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INTERNAL – BASIC

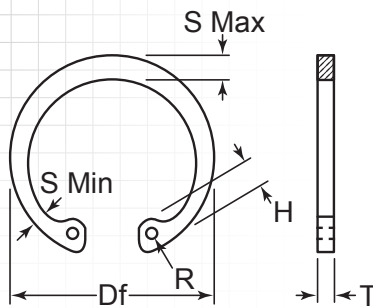


DESCRIPTION

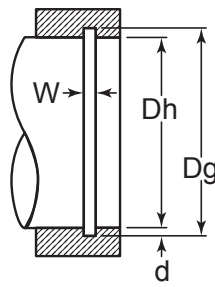
Once installed in the groove of a housing/bore, the portion of the ring protruding from the groove (also called a shoulder) holds an assembly in place.

HOW TO IDENTIFY

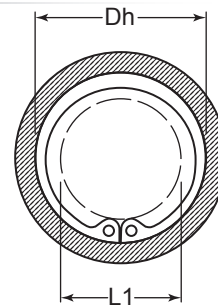
1. Verify internal design and appearance.
2. Measure the housing diameter (Dh).
3. Measure the ring cross section maximum (S Max).
4. Measure the ring cross section minimum (S Min).
5. Measure the ring thickness (T).
6. Find the part in the chart.



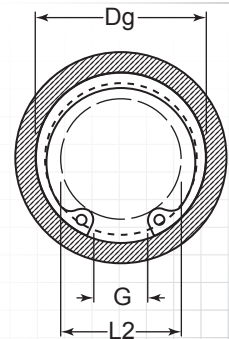
Ring Dimensions



Groove Dimensions



Clearance Diameter
Compressed in Housing



Clearance Diameter & Gap
Width Released in Groove

Item #	Housing Diameter	Groove Size					Ring Size & Weight					Clearance Diameter	
		Diameter		Width		Depth	Free Diameter		Thickness ²		Weight Per 1,000 pcs.	Compressed in Housing	Released in Groove
		Dh	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	L1	L2
HO-025	.250" (1/4)	.268"	±.001"	.020"	+.002/-0.000"	.009"	.280"	+.010/-0.005	.015"	±.002"	.08	.115"	.133"
HO-031	.312" (5/16)	.330"	.0015"***	.020"	+.002/-0.000"	.009"	.346"	+.010/-0.005	.015"	±.002"	.11	.173"	.191"
HO-037	.375" (3/8)	.397"	±.002 .002"***	.029"	+.003/-0.000"	.011"	.415"	+.010/-0.005	.025"	±.002"	.25	.204"	.226"
HO-043	.438" (7/16)	.461"		.029"	+.003/-0.000"	.012"	.482"	+.010/-0.005	.025"	±.002"	.37	.230"	.254"
HO-045	.453" (29/64)	.477"	±.002 .004"***	.029"	+.003/-0.000"	.012"	.498"	+.010/-0.005	.025"	±.002"	.43	.250"	.274"
HO-050	.500" (1/2)	.530"		.039"	+.003/-0.000"	.015"	.548"	+.010/-0.005	.035"	±.002"	.70	.260"	.290"
HO-051	.512"	.542"		.039"	+.003/-0.000"	.015"	.560"	+.010/-0.005	.035"	±.002"	.77	.270"	.300"
HO-056	.562" (9/16)	.596"		.039"	+.003/-0.000"	.017"	.620"	+.010/-0.005	.035"	±.002"	.86	.275"	.305"
HO-062	.625" (5/8)	.665"		.039"	+.003/-0.000"	.020"	.694"	+.010/-0.005	.035"	±.002"	1.00	.340"	.380"
HO-068	.688" (11/16)	.732"		.039"	+.003/-0.000"	.022"	.763"	+.010/-0.005	.035"	±.002"	1.20	.400"	.440"
HO-075	.750" (3/4)	.796"	±.003 .004"***	.039"	+.003/-0.000"	.023"	.831"	+.010/-0.005	.035"	±.002"	1.30	.450"	.490"
HO-077	.777"	.825"		.046"	+.003/-0.000"	.024"	.859"	+.010/-0.005	.042"	±.002"	1.70	.475"	.520"
HO-081	.812" (13/16)	.862"		.046"	+.003/-0.000"	.025"	.901"	+.015/-0.010"	.042"	±.002"	1.90	.490"	.540"
HO-086	.866"	.920"		.046"	+.003/-0.000"	.027"	.961"	+.015/-0.010"	.042"	±.002"	2.00	.540"	.590"
HO-087	.875" (7/8)	.931"		.046"	+.003/-0.000"	.028"	.971"	+.015/-0.010"	.042"	±.002"	2.10	.545"	.600"
HO-090	.901"	.959"		.046"	+.003/-0.000"	.029"	1.000"	+.015/-0.010"	.042"	±.002"	2.20	.565"	.620"
HO-093	.938" (15/16)	1.000"		.046"	+.003/-0.000"	.031"	1.041"	+.015/-0.010"	.042"	±.002"	2.40	.610"	.670"
HO-100	1.000" (1)	1.066"		.046"	+.003/-0.000"	.033"	1.111"	+.015/-0.010"	.042"	±.002"	2.70	.665"	.730"
HO-102	1.023"	1.091"		.046"	+.003/-0.000"	.034"	1.136"	+.015/-0.010"	.042"	±.002"	2.80	.690"	.755"

TO ORDER DIFFERENT MATERIAL/FINISHES,
APPEND SUFFIX WITH YOUR CHOICE:
"NONE" • -BC • -66 • -ZD • -Z3

Additional attribute data on adjacent page. ►



INSTALLATION
TOOLS AVAILABLE,
SEE PAGE 248



FOR DETAILED SPECIFICATIONS AND TOLERANCES, VISIT HUYETT.COM.

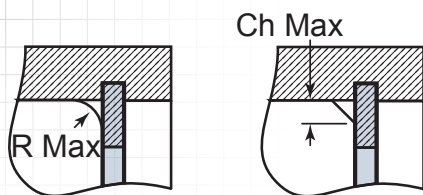
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INTERNAL – BASIC

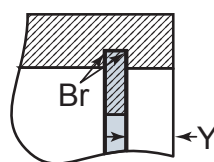
SUFFIX MATERIAL/FINISH

- ### = CARBON SPRING STEEL, PHOSPHATE
###-BC = BERYLLIUM COPPER, PLAIN
###-SS = PH 15-7 MO STAINLESS STEEL, PLAIN
###-ZD = CARBON SPRING STEEL, ZINC YELLOW
###-Z3 = CARBON SPRING STEEL, ZINC TRIVALENT

Material/finish combinations may not be available in all sizes.
More finishes available, see page 22 for a complete listing.



