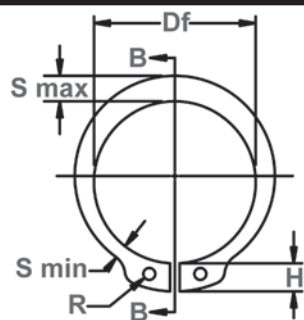




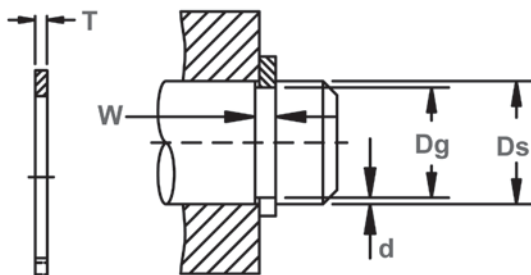
SHR Anillos de Eje

Montado Axialmente, Externo Reforzada

El SHR es una versión extra gruesa de un anillo de retención SH normal. Como tal, es más fuerte y puede soportar mayores cargas de empuje que su equivalente estándar.



Diámetro Libre y Medidas del Anillo con la Sección B-B



Diámetro del Eje y Dimensiones de la Ranura



Diámetro Límite Expandido Sobre el Eje



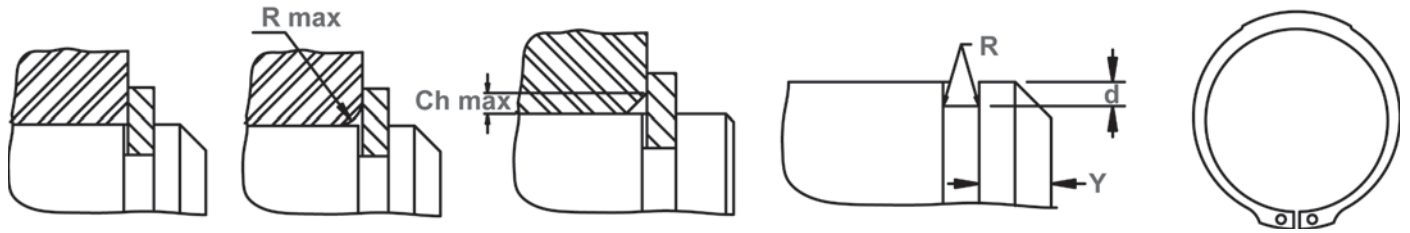
Diámetro Límite y Diámetro de Calibración Liberados en la Ranura

