



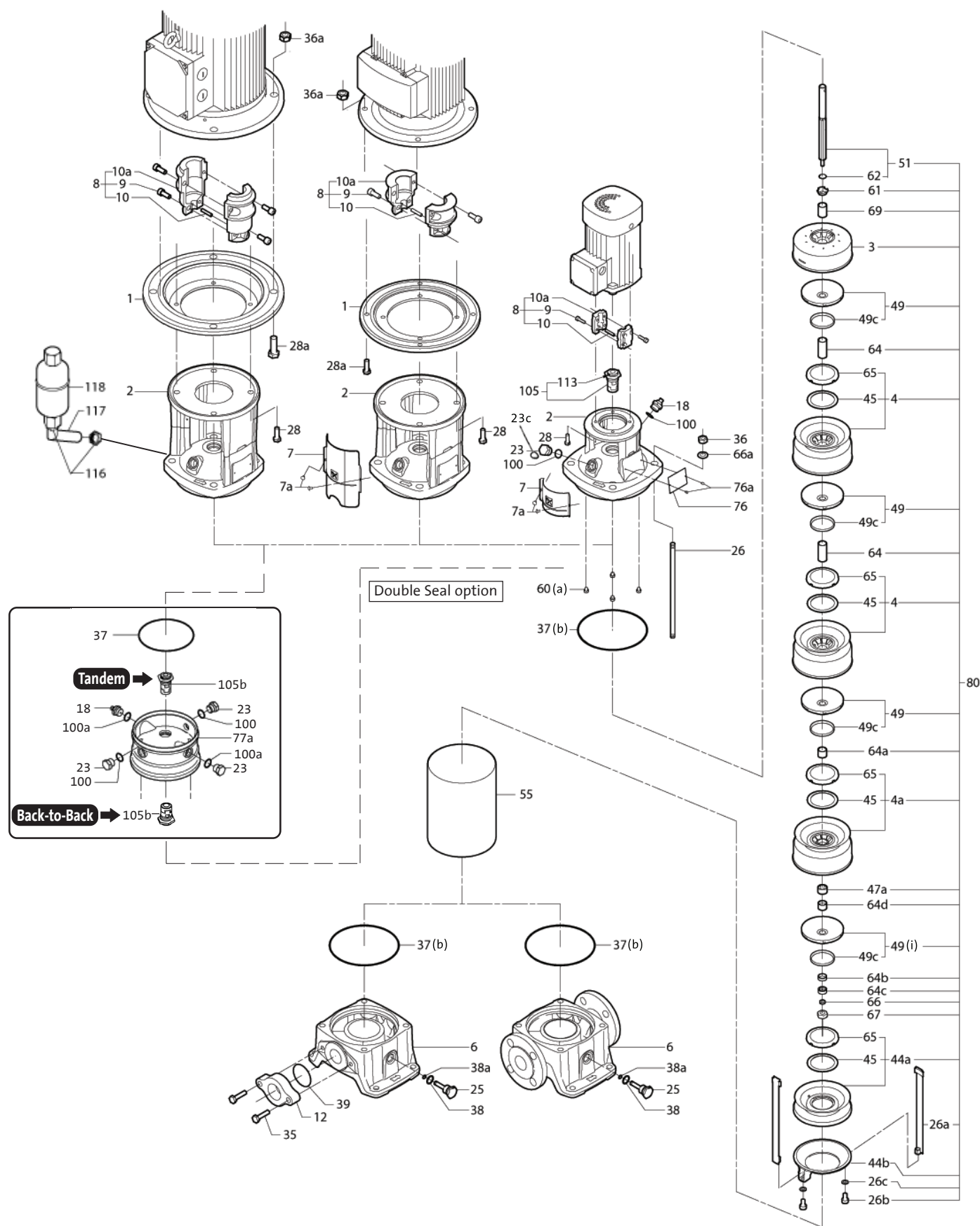
CR15

Parts List & Kits

Contents

Parts List
Spare Part Kits
Accessories
Special Tools
Standard Tools
Tools for Torques

