GRUNDFOS
INDUSTRIAL SERVICE MANUAL

CR3-H

Parts List & Kits

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GRUNDFOS

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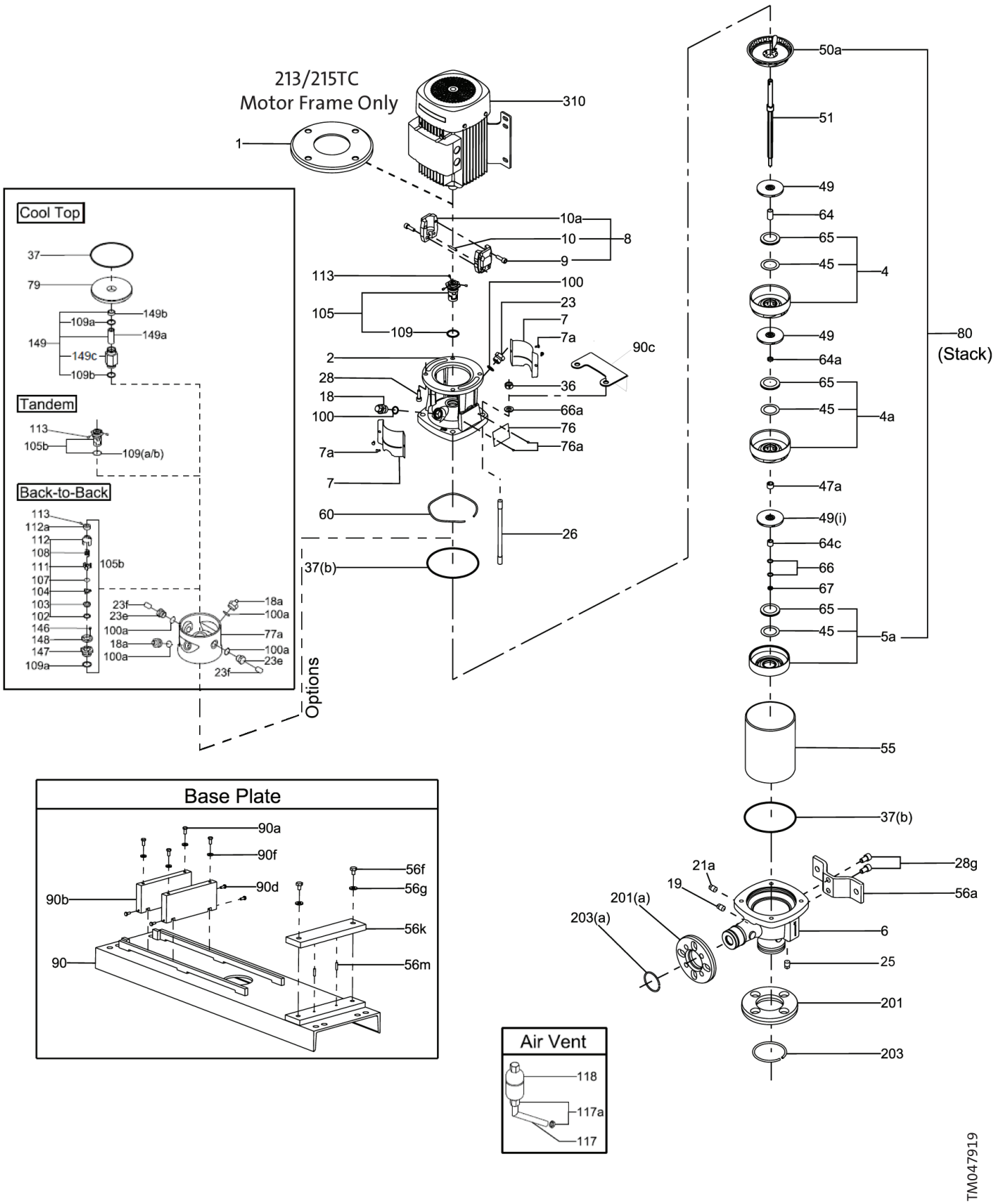

