



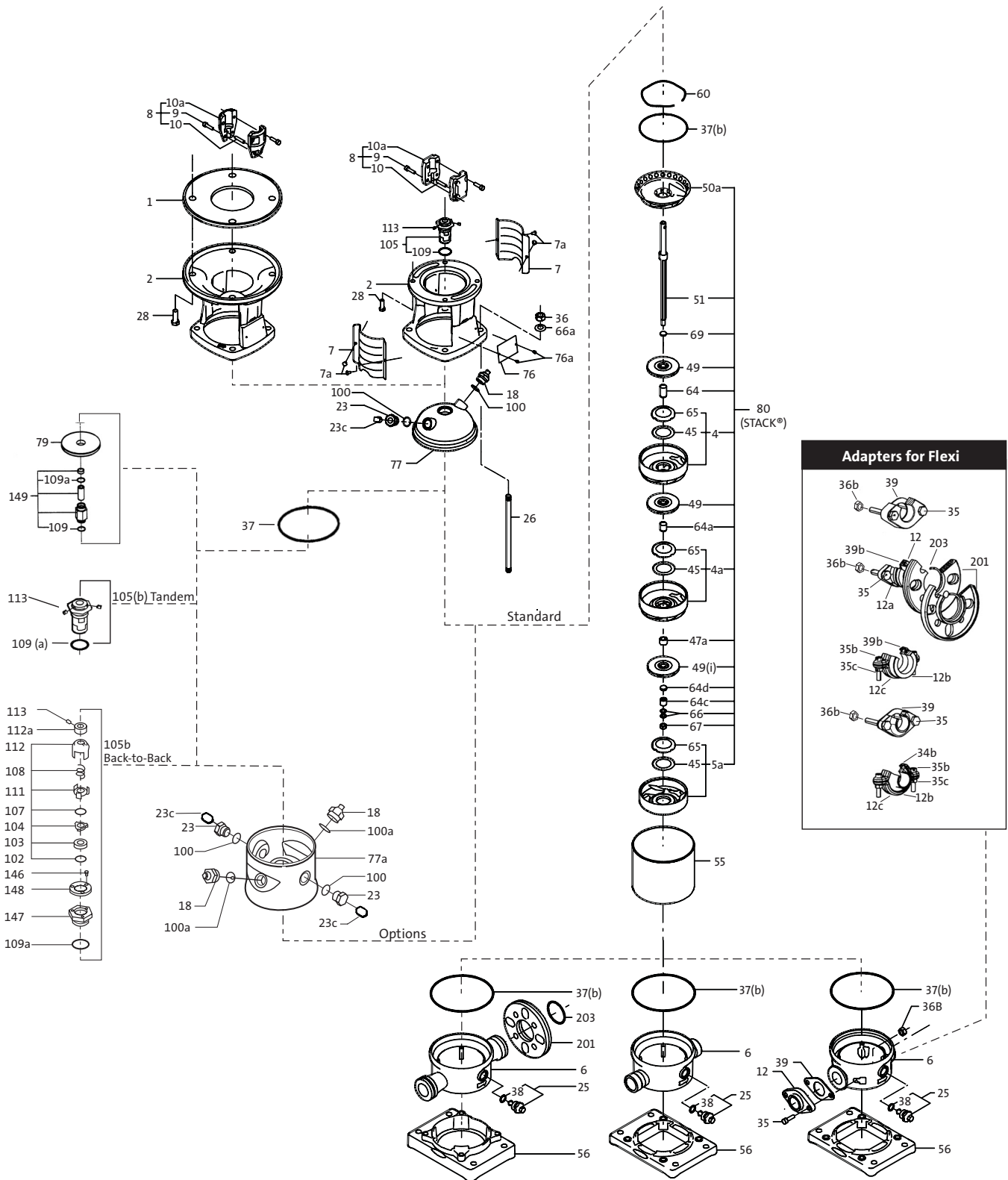
CRN1

Parts List & Kits

Contents

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

Exploded View CRN1



Parts List

| Pos. No. | Part Description | Model | Stages | No. Used | Comments/Dimensions | Material Number | Included in Kits? |
|----------|---|-------|--------|----------|---|-----------------|-------------------|
| 1 | Adapter for Motor Stool | | | | For NEMA, 213/215TC, 7.5 - 10HP | 96476208 | NO |
| 2 | Motor Stool | | 3/2-19 | 1 | NEMA, 56C, 1/3 - 2HP | 96436510 | NO |
| | | | 21-27 | | NEMA, 182/184TC, 3 - 5HP | 96436511 | NO |
| | | | | | Add Pos. 1, NEMA, 213TC, 7.5 - 10HP | 96436511 | NO |
| | | | 3/2-11 | 1 | IEC, F85, MG 71, .37 - .55kW | 96436506 | NO |
| | | | 12-23 | 1 | IEC, F100, MG 80, .75 - 1.1kW | 96436507 | NO |
| | | | 24-36 | | IEC, F115, MG 90, 1.5 - 2.2kW | 96436508 | NO |
| | | | | | IEC, F130, MG 100/112, 3.0 - 4.0 kW | 96436509 | NO |
| | | | | | IEC, F265, MG132, 5.5 - 7.5kW | 96436514 | NO |
| 4 | Chamber, Complete with Pos.45 & 65 | | 3/2-36 | ^^^ | PTFE Pos.45 | 96439481 | NO |
| 4a | Chamber Cpl. w/Pos.45 & 65 & Bearing | | 3/2-36 | ^^^^ | Silicon Carbide Bearing, PTFE Pos.45 | 96439476 | Yes |
| | Chamber Cpl. w/Pos.45 & 65 & Brg. (option) | | 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 | 96439485 | NO |
| 6 | Base | | 3/2-17 | 1 | Flexi -Clamp / Oval, Stainless (max 232 PSI) | 96438394 | NO |
| | | | 3/2-36 | 1 | For Flanges JIS, FGJ, ANSI, Stainless (Max 362 PSI) | 96438328 | NO |
| | | | 3/2-36 | 1 | Victualic (PJE) 1.25", Stainless (Max 362 PSI) | 96436851 | NO |
| 7 | Coupling Guard | | | 2 | IEC, F85-F100 | 96438136 | NO |
| | | | | 2 | NEMA-56C, IEC-F115,130, & 265 | 96438137 | NO |
| | | | | | NEMA, 182-215TC | 96438138 | NO |
| 7a | Screw for Coupling Guard | | 3/2-36 | 4 | M4 x 8mm | 96488481 | NO |
| 9 | Allen Screw | | 3/2-19 | 4 | M6 x 20mm, Delta Seal | 00ID7899 | Yes |
| | | | 21-27 | 4 | M8 x 25mm, Delta Seal | 00ID7900 | Yes |
| | | | | | M10 x 25mm, Delta 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 for Flexi Base | | 3/2-17 | 2 | Stainless, 1" -11.5 NPT (max 232 PSI) | 96468336 | Yes |
| | | | 3/2-23 | 2 | Stainless, RP 1" BSP DIN (max 232 PSI) | 96437814 | NO |
| 12a | Adapter Flg. for ANSI pos.201/Flexi Base (option) | | 3/2-17 | 2 | Stainless, (max 232 PSI) | 96437818 | Yes |
| 12b | Pipe Stub for Clamp/Flexi Base (option) | | 3/2-17 | 2 | Stainless, Internal 1" -11.5 NPT (max 232 PSI) | 400182 | Yes |
