

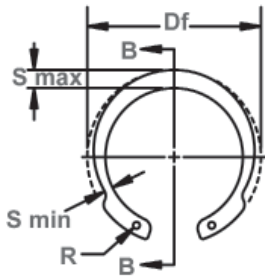


HOI Housing Rings

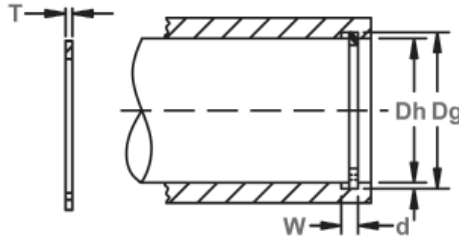
Reference Part # 5008

Axially Assembled, Internal Inverted

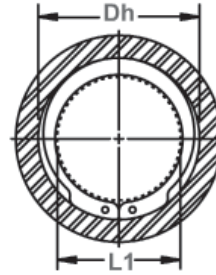
Functions like an HO ring in a housing/bore, only the lugs are "reversed." This version reduces the distance the lugs of the standard HO extend into the inner circumference of the housing/bore and allows for another assembly to pass through unimpeded.



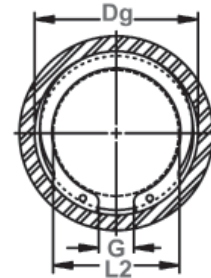
Free Diameter & Ring Measurements with Section B-B



