

Universal 3 Mechanical Seal Generation 2

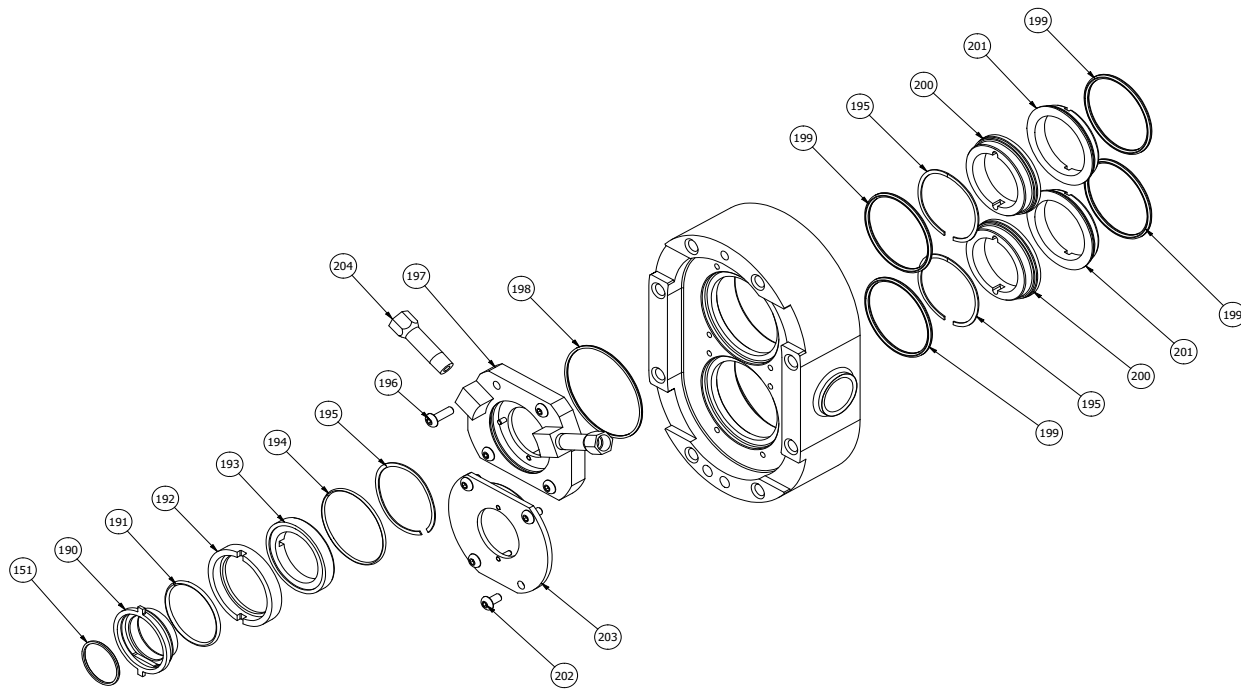


Figure 296

Universal 3 Standard Mechanical Seal Generation 2

Item No.	Description		Qty. per Pump		Part Number by Model				
			Mechanical Seal		006, 014, 015, 018 U3	030, 034, 040 U3	045, 060, 063, 064, 130, 133, 134 U3	180, 183, 184, 220, 223, 224 U3	210, 214, 320, 324 U3
			Single	Double					
*151	O-Ring, Adjusting Ring	EPDM	N/A	2	E70023	E70031		E70149	
		FKM		2	V70023	V70031		V70149	
190	Adjusting Ring		N/A	2	141988+	142473+		142489+	
*191	O-Ring, Adjusting Ring	EPDM	N/A	2	E70130	E70141		E70243	
		FKM			V70130	V70141		V70243	
192	Flush Side Rotary Seal		N/A	2	141989+	142474+		142490+	
193	Flush Side Stationary Seal	C	N/A	2	141990+	142475+		142491+	
*194	O-Ring, Flush Side Stationary	EPDM	N/A	2	E70033	E70147		E70158	
		FKM			V70033	V70147		V70158	
195	Wave Spring			2	142102+	142484+		142500+	
196	Seal Housing Bolt DM		N/A	8	30-26	30-745	30-725	30-743	30-725
197	Seal Housing DM		N/A	2	141991+	142485+	142487+	142501+	142503+
*198	O-Ring Seal Housing	EPDM	N/A	2	E70036	E70041		E70249	
		FKM			V70036	V70041		V70249	
*199	O-Ring Product Side	EPDM	4	4	E70135	E70147		E70247	
		FKM			V70135	V70147		V70247	
200	Product Side Stationary Seal	C	2	2	141992+	142476+		142492+	
		SC			141993+	142477+		142493+	
		TC			141994+	142478+		142494+	
		C NF			141995+	142479+		142495+	
		SC NF			141996+	142480+		142496+	
		TC NF			141997+	142481+		142497+	
201	Product Side Rotary Seal	SC	2	2	141998+	142482+		142498+	
		TC			141999+	142483+		142499+	
202	Seal Housing Bolt SM		8	N/A	30-546	30-741		30-296	30-775
203	Seal Housing SM		2	N/A	142000+	142486+	142488+	142502+	142504+
204	Flush Extension	NPT	N/A	4	141189+		141190+		
		BSP			141191+		141192+		