| | | | 3/2-17 | 2 | Stainless, Internal 1.25" -11.5 NPT (max 232 PSI) | 410279 | Yes |
| | | | 3/2-17 | 2 | Stainless, External 2" -11.5 NPT (max 232 PSI) | 96468338 | Yes |
| 12c | Clamp for Flexi Base & pos.12b (option) | | 3/2-17 | 4 | Stainless, (max 232 PSI) | 00ID7194 | Yes |
| 18 | Priming/Vent Plug | | 3/2-36 | * | G 1/2A, NV24 with NV9 x M8 stem | 405150 | NO |
| 23 | Plug | | 3/2-36 | ** | G 1/2A, w/1/4"port, NV24 | 91120659 | NO |
| | Plug (option) | | 3/2-36 | ** | G 1/2A, Solid no port, NV24 | 370025 | NO |
| 23c | 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 | 96440611 | NO |
| | | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 stem, FKM | 96446891 | NO |
| | Drain/Priming Plug Cpl. with O-rings (option) | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 stem, FXM | 96460009 | NO |
| | | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 stem, FFKM | 96475474 | 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 | 96527050 | NO |
| | | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 hollow stem, FKM | 96527051 | NO |
| | | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 hollow stem, FXM | 96549174 | NO |
| | | | 3/2-36 | 1 | G 1/2A, NV24 w/NV9 x M8 hollow stem, FFKM | 96527052 | NO |
| 26 | Staybolt | | 3/2-3 | 4 | M12 x 151mm | 96487020 | NO |
| | | | 4 | 4 | M12 x 169mm | 96442055 | NO |
| | | | 5 | 4 | M12 x 187mm | 414103 | NO |
| | | | 6 | 4 | M12 x 209mm | 404135 | NO |
| | | | 7 | 4 | M12 x 227mm | 414134 | NO |
| | | | 8 | 4 | M12 x 241mm | 414105 | NO |
| | | | 9 | 4 | M12 x 259mm | 96459210 | NO |
| | | | 10 | 4 | M12 x 281mm | 414136 | NO |
| | | | 11 | 4 | M12 x 295mm | 414107 | NO |
| | | | 12 | 4 | M12 x 313mm | 96463414 | NO |
| | | | 13 | 4 | M12 x 335mm | 414138 | NO |
| | | | 15 | 4 | M12 x 367mm | 96459214 | NO |
| | | | 17 | 4 | M12 x 403mm | 414111 | NO |
| | | | 19 | 4 | M12 x 439mm | 96442118 | NO |
| | | | 21 | 4 | M12 x 475mm | 414143 | NO |
| | | | 23 | 4 | M12 x 511mm | 414115 | NO |
| | | | 25 | 4 | M12 x 547mm | 96442119 | NO |
| | | | 27 | 4 | M12 x 587mm | 404156 | NO |
| | | | 30 | 4 | M12 x 637mm (50Hz.) | 96461557 | NO |
| | | | 33 | 4 | M12 x 691mm (50Hz.) | 96442122 | NO |
| | | | 36 | 4 | M12 x 745mm (50Hz.) | 96442123 | NO |
| 26 | Staybolt (Cool Top®, Back-to-Back & Tandem Seal option) | | 3/2-3 | 4 | M12 x 263mm | 404138 | NO |
| | | | 4 | 4 | M12 x 281mm | 414136 | NO |
| | | | 5 | 4 | M12 x 295mm | 414107 | NO |
| | | | 6 | 4 | M12 x 317mm | 404141 | NO |