PARTS LIST

Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?
1	Adapter for Motor Stool			1	For NEMA, 213/215TC, 7.5 - 10 HP	96476208		No
2	Motor Stool		3/2-12	1	NEMA, 56C, 1/3 - 2 HP	96436501		No
			13-25	1	NEMA, 182/184TC, 3 - 5HP	96436502		No
					Add Pos. 1, NEMA, 213TC, 7.5 - 10 HP	96436502		No
4	Chamber, Complete with Pos. 45 & 65		3/2-36	^^^	PTFE Pos. 45	96439480		No
			3/2-36	^^^	PTFE Pos. 45 (97690020 is qty of 5)	96439480	97690020	No
4a	Chamber Cpl. w/Pos. 45 & 65 & Bearing		3/2-36	^^^^	Silicon Carbide Brg, PTFE Pos. 45	96439475		YES
			3/2-36	^^^^	Silicon Crb. Brg, PTFE Pos. 45 (97690601 qty 5)	96439475	97690601	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	96588148	No
	Chmb. Btm. Cpl. w/Pos. 45 & 65 (Low NPSH opt.)		3/2-36	1	PTFE Pos. 45	96465891		No
6	Base		3/2-36	1	GA , Cast Iron	95922004		No
7	Coupling Guard		3/2-12	2	NEMA, 56C	96438137		YES
			13-25	2	NEMA, 182-215TC	96438138		YES
7a	Screw for Coupling Guard		3/2-36	4	Screw comb. slot torx/straight slot 4 x 8mm	96488481		YES
9	Allen Screw		3/2-12	4	M6 x 20mm, Delta Tone/Seal	00ID7899		YES
			13-25	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		3/2-12	2	NEMA, 56C, 1/3 - 2HP. ø15.8 / ø12	410108		YES
			3/2-17	1	NEMA, 143/5TC, 1/3-3HP.ø22.225 /ø12 (Mach)	97851501		YES
			13-25	2	NEMA, 182/184TC, 3-5HP. ø28.5/ø12	410109		YES
					NEMA, 213TC, 7.5-10HP. ø34.9/ø12	96472175		YES
18(a)	Priming/Vent Plug		3/2-36	*	G 1/2A, NV24 with NV9 x M8 stem	405150	95061351	No
19(a)	Pipe Plug		3/2-36	**	1/4" NPT,SS SQHD, with Loctite	91136507		No
21a	Pipe Plug		3/2-36	**	1/4" NPT,SS SQHD, with Loctite	91136507		No
23(c)	Plug		3/2-36	**	G 1/2A, Solid no port, NV24	370025	95061733	No
23a, e	Plug (option)		3/2-36	**	G 1/2A, w/1/4"port, NV24	91120659		No
23b, f	Pipe Plug for Pos. 23a , 23e		3/2-36	**	1/4" NPT,SS SQHD, with Loctite	91136507		No
23d	Plug, Vented for Pos. 77a Cool Top® option only		3/2-36	2	G 1/2A, NV24, Vented	96510323		No
25	Drain Plug		3/2-36	1	1/4" NPT,SS SQHD, with Loctite	91136507		No
26	Staybolt		3/2-3	4	M12, ø10,7 x 79mm	96919075		No
			4	4	M12, ø10,7 x 97mm	96919076		No
			5	4	M12, ø10,7 x 115mm	96919078		No
			6	4	M12, ø10,7 x 133mm	96919079		No
			7	4	M12, ø10,7 x 151mm	96919080		No
			8	4	M12, ø10,7 x 169mm	96919092		No
			9	4	M12, ø10,7 x 187mm	96919093		No
			10	4	M12, ø10,7 x 205mm	96919094		No
			11	4	M12, ø10,7 x 223mm	96919096		No
			12	4	M12, ø10,7 x 241mm	96919097		No
			13	4	M12, ø10,7 x 259mm	96919098		No
			15	4	M12, ø10,7 x 295mm	96919101		No
			17	4	M12, ø10,7 x 331mm	96919503		No
			19	4	M12, ø10,7 x 367mm	96919505		No
			21	4	M12, ø10,7 x 403mm	96919507		No
			23	4	M12, ø10,7 x 439mm	96919509		No
			25	4	M12, ø10,7 x 475mm	96919511		No
			27	4	M12, ø10,7 x 511mm, 4 pole & 50 Hz.	96919542		No
			29	4	M12, ø10,7 x 547mm, 4 pole & 50 Hz.	97525060		No
			31	4	M12, ø10,7 x 583mm, 4 pole & 50 Hz.	97525081		No
			33	4	M12, ø10,7 x 619mm, 4 pole & 50 Hz.	96923539		No
			36	4	M12, ø10,7 x 673mm, 4 pole & 50 Hz.	96923540		No
	Staybolt (Cool Top®, Back-to-Back&Tandem Seal option)		3/2-3	4	M12, ø10,7 x 187mm	96919093		No
			4	4	M12, ø10,7 x 205mm	96919094		No
			5	4	M12, ø10,7 x 223mm	96919096		No
			6	4	M12, ø10,7 x 241mm	96919097		No
			7	4	M12, ø10,7 x 259mm	96919098		No
			8	4	M12, ø10,7 x 277mm	97525055		No
			9	4	M12, ø10,7 x 295mm	96919101		No
			10	4	M12, ø10,7 x 313mm	97525057		No
			11	4	M12, ø10,7 x 331mm	96919503		No
			12	4	M12, ø10,7 x 349mm	96919504		No
			13	4	M12, ø10,7 x 367mm	96919505		No
			15	4	M12, ø10,7 x 403mm	96919507		No
			17	4	M12, ø10,7 x 439mm	96919509		No
			19	4	M12, ø10,7 x 475mm	96919511		No
			21	4	M12, ø10,7 x 511mm	96919542		No
			23	4	M12, ø10,7 x 547mm	97525060		No