Notes:

* Recommended spare part

NOTE: Generation 2 seals are available from September 23, 2021. See "Generation 2 Seal" on page 35.**Abbreviation Key:**

SM Single Mechanical
 DM Double Mechanical
 C Carbon
 SC Silicon Carbide
 TC Tungsten Carbide
 NF Narrow Face

For O-ring seals, see page 161.

For mechanical seal kits, see page 160.

Universal 3 Mechanical Seal Cross-Section Generation 2

Items in **bold** below are contained in the seal kits listed on the following pages. For individual item part numbers, see page 153.

- 151 O-Ring, Adjusting Ring**
- 190 Adjusting Ring
- 191 O-Ring ,Flush (Outer) Rotary Seal**
- 192 Flush-Side(Outer) Rotary Seal**
- 193 Flush-Side (Outer) Stationary Seal**
- 194 O-Ring, Flush (Outer) Stationary Seal**
- 195 Wave Spring kit (Wave spring + drive ring)
- 198 O-Ring, Seal Housing**
- 199 O-Ring, Product (Inner) Stationary Seal**
- 200 Product-side (Inner) Stationary Seal**
- 201 Product-side (Inner) Rotary Seal**

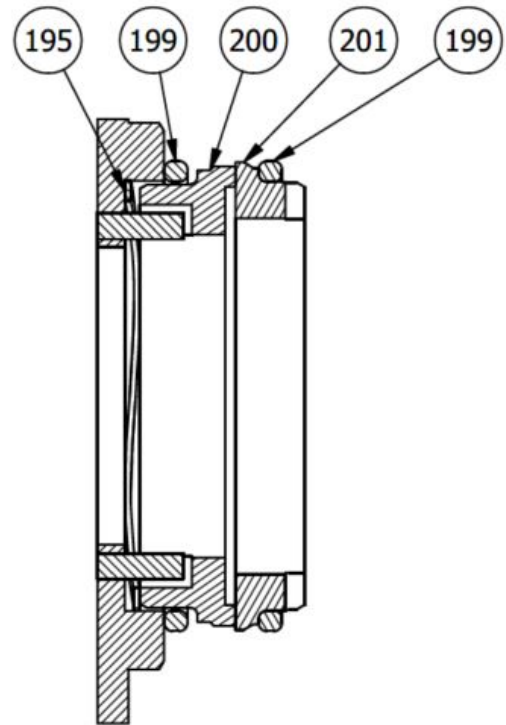


Figure 297 - U3 Single Mechanical Seal

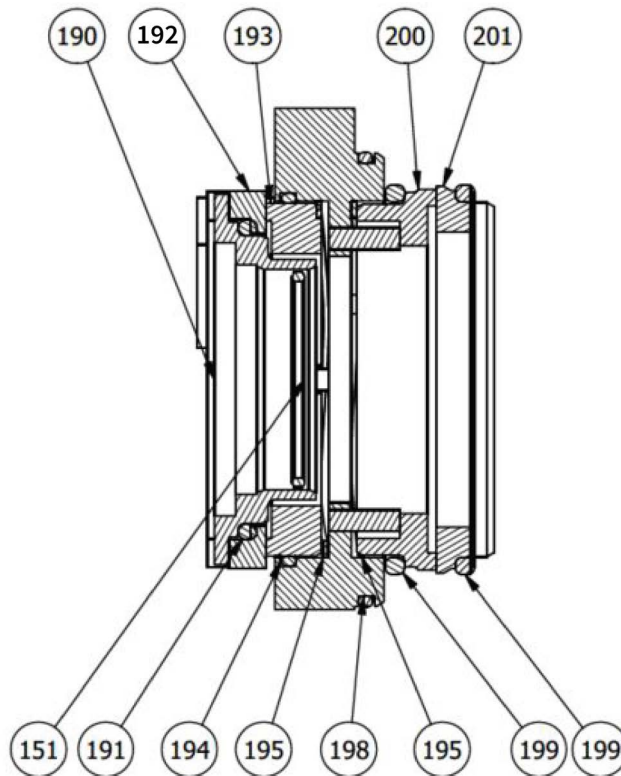


Figure 298 - U3 Double Mechanical Seal

Mechanical Seal Kits, Standard Models Generation 2

Seal Type	Rotary Inner (201)	Stationary Inner (200)	Stationary Outer (193)	Rotary Outer (192)	Elastomer	006/015/018 U3	030/040 U3	045/060/130 U3	180/220 U3	210 U3	320 U3
SM	SC	C	None	None	FKM	303957+	303993+	304029+	304065+	304101+	304137+
SM	SC	C	None	None	EPDM	303958+	303994+	304030+	304066+	304102+	304138+
SM	SC	C	None	None	FFKM	303959+	303995+	304031+	304067+	304103+	304139+
SM	SC	SC	None	None	FKM	303960+	303996+	304032+	304068+	304104+	304140+
SM	SC	SC	None	None	EPDM	303961+	303997+	304033+	304069+	304105+	304141+
SM	SC	SC	None	None	FFKM	303962+	303998+	304034+	304070+	304106+	304142+