Housing Diameter & Groove Dimensions



Clearance Diameter Compressed in Housing



Clearance Diameter & Gap Width Released in Groove

| RING NO. | HOUSING DIAMETER | | | GROOVE SIZE | | | RING SIZE & WEIGHT | | | | CLEARANCE DIA. | | | THRUST LD. (lbs.) | | | |
|----------|------------------|---------|-------|-------------|-------|------|--------------------|---------------|--------------|--------|---------------------|-----------------------|--------------------|----------------------|------|-------|-------|
| | | | | DIAMETER | WIDTH | | DEPTH | FREE DIAMETER | THICKNESS*** | | Wght. Per 1000 Pcs. | Compressed in housing | Released in groove | Sqr. Corner Abutment | | | |
| | Dg | Tol. | W | | Tol. | d | | | Df | Tol. | | | | T | Tol. | Lbs. | L1 |
| HOI-62 | .625 | 5/8 | 15.9 | .665 | ±.002 | .029 | | .020 | .675 | | .025 | | 0.7 | .47 | .51 | 1015 | 450 |
| HOI-75 | .750 | 3/4 | 19.0 | .796 | .004* | .039 | | .023 | .808 | | .035 | | 1.3 | .56 | .605 | 1675 | 600 |
| HOI-81 | .812 | 13/16 | 20.6 | .862 | | .046 | + .003 | .025 | .877 | + .010 | .042 | | 2.0 | .62 | .665 | 2639 | 700 |
| HOI-87 | .875 | 7/8 | 22.2 | .931 | ±.003 | .046 | - .000 | .028 | .944 | - .005 | .042 | | 2.2 | .65 | .705 | 2893 | 850 |
| HOI-93 | .938 | 15/16 | 23.8 | 1.000 | .004* | .046 | | .031 | 1.015 | | .042 | | 2.8 | .70 | .755 | 3147 | 1000 |
| HOI-100 | 1.000 | 1 | 25.4 | 1.066 | | .046 | | .033 | 1.081 | | .042 | | 2.9 | .75 | .81 | 3350 | 1150 |
| HOI-106 | 1.062 | 1-1/16 | 27.0 | 1.130 | | .056 | | .034 | 1.150 | | .050 | | 3.8 | .80 | .87 | 4212 | 1250 |
| HOI-112 | 1.125 | 1-1/8 | 28.6 | 1.197 | | .056 | | .036 | 1.217 | | .050 | | 4.4 | .86 | .93 | 4466 | 1400 |
| HOI-118 | 1.188 | 1-3/16 | 30.2 | 1.262 | | .056 | | .037 | 1.283 | + .015 | .050 | ±.002 | 4.9 | .91 | .98 | 4720 | 1600 |
| HOI-125 | 1.250 | 1-1/4 | 31.7 | 1.330 | ±.004 | .056 | | .040 | 1.351 | - .010 | .050 | | 5.0 | .97 | 1.05 | 4974 | 1750 |
| HOI-131 | 1.312 | 1-5/16 | 33.3 | 1.396 | .005* | .056 | + .004 | .042 | 1.418 | | .050 | | 5.3 | 1.02 | 1.10 | 5227 | 1950 |
| HOI-137 | 1.375 | 1-3/8 | 34.9 | 1.461 | | .056 | - .000 | .043 | 1.486 | | .050 | | 5.9 | 1.08 | 1.16 | 5481 | 2100 |
| HOI-143 | 1.438 | 1-7/16 | 36.5 | 1.528 | | .056 | | .045 | 1.552 | | .050 | | 6.3 | 1.13 | 1.22 | 5735 | 2300 |
| HOI-150 | 1.500 | 1-1/2 | 38.1 | 1.594 | | .056 | | .047 | 1.622 | | .050 | | 6.8 | 1.18 | 1.27 | 5938 | 2500 |
| HOI-156 | 1.562 | 1-9/16 | 39.7 | 1.658 | | .068 | | .048 | 1.688 | | .062 | | 8.9 | 1.21 | 1.30 | 7714 | 2650 |
| HOI-162 | 1.625 | 1-5/8 | 41.3 | 1.725 | | .068 | | .050 | 1.756 | | .062 | | 10.4 | 1.27 | 1.37 | 8019 | 2850 |
| HOI-168 | 1.688 | 1-11/16 | 42.9 | 1.792 | ±.005 | .068 | | .052 | 1.823 | + .020 | .062 | | 11.9 | 1.32 | 1.42 | 8374 | 3100 |
| HOI-175 | 1.750 | 1-3/4 | 44.4 | 1.858 | .005* | .068 | | .054 | 1.891 | - .013 | .062 | | 11.8 | 1.38 | 1.49 | 8678 | 3300 |
| HOI-187 | 1.875 | 1-7/8 | 47.6 | 1.989 | | .068 | | .057 | 2.025 | | .062 | | 14.8 | 1.47 | 1.58 | 9287 | 3750 |
| HOI-200 | 2.000 | 2 | 50.8 | 2.122 | | .068 | | .061 | 2.160 | | .062 | | 17.4 | 1.55 | 1.67 | 9896 | 4300 |
| HOI-206 | 2.062 | 2-1/16 | 52.4 | 2.186 | | .086 | | .062 | 2.224 | | .078 | | 23.2 | 1.59 | 1.71 | 12840 | 4500 |
| HOI-212 | 2.125 | 2-1/8 | 54.0 | 2.251 | ±.006 | .086 | + .005 | .063 | 2.295 | | .078 | | 24.3 | 1.65 | 1.77 | 13246 | 4700 |
| HOI-237 | 2.375 | 2-3/8 | 60.3 | 2.517 | .006* | .086 | - .000 | .071 | 2.567 | + .025 | .078 | ±.003 | 28.6 | 1.86 | 2.00 | 14718 | 5900 |
| HOI-243 | 2.438 | 2-7/16 | 61.9 | 2.584 | | .086 | | .072 | 2.634 | - .015 | .078 | | 30.6 | 1.91 | 2.05 | 15124 | 6200 |
| HOI-250 | 2.500 | 2-1/2 | 63.5 | 2.648 | | .086 | | .074 | 2.700 | | .078 | | 32.1 | 1.96 | 2.10 | 15530 | 6500 |
| HOI-262 | 2.625 | 2-5/8 | 66.7 | 2.781 | | .103 | | .078 | 2.840 | | .093 | | 45.6 | 2.06 | 2.21 | 19488 | 7200 |
| HOI-275 | 2.750 | 2-3/4 | 69.8 | 2.914 | | .103 | | .082 | 2.975 | | .093 | | 47.8 | 2.16 | 2.32 | 20300 | 7900 |
| HOI-283 | 2.812 | 2-13/16 | 71.4 | 2.980 | | .103 | | .084 | 3.063 | | .093 | | 49.5 | 2.21 | 2.37 | 20808 | 8300 |
| HOI-283 | 2.835 | - | 72.0 | 3.006 | | .103 | | .086 | 3.063 | | .093 | | 49.5 | 2.23 | 2.39 | 20808 | 8550 |
| HOI-287 | 2.875 | 2-7/8 | 73.0 | 3.051 | | .103 | | .088 | 3.105 | + .030 | .093 | | 50.1 | 2.26 | 2.43 | 21315 | 8900 |
| HOI-300 | 3.000 | 3 | 76.2 | 3.182 | | .103 | | .091 | 3.245 | - .020 | .093 | | 52.6 | 2.36 | 2.53 | 22229 | 9600 |
| HOI-315 | 3.156 | 3-5/32 | 80.2 | 3.348 | | .120 | | .096 | 3.408 | | .109 | | 69.4 | 2.50 | 2.69 | 27405 | 10600 |
| HOI-325 | 3.250 | 3-1/4 | 82.5 | 3.446 | | .120 | | .098 | 3.509 | | .109 | | 72.6 | 2.58 | 2.77 | 28217 | 11200 |
| HOI-334 | 3.346 | 3-11/32 | 85.0 | 3.546 | | .120 | | .100 | 3.611 | | .109 | | 75.6 | 2.67 | 2.87 | 29029 | 11700 |
| HOI-350 | 3.500 | 3-1/2 | 88.9 | 3.710 | | .120 | | .105 | 3.780 | | .109 | | 80.2 | 2.82 | 3.03 | 30349 | 12900 |
| HOI-356 | 3.562 | 3-9/16 | 90.5 | 3.776 | | .120 | | .107 | 3.850 | | .109 | | 82.4 | 2.88 | 3.09 | 30958 | 13400 |
| HOI-400 | 4.000 | 4 | 101.6 | 4.240 | | .120 | | .120 | 4.350 | | .109 | | 97.4 | 3.29 | 3.53 | 34713 | 16900 |