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

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PARTS LIST

Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?
26	Staybolt (Cool Top®, Back-to-Back&Tandem Seal option) *(Continued)*		25	4	M12, ø10,7 x 583mm	97525081		No
			27	4	M12, ø10,7 x 619mm, 4 pole & 50Hz.	96923539		No
			29	4	M12, ø10,7 x 655mm, 4 pole & 50Hz.	98284266		No
			31	4	M12, ø10,7 x 691mm, 4 pole & 50Hz.	98284268		No
			33	4	M12, ø10,7 x 727mm, 4 pole & 50Hz.	97525082		No
			36	4	M12, ø10,7 x 781mm, 4 pole & 50Hz.	97525084		No
28	Motor Bolt		3/2-12	4	NEMA, 56C, 1/3 - 2 HP, UNC 3/8" x 25mm	00ID1839		No
			13-25		NEMA, 182/184TC, 3 - 5HP, UNC1/2" x 25mm	00ID1840		No
					NEMA, 213TC, 7.5 -10 HP, UNC 1/2" x 1.25"	91128631		No
28g	Bolt for foot Pos. 56a		3/2-36	2	M12 x 1.75 x 20mm, Delta Tone/Seal	95922048		No
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
			3/2-36	◆◆	FKM, ø137.5 x 3.3mm	96438744		YES
37b	Sleeve O-ring (option)		3/2-36	◆◆	FXM, ø137.5 x 3.3mm	96458109		YES
			3/2-36	◆◆	FFKM, ø136.12 x 3.53mm	96466718		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	ø73.6 x ø30.6 x 9.55mm (back-plate .5mm)	96433168		No
			3/2-36	# stgs	96547599 has a qty of 24	96433168	96547599	No
49i	Impeller (Low NPSH option)		3/2-36	1	ø73.0 x ø35.0 x 13.2mm (back-plate 1.0mm)	96437414		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	96588198	No
			4	1	ø12 x 180.5mm	96440386	96588199	No
			5	1	ø12 x 196.5mm	96440387	96588230	No
			6	1	ø12 x 214.5mm	96440388		No
			7	1	ø12 x 234.5mm	96440389	96588231	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	96588233	No
			13	1	ø12 x 342.5mm	96440395	96588234	No
			15	1	ø12 x 376.5mm	96440396	96588235	No
			17	1	ø12 x 412.5mm	96440398		No
			19	1	ø12 x 450.5mm	96440400		No
			21	1	ø12 x 484.5mm	96440401	96588236	No
			23	1	ø12 x 520.5mm	96440403		No
			25	1	ø12 x 556.5mm	96440405	96588237	No
			27	1	ø12 x 592.5mm, 4 pole & 50 Hz.	96440406		No
			29	1	ø12 x 628.5mm, 4 pole & 50 Hz.	96440407		No
			31	1	ø12 x 664.5mm, 4 pole & 50 Hz.	96440409		No
			33	1	ø12 x 700.5mm, 4 pole & 50 Hz.	96440410		No
			36	1	ø12 x 754.5mm, 4 pole & 50 Hz.	96440411	96588238	No
	Shaft, Cpl. (Cool Top®,Back-to-Back&Tandem Seal option)		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
			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, 4 pole & 50 Hz.	96457581		No
			29	1	ø12 x 733.5mm, 4 pole & 50 Hz.	96457582		No
			31	1	ø12 x 769.5mm, 4 pole & 50 Hz.	96457584		No
			33	1	ø12 x 805.5mm, 4 pole & 50 Hz.	96457585		No
			36	1	ø12 x 859.5mm, 4 pole & 50 Hz.	96457586		No
55	Outer Sleeve		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