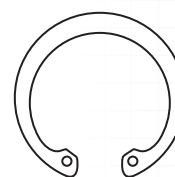
Maximum Corner
Radius (R Max) & Chamfer (Ch Max)
for Retained Part



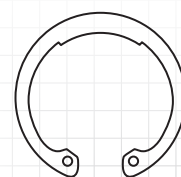
Maximum Bottom Radii (Br),
.005 for ring sizes HO-025 – HO-100;
.010 for ring sizes HO-102 – HO-1000

ALTERNATE DESIGNS

(Manufacturer's Option)



Alternate Lug Design
for Larger Sizes



Alternate Design

Item #	Thrust Load ¹		Lug Height		Maximum Section		Minimum Section		Hole Diameter		Gap Width Ring In Groove	Allowable Corner Radii & Chamfers		Max. Load w/R Max. or Ch Max.	Edge Margin
	Square Corner Abutment														
	Ring Safety Factor of 4	Groove Safety Factor of 2	H	Tol.	S Max.	Tol.	S Min.	Tol.	R	Tol.	G Min.	R Max.	Ch Max.	P'r lbs.	Y
HO-025	426	190	.065"	±.003"	.025"	±.002"	.015"	±.002"	.031"	+.010/ -.002"	.047"	.011"	.0085"	190	.027"
HO-031	538	240	.066"	±.003"	.033"	±.002"	.018"	±.002"	.031"		.055"	.016"	.013"	190	.027"
HO-037	1,066	350	.082"	±.003"	.040"	±.003"	.028"	±.003"	.041"		.063"	.023"	.018"	530	.033"
HO-043	1,238	440	.098"	±.003"	.049"	±.003"	.029"	±.003"	.041"		.063"	.027"	.021"	530	.036"
HO-045	1,299	460	.098"	±.003"	.050"	±.003"	.030"	±.003"	.047"		.071"	.027"	.021"	530	.036"
HO-050	2,010	510	.114"	±.003"	.053"	±.004"	.035"	±.004"	.047"		.090"	.027"	.021"	1,100	.045"
HO-051	2,060	520	.114"	±.005"	.053"	±.004"	.035"	±.004"	.047"		.092"	.027"	.021"	1,100	.045"
HO-056	2,253	710	.132"	±.005"	.053"	±.004"	.035"	±.004"	.047"		.095"	.027"	.021"	1,100	.051"
HO-062	2,507	1,050	.132"	±.005"	.060"	±.004"	.035"	±.004"	.062"		.104"	.027"	.021"	1,100	.060"
HO-068	2,741	1,280	.132"	±.005"	.063"	±.004"	.036"	±.004"	.062"		.118"	.027"	.021"	1,100	.066"
HO-075	3,045	1,460	.142"	±.005"	.070"	±.004"	.040"	±.004"	.062"		.143"	.032"	.025"	1,100	.069"
HO-077	4,618	1,580	.146"	±.005"	.074"	±.005"	.044"	±.005"	.062"		.145"	.035"	.028"	1,650	.072"
HO-081	4,872	1,710	.155"	±.005"	.077"	±.005"	.044"	±.005"	.062"		.153"	.035"	.028"	1,650	.075"
HO-086	5,177	1,980	.155"	±.005"	.081"	±.005"	.045"	±.005"	.062"		.172"	.035"	.028"	1,650	.081"
HO-087	5,227	2,080	.155"	±.005"	.084"	±.005"	.045"	±.005"	.062"		.179"	.035"	.028"	1,650	.084"
HO-090	5,430	2,200	.155"	±.005"	.087"	±.005"	.047"	±.005"	.062"	.188"	.038"	.030"	1,650	.087"	
HO-093	5,684	2,450	.155"	±.005"	.091"	±.005"	.050"	±.005"	.062"	.200"	.038"	.030"	1,650	.093"	
HO-100	6,039	2,800	.155"	±.005"	.104"	±.005"	.052"	±.005"	.062"	.212"	.042"	.034"	1,650	.099"	
HO-102	6,141	3,000	.155"	±.005"	.106"	±.005"	.054"	±.005"	.062"	.220"	.042"	.034"	1,650	.102"	

◀ Additional attribute data on adjacent page.

For hardness specifications, see page 45.

** F.I.M. (Full Indicator Movement) – Maximum allowable deviation of runout between groove and housing.
Based on housings/shafts made of cold rolled steel. For more information on thrust load and safety factor see pages 14 & 15.

² For plated rings add .002" to the listed maximum thickness. Maximum thickness will be a minimum of .0002" less than the listed groove width (W) minimum.

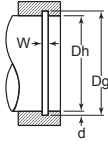
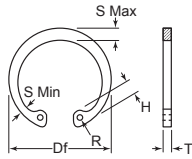
STACKED OPTIONS
AVAILABLE, SEE
HUYETT.COM FOR
MORE DETAILS

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HOW TO IDENTIFY

1. Verify internal design and appearance.
2. Measure the housing diameter (Dh).
3. Measure the ring cross section maximum (S Max).
4. Measure the ring cross section minimum (S Min).
5. Measure the ring thickness (T).
6. Find the part in the chart.