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 CRN1

Parts List

| Pos. No. | Part Description | Model | Stages | No. Used | Comments/Dimensions | Material Number | Included in Kits? | | |
|----------|--|-------|------------|----------|--|-----------------|--|----------|----|
| 26 | Staybolt (Cool Top®, Back-to-Back & Tandem Seal option) | | 7 | 4 | M12 x 335mm | 414138 | NO | | |
| | | | 8 | 4 | M12 x 349mm | 414109 | NO | | |
| | | | 9 | 4 | M12 x 367mm | 96459214 | NO | | |
| | | | 10 | 4 | M12 x 385mm | 96458503 | NO | | |
| | | | 11 | 4 | M12 x 403mm | 414111 | NO | | |
| | | | 12 | 4 | M12 x 425mm | 404147 | NO | | |
| | | | 13 | 4 | M12 x 439mm | 96442118 | NO | | |
| | | | 15 | 4 | M12 x 475mm | 414143 | NO | | |
| | | | 17 | 4 | M12 x 511mm | 414115 | NO | | |
| | | | 19 | 4 | M12 x 547mm | 96442119 | NO | | |
| | | | 21 | 4 | M12 x 587mm | 404156 | NO | | |
| | | | 23 | 4 | M12 x 619mm | 414119 | NO | | |
| | | | 25 | 4 | M12 x 659mm | 414160 | NO | | |
| | | | 27 | 4 | M12 x 691mm | 96442122 | NO | | |
| | | | 30 | 4 | M12 x 745mm (50Hz.) | 96442123 | NO | | |
| | | 28 | Motor Bolt | | 3/2-19 | 4 | NEMA, 56C, 1/3 - 2HP. UNC 3/8" x 25mm | 00ID1839 | NO |
| | | | | | 21-27 | | 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 | | | | 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 | | |
| | 3/2-17 | | | 4 | M10 x70mm, 8.8, A4, DIN931 | 96447227 | Yes | | |
| | 3/2-17 | | | 4 | M10 x 60mm, A4, DIN931 | 96447228 | Yes | | |
| 35b | Screw for Clamp Pos.12c (Flexi option) | | 3/2-17 | 4 | M8 x 40mm - A2, RR DIN933 | 00ID7188 | Yes | | |
| 35c | Nut for Screw Pos.35b for Clamp Pos.12c (Flexi option) | | 3/2-17 | 4 | M8, 304SS | 00ID7187 | Yes | | |
| 36 | Staybolt Nut | | 3/2-36 | 4 | 19mm x M12, 316SS | 00ID0876 | NO | | |
| 36b | Nut for Screw Pos.35 Oval Flange (Flexi option) | | 3/2-17 | 4 | M10, 316SS w/Delta Seal | 96438757 | Yes | | |
| 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 | ◆◆ | FKM, 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 | | |
| | | | 3/2-36 | 1 | FFKM, ø16.3 x 2.4mm | 96428162 | Yes | | |
| | Drain Plug O-ring (option) | | 3/2-36 | 1 | FKM, 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 | | |
| 39b | O-ring for Clamp,Thread stub-Union-& FGJ Flange (option) | | 3/2-17 | 2 | EPDM, ø44.45 x 3.53mm | 96407726 | Yes | | |
| | | | 3/2-17 | 2 | FKM, ø44.45 x 3.53mm | 96411713 | 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 | | |
| | | | 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 9.1mm (back-plate .5mm) | 96440326 | NO | | |
| 50a | Top Guide Vane | | 3-36 | 1 | | 96457638 | NO | | |
| | | | 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 (50Hz.) | 96440408 | NO | | |
| | | | 33 | 1 | ø12 x 700.5mm (50Hz.) | 96440410 | NO | | |
| | | | 36 | 1 | ø12 x 754.5mm (50Hz.) | 96440411 | NO | | |
| 51 | 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 | | |