*F.I.M. (FULL INDICATOR MOVEMENT)-MAXIMUM ALLOWABLE DEVIATION OF CONCENTRICITY BETWEEN GROOVE AND HOUSING.

† BASED ON HOUSING/SHAFTS MADE OF COLD ROLLED STEEL. FOR AN EXPLANATION OF FORMULAS USED TO DERIVE THRUST LOAD AND OTHER PERFORMANCE DATA, CONTACT THE ROTOR CLIP ENGINEERING DEPT.

*** FOR PLATED RINGS, ADD .002" TO THE LISTED MAXIMUM THICKNESS. MAXIMUM RING THICKNESS WILL BE A MINIMUM OF .0002" LESS THAN THE LISTED GROOVE WIDTH (W) MINIMUM.

HARDNESS RANGES: STAINLESS STEEL RINGS (PH 15-7MO)

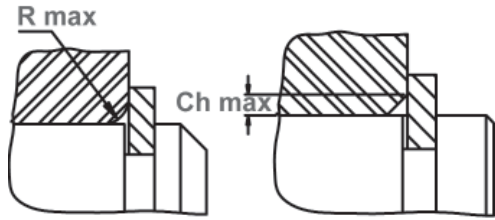
| RING TYPE | SIZE RANGE | SCALE | ROCKWELL HARDNESS |
|-----------|------------|-------|-------------------|
| HOI | 62-100 | 30N | 63-69.5 |
| | 106+ | C | 44-51 |

Cross Reference Example
5008-100 = **HOI-100**

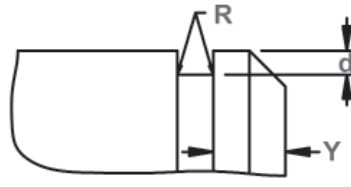
HOI Housing Rings



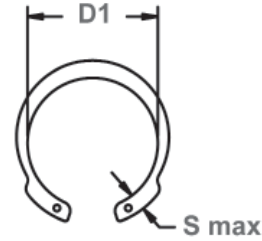
Reference Part # 5008



Allowable Corner Radius & Chamfer



Exploded Groove Profile & Edge Margin (Y) Maximum bottom radii (R), .005 for ring sizes -62 thru -100; .010 for ring sizes -106 thru -400