Exploded View CR15



Parts List & Kits **CR15**

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		4-6 7-10 6-7 10-17	1 1 1 1	For NEMA, 213/215TC, 7.5 - 10HP For NEMA, F254TC, 15-20HP For IEC, F265, MG132, 5.5 - 7.5kW For IEC, F300, MG160, 8.0 - 18.5kW	96476208 96486329 96486323 96486326		No No No No
2	Motor Stool		2/1 2-3 2-3 4-6 4-6 7-10 12 2/1 2 3-5 6-7 10-17	1 1 1 1 1 1 1 1 1 1 1 1	NEMA, 56C, .75 - 2.0HP NEMA, 182TC, Low, 3 - 5Hp NEMA, 182TC, High, 3 - 5Hp (option) Add pos. 1 for NEMA 213/215TC, 7.5-10HP Add pos. 1 NEMA 213/215TC, 7.5-10HP (High opt.) Add pos. 1 for NEMA 254/256TC, 15-20HP NEMA, 284/286TSC, 25HP IEC, F85, MG 71, .37 - .55kW IEC, F100, MG 80, .75 - 1.1kW IEC, F115, MG 90, 1.5 - 2.2kW IEC, F130, MG 100/112, 3.0 - 4.0 kW Add pos. 1 for IEC, F265, MG132, 5.5 - 7.5kW Add pos. 1 for IEC, F300, MG160, 8.0 - 18.5kW	96486287 96486305 96486311 96486305 96486311 96486311 96486293 96486263 96486269 96486275 96486281 96486305 96486311		No No No No No No No No No No No No
3	Chamber, Top, Complete with guide vane		2-17	*1	Slotted to accept Strap, pos. 26a	96487786		No
3a	Chamber N, Top, without guide vane		2/1	*1	Slotted to accept Strap, pos. 26a	96491222		No
3b	Chamber without guide vane		3-17	*1		330015		No
4	Chamber complete w/guide vane and pos. 45 & 65		3-17	^^^	PTFE pos. 45	96475765		No
4a	Chamber N Cpl. w/pos. 45 & 65 & Bearing		2/1-17	^^^^	Silicon Carbide Brg, PTFE pos. 45	96475768		YES
	Chamber N Cpl. w/pos. 45 & 65 & Brg. (option)		2/1-17	^^^^	Graflon Bearing, PTFE pos. 45	96492510		YES
	Chamber N Cpl. w/pos. 45 & 65 & Brg. (option)		2/1-17	^^^^	Bronze Bearing, PTFE pos. 45	96492512		YES
6	Base		2/1-5 2/1-17	1 1	Oval 2.5" (max. 232 PSI), 50 Hz. to 7 stage. JIS, DIN 50, ANSI (max. 362 PSI)	96481486 96481495		No No
7	Coupling Guard		2/1 2/1 2-6 2-17	2 2 2 2	IEC, F85-F100 NEMA-56C; IEC-F115,130 3 to 5 stage NEMA, 182-215TC (Low); IEC F115 - 265 to 7 stage NEMA, 182-215TC (High),254TC-286TSC, IEC F300	96491001 96491002 96490657 96490656		YES YES YES YES
7a	Screw for Coupling Guard		1-17	4	Screw comb. slot torx/straight slot 4 x 8mm	96488481		YES
9	Allen Screw		2/1 3-5 3-17	4 4 4	M6 x 20mm, Delta Seal M8 x 25mm, Delta Sl. use with pos. 10a-480006 & 8 M10 x 25mm, Delta Seal	00ID7899 00ID7900 00ID7901		YES YES YES
10	Shaft Pin		2/1-17	1	ø5 x 26mm	310192	95061337	YES
10a	Coupling Half (machined set)		2/1 2-3 2-3 4-6 4-6 7-10 12	1 1 1 1 1 1 1	NEMA, 56C, 1/3 - 2HP. ø15.9/ ø16mm NEMA, 182/184TC, 3-5HP. ø28.6/ø16mm (Std-Low) NEMA, 182/184TC, 3-5HP. ø28.6/ø16mm (Opt-High) NEMA, 213TC, 7.5-10HP. ø34.9/ø16mm (Std-Low) NEMA, 213TC, 7.5-10HP. ø34.9/ø16mm (Opt-High) NEMA, 254TC, 15-20HP. ø41.2/ø16mm (High)	96516777 96516774 96516009 96516775 96516770 96516771		YES YES YES YES YES YES
	Coupling Half		2/1 2 2 3-5 6-7 10-17	2 2 2 2 1 1	IEC, F85, MG71, .37-.55kW. ø14/ø16mm IEC, F100, MG80,75-1.1kW. ø19/ø16mm IEC, F115, MG 90, 1.5-2.2kW. ø24/ø16mm IEC, F130, MG100/112, 3-4 kW.ø28/ø16mm IEC, F265, MG132, 5.5-7.5kW. ø38/ø16mm IEC, F300, MG160, 8.0-18.5kW. ø42/ø16mm	480002 480004 480006 480008 96516772 96516008		YES YES YES YES YES YES
12	Oval Flange		2/1-5 2/1-5 2/1-7 2/1-7	2 2 2 2	Painted CI, 2.5" -11.5 NPT (max 232 PSI) Painted CI, 2.0" Option, 11.5 NPT (max 232 PSI) Painted CI, RP 2.0" BSP DIN (max 232 PSI) Painted CI, RP 2.5" Option, BSP DIN (max 232 PSI)	96493576 96493578 96493574 96493572		No No No No
18	Priming/Vent Plug		2/1-17	*	G 1/2A, NV24 with NV9 x M8 stem	405150	95061351	YES
23	Plug		2/1-17	**	G 1/2A, w/1/4" NPT threaded port, NV24	91120659		YES
	Plug (option)		2/1-17	**	G 1/2A, Solid no port, NV24	370025	95061733	YES
23c	Pipe Plug for Pos. 23 & 25 with hollow stem		2/1-17	**	1/4" NPT, SS SQHD	00ID7216		YES
25	Drain Plug without O-rings		2/1-17	1	G 1/2A, NV24 with solid stem	340375	95061431	YES
	Drain/Priming Plug Cpl. w/o-rings, opt. for gauge		2/1-17 2/1-17 2/1-17 2/1-17	1 1 1 1	G 1/2A, NV24 w/NV9 x M8 hollow stem, EPDM G 1/2A, NV24 w/NV9 x M8 hollow stem, FKM G 1/2A, NV24 w/NV9 x M8 hollow stem, FXM G 1/2A, NV24 w/NV9 x M8 hollow stem, FFKM	96528436 96528437 96528439 96528438		No No No No
26	Staybolt		2/1-2 3 4 5 6 7 8 9 10 12 14 17	4 4 4 4 4 4 4 4 4 4 4 4	M16 x 163mm M16 x 208mm M16 x 253mm M16 x 298mm M16 x 343mm M16 x 388mm M16 x 433mm M16 x 478mm M16 x 523mm M16 x 613mm M16 x 703mm, 50 Hz. M16 x 838mm, 50 Hz.	96492720 96492722 96492724 96492726 96492728 96492730 96492731 96492732 96492734 96492737 96492739 96492741		No No No No No No No No No No No No

