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Consumable Parts List

| Part Number | Description | Quantity |
|-----------------------------------|---|--------------|
| BASE SYSTEM | | |
| PUMPS | | |
| 244-00009 | FILTER-OIL MIST,KF25,ALCATEL | 1 / oil pump |
| 622561 | Filter-Exhaust, Vac Pump, KF-16 | 1 / oil pump |
| 623104 | Rough Pump-Oil Mist Filter-Copper Sieve, 4" | 1 |
| 707256 | Rough Pump Oil-(Ulvac Pump)-500 milliliter | 1 |
| 710201 | Rough Pump Oil-(Ulvac Pump)-4 liter | 1 bottle |
| 725038 | Tip Seal Kit for Edwards Scroll Pump Model nXDS 15i | 1 |
| 730018 | Agilent Titanium Sublimator Filaments | 12 ea |
| 730021 | Agilent Noble Diode Ion Pump Elements | 4 ea |
| GAUGES | | |
| 731400 | Nude Ion Gauge (B-Rax control) | 1 |
| 731401 | Intro Gauge tube CV101 (B-Rax control) | 1 |
| 703699 | Pfeiffer Compact FullRange BA Gauge, PBR-DN40CF | 1 |
| ANALYZER | | |
| 717032 | Multi-Channel Detector-Channel Plates-50mm | 1Set |
| 757132 | Multi-Channel Detector Anode-32 Channel | 1 |
| FIG-5B ION GUN | | |
| 627206 | Argon Lecture Bottle-1400 PSIG | 1 |
| 702056 | FIG 05 Ionizer | 1 |
| MONOCHROMATED X-RAY SOURCE | | |
| 625783 | ASSY-XTAL/SUBSTRATE,ELLIPSOID | 1 |
| 629888R | Al. Window Assy | 1 |
| 729614 | LaB6 Filament for X-Ray E-Gun | 1 |
| 805331 | Anode Replacement Kit | 1 |

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| NEUTRALIZER | | |
|---------------------------------|--|----------|
| 733876 | Neutralizer Filament Assembly-Tantalum (Non-LEIPS Option) | 1 |
| 807204 | Neutralizer Filament Assembly-BaO (LEIPS Option) | 1 |
| 807205 | Neutralizer Filament Assembly Tantalum (offset E-Neut) | 1 |
| SAMPLE PLATENS and PARTS | | |
| 630152 | Mask-1mm Aperture | 1 |
| 630153 | Mask-Flared, 1mm Aperture | 1 |
| 630154 | Mask-2mm Aperture | 1 |
| 630155 | Mask-Finger, 3mm Aperture | 1 |
| 706457 | Model 190 HCP sample mount for Versa Prep | Optional |
| 707475 | Model 193H-Faraday Cup-800 um raised FC for Hot/Cold Stage | 1 |
| 713034 | Model 190HC-Sample Holder Flat | 1 |
| 713038 | Model 260HC-Sample Holder-Flat- 6.0 cm | 1 |
| 713036 | Model 191HC-Recessed Specimen Holder- USE ONLY TITANIUM MOUNTING SCREWS (P/N 626376) | 1 |
| 716012 | Model 193G-Faraday Cup-Augur-250 um recessed FC | 1 |
| 720901 | Model 279HCA-Sample Holder for Angle Dependent studies | 1 |
| 725652 | Model 190HC1 600 degree/-140 degrees- USE ONLY TITANIUM MOUNTING SCREWS (P/N 717431-M2X3 AND 717432-M2X4) | Optional |
| 725653 | Model 190HE1 800 Degree- USE ONLY ALUMINA MOUNTING SCREWS (P/N 725735-m2X3) | Optional |
| 727684 | 4 contact holder- USE ONLY ALUMINA MOUNTING SCREWS (P/N 725735-M2X3) | Optional |
| 757381 | Assy Faraday Cup, 250um, raised H/C-Stage | Optional |
| C72040 | Spring-Flat Formed Tip, 0.53L, BE Cu | 1 |
| SAMPLES / CALIBRATION STANDARDS | | |
| 629761 | GRID-100 LPI,COPPER | 1 |
| 631772 | GRID-300 LPI,COPPER | 1 |
| 631774 | SAMPLE-TEST,CU,20X20MM | 1 |
| 634528 | SAMPLE-TEST,AG,20X20MM | 1 |
| 705110 | SAMPLE,SIO2,1000A,D100.0,T525 | 1 |
| 719985 | SAMPLE-TEST,AU,12.5X12.5 MM | 1 |
| 720953 | PET FILM,.075MM,G2-75,A6 SIZE | 1 |

