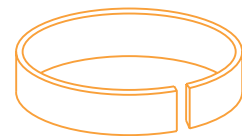
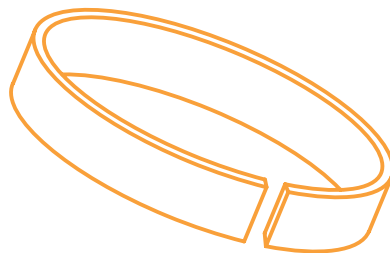




Non Metallic Wear Rings & Bearing Strip

Metric & Imperial Sizes
To Suit Pistons & Rods





Non-Metallic Wear Rings & Bearing Strip

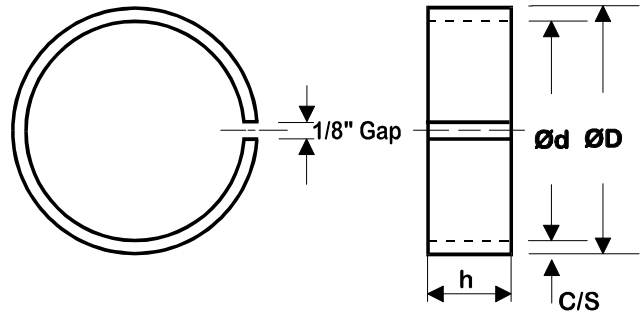
Imperial & Metric Sizes : To Suit Pistons & Rods

Phone : (08) 9451 6011

Fax : (08) 9458 5766

Non metallic wear rings and bearing strips are designed for use in both piston and rod applications. They are made from a variety of materials as listed below, possessing excellent impact resistance and compression strength.

By providing better piston and rod alignment, therefore avoiding metal to metal contact, the use of these wear rings and bearing strips will aid a cylinders overall efficiency, extending seal life.



Standard Styles & Types

Style or Type	Temperature Range	Construction
Style WR Wear Rings	-40°C to 120°C	Heat stabilized, 33% glass reinforced, type 66 Nylon.
Style WRM Wear Rings	-40°C to 120°C	Heat stabilized, 33% glass reinforced, type 66 Nylon.
Type T506 Bearing Strip	-40°C to 120°C	Woven fabric reinforced polyester-P.T.F.E. resin material.
Type T87 Bearing Strip	-50°C to 200°C	Bronze filled P.T.F.E.
Custom Manufactured	-30°C to 120°C	Type 6 or 66 Nylon.
Custom Manufactured	-50°C to 200°C	Bronze filled P.T.F.E.

In situations where your required size is unavailable in the standard Style WR or Style WRM wear ring ranges, Transeals can offer two different types of bearing strips. Both Type T506 and Type T87 are accurately dimensioned, rectangular cross-sectioned strips, produced from specifically compounded materials. These are stocked in coil form, and can be cut to length to suit your specific requirements. They are especially convenient in metric sizes, where the range of wear rings available off the shelf is less than is the case for imperial sizes.

Transeals can also custom manufacture wear rings in-house to non-standard sizes. This is often the most cost effective option available when dealing with badly worn, or poorly tolerated metal parts, such as an oversized bore. Increasing the nominal cross-section of the wear ring will allow the original piston to be re-used in situations where the bore Ø has been honed out to a larger size. However, it should be kept in mind that modifications to the barrel ends and head, in addition to a custom manufactured seal, may also be necessary in applications such as these.

Typical Installation & Groove Design

Radial Clearance $1/2 G$ = Minimum 0.012"(0.30mm) : Maximum dependent on seal selection & system pressure
 Groove Width $H = h$ Nominal +0.010"(0.25mm)/-0.000"(0.00mm) CS Nominal = $1/2(\text{ØD Nominal} - \text{Ød Nominal})$