Item #	Housing Diameter	Groove Size					Ring Size & Weight					Clearance Diameter	
		Diameter		Width		Depth	Free Diameter		Thickness ²		Weight Per 1,000 pcs.	Compressed in Housing	Released in Groove
	Dh	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	lbs.	L1	L2
HO-106	1.062" (1-1/16)	1.130"	±.004" .005***	.056"	+.004/- .000"	.034"	1.180"	+.025/- .020"	.050"	±.002"	3.70	.685"	.750"
HO-112	1.125" (1-1/8)	1.197"		.056"	+.004/- .000"	.036"	1.249"	+.025/- .020"	.050"	±.002"	4.00	.745"	.815"
HO-118	1.181"	1.255"		.056"	+.004/- .000"	.037"	1.319"	+.025/- .020"	.050"	±.002"	4.30	.790"	.860"
	1.188" (1-3/16)	1.262"		.056"	+.004/- .000"	.037"	1.319"	+.025/- .020"	.050"	±.002"	4.30	.800"	.870"
HO-125	1.250" (1-1/4)	1.330"		.056"	+.004/- .000"	.040"	1.388"	+.025/- .020"	.050"	±.002"	4.80	.875"	.955"
	1.259"	1.339"		.056"	+.004/- .000"	.040"	1.388"	+.025/- .020"	.050"	±.002"	4.80	.885"	.965"
HO-131	1.312" (1-5/16)	1.396"		.056"	+.004/- .000"	.042"	1.456"	+.025/- .020"	.050"	±.002"	5.00	.930"	1.01"
HO-137	1.375" (1-3/8)	1.461"		.056"	+.004/- .000"	.043"	1.526"	+.025/- .020"	.050"	±.002"	5.10	.990"	1.07"
	1.378"	1.464"		.056"	+.004/- .000"	.043"	1.526"	+.025/- .020"	.050"	±.002"	5.10	.990"	1.07"
HO-143	1.438" (1-7/16)	1.528"		.056"	+.004/- .000"	.045"	1.596"	+.025/- .020"	.050"	±.002"	5.80	1.06"	1.15"
HO-145	1.456"	1.548"	.056"	+.004/- .000"	.046"	1.616"	+.025/- .020"	.050"	±.002"	6.40	1.08"	1.17"	
HO-150	1.500" (1-1/2)	1.594"	±.005" .005***	.056"	+.004/- .000"	.047"	1.660"	+.025/- .020"	.050"	±.002"	6.50	1.12"	1.21"
HO-156	1.562" (1-9/16)	1.658"		.068"	+.004/- .000"	.048"	1.734"	+.035/- .025"	.062"	±.003"	8.90	1.14"	1.23"
	1.575"	1.671"		.068"	+.004/- .000"	.048"	1.734"	+.035/- .025"	.062"	±.003"	8.90	1.15"	1.24"
HO-162	1.625" (1-5/8)	1.725"		.068"	+.004/- .000"	.050"	1.804"	+.035/- .025"	.062"	±.003"	1.00	1.15"	1.25"
HO-165	1.653"	1.755"		.068"	+.004/- .000"	.051"	1.835"	+.035/- .025"	.062"	±.003"	1.40	1.17"	1.27"
HO-168	1.688" (1-11/16)	1.792"		.068"	+.004/- .000"	.052"	1.874"	+.035/- .025"	.062"	±.003"	1.80	1.23"	1.33"
HO-175	1.750" (1-3/4)	1.858"		.068"	+.004/- .000"	.054"	1.942"	+.035/- .025"	.062"	±.003"	1.30	1.26"	1.36"
HO-181	1.812" (1-13/16)	1.922"		.068"	+.004/- .000"	.055"	2.012"	+.035/- .025"	.062"	±.003"	11.50	1.34"	1.38"
HO-185	1.850"	1.962"		.068"	+.004/- .000"	.056"	2.054"	+.035/- .025"	.062"	±.003"	12.80	1.35"	1.46"
HO-187	1.875" (1-7/8)	1.989"		.068"	+.004/- .000"	.057"	2.072"	+.035/- .025"	.062"	±.003"	12.80	1.37"	1.48"
HO-193	1.938" (1-15/16)	2.056"	±.006" .006***	.068"	+.004/- .000"	.059"	2.141"	+.035/- .025"	.062"	±.003"	13.30	1.46"	1.58"
HO-200	2.000" (2)	2.122"		.068"	+.004/- .000"	.061"	2.210"	+.035/- .025"	.062"	±.003"	14.00	1.52"	1.64"
HO-206	2.047"	2.171"		.086"	+.005/- .000"	.062"	2.280"	+.040/- .030"	.078"	±.003"	18.00	1.52"	1.64"
	2.062" (2-1/16)	2.186"		.086"	+.005/- .000"	.062"	2.280"	+.040/- .030"	.078"	±.003"	18.00	1.54"	1.66"
HO-212	2.125" (2-1/8)	2.251"		.086"	+.005/- .000"	.063"	2.350"	+.040/- .030"	.078"	±.003"	19.40	1.58"	1.7"
HO-218	2.165"	2.295"		.086"	+.005/- .000"	.065"	2.415"	+.040/- .030"	.078"	±.003"	19.60	1.63"	1.75"
	2.188" (2-3/16)	2.318"		.086"	+.005/- .000"	.065"	2.415"	+.040/- .030"	.078"	±.003"	19.60	1.66"	1.79"
HO-225	2.250" (2-1/4)	2.382"		.086"	+.005/- .000"	.066"	2.490"	+.040/- .030"	.078"	±.003"	21.80	1.67"	1.8"
HO-231	2.312" (2-5/16)	2.450"		.086"	+.005/- .000"	.069"	2.560"	+.040/- .030"	.078"	±.003"	22.60	1.73"	1.93"
HO-237	2.375" (2-3/8)	2.517"		.086"	+.005/- .000"	.071"	2.630"	+.040/- .030"	.078"	±.003"	23.20	1.79"	1.86"
HO-244	2.440" (2-7/16)	2.584"	±.006" .006***	.086"	+.005/- .000"	.072"	2.702"	+.040/- .030"	.078"	±.003"	25.40	1.86"	2.00"
HO-250	2.500" (2-1/2)	2.648"		.086"	+.005/- .000"	.074"	2.775"	+.040/- .030"	.078"	±.003"	25.50	1.91"	2.05"
	2.531" (2-17/32)	2.681"		.086"	+.005/- .000"	.075"	2.775"	+.040/- .030"	.078"	±.003"	25.50	1.94"	2.09"
HO-256	2.562" (2-9/16)	2.714"		.103"	+.005/- .000"	.076"	2.844"	+.040/- .030"	.093"	±.003"	34.00	1.93"	2.08"

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Additional attribute data on adjacent page. ►

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SUFFIX MATERIAL/FINISH

- ### = CARBON SPRING STEEL, PHOSPHATE
- ###-BC = BERYLLIUM COPPER, PLAIN
- ###-SS = PH 15-7 MO STAINLESS STEEL, PLAIN
- ###-ZD = CARBON SPRING STEEL, ZINC YELLOW
- ###-Z3 = CARBON SPRING STEEL, ZINC TRIVALENT

Material/finish combinations may not be available in all sizes.

More finishes available, see page 22 for a complete listing.

