



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	80
	Including	10	18	30	50	80	120
Δ_{dmp} [μm]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-8.0	-8.0	-10.0	-12.0	-15.0	-20.0
Δ_{dis} (Bearing Series 60 & 62) [μm]	Max						
Single ID tolerance	Min						
$V_{dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	10.0	10.0	13.0	15.0	19.0	25.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [μm]	Max	8.0	8.0	10.0	12.0	19.0	25.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [μm]	Max	6.0	6.0	8.0	9.0	11.0	15.0
Difference between largest and smallest ID							
$V_{dmp\ max}$ [μm]	Max	6.0	6.0	8.0	9.0	11.0	15.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [μm]	Max	10.0	10.0	13.0	15.0	20.0	25.0
Assembled bearing inner ring radial runout							
$S_d\ max$ [μm]	Max						
Inner ring face runout							
$S_{ia\ max}$ [μm]	Max						
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μm]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-120	-120	-120	-120	-150	-200
Δ_{BS} Bearing Pair [μm]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-380	-380
$V_{BS\ max}$ [μm]	Max	15.0	20.0	20.0	20.0	25.0	25.0
Difference between largest and smallest width							

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244
Δ_{dmp} [0.0001"]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-3.1	-3.1	-3.9	-4.7	-5.9	-7.9
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max						
Single ID tolerance	Min						
$V_{dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	3.9	3.9	5.1	5.9	7.5	9.8
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [0.0001"]	Max	3.1	3.1	3.9	4.7	7.5	9.8
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [0.0001"]	Max	2.4	2.4	3.1	3.5	4.3	5.9
Difference between largest and smallest ID							
$V_{dmp\ max}$ [0.0001"]	Max	2.4	2.4	3.1	3.5	4.3	5.9
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [0.0001"]	Max	3.9	3.9	5.1	5.9	7.9	9.8
Assembled bearing inner ring radial runout							
$S_d\ max$ [0.0001"]	Max						
Inner ring face runout							
$S_{ia\ max}$ [0.0001"]	Max						
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-47.2	-47.2	-47.2	-47.2	-59.1	-78.7
Δ_{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-149.6	-149.6
$V_{BS\ max}$ [0.0001"]	Max	5.9	7.9	7.9	7.9	9.8	9.8
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	Including	18	30	50	80	120	150	180
Δ_{dmp} [μm]	Max	0	0	0	0	0	0	0
Average OD tolerance	Min	-8.0	-9.0	-11.0	-13.0	-15.0	-18.0	-25.0
Δ_{Ds} (Bearing Series 60 & 62) [μm]	Max							
Single OD tolerance	Min							
$V_{Dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	10.0	12.0	14.0	16.0	19.0	23.0	31.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [μm]	Max	8.0	9.0	11.0	13.0	19.0	23.0	31.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [μm]	Max	6.0	7.0	8.0	10.0	11.0	14.0	19.0
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [μm]	Max	6.0	7.0	8.0	10.0	11.0	14.0	19.0
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [μm]	Max	15.0	15.0	20.0	25.0	35.0	40.0	45.0
Assembled bearing outer ring radial runout								
$S_D\ max$ [μm]	Max							
Outer ring face runout								
$S_{ea\ max}$ [μm]	Max							
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [μm]	Max	Identical to the V_{BS} of the inner ring of the same bearing						
Difference between largest and smallest width		Identical to the V_{BS} of the inner ring of the same bearing						

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	0	0
Average OD tolerance	Min	-3.1	-3.5	-4.3	-5.1	-5.9	-7.1	-9.8
Δ_{Ds} (Bearing Series 60 & 62) [0.0001"]	Max							
Single OD tolerance	Min							
$V_{Dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	3.9	4.7	5.5	6.3	7.5	9.1	12.2
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [0.0001"]	Max	3.1	3.5	4.3	5.1	7.5	9.1	12.2
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [0.0001"]	Max	2.4	2.8	3.1	3.9	4.3	5.5	7.5
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [0.0001"]	Max	2.4	2.8	3.1	3.9	4.3	5.5	7.5
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [0.0001"]	Max	5.9	5.9	7.9	9.8	13.8	15.7	17.7
Assembled bearing outer ring radial runout								
$S_D\ max$ [0.0001"]	Max							
Outer ring face runout								
$S_{ea\ max}$ [0.0001"]	Max							
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [0.0001"]	Max	Identical to the V_{BS} of the inner ring of the same bearing						
Difference between largest and smallest width		Identical to the V_{BS} of the inner ring of the same bearing						



