



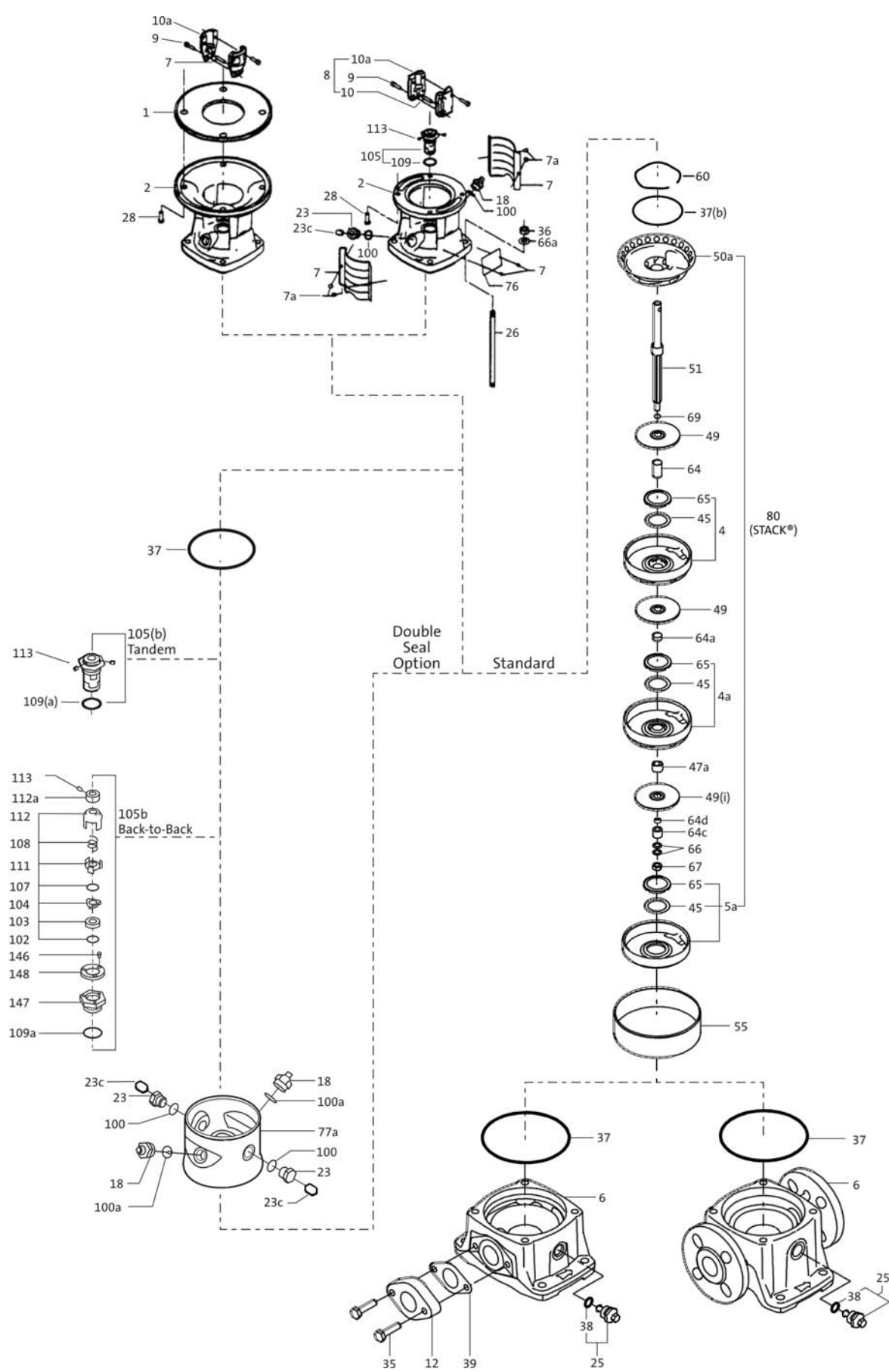
CR1

Parts List & Kits

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Exploded View CR1



Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?
PARTS LIST								
1	Adapter for Motor Stool				For NEMA, 213/215TC, 7.5 - 10HP	96476208	NEW	No
2	Motor Stool		3/2-19	1	NEMA, 56C, 1/3 - 2HP	96436501		No
			21-27	1	NEMA, 182/184TC, 3 - 5HP	96436502		No
					Add Pos. 1, NEMA, 213TC, 7.5 - 10HP	96436502		No
			3/2-11	1	IEC, F85, MG 71, .37 - .55kW	96436495		No
			12-23	1	IEC, F100, MG 80, .75 - 1.1kW	96436496		No
			24-36	1	IEC, F115, MG 90, 1.5 - 2.2kW	96436499		No
					IEC, F130, MG 100/112, 3.0 - 4.0 kW	96436500		No
					IEC, F265, MG132, 5.5 - 7.5kW	96436505		No
4	Chamber, Complete with Pos. 45 & 65		3/2-36	^^^	PTFE Pos.45	96439480		No
4a	Chamber Cpl. w/Pos. 45 & 65 & Bearing		3/2-36	^^^^	Silicon Carbide Brg, PTFE Pos. 45	96439475		YES
	Chamber Cpl. w/Pos. 45 & 65 & Brg. (option)		3/2-36	^^^^	Bronze Bearing, PTFE Pos. 45	96440612		YES
			3/2-36	^^^^	Graflon Bearing, PTFE Pos. 45	96440615		YES
5a	Chamber, Bottom Complete with Pos. 45 & 65		3/2-36	1	PTFE Pos. 45	96439484		No
6	Base		3/2-17	1	Oval (max 232 PSI)	96436516		No
			3/2-36	1	JIS, FGJ, ANSI (Max 362 PSI)	96442012		No
7	Coupling Guard			2	IEC, F85-F100	96438136		YES
				2	NEMA-56C, IEC-F115,130, & 265	96438137		YES
				2	NEMA, 182-215TC	96438138		YES
7a	Screw for Coupling Guard		3/2-36	4	M4 x 8mm	96488481		YES
9	Allen Screw		3/2-19	4	M6 x 20mm, Delta Tone/Seal	00ID7899		YES
			21-27	4	M8 x 25mm, Delta Tone/Seal	00ID7900		YES
					M10 x 25mm, Delta Tone/Seal	00ID7901		YES
10	Shaft Pin		3/2-36	1	ø5 x 26mm	310192		YES
10a	Coupling Half		3/2-19	2	NEMA, 56C, 1/3 - 2HP. ø15.8 / ø12	410108		YES
			21-27	2	NEMA, 182/184TC, 3-5HP. ø28.5/ø12	410109		YES
					NEMA, 213TC, 7.5-10HP. ø34.9/ø12	96472175		YES
			3/2-11	2	IEC, F85, MG71, .37-.55kW. ø14/ø12	410041		YES
			12-23	2	IEC, F100, MG80,.75-1.1kW. ø19/ø12	410043		YES
			24-36	2	IEC, F115, MG 90, 1.5-2.2kW. ø24/ø12	410045		YES
					IEC, F130, MG100/112, 3-4 kW.ø28/ø12	410047		YES
					IEC, F265, MG132, 5.5-7.5kW. ø38/ø12	410115		YES