SM	SC	TC	None	None	FKM	303963+	303999+	304035+	304071+	304107+	304143+
SM	SC	TC	None	None	EPDM	303964+	304000+	304036+	304072+	304108+	304144+
SM	SC	TC	None	None	FFKM	303965+	304001+	304037+	304073+	304109+	304145+
SM	SC	SC NF	None	None	FKM	303969+	304005+	304041+	304077+	304113+	304149+
SM	SC	SC NF	None	None	EPDM	303970+	304006+	304042+	304078+	304114+	304150+
SM	SC	SC NF	None	None	FFKM	303971+	304007+	304043+	304079+	304115+	304151+
SM	SC	TC NF	None	None	FKM	303972+	304008+	304044+	304080+	304116+	304152+
SM	SC	TC NF	None	None	EPDM	303973+	304009+	304045+	304081+	304117+	304153+
SM	SC	TC NF	None	None	FFKM	303974+	304010+	304046+	304082+	304118+	304154+
SM	TC	C	None	None	FKM	303975+	304011+	304047+	304083+	304119+	304155+
SM	TC	C	None	None	EPDM	303976+	304012+	304048+	304084+	304120+	304156+
SM	TC	C	None	None	FFKM	303977+	304013+	304049+	304085+	304121+	304157+
SM	TC	SC	None	None	FKM	303978+	304014+	304050+	304086+	304122+	304158+
SM	TC	SC	None	None	EPDM	303979+	304015+	304051+	304087+	304123+	304159+
SM	TC	SC	None	None	FFKM	303980+	304016+	304052+	304088+	304124+	304160+
SM	TC	TC	None	None	FKM	303981+	304017+	304053+	304089+	304125+	304161+
SM	TC	TC	None	None	EPDM	303982+	304018+	304054+	304090+	304126+	304162+
SM	TC	TC	None	None	FFKM	303983+	304019+	304055+	304091+	304127+	304163+
SM	TC	SC NF	None	None	FKM	303987+	304023+	304059+	304095+	304131+	304167+
SM	TC	SC NF	None	None	EPDM	303988+	304024+	304060+	304096+	304132+	304168+
SM	TC	SC NF	None	None	FFKM	303989+	304025+	304061+	304097+	304133+	304169+
SM	TC	TC NF	None	None	FKM	303990+	304026+	304062+	304098+	304134+	304170+
SM	TC	TC NF	None	None	EPDM	303991+	304027+	304063+	304099+	304135+	304171+
SM	TC	TC NF	None	None	FFKM	303992+	304028+	304064+	304100+	304136+	304172+