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

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Parts List & Kits CR15

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)		2/1-2	4	M16 x 253mm	96492724		No
			3	4	M16 x 298mm	96492726		No
			4	4	M16 x 343mm	96492728		No
			5	4	M16 x 388mm	96492730		No
			6	4	M16 x 433mm	96492731		No
			7	4	M16 x 478mm	96492732		No
			8	4	M16 x 523mm	96492734		No
			9	4	M16 x 568mm	96512270		No
			10	4	M16 x 613mm	96492737		No
			12	4	M16 x 703mm	96492739		No
			14	4	M16 x 793mm, 50 Hz.	96512144		No
			17	4	M16 x 928mm, 50 Hz.	96512147		No
26a	Strap		2/1-2	2	L* = 93.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487759		No
			3	2	L* = 138.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487761		No
			4	2	L* = 183.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487763		No
			5	2	L* = 228.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487765		No
			6	2	L* = 273.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487767		No
			7	2	L* = 318.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487769		No
			8	2	L* = 363.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487770		No
			9	2	L* = 408.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487772		No
			10	2	L* = 453.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487774		No
			12	2	L* = 543.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487776		No
			14: 50 Hz.	2	L* = 633.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487780		No
			17: 50 Hz.	2	L* = 768.5mm x 20.3mm x 1.3mm, 316 SS, M8 nut	96487782		No
26b	Bolt for pos. 26a		2/1-17	2	M8 x 25mm, 316 SS w/Delta Seal	96416603		No
26c	Washer for pos. 26b		2/1-17	2	A4, Ø16.0/Ø8.4x1.6mm	00ID3284		No
28	Motor Bolt		2/1	4	NEMA, 56C, 1/3 - 2HP. UNC 3/8" x 25mm	00ID1839		No
			2-3	4	NEMA, 182/184TC, 3 - 5HP. UNC 1/2" x 25mm	00ID1840		No
			4-6	4	NEMA, 213TC, 7.5 - 10HP. JR 1/2" x 1.25" UNC	00ID0185		No
			7-10	4	NEMA, 254TC, 15-20HP. 1/2" x 2.5" UNC	96491112		No
			12	4	NEMA, 284TC, 25HP. UNC 1/2" x 25mm	00ID1840		No
				4	IEC, F85, MG71, .37-.55kW. M6 x 20mm	00ID8022		No
			2/1	4	IEC, F100, MG80,.75-1.1kW. M6 x 25mm	00ID8023		No
			2	4	IEC, F115, MG 90, 1.5-2.2kW. M8 x 20mm	00ID8024		No
			3-5	4	IEC, F130, MG100/112, 3-4 kW. M8 x 25mm	00ID8025		No
			6-9	4	IEC, F265, MG132, 5.5-7.5kW. M12 x 25mm	00ID7915		No
			10-17	4	IEC, F300, MG160, 8.0 - 18.5kW. M12 x 25mm	00ID7915		No
28a	Motor Bolt		6-9	4	IEC, F265, MG132, 5.5-7.5kW. M12 x 30mm	00ID7904		No
			10-17	4	IEC, F300, MG160, 8.0 - 18.5kW. M16 x 45mm	00ID7905		No
35	Hexagon Head Screw for Oval Flange		2/1-5	4	M16 x 55mm, Delta Seal	96433032		No
36	Staybolt Nut		2/1-17	4	24mm x M16, Delta Seal	00ID7908		No
36a	Nut for motor bolt IEC MG 160 models		10-17	4	24mm x M16, Delta Seal	00ID7908		No
37	Sleeve O-ring		2/1-17	◆◆	EPDM, Ø170.7 x 3.3mm	96483101		YES
			2/1-17	◆◆	FKM, Ø170.7 x 3.3mm	96483102		YES
37b	Sleeve O-ring (option)		2/1-17	◆◆	FKM, Ø171.25 x 3.3mm	96483109		YES
	Sleeve O-ring (option)		2/1-17	◆◆	FFKM, Ø170.7 x 3.3mm	96483140		YES
38	Drain Plug O-ring		2/1-17	1	EPDM, Ø16.3 x 2.4mm	00ID1288		YES
			2/1-17	1	FKM, Ø16.3 x 2.4mm	00ID2231		YES
	Drain Plug O-ring (option)		2/1-17	1	FKM, Ø16.3 x 2.4mm	96442869		YES
	Drain Plug O-ring (option)		2/1-17	1	FFKM, Ø16.3 x 2.4mm	96428162		YES
38a	Drain Plug O-ring		2/1-17	1	Ø5.3 x 2.4mm, EPDM	00ID2142		YES
			2/1-17	1	Ø5.3 x 2.4mm, FKM	00ID3945		YES
	Drain Plug O-ring (option)		2/1-17	1	Ø5.3 x 2.4mm, FKM, black	96511292		YES
	Drain Plug O-ring (option)		2/1-17	1	Ø5.3 x 2.4mm, FFKM	96511293		YES
39	O-ring for Oval Flange		2/1-5	2	Ø90 x 3mm, EPDM	96496200		YES
			2/1-5	2	Ø90 x 3mm, FKM	00ID2856		YES
44a	Inlet upper with pos. 45 & 65		2/1-17	1		96489038		No
44c	Inlet upper with pos. 45 & 65 (low NPSH option)		2-17	1		96491227		No
44b	Inlet lower, machined		2/1-17	1		96496158		No
45	Neck Ring		2/1-17	# imp.-	Ø75.8 x Ø59.95 x 1.5mm, PTFE-Acoflon 100	96487400		YES
	Neck Ring (low NPSH option)		2/1-17	1	Ø88.0 x Ø66.2 x 2.2mm, PTFE-Acoflon 215	290091		No
47a	Bearing Ring/Spacer		2/1-17	^^^^	SiC 150, Ø23.4 x Ø17.6 x Ø15.0 x 14mm	96482117		YES
	Brg. Ring/Spacer (option for Graflon / Brz. 4a)		2/1-17	^^^^	TC, Ø21.9 x Ø17.6 x Ø15.0 x 14mm	330085	95061371	YES
49	Impeller		2/1-17	# stgs-	Ø104.8 x Ø59.85 x 25.4mm (back-plate 1.5mm)	96476399		No
49c	Wear Ring N for Impeller 49		2/1-17	# stgs-	Ø59.85 x 7.4mm	330054		YES
49c	Wear Ring N for low NPSH Impeller 49i		2/1-17	1	Ø66.0 x 8.5mm	290049		No
49i	Impeller N (low NPSH option)		2-17	1	Ø118.8 x Ø66.0 x 32.2mm	96521444		No
51	Shaft, Complete		2/1-2	1	Ø16 x 209.0mm, 431 SS	96490794		No
			3	1	Ø16 x 249.0mm, 431 SS	96490798		No
			4	1	Ø16 x 299.0mm, 431 SS	96490872		No
			5	1	Ø16 x 339.0mm, 431 SS	96490876		No
			6	1	Ø16 x 389.0mm, 431 SS	96490880		No
			7	1	Ø16 x 429.0mm, 431 SS	96490884		No
			8	1	Ø16 x 479.0mm, 431 SS	96490886		No
			9	1	Ø16 x 519.0mm, 431 SS	96490888		No
			10	1	Ø16 x 564.0mm, 431 SS	96490892		No