12	Oval Flange		3/2-17	2	Painted CI, 1" -11.5 NPT (max 232 PSI)	96468333		YES
			3/2-23	2	Painted CI, RP 1" BSP DIN (max 232 PSI)	400173		No
18	Priming/Vent Plug		3/2-36	*	G 1/2A, NV24 with NV9 x M8 stem	405150		No
23	Plug (option)		3/2-36	**	G 1/2A, Solid no port, NV24	370025		No
23a	Plug		3/2-36	**	G 1/2A, w/1/4"port, NV24	91120659		No
23b	Pipe Plug for Pos. 23 & 25 with hollow stem		3/2-36	**	1/4" NPT,SS SQHD	00ID7216		No
25	Drain/Priming Plug Cpl. with O-rings		3/2-36	1	G 1/2A, NV24 w/NV9 x M8 stem, EPDM	96440608		No
			3/2-36	1	G 1/2A, NV24 w/NV9 x M8 stem, FKM	96440609		No
	Drain/Priming Plug Cpl. with O-rings (option)		3/2-36	1	G 1/2A, NV24 w/NV9 x M8 stem, FFKM	96486530		No
	Dr./Pr. Plug Cpl. for gauge, w/O-rings (option)		3/2-36	1	G 1/2A, NV24 w/NV9 x M8 hollow stem, EPDM	96527046		No
			3/2-36	1	G 1/2A, NV24 w/NV9 x M8 hollow stem, FKM	96527047		No
			3/2-36	1	G 1/2A, NV24 w/NV9 x M8 hollow stem, FFKM	96527049		No
26	Staybolt		3/2-3	4	M12 x 79mm	404002		No
			4	4	M12 x 97mm	414002		No
			5	4	M12 x 115mm	404004		No
			6	4	M12 x 133mm	404005		No
			7	4	M12 x 151mm	414004		No
			8	4	M12 x 169mm	404007		No
			9	4	M12 x 187mm	404008		No
			10	4	M12 x 205mm	414006		No
			11	4	M12 x 223mm	404010		No
			12	4	M12 x 241mm	404011		No
			13	4	M12 x 259mm	414008		No
			15	4	M12 x 294mm	96442754		No
			17	4	M12 x 330mm	96442760		No
			19	4	M12 x 367mm	414012		No
			21	4	M12 x 402mm	96442762		No
			23	4	M12 x 439mm	404022		No
			25	4	M12 x 475mm	414016		No
			27	4	M12 x 511mm	404026		No
			30	4	M12 x 562mm (50 Hz.)	96442766		No
			33	4	M12 x 618mm (50 Hz.)	96442767		No
			36	4	M12 x 670mm (50 Hz.)	96442768		No
	Staybolt (Back-to-Back & Tandem Seal option)		3/2-3	4	M12 x 187mm	404008		No
			4	4	M12 x 205mm	414006		No
			5	4	M12 x 223mm	404010		No
			6	4	M12 x 241mm	404011		No
			7	4	M12 x 259mm	414008		No
			8	4	M12 x 277mm	404013		No
			9	4	M12 x 294mm	96442754		No
			10	4	M12 x 313mm	414010		No

Due to part changes overtime, all position numbers (1-203) may not be used.

These columns indicates which model uses the spare part. If blank, the part is used in all models.