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

| Pos. No. | Part Description | Model | Stages | No. Used | Comments/Dimensions | Material Number | Included in Kits? | | |
|----------|--|--|--------------|---|--|-----------------|-------------------|-----------|----------|
| 51 | Shaft, Cpl. (Cool Top®, Back-to-Back & Tandem Seal option) | | 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 | 96457581 | NO | | |
| | | | 30 | 1 | ø12 x 751.5mm (50Hz.) | 96457583 | NO | | |
| | | | 33 | 1 | ø12 x 805.5mm (50Hz.) | 96457585 | NO | | |
| | | | 36 | 1 | ø12 x 859.5mm (50Hz.) | 96457586 | NO | | |
| | | 55 | Outer Sleeve | | 3/2-3 | 1 | ø138 x 44.6mm | 96439996 | NO |
| | | | | | 4 | 1 | ø138 x 62.6mm | 96440025 | NO |
| | | | | | 5 | 1 | ø138 x 80.6mm | 96441528 | NO |
| | | | | | 6 | 1 | ø138 x 98.6mm | 96440014 | NO |
| | 7 | | | 1 | ø138 x 116.6mm | 96441529 | NO | | |
| | 8 | | | 1 | ø138 x 134.6mm | 96441531 | NO | | |
| | 9 | | | 1 | ø138 x 152.6mm | 96440015 | NO | | |
| | 10 | | | 1 | ø138 x 170.6mm | 96441532 | NO | | |
| | 11 | | | 1 | ø138 x 188.6mm | 96441534 | NO | | |
| | 12 | | | 1 | ø138 x 206.6mm | 96440016 | NO | | |
| | 13 | | | 1 | ø138 x 224.6mm | 96441535 | NO | | |
| | 15 | | | 1 | ø138 x 260.6mm | 96440017 | NO | | |
| | 17 | | | 1 | ø138 x 296.6mm | 96441538 | NO | | |
| | 19 | | | 1 | ø138 x 332.6mm | 96441539 | NO | | |
| | 21 | | | 1 | ø138 x 368.6mm | 96440019 | NO | | |
| | 23 | | | 1 | ø138 x 404.6mm | 96441542 | NO | | |
| | 25 | | | 1 | ø138 x 440.6mm | 96441543 | NO | | |
| | 27 | | | 1 | ø138 x 476.6mm | 96440021 | NO | | |
| 56 | Base Plate (Low) for PJE / Flexi-clamp Pos.6 | | | | 2-36 | 1 | Cast Iron | 96438133 | NO |
| | | | | B. P. (High) for Flexi-clamp w/ANSI/DIN/JIS Pos.6 | | 2-36 | 1 | Cast Iron | 96438132 |
| | | | 2-36 | | 1 | Cast Stainless | 96437870 | NO | |
| | | Base Plate N (Low) for PJE / Flexi-clamp Pos.6 | | 2-36 | 1 | Cast Stainless | 96437868 | NO | |
| | | | | 2-36 | 1 | Cast Stainless | 96437868 | NO | |
| 60 | Stack Compression Spring | | 3/2-36 | 1 | ø136 x 3.5mm | 96439662 | NO | | |
| | | | 2-36 | ^^^ | ø15.85 x ø12.85 x 17.52mm | 400035 | NO | | |
| 64 | Spacing Pipe | | 2-36 | ^^^ | ø15.85 x ø12.85 x 4.5mm | 96440292 | Yes | | |
| 64a | Spacing Pipe (option for Grafion Pos. 4a) | | 3/2-36 | ^^^ | Use with TC Pos.47a, ø15 x ø12.7 x 7.8mm | 400016 | Yes | | |
| | | | 3/2-36 | ^^^ | ø15 x ø13.10 x ø10.9 x 13mm | 96439668 | Yes | | |
| 64c | Clamp, Splined | | 3/2-36 | 1 | ø43.5 x ø34.0 x 3.6mm | 96438746 | Yes | | |
| 65 | Neck Ring Retainer | | 3/2-36 | # stgs | ø13.5 x ø8.2 x 2.6mm | 96417297 | Yes | | |
| 66 | Lock Washer Set for Shaft | | 3/2-36 | 1 | DIN 125A, ø24 x ø13 x 2.5mm | 00ID3103 | NO | | |
| 66a | Washer for Staybolt | | 3/2-36 | 4 | 13mm x M8 | 00ID2061 | Yes | | |
| 67 | Lock Nut for Shaft | | 3/2-36 | 1 | ø15.85 x 12.85 x 18.0mm | 400125 | NO | | |
| 69 | Spacing Pipe | | 3/2 | 1 | 304SS, 60 x 45mm | 96439820 | NO | | |
| 76 | Nameplate | | 3/2-36 | 2 | 304SS, ø3 x 5mm | 96022882 | NO | | |
| 76a | Rivet for Nameplate | | 3/2-36 | 1 | Cast Stainless | 96436340 | NO | | |
| 77 | Pump Head Cover for Motor Stool Pos.2 | | 3/2-36 | 1 | Cast Stainless | 96456293 | NO | | |
| 77a | Pump Head Cover for Back-to-Back & Tandem Seal | | 3/2-36 | 1 | Cast Stainless | 96456294 | NO | | |
| 77a | Pump Head Cover for Cool Top® (option) | | 3/2-36 | 1 | Cast Stainless | 96456296 | NO | | |
| 79 | Disc / Plate for Cool Top® | | 3/2-36 | ■ | Stainless | 96456296 | NO | | |
| 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 | | |
| 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 | 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 | NO | | |
| | O-ring for Pos. 105b Back-to-Back (option) | | 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 | NO | | |
| | | | 3/2-36 | 1 | SiC, 12mm | 980746 | Yes | | |
| 104 | Rotating Seal Ring for 105b Back-to-Back | | 3/2-36 | 1 | TC, 12mm | 980163 | NO | | |
| | | | 3/2-36 | 1 | SiC, 12mm | 980733 | Yes | | |
| 105(b) | Shaft Seal HQBE | | 3/2-36 | *** | SiC, Carbon with resin-impregnated, EPDM | 96441879 | Yes | | |
| | | | 3/2-36 | *** | SiC, Carbon with resin-impregnated, FKM | 96441880 | Yes | | |
| | | | 3/2-36 | *** | SiC, Carbon with resin-impregnated, FFKM | 96489537 | Yes | | |
| | | | 3/2-36 | *** | SiC, SiC, EPDM | 96441877 | Yes | | |
| | | | 3/2-36 | *** | SiC, SiC, FKM | 96441878 | Yes | | |
| | | | 3/2-36 | *** | SiC, SiC, FXM | 96472620 | Yes | | |
| | | | 3/2-36 | *** | SiC, SiC, FFKM | 96464381 | Yes | | |
| | | | 3/2-36 | *** | TC, Carbon with resin-impregnated, EPDM | 96441873 | Yes | | |
| | | | 3/2-36 | *** | TC, Carbon with resin-impregnated, FKM | 96441874 | Yes | | |
| | | | 3/2-36 | *** | TC, Carbon with resin-impregnated, FXM | 96481464 | Yes | | |
| | | | 3/2-36 | *** | TC, Carbon with resin-impregnated, FFKM | 96481463 | Yes | | |
| | | | 3/2-36 | *** | TC, TC, EPDM | 96441875 | 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 CRN1