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Pos. No.	Part Description	Model	Stages	No. Used	Comments/Dimensions	B.O.M. Ref. No.	Material No.	Included in kits ?
55	Outer Sleeve *(continued)*		6	1	ø138 x 98.6mm	96439999		No
			7	1	ø138 x 116.6mm	96441511	96588241	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, 4 pole & 50Hz.	96440006		No
			29	1	ø138 x 512.6mm, 4 pole & 50Hz.	96441526		No
			31	1	ø138 x 548.6mm, 4 pole & 50Hz.	96441527		No
			33	1	ø138 x 584.6mm, 4 pole & 50Hz.	96440008		No
			36	1	ø138 x 638.6mm, 4 pole & 50Hz.	96439652		No
56a	Foot for Pos. 6		3/2-36	1	H=43mm, W=196mm, ø16mm hole CL 152mm, Cl.	95922025		No
56f	Bolt for base Pos. 90	56C/182TC	3/2-36	2	Hex Hd.1/2 -13 UNC x 1" SAE 5, Zinc plated			YES
56g	Washer for bolt Pos. 56f		3/2-36	2	1/2" SAE, Zinc plated			YES
60	Stack Compression Spring		3/2-36	1	ø136 x 3.5mm	96439662	96547664	No
64	Spacing Pipe		2-36	^^^	ø15.85 x ø12.85 x 17.52mm	400035	95061339	No
64a	Spacing Pipe		3/2-36	^^^^	ø15.85 x ø12.85 x 4.5mm	96440292		YES
	Spacing Pipe (option for Graflon / Brz. 4a)		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	00ID2061		YES
69	Spacing Pipe		3/2	1	ø15.85 x 12.85 x 18.0mm	400125	95061443	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
77a	Pump Head Cover for Cool Top® (option)		3/2-36	1	Cast Stainless	96456294		No
79	Disc / Plate for Cool Top®		3/2-36	1	Stainless	96456296		No
90	Main Support Baseplate	GA	3/2-17	1	BP. Cpl.139, L=991mm x W=305mm x H=106.5mm	96956336		YES
	Main Support Baseplate - Longer versions	GA	19-25	1	XLBP1 (139), L=1500mm x W=381mm x H=106.5mm	96956376		YES
90a	Bolt for motor to slider Pos. 90b	56C	3/2-12	4	Hex Head 5/16 -18 UNC x .75" SAE 5, Zinc plated			YES
		182TC	13-25	4	Hex Head 3/8 -16 UNC x .5" SAE 5, Zinc plated			YES
90b	Motor support /slide rail	56C	3/2-12	2	BP139, L=204mm x H=45.5mm x W=25.4mm	96956339		YES
		182TC	13-25	2	BP139, L=230mm x H=23.0mm x W=25.4mm	96956338		YES
90c	Support Bracket for Pump Cartridge		3/2-36	1	304 SS, H=74mm CL of hole, GA	95131235		No
90d	Bolt for motor slide rail Pos. 90b to base Pos. 90	56C	3/2-12	4	Hex Head 1/4 -20 UNC x 1" SAE 5, Zinc plated			YES
		182TC	13-25	4	Hex Head 1/4 -20 UNC x 1.75" SAE 5, Zinc plated			YES
90f	Washer for motor bolt Pos. 90a to slide rail Pos. 90b	56C	3/2-12	4	5/16"" SAE, Zinc plated			YES
		182TC	13-25	4	3/8" SAE, Zinc plated			YES
100	Priming/Vent Plug O-ring		3/2-36	■	EPDM, ø16.3 x 2.4mm	00ID1288		YES
			3/2-36	■	FKM, ø16.3 x 2.4mm	00ID2231		YES
100(a)	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	00ID2041		YES
			3/2-36	1	FKM, ø17.86 x 2.62mm	00ID2187		YES
	O-ring for Pos. 105b Back-to-Back (option)		3/2-36	1	FFKM, ø17.86 x 2.62mm	96440281		YES
			3/2-36	1	FXM, ø17.86 x 2.62mm	96472584		No
103	Stationary Seal Ring for 105b Back-to-Back		3/2-36	1	TC, 12mm	980190		YES
	Stationary Seal Ring for 105b Back-to-Back (option)		3/2-36	1	SiC,12mm	980746		YES
104	Rotating Seal Ring for 105b Back-to-Back		3/2-36	1	TC, 12mm	980163		YES
	Rotating Seal Ring for 105b Back-to-Back (option)		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