	Item #	Thrust Load ¹ Square Corner Abutment		Lug Height		Maximum Section		Minimum Section		Hole Diameter		Gap Width Ring In Groove	Allowable Corner Radii & Chamfers			Max. Load w/R Max. or Ch Max.	Edge Margin
		Ring Safety Factor of 4	Groove Safety Factor of 2														
		Pr lbs.	Pg lbs.	H	Tol.	S Max.	Tol.	S Min.	Tol.	R	Tol.	G Min.	R Max.	Ch Max.	P'r lbs.	Y	
	HO-106	7,562	3,050	.180"	±.005"	.110"	±.006"	.055"	±.006"	.078"	+.015/ -.002"	.213"	.044"	.035"	2,400	.102"	
	HO-112	8,019	3,400	.180"	±.005"	.116"	±.006"	.057"	±.006"	.078"		.232"	.047"	.036"	2,400	.108"	
	HO-118	8,526	3,700	.180"	±.005"	.120"	±.006"	.058"	±.006"	.078"		.226"	.047"	.036"	2,400	.111"	
		8,526	3,700	.180"	±.005"	.120"	±.006"	.058"	±.006"	.078"		.245"	.047"	.036"	2,400	.111"	
	HO-125	8,932	4,250	.180"	±.005"	.124"	±.006"	.062"	±.006"	.078"		.265"	.048"	.038"	2,400	.120"	
		8,932	4,250	.180"	±.005"	.124"	±.006"	.062"	±.006"	.078"		.290"	.048"	.038"	2,400	.120"	
	HO-131	9,440	4,700	.180"	±.005"	.130"	±.006"	.062"	±.006"	.078"		.284"	.048"	.038"	2,400	.126"	
	HO-137	9,846	5,050	.180"	±.005"	.130"	±.006"	.063"	±.006"	.078"		.297"	.048"	.038"	2,400	.129"	
		9,846	5,050	.180"	±.005"	.130"	±.006"	.063"	±.006"	.078"		.305"	.048"	.038"	2,400	.129"	
	HO-143	10,353	5,500	.180"	±.005"	.133"	±.006"	.065"	±.006"	.078"		.313"	.048"	.038"	2,400	.135"	
	HO-145	10,455	5,700	.180"	±.005"	.133"	±.006"	.065"	±.006"	.078"		.320"	.048"	.038"	2,400	.138"	
	HO-150	10,708	6,000	.180"	±.005"	.133"	±.006"	.066"	±.006"	.078"		.340"	.048"	.038"	2,400	.141"	
	HO-156	13,906	6,350	.202"	±.005"	.157"	±.007"	.078"	±.007"	.078"		.338"	.064"	.050"	3,900	.144"	
		13,906	6,350	.202"	±.005"	.157"	±.007"	.078"	±.007"	.078"		.374"	.064"	.050"	3,900	.144"	
	HO-162	14,413	6,900	.227"	±.005"	.164"	±.007"	.082"	±.007"	.078"		.339"	.064"	.050"	3,900	.150"	
	HO-165	14,718	7,200	.234"	±.005"	.167"	±.007"	.083"	±.007"	.078"		.348"	.064"	.050"	3,900	.153"	
	HO-168	15,022	7,450	.234"	±.005"	.170"	±.007"	.085"	±.007"	.078"		.357"	.064"	.050"	3,900	.156"	
	HO-175	15,580	8,050	.234"	±.005"	.170"	±.007"	.083"	±.007"	.078"		.372"	.064"	.050"	3,900	.162"	
	HO-181	16,139	8,450	.234"	±.005"	.170"	±.007"	.084"	±.007"	.093"		.382"	.064"	.050"	3,900	.165"	
	HO-185	16,443	8,750	.234"	±.005"	.170"	±.007"	.085"	±.007"	.093"		.360"	.064"	.050"	3,900	.168"	
	HO-187	16,697	9,050	.234"	±.005"	.170"	±.007"	.085"	±.007"	.093"		.430"	.064"	.050"	3,900	.171"	
	HO-193	17,255	9,700	.230"	±.005"	.170"	±.007"	.085"	±.007"	.093"		.438"	.064"	.050"	3,900	.177"	
	HO-200	17,763	10,300	.230"	±.005"	.170"	±.007"	.085"	±.007"	.093"		.453"	.064"	.050"	3,900	.183"	
	HO-206	23,091	10,850	.250"	±.005"	.186"	±.007"	.091"	±.007"	.093"		.428"	.078"	.061"	6,200	.186"	
		23,091	10,850	.250"	±.005"	.186"	±.007"	.091"	±.007"	.093"		.468"	.078"	.062"	6,200	.186"	
	HO-212	23,751	11,350	.250"	±.005"	.195"	±.007"	.096"	±.007"	.093"		.460"	.078"	.062"	6,200	.189"	
	HO-218	24,461	12,050	.250"	±.005"	.199"	±.007"	.098"	±.007"	.093"		.439"	.078"	.062"	6,200	.195"	
		24,461	12,050	.250"	±.005"	.199"	±.007"	.098"	±.007"	.093"	.489"	.078"	.062"	6,200	.195"		
	HO-225	25,223	12,600	.280"	±.005"	.203"	±.007"	.099"	±.007"	.093"	.478"	.078"	.062"	6,200	.198"		
	HO-231	25,832	13,550	.280"	±.005"	.206"	±.007"	.100"	±.007"	.093"	.486"	.078"	.062"	6,200	.207"		
	HO-237	26,542	14,300	.280"	±.005"	.207"	±.007"	.102"	±.007"	.093"	.504"	.078"	.062"	6,200	.213"		
	HO-244	27,304	14,900	.280"	±.005"	.209"	±.007"	.103"	±.007"	.110"	.518"	.078"	.062"	6,200	.216"		
	HO-250	28,014	15,650	.280"	±.005"	.210"	±.007"	.103"	±.007"	.110"	.532"	.078"	.062"	6,200	.222"		
		28,014	15,650	.280"	±.005"	.210"	±.007"	.103"	±.007"	.110"	.597"	.078"	.062"	6,200	.225"		
	HO-256	34,206	16,500	.300"	±.005"	.222"	±.007"	.109"	±.007"	.110"	.540"	.088"	.070"	9,000	.228"		

◀ Additional attribute data on adjacent page.

For hardness specifications, see page 45.

** F.I.M. (Full Indicator Movement) – Maximum allowable deviation of runout between groove and housing.

¹ Based on housings/shafts made of cold rolled steel. For more information on thrust load and safety factor see pages 14 & 15.

² For plated rings add .002" to the listed maximum thickness. Maximum thickness will be a minimum of .0002" less than the listed groove width (W) minimum.

STACKED OPTIONS
AVAILABLE, SEE
HUYETT.COM FOR
MORE DETAILS

FOR DETAILED SPECIFICATIONS AND TOLERANCES, VISIT HUYETT.COM.