Parts List

| Pos. No. | Part Description | Model | Stages | No. Used | Comments/Dimensions | Material Number | Included in Kits? |
|----------|--|-------|--------|----------|---|-----------------|-------------------|
| 105(b) | 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 | NO |
| | Shaft Seal/inboard for Back-to-Back OUUV | | 3/2-36 | 1 | TC, TC, FKM | 985190 | NO |
| 107 | O-ring for Pos. 105b Back-to-Back | | 3/2-36 | 1 | EPDM, $\phi 11.5 \times 4.3\text{mm}$ | 00ID2040 | Yes |
| | | | 3/2-36 | 1 | FKM, $\phi 11.5 \times 4.3\text{mm}$ | 00ID2186 | Yes |
| | O-ring for Pos. 105b Back-to-Back (option) | | 3/2-36 | 1 | FFKM, $\phi 11.5 \times 4.3\text{mm}$ | 96440282 | NO |
| | O-ring for Pos. 105b Back-to-Back (option) | | 3/2-36 | 1 | FXM, $\phi 11.5 \times 3.18\text{mm}$ | 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, $\phi 21.3 \times 3.0\text{mm}$ | 00ID1798 | Yes |
| | | | 3/2-36 | 1 | FKM, $\phi 21.2 \times 3.0\text{mm}$ | 00ID2339 | Yes |
| 109b | O-ring for Shaft Seal Pos. 105 (option) | | 3/2-36 | 1 | FXM, $\phi 22 \times 2.75\text{mm}$ | 96458111 | Yes |
| | O-ring for Shaft Seal Pos. 105 (option) | | 3/2-36 | 1 | FFKM, $\phi 23.47 \times 2.62\text{mm}$ | 96464384 | 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 | Pipe for Air Vent (option) | | 3/2-36 | 1 | R 1/2", 316 Stainless | 330272 | Yes |
| 118 | Automatic Air Vent (option) | | 3/2-36 | 1 | Type AE50S 1/2" BSP, Stainless | 96498508 | 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 | NO |
| 148 | Seal Retainer Washer - Pos. 105b Back-to-Back | | 3/2-36 | 1 | 316SS, $\phi 36.0 \times \phi 21.6 \times 5.0\text{mm}$ | 96457355 | NO |
| 149 | Connecting Pipe for Cool Top® | | 3/2-36 | 1 | NV36, 316SS, FXM & EPDM | 96460414 | NO |
| | | | 3/2-36 | 1 | NV36, 316SS, FXM & FKM | 96460415 | NO |
| 201 | Flange | | 3/2-36 | 1 | ANSI, DIN, JIS PN40/30K, Cast Iron | 96439203 | Yes |
| | | | 3/2-36 | 1 | ANSI, DIN, JIS PN40/30K, Stainless | 96439492 | Yes |
| 203 | Lock Ring for Flange | | 3/2-36 | 1 | Stainless | 96439718 | 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.

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

Cool Top® is a registered trademark of Grundfos Pumps

Key to Symbols

- KITS** Recommended spare part
- ϕ 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 | | Kit No. | 96455095 | | | |
|--------------------------------|---|--------------|---------------------------|----|----|----|
| WEAR PARTS KIT 2-9 | | Kit No. | 96455092 | | | |
| WEAR PARTS KIT 10-19 | | Kit No. | 96455093 | | | |
| WEAR PARTS KIT 20-27 | | Kit No. | 96455094 | | | |
| 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 ϕ 35 x 2mm | 400189 | 2 | 2 | 2 | 2 |
| 45 | Neck Ring, ϕ 41.3 x ϕ 30.6 x .75mm, PTFE | 400003 | 8 | 17 | 24 | 32 |
| 47a | Bearing Ring/Spacer, SiC 150, 13mm | 96437488 | 1 | 2 | 3 | 4 |
| 64a | Spacing Pipe, ϕ 15.85 x ϕ 12.85 x 4.5mm | 96440292 | 1 | 2 | 3 | 4 |
| 64c | Clamp, Splined, ϕ 15 x ϕ 13.10 x ϕ 10.9 x 13mm | 96439668 | 1 | 1 | 1 | 1 |
| 65 | Neck Ring Retainer, N, ϕ 43.5 x ϕ 34.0 x 3.6mm | 96438746 | 8 | 17 | 24 | 32 |
| 66 | Lock Washer Set of 2, ϕ 13.5 x ϕ 8.2 x 2.6mm | 96417297 | 1 | 1 | 1 | 1 |
| 67 | Lock Nut, 13mm x M8 | 00ID2061 | 1 | 1 | 1 | 1 |

| STACK KITS | |
|-------------|--------------|
| Model | Material No. |
| CRN1-3/2 | 96453507 |
| CRN1-3 | 96453508 |
| CRN1-4 | 96453509 |
| CRN1-5 | 96453510 |
| CRN1-6 | 96453511 |
| CRN1-7 | 96453512 |
| CRN1-8 | 96453513 |
| CRN1-9 | 96453514 |
| CRN1-10 | 96453515 |
| CRN1-11 | 96453516 |
| CRN1-12 | 96453517 |
| CRN1-13 | 96453518 |
| CRN1-15 | 96453519 |
| CRN1-17 | 96453520 |
| CRN1-19 | 96453521 |
| CRN1-21 | 96453522 |
| CRN1-23 | 96453523 |
| CRN1-25 | 96453524 |
| CRN1-27 | 96453525 |
| *** CRN1-30 | 96453526 |
| *** CRN1-33 | 96453527 |
| *** CRN1-36 | 96453528 |