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PARTS LIST								
51	Shaft, Cpl. (continued)		12	1	Ø16 x 659.0mm, 431 SS	96490896		No
			14	1	Ø16 x 744.0mm, 431 SS, 50 Hz.	96490910		No
			17	1	Ø16 x 879.0mm, 431 SS, 50 Hz.	96490915		No
	Shaft, Cpl. (Back-to-Back & Tandem Seal option)		2/1-2	1	Ø16 x 299.0mm, 329 SS	96507538		No
			3	1	Ø16 x 339.0mm, 329 SS	96507570		No
			4	1	Ø16 x 389.0mm, 329 SS	96507572		No
			5	1	Ø16 x 429.0mm, 329 SS	96507574		No
			6	1	Ø16 x 479.0mm, 329 SS	96507576		No
			7	1	Ø16 x 519.0mm, 329 SS	96507578		No
			8	1	Ø16 x 569.0mm, 329 SS	96507579		No
			9	1	Ø16 x 609.0mm, 329 SS	96507580		No
			10	1	Ø16 x 654.0mm, 329 SS	96507582		No
			12	1	Ø16 x 749.0mm, 329 SS	96507584		No
			12	1	Ø16 x 777.0mm, 329 SS (low NPSH option)	96551867		No
			14	1	Ø16 x 834.0mm, 329 SS, 50 Hz.	96507586		No
			17	1	Ø16 x 969.0mm, 329 SS, 50Hz.	96507588		No
			17	1	Ø16 x 1014.0mm, 329SS (low NPSH option), 50 Hz.	96529710		No
55	Outer Sleeve		2/1-2	1	Ø171.1/ Ø170.7 x 104.0mm x 1.5mm, 304 SS	96489762		No
			3	1	Ø171.1/ Ø170.7 x 149.0mm x 1.5mm, 304 SS	96489764		No
			4	1	Ø171.1/ Ø170.7 x 194.0mm x 1.5mm, 304 SS	96489766		No
			5	1	Ø171.1/ Ø170.7 x 239.0mm x 1.5mm, 304 SS	96489767		No
			6	1	Ø171.1/ Ø170.7 x 284.0mm x 1.5mm, 304 SS	96489769		No
			7	1	Ø171.1/ Ø170.7 x 329.0mm x 1.5mm, 304 SS	96489771		No
			8	1	Ø171.1/ Ø170.7 x 374.0mm x 1.5mm, 304 SS	96489772		No
			9	1	Ø171.1/ Ø170.7 x 419.0mm x 2.0mm, 316 SS	96489857		No
			10	1	Ø171.1/ Ø170.7 x 464.0mm x 2.0mm, 316 SS	96489831		No
			12	1	Ø171.1/ Ø170.7 x 554.0mm x 2.0mm, 316 SS	96489833		No
			14	1	Ø171.1/ Ø170.7 x 644.0mm x 2.0mm, 316SS, 50 Hz.	96489835		No
			17	1	Ø171.1/ Ø170.7 x 779.0mm x 2.0mm, 316SS, 50 Hz.	96489836		No
60	Stack Compression Spring		2/1-17	4	Ø11.0 x Ø7.0 x 15.5mm, EPDM	96503070		YES
			2/1-17	4	Ø11.0 x Ø7.0 x 15.5mm, FKM	96503072		YES
60a	Stack Compression Spring (option)		2/1-17	4	Ø11.0 x Ø7.0 x 15.5mm, PTFE	96503071		YES
61	Stop spacer		2/1-17	1	Ø29.0 x Ø18.4 x Ø17.6 x Ø15.0 x 9.5 x 2mm	330072	95061584	YES
62	Stop ring		2/1-17	1	Ø16.6 x Ø15.0 x 1.6mm	330057		YES
64	Spacing Pipe		3-17	^^^	Ø21.5 x Ø17.5 x 43.6mm	331407		No
64a	Spacing Pipe		2-17	^^^^	Ø21.5 x Ø17.5 x 17.0mm	331416		YES
64b	Spacing Pipe		2-17	^^^^^	Ø21.5 x Ø17.5 x 5.0mm	331401		YES
64c	Clamp, Splined		2/1-17	1	Ø21.5 x Ø17.6 x Ø15.0 x 12.7mm	96496311		YES
64d	Spacing Pipe		2/1-17	^^^^^^	Ø21.5 x Ø17.5 x 12.6mm	96491535		YES
64e	Spacing Pipe (low NPSH option only)		2-17	^ +	Ø21.5 x Ø17.5 x 8.0mm	331411		No
64f	Spacing Pipe (low NPSH option only)		2/1	^-	Ø21.5 x Ø17.5 x 18.0mm	96491536		No
64g	Spacing Pipe (de-staging 2 impellers option only)		3-17	1 per de-stg.	Ø21.5 x Ø17.5 x 45.0mm (use with 3b only)	331408		No
65	Neck Ring Retainer		2/1-17	# stgs-	Ø78.8 x Ø61.5 x 6.7mm	330059		YES
	Neck Ring Retainer (low NPSH option)		2-17	1	Ø84.5 x Ø67.8 x 4.6mm	290059		YES
66	Lock Washer Set for Shaft		2/1-17	1	Ø13.5 x Ø8.2 x 2.6mm	96417297		YES
66a	Washer for Staybolt		2/1-17	4	DIN 125A, Ø30 x Ø17 x 2.5mm, Delta Seal	96430378		No
67	Lock Nut for Shaft		2/1-17	1	13mm x M8	96496488		YES
69	Spacing Pipe		2-17	⊖	Ø27.5 x Ø17.5 x 27.5mm	96491537		No
69a	Spacing Pipe (de-staging option only)		2/1	⊖	Ø21.5 x Ø17.5 x 29.05mm (use with 3a only)	331404	95061499	No
76	Nameplate		2/1-17	1	304SS, 60 x 45mm	96563333		No
76a	Rivet for Nameplate		2/1-17	2	304SS, Ø3 x 5mm	96022882		No
77a	Pump Head Cover for Tandem Seal		2/1-17	1	Cast Stainless	96505487		No
	Pump Head Cover for Back-to-Back		2/1-17	1	Cast Stainless	96505488		No
100	Priming/Vent Plug O-ring		2/1-17	■	EPDM, Ø16.3 x 2.4mm	00ID1288		YES
			2/1-17	■	FKM, Ø16.3 x 2.4mm	00ID2231		YES
100a	Priming/Vent Plug O-ring (option)		2/1-17	■	FFKM, Ø16.3 x 2.4mm	96428162		YES
	Priming/Vent Plug O-ring (option)		2/1-17	■	FXM, Ø16.3 x 2.4mm	96442869		YES
105(b)	Shaft Seal HQBE		2/1-17	***	SiC, Carbon with resin-impregnated, EPDM	96484076		YES
	Shaft Seal HQBV		2/1-17	***	SiC, Carbon with resin-impregnated, FKM	96484077		YES
	Shaft Seal HQQE		2/1-17	***	SiC, SiC, EPDM	96484071		YES
	Shaft Seal HQQV		2/1-17	***	SiC, SiC, FKM	96484072		YES
	Shaft Seal HQQF (option)		2/1-17	***	SiC, SiC, FXM	96484075		YES
	Shaft Seal HQQK (option)		2/1-17	***	SiC, SiC, FFKM	96484074		YES
	Shaft Seal HUBE		2/1-17	***	TC, Carbon with resin-impregnated, EPDM	96483952		YES
	Shaft Seal HUBV		2/1-17	***	TC, Carbon with resin-impregnated, FKM	96483964		YES
	Shaft Seal HUBF (option)		2/1-17	***	TC, Carbon with resin-impregnated, FXM	96483966		YES
	Shaft Seal HUBK (option)		2/1-17	***	TC, Carbon with resin-impregnated, FFKM	96483965		YES
	Shaft Seal HUUE		2/1-17	***	TC, TC, EPDM	96483967		YES
	Shaft Seal HUUV		2/1-17	***	TC, TC, FKM	96483968		YES
	Shaft Seal HUUF (option)		2/1-17	***	TC, TC, FXM	96484070		YES
	Shaft Seal HUUK (option)		2/1-17	***	TC, TC, FFKM	96483969		YES
116	Counter Nut for Pipe 117		2/1-17	2	NV24, internal G1/2, 316SS	96506709		YES
117	Air Vent Pipe for 118		2/1-6	1	G1/2, 316SS, 56C-213TC .33-10HP; .37 to 7.5 kW	330272		YES
			7-12	1	G1/2, 254TC - 286TSC 15-25HP., 11.0 to 18.5kW	96521537		YES
118	Air Vent		2/1-17	1	Air vent type 1511-AV - 5/6430	96427483		YES