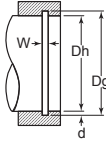
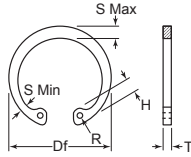
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HOW TO IDENTIFY

1. Verify internal design and appearance.
2. Measure the housing diameter (Dh).
3. Measure the ring cross section maximum (S Max).
4. Measure the ring cross section minimum (S Min).
5. Measure the ring thickness (T).
6. Find the part in the chart.

Item #	Housing Diameter	Groove Size					Ring Size & Weight					Clearance Diameter	
		Diameter		Width		Depth	Free Diameter		Thickness ²		Weight Per 1,000 pcs.	Compressed in Housing	Released in Groove
		Dh	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	lbs.	L1
HO-262	2.625" (2-5/8)	2.781"	±.006" .006"***	.103"	+0.005/-0.000"	.078"	2.910"	+0.040/-0.030"	.093"	±.003"	34.50	2.02"	2.17"
HO-268	2.677"	2.837"		.103"	+0.005/-0.000"	.080"	2.980"	+0.040/-0.030"	.093"	±.003"	35.00	2.05"	2.21"
	2.688" (2-11/16)	2.848"		.103"	+0.005/-0.000"	.080"	2.980"	+0.040/-0.030"	.093"	±.003"	35.00	2.06"	2.22"
HO-275	2.750" (2-3/4)	2.914"		.103"	+0.005/-0.000"	.082"	3.050"	+0.040/-0.030"	.093"	±.003"	35.50	2.12"	2.28"
HO-281	2.812" (2-13/16)	2.980"		.103"	+0.005/-0.000"	.084"	3.121"	+0.040/-0.030"	.093"	±.003"	36.00	2.18"	2.34"
	2.835"	3.006"		.103"	+0.005/-0.000"	.085"	3.121"	+0.040/-0.030"	.093"	±.003"	36.00	2.21"	2.38"
HO-287	2.875" (2-7/8)	3.051"		.103"	+0.005/-0.000"	.088"	3.191"	+0.040/-0.030"	.093"	±.003"	41.00	2.24"	2.41"
HO-300	2.953"	3.135"		.103"	+0.005/-0.000"	.091"	3.325"	+0.040/-0.030"	.093"	±.003"	42.50	2.32"	2.50"
	3.000" (3)	3.182"		.103"	+0.005/-0.000"	.091"	3.325"	+0.040/-0.030"	.093"	±.003"	42.50	2.37"	2.55"
HO-306	3.062" (3-1/16)	3.248"		.120"	+0.005/-0.000"	.093"	3.418"	±.055"	.109"	±.003"	53.00	2.41"	2.59"
HO-312	3.125" (3-1/8)	3.315"		.120"	+0.005/-0.000"	.095"	3.488"	±.055"	.109"	±.003"	56.00	2.47"	2.66"
HO-315	3.149"	3.341"		.120"	+0.005/-0.000"	.096"	3.523"	±.055"	.109"	±.003"	57.00	2.49"	2.68"
	3.156" (3-5/32)	3.348"		.120"	+0.005/-0.000"	.096"	3.523"	±.055"	.109"	±.003"	57.00	2.50"	2.69"
HO-325	3.250" (3-1/4)	3.446"		.120"	+0.005/-0.000"	.098"	3.623"	±.055"	.109"	±.003"	60.00	2.54"	2.73"
HO-334	3.346" (3-11/32)	3.546"		.120"	+0.005/-0.000"	.100"	3.734"	±.055"	.109"	±.003"	65.00	2.63"	2.83"
HO-347	3.469" (3-15/32)	3.675"		.120"	+0.005/-0.000"	.103"	3.857"	±.055"	.109"	±.003"	69.00	2.76"	2.96"
HO-350	3.500" (3-1/2)	3.710"		.120"	+0.005/-0.000"	.105"	3.890"	±.055"	.109"	±.003"	71.00	2.79"	3.00"
HO-354	3.543"	3.755"		.120"	+0.005/-0.000"	.106"	3.936"	±.055"	.109"	±.003"	72.00	2.83"	3.04"
	3.562" (3-9/16)	3.776"		.120"	+0.005/-0.000"	.107"	3.936"	±.055"	.109"	±.003"	72.00	2.85"	3.06"
HO-362	3.625" (3-5/8)	3.841"		.120"	+0.005/-0.000"	.108"	4.024"	±.055"	.109"	±.003"	73.00	2.91"	3.12"
HO-375	3.740"	3.964"		.120"	+0.005/-0.000"	.112"	4.157"	±.065"	.109"	±.003"	78.00	3.02"	3.24"
	3.750" (3-3/4)	3.974"		.120"	+0.005/-0.000"	.112"	4.157"	±.065"	.109"	±.003"	78.00	3.03"	3.25"
HO-387	3.875" (3-7/8)	4.107"		.120"	+0.005/-0.000"	.116"	4.291"	±.065"	.109"	±.003"	87.00	3.11"	3.34"
HO-393	3.938" (3-15/16)	4.174"		.120"	+0.005/-0.000"	.118"	4.358"	±.065"	.109"	±.003"	88.00	3.17"	3.4"
HO-400	4.000" (4)	4.240"		.120"	+0.005/-0.000"	.120"	4.424"	±.065"	.109"	±.003"	93.00	3.23"	3.47"
HO-412	4.125" (4-1/8)	4.365"		.120"	+0.005/-0.000"	.120"	4.558"	±.065"	.109"	±.003"	97.00	3.36"	3.60"
HO-425	4.250" (4-1/4)	4.490"		.120"	+0.005/-0.000"	.120"	4.691"	±.065"	.109"	±.003"	101.00	3.48"	3.72"
HO-433	4.331"	4.571"		.120"	+0.005/-0.000"	.120"	4.756"	±.065"	.109"	±.003"	105.00	3.50"	3.74"
HO-450	4.500" (4-1/2)	4.740"		.120"	+0.005/-0.000"	.120"	4.940"	±.065"	.109"	±.003"	111.00	3.66"	3.90"
HO-462	4.625" (4-5/8)	4.865"		.120"	+0.005/-0.000"	.120"	5.076"	±.065"	.109"	±.003"	117.00	3.79"	4.03"
HO-475	4.724"	4.969"	.120"	+0.005/-0.000"	.122"	5.213"	±.065"	.109"	±.003"	124.00	3.88"	4.12"	
	4.750" (4-3/4)	4.995"	.120"	+0.005/-0.000"	.122"	5.213"	±.065"	.109"	±.003"	124.00	3.90"	4.14"	
HO-500	5.000" (5)	5.260"	.120"	+0.005/-0.000"	.130"	5.485"	±.065"	.109"	±.003"	136.00	4.08"	4.34"	

TO ORDER DIFFERENT MATERIAL/FINISHES,
APPEND SUFFIX WITH YOUR CHOICE:

"NONE" • -BC • -SS • -ZD • -Z3

Additional attribute data on adjacent page. ►



INSTALLATION TOOLS
AVAILABLE, SEE PAGE 248



FOR DETAILED SPECIFICATIONS AND TOLERANCES, VISIT HUYETT.COM.