Parts List & Kits CR1

Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?			
PARTS LIST											
26	Staybolt (Back-to-Back & Tandem Seal option) (continued)		11	4	M12 x 330mm	96442760		No			
			12	4	M12 x 340mm	414011		No			
			13	4	M12 x 367mm	414012		No			
			15	4	M12 x 402mm	96442762		No			
			17	4	M12 x 436mm	96458181		No			
			19	4	M12 x 475mm	414016		No			
			21	4	M12 x 511mm	404026		No			
			23	4	M12 x 546mm	96442765		No			
			25	4	M12 x 583mm	404030		No			
			27	4	M12 x 618mm	96442767		No			
			30	4	M12 x 670mm (50 Hz.)	96442768		No			
			33	4	M12 x 724mm (50 Hz.)	96442769		No			
			36	4	M12 x 778mm (50 Hz.)	96458444		No			
28	Motor Bolt		3/2-19	4	NEMA, 56C, 1/3 - 2HP. UNC 3/8" x 25mm	00ID1839		No			
			21-27	4	NEMA, 182/184TC, 3 - 5HP.UNC1/2" x 25mm	00ID1840		No			
					NEMA, 213TC, 7.5 -10HP. UNC 1/2" x 1.25"	91128631		No			
			3/2-11	4	IEC, F85, MG71, .37-.55kW. M6 x 20mm	00ID8022		No			
			12-23	4	IEC, F100, MG80,75-1.1kW. M6 x 25mm	00ID8023		No			
			24-36	4	IEC, F115, MG 90, 1.5-2.2kW. M8 x 20mm	00ID8024		No			
					IEC, F130, MG100/112, 3-4 kW. M8 x 25mm	00ID8025		No			
					IEC, F265, MG132, 5.5-7.5kW. M12 x 45mm	00ID7914		No			
			35	Hexagon Head Screw for Oval Flange		3/2-17	4	M10 x 40mm, Delta Tone/Seal	00ID8027		YES
			36	Staybolt Nut		3/2-36	4	19mm x M12, Delta Tone/Seal	00ID7917		No
37	Sleeve O-ring		3/2-36	◆◆	EPDM, ø137.5 x 3.3mm	96438743		YES			
37b	Sleeve O-ring (option)		3/2-36	◆◆	FKM, ø137.5 x 3.3mm	96438744		YES			
			3/2-36	◆◆	FXM, ø137.5 x 3.3mm	96458109		YES			
			3/2-36	◆◆	FFKM, ø136.12 x 3.53mm	96466718		YES			
38	Drain Plug O-ring		3/2-36	1	EPDM, ø16.3 x 2.4mm	00ID1288		YES			
			3/2-36	1	FKM, ø16.3 x 2.4mm	00ID2231		YES			
	Drain Plug O-ring (option)		3/2-36	1	FFKM, ø16.3 x 2.4mm	96428162		YES			
			3/2-36	1	FXM, ø16.3 x 2.4mm	96442869		YES			
39	Gasket for Oval Flange		3/2-17	2	95 x 55 x ø35 x 2mm, KLINGERSIL C4430	400189		YES			
45	Neck Ring		3/2-36	# stgs	ø41.3 x ø30.6 x .75mm, PTFE	400003		YES			
47a	Bearing Ring/Spacer		3/2-36	^^^^	SiC 150, ø17.37 x ø13.10 x ø10.9 x 13mm	96437488		YES			
	Brg. Ring/Spacer (option for Graflon / Brz. 4a)		3/2-36	^^^^	TC, ø15.92 x ø13.10 x ø10.9 x 9.7mm	400041		YES			
49	Impeller		3/2-36	# stgs		96440325		No			
50a	Top Guide Vane		3-36	1		96457637		No			
	Top Guide Vane Plate (option for destaging)		3/2	1		96478562		No			
51	Shaft, Complete		3/2-3	1	ø12 x 160.5mm	96439607		No			
			4	1	ø12 x 180.5mm	96440386		No			
			5	1	ø12 x 196.5mm	96440387		No			
			6	1	ø12 x 214.5mm	96440388		No			
			7	1	ø12 x 234.5mm	96440389		No			
			8	1	ø12 x 250.5mm	96440390		No			
			9	1	ø12 x 268.5mm	96440391		No			
			10	1	ø12 x 288.5mm	96440392		No			
			11	1	ø12 x 304.5mm	96440393		No			
			12	1	ø12 x 322.5mm	96440394		No			
			13	1	ø12 x 342.5mm	96440395		No			
			15	1	ø12 x 376.5mm	96440396		No			
			17	1	ø12 x 412.5mm	96440398		No			
			19	1	ø12 x 450.5mm	96440400		No			
			21	1	ø12 x 484.5mm	96440401		No			
			23	1	ø12 x 520.5mm	96440403		No			
			25	1	ø12 x 556.5mm	96440405		No			
			27	1	ø12 x 592.5mm	96440406		No			
			30	1	ø12 x 646.5mm (50 Hz.)	96440408		No			
			33	1	ø12 x 700.5mm (50 Hz.)	96440410		No			
			36	1	ø12 x 754.5mm (50 Hz.)	96440411		No			
			Shaft, Cpl. (Back-to-Back & Tandem Seal opt.)		3/2-3	1	ø12 x 265.5mm	96457560		No	
					4	1	ø12 x 285.5mm	96457561		No	
					5	1	ø12 x 301.5mm	96457562		No	
					6	1	ø12 x 319.5mm	96457563		No	
					7	1	ø12 x 339.5mm	96457564		No	
					8	1	ø12 x 355.5mm	96457565		No	
					9	1	ø12 x 373.5mm	96457566		No	
					10	1	ø12 x 393.5mm	96457567		No	
					11	1	ø12 x 409.5mm	96457568		No	
					12	1	ø12 x 427.5mm	96457569		No	
					13	1	ø12 x 447.5mm	96457570		No	
					15	1	ø12 x 481.5mm	96457571		No	
					17	1	ø12 x 517.5mm	96457573		No	
					19	1	ø12 x 555.5mm	96457575		No	

