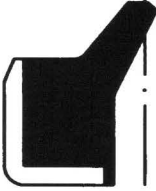


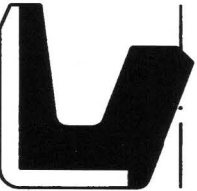
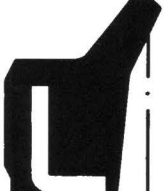

















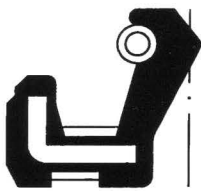

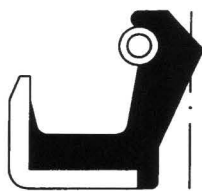

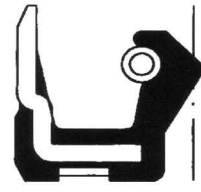

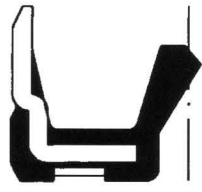

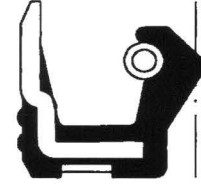
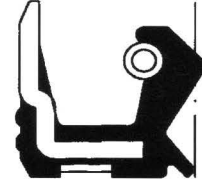
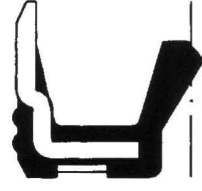


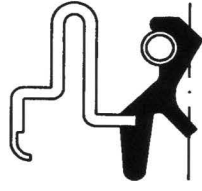




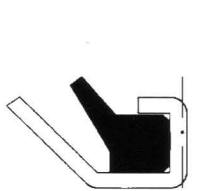
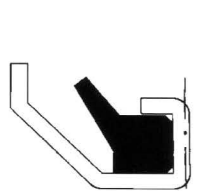
**LIP STYLE**

**OTHER DESIGNS**

**CASE AND O.D. STRUCTURE**




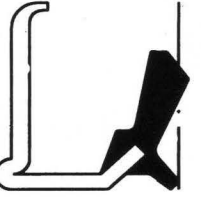



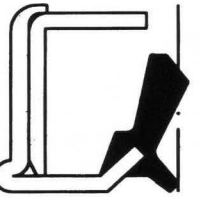




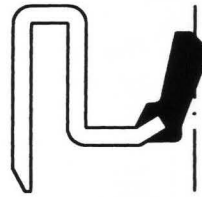
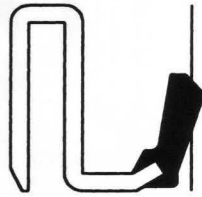


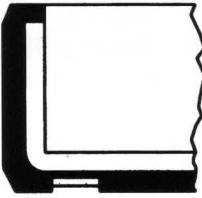
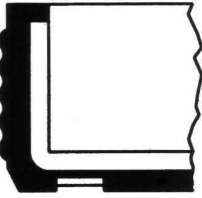
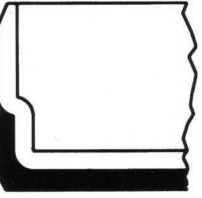
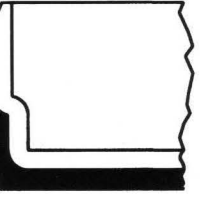
<b>WIPER SEAL</b>					<p><i>The wiper series is used primarily in reciprocating applications as a dirt excluder. Our most popular wiper is the WPB style. The WPB series is normally produced with a ground O.D. and 90-durometer nitrile material.</i></p>
	GA	WPB	DKB	DWI	
<b>TYPE W</b>					<p><i>The W series is used in applications subject to wide variances in thermal expansion or for press fitting into a housing where installation is difficult.</i></p>
	GC	WPC	DKC	DSI	
<b>AGRICULTURE</b>					<p><i>The agricultural designs are multi-lipped pre-lubed seals used in conjunction with wear sleeves to prevent dirt from entering the system.</i></p>
	SCW	TCW	VCW	KCW	
<b>AGRICULTURE</b>					<p><i>This series is to be used for large shaft to bore misalignment or excessive dynamic run-out.</i></p>
	QA	QLF	TCFY	TCFA	
<b>AGRICULTURE</b>					<p><i>This series is to be used for large shaft to bore misalignment or excessive dynamic run-out.</i></p>
	SCE	TCE	SBE	TBE	

## LIP STYLE

CASE AND O.D. STRUCTURE	Type Y					<i>The Type Y design is used for applications where the seal lip and spring need to extend beyond the case</i>
	Type BC					<i>Part metal/part rubber combines the installation advantages of rubber with the holding power of metal.</i>
						