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	80
	Including	10	18	30	50	80	120
Δ_{dmp} [μm]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-7.0	-7.0	-8.0	-10.0	-12.0	-15.0
Δ_{dis} (Bearing Series 60 & 62) [μm]	Max						
Single ID tolerance	Min						
$V_{dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	9.0	9.0	10.0	13.0	15.0	19.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [μm]	Max	7.0	7.0	8.0	10.0	15.0	19.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [μm]	Max	5.0	5.0	6.0	8.0	9.0	11.0
Difference between largest and smallest ID							
$V_{dmp\ max}$ [μm]	Max	5.0	5.0	6.0	8.0	9.0	11.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [μm]	Max	6.0	7.0	8.0	10.0	10.0	13.0
Assembled bearing inner ring radial runout							
$S_d\ max$ [μm]	Max						
Inner ring face runout							
$S_{ia\ max}$ [μm]	Max						
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μm]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-120	-120	-120	-120	-150	-200
Δ_{BS} Bearing Pair [μm]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-380	-380
$V_{BS\ max}$ [μm]	Max	15.0	20.0	20.0	20.0	25.0	25.0
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	Including	18	30	50	80	120	150	180
Δ_{dmp} [μm]	Max	0	0	0	0	0	0	0
Average OD tolerance	Min	-7.0	-8.0	-9.0	-11.0	-13.0	-15.0	-18.0
Δ_{Ds} (Bearing Series 60 & 62) [μm]	Max							
Single OD tolerance	Min							
$V_{Dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	9.0	10.0	11.0	14.0	16.0	19.0	23.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [μm]	Max	7.0	8.0	9.0	11.0	16.0	19.0	23.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [μm]	Max	5.0	6.0	7.0	8.0	10.0	11.0	14.0
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [μm]	Max	5.0	6.0	7.0	8.0	10.0	11.0	14.0
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [μm]	Max	8.0	9.0	10.0	13.0	18.0	20.0	23.0
Assembled bearing outer ring radial runout								
$S_D\ max$ [μm]	Max							
Outer ring face runout								
$S_{ea\ max}$ [μm]	Max							
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [μm]	Max	Identical to the V_{BS} of the inner ring of the same bearing						
Difference between largest and smallest width		Identical to the V_{BS} of the inner ring of the same bearing						

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244
Δ_{dmp} [0.0001"]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-2.8	-2.8	-3.1	-3.9	-4.7	-5.9
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max						
Single ID tolerance	Min						
$V_{dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	3.5	3.5	3.9	5.1	5.9	7.5
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [0.0001"]	Max	2.8	2.8	3.1	3.9	5.9	7.5
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [0.0001"]	Max	2.0	2.0	2.4	3.1	3.5	4.3
Difference between largest and smallest ID							
$V_{dmp\ max}$ [0.0001"]	Max	2.0	2.0	2.4	3.1	3.5	4.3
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [0.0001"]	Max	2.4	2.8	3.1	3.9	3.9	5.1
Assembled bearing inner ring radial runout							
$S_d\ max$ [0.0001"]	Max						
Inner ring face runout							
$S_{ia\ max}$ [0.0001"]	Max						
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-47.2	-47.2	-47.2	-47.2	-59.1	-78.7
Δ_{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-149.6	-149.6
$V_{BS\ max}$ [0.0001"]	Max	5.9	7.9	7.9	7.9	9.8	9.8
Difference between largest and smallest width							