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| MISCELLANEOUS | | |
|-------------------------|---|----|
| MISC PARTS | | |
| 608892 | O2 Gas Bottle-50cc 0.9MP | 1 |
| 700526 | Aluminum Foil-18" Wide x 250 Foot Roll | 1 |
| 715544 | 1.5-volt Battery | 1 |
| 718083 | 5um Filter Cartridge for Orion Chiller | 1 |
| 731132 | Flashlight | 1 |
| 732781 | MECHANICAL SEAL FOR RKS402J-MV,ORION | 1 |
| 732782 | CASCADE PUMP FOR RKS402J-MV,ORION | 1 |
| 732783 | FAN MOTOR FOR RKS402J-MV,ORION | 1 |
| 732784 | INVERTER FOR RKS402J-MV,ORION | 1 |
| SEALS (Gaskets/O-Rings) | | |
| 608141 | Seal Helicoflex | 1 |
| 618134 | Gasket, CU-4-VCR | 10 |
| 619165 | Gasket-Cu 4.62 OD Flange-Pkg 10 | 1 |
| 624725 | O-Ring, Viton, Gas Inlet, 0.346 ID | 1 |
| 626235 | Gas Line Gasket Seal, CU-2-VCR | 10 |
| 703226 | Gasket-CU 362mm OD Flange | 5 |
| 724730 | Stainless Steel Gasket (Swagelok)-SS-4-VCR-2-GR | 10 |
| 735128 | Seal Kit-MDC Gate Valve (for 4.62" port, valve PN 731680) | 1 |
| 2680750 | Gasket-Cu 1.33 OD Flange-Pkg 10 | 1 |
| 2681500 | Gasket-Cu 2.75 OD Flange-Pkg 10 | 1 |
| 2682500 | 4.5 Inch OD Flange-Pkg 10 | 1 |
| 2684000 | Gasket-Cu 6.00 OD Flange-Pkg 10 | 1 |
| 2686000 | Gasket-Cu 8.00 OD Flange-Pkg 10 | 1 |
| FUSES | | |
| 171300 | Fuse-3AG, 0.50A, 250 V, Slow-Blow | 5 |
| 171302 | Fuse-3AG, 1.0A, 250 V, Slow-Blow | 5 |
| 171303 | Fuse-3AG, 1.50A, 250 V, Slow-Blow | 5 |
| 171304 | FUSE-3AG, 2.0A, 250V, Slow Blow | 5 |

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| | | |
|----------------|---|---|
| 601265 | Fuse-3AG, 5.0A, 250 V, Slow-Blow | 5 |
| 609040 | Fuse, Pico, 1A, 125V, Radial | 5 |
| 639623 | FUSE-4A,250V, S/B,5X20, IEC, SHT5, ROHS | 5 |
| 702967 | Kit-Pico Fuse, Spares | 1 |
| 750224 | FUSE-PICO,1A,125V, N/B, RDL, ROHS | 5 |
| 750225 | FUSE-PICO, .25A,125V, N/B, RDL, ROHS | 5 |
| 750392 | FUSE-.032A,250V, /B,5MM, ROHS | 5 |
| 750419 | FUSE-PICO,2.5A,125V, N/B, RDL, ROHS | 5 |
| 750420 | FUSE-PICO,0.063A,125V, N/B, RDL, ROHS | 5 |
| 750422 | FUSE-PICO,0.375A,125V, N/B, RDL, ROHS | 5 |
| 752264 | FUSE-PICO,2.0A,125V, N/B, RDL, ROHS | 5 |
| 752553 | FUSE-PICO,4.0A,125V, N/B, RDL, ROHS | 5 |
| 752569 | FUSE-PICO,1.5A,125V, N/B, RDL, ROHS | 5 |
| 752774 | FUSE-PICO,0.500A,125V, N/B, RDL, ROHS | 5 |
| 753152 | FUSE-PICO,5.0A,125V, S/B, RDL, ROHS | 5 |
| OPTIONS | | |
| AUGER | | |
| 623095 | Gasket for Auger E-Gun-4.50" Flange-Special 2.86 ID | 1 |
| 709120 | LaB6 Filament-Augur Option | 1 |
| 710818 | Scintillator-Crystal Phototube-Augur Option | 1 |
| 710819 | Tip Scintillator | 1 |

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| C60 ION GUN | | |
|-------------------------|---------------------------------------|---|
| 706215 | C60 Powder Cartridge 250 mg | 1 |
| 706218 | C60 Filament Assy. (E1121A) (10KV) | 1 |
| 707667 | C60 Filament Assy. (E1487A) (20KV) | 1 |
| 707673 | C60 Temperature Sensor (20KV) | 1 |
| 707679 | C60 Heater (20KV) | 1 |
| 715518 | Hi Pace 80 Turbo Oil Wick | 1 |
| 807194 | KIT-REPLACE,DIAPHRAGM, MVP 035 | 1 |
| 807195 | KIT-REPLACE,DIAPHRAGM, MVP 040 | 1 |
| 807196 | KIT-REPLACE,SILENCER,MVP 035/040 | 1 |
| 807197 | KIT-REPLACE,RING,SEAL, MVP 035/040 | 1 |
| 807198 | KIT-REPLACE,HOSE,MVP 035/040 | 1 |
| 807199 | KIT-REPLACE,VALVE,BALLAST,MVP 035/040 | 1 |
| 807200 | KIT-REPLACE,FUSE, MVP 040 | 1 |
| DUAL ANODE X-RAY SOURCE | | |
| 602508 | Frame Gridded Window | 1 |
| 607910 | Frame Al/Be Gridded Window | 1 |
| 620914 | DI Cartridge for Orion Chiller | 1 |
| 729378 | X-Ray Source Filament for 04-550 | 1 |
| 732227 | Al/Mg for 04-550 | 1 |
| 732228 | Zr/Mg for 04-550 | 1 |
| 732229 | Mg/Mg for 04-550 | 1 |
| DUAL TURBO | | |
| 715519 | Hi Pace 80 Turbo wick | 1 |
| 807194 | KIT-REPLACE,DIAPHRAGM, MVP 035 | 1 |
| 807195 | KIT-REPLACE,DIAPHRAGM, MVP 040 | 1 |
| 807196 | KIT-REPLACE,SILENCER,MVP 035/040 | 1 |
| 807197 | KIT-REPLACE,RING,SEAL, MVP 035/040 | 1 |
| 807198 | KIT-REPLACE,HOSE,MVP 035/040 | 1 |
| 807199 | KIT-REPLACE,VALVE,BALLAST,MVP 035/040 | 1 |