Abbreviation Key:

SM Single Mechanical

DM Double Mechanical

C Carbon

SC Silicon Carbide

TC Tungsten Carbide

NF Narrow Face

Inner = Product Side, Outer = Flush Side

Mechanical Seal Kits, Standard Models Generation 2

Seal Type	Rotary Inner (201)	Stationary Inner (200)	Stationary Outer (193)	Rotary Outer (192)	Elastomer	006/015/018 U3	030/040 U3	045/060/130 U3	180/220 U3	210 U3	320 U3
DM	SC	C	C	SC	FKM	304207+	304255+	304303+	304351+	304399+	304447+
DM	SC	C	C	SC	EPDM	304208+	304256+	304304+	304352+	304400+	304448+
DM	SC	C	C	SC	FFKM/FKM	304209+	304257+	304305+	304353+	304401+	304449+
DM	SC	C	C	SC	FFKM/EPDM	304210+	304258+	304306+	304354+	304402+	304450+
DM	SC	SC	C	SC	FKM	304211+	304259+	304307+	304355+	304403+	304451+
DM	SC	SC	C	SC	EPDM	304212+	304260+	304308+	304356+	304404+	304452+
DM	SC	SC	C	SC	FFKM/FKM	304213+	304261+	304309+	304357+	304405+	304453+
DM	SC	SC	C	SC	FFKM/EPDM	304214+	304262+	304310+	304358+	304406+	304454+
DM	SC	TC	C	SC	FKM	304215+	304263+	304311+	304359+	304407+	304455+
DM	SC	TC	C	SC	EPDM	304216+	304264+	304312+	304360+	304408+	304456+
DM	SC	TC	C	SC	FFKM/FKM	304217+	304265+	304313+	304361+	304409+	304457+
DM	SC	TC	C	SC	FFKM/EPDM	304218+	304266+	304314+	304362+	304410+	304458+
DM	SC	SC NF	C	SC	FKM	304223+	304271+	304319+	304367+	304415+	304463+
DM	SC	SC NF	C	SC	EPDM	304224+	304272+	304320+	304368+	304416+	304464+
DM	SC	SC NF	C	SC	FFKM/FKM	304225+	304273+	304321+	304369+	304417+	304465+
DM	SC	SC NF	C	SC	FFKM/EPDM	304226+	304274+	304322+	304370+	304418+	304466+
DM	SC	TC NF	C	SC	FKM	304227+	304275+	304323+	304371+	304419+	304467+
DM	SC	TC NF	C	SC	EPDM	304228+	304276+	304324+	304372+	304420+	304468+
DM	SC	TC NF	C	SC	FFKM/FKM	304229+	304277+	304325+	304373+	304421+	304469+
DM	SC	TC NF	C	SC	FFKM/EPDM	304230+	304278+	304326+	304374+	304422+	304470+
DM	TC	C	C	SC	FKM	304231+	304279+	304327+	304375+	304423+	304471+
DM	TC	C	C	SC	EPDM	304232+	304280+	304328+	304376+	304424+	304472+
DM	TC	C	C	SC	FFKM/FKM	304233+	304281+	304329+	304377+	304425+	304473+
DM	TC	C	C	SC	FFKM/EPDM	304234+	304282+	304330+	304378+	304426+	304474+
DM	TC	SC	C	SC	FKM	304235+	304283+	304331+	304379+	304427+	304475+
DM	TC	SC	C	SC	EPDM	304236+	304284+	304332+	304380+	304428+	304476+
DM	TC	SC	C	SC	FFKM/FKM	304237+	304285+	304333+	304381+	304429+	304477+
DM	TC	SC	C	SC	FFKM/EPDM	304238+	304286+	304334+	304382+	304430+	304478+
DM	TC	TC	C	SC	FKM	304239+	304287+	304335+	304383+	304431+	304479+
DM	TC	TC	C	SC	EPDM	304240+	304288+	304336+	304384+	304432+	304480+
DM	TC	TC	C	SC	FFKM/FKM	304241+	304289+	304337+	304385+	304433+	304481+
DM	TC	TC	C	SC	FFKM/EPDM	304242+	304290+	304338+	304386+	304434+	304482+
DM	TC	SC NF	C	SC	FKM	304247+	304295+	304343+	304391+	304439+	304487+
DM	TC	SC NF	C	SC	EPDM	304248+	304296+	304344+	304392+	304440+	304488+
DM	TC	SC NF	C	SC	FFKM/FKM	304249+	304297+	304345+	304393+	304441+	304489+
DM	TC	SC NF	C	SC	FFKM/EPDM	304250+	304298+	304346+	304394+	304442+	304490+
DM	TC	TC NF	C	SC	FKM	304251+	304299+	304347+	304395+	304443+	304491+
DM	TC	TC NF	C	SC	EPDM	304252+	304300+	304348+	304396+	304444+	304492+
DM	TC	TC NF	C	SC	FFKM/FKM	304253+	304301+	304349+	304397+	304445+	304493+
DM	TC	TC NF	C	SC	FFKM/EPDM	304254+	304302+	304350+	304398+	304446+	304494+

