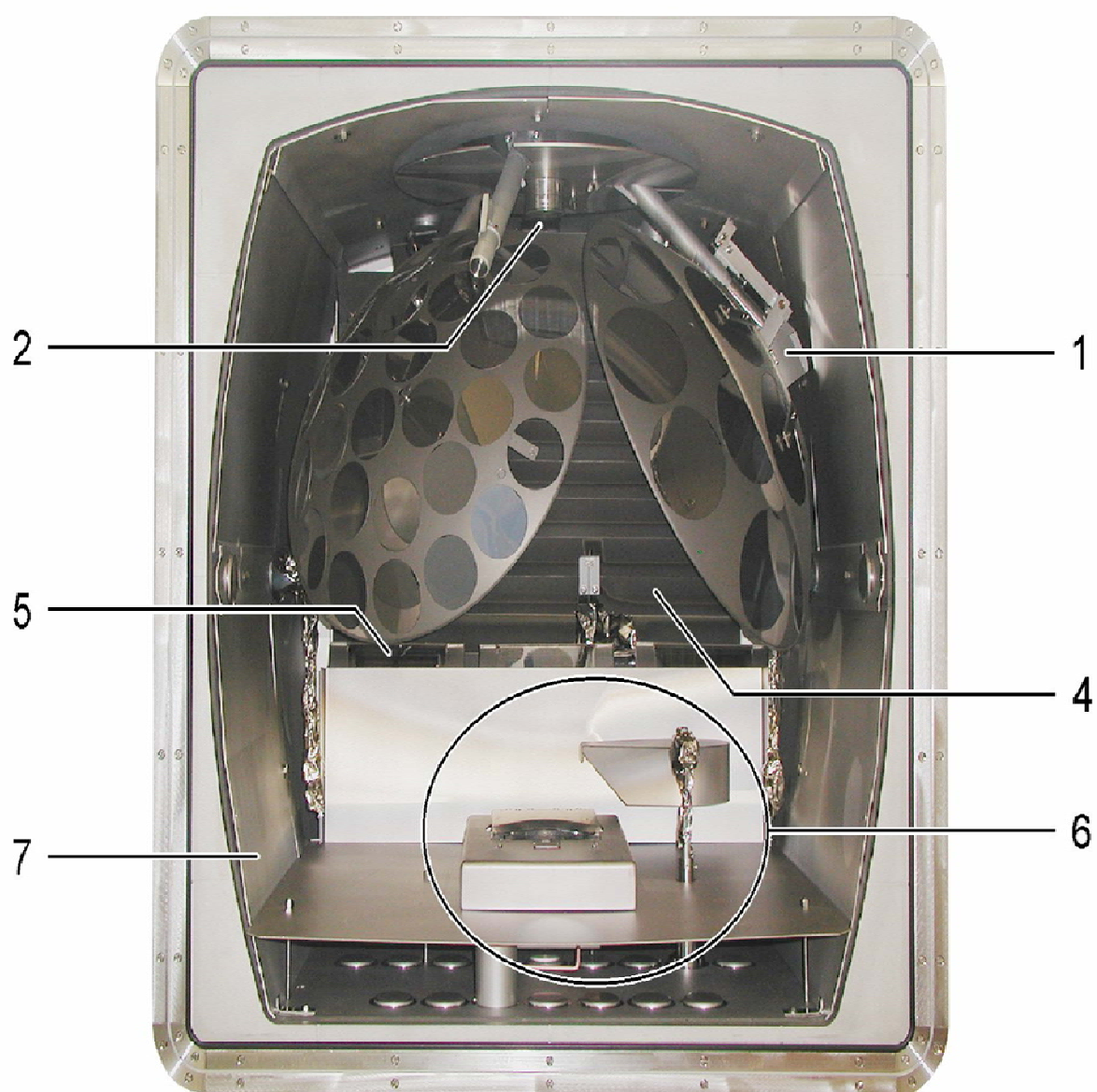




NOTE: This picture shows a typical process chamber layout. Your specific system may differ from this layout in one or more aspects.