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| | | |
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| 807200 | KIT-REPLACE,FUSE, MVP 040 | 1 |
| | GAS CLUSTER ION BEAM (GCIB) | |
| 244-00009 | FILTER-OIL MIST,KF25,ALCATEL | 1 |
| 622561 | Filter-Exhaust, Vac Pump, KF-16 | 2 |
| 623104 | Rough Pump-Oil Mist Filter-Copper Sieve, 4" | 2 |
| 628239 | Rough Pump Oil (Pfeiffer Pump) 5 liter | 1 |
| 715475 | Skimmer, GCIB | 1 |
| 715519 | HI Pace 300 Turbo Pump Oil Wick | 1 |
| 715518 | HI Pace 80 Turbo Pump Oil Wick | 1 |
| 724730 | Stainless Steel Gasket (Swagelok)-SS-4-VCR-2-GR | 10 |
| 725677 | Filament Assembly installation Kit | 1 |
| | LEIPS | |
| 633419 | GASKET-CU,2.75FLG,.125,CLN | 1 |
| 721462 | SCR-PAN,M2X3,LOW HEAD | 1 |
| 731112 | OPT FILTER,MERCURY-LINE,254NM,T65,D25 | 1 |
| 731113 | OPT FILTER-BLOCK,300-650NM,D25 | 1 |
| 731114 | OPT FILTER-SINGLE,260NM,16NM,T55,D25 | 1 |
| 723430 | GAUGE MODULE-CONVECTRON,MKS275400 | 1 |
| 732441 | MASK-SAMPLE,SPRING,2-HOLE,LIPES | 1 |
| 732442 | MASK-SAMPLE,SPRING,1-HOLE,LIPES | 1 |
| 732443 | Set, Optic Filters | 1 |
| 732444 | STORAGE BOX,OPT FILTER,D25,12SLOTS | 1 |
| 733347 | HOLDER-SAMPLE,24 DEG | 1 |
| 733348 | MOD 201A FARADAY CUP-24DEG | 1 |
| 733620 | SCREEN-PHOSPHOR,P15 OD6,ITO/FL 8X18X.7 | 1 |
| 734888 | SAMPLE-TEST,GLASS/ITO/AU/CUPC 1/2CUT | 1 |
| | REELS | |
| C75010 | 03-146 E-Gun Tungsten Filament | 1 |
| | HOT/COLD STAGE | |
| 726077 | H/C stage burst disk | 1 |

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| | UPS SOURCE | |
|-----------|--|---|
| 568-00019 | Viewport Glass, 1-1/3, VP-075 | 1 |
| 707146 | He Gas Bottle | 1 |
| 728075 | Gauge-Tube Pirani, CF034 | 1 |
| 731065 | Ulvac-PHI UV Source Anode | 1 |
| 731066 | Ulvac-PHI UV Source Light Capillary (only replace if heavily contaminated) | 1 |
| 731067 | Ulvac-PHI UV Ceramic Tube Anode | 1 |
| 731068 | Ceramic Guide Anode Wire | 1 |
| 731069 | Ceramic Guide SHV | 1 |
| 731219 | O-Ring P8 Viton | 2 |
| 807194 | KIT-REPLACE,DIAPHRAGM, MVP 035 | 1 |
| 807195 | KIT-REPLACE,DIAPHRAGM, MVP 040 | 1 |
| 807196 | KIT-REPLACE,SILENCER,MVP 035/040 | 1 |
| 807197 | KIT-REPLACE,RING,SEAL, MVP 035/040 | 1 |
| 807198 | KIT-REPLACE,HOSE,MVP 035/040 | 1 |
| 807199 | KIT-REPLACE,VALVE,BALLAST,MVP 035/040 | 1 |
| 807200 | KIT-REPLACE,FUSE, MVP 040 | 1 |
| | VERSAPREP/VERSALOCK | |
| 703699 | Gauge, PBR-DN40CF | 1 |
| 715519 | Hi Pace 300 Turbo Pump Oil Wick | 1 |