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

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

Parts List & Kits **CR15**

NOTES:

The first number is total number of stages.

The second number behind the slash (/) equals the number of impellers

Example: a CR15-2/1 has 2 chambers and 1 impeller (de-staged by 1).

* 1 2 to 17 stage use position 3
 2 /1 stage use position 3a
 De-staging by two impellers use one 3a and one 3b

^^^ 2/1 and 2 stage = use 0
 3 to 6 stage = # of stages less 2
 7 to 10 stage = # of stages less 3
 12 to 17 stage = # of stages less 4
 De-staging by two impellers use 1 less than stated above

^^^^ 2/1 to 6 stage = use 1
 7 to 10 stage = use 2
 12 to 17 stage = use 3

^^^^^ 2/1-2, 4, 6, 8, and 12 stage = use 1
 Exception to the above: low NPSH models
 2, 4, 6, 8, 9 to 17 stage = use 1
 3, 5 and 7 stage = use 2

^^^^^^ 2/1 to 6 stage = use 1
 7 to 10 stage = use 2
 12 to 17 stage = use 3
 Exception to the above: low NPSH models
 2 to 6 stage = use 0
 7 to 10 stage = use 1
 12 to 17 stage = use 2

^+ **NPSH Models only**
 3, 6, 8, 9, & 17 stage = use 1
 2, 4, 6, 10, 12 & 14 stage = use 2

^- **NPSH Models only**
 3, 6, 8, 9, & 17 stage = use 1

* Standard use 1. Back-to-Back or Tandem pump version use 2

** Standard use 1. Back-to-Back or Tandem pump version use 2

*** Standard use 1. Back-to-Back or Tandem pump version use 2

⊖ Standard use 1. CR(I,N)15-2/1 replace with pos. 69a

stgs- Use the number of stages in standard models,
 less one in de-staged and Low NPSH models.

imp.- Use the number of stages in standard models,
 less one in de-staged 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.

L* Is a tip-to-tip length which includes the bends for slot
 engagement.

Bottom tip to bend is 4.5mm shorter than the tip to tip value.