Piston Mounted Wear Rings

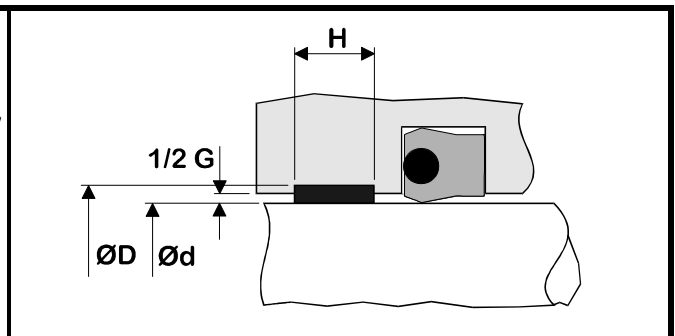
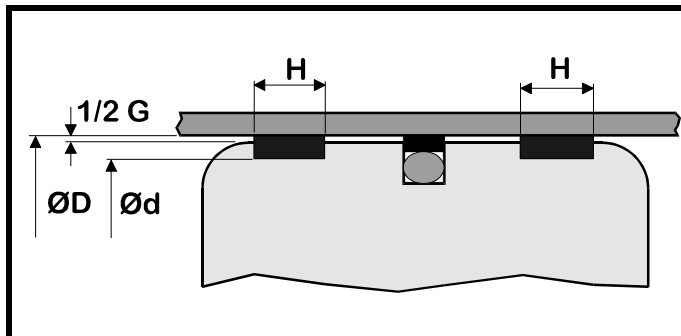
$$\text{Ød} = \text{Min } \text{ØD} - (2 \times \text{CS Nom}) - 0.001" \text{ to } 0.004"$$

$$\text{Ød} = \text{Min } \text{ØD} - (2 \times \text{CS Nom}) - 0.02\text{mm to } 0.10\text{mm}$$

Gland Inserted Wear Rings

$$\text{ØD} = \text{Max } \text{Ød} + (2 \times \text{CS Nom}) + 0.001" \text{ to } 0.004"$$

$$\text{ØD} = \text{Max } \text{Ød} + (2 \times \text{CS Nom}) + 0.02\text{mm to } 0.10\text{mm}$$