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105(b)	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
105b	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	405145	YES
	Shaft Seal/inboard for Back-to-Back OUUV		3/2-36	1	TC, TC, FKM	985190	405145	YES
107	O-ring for Pos. 105b Back-to-Back		3/2-36	1	EPDM, ø11.5 x 4.3mm	00ID2040		YES
			3/2-36	1	FKM, ø11.5 x 4.3mm	00ID2186		YES
	O-ring for Pos. 105b Back-to-Back (option)		3/2-36	1	FFKM, ø11.5 x 4.3mm	96440282		YES
			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	FFKM, ø23.47 x 2.62mm	96464384		YES
			3/2-36	1	FXM, ø22 x 2.75mm	96458111		YES
111	Seal Driver (small) for Pos. 105b Back-to-Back		3/2-36	1		980192		YES
112	Seal Driver (large) for Pos. 105b Back-to-Back		3/2-36	1		980191		YES
112a	Seal Drv threaded 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
117	Air Vent Pipe for 118		3/2-36	1	G1/2, 316SS, 60 x 43mm	96525189		YES
117a	Counter Nut for Pipe 117		3/2-36	1	NV24, internal G1/2, 316SS	96506709		YES
118	Air Vent		3/2-36	1	Air vent type 1511-AV - 5/6430	96427483		YES
146	Allen Bolt 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		YES
148	Seal Retainer Washer - Pos. 105b Back-to-Back		3/2-36	1	316SS, ø36.0 x ø26.0 x ø23.0 x ø21.6 x 5.0mm	96457355		YES
149	Connecting Pipe Complete for Cool Top®		3/2-36	1	NV36, 316SS, FXM & EPDM	96460414		YES
			3/2-36	1	NV36, 316SS, FXM & FKM	96460415		YES
149a	Retainer for bushing		3/2-36	1	316SS, ø22.0 x ø17.0 x 9mm	96457639		YES
149b	Bushing		3/2-36	1	Graflon®, ø21..2 x ø12.4 x 53mm	96456297		YES
149c	Connecting Pipe less 109a&b and 149a&b		3/2-36	1	NV36, 316SS	96456295		YES
201	Flange, Suction		3/2-15	1	1.5" 150#, 4 x 1/2"-13 UNC threaded flange, e-coat	96922828		No
			3/2-36	1	1.5" 300#, 4 x 3/4"-10 UNC threaded flange, e-coat	96956145		No
201a	Flange, Discharge		3/2-15	1	1" 150#, 4 x 1/2"-13 UNC threaded flange, e-coat	96922827		No
			3/2-36	1	1" 300#, 4 x 5/8"-11 UNC threaded flange, e-coat	96956144		No
203	Retaining ring for 201, 1.5" flange		3/2-36	1	Stainless, ø72.6 x 5	96475395		No
203a	Retaining ring for 201a, 1.0" flange		3/2-36	1	Stainless, ø53.6 x 3.2	96439718		No

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

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

B.O.M. Ref. Number is only available if it is not included in a kit or does not have a material number listed. If it is included in a kit (YES), or has a material number, request one of these numbers. If not included in a kit (No), but has a Material Number, use Material Number.

Notes:

The first number is total number of impellers. An exceptions to this format is the CR3-2H. **Example: a CR3-2H is actually a CR3-3/2H, it has 3 chambers and 2 impellers (de-staged by 1) - it uses a 3 stage shaft.**

^^^ 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
Exception: When de-staging pump by 2 impellers, replace top chamber Pos. 4 with Pos. 5a

^^^^ 3/2 to 9 stage= use 1
10 to 19 stage= use2
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

1 used in Hxxx (Standard) plus an Oxxx for back to Back pump version

stgs Use the number of stages in standard models, less 1 in a 2 stage and Low NPSH models

◆◆ Standard use 2. Back-to-Back or Tandem pump version use 3

■ Standard use 2. Back-to-Back or Tandem pump version use 6

1* Standard use 1. When de-staging pump by 2 impellers, replace top chamber Pos. 4 with an additional Pos. 5a

Key to Symbols:

KITS	.....	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

Cool Top® is a registered trademark of Grundfos Pumps

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)1S, 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

CR(I, N)1S, 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 Bearing	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)1S, 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