Abbreviation Key:

SM Single Mechanical

DM Double Mechanical

C Carbon

SC Silicon Carbide

TC Tungsten Carbide

NF Narrow Face

Inner = Product Side, Outer = Flush Side

Universal 3 Standard Mechanical Seal Generation 1

Item No.	Description	Qty. per Pump		Part Number by Model					Notes
		Mechanical Seal		006, 014, 015, 018-U3	030, 034, 040-U3	045, 060, 064, 130, 134-U3	180, 184, 220, 224-U3	210, 214, 320, 324-U3	
		Single	Double						
* 151	O-Ring, Adjusting Ring EPDM FKM	N/A	2	E70023	E70031	E70149			
				V70023	V70031	V70149			
152	Adjusting Ring	N/A	2	138246+	137980+	138212+			
* 153	O-Ring, Flush Rotary Seal EPDM FKM	N/A	2	E70130	E70144	E70245			
				V70130	V70144	V70245			
154	Flush-Side Rotary Seal SC	N/A	2	138371+	138372+	138373+			
155	Seal Retaining Bolt	N/A	6	30-546	30-546	30-741			
156	Flush-Side Stationary Seal C	N/A	2	139787+	139788+	139789+			
* 157	O-Ring, Flush Stationary Seal EPDM FKM	N/A	2	E70134	E70147	E70248			
				V70134	V70147	V70248			
* 158A	Wave Spring	N/A	2	139890+	139892+	139894+		2	
158B	Drive Ring								
159	Seal Housing Bolt	N/A	8	30-765	30-725	30-742	30-742		
160	Seal Housing - DM	N/A	2	138245+	137979+	138074+	138192+	138289+	
160A	Stop Pin, Seal	N/A	4	137124+	137985+	138451+			
161	Shaft Ring - DM	N/A	2	139161+	LA1215400	N/A	N/A	1	
* 162	O-Ring, Seal Housing EPDM FKM	N/A	2	E70036	E70041	L25071004			
				V70036	V70041	L25071002			
* 163	O-Ring, Product Stationary Seal EPDM FKM FFKM	2	2	E70135	E70147	E70248			
				V70135	V70147	V70248			
				K70135	K70147	K70248			
164	Product-side stationary seal (Double Mech. Seal only)	N/A	2	SC	138368+	138369+	138370+		
				C	138385+	138386+	138387+		
				TC	138400+	138401+	138402+		
				SC NF	139592+	139596+	N/A		
				TC NF	139593+	139597+	N/A		
165	Product-side rotary seal	2	2	SC	138362+	138363+	138364+	138364+	
				TC	138394+	138395+	138396+	138396+	
* 166	O-Ring, Product Rotary Seal EPDM FKM FFKM	2	2	E70135	E70147	E70248	E70248		
				V70135	V70147	V70248	V70248		
				K70135	K70147	K70248	K70248		
167	Seal Housing Bolt	8	N/A	30-546	30-741	30-745	30-745		
168	Seal Housing - SM	2	N/A	138244+	137946+	138076+	138195+	138343+	
* 169A	Wave Spring	2	N/A	139891+	139893+	139895+		2	
169B	Drive Ring								
170	Shaft Ring - SM	2	N/A	LA2363201	LA2363401	N/A	N/A	1	
171	Stationary Seal (Single Mech. Seal only)	2	N/A	SC	138365+	138366+	138367+	138367+	
				C	138382+	138383+	138384+	138384+	
				TC	138397+	138393+	138399+	138399+	
				SC NF	139590+	139594+	N/A	N/A	
				TC NF	139591+	139595+	N/A	N/A	