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	0	0
Average OD tolerance	Min	-2.8	-3.1	-3.5	-4.3	-5.1	-5.9	-7.1
Δ_{Ds} (Bearing Series 60 & 62) [0.0001"]	Max							
Single OD tolerance	Min							
$V_{Dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	3.5	3.9	4.3	5.5	6.3	7.5	9.1
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [0.0001"]	Max	2.8	3.1	3.5	4.3	6.3	7.5	9.1
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [0.0001"]	Max	2.0	2.4	2.8	3.1	3.9	4.3	5.5
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [0.0001"]	Max	2.0	2.4	2.8	3.1	3.9	4.3	5.5
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [0.0001"]	Max	3.1	3.5	3.9	5.1	7.1	7.9	9.1
Assembled bearing outer ring radial runout								
$S_D\ max$ [0.0001"]	Max							
Outer ring face runout								
$S_{ea\ max}$ [0.0001"]	Max							
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [0.0001"]	Max	Identical to the V_{BS} of the inner ring of the same bearing						
Difference between largest and smallest width		Identical to the V_{BS} of the inner ring of the same bearing						



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	80
	Including	10	18	30	50	80	120
Δ_{dmp} [μ m]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-5.0	-5.0	-6.0	-8.0	-9.0	-10.0
Δ_{dis} (Bearing Series 60 & 62) [μ m]	Max						
Single ID tolerance	Min						
$V_{dp \max}$ (Bearing Series 618 & 619) [μ m]	Max	5.0	5.0	6.0	8.0	9.0	10.0
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [μ m]	Max	4.0	4.0	5.0	6.0	7.0	8.0
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [μ m]	Max	4.0	4.0	5.0	6.0	7.0	8.0
Difference between largest and smallest ID							
$V_{dmp \max}$ [μ m]	Max	3.0	3.0	3.0	4.0	5.0	5.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [μ m]	Max	4.0	4.0	4.0	5.0	5.0	6.0
Assembled bearing inner ring radial runout							
$S_d \max$ [μ m]	Max	7.0	7.0	8.0	8.0	9.0	10.0
Inner ring face runout							
$S_{ia \max}$ [μ m]	Max	7.0	7.0	8.0	8.0	9.0	10.0
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μ m]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-40	-80	-120	-120	-150	-200
Δ_{BS} Bearing Pair [μ m]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-250	-380
$V_{BS \max}$ [μ m]	Max	5.0	5.0	5.0	5.0	6.0	7.0
Difference between largest and smallest width							

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244
Δ_{dmp} [0.0001"]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-2.0	-2.0	-2.4	-3.1	-3.5	-3.9
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max						
Single ID tolerance	Min						
$V_{dp \max}$ (Bearing Series 618 & 619) [0.0001"]	Max	2.0	2.0	2.4	3.1	3.5	3.9
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [0.0001"]	Max	1.6	1.6	2.0	2.4	2.8	3.1
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [0.0001"]	Max	1.6	1.6	2.0	2.4	2.8	3.1
Difference between largest and smallest ID							
$V_{dmp \max}$ [0.0001"]	Max	1.2	1.2	1.2	1.6	2.0	2.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [0.0001"]	Max	1.6	1.6	1.6	2.0	2.0	2.4
Assembled bearing inner ring radial runout							
$S_d \max$ [0.0001"]	Max	2.8	2.8	3.1	3.1	3.5	3.9
Inner ring face runout							
$S_{ia \max}$ [0.0001"]	Max	2.8	2.8	3.1	3.1	3.5	3.9
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-15.7	-31.5	-47.2	-47.2	-59.1	-78.7
Δ_{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-98.4	-149.6
$V_{BS \max}$ [0.0001"]	Max	2.0	2.0	2.0	2.0	2.4	2.8
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	Including	18	30	50	80	120	150	180
Δ_{dmp} [μ m]	Max	0	0	0	0	0	0	0
Average OD tolerance	Min	-5.0	-6.0	-7.0	-9.0	-10.0	-11.0	-13.0
Δ_{Ds} (Bearing Series 60 & 62) [μ m]	Max							
Single OD tolerance	Min							
$V_{Dp \max}$ (Bearing Series 618 & 619) [μ m]	Max	5.0	6.0	7.0	9.0	10.0	11.0	13.0
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [μ m]	Max	4.0	5.0	5.0	7.0	8.0	8.0	10.0
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [μ m]	Max	4.0	5.0	5.0	7.0	8.0	8.0	10.0
Difference between largest and smallest OD								
$V_{Dmp \max}$ [μ m]	Max	3.0	3.0	4.0	5.0	5.0	6.0	7.0
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [μ m]	Max	5.0	6.0	7.0	8.0	10.0	11.0	13.0
Assembled bearing outer ring radial runout								
$S_D \max$ [μ m]	Max	8.0	8.0	8.0	8.0	9.0	10.0	10.0
Outer ring face runout								
$S_{ea \max}$ [μ m]	Max	8.0	8.0	8.0	10.0	11.0	13.0	14.0
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μ m]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μ m]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [μ m]	Max	5.0	5.0	5.0	6.0	8.0	8.0	8.0
Difference between largest and smallest width								