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SUFFIX MATERIAL/FINISH

- ### = CARBON SPRING STEEL, PHOSPHATE
 ###-BC = BERYLLIUM COPPER, PLAIN
 ###-SS = PH 15-7 MO STAINLESS STEEL, PLAIN
 ###-ZD = CARBON SPRING STEEL, ZINC YELLOW
 ###-Z3 = CARBON SPRING STEEL, ZINC TRIVALENT

Material/finish combinations may not be available in all sizes.
 More finishes available, see page 22 for a complete listing.

	Item #	Thrust Load ¹		Lug Height		Maximum Section		Minimum Section		Hole Diameter		Gap Width Ring In Groove	Allowable Corner Radii & Chamfers			Max. Load w/R Max. or Ch Max.	Edge Margin
		Square Corner Abutment															
		Ring Safety Factor of 4	Groove Safety Factor of 2														
		Pr lbs.	Pg lbs.	H	Tol.	S Max.	Tol.	S Min.	Tol.	R	Tol.	G Min.	R Max.	Ch Max.	P'r lbs.	Y	
	HO-262	35,068	17,350	.300"	±.005"	.226"	±.007"	.111"	±.007"	.110"	+.015/ -.002"	.558"	.088"	.070"	9,000	.234"	
	HO-268	35,931	18,250	.300"	±.005"	.230"	±.007"	.113"	±.007"	.110"		.539"	.090"	.072"	9,000	.240"	
		35,931	18,250	.300"	±.005"	.230"	±.007"	.113"	±.007"	.110"		.568"	.090"	.072"	9,000	.240"	
	HO-275	36,642	19,200	.300"	±.005"	.234"	±.007"	.115"	±.007"	.110"		.590"	.092"	.074"	9,000	.246"	
	HO-281	37,504	20,050	.300"	±.005"	.230"	±.007"	.115"	±.007"	.110"		.615"	.088"	.070"	9,000	.252"	
		37,504	20,050	.300"	±.005"	.230"	±.007"	.115"	±.007"	.110"		.676"	.088"	.070"	9,000	.255"	
	HO-287	38,367	21,500	.300"	±.005"	.240"	±.007"	.120"	±.007"	.110"		.626"	.092"	.074"	9,000	.264"	
	HO-300	40,093	23,150	.300"	±.005"	.250"	±.007"	.122"	±.007"	.110"		.619"	.092"	.074"	9,000	.273"	
		40,093	23,150	.300"	±.005"	.250"	±.007"	.122"	±.007"	.110"		.738"	.092"	.074"	9,000	.273"	
	HO-306	47,807	24,100	.310"	±.008"	.254"	±.008"	.126"	±.008"	.125"		.651"	.097"	.078"	12,000	.279"	
	HO-312	48,822	25,200	.310"	±.008"	.259"	±.008"	.129"	±.008"	.125"		.655"	.099"	.079"	12,000	.285"	
	HO-315	49,329	25,700	.310"	±.008"	.262"	±.008"	.129"	±.008"	.125"		.650"	.100"	.080"	12,000	.288"	
		49,329	25,700	.310"	±.008"	.262"	±.008"	.129"	±.008"	.125"		.669"	.100"	.080"	12,000	.288"	
	HO-325	50,750	27,000	.342"	±.008"	.269"	±.008"	.135"	±.008"	.125"		.698"	.104"	.083"	12,000	.294"	
	HO-334	52,374	28,300	.342"	±.008"	.276"	±.008"	.140"	±.008"	.125"		.705"	.108"	.086"	12,000	.300"	
	HO-347	54,201	30,200	.342"	±.008"	.286"	±.008"	.144"	±.008"	.125"		.763"	.108"	.086"	12,000	.309"	
	HO-350	54,709	31,200	.342"	±.008"	.289"	±.008"	.142"	±.008"	.125"		.774"	.110"	.088"	12,000	.315"	
	HO-354	55,419	31,800	.342"	±.008"	.292"	±.008"	.142"	±.008"	.125"		.788"	.110"	.088"	12,000	.318"	
		55,419	31,800	.342"	±.008"	.292"	±.008"	.142"	±.008"	.125"		.842"	.110"	.088"	12,000	.321"	
	HO-362	56,739	33,200	.342"	±.008"	.299"	±.008"	.150"	±.008"	.125"		.833"	.116"	.093"	12,000	.324"	
	HO-375	58,566	35,600	.342"	±.008"	.309"	±.008"	.155"	±.008"	.125"		.844"	.120"	.096"	12,000	.336"	
		58,566	35,600	.342"	±.008"	.309"	±.008"	.155"	±.008"	.125"		.871"	.120"	.096"	12,000	.336"	
	HO-387	60,494	38,000	.370"	±.008"	.319"	±.008"	.160"	±.008"	.125"		.891"	.123"	.098"	12,000	.348"	
	HO-393	61,611	39,300	.370"	±.008"	.324"	±.008"	.161"	±.008"	.125"		.905"	.124"	.099"	12,000	.354"	
	HO-400	62,626	40,700	.370"	±.008"	.330"	±.008"	.166"	±.008"	.125"		.918"	.128"	.102"	12,000	.360"	
	HO-412	64,554	42,000	.370"	±.008"	.330"	±.009"	.171"	±.009"	.125"		.940"	.130"	.104"	12,000	.360"	
	HO-425	66,483	43,200	.370"	±.008"	.335"	±.009"	.180"	±.009"	.125"		.960"	.138"	.110"	12,000	.360"	
	HO-433	67,599	44,500	.405"	±.008"	.343"	±.009"	.180"	±.009"	.156"		1.00"	.142"	.114"	12,000	.360"	
	HO-450	70,340	45,800	.405"	±.008"	.351"	±.009"	.181"	±.009"	.156"	.980"	.146"	.117"	12,000	.360"		
	HO-462	72,370	47,000	.405"	±.008"	.405"	±.009"	.183"	±.009"	.156"	1.00"	.151"	.121"	12,000	.360"		
		74,298	49,000	.405"	±.008"	.370"	±.009"	.183"	±.009"	.156"	.960"	.154"	.123"	12,000	.366"		
	HO-475	74,298	49,000	.405"	±.008"	.370"	±.009"	.183"	±.009"	.156"	1.03"	.154"	.123"	12,000	.366"		
		78,155	55,000	.435"	±.008"	.390"	±.009"	.186"	±.009"	.156"	.970"	.158"	.126"	12,000	.390"		

◀ Additional attribute data on adjacent page.