PL5060-CH162

Notes:

*** Recommended spare part**

- Does not apply to U3 pumps 180-U3 and larger
- Wave Spring Kit (indicated with ^ on page 155) contains 1 wave spring and 1 drive ring.

Abbreviation Key:

- SM Single Mechanical
- DM Double Mechanical
- C Carbon
- SC Silicon Carbide
- TC Tungsten Carbide
- NF Narrow Face

For O-ring seals, see page 161.

For mechanical seal kits, see page 160.

Universal 3 Mechanical Seal Cross-Section Generation 1

Items in **bold** below are contained in the seal kits listed on the following pages. For individual item part numbers, see page 153.

- 151 O-Ring, Adjusting Ring**
- 152 Adjusting Ring
- 153 O-Ring, Flush (Outer) Rotary Seal**
- 154 Flush-Side (Outer) Rotary Seal**
- 155 Seal Retaining Bolt
- 156 Flush-Side (Outer) Stationary Seal**
- 157 O-Ring, Flush (Outer) Stationary Seal**
- 158 Wave Spring kit (Wave spring + drive ring)
- 159 Seal Housing Bolt
- 160 Seal Housing - DM, includes stop pin
- 160A Stop Pin, Seal
- 161 Shaft Ring - DM
- 162 O-Ring, Seal Housing**
- 163 O-Ring, Product (Inner) Stationary Seal**
- 164 Product-side (Inner) stationary seal**
- 165 Product-side (Inner) rotary seal**
- 166 O-Ring, Product (Inner) Rotary Seal**
- 167 Seal Housing Bolt
- 168 Seal Housing - SM
- 169 Wave Spring kit (Wave spring + drive ring)
- 170 Shaft Ring - SM
- 171 Stationary Seal**

