GAGE MAKERS TOLERANCE CHART

DIAMETERS (INCH) ABOVE & INCLUDING	TOLERANCE CLASS					
	XXX	**XX**	**X**	**Y**	**Z**	**ZZ**
.010" - .825"	.000010"	.000020"	.000040"	.000070"	.0001"	.0002"
.825" - 1.510"	.000015"	.000030"	.000060"	.000090"	.00012"	.00024"
1.510" - 2.510"	.000020"	.000040"	.000080"	.00012"	.00016"	.00032"
2.510" - 4.510"	.000025"	.000050"	.0001"	.00015"	.0002"	.0004"
4.510" - 6.510"	.000033"	.000065"	.00013"	.00019"	.00025"	.0005"
6.510" - 9.010"	.000040"	.000080"	0.00016"	.00024"	.00032"	.00064"
9.010" - 12.010"	.000050"	.0001"	.0002"	.0003"	.0004"	0.0008

DIAMETERS (METRIC) ABOVE & INCLUDING	TOLERANCE CLASS					
	XXX	**XX**	**X**	**Y**	**Z**	**ZZ**
.254mm to 20.96mm	.00025mm	.00051mm	.00102mm	.00178mm	.00254mm	.00508mm
20.96mm to 38.35mm	.00038mm	.00076mm	.00152mm	.00229mm	.00305mm	.00610mm
38.35mm to 63.75mm	.00051mm	.00102mm	.00203mm	.00305mm	.00406mm	.00813mm
63.75mm to 114.55mm	.00064mm	.00127mm	.00254mm	.00381mm	.00508mm	.01016mm
114.55mm to 165.35mm	.00084mm	.00165mm	.00330mm	.00483mm	.00635mm	.01270mm
165.35mm to 228.85mm	.00102mm	.00203mm	.00406mm	.00610mm	.00813mm	.01626mm
228.85mm to 305.05mm	.00127mm	.00254mm	.00508mm	.00762mm	.01016mm	.02032mm

TOLERANCE DIRECTION

TYPE OF PRODUCT	DIRECTION	
	GO	**NO-GO**
OD CYLINDRICALS (PLUGS)	PLUS	MINUS
ID CYLINDRICALS (RINGS)	MINUS	PLUS

CALCULATING GAGE TOLERANCES

To calculate gage tolerances, the general rule of thumb is to use 10% of your part tolerance. For example, if your part tolerance is +.002/-.000 then the tolerancing that should be placed on your gage would be .0002"

PART FEATURE EXAMPLE	GAGE
Hole Size = .7500" ±.0002"	GO Plug Member = .7498" +.00002/-.00000 (CL-XX) NO-GO Plug Member = .7502" +.0000/-.00002 (CL-XX)

LIMITS FOR ROUNDNESS & STRAIGHTNESS (PLUGS)

DIAMETERS (INCH) ABOVE & INCLUDING	TOLERANCE CLASS					
	XXX	**XX**	**X**	**Y**	**Z**	**ZZ**
.010" - .825"	.000005"	.000010"	.000020"	.000035"	.000050"	.000100"
.825" - 1.510"	.000008"	.000015"	.000030"	.000045"	.000060"	.000120"
1.510" - 2.510"	.000010"	.000020"	.000040"	.000060"	.000080"	.000160"
2.510" - 4.510"	.000013"	.000025"	.000050"	.000075"	.000100"	.000200"
4.510" - 6.510"	.000016"	.000033"	.000065"	.000095"	.000125"	.000250"
6.510" - 9.010"	.000020"	.000040"	.000080"	.000120"	.000160"	.000320"
9.010" - 12.010"	.000025"	.000050"	.000100"	.000125"	.000200"	.000400"