| NO. DE ANILLO | DIAMETRO DEL EJE | | | TAMANO DE RANURA | | | | TAMANO Y PESO DEL ANILLO | | | | DIAM. LIMITE | | | CARGA DE EMPUJE (Ib) | | |
|---------------|------------------|---------|-------|------------------|-------|---------|-------|--------------------------|----------------|-------|------------|--------------|----------------------|------------------------|----------------------|----------------------------|---------------------|
| | | | | DIAMETRO | | ANCHURA | | PROFUNDIDAD | DIAMETRO LIBRE | | ESPESOR*** | | Peso por 1000 piezas | Expandido Sobre el Eje | Liberado la Ranura | Límites de esquinas rectas | Factor de Seguridad |
| | Ds DEC | Ds FRAC | Ds mm | Dg | Tol. | W | Tol. | d | Df | Tol. | T | Tol. | lbs. | L1 | L2 | Pr | Pg |
| SHR-39 | .394 | - | 10.0 | .368 | +.001 | .039 | | .013 | .362 | +.003 | .035 | | .70 | .61 | .58 | 2030 | 700 |
| SHR-42 | .428 | - | 10.9 | .402 | -.002 | .039 | +.003 | .013 | .394 | -.008 | .035 | | .86 | .65 | .62 | 2335 | 800 |
| SHR-47 | .473 | - | 12.0 | .444 | .002* | .046 | -.000 | .015 | .435 | | .042 | | 1.4 | .69 | .66 | 3045 | 1000 |
| SHR-50 | .500 | 1/2 | 12.7 | .468 | | .056 | | .016 | .460 | | .050 | ±.002 | 1.6 | .75 | .72 | 3959 | 1100 |
| SHR-59 | .591 | - | 15.0 | .555 | | .056 | +.004 | .018 | .543 | | .050 | | 2.2 | .86 | .83 | 4568 | 1500 |
| SHR-62 | .625 | 5/8 | 15.9 | .588 | | .056 | -.000 | .019 | .575 | | .050 | | 2.3 | .90 | .86 | 4872 | 1600 |
| SHR-66 | .669 | - | 17.0 | .629 | | .056 | | .020 | .616 | +.005 | .050 | | 2.6 | .94 | .90 | 5278 | 1900 |
| SHR-75 | .750 | 3/4 | 19.0 | .704 | +.001 | .086 | | .023 | .689 | -.010 | .078 | | 5.6 | 1.12 | 1.08 | 9135 | 2400 |
| SHR-75 | .787 | - | 20.0 | .740 | -.003 | .086 | | .024 | .689 | | .078 | | 5.6 | 1.16 | 1.12 | 9135 | 2400 |
| SHR-87 | .875 | 7/8 | 22.2 | .821 | .002* | .086 | | .027 | .804 | | .078 | | 7.5 | 1.25 | 1.20 | 10556 | 3300 |
| SHR-98 | .984 | 63/64 | 25.0 | .925 | | .086 | | .030 | .906 | | .078 | | 7.8 | 1.36 | 1.30 | 11673 | 4000 |
| SHR-98 | 1.000 | 1 | 25.4 | .938 | | .086 | | .031 | .906 | | .078 | | 7.8 | 1.37 | 1.31 | 11673 | 4000 |
| SHR-106 | 1.062 | 1-1/16 | 27.0 | .998 | | .103 | | .032 | .978 | | .093 | | 11.5 | 1.52 | 1.46 | 15225 | 4800 |
| SHR-112 | 1.125 | 1-1/8 | 28.6 | 1.059 | | .103 | +.005 | .033 | 1.036 | | .093 | ±.003 | 12.5 | 1.58 | 1.52 | 16240 | 5200 |
| SHR-118 | 1.181 | - | 30.0 | 1.111 | | .103 | -.000 | .035 | 1.087 | +.010 | .093 | | 13.5 | 1.64 | 1.57 | 16748 | 5600 |
| SHR-118 | 1.188 | 1-3/16 | 30.2 | 1.111 | +.002 | .103 | | .038 | 1.087 | -.015 | .093 | | 13.5 | 1.64 | 1.57 | 16748 | 5600 |
| SHR-125 | 1.250 | 1-1/4 | 31.7 | 1.174 | -.004 | .103 | | .038 | 1.150 | | .093 | | 14.9 | 1.70 | 1.63 | 17763 | 6500 |
| SHR-131 | 1.312 | 1-5/16 | 33.3 | 1.234 | .004* | .103 | | .039 | 1.208 | | .093 | | 16.0 | 1.77 | 1.69 | 18270 | 7400 |
| SHR-137 | 1.375 | 1-3/8 | 34.9 | 1.291 | | .103 | | .042 | 1.268 | | .093 | | 17.8 | 1.83 | 1.75 | 19793 | 8200 |
| SHR-137 | 1.378 | - | 35.0 | 1.291 | | .103 | | .044 | 1.268 | | .093 | | 17.8 | 1.83 | 1.75 | 19793 | 8200 |
| SHR-150 | 1.500 | 1-1/2 | 38.1 | 1.406 | | .120 | | .047 | 1.380 | | .109 | | 27.0 | 2.08 | 1.98 | 24868 | 10000 |
| SHR-156 | 1.562 | 1-9/16 | 39.7 | 1.468 | | .120 | | .047 | 1.437 | | .109 | | 31.0 | 2.14 | 2.05 | 26390 | 10400 |
| SHR-156 | 1.575 | - | 40.0 | 1.480 | | .120 | | .048 | 1.437 | | .109 | | 31.0 | 2.15 | 2.06 | 26930 | 10400 |
| SHR-175 | 1.750 | 1-3/4 | 44.4 | 1.650 | | .120 | | .050 | 1.608 | | .109 | | 33.4 | 2.34 | 2.25 | 29435 | 12400 |
| SHR-175 | 1.772 | - | 45.0 | 1.669 | +.003 | .120 | | .052 | 1.608 | +.013 | .109 | | 33.4 | 2.37 | 2.27 | 29435 | 12400 |
| SHR-193 | 1.938 | 1-15/16 | 49.2 | 1.826 | -.004 | .139 | | .056 | 1.782 | -.020 | .125 | ±.004 | 48.0 | 2.58 | 2.48 | 37555 | 15300 |
| SHR-193 | 1.969 | 1-31/32 | 50.0 | 1.850 | .004* | .139 | +.006 | .060 | 1.782 | | .125 | | 48.0 | 2.61 | 2.50 | 37555 | 15300 |
| SHR-200 | 2.000 | 2 | 50.8 | 1.880 | | .139 | -.000 | .060 | 1.840 | | .125 | | 50.6 | 2.64 | 2.53 | 38570 | 17000 |