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
IEC	.....	International Electro-technical Commission (European standards)
M	.....	International standard thread size designation (thread diameter in mm)
mm	.....	Millimeter
MG	.....	Identifies Grundfos motor type/size
N	.....	Stamp code for 316 SS or similar
NBR	.....	Buna - N (also known as Nitrile) – an elastic substance similar to rubber
NEMA	.....	National Electrical Manufacturers Association
NPSH	.....	Net Positive Suction Head
PTFE	.....	Teflon
SiC	.....	Silicon Carbide
SS	.....	Stainless Steel
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 SIC Bearing					
WEAR PARTS KIT 1-6		Kit No.	96511824		
WEAR PARTS KIT 7-10		Kit No.	96511827		
WEAR PARTS KIT 12-17		Kit No.	96511830		
Pos. No.	Description	Material No.	Qty. Included in each Kit		
4a	Chamber N Cpl. w/ Pos.45 & 65 & SIC Bearing	96475768	1	2	3
26b	Bolt for strap, M8 x 25mm, 316 SS w/ Delta Seal	96416603	2	2	2
26c	Washer for strap, A4, ø16.0/ ø8.4x1.6mm	00ID3284	2	2	2
45	Neck Ring, ø75.8 x ø59.95 x 1.5mm, PTFE-Acoflon 100	96487400	5	8	14
47a	Bearing Ring/Spacer, SC150, ø23.4 x 14mm	96482117	1	2	3
49c	Wear Ring, N, ø59.85 x 7.4mm	330054	6	10	17
61	Stop Spacer, ø29.0 x ø18.4 x ø17.6 x ø15.0 x 9.5 x 2mm	330072	1	1	1
62	Stop Ring, ø16.6 x ø15.0 x 1.6mm	330057	1	1	1
64a	Spacing Pipe, ø21.5 x ø17.5 x 17.0mm	331416	1	2	3
64b	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 5.0mm	331401	1	1	1
64c	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 12.7mm	96496311	1	1	1
64d	Spacing Pipe, ø21.5 x ø17.5 x 12.6mm	96491535	1	2	3
65	Neck Ring Retainer, N, ø78.8 x ø61.5 x 6.7mm	330059	5	8	14
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1
67	Lock Nut, 13mm x M8	96496488	1	1	1

STACK KITS (SIC) Pos.80	
Model	Material No.
CR15-2/1	96508453
CR15-2	96508454
CR15-3	96508455
CR15-4	96508456
CR15-5	96508457
CR15-6	96508458
CR15-7	96508459
CR15-8	96508490
CR15-9	96508491
CR15-10	96508492
CR15-12	96508493
CR15-14	96508494
CR15-17	96508495

***For 50 Hz operation only.

CR(I, N)15 Graflon Bearing					
WEAR PARTS KIT 1-6		Kit No.		96511826	
WEAR PARTS KIT 7-10		Kit No.		96511829	
WEAR PARTS KIT 12-17		Kit No.		96511832	
Pos. No.	Description	Material No.	Qty. included in each Kit		
4a	Chamber N Cpl. w/ Pos.45 & 65 & Graflon Bearing	96492510	1	2	3
26b	Bolt for strap, M8 x 25mm, 316 SSw/ Delta Seal	96416603	2	2	2
26c	Washer for strap, A4, ø16.0/ø8.4x1.6mm	00ID3284	2	2	2
45	Neck Ring, ø75.8 x ø59.95 x 1.5mm, PTFE-Acoflon 100	96487400	5	8	14
47a	Bearing Ring/Spacer, TC, ø21.9 x ø17.6 x ø15.0 x 14mm	330085	1	2	3
49c	Wear Ring, N, ø59.85 x 7.4mm	330054	6	10	17
61	Stop Spacer, ø29.0 x ø18.4 x ø17.6 x ø15.0 x 9.5 x 2mm	330072	1	1	1
62	Stop Ring, ø16.6 x ø15.0 x 1.6mm	330057	1	1	1
64a	Spacing Pipe, ø21.5 x ø17.5 x 17.0mm	331416	1	2	3
64b	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 5.0mm	331401	1	1	1
64c	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 12.7mm	96496311	1	1	1
64d	Spacing Pipe, ø21.5 x ø17.5 x 12.6mm	96491535	1	2	3
65	Neck Ring Retainer, N, ø78.8 x ø61.5 x 6.7mm	330059	5	8	14
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1
67	Lock Nut, 13mm x M8	96496488	1	1	1

CR(I, N)15 Bronze Bearing					
WEAR PARTS KIT 1-6		Kit No.	96511825		
WEAR PARTS KIT 7-10		Kit No.	96511828		
WEAR PARTS KIT 12-17		Kit No.	96511831		
Pos. No.	Description	Material No.	Qty. Included in each Kit		
4a	Chamber N Cpl. w/ Pos.45 & 65 & Bronze Bearing	96492512	1	2	3
26b	Bolt for strap, M8 x 25mm, 316 SS w/ Delta Seal	96416603	2	2	2
26c	Washer for strap, A4, ø16.0/ ø8.4x1.6mm	00ID3284	2	2	2
45	Neck Ring, ø75.8 x ø59.95 x 1.5mm, PTFE-Acoflon 100	96487400	5	8	14
47a	Bearing Ring/Spacer, TC, ø21.9 x ø17.6 x ø15.0 x 14mm	330085	1	2	3
49c	Wear Ring, N, ø59.85 x 7.4mm	330054	6	10	17
61	Stop Spacer, ø29.0 x ø18.4 x ø17.6 x ø15.0 x 9.5 x 2mm	330072	1	1	1
62	Stop Ring, ø16.6 x ø15.0 x 1.6mm	330057	1	1	1
64a	Spacing Pipe, ø21.5 x ø17.5 x 17.0mm	331416	1	2	3
64b	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 5.0mm	331401	1	1	1
64c	Clamp, Splined, ø21.5 x ø17.6 x ø15.0 x 12.7mm	96496311	1	1	1
64d	Spacing Pipe, ø21.5 x ø17.5 x 12.6mm	96491535	1	2	3
65	Neck Ring Retainer, N, ø78.8 x ø61.5 x 6.7mm	330059	5	8	14
66	Lock Washer Set of 2, ø13.5 x ø8.2 x 2.6mm	96417297	1	1	1
67	Lock Nut, 13mm x M8	96496488	1	1	1