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	0	0
Average OD tolerance	Min	-2.0	-2.4	-2.8	-3.5	-3.9	-4.3	-5.1
Δ_{Ds} (Bearing Series 60 & 62) [0.0001"]	Max							
Single OD tolerance	Min							
$V_{Dp \max}$ (Bearing Series 618 & 619) [0.0001"]	Max	2.0	2.4	2.8	3.5	3.9	4.3	5.1
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [0.0001"]	Max	1.6	2.0	2.0	2.8	3.1	3.1	3.9
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [0.0001"]	Max	1.6	2.0	2.0	2.8	3.1	3.1	3.9
Difference between largest and smallest OD								
$V_{Dmp \max}$ [0.0001"]	Max	1.2	1.2	1.6	2.0	2.0	2.4	2.8
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [0.0001"]	Max	2.0	2.4	2.8	3.1	3.9	4.3	5.1
Assembled bearing outer ring radial runout								
$S_D \max$ [0.0001"]	Max	3.1	3.1	3.1	3.1	3.5	3.9	3.9
Outer ring face runout								
$S_{ea \max}$ [0.0001"]	Max	3.1	3.1	3.1	3.9	4.3	5.1	5.5
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [0.0001"]	Max	2.0	2.0	2.0	2.4	3.1	3.1	3.1
Difference between largest and smallest width								



P4 and ABEC 7 Precision Tolerances

In Accordance with ISO 492 and ABMA 20 Standards



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	80
	Including	10	18	30	50	80	120
Δ_{dmp} [μ m]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-4.0	-4.0	-5.0	-6.0	-7.0	-8.0
Δ_{dis} (Bearing Series 60 & 62) [μ m]	Max	0	0	0	0	0	0
Single ID tolerance	Min	-4.0	-4.0	-5.0	-6.0	-7.0	-8.0
$V_{dp\ max}$ (Bearing Series 618 & 619) [μ m]	Max	4.0	4.0	5.0	6.0	7.0	8.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [μ m]	Max	3.0	3.0	4.0	5.0	5.0	6.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [μ m]	Max	3.0	3.0	4.0	5.0	5.0	6.0
Difference between largest and smallest ID							
$V_{dmp\ max}$ [μ m]	Max	2.0	2.0	2.5	3.0	3.5	4.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [μ m]	Max	2.5	2.5	3.0	4.0	4.0	5.0
Assembled bearing inner ring radial runout							
$S_d\ max$ [μ m]	Max	3.0	3.0	4.0	4.0	5.0	5.0
Inner ring face runout							
$S_{ia\ max}$ [μ m]	Max	3.0	3.0	4.0	4.0	5.0	5.0
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μ m]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-40	-80	-120	-120	-150	-200
Δ_{BS} Bearing Pair [μ m]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-250	-380
$V_{BS\ max}$ [μ m]	Max	2.5	2.5	2.5	3.0	4.0	4.0
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	Including	18	30	50	80	120	150	180
Δ_{dmp} [μ m]	Max	0	0	0	0	0	0	0
Average OD tolerance	Min	-4.0	-5.0	-6.0	-7.0	-8.0	-9.0	-10.0
Δ_{Ds} (Bearing Series 60 & 62) [μ m]	Max	0	0	0	0	0	0	0
Single OD tolerance	Min	-4.0	-5.0	-6.0	-7.0	-8.0	-9.0	-10.0
$V_{Dp\ max}$ (Bearing Series 618 & 619) [μ m]	Max	4.0	5.0	6.0	7.0	8.0	9.0	10.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [μ m]	Max	3.0	4.0	5.0	5.0	6.0	7.0	8.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [μ m]	Max	3.0	4.0	5.0	5.0	6.0	7.0	8.0
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [μ m]	Max	2.0	2.5	3.0	3.5	4.0	5.0	5.0
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [μ m]	Max	3.0	4.0	5.0	5.0	6.0	7.0	8.0
Assembled bearing outer ring radial runout								
$S_{O\ max}$ [μ m]	Max	4.0	4.0	4.0	4.0	5.0	5.0	5.0
Outer ring face runout								
$S_{ea\ max}$ [μ m]	Max	5.0	5.0	5.0	5.0	6.0	7.0	8.0
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μ m]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μ m]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [μ m]	Max	2.5	2.5	2.5	3.0	4.0	5.0	5.0
Difference between largest and smallest width								