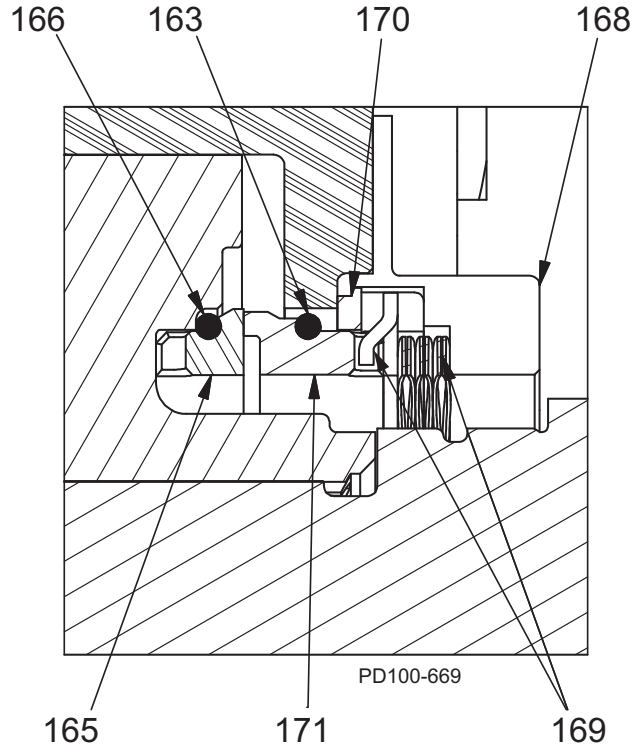


Figure 301 - U3 Single Mechanical Seal

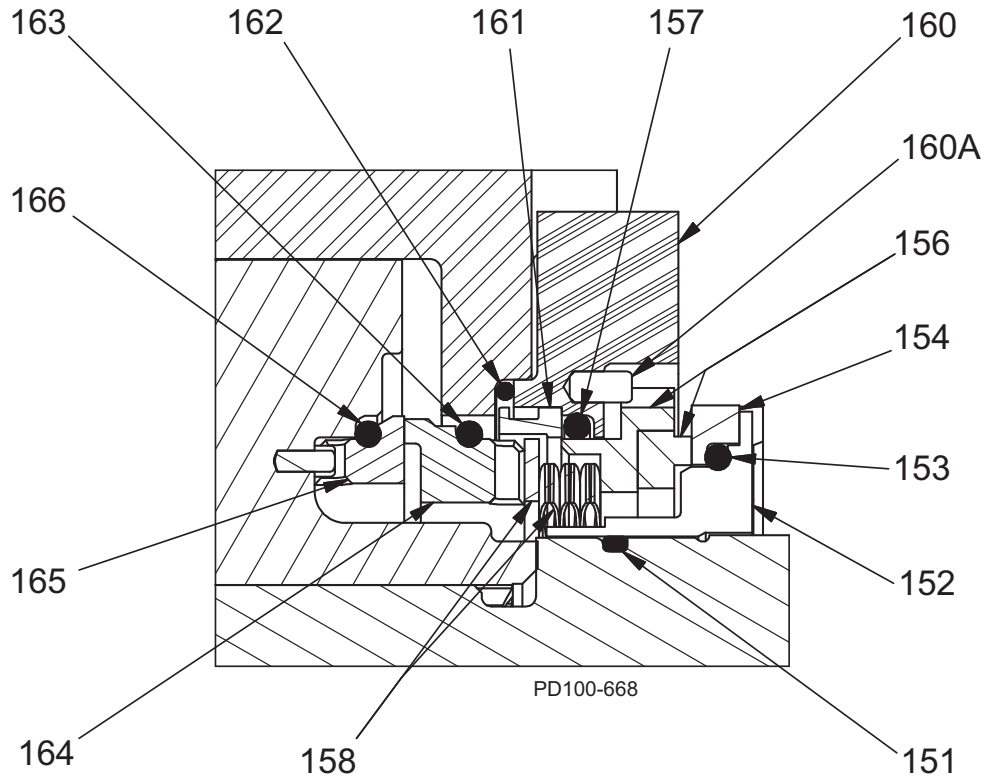


Figure 302 - U3 Double Mechanical Seal

Mechanical Seal Kits, Standard Models Generation 1

Seal Type	Rotary Inner (165)	Stationary Inner (164)	Rotary Outer (154)	Stationary Outer (156)	Elastomer (see notes)	006/015/018-U3	030/040-U3	045/060/130-U3	180/220-U3	210-U3	320-U3
SM	SC	C	None	None	FKM	139357+	139387+	139821+	139431+	140018+	139459+
SM	SC	C	None	None	EPDM	139358+	139388+	139822+	139432+	140019+	139460+
SM	SC	C	None	None	FFKM	139359+	139389+	139823+	139433+	140020+	139461+
SM	SC	SC	None	None	FKM	139360+	139390+	139824+	139434+	140021+	139462+
SM	SC	SC	None	None	EPDM	139361+	139391+	139825+	139435+	140022+	139463+
SM	SC	SC	None	None	FFKM	139362+	139392+	139826+	139436+	140023+	139464+
SM	TC	SC	None	None	FKM	139363+	139393+	139827+	139437+	140024+	139465+
SM	TC	SC	None	None	EPDM	139364+	139394+	139828+	139438+	140025+	139466+
SM	TC	SC	None	None	FFKM	139365+	139395+	139829+	139439+	140026+	139467+
SM	TC	TC	None	None	FKM	139366+	139396+	139830+	139440+	140027+	139468+
SM	TC	TC	None	None	EPDM	139367+	139397+	139831+	139441+	140028+	139469+
SM	TC	TC	None	None	FFKM	139368+	139398+	139832+	139442+	140029+	139470+
SM	SC	SC NF	None	None	FKM	139554+	139568+	139833+	NA	NA	NA
SM	SC	SC NF	None	None	EPDM	139555+	139569+	139834+	NA	NA	NA
SM	SC	SC NF	None	None	FFKM	139556+	139570+	139835+	NA	NA	NA
SM	TC	TC NF	None	None	FKM	139557+	139571+	139836+	NA	NA	NA
SM	TC	TC NF	None	None	EPDM	139558+	139572+	139837+	NA	NA	NA
SM	TC	TC NF	None	None	FFKM	139559+	139573+	139838+	NA	NA	NA
DM	SC	C	SC	C	FKM	139369+	139399+	139415+	139443+	140030+	139471+
DM	SC	C	SC	C	EPDM	139370+	139400+	139416+	139444+	140031+	139472+
DM	SC	C	SC	C	FFKM/FKM	139371+	139401+	139417+	139445+	140032+	139473+