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PARTS LIST								
51	Shaft, Cpl. (Back-to-Back & Tandem Seal option) (Continued)		21	1	ø12 x 589.5mm	96457576		No
			23	1	ø12 x 625.5mm	96457578		No
			25	1	ø12 x 661.5mm	96457580		No
			27	1	ø12 x 697.5mm	96457581		No
			30	1	ø12 x 751.5mm (50 Hz.)	96457583		No
			33	1	ø12 x 805.5mm (50 Hz.)	96457585		No
55	Outer Sleeve		36	1	ø12 x 859.5mm (50 Hz.)	96457586		No
			3/2-3	1	ø138 x 44.6mm	96437865		No
			4	1	ø138 x 62.6mm	96440010		No
			5	1	ø138 x 80.6mm	96441510		No
			6	1	ø138 x 98.6mm	96439999		No
			7	1	ø138 x 116.6mm	96441511		No
			8	1	ø138 x 134.6mm	96441513		No
			9	1	ø138 x 152.6mm	96440000		No
			10	1	ø138 x 170.6mm	96441514		No
			11	1	ø138 x 188.6mm	96441516		No
			12	1	ø138 x 206.6mm	96440001		No
			13	1	ø138 x 224.6mm	96441517		No
			15	1	ø138 x 260.6mm	96440002		No
			17	1	ø138 x 296.6mm	96441520		No
			19	1	ø138 x 332.6mm	96441521		No
			21	1	ø138 x 368.6mm	96440004		No
			23	1	ø138 x 404.6mm	96441524		No
			25	1	ø138 x 440.6mm	96441525		No
			27	1	ø138 x 476.6mm	96440006		No
			30	1	ø138 x 530.6mm (50 Hz.)	96440007		No
			33	1	ø138 x 584.6mm (50 Hz.)	96440008		No
			36	1	ø138 x 638.6mm (50 Hz.)	96439652		No
60	Stack Compression Spring		3/2-36	1	ø136 x 3.5mm	96439662		No
64	Spacing Pipe		2-36	^^^	ø15.85 x ø12.85 x 17.52mm	400035		No
64a	Spacing Pipe (option for Graflon / Brz. 4a)		3/2-36	^^^^	ø15.85 x ø12.85 x 4.5mm	96440292		YES
			3/2-36	^^^^	Use with TC Pos. 47a, ø15 x ø12.7 x 7.8mm	400016		YES
64c	Clamp, Splined		3/2-36	1	ø15 x ø13.10 x ø10.9 x 13mm	96439668		YES
65	Neck Ring Retainer		3/2-36	# stgs	ø43.5 x ø34.0 x 3.6mm	96438746		YES
66	Lock Washer Set for Shaft		3/2-36	1	ø13.5 x ø8.2 x 2.6mm	96417297		YES
66a	Washer for Staybolt		3/2-36	4	DIN 125A, ø24 x ø13 x 2.5mm, Delta Tone/Seal	96430377		No
67	Lock Nut for Shaft		3/2-36	1	13mm x M8	001D2061		YES
69	Spacing Pipe		3/2	1	ø15.85 x 12.85 x 18.0mm	400125		No
76	Nameplate		3/2-36	1	304SS, 60 x 45mm	96439820		No
76a	Rivet for Nameplate		3/2-36	2	304SS, ø3 x 5mm	96022882		No
77a	Pump Head Cover for Back-to-Back, Tandem Seal		3/2-36	1	Cast Stainless	96456293		No
100	Priming/Vent Plug O-ring		3/2-36	■	EPDM, ø16.3 x 2.4mm	001D1288		YES
			3/2-36	■	FKM, ø16.3 x 2.4mm	001D2231		YES
100a	Priming/Vent Plug O-ring (option)		3/2-36	■	FFKM, ø16.3 x 2.4mm	96428162		YES
			3/2-36	■	FXM, ø16.3 x 2.4mm	96442869		YES
102	O-ring for Pos. 105b Back-to-Back		3/2-36	1	EPDM, ø18 x 2.5mm	001D2041		YES
			3/2-36	1	FKM, ø17.86 x 2.62mm	001D2187		YES
	O-ring for Pos. 105b Back-to-Back (option)		3/2-36	1	FFKM, ø17.86 x 2.62mm	96440281		No
			3/2-36	1	FXM, ø17.86 x 2.62mm	96472584		No
103	Stationary Seal Ring for Pos. 105b Back-to-Back		3/2-36	1	TC, 12mm	980190		No
	Stationary Seal Ring for Pos. 105b Back-to-Back (opt.)		3/2-36	1	SiC, 12mm	980746		YES
104	Rotating Seal Ring for Pos. 105b Back-to-Back		3/2-36	1	TC, 12mm	980163		No
	Rotating Seal Ring for Pos. 105b Back-to-Back (opt.)		3/2-36	1	SiC, 12mm	980733		YES
105 (b)	Shaft Seal HQBE		3/2-36	***	SiC, Carbon with resin-impregnated, EPDM	96441879		YES
	Shaft Seal HQBV		3/2-36	***	SiC, Carbon with resin-impregnated, FKM	96441880		YES
	Shaft Seal HQBK (option)		3/2-36	***	SiC, Carbon with resin-impregnated, FFKM	96489537		YES
	Shaft Seal HQQE		3/2-36	***	SiC, SiC, EPDM	96441877		YES
	Shaft Seal HQQV		3/2-36	***	SiC, SiC, FKM	96441878		YES
	Shaft Seal HQQF (option)		3/2-36	***	SiC, SiC, FXM	96472620		YES
	Shaft Seal HQQK (option)		3/2-36	***	SiC, SiC, FFKM	96464381		YES
	Shaft Seal HUBE		3/2-36	***	TC, Carbon with resin-impregnated, EPDM	96441873		YES
	Shaft Seal HUBV		3/2-36	***	TC, Carbon with resin-impregnated, FKM	96441874		YES
	Shaft Seal HUBF (option)		3/2-36	***	TC, Carbon with resin-impregnated, FXM	96481464		YES
	Shaft Seal HUBK (option)		3/2-36	***	TC, Carbon with resin-impregnated, FFKM	96481463		YES
	Shaft Seal HUUE		3/2-36	***	TC, TC, EPDM	96441875		YES
	Shaft Seal HUUV		3/2-36	***	TC, TC, FKM	96441876		YES
	Shaft Seal HUUF (option)		3/2-36	***	TC, TC, FXM	96475542		YES
	Shaft Seal HUUK (option)		3/2-36	***	TC, TC, FFKM	96467885		YES
105 b	Shaft Seal/inboard for Back-to-Back OQQE		3/2-36	1	SiC, SiC, EPDM	985200		YES
	Shaft Seal/inboard for Back-to-Back OQQV		3/2-36	1	SiC, SiC, FKM	985760		YES
	Shaft Seal/inboard for Back-to-Back OUUE		3/2-36	1	TC, TC, EPDM	985189		No
	Shaft Seal/inboard for Back-to-Back OUUV		3/2-36	1	TC, TC, FKM	985190		No

