2	-1.6				
Δ _{ds} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0				
Single ID tolerance	Min	-1.2	-1.2	-1.2	-1.2	-1.6				
V _{dp max} (Bearing Series 618 & 619) [0.0001"] Difference between largest and smallest ID	Max	1.2	1.2	1.2	1.2	1.6				
V _{dp max} (Bearing Series 60) [0.0001"] Difference between largest and smallest ID	Max	1.2	1.2	1.2	1.2	1.6				
V _{dp max} (Bearing Series 62) [0.0001"] Difference between largest and smallest ID	Max	1.2	1.2	1.2	1.2	1.6				
V _{dmp max} [0.0001"] Difference between largest average ID and smallest average ID in different planes	Max	0.8	0.8	0.8	0.8	1.0				
K _{ia max} [0.0001"] Assembled bearing inner ring radial runout	Max	0.6	0.6	0.6	0.8	0.8				
S _{d max} [0.0001"] Inner ring face runout	Max	0.8	0.8	0.8	0.8	0.8				
S _{ia max} [0.0001"] Assembled bearing inner ring axial runout	Max	0.8	0.8	1.0	1.0	1.0				
Δ _{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0				
Single inner ring width tolerance	Min	-9.8	-31.5	-47.2	-47.2	-59.1				
Δ _{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0				
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-98.4				
V _{BS max} [0.0001"] Difference between largest and smallest width	Max	0.8	0.8	0.8	0.8	0.8				

Outer Ring Tolerance - Imperial										
Nominal OD [Inch]	Above	0.2362	0.7087	1.1811	1.9685	3.1496	4.7244	5.9055		
	Including	0.7087	1.1811	1.9685	3.1496	4.7244	5.9055	7.0866		
Δ _{Dmp} [0.0001"]	Max	0	0	0	0	0				
Average OD tolerance	Min	-1.2	-1.2	-1.2	-1.6	-1.6				
Δ _{Ds} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0				
Single OD tolerance	Min	-1.2	-1.2	-1.2	-1.6	-1.6				
V _{Dp max} (Bearing Series 618 & 619) [0.0001"] Difference between largest and smallest OD	Max	0.8	0.8	0.8	1.6	1.6				
V _{Dp max} (Bearing Series 60) [0.0001"] Difference between largest and smallest OD	Max	0.8	0.8	0.8	1.6	1.6				
V _{Dp max} (Bearing Series 62) [0.0001"] Difference between largest and smallest OD	Max	0.8	0.8	0.8	1.6	1.6				
V _{Dmp max} [0.0001"] Difference between largest average OD and smallest average OD in different planes	Max	0.4	0.4	0.4	0.8	0.8				
K _{ea max} [0.0001"] Assembled bearing outer ring radial runout	Max	0.8	0.8	0.8	1.2	1.2				
S _{D max} [0.0001"] Outer ring face runout	Max	0.8	0.8	0.8	0.8	1.0				
S _{ea max} [0.0001"] Assembled bearing outer ring axial runout	Max	0.8	0.8	0.8	0.8	1.0				
Δ _{CS} Single Bearing [0.0001"] Single outer ring width tolerance	Max Min	Identical to the Ass of the inner ring of the same bearing								
Δ _{CS} Bearing Pair [0.0001"] Outer ring pair width tolerance	Max Min	Identical to the $\Lambda_{\rm pc}$ of the inner ring of the same bearing								
V _{CS max} [0.0001"] Difference between largest and smallest width	Max	0.8	0.8	0.8	0.8	0.8				