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244
Δ_{dmp} [0.0001"]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-1.6	-1.6	-2.0	-2.4	-2.8	-3.1
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0	0
Single ID tolerance	Min	-1.6	-1.6	-2.0	-2.4	-2.8	-3.1
$V_{dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	1.6	1.6	2.0	2.4	2.8	3.1
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [0.0001"]	Max	1.2	1.2	1.6	2.0	2.0	2.4
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [0.0001"]	Max	1.2	1.2	1.6	2.0	2.0	2.4
Difference between largest and smallest ID							
$V_{dmp\ max}$ [0.0001"]	Max	0.8	0.8	1.0	1.2	1.4	1.6
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [0.0001"]	Max	1.0	1.0	1.2	1.6	1.6	2.0
Assembled bearing inner ring radial runout							
$S_d\ max$ [0.0001"]	Max	1.2	1.2	1.6	1.6	2.0	2.0
Inner ring face runout							
$S_{ia\ max}$ [0.0001"]	Max	1.2	1.2	1.6	1.6	2.0	2.0
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-15.7	-31.5	-47.2	-47.2	-59.1	-78.7
Δ_{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-98.4	-149.6
$V_{BS\ max}$ [0.0001"]	Max	1.0	1.0	1.0	1.2	1.6	1.6
Difference between largest and smallest width							

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	0	0
Average OD tolerance	Min	-1.6	-2.0	-2.4	-2.8	-3.1	-3.5	-3.9
Δ_{Ds} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0	0	0
Single OD tolerance	Min	-1.6	-2.0	-2.4	-2.8	-3.1	-3.5	-3.9
$V_{Dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	1.6	2.0	2.4	2.8	3.1	3.5	3.9
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [0.0001"]	Max	1.2	1.6	2.0	2.0	2.4	2.8	3.1
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [0.0001"]	Max	1.2	1.6	2.0	2.0	2.4	2.8	3.1
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [0.0001"]	Max	0.8	1.0	1.2	1.4	1.6	2.0	2.0
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [0.0001"]	Max	1.2	1.6	2.0	2.0	2.4	2.8	3.1
Assembled bearing outer ring radial runout								
$S_{O\ max}$ [0.0001"]	Max	1.6	1.6	1.6	1.6	2.0	2.0	2.0
Outer ring face runout								
$S_{ea\ max}$ [0.0001"]	Max	2.0	2.0	2.0	2.0	2.4	2.8	3.1
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [0.0001"]	Max	1.0	1.0	1.0	1.2	1.6	2.0	2.0
Difference between largest and smallest width								



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	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	-5.0	-5.0	
Δ_{dis} (Bearing Series 60 & 62) [μm]	Max	0	0	0	0	0	
Single ID tolerance	Min	-3.0	-3.0	-3.0	-5.0	-5.0	
$V_{dp \max}$ (Bearing Series 618 & 619) [μm]	Max	3.0	3.0	3.0	5.0	5.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [μm]	Max	3.0	3.0	3.0	5.0	5.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [μm]	Max	3.0	3.0	3.0	5.0	5.0	
Difference between largest and smallest ID							
$V_{dmp \max}$ [μm]	Max	2.0	2.0	2.0	3.0	3.0	
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [μm]	Max	2.0	2.0	2.0	2.0	3.0	
Assembled bearing inner ring radial runout							
$S_d \max$ [μm]	Max	3.0	3.0	3.0	4.0	4.0	
Inner ring face runout							
$S_{ia \max}$ [μm]	Max	3.0	3.0	4.0	4.0	4.0	
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μm]	Max	0	0	0	0	0	
Single inner ring width tolerance	Min	-40	-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]	Max	2.0	2.0	2.0	2.0	2.0	
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	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]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [μm]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [μm]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dmp \max}$ [μm]	Max	1.0	1.0	1.0	2.0	2.0		
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [μm]	Max	2.0	2.0	2.0	3.0	3.0		
Assembled bearing outer ring radial runout								
$S_D \max$ [μm]	Max	4.0	4.0	4.0	4.0	5.0		
Outer ring face runout								
$S_{ea \max}$ [μm]	Max	5.0	5.0	5.0	5.0	5.0		
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.0		
Difference between largest and smallest width								