GASKET KIT (EPDM)		Kit No.	96509609					
GASKET KIT (FKM)		Kit No.	96509610					
GASKET KIT (FKM)		Kit No.	96534871					
GASKET KIT (FKM)		Kit No.	96533374					
GASKET KIT (EPDM)-Double Seal option.		Kit No.	96525433					
GASKET KIT (FKM)-Double Seal option.		Kit No.	96525434					
GASKET KIT (FKM/EPDM)-Double Seal option.		Kit No.	96525435					
GASKET KIT (FKM/EPDM)-Double Seal option.		Kit No.	96525436					
Pos. No.	Description	Material No.	Qty. Included in each Kit					
37	Sleeve O-ring, EPDM (WRC NSF), ø170.7 x 3.3mm	96483101	2			3		1
	Sleeve O-ring, FKM, ø170.7 x 3.3mm	96483102		2			3	1
37b	Sleeve O-ring, FKM, ø171.25 x 3.3mm	96483109		2				
	Sleeve O-ring, FFKM, ø170.7 x 3.3mm	96483140			2			2
38, 100(a,b)	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	4
	Drain Plug O-ring, FKM, ø16.3 x 2.4mm	96442869			3			
	Drain Plug O-ring, FFKM, ø16.3 x 2.4mm	96428162			3			3
38a	Drain Plug O-ring, EPDM, ø5.3 x 2.4mm	00ID2142	1			1		
	Drain Plug O-ring, FKM, ø5.3 x 2.4mm	00ID3945					1	
	Drain Plug O-ring, FKM, ø5.3 x 2.4mm	96511292			1			1
	Drain Plug O-ring, FFKM, ø5.3 x 2.4mm	96511293				1		
39	Flange O-ring, EPDM, ø90 x 3mm	96496200	2			2		
	Flange O-ring, FKM, ø90 x 3mm	00ID2856		2			2	
	Flange gasket, Fiber, 122mm x ø60 x ø44 x 2mm	420039	2	2	2	2	2	2
	Flange gasket, Fiber, ø102 x ø65 x 2mm	330035	2	2	2	2	2	2
	Flange gasket, Fiber, ø92 x ø49 x 2mm	00ID2582	2	2	2	2	2	2
60	Stack Compression Spring, EPDM, ø11.0xø7.0x15.5mm	96503070	4			4		
	Stack Compression Spring, FKM, ø11.0xø7.0x15.5mm	96503072		4			4	
	Stack Compression Spring, PTFE, ø11.0xø7.0x15.5mm	96503071			4			4

Spare Part Kits **CR15**

SPARE PART KITS (Continued)

HQxx SHAFT SEAL KIT, BALANCED CARTRIDGE (Maximum allowed working PSI is 435) (Tandem Seal option Pumps require 2 of each Seal Kit)			Kit No. 96511848					
			Kit No. 96511849					
			Kit No. 96511844					
			Kit No. 96511847					
			Kit No. 96511846					
			Kit No. 96511845					
Pos. No.	Description	Material No.	Qty. Included in each Kit					
105	HQBE	96484076*	1					
	HQBV	96484077*		1				
	HQQE	96484071*			1			
	HQQF	96484075*				1		
	HQQK	96484074*					1	
	HQQV	96484072*						1
N/A	Grinding Device Tool for Emery Cloth	370711	1	1	1	1	1	1
N/A	Emery Cloth	370712	1	1	1	1	1	1

* Seal material number includes the Adjusting fork 96483950.

HUxx SHAFT SEAL KIT, BALANCED CARTRIDGE (Maximum allowed working PSI is 435) (Tandem Seal option Pumps require 2 of each Seal Kit)			Kit No. 96511836					
			Kit No. 96511839					
			Kit No. 96511838					
			Kit No. 96511837					
			Kit No. 96511840					
			Kit No. 96511843					
			Kit No. 96511842					
			Kit No. 96511841					
Pos. No.	Description	Material No.	Qty. Included in each Kit					
105	HUBE	96483952*	1					
	HUBF	96483966*		1				
	HUBK	96483965*			1			
	HUBV	96483964*				1		
	HUUE	96483967*					1	
	HUUF	96484070*						1
	HUUK	96483969*						1
	HUUV	96483968*						1
N/A	Grinding Device Tool for Emery Cloth	370711	1	1	1	1	1	1
N/A	Emery Cloth	370712	1	1	1	1	1	1

* Seal material number includes the Adjusting fork 96483950.

IEC COUPLING KIT			Kit No. 96511315					
			Kit No. 96511317					
			Kit No. 96511319					
			Kit No. 96511350					
			Kit No. 96511351					
			Kit No. 96511352					
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					4	4
10	Shaft Pin, ø5 x 26mm, Stainless	310192	1	1	1	1	1	1
10a	Coupling Half, F85, MG71, .37-.55kW, ø14/ø16	480002	2					
	Coupling Half, F100, MG80, 75-1.1kW, ø19/ø16	480004		2				
	Coupling Half, F115, MG90, 1.5-2.2kW, ø24/ø16	480006			2			
	Coupling Half, F130, MG100/112, 3.0-4.0 kW, ø28/ø16	480008				2		
	Coupling mach. set, F265, MG132, 5.5-7.5kW, ø38/ø16	96516772					1	
	Coupling mach.set, F300 MG160, 11.0-18.5kW, ø42/ø16	96516008						1
N/A	Adjusting Fork	96483950	1	1	1	1	1	1