STACK KITS

Model	Material Number
CR(I)3-3/2	96453529
CR(I)3-3	96453530
CR(I)3-4	96453531
CR(I)3-5	96453532
CR(I)3-6	96453533
CR(I)3-7	96453534
CR(I)3-8	96453535
CR(I)3-9	96453536
CR(I)3-10	96453537
CR(I)3-11	96453538
CR(I)3-12	96453539
CR(I)3-13	96453540
CR(I)3-15	96453541
CR(I)3-17	96453542
CR(I)3-19	96453543
CR(I)3-21	96453544
CR(I)3-23	96453545
CR(I)3-25	96453546
*** CR(I)3-27	96453547
*** CR(I)3-29	96453548
*** CR(I)3-31	96453549
*** CR(I)3-33	96453550
*** CR(I)3-36	96453551

***For 50 Hz operation only.

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.		**96491375**						
Kit No.			**96455089**					
Kit No.				**96455086**				
Kit No.					**96533327**			
Kit No.						**96533326**		
Kit No.								**96455087**

Pos. No.	Description	Material No.	Qty. Included in each Kit						
105	HQBE	96441879	1						
	HQBK	96489537		1					
	HQBV	96441880			1				
	HQQE	96441877				1			
	HQQF	96472620					1		
	HQQK	96498109						1	
	HQQV	96441878							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

Spare Part Kits *(continued)*

OPTIONAL SHAFT SEAL KIT, BALANCED CARTRIDGE	Kit No.	96455082							
(Maximum allowed working PSI is 435)	Kit No.		96533323						
(Tandem Seal option Pumps require 2 of each Seal Kit)	Kit No.			96533322					
	Kit No.				96455083				
	Kit No.					96455084			
	Kit No.						96533325		
	Kit No.							96533324	
	Kit No.								96455085

Pos. No.	Description	Material No.	Qty. Included in each Kit							
105	HUBE	96441873	1							
	HUBF	96481464		1						
	HUBK	96481463			1					
	HUBV	96441874				1				
	HUUE	96441875					1			
	HUUF	96475542						1		
	HUUK	96498108							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

INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQE	Kit No.	96533360							
INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQV	Kit No.		96533361						
INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQV	Kit No.			96989183					
INBOARD SHAFT SEAL & Gasket KIT, Back to Back OQQK	Kit No.				96536168				
INBOARD SHAFT SEAL & Gasket KIT, Back to Back OUUE/V	Kit No.					405145			

(An HQQx or HUUx seal kit must also be used for respectively to complete seal repairs)

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				1
	O-ring, FKM, ø17.86 x 2.62mm	00ID2187		1	1		1
	O-ring, FFKM, ø17.86 x 2.62mm	96440281				1	
103	Stationary Seal Ring, SiC,12mm	980746	1				
	Stationary Seal Ring, TC,12mm	980190					1
104	Rotating Seal Ring, SiC, 12mm	980733	1	1	1	1	
	Rotating Seal Ring, TC, 12mm	989163					1
107	O-ring, EPDM, ø11.5 x 4.3mm	00ID2040	1				1
	O-ring, FKM, ø11.5 x 4.3mm	00ID2186		1	1		1
	O-ring, FFKM, ø11.5 x 4.3mm	96440282				1	
108	Spring, 12mm	980195	1	1	1	1	1
109a	O-ring, EPDM, ø21.3 x 3.0mm	00ID1798	1				
	O-ring, FKM, ø21.2 x 3.0mm	00ID2339		1	1		
	O-ring, FFKM, ø23.47 x 2.62mm	96464384				1	
111	Driver for pos.104	980192	1	1	1	1	1
112	Driver for pos.111	980191	1	1	1	1	1
112a	Driver for pos.112	400203	1	1	1	1	
113	Set Screw for pos.112a	00ID7392	2	2	2	2	
146	Allen Bolt for pos.147 & 148, 2.5mm x M3 x 5mm	96462639	3	3	3	3	
147	Stationary Seal Retainer - NV36, 316SS	96457354			1	1	
148	Seal Retainer Washer -316SS, ø36.0 x ø21.6 x 5.0mm	96457355			1	1	
N/A	Grinding Device Tool for Emery Cloth	370711				1	
N/A	Emery Cloth	370712				1	

GASKET KIT (EPDM)	Kit No.	96455090							
GASKET KIT (FKM)	Kit No.		96455091						
GASKET KIT (FXM)	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	
GASKET KIT (FXM, & EPDM)- Cool-Top option	Kit No.								96533329