***For 50 Hz operation only.

| CR(I, N)15, 1, & 3 Grafion Bearing | | Kit No. | 96460140 | | | |
|------------------------------------|---|--------------|---------------------------|----|----|----|
| WEAR PARTS KIT 2-9 | | Kit No. | 96455110 | | | |
| WEAR PARTS KIT 10-19 | | Kit No. | 96455111 | | | |
| WEAR PARTS KIT 20-27 | | Kit No. | 96455112 | | | |
| 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 & Grafion Bearing | 96440615 | 1 | 2 | 3 | 4 |
| 39 | Gasket for Oval Flange, 95 x 55 x ϕ 35 x 2mm | 400189 | 2 | 2 | 2 | 2 |
| 45 | Neck Ring, ϕ 41.3 x ϕ 30.6 x .75mm, PTFE | 400003 | 8 | 17 | 24 | 32 |
| 47a | Bearing Ring/Spacer, TC, 9.7mm | 400041 | 1 | 2 | 3 | 4 |
| 64a | Spacing Pipe, ϕ 15.85 x ϕ 12.85 x 7.8mm | 400016 | 1 | 2 | 3 | 4 |
| 64c | Clamp, Splined, ϕ 15 x ϕ 13.10 x ϕ 10.9 x 13mm | 96439668 | 1 | 1 | 1 | 1 |
| 65 | Neck Ring Retainer, N, ϕ 43.5 x ϕ 34.0 x 3.6mm | 96438746 | 8 | 17 | 24 | 32 |
| 66 | Lock Washer Set of 2, ϕ 13.5 x ϕ 8.2 x 2.6mm | 96417297 | 1 | 1 | 1 | 1 |
| 67 | Lock Nut, 13mm x M8 | 00ID2061 | 1 | 1 | 1 | 1 |

| GASKET KIT (EPDM) | | Kit No. | 96455090 | | | |
|---|--|--------------|---------------------------|---|---|---|
| GASKET KIT (FKM) | | Kit No. | 96455091 | | | |
| GASKET KIT (FKM) | | Kit No. | 96463944 | | | |
| GASKET KIT (FKM) | | Kit No. | 96533328 | | | |
| GASKET KIT (EPDM)-Double Seal option. | | Kit No. | 96533362 | | | |
| GASKET KIT (FKM)-Double Seal option. | | Kit No. | 96533363 | | | |
| GASKET KIT (FKM)-Double Seal option. | | Kit No. | 96533364 | | | |
| GASKET KIT (FKM, & EPDM)-Cool Top® option | | Kit No. | 96533329 | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | | | |
| 37 | Sleeve O-ring, EPDM, ϕ 137.5 x 3.3mm | 96438743 | 2 | | 3 | 1 |
| | Sleeve O-ring, FKM, ϕ 137.5 x 3.3mm | 96438744 | | 2 | | |
| 37b | Sleeve O-ring, FXM, ϕ 137.5 x 3.3mm | 96458109 | | 2 | 3 | 2 |
| | Sleeve O-ring, FFKM, ϕ 136.12 x 3.53mm | 96466718 | | 2 | | 3 |
| 38, 100(a) | Drain Plug O-ring, EPDM, ϕ 16.3 x 2.4mm | 00ID1288 | 3 | | 7 | 4 |
| | Drain Plug O-ring, FKM, ϕ 16.3 x 2.4mm | 00ID2231 | | 3 | 7 | |
| 38, 100a | Drain Plug O-ring, FXM, ϕ 16.3 x 2.4mm | 96442869 | | 3 | | 3 |
| | Drain Plug O-ring, FFKM, ϕ 16.3 x 2.4mm | 96428162 | | 3 | | 7 |
| 109(a) | O-ring for Pos.105(b) & 149, EPDM, ϕ 21.3 x 3.0mm | 00ID1798 | 1 | | 1 | |
| | O-ring for Pos.105(b) & 149, FKM, ϕ 21.2 x 3.0mm | 00ID2339 | | 1 | 1 | |
| 109b | O-ring for Pos.105(b) & 149, FXM, ϕ 22.0 x 2.75mm | 96458111 | | 1 | | 2 |
| | O-ring for Pos.105(b) & 149, FFKM, ϕ 23.47 x 2.62mm | 96464384 | | 1 | | 2 |

| STANDARD SHAFT SEAL KIT, BALANCED CARTRIDGE | | Kit No. | 96455088 | | | |
|---|--------------------------------------|--------------|---------------------------|---|---|---|
| (Maximum allowed working PSI is 435) | | Kit No. | 96455089 | | | |
| (Tandem Seal option Pumps require 2 of each Seal Kit) | | Kit No. | 96455086 | | | |
| | | Kit No. | 96455087 | | | |
| | | Kit No. | 96455082 | | | |
| | | Kit No. | 96455083 | | | |
| | | Kit No. | 96455084 | | | |
| | | Kit No. | 96455085 | | | |
| 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 | 1 |
| | HUUE | 96441875 | | | | 1 |
| | HUUV | 96441876 | | | | 1 |
| N/A | Grinding Device Tool for Emery Cloth | 370711 | 1 | 1 | 1 | 1 |
| N/A | Emery Cloth | 370712 | 1 | 1 | 1 | 1 |