For hardness specifications, see page 45.

** F.I.M. (Full Indicator Movement) – Maximum allowable deviation of runout between groove and housing.

¹ Based on housings/shafts made of cold rolled steel. For more information on thrust load and safety factor see pages 14 & 15.

² For plated rings add .002" to the listed maximum thickness. Maximum thickness will be a minimum of .0002" less than the listed groove width (W) minimum.

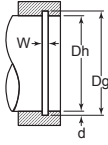
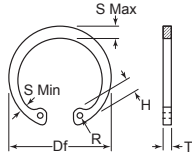
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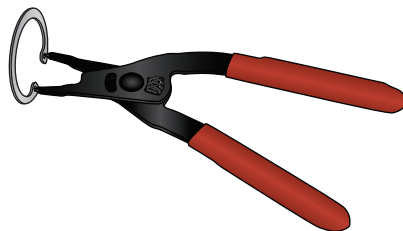
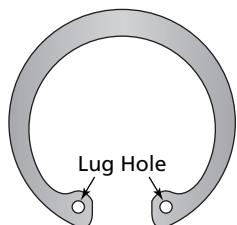
1. Verify internal design and appearance.
2. Measure the housing diameter (Dh).
3. Measure the ring cross section maximum (S Max).
4. Measure the ring cross section minimum (S Min).
5. Measure the ring thickness (T).
6. Find the part in the chart.

Item #	Housing Diameter	Groove Size					Ring Size & Weight					Clearance Diameter	
		Diameter		Width		Depth	Free Diameter		Thickness ²		Weight Per 1,000 pcs.	Compressed in Housing	Released in Groove
		Dh	Dg	Tol.	W	Tol.	d	Df	Tol.	T	Tol.	lbs.	L1
HO-525	5.250" (5-1/4)	5.520"	±.007" .006"***	.139"	+.006/- .000"	.135"	5.770"	±.065"	.125"	±.004"	174.0	4.35"	4.62"
HO-537	5.375" (5-3/8)	5.650"		.139"	+.006/- .000"	.135"	5.910"	±.065"	.125"	±.004"	179.0	4.45"	4.72"
HO-550	5.500" (5-1/2)	5.770"		.139"	+.006/- .000"	.135"	6.066"	±.065"	.125"	±.004"	183.0	4.57"	4.84"
HO-575	5.750" (5-3/4)	6.020"		.139"	+.006/- .000"	.135"	6.336"	±.065"	.125"	±.004"	192.0	4.82"	5.09"
HO-600	6.000" (6)	6.270"		.139"	+.006/- .000"	.135"	6.620"	±.065"	.125"	±.004"	202.1	5.07"	5.34"
HO-625	6.250" (6-1/4)	6.530"	±.008" .006"***	.174"	+.008/- .000"	.140"	6.895"	±.080"	.156"	±.005"	266.0	5.24"	5.52"
HO-650	6.500" (6-1/2)	6.790"		.174"	+.008/- .000"	.145"	7.170"	±.080"	.156"	±.005"	281.0	5.49"	5.78"
HO-662	6.625" (6-5/8)	6.925"		.174"	+.008/- .000"	.150"	7.308"	±.080"	.156"	±.005"	305.0	5.60"	5.90"
HO-675	6.750" (6-3/4)	7.055"		.174"	+.008/- .000"	.152"	7.445"	±.080"	.156"	±.005"	325.0	5.68"	5.98"
HO-700	7.000" (7)	7.315"		.174"	+.008/- .000"	.157"	7.720"	±.080"	.156"	±.005"	344.0	5.91"	6.22"
HO-725	7.250" (7-1/4)	7.575"		.209"	+.008/- .000"	.162"	7.995"	±.090"	.187"	±.005"	428.0	6.11"	6.43"
HO-750	7.500" (7-1/2)	7.840"		.209"	+.008/- .000"	.170"	8.270"	±.090"	.187"	±.005"	485.0	6.36"	6.70"
HO-775	7.750" (7-3/4)	8.100"		.209"	+.008/- .000"	.175"	8.545"	±.090"	.187"	±.005"	520.0	6.58"	6.93"
HO-800	8.000" (8)	8.360"		.209"	+.008/- .000"	.180"	8.820"	±.090"	.187"	±.005"	555.0	6.83"	7.19"
HO-825	8.250" (8-1/4)	8.620"		.209"	+.008/- .000"	.185"	9.095"	±.090"	.187"	±.005"	603.0	7.04"	7.41"
HO-850	8.500" (8-1/2)	8.880"		.209"	+.008/- .000"	.190"	9.285"	±.090"	.187"	±.005"	634.0	7.29"	7.67"
HO-875	8.750" (8-3/4)	9.145"		.209"	+.008/- .000"	.197"	9.558"	±.090"	.187"	±.005"	653.0	7.38"	7.77"
HO-900	9.000" (9)	9.405"		.209"	+.008/- .000"	.202"	9.830"	±.090"	.187"	±.005"	732.0	7.63"	8.03"
HO-925	9.250" (9-1/4)	9.668"		.209"	+.008/- .000"	.209"	1.102"	±.090"	.187"	±.005"	767.0	7.88"	8.30"
HO-950	9.500" (9-1/2)	9.930"		.209"	+.008/- .000"	.215"	1.375"	±.090"	.187"	±.005"	803.0	7.98"	8.41"
HO-975	9.750" (9-3/4)	1.190"		.209"	+.008/- .000"	.220"	1.648"	±.090"	.187"	±.005"	833.0	8.23"	8.67"
HO-1000	1.000" (10)	1.450"		.209"	+.008/- .000"	.225"	1.920"	±.090"	.187"	±.005"	863.0"	8.48"	8.93"

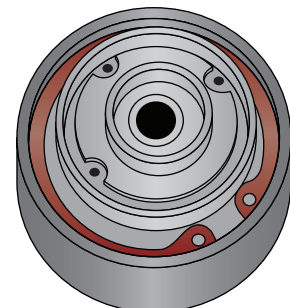
Additional attribute data on adjacent page. ►

TO ORDER DIFFERENT MATERIAL/FINISHES,
APPEND SUFFIX WITH YOUR CHOICE:
"NONE" • -BC • -SS • -ZD • -Z3

APPLICATIONS



All axial retaining rings (except for the SHM) feature lug holes. These are used to install the rings using special pliers with tips that can be inserted into the holes. The lugs can then be compressed (internal) for installation into a housing, or expanded (external) for installing over a shaft.