Pos. No.	Description	Material No.	Qty. Included in each Kit							
37	Sleeve O-ring, EPDM, ø137.5 x 3.3mm	96438743	2				3			1
	Sleeve O-ring, FKM, ø137.5 x 3.3mm	96438744		2				3		
37b	Sleeve O-ring, FXM, ø137.5 x 3.3mm	96458109			2					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			4
	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					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					2
	O-ring for Pos.105(b) &149, FFKM, Ø23.47 x 2.62mm	96464384				1			2	

NEMA COUPLING KIT	ø15.8/ø12	Kit No.	415314			
	ø22.225/ø12	Kit No.		97919247		
	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	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	1
10a	Coupling Half, 56C, 1/3 - 2HP. ø15.8 / ø12	410108	2			
	Coupling Half, 143/5TC, 1/3 - 3HP. Ø22.225 / ø12	97851501		2	2	
	Coupling Half, 182/184TC, 3-5HP. ø28.5/ø12	410109			2	
	Coupling Half, 213TC, 7.5-10HP. ø34.9/ø12	96472175				2

Spare Part Kits *(continued)*

COUPLING GUARD KIT

NEMA 56C, 1/3-2HP		**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=90.5mm	96438137	2	
	Coupling Guard, W=157mm x H=171mm	96438138		2
7a	Screw comb.slot torx/straight slot 4 x 8mm	96488481	4	4

Air Vent Kit - Horizontal Units

CR-H, CRN-H1S to 20		**Kit No.**	**91136720**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
117	Air Vent Pipe, short for 118, G1/2 , 60x43	96525189	1
117a	Counter Nut for Pipe 117, G1/2	96506709	2
118	Air vent type 1511-AV - 5/6430	96427483	1

Connecting Pipe for Cool Top

(EPDM, FKM & FXM)		**Kit No.**	**96578704**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
109a	O-ring for Pos.105(b) &149, EPDM, Ø21.3 x 3.0mm	00ID1798	1
	O-ring for Pos.105(b) &149, FKM, Ø21.2 x 3.0mm	00ID2339	1
109b	O-ring for Pos.105(b) &149, FXM, Ø22.0 x 2.75mm	96458111	1
149a	Retainer for bushing, 316SS, ø22.0 x ø17.0 x 9mm	96457639	1
149b	Bushing, Graflon®, ø21..2 x ø12.4 x 53mm	96456297	1
149c	Connecting pipe, NV36, 316SS	96456295	1

Accessories

ANSI COMPANION FLANGES FOR CR-H, CRN-H1S to 20

1-1/2" and 1" Threaded CI Black for GA 125 Lb. Class		**Kit No.**	**97642565**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
N/A	Hex Head Cap Screw/Bolt 1/2"-13X 2" UNC ZP	97743748	8
N/A	Flange ANSI #150 1.5" NPT. Cast Iron - Black	91123167	1
N/A	Flange ANSI #150 1" NPT. Cast Iron - Black	96983489	1
N/A	Gasket 1 1/2" Full Face 150 Lb. ANSI	91123168	1
N/A	Gasket 1" Full Face 150 Lb. ANSI	97692916	1

ANSI COMPANION FLANGES FOR CR-H, CRN-H1S to 20

1-1/2" and 1" Threaded CI Black for GA 250 Lb. Class		**Kit No.**	**96967594**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
N/A	Hex Head Cap Screw/Bolt 3/4"-10 X 2.5" UNC ZP	91137423	4
N/A	Hex Head Cap Screw/Bolt 5/8"-11 X 2.25" UNC ZP	91130816	4
N/A	Flange ANSI #300 1.5" NPT. Cast Iron - Black	96983494	1
N/A	Flange ANSI #300 1"NPT. Cast Iron - Black	96983493	1
N/A	Gasket 1 1/2" Full Face 300 Lb. ANSI	97694408	1
N/A	Gasket 1" Full Face 300 Lb. ANSI	97694407	1

ANSI COMPANION FLANGES FOR CR-H, CRN-H1S to 20

1-1/2" and 1" Threaded Stainless, 150 Lb. Class		**Kit No.**	**97698645**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
N/A	Hex Head Cap Screw/Bolt 1/2"-13X 2" 316SS	97743748	8
N/A	Flange ANSI #150 1.5" NPT 316SS	96983498	1
N/A	Flange ANSI #150 1" NPT 316SS	96983497	1
N/A	Gasket 1 1/2" Full Face 150 Lb. ANSI	97694409	1
N/A	Gasket 1" Full Face 150 Lb. ANSI	97692916	1