Style WR Nylon Wear Rings : Standard Imperial Sizes

Product Code	Nominal Size In Inches				Product Code	Nominal Size In Inches			
	ØD	Ød	h	CS		ØD	Ød	h	CS
WR1250-076-250	1.250	1.098	0.250	0.076	WR4000-125-625	4.000	3.750	0.625	0.125
WR1250-125-1000	1.250	1.000	1.000	0.125	WR4000-125-750	4.000	3.750	0.750	0.125
WR1500-092-375	1.500	1.316	0.375	0.092	WR4000-125-1000	4.000	3.750	1.000	0.125
WR1500-125-250	1.500	1.250	0.250	0.125	WR4250-125-250	4.250	4.000	0.250	0.125
WR1500-125-375	1.500	1.250	0.375	0.125	WR4250-125-375	4.250	4.000	0.375	0.125
WR1500-125-500	1.500	1.250	0.500	0.125	WR4250-125-500	4.250	4.000	0.500	0.125
WR1750-125-375	1.750	1.500	0.375	0.125	WR4250-125-750	4.250	4.000	0.750	0.125
WR1750-125-500	1.750	1.500	0.500	0.125	WR4250-125-1000	4.250	4.000	1.000	0.125
WR2000-092-375	2.000	1.816	0.375	0.092	WR4500-125-375	4.500	4.250	0.375	0.125
WR2000-125-250	2.000	1.750	0.250	0.125	WR4500-125-500	4.500	4.250	0.500	0.125
WR2000-125-312	2.000	1.750	0.312	0.125	WR4500-125-750	4.500	4.250	0.750	0.125
WR2000-125-375	2.000	1.750	0.375	0.125	WR4500-125-1000	4.500	4.250	1.000	0.125
WR2000-125-500	2.000	1.750	0.500	0.125	WR4750-125-500	4.750	4.500	0.500	0.125
WR2000-125-750	2.000	1.750	0.750	0.125	WR4750-125-750	4.750	4.500	0.750	0.125
WR2250-125-250	2.250	2.000	0.250	0.125	WR4750-125-1000	4.750	4.500	1.000	0.125
WR2250-125-375	2.250	2.000	0.375	0.125	WR5000-125-375	5.000	4.750	0.375	0.125
WR2250-125-500	2.250	2.000	0.500	0.125	WR5000-125-500	5.000	4.750	0.500	0.125
WR2250-125-625	2.250	2.000	0.625	0.125	WR5000-125-625	5.000	4.750	0.625	0.125
WR2500-092-375	2.500	2.316	0.375	0.092	WR5000-125-750	5.000	4.750	0.750	0.125
WR2500-125-250	2.500	2.250	0.250	0.125	WR5000-125-1000	5.000	4.750	1.000	0.125
WR2500-125-312	2.500	2.250	0.312	0.125	WR5500-125-375	5.500	5.250	0.375	0.125
WR2500-125-375	2.500	2.250	0.375	0.125	WR5500-125-500	5.500	5.250	0.500	0.125
WR2500-125-500	2.500	2.250	0.500	0.125	WR5500-125-750	5.500	5.250	0.750	0.125
WR2500-125-625	2.500	2.250	0.625	0.125	WR5500-125-1000	5.500	5.250	1.000	0.125
WR2500-125-750	2.500	2.250	0.750	0.125	WR5750-125-1000	5.750	5.500	1.000	0.125
WR2500-125-1000	2.500	2.250	1.000	0.125	WR6000-125-375	6.000	5.750	0.375	0.125
WR2750-125-250	2.750	2.500	0.250	0.125	WR6000-125-500	6.000	5.750	0.500	0.125
WR2750-125-312	2.750	2.500	0.312	0.125	WR6000-125-625	6.000	5.750	0.625	0.125
WR2750-125-375	2.750	2.500	0.375	0.125	WR6000-125-750	6.000	5.750	0.750	0.125
WR2750-125-500	2.750	2.500	0.500	0.125	WR6000-125-1000	6.000	5.750	1.000	0.125
WR2750-125-750	2.750	2.500	0.750	0.125	WR6250-125-500	6.250	6.000	0.500	0.125
WR2750-125-1000	2.750	2.500	1.000	0.125	WR6250-125-1000	6.250	6.000	1.000	0.125
WR3000-092-375	3.000	2.816	0.375	0.092	WR6500-125-500	6.500	6.250	0.500	0.125
WR3000-125-250	3.000	2.750	0.250	0.125	WR6500-125-750	6.500	6.250	0.750	0.125
WR3000-125-312	3.000	2.750	0.312	0.125	WR6500-125-1000	6.500	6.250	1.000	0.125
WR3000-125-375	3.000	2.750	0.375	0.125	WR7000-125-500	7.000	6.750	0.500	0.125
WR3000-125-500	3.000	2.750	0.500	0.125	WR7000-125-750	7.000	6.750	0.750	0.125
WR3000-125-625	3.000	2.750	0.625	0.125	WR7000-125-1000	7.000	6.750	1.000	0.125
WR3000-125-750	3.000	2.750	0.750	0.125	WR7375-125-750	7.375	7.125	0.750	0.125
WR3000-125-1000	3.000	2.750	1.000	0.125	WR7500-125-500	7.500	7.250	0.500	0.125
WR3250-125-375	3.250	3.000	0.375	0.125	WR7500-125-750	7.500	7.250	0.750	0.125
WR3250-125-500	3.250	3.000	0.500	0.125	WR7500-125-1000	7.500	7.250	1.000	0.125
WR3250-125-750	3.250	3.000	0.750	0.125	WR7750-125-1000	7.750	7.500	1.000	0.125
WR3250-125-1000	3.250	3.000	1.000	0.125	WR8000-125-500	8.000	7.750	0.500	0.125
WR3500-092-375	3.500	3.316	0.375	0.125	WR8000-125-1000	8.000	7.750	1.000	0.125
WR3500-125-375	3.500	3.250	0.375	0.125	WR8250-125-1000	8.250	8.000	1.000	0.125
WR3500-125-500	3.500	3.250	0.500	0.125	WR8500-125-500	8.500	8.250	0.500	0.125
WR3500-125-625	3.500	3.250	0.625	0.125	WR8500-125-1000	8.500	8.250	1.000	0.125
WR3500-125-750	3.500	3.250	0.750	0.125	WR8500-187-1000	8.500	8.125	1.000	0.187
WR3500-125-1000	3.500	3.250	1.000	0.125	WR8750-125-1000	8.750	8.500	1.000	0.125
WR3750-125-375	3.750	3.500	0.375	0.125	WR9000-125-1000	9.000	8.750	1.000	0.125
WR3750-125-500	3.750	3.500	0.500	0.125	WR9250-125-1000	9.250	9.000	1.000	0.125
WR3750-125-625	3.750	3.500	0.625	0.125	WR9500-125-1000	9.500	9.250	1.000	0.125
WR3750-125-750	3.750	3.500	0.750	0.125	WR10000-125-1000	10.000	9.750	1.000	0.125
WR3750-125-1000	3.750	3.500	1.000	0.125	WR10500-125-1000	10.500	10.250	1.000	0.125
WR4000-125-250	4.000	3.750	0.250	0.125	WR10500-187-1000	10.500	10.125	1.000	0.187
WR4000-125-375	4.000	3.750	0.375	0.125	WR12000-125-1000	12.000	11.750	1.000	0.125
WR4000-125-500	4.000	3.750	0.500	0.125	WR13000-125-1000	13.000	12.750	1.000	0.125