An HO ring retains the valve on this cast assembly.

FOR DETAILED SPECIFICATIONS AND TOLERANCES, VISIT HUYETT.COM.

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INTERNAL – BASIC

SUFFIX MATERIAL/FINISH

- ### = CARBON SPRING STEEL, PHOSPHATE
- ###-BC = BERYLLIUM COPPER, PLAIN
- ###-SS = PH 15-7 MO STAINLESS STEEL, PLAIN
- ###-ZD = CARBON SPRING STEEL, ZINC YELLOW
- ###-Z3 = CARBON SPRING STEEL, ZINC TRIVALENT

Material/finish combinations may not be available in all sizes.
More finishes available, see page 22 for a complete listing.



Item #	Thrust Load ¹ Square Corner Abutment		Lug Height		Maximum Section		Minimum Section		Hole Diameter		Gap Width Ring In Groove	Allowable Corner Radii & Chamfers		Max. Load w/R Max. or Ch Max.	Edge Margin
	Ring Safety Factor of 4	Groove Safety Factor of 2													
	Pr lbs.	Pg lbs.	H	Tol.	S Max.	Tol.	S Min.	Tol.	R	Tol.	G Min.	R Max.	Ch Max.	P'r lbs.	Y
HO-525	94,091	60,000	.435"	±.010"	.435"	±.009"	.198"	±.009"	.156"	+.020/ -.005"	1.10"	.168"	.134"	15,000	.405"
HO-537	96,324	61,500	.455"	±.010"	.408"	±.009"	.198"	±.009"	.156"		1.12"	.168"	.134"	15,000	.405"
HO-550	98,658	63,300	.435"	±.010"	.435"	±.009"	.198"	±.009"	.156"		1.09"	.168"	.134"	15,000	.405"
HO-575	103,124	65,900	.435"	±.010"	.435"	±.009"	.198"	±.009"	.156"		1.11"	.168"	.134"	15,000	.405"
HO-600	107,489	68,600	.435"	±.010"	.435"	±.009"	.198"	±.009"	.156"		1.13"	.168"	.134"	15,000	.405"
HO-625	139,766	74,100	.485"	±.010"	.485"	±.009"	.211"	±.009"	.187"		1.16"	.177"	.142"	23,000	.420"
HO-650	145,450	79,900	.485"	±.010"	.438"	±.009"	.219"	±.009"	.187"		1.25"	.181"	.145"	23,000	.435"
HO-662	148,190	84,200	.485"	±.010"	.485"	±.009"	.221"	±.009"	.187"		1.28"	.183"	.146"	23,000	.450"
HO-675	151,032	87,000	.530"	±.010"	.456"	±.009"	.224"	±.009"	.187"		1.21"	.188"	.15"	23,000	.456"
HO-700	156,615	93,100	.515"	±.010"	.515"	±.009"	.232"	±.009"	.187"		1.26"	.196"	.157"	23,000	.471"
HO-725	194,373	99,600	.545"	±.010"	.545"	±.010"	.238"	±.010"	.187"		1.32"	.202"	.162"	34,000	.486"
HO-750	201,173	108,100	.560"	±.010"	.507"	±.010"	.247"	±.010"	.187"		1.39"	.208"	.166"	34,000	.510"
HO-775	207,872	115,000	.560"	±.010"	.523"	±.010"	.255"	±.010"	.187"		1.44"	.214"	.171"	34,000	.525"
HO-800	214,571	122,000	.560"	±.010"	.560"	±.010"	.262"	±.010"	.187"		1.50"	.22"	.176"	34,000	.540"
HO-825	221,270	129,300	.600"	±.010"	.558"	±.010"	.270"	±.010"	.187"		1.53"	.229"	.183"	34,000	.555"
HO-850	227,969	136,900	.660"	±.010"	.573"	±.010"	.277"	±.010"	.187"		1.71"	.235"	.188"	34,000	.570"
HO-875	233,856	145,500	.660"	±.010"	.660"	±.010"	.286"	±.010"	.187"		1.77"	.241"	.193"	34,000	.591"
HO-900	241,367	154,100	.660"	±.010"	.609"	±.010"	.294"	±.010"	.187"		1.83"	.249"	.199"	34,000	.606"
HO-925	248,066	163,600	.660"	±.010"	.625"	±.010"	.299"	±.010"	.187"		1.87"	.253"	.202"	34,000	.627"
HO-950	254,765	173,100	.735"	±.010"	.642"	±.010"	.304"	±.010"	.187"		1.91"	.258"	.206"	34,000	.645"
HO-975	261,464	181,900	.735"	±.010"	.658"	±.010"	.309"	±.010"	.187"	2.00"	.263"	.210"	34,000	.660"	
HO-1000	268,163	190,700	.735"	±.010"	.675"	±.010"	.315"	±.010"	.187"	2.01"	.27"	.216"	34,000	.675"	

◀ Additional attribute data on adjacent page.

** F.I.M. (Full Indicator Movement) – Maximum allowable deviation of runout between groove and housing.

¹ Based on housings/shafts made of cold rolled steel. For more information on thrust load and safety factor see pages 14 & 15.

² For plated rings add .002" to the listed maximum thickness. Maximum thickness will be a minimum of .0002" less than the listed groove width (W) minimum.



**INSTALLATION
TOOLS AVAILABLE,
SEE PAGE 248**

HARDNESS RANGES: HO RINGS

Material	Size Range	Scale	Rockwell Hardness
(blank) Carbon Steel, (SAE 1060-1090)	25 & 31	15N	86 – 88
	37 – 51	30N	69.5 – 73
	56 – 77	30N	67.5 – 72
	81 – 102	30N	66 – 71
	106 – 347	C	47 – 52
	350 – 700	C	44 – 51
-SS Stainless Steel, (PH 15-7 Mo)	725 – 1000	C	40 – 47
	25 & 31	15N	82.5 – 86
	37 – 102	30N	63 – 69.5
-BC Beryllium Copper	106+	C	44 – 51
	25 & 31	15N	77 – 82
	37 – 102	30N	54 – 62
	106+	C	34 – 43