ANSI COMPANION FLANGES FOR CR-H, CRN-H1S to 20

1-1/2" and 1" Threaded Stainless, 300 Lb. Class		**Kit No.**	**97698646**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**
N/A	Hex Head Cap Screw/Bolt 3/4"-10 X 2.5" 316SS	91143035	4
N/A	Hex Head Cap Screw/Bolt 5/8"-11 X 2.25" 316SS	91143029	4
N/A	Flange ANSI #300 1.5" NPT 316SS	96983496	1
N/A	Flange ANSI #300 1"NPT 316SS	96983495	1
N/A	Gasket 1 1/2" Full Face 300 Lb. ANSI	97694408	1
N/A	Gasket 1" Full Face 300 Lb. ANSI	97694407	1

Baseplate Kit

139	**56C for GA**	**Kit No.**	**97534517**			
	182TC for GA	**Kit No.**		**97534518**		
XLBP1	**56C for GA**	**Kit No.**			**97534573**	
	182TC for GA	**Kit No.**				**97534574**
Pos. No.	**Description**	**Material No.**	**Qty. Included in each Kit**			
90	Baseplate Cpl. 139, L=991* x W=305* x H=106.4768*	96956336	1	1		
	Baseplate Cpl. XLBP1, L=1500* x W=305* x H=106.4768*	96956376			1	1
N/A	Slider & fastners for 56C(consists of slider & hardware)	96983855	1		1	
N/A	Slider & fastner for 182TC (consists of slider & hardware)	96983858		1		1
N/A	Hardware Kit -96983855/68/78(cont. pos.56f, g, 90a,d& f)**	97501470	1		1	
N/A	Hardware Kit -96983858 (cont. pos.56f & g, 90a, d & f)**	97501481		1		1
56f	Bolt, Hex Head 1/2 -13 UNC x 1" SAE 5, Zinc plated	N/A	2	2	2	2
56g	Washer, 1/2" SAE, Zinc plated	N/A	2	2	2	2
90a	Bolt, Hex Head 5/16 -18 UNC x .75" SAE 5, Zinc plated	N/A	4		4	
	Bolt, Hex Head 3/8 -16 UNC x .5" SAE 5, Zinc plated	N/A		4		4
90b	Slider, GA/B/C 56C/139BP, L=204* x H=45.5* x W=25.4*	96956339	2		2	
	Slider, GA/B/C 182TC/139 BP, L=230* x H=23* x W=25.4*	96956338		2		2
90d	Bolt, Hex Head 1/4 -20 UNC x 1" SAE 5, Zinc plated	N/A	4		4	
	Bolt, Hex Head 1/4 -20 UNC x 1.75" SAE 5, Zinc plated	N/A		4		4
90f	Washer, 5/16" SAE, Zinc plated	N/A	4		4	
	Washer, 3/8" SAE, Zinc plated	N/A		4		4

* Values in mm, Length (L) is +/- 2mm, Height (H) is +/- 1mm, Width (W). ** Hardware kits 97501470 and 81 are also available for sale.

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
	Wrenches Used to tighten various nuts.
00SV0083	NV 10 mm for M6
00SV0055	NV 13 mm for M8
00SV0056	NV 17 mm for M10
00SV0054	NV 19 mm for M12
00SV0122	NV 24 mm for M16
	Torque Wrench Used to torque various screws.
00SV0292	4-20 Nm, 9 x 12
00SV0269	20-100 Nm, 9 x 12
00SV0400	40-200 Nm, 14x18
	Torque Screwdriver Used to tighten various nuts.
00SV0438	1-6 Nm, 1/4"
	Ratchet Spanner for all Adapters
00SV0295	9 mm x 12 mm, 1/2"
	Socket Spanner with Inside Hex
00SV0296	NV 5 mm for M6, 1/2" x 1/2"
00SV0297	NV 6 mm for M8, 1/2" x 1/2"
00SV0298	NV 8 mm for M10, 1/2" x 1/2"
	Ring Spanner
00SV0310	NV 10 mm for M6
00SV0294	NV 13 mm for M8
00SV0270	NV 17 mm for M10
00SV0271	NV 19 mm for M12
00SV0524	NV 24 mm for M16
	Socket Spanner
00SV2013	NV 13 mm for M8, 9 x 12

be think innovate

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

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