Measuring Free Diameter (Df) HOI Series
 $Df = D1 + 2(S \max)$



Alternate Design Manufacturer's Option

| RING NO. | MAXIMUM SECTION Including lug | | MINIMUM SECTION | | HOLE DIAMETER | | GAP WIDTH Ring in groove | Allowable Corner Radii & Chamfers | | | MAX LOAD W/R Max or Ch Max | EDGE MARGIN |
|----------|-------------------------------|--------|-----------------|--------|---------------|----------------|--------------------------|-----------------------------------|-------|--------|----------------------------|-------------|
| | S max | Tol. | S min. | Tol. | R | Tol. | | G Min | R max | Ch max | | |
| HOI-62 | .072 | ± .004 | .036 | ± .004 | .030 | +.010 -.002 | .15 | .042 | .028 | 400 | .060 | |
| HOI-75 | .085 | ± .005 | .042 | ± .005 | .042 | | .175 | .050 | .031 | 850 | .069 | |
| HOI-81 | .092 | | .044 | | .042 | | .175 | .054 | .034 | 1250 | .075 | |
| HOI-87 | .099 | | .047 | | .042 | | .20 | .057 | .036 | 1250 | .084 | |
| HOI-93 | .106 | | .051 | | .042 | | .21 | .060 | .038 | 1250 | .093 | |
| HOI-100 | .113 | | .054 | | .042 | | .225 | .064 | .040 | 1250 | .099 | |
| HOI-106 | .120 | | .057 | | .050 | | .24 | .069 | .043 | 1800 | .102 | |
| HOI-112 | .123 | | .059 | | .050 | | .24 | .070 | .044 | 1800 | .108 | |
| HOI-118 | .126 | | .060 | | .050 | | .27 | .071 | .045 | 1800 | .111 | |
| HOI-125 | .129 | | .061 | | .050 | | .29 | .071 | .045 | 1800 | .120 | |
| HOI-131 | .132 | | .063 | | .050 | .29 | .072 | .045 | 1800 | .126 | | |
| HOI-137 | .135 | .065 | .050 | .33 | .074 | .046 | 1800 | .129 | | | | |
| HOI-143 | .144 | .069 | .076 | .35 | .079 | .050 | 1800 | .135 | | | | |
| HOI-150 | .148 | .070 | .076 | .33 | .081 | .051 | 1800 | .141 | | | | |
| HOI-156 | .158 | .074 | .076 | .36 | .088 | .055 | 2900 | .144 | | | | |
| HOI-162 | .162 | .077 | .076 | .385 | .090 | .056 | 2900 | .150 | | | | |
| HOI-168 | .166 | .079 | .076 | .405 | .091 | .057 | 2900 | .156 | | | | |
| HOI-175 | .170 | .082 | .076 | .42 | .093 | .058 | 2900 | .162 | | | | |
| HOI-187 | .188 | .090 | .076 | .44 | .105 | .066 | 2900 | .171 | | | | |
| HOI-200 | .208 | .100 | .076 | .48 | .118 | .074 | 2900 | .183 | | | | |
| HOI-206 | .218 | .106 | .094 | .485 | .125 | .078 | 4600 | .186 | | | | |
| HOI-212 | .223 | .108 | .094 | .49 | .128 | .080 | 4600 | .189 | | | | |
| HOI-237 | .243 | .115 | .094 | .55 | .138 | .086 | 4600 | .213 | | | | |
| HOI-243 | .248 | .117 | .094 | .57 | .141 | .088 | 4600 | .216 | | | | |
| HOI-250 | .254 | .120 | .094 | .59 | .144 | .090 | 4600 | .222 | | | | |
| HOI-262 | .266 | .128 | .109 | .60 | .150 | .094 | 6700 | .234 | | | | |
| HOI-275 | .278 | .134 | .109 | .63 | .157 | .098 | 6700 | .246 | | | | |
| HOI-283 | .286 | .139 | .109 | .61 | .162 | .102 | 6700 | .252 | | | | |
| HOI-283 | .286 | .139 | .109 | .67 | .162 | .102 | 6700 | .258 | | | | |
| HOI-287 | .290 | .139 | .109 | - | .162 | .101 | 6700 | .264 | | | | |
| HOI-300 | .302 | .143 | .109 | .705 | .169 | .106 | 6700 | .273 | | | | |
| HOI-315 | .314 | .149 | .125 | .76 | .174 | .109 | 9000 | .288 | | | | |
| HOI-325 | .318 | .151 | .125 | - | .176 | .110 | 9000 | .294 | | | | |
| HOI-334 | .321 | .155 | .125 | .81 | .177 | .111 | 9000 | .300 | | | | |
| HOI-350 | .324 | .154 | .125 | .84 | .175 | .110 | 9000 | .315 | | | | |
| HOI-356 | .326 | .155 | .125 | .86 | .175 | .110 | 9000 | .321 | | | | |
| HOI-400 | .338 | .161 | .125 | .93 | .174 | .108 | 9000 | .360 | | | | |

LARGER SIZES MAY BE AVAILABLE UPON REQUEST.

HARDNESS RANGES: CARBON STEEL RINGS (SAE 1060-1090)

| RING TYPE | SIZE RANGE | SCALE | ROCKWELL HARDNESS |
|-----------|------------|-------|-------------------|
| HOI | 62 & 75 | 30N | 67.5-72 |
| | 81-100 | 30N | 66-71 |
| | 106-343 | C | 47-52 |
| | 350+ | C | 45-50 |

HARDNESS RANGES: BERYLLIUM COPPER RINGS

| RING TYPE | SIZE RANGE | SCALE | ROCKWELL HARDNESS |
|-----------|------------|-------|-------------------|
| HOI | 62-100 | 30N | 56.5-62 |
| | 106+ | C | 37-43 |