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Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?
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PARTS LIST

107	O-ring for Pos. 105b Back-to-Back		3/2-36	1	EPDM, ø11.5 x 4.3mm	00ID2040		YES
	O-ring for Pos. 105b Back-to-Back (option)		3/2-36	1	FKM, ø11.5 x 4.3mm	00ID2186		YES
			3/2-36	1	FFKM, ø11.5 x 4.3mm	96440282		No
			3/2-36	1	FXM, ø11.5 x 3.18mm	96472618		No
108	Spring for Pos. 105b Back-to-Back		3/2-36	1	12mm	980195		YES
109(a)	O-ring for Shaft Seal Pos. 105		3/2-36	1	EPDM, ø21.3 x 3.0mm	00ID1798		YES
			3/2-36	1	FKM, ø21.2 x 3.0mm	00ID2339		YES
109b	O-ring for Shaft Seal Pos. 105 (option)		3/2-36	1	FXM, ø22 x 2.75mm	96458111		YES
			3/2-36	1	FFKM, ø23.47 x 2.62mm	96464384		YES
111	Seal Drv. (small) for Pos. 105b Back-to-Back		3/2-36	1		980192		YES
112	Seal Drv. (large) for Pos. 105b Back-to-Back		3/2-36	1		980191		YES
112a	Seal Drv. thread. for 112, Pos. 105b Back-to-Back		3/2-36	1		400203		YES
113	Set Screw for 112a, for Pos. 105b Back-to-Back		3/2-36	1	3mm x M5 x 6mm	00ID7392		YES
146	Alln. Blt. for 147/148, for Pos. 105b Back-to-Back		3/2-36	1	2.5mm x M3 x 5mm	96462639		YES
147	Stationary Seal Retainer- Pos. 105b Back-to-Back		3/2-36	1	NV36, 316SS	96457354		No
148	Seal Retainer Washer - Pos. 105b Back-to-Back		3/2-36	1	316SS, ø36.0 x ø21.6 x 5.0mm	96457355		No

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Notes:

- ^^^ 3/2 to 9 stage= # of Stages less 2
10 to 19 stage= # of stages less 3
21 to 27 stage = # of stages less 4
29 to 36 stage = # of stages less 5
- ^^^^ 3/2 to 9 stage= use 1
10 to 19 stage= use 2
21 to 27 stage = use 3
29 to 36 stage = use 4
- * Standard use 1. Back-to-Back or Tandem pump version use 3
- ** Standard use 1. Back-to-Back or Tandem pump version use 3
- *** 1 used in Hxxx (Standard), 2 used in Pxxx (Tandem) pump version
- ◆◆ Standard use 2. Back-to-Back or Tandem pump version use 3
- Standard use 2. Back-to-Back or Tandem pump version use 6

Key to Symbols:

KITS (YES) Recommended spare part

- Ø Diameter
- ANSI American National Standards Institute
- CPL Complete Assembly – these parts consist of more than one component
- EPDM Ethylene Propylene (also known as EPR and EPT) – an elastic substance similar to rubber
- FFKM Kalrez Elastomer made by DuPont
- FKM Fluoro Elastomer (generic for Viton)
- FXM Fluoraz Elastomer made by Greene Tweed
- M International standard thread size designation (thread diameter in mm)
- mm Millimeter
- MG Identifies Grundfos motor type/size
- N Stainless
- NBR Buna - N (also known as Nitrile) – an elastic substance similar to rubber
- NEMA National Electrical Manufacturers Association
- PTFE Teflon
- SiC Silicon Carbide
- TC Tungsten Carbide
- UNC Unified National Coarse – a standard for threads on bolts

Spare Part Kits

Since certain pump parts can be expected to exhibit wear at the same time as related pump parts, they have been grouped into the following kits for your convenience. The numbers indicate the quantity of the part within each kit. Please order these kits using the kit material number at the top of the columns.