Spare Part Kits CRN1

Spare Part Kits (continued)

| 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 |
| N/A | Emery Cloth | 370712 | 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, $\phi 137.5 \times 3.3\text{mm}$ | 96438743 | 3 |
| | Sleeve O-ring, FKM, $\phi 137.5 \times 3.3\text{mm}$ | 96438744 | 3 |
| 38, 100(a) | Drain Plug O-ring, EPDM, $\phi 16.3 \times 2.4\text{mm}$ | 00ID1288 | 7 |
| | Drain Plug O-ring, FKM, $\phi 16.3 \times 2.4\text{mm}$ | 00ID2231 | 7 |
| 102 | O-ring, EPDM, $\phi 18 \times 2.5\text{mm}$ | 00ID2041 | 1 |
| | O-ring, FKM, $\phi 17.86 \times 2.62\text{mm}$ | 00ID2187 | 1 |
| 103 | Stationary Seal Ring, SIC, 12mm | 980746 | 1 |
| 104 | Rotating Seal Ring, SIC, 12mm | 980733 | 1 |
| 107 | O-ring, EPDM, $\phi 11.5 \times 4.3\text{mm}$ | 00ID2040 | 1 |
| | O-ring, FKM, $\phi 11.5 \times 4.3\text{mm}$ | 00ID2186 | 1 |
| 108 | Spring, 12mm | 980195 | 1 |
| 109a | O-ring, EPDM, $\phi 21.3 \times 3.0\text{mm}$ | 00ID1798 | 1 |
| | O-ring, FKM, $\phi 21.2 \times 3.0\text{mm}$ | 00ID2339 | 1 |
| 111 | Driver for pos.104 | 980192 | 1 |
| 112 | Driver for pos.111 | 980191 | 1 |
| 112a | Driver for pos.112 | 400203 | 1 |
| 113 | Set Screw for pos.112a | 00ID7392 | 2 |
| 146 | Allen Bolt for pos.147 & 148, 2.5mm x M3 x 5mm | 96462639 | 3 |

| IEC COUPLING KIT | | Kit No. 415060 | Kit No. 415061 | Kit No. 415062 | Kit No. 415063 | 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 | |
| | Allen Screw, M10 x 25mm, Delta Seal | 00ID7901 | | | | 4 |
| 10 | Shaft Pin, $\phi 5 \times 26\text{mm}$, Stainless | 310192 | 1 | 1 | 1 | 1 |
| 10a | Coupling Half, F85, MG71, .37-.55kW. $\phi 14/\phi 12$ | 410041 | 2 | | | |
| | Coupling Half, F100, MG80, 75-1.1kW. $\phi 19/\phi 12$ | 410043 | | 2 | | |
| | Coupling Half, F115, MG 90, 1.5-2.2kW. $\phi 24/\phi 12$ | 410045 | | | 2 | |
| | Coupling Half, F130, MG100/112, 3-4 kW. $\phi 28/\phi 12$ | 410047 | | | | 2 |
| | Coupling Half, F265, MG132, 5.5-7.5kW. $\phi 38/\phi 12$ | 410115 | | | | 2 |

| NEMA COUPLING KIT | | Kit No. 415314 | Kit No. 415315 | 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 |
| | Allen Screw, M10 x 25mm, Delta Seal | 00ID7901 | | |
| 10 | Shaft Pin, $\phi 5 \times 26\text{mm}$, Stainless | 310192 | 1 | 1 |
| 10a | Coupling Half, 56C, 1/3 - 2HP. $\phi 15.8 / \phi 12$ | 410108 | 2 | |
| | Coupling Half, 182/184TC, 3-5HP. $\phi 28.5 / \phi 12$ | 410109 | | 2 |
| | Coupling Half, 213TC, 7.5-10HP. $\phi 34.9 / \phi 12$ | 96472175 | | 2 |

Spare Part Kits (continued)

| FLEXI FLANGE KIT FOR SMALL CRI1S, 1, & 3 | | | Kit No. 964680850 | |
|--|---|--------------|---------------------------|--|
| 1" Threaded Stainless (232 PSI Max.) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| 12 | Flange, Stainless, 1" - 11.5 NPT | 96468336 | 2 | |
| 35 | Hex Head Bolt, M10 x 60mm, A4, DIN931 | 96447228 | 4 | |
| 35a | Nut, M10, 316SS w/Delta Seal | 96438757 | 4 | |
| 39 | Gasket, 95 x 55 x ø35 x 2mm, KLINGERSIL C4430 | 400189 | 2 | |

| FLEXI FLANGE KIT FOR SMALL CRI1S, 1, 3, & 5 | | | Kit No. 96480851 | |
|---|---|--------------|---------------------------|--|
| 1-1/4" Threaded Stainless (232 PSI Max.) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| 12 | Flange, Stainless, 1" - 11.5 NPT | 96468337 | 2 | |
| 35 | Hex Head Bolt, M10 x 60mm, A4, DIN931 | 96447228 | 4 | |
| 36b | Nut, M10, 316SS w/Delta Seal | 96438757 | 4 | |
| 39 | Gasket, 95 x 55 x ø35 x 2mm, KLINGERSIL C4430 | 400189 | 2 | |

| FLEXI CLAMP FLANGE KIT FOR SMALL CRI(N)1S, 1, 3, & 5 | | | Kit No. 96480858 | |
|--|--|--------------|---------------------------|-----|
| 1-1/4" Stainless Flange | | | | |
| (Conversion max. allowable operating pressure 232) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| | | | EPDM | FKM |
| 12a | Adapter Flg. for ANSI pos.201/Flexi Base (232 PSI) | 96437818 | 2 | 2 |
| 35 | Hex Head Bolt, M10 x 60mm, A4, DIN931 | 96447228 | 4 | 4 |
| 36b | Nut, M10, 316SS w/Delta Seal | 96438757 | 4 | 4 |
| 39b | O-ring, EPDM, ø44.45 x 3.53mm | 96407726 | 2 | |
| | O-ring, FKM, ø44.45 x 3.53mm | 96411713 | | 2 |
| 201 | Flange, ANSI, DIN, JIS PN40/30K, Stainless | 96439492 | 2 | 2 |
| 203 | Lock Ring, Stainless | 96439718 | 2 | 2 |