* F.I.M. (MOVIMIENTO TOTAL DE INDICADOR)- DESVIACION MAXIMA PERMITIDA DE CONCENTRICIDAD ENTRE RANURA Y EJE.

IBASADO EN LAS CARCASAS Y EJES FABRICADOS CON ACERO LAMINADO EN FRIO. PARA UNA EXPLICACION DE LAS FORMULAS APLICADAS PARA DERIVAR LAS CARGAS DE EMPUJE Y OTROS DATOS DEL RENDIMIENTO, PONGASE EN CONTACTO CON EL DEPARTAMENTO DE INGENIERIA DE ROTOR CLIP.

***PARA LOS ANILLOS DE RETENCION CON RECUBRIMIENTO ELECTROLITICO, ANADA 0,002" AL ESPESOR MAXIMO INDICADO EL ESPESOR MAXIMO SERA UN MINIMO DE 0,0002" MENOR QUE LA ANCHURA (W) DE RANURA INDICADA.



Límites de Esquinas Rectas

Radio de Esquina y Bisel Máximos

Vista Desarrollada del Perfil de Ranura y Margen del Borde (Y) Radios Inferiores Máximos (R), 0,005 para Tamaños de Anillo -39 a -98; 0,010 para Tamaños de anillo -100 a -200

Diseño Alternativo (Opción del Fabricante)