Process Chamber	
Description (including Dimensions and Specification)	OEM Part Number
Substrate Carrier (No 1)	
Knudsen planetary drive	
Knudsen planetary drive	102070334
Gearing, DN 250 ISO	BB147703-T
Gear wheel, conical	BB147724
Gear wheel, conical	BB147725
Gear motor, HFV65/2-1/1MG, 3 ph, 75.7 rpm	102035745
Ball bearings, deep groove, 608-2Z-C4, Ø8/22 x 7	N4001315XB
Clamps, DN 63--250 ISO-K, set	BP226875-T
Rotary feedthrough, DN 36	BB147705-T
Ball bearings, w/PTFE retainer, Ø130/165 x 18, C4	BB147810-T
O-ring, FPM75, 129.77 x 3.53	B4071377PV
O-ring, FPM75, 266.07 x 5.34	B4071787PV
Sleeve joint hose union, brass, G 1/2	B4164566ZF
Ball bearings, deep groove, 6001, Ø12/28 x 8	N4001318
Internal ring, IR 12/15 x 22.5	B4049132
Rotary shaft seal, FPM, A 15/24 x 7	N4083144VD
Free wheel, NFS 12, 12/35 x 13	B3898102DS
O-ring, FPM75, 40.87 x 3.53	B4070643PV
O-ring, FPM75, 9.25 x 1.78	B4070144PV
Felt ring, Ø15/25 x 2	B4082203F
Planet head	
Clamping fixture	BB271139-T
Ball bearings, deep groove, MoS2, Ø17/35 x 10	BP419986
Ball bearings, deep groove, 6201/C4, Ø12/32 x 10	N4001618BF
Shields, for Knudsen arms	
Disc, 62 mm, for Knudsen	BB270153-X
Planets	
Shaft, +2 mm	BB277878
Knudsen calotte, 26 x 100 mm	102135827 / 102134739
Knudsen calotte, 11 x 150 mm	102135828 / 102135369
Film thickness measurement (No 2)	
QSK 621 C with mount	
Quartz changer, QSK 621 C, six-fold	BGG17766
Lock washer, sst, M5 (5.3/9 x 0.6)	B3547141X
O-ring, FPM75, 56.74 x 3.53	B4070844PV
Light barrier print, cpl.	BB276995-T
Light barrier print, assembled	BG543710-T
Gear motor, 2225f024s-22/2, 24 V, 548:1	B5116686GE
Position controller print, assembled	BG549779-T
Quartz head, cpl.	BG549794-T
Cooling unit, cpl.	BG549735-X
Cover for QSK 621 C	BG549770-X
Housing, cpl.	BG549775-X
Sliding contact	BG549786
Quartz crystal magazine	BG549790-T
Screw, hex socket, vented, A2, M3x4	BG511547
Insulator	BG549744
Bearings with seal cage	BG549782
Sliding contact	BG549749
Bearing bush	BG549765
Screw, cheese head, vented, A2, M5x10	BK205768
O-ring, FPM75, 5.28 x 1.78	B4070066PV
O-ring, FPM75, 9.25 x 1.78	B4070144PV
O-ring, FPM75, 10.77 x 2.62	B4070167PV
O-ring, FPM75, 47.22 x 3.53	B4070744PV
Accessories for QSK 621 C	
Quartz crystals, QS 011 Ag, 10 pieces	BN845104-T
Quartz crystal magazine	BG549790-T
Cover for QSK 621 C	BG549770-X

Chevron, water-cooled (No 3)	
Chevron, sst, water-cooled	BB145919-T
O-ring, FPM75, 37.69 x 3.53	B4070610PV
Sleeve joint hose union, brass, G 1/2	B4164566ZF
Compression ferrule, brass, 12	B4119369-M
Nipple connection, brass, 12-G 1/2	B4118428GM