CR(I, N)15, 1, & 3 SiC Bearing						
WEAR PARTS KIT 2-9			Kit No. 96455095			
WEAR PARTS KIT 10-19			Kit No. 96455092			
WEAR PARTS KIT 20-27			Kit No. 96455093			
WEAR PARTS KIT 28-36			Kit No. 96455094			
Pos. No.	Description	Material No.	Qty. Included in each Kit			
4a	Chamber N Cpl. w/Pos.45 & 65 & SiC Bearing	96439476	1	2	3	4
39	Gasket for Oval Flange, 95 x 55 x ø35 x 2mm	400189	2	2	2	2
45	Neck Ring, ø41.3 x ø30.6 x .75mm, PTFE	400003	8	17	24	32
47a	Bearing Ring/Spacer, SiC 150, 13mm	96437488	1	2	3	4
64a	Spacing Pipe, ø15.85 x ø12.85 x 4.5mm	96440292	1	2	3	4
64c	Clamp, Splined, ø15 x ø13.10 x ø10.9 x 13mm	96439668	1	1	1	1
65	Neck Ring Retainer, N, ø43.5 x ø34.0 x 3.6mm	96438746	8	17	24	32
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1	1
67	Lock Nut, 13mm x M8	00ID2061	1	1	1	1

STACK KITS	
Model	Material Number
CR(I)1-3/2	96453485
CR(I)1-3	96453486
CR(I)1-4	96453487
CR(I)1-5	96453488
CR(I)1-6	96453489
CR(I)1-7	96453490
CR(I)1-8	96453491
CR(I)1-9	96453492
CR(I)1-10	96453493
CR(I)1-11	96453494
CR(I)1-12	96453495
CR(I)1-13	96453496
CR(I)1-15	96453497
CR(I)1-17	96453498
CR(I)1-19	96453499
CR(I)1-21	96453500
CR(I)1-23	96453501
CR(I)1-25	96453502
CR(I)1-27	96453503
CR(I)1-30	96453504
CR(I)1-33	96453505
CR(I)1-36	96453506

CR(I, N)15, 1, & 3 Graflon Bearing						
WEAR PARTS KIT 2-9			Kit No. 96460140			
WEAR PARTS KIT 10-19			Kit No. 96455110			
WEAR PARTS KIT 20-27			Kit No. 96455111			
WEAR PARTS KIT 28-36			Kit No. 96455112			
Pos. No.	Description	Material No.	Qty. Included in each Kit			
4a	Chamber N Cpl. w/Pos.45 & 65 & Graflon Brg.	96440615	1	2	3	4
39	Gasket for Oval Flange, 95 x 55 x ø35 x 2mm	400189	2	2	2	2
45	Neck Ring, ø41.3 x ø30.6 x .75mm, PTFE	400003	8	17	24	32
47a	Bearing Ring/Spacer, TC, 9.7mm	400041	1	2	3	4
64a	Spacing Pipe, ø15.85 x ø12.85 x 7.8mm	400016	1	2	3	4
64c	Clamp, Splined, ø15 x ø13.10 x ø10.9 x 13mm	96439668	1	1	1	1
65	Neck Ring Retainer, N, ø43.5 x ø34.0 x 3.6mm	96438746	8	17	24	32
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1	1
67	Lock Nut, 13mm x M8	00ID2061	1	1	1	1

CR(I)15, 1, & 3 Bronze Bearing						
WEAR PARTS KIT 2-9			Kit No. 96455102			
WEAR PARTS KIT 10-19			Kit No. 96455104			
WEAR PARTS KIT 20-27			Kit No. 96455105			
WEAR PARTS KIT 28-36			Kit No. 96455106			
Pos. No.	Description	Material No.	Qty. Included in each Kit			
4a	Chamber Cpl. w/Pos.45 & 65 & Bronze Bearing	96440612	1	2	3	4
39	Gasket for Oval Flange, 95 x 55 x ø35 x 2mm	400189	2	2	2	2
45	Neck Ring, ø41.3 x ø30.6 x .75mm, PTFE	400003	8	17	24	32
47a	Bearing Ring/Spacer, TC, 9.7mm	400041	1	2	3	4
64a	Spacing Pipe, ø15.85 x ø12.85 x 7.8mm	400016	1	2	3	4
64c	Clamp, Splined, ø15 x ø13.10 x ø10.9 x 13mm	96439668	1	1	1	1
65	Neck Ring Retainer, N, ø43.5 x ø34.0 x 3.6mm	96438746	8	17	24	32
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1	1
67	Lock Nut, 13mm x M8	00ID2061	1	1	1	1