	Unique Seals					<i>Various unique seals.</i>
	Axial Counterface					<i>Axial Counterface Seals.</i>
		SCY	TCY	BVY	KBY	
		SBC	TBC	VBC	KBC	
		SBCW	TBCW	VBCW	KBCW	
		TB14	TB31	TB95	TA5Y	
		VA	VS	R	9R	


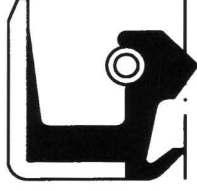

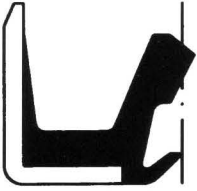




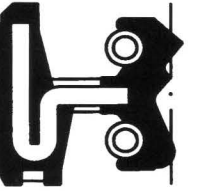

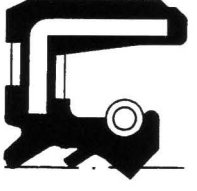

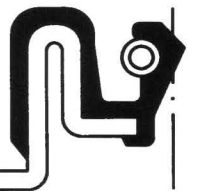

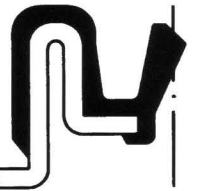
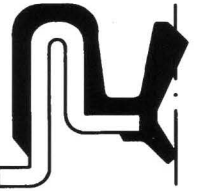
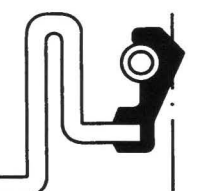
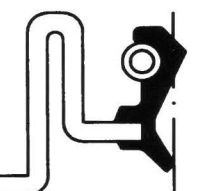
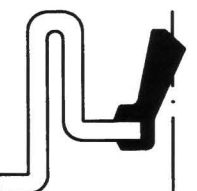
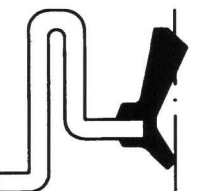
LIP STYLE

CASE AND O.D. STRUCTURE

Type 6					<p>The Type 6 design adds ease of installation and restricts the depth of installation.</p>
	SB6	TB6	BV6	KB6	
Type 7/9					<p>The Type 7/9 design is used in heavy-duty applications where dirt exclusion and outside sealing is required.</p>
	SA6	TA6	VA6	KA6	
Special					<p>The Special design allows for easy installation or replacement. It adds rigidity and restricts installation.</p>
	TB7	TB7R	TC7	TC9	
End Cover					<p>The End Cover design protects bearings from contaminants.</p>
	VB18	VB21	VB2Y	XICY	
End Cover					<p>The End Cover design protects bearings from contaminants.</p>
	EC	ECW	VK	VKW	

## LIP STYLE OTHER DESIGNS

CASE AND O.D. STRUCTURE





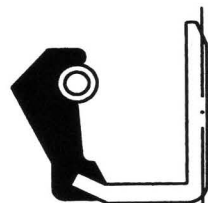
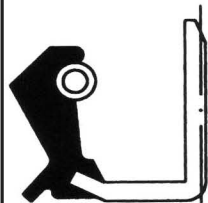

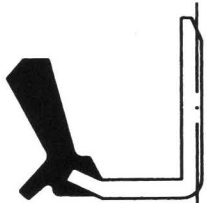
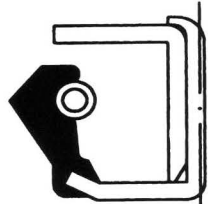
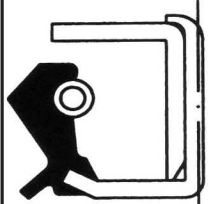
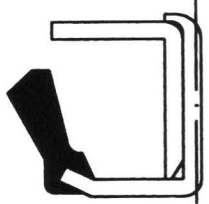
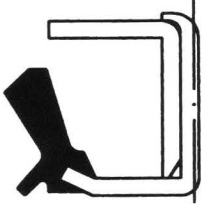

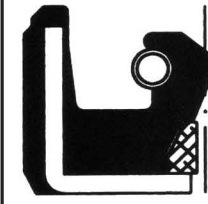


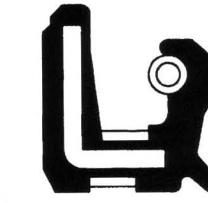



Type 3					<p><i>The Type 3 design has a grease cavity and will allow for pre-lubrication of the seal. The secondary lip will also allow for dirt exclusion.</i></p>
	TC3	TB3	TA3	KB3	
Type 4					
	TC4	TB4	TC4L	TC4P	
					