Style WRM Nylon Wear Rings : Standard Metric Sizes

Product Code	Nominal Size In mm				Product Code	Nominal Size In mm			
	ØD	Ød	CS	h		ØD	Ød	CS	h
WRM4035X9-5	40.00	35.00	2.50	9.50	WRM8074X12-7	80.00	74.00	3.00	12.70
WRM4540X10	45.00	40.00	2.50	10.00	WRM8680X12-7	86.00	80.00	3.00	12.70
WRM4640X9-5	46.00	40.00	3.00	9.50	WRM8983X12-7	89.00	83.00	3.00	12.70
WRM5549X12-7	55.00	49.00	3.00	12.70	WRM9084X25	90.00	84.00	3.00	25.00
WRM5650X12-7	56.00	50.00	3.00	12.70	WRM9588-6X9-5	95.00	88.60	3.20	9.50
WRM6357X12-7	63.00	57.00	3.00	12.70	WRM9690X12-7	96.00	90.00	3.00	12.70
WRM6559X12-7	65.00	59.00	3.00	12.70	WRM10094X25	100.00	94.00	3.00	25.00
WRM6660X12-7	66.00	60.00	3.00	12.70	WRM110104X25	110.00	104.00	3.00	25.00
WRM7062X9-5	70.00	62.00	4.00	9.50	WRM140133X35	140.00	133.00	3.50	35.00
WRM7064X12-7	70.00	64.00	3.00	12.70	WRM150143X35	150.00	143.00	3.50	35.00
WRM7065X12-7	70.00	65.00	2.50	12.70	WRM160153X40	160.00	153.00	3.50	40.00
WRM7670X12-7	76.00	70.00	3.00	12.70	WRM190182X45	190.00	182.00	4.00	45.00

Bearing Strip : Standard Imperial & Metric Sizes

Type T506 : Metric Sizes

Product Code	Nominal Size In mm	
	h	CS
BSM5-6X2-5T506	5.60	2.50
BSM9-7X2-5T506	9.70	2.50
BSM13X2-5T506	13.00	2.50
BSM15X2-5T506	15.00	2.50
BSM20X2-5T506	20.00	2.50
BSM25X2-5T506	25.00	2.50
BSM25X4T506	25.00	4.00

Type T87 : Metric Sizes

Product Code	Nominal Size In mm	
	h	CS
BSM5-6X2-5T87	5.60	2.50
BSM7-9X2-5T87	7.90	2.50
BSM7-9X4T87	7.90	4.00
BSM9-7X2-5T87	9.70	2.50
BSM9-7X4T87	9.70	4.00
BSM10X2T87	10.00	2.00
BSM15X2T87	15.00	2.00
BSM15X2-5T87	15.00	2.50
BSM20X2T87	20.00	2.00
BSM20X2-5T87	20.00	2.50
BSM25X2-5T87	25.00	2.50

Type T506 : Imperial Sizes

Product Code	Nominal Size In Inches	
	h	CS
BSI037X125T506	0.375	0.125
BSI050X125T506	0.500	0.125
BSI062X125T506	0.625	0.125
BSI075X125T506	0.750	0.125
BSI100X125T506	1.000	0.125

Cutting Strip To Length

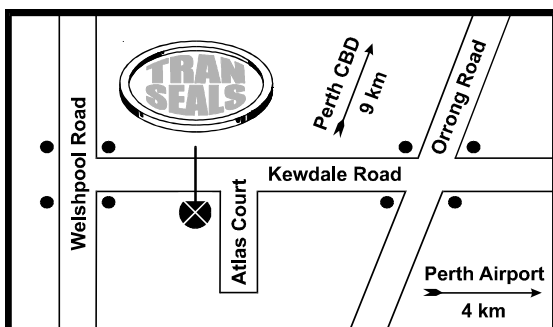
Calculate strip lengths using the following formulas.
Strips should be cut at 90° using a sharp knife.

Piston Mounted Bearing Strip

$$\text{Length} = \pi \times (\text{ØD} - \text{CS Nominal}) - 0.125''(3.00\text{mm})$$

Gland Inserted Bearing Strip

$$\text{Length} = \pi \times (\text{Ød} + \text{CS Nominal}) - 0.125''(3.00\text{mm})$$



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