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	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	-2.0	-2.0	
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0	
Single ID tolerance	Min	-1.2	-1.2	-1.2	-2.0	-2.0	
$V_{dp \max}$ (Bearing Series 618 & 619) [0.0001"]	Max	1.2	1.2	1.2	2.0	2.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [0.0001"]	Max	1.2	1.2	1.2	2.0	2.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [0.0001"]	Max	1.2	1.2	1.2	2.0	2.0	
Difference between largest and smallest ID							
$V_{dmp \max}$ [0.0001"]	Max	0.8	0.8	0.8	1.2	1.2	
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	1.2	
Assembled bearing inner ring radial runout							
$S_d \max$ [0.0001"]	Max	1.2	1.2	1.2	1.6	1.6	
Inner ring face runout							
$S_{ia \max}$ [0.0001"]	Max	1.2	1.2	1.6	1.6	1.6	
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	
Single inner ring width tolerance	Min	-15.7	-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"]	Max	0.8	0.8	0.8	0.8	0.8	
Difference between largest and smallest width							

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"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [0.0001"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [0.0001"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dmp \max}$ [0.0001"]	Max	0.4	0.4	0.4	0.8	0.8		
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [0.0001"]	Max	0.8	0.8	0.8	1.2	1.2		
Assembled bearing outer ring radial runout								
$S_D \max$ [0.0001"]	Max	1.6	1.6	1.6	1.6	2.0		
Outer ring face runout								
$S_{ea \max}$ [0.0001"]	Max	2.0	2.0	2.0	2.0	2.0		
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	0.8		
Difference between largest and smallest width								



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	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_{dis} (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]	Max	3.0	3.0	3.0	3.0	4.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [μm]	Max	3.0	3.0	3.0	3.0	4.0	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [μm]	Max	3.0	3.0	3.0	3.0	4.0	
Difference between largest and smallest ID							
$V_{dmp \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.5	
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [μm]	Max	1.5	1.5	1.5	2.0	2.0	
Assembled bearing inner ring radial runout							
$S_{d \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.0	
Inner ring face runout							
$S_{ia \max}$ [μm]	Max	2.0	2.0	2.5	2.5	2.5	
Assembled bearing inner ring axial runout							
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]	Max	2.0	2.0	2.0	2.0	2.0	
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	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]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [μm]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [μm]	Max	2.0	2.0	2.0	4.0	4.0		
Difference between largest and smallest OD								
$V_{Dmp \max}$ [μm]	Max	1.0	1.0	1.0	2.0	2.0		
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [μm]	Max	2.0	2.0	2.0	3.0	3.0		
Assembled bearing outer ring radial runout								
$S_{O \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.5		
Outer ring face runout								
$S_{ea \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.5		
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [μm]	Max	2.0	2.0	2.0	2.0	2.0		
Difference between largest and smallest width								

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	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_{dis} (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"]	Max	1.2	1.2	1.2	1.2	1.6	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 60) [0.0001"]	Max	1.2	1.2	1.2	1.2	1.6	
Difference between largest and smallest ID							
$V_{dp \max}$ (Bearing Series 62) [0.0001"]	Max	1.2	1.2	1.2	1.2	1.6	
Difference between largest and smallest ID							
$V_{dmp \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	1.0	
Difference between largest average ID and smallest average ID in different planes							
$K_{ia \max}$ [0.0001"]	Max	0.6	0.6	0.6	0.8	0.8	
Assembled bearing inner ring radial runout							
$S_{d \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	0.8	
Inner ring face runout							
$S_{ia \max}$ [0.0001"]	Max	0.8	0.8	1.0	1.0	1.0	
Assembled bearing inner ring axial runout							
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"]	Max	0.8	0.8	0.8	0.8	0.8	
Difference between largest and smallest width							