| FLEXI CLAMP KIT FOR SMALL CRI1S, 1, & 3 | | | Kit No. 96480854 | |
|--|---|--------------|---------------------------|-----|
| 1" Internal Threaded SS Pipe Stub (232 PSI Max.) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| | | | EPDM | FKM |
| 12b | Stainless, Internal 1" -11.5 NPT | 400182 | 2 | 2 |
| 12c | Clamp for Flexi Base & pos.12b | 00ID7194 | 4 | 4 |
| 35b | Screw for Pos. 12c, M8 x 40mm - A2, RR DIN933 | 00ID7188 | 4 | 4 |
| 35c | Nut for Pos. 35b, M8, 304SS | 00ID7187 | 4 | 4 |
| 39b | O-ring, EPDM, ø44.45 x 3.53mm | 96407726 | 2 | |
| | O-ring, FKM, ø44.45 x 3.53mm | 96411713 | | 2 |

| FLEXI CLAMP KIT FOR SMALL CRI1S, 1, 3, & 5 | | | Kit No. 96480856 | |
|--|---|--------------|---------------------------|-----|
| 1-1/4" Internal Threaded SS Pipe Stub (232 PSI Max.) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| | | | EPDM | FKM |
| 12b | Stainless, Internal 1-1/4" -11.5 NPT | 410279 | 2 | 2 |
| 12c | Clamp for Flexi Base & pos.12b | 00ID7194 | 4 | 4 |
| 35b | Screw for Pos. 12c, M8 x 40mm - A2, RR DIN933 | 00ID7188 | 4 | 4 |
| 35c | Nut for Pos. 35b, M8, 304SS | 00ID7187 | 4 | 4 |
| 39b | O-ring, EPDM, ø44.45 x 3.53mm | 96407726 | 2 | |
| | O-ring, FKM, ø44.45 x 3.53mm | 96411713 | | 2 |

| FLEXI CLAMP KIT FOR SMALL CRI1S, 1, 3, & 5 | | | Kit No. 96480852 | |
|--|---|--------------|---------------------------|-----|
| 2" External Threaded SS Pipe Stub (232 PSI Max.) | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| | | | EPDM | FKM |
| 12b | Stainless, Internal 2" -11.5 NPT | 96468338 | 2 | 2 |
| 12c | Clamp for Flexi Base & pos.12b | 00ID7194 | 4 | 4 |
| 35b | Screw for Pos. 12c, M8 x 40mm - A2, RR DIN933 | 00ID7188 | 4 | 4 |
| 35c | Nut for Pos. 35b, M8, 304SS | 00ID7187 | 4 | 4 |
| 39b | O-ring, EPDM, ø44.45 x 3.53mm | 96407726 | 2 | |
| | O-ring, FKM, ø44.45 x 3.53mm | 96411713 | | 2 |

| AIR VENT FOR SMALL CR | | | Kit No. 91128708 | |
|-----------------------|--|--------------|---------------------------|--|
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| 117 | Pipe for Air Vent, R1/2", 316SS | 330272 | 1 | |
| 118 | Automatic Air Vent, Type AE50S 1/2" BSP, SS. | 96498508 | 1 | |

Accessories

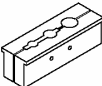
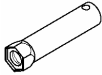
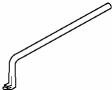

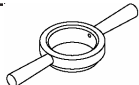
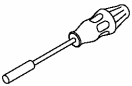
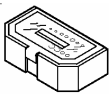

| ANSI COMPANION FLANGES FOR SMALL CR | | | Kit No. 91129013 | |
|--|---|--------------|---------------------------|--|
| 1-1/4" Threaded Stainless, 300 Lb. Class | | | | |
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| N/A | Nut, HEX 5/8"-11 UNC, 18-8SS | 0ID00164 | 8 | |
| N/A | Bolt, HEX 5/8" x 2-3/4", UNC 18-8SS | 00ID7241 | 8 | |
| N/A | Flange 1-1/4" Stainless, ANSI, DIN, JIS PN40/30K, | 00ID7239 | 2 | |
| N/A | Gasket Full Face Flange, 1-1/4", 300#, Cut Ring | 400201 | 2 | |

| VICTAULIC TYPE COMPANION CONNECTIONS FOR SMALL CRI(N) | | | Kit No. 4013010 | |
|---|---|--------------|---------------------------|-----|
| Pos. No. | Description | Material No. | Qty. Included in each Kit | |
| | | | EPDM | FKM |
| N/A | Victaulic Type Coupling, 1-1/4", EPDM | 0ID17810 | 2 | |
| N/A | Victaulic Type Coupling, 1-1/4", 77 FKM | 0ID00112 | | 2 |
| N/A | 1-1/4" Stainless NPT Nipple | 4000011 | 2 | 2 |

Spare Part Kits • Special Tools **CRN1**

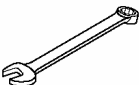
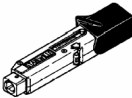
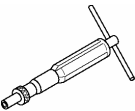




Special Tools

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-SM-028 | 05/04
PRINTED IN USA

Subject to alterations.

GRUNDFOS Pumps Corporation
17100 W. 118th Terrace
Olathe, Kansas 66062
Phone: 913.227.3400
Fax: 913.227.3500

GRUNDFOS Canada, Inc.
2941 Brighton Road
Oakville, Ontario L6H 6C9 Canada
Phone: 905.829.9533
Fax: 905.829.9512

Bombas GRUNDFOS de Mexico S.A. de C.V.
Boulevard TLC No. 15
Parque Industrial Stiva Aeropuerto
Apodaca, N.L. Mexico 66600
Phone: 52.81.8144.4000
Fax: 52.81.8144.4010

www.grundfos.com

GRUNDFOS