| NO. DE ANILLO | ALTURA DE OREJETA | | SECCION MAXIMA | | SECCION MINIMA | | DIAMETRO DEL AGUJERO | | DIAMETRO DE CALIBRACION | RADIOS DE ESQUINA Y BISEL ADMISIBLES | | | CARGA MAX. c/R máx. o Ch máx. (lb) | MARGEN DEL BORDE Y | LIMITES DE RPM Material Estándar |
|---------------|-------------------|--------|----------------|--------|----------------|--------|----------------------|------------------|-------------------------|--------------------------------------|-------|--------|------------------------------------|--------------------|----------------------------------|
| | H | Tol. | S max | Tol. | S min | Tol. | R | Tol. | | Gd Max | R max | Ch max | | | |
| SHR-39 | .101 | ± .004 | .068 | ± .004 | .039 | ± .004 | .042 | + .010 - .002 | .479 | .047 | .039 | 450 | .039 | 80000 | |
| SHR-42 | .101 | | .076 | | .043 | | .042 | | .525 | .057 | .046 | 530 | .039 | 72000 | |
| SHR-47 | .101 | | .088 | | .053 | | .042 | | .589 | .070 | .058 | 550 | .045 | 69000 | |
| SHR-50 | .120 | | .090 | | .050 | | .050 | | .613 | .070 | .058 | 650 | .048 | 65000 | |
| SHR-59 | .130 | | .102 | | .057 | | .050 | | .719 | .070 | .058 | 750 | .054 | 52500 | |
| SHR-62 | .130 | | .106 | | .059 | | .050 | | .758 | .074 | .062 | 750 | .057 | 49000 | |
| SHR-66 | .130 | .112 | .062 | .050 | .808 | .077 | .064 | 900 | .060 | 45000 | | | | | |
| SHR-75 | .180 | .127 | .077 | .078 | .913 | .089 | .074 | 2500 | .069 | 40500 | | | | | |
| SHR-75 | .180 | .127 | .077 | .078 | .949 | .089 | .074 | 2500 | .072 | 38000 | | | | | |
| SHR-87 | .180 | .148 | .083 | .078 | 1.056 | .100 | .083 | 2500 | .081 | 34000 | | | | | |
| SHR-98 | .180 | .151 | .084 | .078 | 1.164 | .100 | .083 | 2500 | .090 | 30000 | | | | | |
| SHR-98 | .180 | .151 | .084 | .078 | 1.177 | .100 | .083 | 2500 | .093 | 30000 | | | | | |
| SHR-106 | .220 | .161 | .090 | .093 | 1.256 | .106 | .088 | 4000 | .096 | 27000 | | | | | |
| SHR-112 | .220 | .169 | .095 | .093 | 1.329 | .112 | .093 | 4000 | .099 | 26000 | | | | | |
| SHR-118 | .220 | .176 | .098 | .093 | 1.391 | .112 | .093 | 4000 | .105 | 24000 | | | | | |
| SHR-118 | .220 | .176 | .098 | .093 | 1.391 | .112 | .093 | 4000 | .114 | 24000 | | | | | |
| SHR-125 | .220 | .185 | .103 | .093 | 1.468 | .112 | .093 | 4000 | .114 | 23000 | | | | | |
| SHR-131 | .220 | .192 | .106 | .093 | 1.538 | .128 | .107 | 4000 | .117 | 21500 | | | | | |
| SHR-137 | .220 | .200 | .110 | .093 | 1.607 | .128 | .107 | 4000 | .126 | 20500 | | | | | |
| SHR-137 | .220 | .200 | .110 | .093 | 1.607 | .128 | .107 | 4000 | .132 | 20500 | | | | | |
| SHR-150 | .280 | .218 | .123 | .109 | 1.752 | .128 | .107 | 5000 | .141 | 18500 | | | | | |
| SHR-156 | .280 | .228 | .127 | .109 | 1.829 | .128 | .107 | 5000 | .141 | 17000 | | | | | |
| SHR-156 | .280 | .228 | .127 | .109 | 1.841 | .128 | .107 | 5000 | .144 | 17000 | | | | | |
| SHR-175 | .290 | .254 | .140 | .109 | 2.050 | .128 | .107 | 5000 | .150 | 15500 | | | | | |
| SHR-175 | .290 | .254 | .140 | .109 | 2.069 | .128 | .107 | 5000 | .156 | 15500 | | | | | |
| SHR-193 | .314 | .280 | .154 | .125 | 2.265 | .153 | .128 | 6000 | .168 | 14300 | | | | | |
| SHR-193 | .314 | .280 | .154 | .125 | 2.289 | .153 | .128 | 6000 | .180 | 14100 | | | | | |
| SHR-200 | .314 | .290 | .160 | .125 | 2.334 | .153 | .128 | 6000 | .180 | 14000 | | | | | |

TAMANOS MAS GRANDES PUEDEN ESTAR DISPONIBLES POR REQUERIMIENTO.

Rangos de Dureza: Anillos de Acero Inoxidable (PH 15-7MO)

| Tipo de Anillo | Rango de Tamaño | Escala | Dureza de ROCKWELL |
|----------------|-----------------|--------|--------------------|
| SHR | 39-42 | 30N | 63-69.5 |
| | 47+ | C | 44-51 |

Rangos de Dureza: Anillos de Cobre-berilio

| Tipo de Anillo | Rango de Tamaño | Escala | Dureza de ROCKWELL |
|----------------|-----------------|--------|--------------------|
| SHR | 39-42 | 30N | 54-62 |
| | 47+ | C | 34-43 |

Rangos de Dureza: Anillos de Acero al Carbono (SAE 1060-1090)

| Tipo de Anillo | Rango de Tamaño | Escala | Dureza de ROCKWELL |
|----------------|-----------------|--------|--------------------|
| SHR | 39-62 | 30N | 67.5-72 |
| | 66+ | C | 47-52 |