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"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 60) [0.0001"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dp \max}$ (Bearing Series 62) [0.0001"]	Max	0.8	0.8	0.8	1.6	1.6		
Difference between largest and smallest OD								
$V_{Dmp \max}$ [0.0001"]	Max	0.4	0.4	0.4	0.8	0.8		
Difference between largest average OD and smallest average OD in different planes								
$K_{ea \max}$ [0.0001"]	Max	0.8	0.8	0.8	1.2	1.2		
Assembled bearing outer ring radial runout								
$S_{O \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	1.0		
Outer ring face runout								
$S_{ea \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	1.0		
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS \max}$ [0.0001"]	Max	0.8	0.8	0.8	0.8	0.8		
Difference between largest and smallest width								



Inner Ring Tolerance - Metric							
Nominal ID [mm]	Above	2.5	10	18	30	50	80
	Including	10	18	30	50	80	120
Δ_{dmp} [μm]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-2.5	-2.5	-2.5	-2.5	-4.0	-5.0
Δ_{dis} (Bearing Series 60 & 62) [μm]	Max	0	0	0	0	0	0
Single ID tolerance	Min	-2.5	-2.5	-2.5	-2.5	-4.0	-5.0
$V_{dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	2.5	2.5	2.5	2.5	2.5	5.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [μm]	Max	2.5	2.5	2.5	2.5	4.0	5.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [μm]	Max	2.5	2.5	2.5	2.5	4.0	5.0
Difference between largest and smallest ID							
$V_{dmp\ max}$ [μm]	Max	1.5	1.5	1.5	1.5	2.0	2.5
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [μm]	Max	1.5	1.5	2.5	2.5	2.5	2.5
Assembled bearing inner ring radial runout							
$S_d\ max$ [μm]	Max	1.5	1.5	1.5	1.5	1.5	2.5
Inner ring face runout							
$S_{ia\ max}$ [μm]	Max	1.5	1.5	2.5	2.5	2.5	2.0
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [μm]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-40	-80	-120	-120	-150	-200
Δ_{BS} Bearing Pair [μm]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-250	-250	-250	-250	-250	-380
$V_{BS\ max}$ [μm]	Max	1.5	1.5	1.5	1.5	1.5	2.5
Difference between largest and smallest width							

Outer Ring Tolerance - Metric								
Nominal OD [mm]	Above	6	18	30	50	80	120	150
	Including	18	30	50	80	120	150	180
Δ_{dmp} [μm]	Max	0	0	0	0	0	0	0
Average OD tolerance	Min	-2.5	-4.0	-4.0	-4.0	-5.0	-5.0	-7.0
Δ_{Ds} (Bearing Series 60 & 62) [μm]	Max	0	0	0	0	0	0	0
Single OD tolerance	Min	-2.5	-4.0	-4.0	-4.0	-5.0	-5.0	-7.0
$V_{Dp\ max}$ (Bearing Series 618 & 619) [μm]	Max	2.5	4.0	4.0	4.0	5.0	5.0	7.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [μm]	Max	2.5	4.0	4.0	4.0	5.0	5.0	7.0
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [μm]	Max	2.5	4.0	4.0	4.0	5.0	5.0	7.0
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [μm]	Max	1.5	2.0	2.0	2.0	2.5	2.5	3.5
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [μm]	Max	1.5	2.5	2.5	4.0	5.0	5.0	5.0
Assembled bearing outer ring radial runout								
$S_D\ max$ [μm]	Max	1.5	1.5	1.5	1.5	2.5	2.5	2.5
Outer ring face runout								
$S_{ea\ max}$ [μm]	Max	1.5	2.5	2.5	4.0	5.0	5.0	5.0
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [μm]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [μm]	Max	1.5	1.5	1.5	1.5	1.5	2.5	2.5
Difference between largest and smallest width								