Coating protection	BB167415-X
Cap nut, M8	102011556
Heaters (No 4)	
Quartz heaters, 6 kW	
Quartz heating unit, 2 x 1000 W	BB145500-T
Ledge	BB145551
Reflector	BB145558
Spring, Nimonic, Ø0.5 x 12 x 25.5	BB145559
Spring, Nimonic, Ø0.5 x 12.5 x 31	BB145560
Protective washer	BB183353
Quartz heater, 1000 W, 120 V	B5015201KL
Holder, cpl.	BB147913-T
Holder	BB147470-X
Shaft	BB147463
Retaining ring, DN 16 B	BN720067
O-ring, FPM75, 32 x 4	B4070545PV
Protective shield	BB269810
Current feedthrough	102096346
Compression glass feedthrough	102096172
Protective shield	BB149611
Hose clamp w/worm gear, sst, Ø8--22	B4163102A
O-ring, FPM75, 37.69 x 3.53	B4070610PV
Shields, for quartz heaters	
Casing, cpl.	BB269738-X
Pane, quartz glass	BB269781
Hood	BB398652
Thermocouple assembly	
Thermocouple assembly	BB160056-T
Plate	BB160549
Plate	BB160550
Thermocouple, type K, cpl.	BG531816-T
Adapter, Ø32 / DN 10 KF	BB161044-T
O-ring, FPM75, 40 x 4	B4070644PV
Clamping ring, DN 10--16 ISO-KF	BP217426-T
Centering ring, DN 10 ISO-KF	BP213326-T
Matching bush, ceramics, 71-6417	B4622251GB
Insulating bush, ceramics, 71-6416	B4622251TB
Block	BB269867
Thermocouple & feedthrough, DN 10 KF	BG531821-X
Sources (No 5)	
Evaporation source, ESQ 212 Standard	
Basic unit ESQ 212	BK207540-T
Pole shoe, left	BK207065
Pole shoe, right	BK207066
Friction bearings	BK203741
Electron beam system	BK207080-T
Yoke	BK202698
Insulator	BK202700
Insulator	BK202701
Wehnelt plate	BK202702
Wehnelt plate	BK202703
Cathode, tungsten, thoriated	BK202704-R
Anode	BK203694
Gridder	BK204737

Insulating bush, ceramics, 71-61	B4622251TN
Lateral coil, cpl.	BK207107-T
Coil block	BK207101-X
O-ring, FPM75, 17.12 x 2.62	B4070296PV
Beam shield	BK207209
Screw, cheese head, vented, A2, M3x6	BK203826
O-ring, FPM75, 25.12 x 1.78	B4070434PV
O-ring, FPM75, 82.22 x 2.62	B4071107PV
O-ring, FPM75, 101.27 x 2.62	B4071235PV
O-ring, FPM75, 110.72 x 3.53	B4071302PV
Rotary shaft seal, FPM, A 14/24 x 7	N4083128V8
Rotary shaft seal, FPM, A 28/38 x 7	N4083485VD
Ball bearings, deep groove, S1721, Ø27/33.3 x 3.9	B0140291
Cathode cover	BK207083-T
Drive for 16 hole positioning, 19.8 : 1, cpl.	BK207503-T
Worm gear	BG446137
Water detector	BG446139
Gear motor, w/pinion, 19.8 : 1	BK203810-T
Positioning board, 16 holes	BG446130-T
Ball bearings, deep groove, 623, Ø3/10 x 4	N4001610
Ball bearings, deep groove, S2024, Ø31.7/38.1x3.9	B0140241
Gear wheel	BK203525
Worm, ETG100, S 5H1R, 1r-0.5	B4316100AF
Flat seal, FPM 65Sh, Ø6/10 x 3	B4088022V3
Media connections, 0.5 m	
Test capillary	BK207112-X