NEMA COUPLING KIT			Kit No. 96511353					
			Kit No. 96511354					
			Kit No. 96753660					
			Kit No. 96511355					
			Kit No. 96753661					
			Kit No. 96511356					
Pos. No.	Description	Material No.	Qty. Included in each Kit					
9	Allen Screw, M6 x 20mm, Delta Seal	00ID7899	4					
	Allen Screw, M10 x 25mm, Delta Seal	00ID7901		4	4	4	4	4
10	Shaft Pin, ø5 x 26mm, Stainless	310192	1	1	1	1	1	1
10a	Coupling Half set, 56C, 1/3 - 2HP, ø15.8 / ø16	96516777	1					
	Cplg. Half set, 182/184TC, 3-5HP, std.-low, ø28.5/ø16	96516774		1				
	Cplg. Half set, 182/184TC, 3-5HP, opt.-high, ø28.5/ø16	96516009			1			
	Cplg. Half set, 213TC, 7.5-10HP, std.-low, ø34.9/ø16	96472175				1		
	Cplg. Half set, 213TC, 7.5-10HP, opt.-high, ø34.9/ø16	96516770					1	
	Cplg. Half set, 254TC/284/286TSC, 15-25HP, ø41.2/ø16	96516771						1
N/A	Adjusting Fork	96483950	1	1	1	1	1	1

COUPLING GUARD KIT			Kit No. 96509611					
			Kit No. 96509612					
			Kit No. 96509613					
			Kit No. 96509614					
Pos. No.	Description	Material No.	Qty. Included in each Kit					
7	Coupling Guard, W=127mm x H=70mm	96491001	2					
	Coupling Guard, W=127mm x H=90.5mm	96491002		2				
	Coupling Guard, W=157mm x H=125mm	96490657			2			
	Coupling Guard, W=157mm x H=171mm	96490656				2		
7a	Screw comb.slot torx/straight slot 4 x 8mm	96488481	4	4	4	4	4	4

SPARE PART KITS (Continued)

PLUG KIT		Kit No. 96511313	
Pos. No.	Description	Material No.	Qty. Included in each Kit
18	Priming/Vent Plug, G 1/2A, NV24 with NV9 x M8 stem	405150	1
23	G 1/2A, w/1/4" NPT threaded port, NV24	91120659	1
23c	1/4" NPT,SSSQHD	00ID7216	1
25	Drain Plug-solid stem, without O-rings, G 1/2A, NV24	340375	1
38	O-ring, EPDM, Ø16.3 x 2.4mm	00ID1288	1
	O-ring, FKM, Ø16.3 x 2.4mm	00ID2231	1
38a	Drain Plug O-ring, EPDM, ø5.3 x 2.4mm	00ID2142	1
	Drain Plug O-ring, FKM, ø5.3 x 2.4mm	00ID3945	1
100	O-ring, EPDM, Ø16.3 x 2.4mm	00ID1288	2
	O-ring, FKM, Ø16.3 x 2.4mm	00ID2231	2

Air Vent Kit		Kit No. 91136564	
56Cto 213TC.33-10HP; .37 to 7.5 kW		Kit No. 91136565	
254TCto 286TSC15-25HP; 11.0 to 18.5kW		Kit No. 91136565	
Pos. No.	Description	Material No.	Qty. Included in each Kit
116	Counter Nut for Pipe 117, G1/2	96506709	2
117	Air Vent Pipe for 118, G1/2, 150x90	330272	1
	Air Vent Pipe for 118, G1/2, 185x90	96521537	1
118	Air vent type 1511-AV - 5/6430	96427483	1

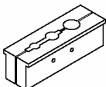
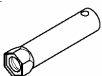

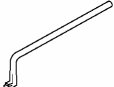
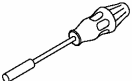
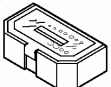


ACCESSORIES

ANSI COMPANION FLANGES FOR MEDIUM CR		Kit No. 335021	
2" Threaded Cast Iron, 250 Lb. Class		Kit No. 335021	
Pos. No.	Description	Material No.	Qty. Included in each Kit
N/A	Nut, HEX 5/8"-11 UNC, Grade 2	00ID1510	16
N/A	Plain Bolt, 5/8" -11 x 3", Grade 2	00ID1921	16
N/A	Flange, Cast Iron, 2" NPT	00ID2743	2
N/A	Gasket - Flange, 2", 250#, Cut Ring	00ID2747	2

Spare Part Kits • Special Tools **CR15**

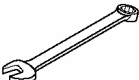
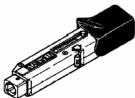
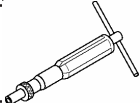




SPECIAL TOOLS

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.	
00SV2107	Tubular Box Spanner for Shaft Seal 41.0 mm Used to install and remove the shaft seal. Fits a 1/2" drive ratchet.	
00SV2101	Ring Insert Tool for Shaft Seal + Square 41 mm x 1/2" drive	
00SV0239	Puller for Neck Ring Used to remove the Neck Ring from Chamber.	
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"	
00SV2127	Bearing Removal Punch	

STANDARD TOOLS

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

Mat. No.	Description and Use	
00SV0083 00SV0055 00SV0054 00SV0122	Wrenches Used to tighten various nuts. NV 10 mm for M6 NV 13 mm for M8 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 00SV0401	Ratchet Spanner for all Adapters 9 mm x 12 mm, 1/2" 14 mm x 18 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 00SV0271 00SV0524	Ring Spanner NV 10 mm, 9 x 12, for M6 NV 13 mm, 9 x 12, for M8 NV 19 mm, 9 x 12, for M12 NV 24 mm, 14 x 18, for M16	
00SV2013 00SV0267	Socket Spanner NV 13 mm for M8, 1/2" drv. NV 19 mm for M12, 1/2" drv.	

BE > THINK > INNOVATE >

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



L-CR-SM-039 | Rev. 11/08
PRINTED IN USA

Subject to alterations.

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