Inner Ring Tolerance - Imperial							
Nominal ID [inch]	Above	0.0984	0.3937	0.7087	1.1811	1.9685	3.1496
	Including	0.3937	0.7087	1.1811	1.9685	3.1496	4.7244
Δ_{dmp} [0.0001"]	Max	0	0	0	0	0	0
Average ID tolerance	Min	-1.0	-1.0	-1.0	-1.0	-1.6	-2.0
Δ_{dis} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0	0
Single ID tolerance	Min	-1.0	-1.0	-1.0	-1.0	-1.6	-2.0
$V_{dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	1.0	1.0	1.0	1.0	1.0	2.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 60) [0.0001"]	Max	1.0	1.0	1.0	1.0	1.6	2.0
Difference between largest and smallest ID							
$V_{dp\ max}$ (Bearing Series 62) [0.0001"]	Max	1.0	1.0	1.0	1.0	1.6	2.0
Difference between largest and smallest ID							
$V_{dmp\ max}$ [0.0001"]	Max	0.6	0.6	0.6	0.6	0.8	1.0
Difference between largest average ID and smallest average ID in different planes							
$K_{ia\ max}$ [0.0001"]	Max	0.6	0.6	1.0	1.0	1.0	1.0
Assembled bearing inner ring radial runout							
$S_d\ max$ [0.0001"]	Max	0.6	0.6	0.6	0.6	0.6	1.0
Inner ring face runout							
$S_{ia\ max}$ [0.0001"]	Max	0.6	0.6	1.0	1.0	1.0	0.8
Assembled bearing inner ring axial runout							
Δ_{BS} Single Bearing [0.0001"]	Max	0	0	0	0	0	0
Single inner ring width tolerance	Min	-15.7	-31.5	-47.2	-47.2	-59.1	-78.7
Δ_{BS} Bearing Pair [0.0001"]	Max	0	0	0	0	0	0
Inner ring pair width tolerance	Min	-98.4	-98.4	-98.4	-98.4	-98.4	-149.6
$V_{BS\ max}$ [0.0001"]	Max	0.6	0.6	0.6	0.6	0.6	1.0
Difference between largest and smallest width							

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	0	0
Average OD tolerance	Min	-1.0	-1.6	-1.6	-1.6	-2.0	-2.0	-2.8
Δ_{Ds} (Bearing Series 60 & 62) [0.0001"]	Max	0	0	0	0	0	0	0
Single OD tolerance	Min	-1.0	-1.6	-1.6	-1.6	-2.0	-2.0	-2.8
$V_{Dp\ max}$ (Bearing Series 618 & 619) [0.0001"]	Max	1.0	1.6	1.6	1.6	2.0	2.0	2.8
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 60) [0.0001"]	Max	1.0	1.6	1.6	1.6	2.0	2.0	2.8
Difference between largest and smallest OD								
$V_{Dp\ max}$ (Bearing Series 62) [0.0001"]	Max	1.0	1.6	1.6	1.6	2.0	2.0	2.8
Difference between largest and smallest OD								
$V_{Dmp\ max}$ [0.0001"]	Max	0.6	0.8	0.8	0.8	1.0	1.0	1.4
Difference between largest average OD and smallest average OD in different planes								
$K_{ea\ max}$ [0.0001"]	Max	0.6	1.0	1.0	1.6	2.0	2.0	2.0
Assembled bearing outer ring radial runout								
$S_D\ max$ [0.0001"]	Max	0.6	0.6	0.6	0.6	1.0	1.0	1.0
Outer ring face runout								
$S_{ea\ max}$ [0.0001"]	Max	0.6	1.0	1.0	1.6	2.0	2.0	2.0
Assembled bearing outer ring axial runout								
Δ_{CS} Single Bearing [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Single outer ring width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
Δ_{CS} Bearing Pair [0.0001"]	Max	Identical to the Δ_{BS} of the inner ring of the same bearing						
Outer ring pair width tolerance	Min	Identical to the Δ_{BS} of the inner ring of the same bearing						
$V_{CS\ max}$ [0.0001"]	Max	0.6	0.6	0.6	0.6	0.6	1.0	1.0
Difference between largest and smallest width								