DM	SC	C	SC	C	FFKM/EPDM	139372+	139402+	139418+	139446+	140033+	139474+
DM	SC	SC	SC	C	FKM	139373+	139403+	139419+	139447+	140034+	139475+
DM	SC	SC	SC	C	EPDM	139374+	139404+	139420+	139448+	140035+	139476+
DM	SC	SC	SC	C	FFKM/FKM	139375+	139405+	139421+	139449+	140036+	139477+
DM	SC	SC	SC	C	FFKM/EPDM	139376+	139406+	139422+	139450+	140037+	139478+
DM	TC	SC	SC	C	FKM	139377+	139407+	139423+	139451+	140038+	139479+
DM	TC	SC	SC	C	EPDM	139378+	139408+	139424+	139452+	140039+	139480+
DM	TC	SC	SC	C	FFKM/FKM	139379+	139409+	139425+	139453+	140040+	139481+
DM	TC	SC	SC	C	FFKM/EPDM	139380+	139410+	139426+	139454+	140041+	139482+
DM	TC	TC	SC	C	FKM	139381+	139411+	139427+	139455+	140042+	139483+
DM	TC	TC	SC	C	EPDM	139382+	139412+	139428+	139456+	140043+	139484+
DM	TC	TC	SC	C	FFKM/FKM	139383+	139413+	139429+	139457+	140044+	139485+
DM	TC	TC	SC	C	FFKM/EPDM	139384+	139414+	139430+	139458+	140045+	139486+
DM	SC	SC NF	SC	C	FKM	139560+	139574+	139582+	NA	NA	NA
DM	SC	SC NF	SC	C	EPDM	139561+	139575+	139583+	NA	NA	NA
DM	SC	SC NF	SC	C	FFKM/FKM	139562+	139576+	139584+	NA	NA	NA
DM	SC	SC NF	SC	C	FFKM/EPDM	139563+	139577+	139585+	NA	NA	NA
DM	TC	TC NF	SC	C	FKM	139564+	139578+	139586+	NA	NA	NA
DM	TC	TC NF	SC	C	EPDM	139565+	139579+	139587+	NA	NA	NA
DM	TC	TC NF	SC	C	FFKM/FKM	139566+	139580+	139588+	NA	NA	NA
DM	TC	TC NF	SC	C	FFKM/EPDM	139567+	139581+	139589+	NA	NA	NA

Notes:

Item numbers listed in parentheses above are from page 159 and from the pump parts list pages.

Elastomers listed above include item numbers: 151, 153, 157, 162, 163, 166, 36, 36C, and 26A.

SM seals do not include items 151, 153, 157, or 162.

Abbreviation Key:

SM Single Mechanical

DM Double Mechanical

C Carbon

SC Silicon Carbide

TC Tungsten Carbide

NF Narrow Face

Inner = Product Side, Outer = Flush Side