GASKET KIT (EPDM)						
GASKET KIT (FKM)			Kit No. 96455090			
GASKET KIT (FKM)			Kit No. 96455091			
GASKET KIT (FKM)			Kit No. 96463944			
GASKET KIT (FFKM)			Kit No. 96533328			
GASKET KIT (EPDM)-Double Seal option.			Kit No. 96533362			
GASKET KIT (FKM)-Double Seal option.			Kit No. 96533363			
GASKET KIT (FFKM)-Double Seal option.			Kit No. 96533364			
Pos. No.	Description	Material No.	Qty. Included in each Kit			
37	Sleeve O-ring, EPDM, ø137.5 x 3.3mm	96438743	2		3	
	Sleeve O-ring, FKM, ø137.5 x 3.3mm	96438744		2		3
37b	Sleeve O-ring, FXM, ø137.5 x 3.3mm	96458109		2		
	Sleeve O-ring, FFKM, ø136.12 x 3.53mm	96466718		2		3
38, 100(a)	Drain Plug O-ring, EPDM, Ø16.3 x 2.4mm	00ID1288	3		7	
	Drain Plug O-ring, FKM, Ø16.3 x 2.4mm	00ID2231		3		7
38, 100a	Drain Plug O-ring, FXM, Ø16.3 x 2.4mm	96442869		3		
	Drain Plug O-ring, FFKM, Ø16.3 x 2.4mm	96428162		3		7
109(a)	O-ring for Pos.105(b) &149, EPDM, Ø21.3 x 3.0mm	00ID1798	1		1	
	O-ring for Pos.105(b) &149, FKM, Ø21.2 x 3.0mm	00ID2339		1		1
109b	O-ring for Pos.105(b) &149, FXM, Ø22.0 x 2.75mm	96458111		1		
	O-ring for Pos.105(b) &149, FFKM, Ø23.47 x 2.62mm	96464384		1		2

Spare Part Kits (continued)

STANDARD SHAFT SEAL KIT, BALANCED CARTRIDGE (Maximum allowed working PSI is 435) (Tandem Seal option Pumps require 2 of each Seal Kit)			Kit No.		96455088						
			Kit No.		96455089						
			Kit No.		96455086						
			Kit No.		96455087						
			Kit No.		96455082						
			Kit No.		96455083						
			Kit No.		96455084						
			Kit No.		96455085						
			Kit No.								
Pos. No.	Description		Material No.		Qty. Included in each Kit						
105	HQBE		96441879	1							
	HQBV		96441880		1						
	HQQE		96441877			1					
	HQQV		96441878				1				
	HUBE		96441873					1			
	HUBV		96441874						1		
	HUUE		96441875							1	
	HUUV		96441876								1
N/A	Grinding Device Tool for Emery Cloth		370711	1	1	1	1	1	1	1	1
N/A	Emery Cloth		370712	1	1	1	1	1	1	1	1

OPTIONAL SHAFT SEAL KIT, BALANCED CARTRIDGE (Maximum allowed working PSI is 435) (Tandem Seal option Pumps require 2 of each Seal Kit)			Kit No.		96491375						
			Kit No.		96533327						
			Kit No.		96533326						
			Kit No.		96533323						
			Kit No.		96533322						
			Kit No.		96533325						
			Kit No.		96533324						
Pos. No.	Description	Material No.	Qty. Included in each Kit								
105	HQBK	96489537	1								
	HQQF	96472620		1							
	HQQK	96498109			1						
	HUBF	96481464				1					
	HUBK	96481463					1				
	HUUF	96475542						1			
	HUUK	96498108							1		
	N/A	Grinding Device Tool for Emery Cloth	370711	1	1	1	1	1	1	1	
N/A	Emery Cloth	370712	1	1	1	1	1	1	1		

INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQE INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQV (An HQQx seal kit must also be used for a seal repair)		Kit No.	96533360		
		Kit No.	96533361		
Pos. No.	Description	Material No.	Qty. Included in each Kit		
37	Sleeve O-ring, EPDM, Ø137.5 x 3.3mm	96438743	3		
	Sleeve O-ring, FKM, Ø137.5 x 3.3mm	96438744			3
38, 100(a)	Drain Plug O-ring, EPDM, Ø16.3 x 2.4mm	00ID1288	7		
	Drain Plug O-ring, FKM, Ø16.3 x 2.4mm	00ID2231			7
102	O-ring, EPDM, Ø18 x 2.5mm	00ID2041	1		
	O-ring, FKM, Ø17.86 x 2.62mm	00ID2187			1
103	Stationary Seal Ring, SiC, 12mm	980746	1		
104	Rotating Seal Ring, SiC, 12mm	980733	1		1
107	O-ring, EPDM, Ø11.5 x 4.3mm	00ID2040	1		
	O-ring, FKM, Ø11.5 x 4.3mm	00ID2186			1
108	Spring, 12mm	980195	1		1
109a	O-ring, EPDM, Ø21.3 x 3.0mm	00ID1798	1		
	O-ring, FKM, Ø21.2 x 3.0mm	00ID2339			1
111	Driver for pos.104	980192	1		1
112	Driver for pos.111	980191	1		1
112a	Driver for pos.112	400203	1		1
113	Set Screw for pos.112a	00ID7392	2		2
146	Allen Bolt for pos.147 & 148, 2.5mm x M3 x 5mm	96462639	3		3

Spare Part Kits (continued)

IEC COUPLING KIT							
		ø14/ø12	Kit No.	415060			
		ø19/ø12	Kit No.	415061			
		ø24/ø12	Kit No.	415062			
		ø28/ø12	Kit No.	415063			
		ø38/ø12	Kit No.	415065			
Pos. No.	Description	Material No.	Qty. Included in each Kit				
9	Allen Screw, M6 x 20mm, Delta Seal	00ID7899	4				
	Allen Screw, M8 x 25mm, Delta Seal	00ID7900		4	4	4	
	Allen Screw, M10 x 25mm, Delta Seal	00ID7901					4
10	Shaft Pin, ø5 x 26mm, Stainless	310192	1	1	1	1	1
10a	Coupling Half, F85, MG71, .37-.55kW. ø14/ø12	410041	2				
	Coupling Half, F100, MG80,.75-1.1kW. ø19/ø12	410043		2			
	Coupling Half, F115, MG 90, 1.5-2.2kW. ø24/ø12	410045			2		
	Coupling Half, F130, MG100/112, 3-4 kW.ø28/ø12	410047				2	
	Coupling Half, F265, MG132, 5.5-7.5kW. ø38/ø12	410115					2