	DC4	DC4Y	TC42 (rotary)	TC40 (rotary)	
Type 5					<p><i>The Type 5 design is designed for applications where additional rigidity is needed and restricts the installation depth into the housing.</i></p>
	SC5	TC5	VC5	KC5	
					
	SB5	TB5	VB5	KB5	



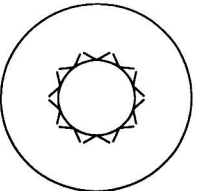
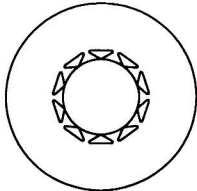
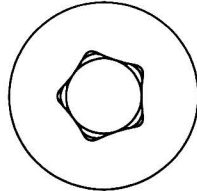
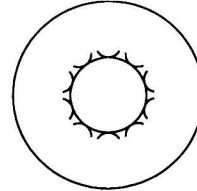
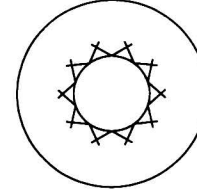
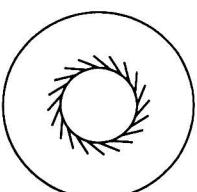
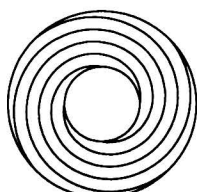
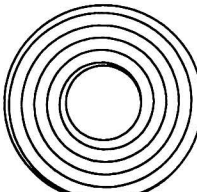
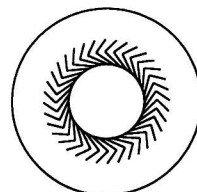
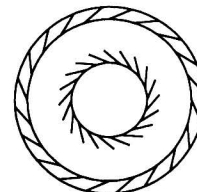
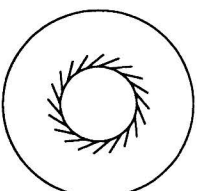
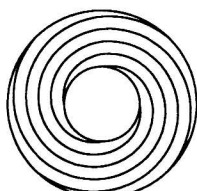
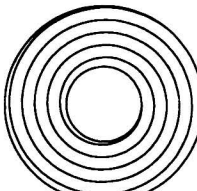
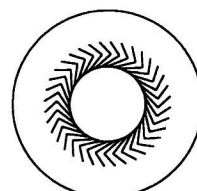
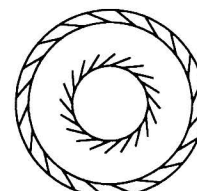
LIP STYLE

OTHER DESIGNS

SPECIAL STRUCTURES

Type O					<p>The O design is for applications where the bore turns and the shaft is stationary.</p>		
	OSC	OTC	OVC	OKC			
							
	OSB	OTB	OVB	OKB			
							
	OSA	OTA	OVA	OKA			
	PRESSURE DESIGN						<p>The pressure seals are used in applications where pressure may range up to 1,422 PSI.</p>
		TCJ	SCT	SCYT		TAFM	
							
		TCV	TCP	TCHP		TCN	

**LIP STYLE**

<b>CASE AND O.D. STRUCTURE</b>	<b>Bi-Directional</b>					
	<b>STANDARD HO</b>	<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	
	<b>Clock-wise</b>					
<b>Counter Clock-wise</b>						
		<b>L</b>	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>L4</b>

## HELIX DESIGNS

The uni-directional Helix design provides ribs along the seal lip on the air side. This design is used exclusively for shafts rotating in one direction. The ribs function as pumping veins that force any fluid passing under the seal lip back onto the fluid side of the seal. This design has been accepted as a standard in many automotive transmission applications. In specifying an uni-directional Helix, the shaft rotation should be described as clockwise or counter-clockwise when viewing the shaft from the primary lip side of the seal. A caution for the uni-directional Helix should be noted; if the shaft rotates in the reverse direction, the Helical ribs will act as a pump and force fluid past the seal lip onto the air side of the seal.

A bi-directional Helix design incorporates triangular shaped wedges beneath the seal lip on the airside of the seal's contact edge. These wedges provide the same pumping action as the uni-directional Helix. This configuration, however, does not permit as many pumping veins on the seal surface and therefore is not as effective as the uni-directional Helix.

Our helix designs are specifically engineered to provide the return pumping action during shaft rotation and have the ability to seal while the shaft is stationary.