NEMA COUPLING KIT		ø15.8/ø12		Kit No. 415314		ø28.5/ø12		Kit No. 415315		ø34.9/ø12		Kit No. 96478700	
Pos. No.	Description	Material No.	Qty. Included in each Kit										
9	Allen Screw, M6 x 20mm, Delta Seal	00ID7899	4										
	Allen Screw, M8 x 25mm, Delta Seal	00ID7900			4							4	
	Allen Screw, M10 x 25mm, Delta Seal	00ID7901											
10	Shaft Pin, ø5 x 26mm, Stainless	310192	1		1							1	
10a	Coupling Half, 56C, 1/3 - 2HP. ø15.8 / ø12	410108	2										
	Coupling Half, 182/184TC, 3-5HP. ø28.5/ø12	410109			2								
	Coupling Half, 213TC, 7.5-10HP. ø34.9/ø12	96472175										2	

COUPLING GUARD KIT							
IEC, F85-F100, .37 to 1.1 kW		Kit No.	96505130				
NEMA 56C, 1/3-2HP; IEC-F115-130 &		Kit No.	96505131				
NEMA 182-215TC, 3-10HP		Kit No.	96505132				
Pos. No.	Description	Material No.	Qty. Included in each Kit				
7	Coupling Guard, W=127mm x H=66mm	96438136	2				
	Coupling Guard, W=127mm x H=90.5mm	96438137		2			
	Coupling Guard, W=157mm x H=171mm	96438138				2	
7a	Screw comb.slot torx/straight slot 4x8mm	96488481	4	4		4	

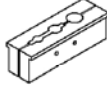
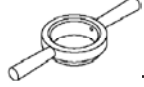
OVAL FLANGE KIT FOR SMALL CR1S, 1, & 3							
1" Threaded Cast Iron (232 PSI Max.)		Kit No.	96474336				
Pos. No.	Description	Material No.	Qty. Included in each Kit				
12	Flange, Cast Iron, 1" - 11.5 NPT	96468333		2			
35	Hex Head Bolt, M10 x 40mm, Delta Seal	00ID8027		4			
39	Gasket , 95 x 55 x ø35 x 2mm, KLINGERSIL C4430	400189		2			

Accessories

ANSI COMPANION FLANGES FOR SMALL CR							
1-1/4" Threaded Cast Iron, 250 Lb. Class		Kit No.	91122260				
Pos. No.	Description	Material No.	Qty. Included in each Kit				
N/A	Nut, HEX 5/8"-11 UNC, Grade 2	00ID1510		8			
N/A	Plain Bolt, 5/8" x 2-1/2", Grade 2	00ID1920		8			
N/A	Flange, Cast Iron, 1-1/4"	00ID3650		2			
N/A	Gasket Full Face Flange, 1-1/4", 300#, Cut Ring	400201		2			

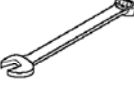
Special Tools

Tools not generally available from normal sources.

Mat. No.	Description and Use	
00SV0040	Shaft Holder for Dismantling/Assembly Used to hold and protect the shaft during dismantling and assembly.	
00SV2007	Tubular Box Spanner for Shaft Seal 36.1 mm Used to install and remove the shaft seal. Fits a 1/2" drive ratchet.	
00SV0239	Puller for Neck Ring Used to remove the Neck Ring from Chamber.	
00SV2014	Circlip Pliers for Flange Lock Ring Used to remove the Lock Ring for the Flange.	
00SV2066	Tool for Outer Sleeve Used to press sleeve into base. (optional)	
00SV2011	Bit Holder Used with Bits Kit, 1/4"	
00SV2010	Bits Kit NV 5 mm for M6, 1/4" NV 6 mm for M8, 1/4" NV 8 mm for M10, 1/4"	
00SV2012	Hexagon Socket Bit Used for Shaft Seal NV 2.5 mm for M5, 1/4"	

Standard Tools

In addition to being available from Grundfos, comparable tools can be purchased through normal sources.

Mat. No.	Description and Use	
00SV0083 00SV0055 00SV0056 00SV0054 00SV0122	Wrenches Used to tighten various nuts. NV 10 mm for M6 NV 13 mm for M8 NV 17 mm for M10 NV 19 mm for M12 NV 24 mm for M16	
00SV0292 00SV0269 00SV0400	Torque Wrench Used to torque various screws. 4-20 Nm, 9 x 12 20-100 Nm, 9 x 12 40-200 Nm, 14x18	
00SV0438	Torque Screwdriver Used to tighten various nuts. 1-6 Nm, 1/4"	
00SV0295	Ratchet Spanner for all Adapters 9 mm x 12 mm, 1/2"	
00SV0296 00SV0297 00SV0298	Socket Spanner with Inside Hex NV 5 mm for M6, 1/2" x 1/2" NV 6 mm for M8, 1/2" x 1/2" NV 8 mm for M10, 1/2" x 1/2"	
00SV0310 00SV0294 00SV0270 00SV0271 00SV0524	Ring Spanner NV 10 mm for M6 NV 13 mm for M8 NV 17 mm for M10 NV 19 mm for M12 NV 24 mm for M16	
00SV2013	Socket Spanner NV 13 mm for M8, 9 x 12	

L-CR-5M-024 0504

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