Flexible metal hose, DN 25	BK203704-X
Centering ring, DN 25 ISO-KF	BP213270-T
Screw, cheese head, vented, A2, M4x12	BK203827
O-ring, FPM75, 31.42 x 2.62	B4070527PV
O-ring, FPM75, 37.69 x 3.53	B4070610PV
Water line, outlet, 0.5 m	BK203894-T
Hose, MQ, white, 10 bar, Ø8/12	B2355166GS
O-ring, NBR60, 8.73 x 1.78	B4070123PP
Tubing, heat-shrinkable, RNF-100, red, 1/2	B4616731AC
Hose clamp, one-ear, 14.5 RER, Ø11.8--13.8	B4163240XS
Water line, inlet, 0.5 m	BK203893-T
Hose, MQ, white, 10 bar, Ø8/12	B2355166GS
O-ring, NBR60, 8.73 x 1.78	B4070123PP
Tubing, heat-shrinkable, RNF-100, blue, 1/2	B4616731AG
Hose clamp, one-ear, 14.5 RER, Ø11.8--13.8	B4163240XS
Connector print, 16 sockets, cpl.	BG549415-T
Fitting set	BK207095/T
Cathodes, QK 110 W, tungsten, thoriated, 10 pieces	BN845727-T
Insulating bush, ceramics, 71-61	B4622251TN
Insulator	BK202701
Rotary shaft seal, FPM, A 14/24 x 7	N4083128V8
Rotary shaft seal, FPM, A 28/38 x 7	N4083485VD
Screw, cheese head, vented, A2, M3x6	BK203826
Tool set for ESQ 212	BN845758-T
Adjustment girder, cpl.	BK204739-U
Cathodes, QK 110 W, tungsten, thoriated, 10 pieces	BN845727-T
Accessories for ESQ 212	
High-voltage feedthrough, EHD 110 A	BK207575-T
Feedthrough	BK202881-X
Protective cover	BK202882-X
Sleeve	BK202896
Sleeve	BK202897
O-ring, FPM75, 37.69 x 3.53	B4070610PV
Connection rail for ESQ, round, cpl.	BK207530-T
Holder for ESQ 212, w/o ledge	BK207538-T
Screw, hex socket, vented, A2, M5x8	BB135719
O-ring, FPM75, 37.69 x 3.53	B4070610PV

Dummy cover, cpl.	BB341620-X
Dummy cover, Ø32/25, cpl.	BB170061-T
Beam shield	BK207209
Hood for ESQ 212, cpl.	
Screw, cheese head, vented, A2, M4x20	BB101512
Hood for ESQ 212	BB166352
Four-pot crucible, cpl.	
Holder, cpl.	102017723
Ball bearings, deep groove, Ø38.1/44.45 x 3.962	BK207071
Water duct	BB276446-X
Base	BB276448
Holder	BK207061-X
O-ring, NBR60, 15.88 x 2.62	B4070257PP
O-ring, FPM75, 151.99 x 3.53	B4071492PV
Four-pot crucible, 2 x 30 ccm / 2 x 40 ccm	BB276445
Crucible cover	BK207054-T
Rear panel	BB166761-T
Shutter drive, PB 032, compr. air, 24 VDC, cpl.	102093530
Rotary drive , DRQD-20-90-....., 90°	102098617
Solenoid valve, M5, bistable, 24 VDC	102037218
Sound absorber, AN120, M5x17	B3695420KC
Casing, cpl.	102096880
Rotary feedthrough	102093611
Needle bush, w/o i-ring, HK Ø14/20 x 12	B4027422
Seal ring f/bearings, 2 lips, SD 14/20 x 3	B4082630DS
Internal ring, IR 10/14 x 20	B4049127
Ball bearings, deep groove, 6000, Ø10/26 x 8	N4001317
Seal ring f/bearings, 1 lip, G 20/28 x 4	B4082648GG
Rotary shaft seal, FPM, A 20/30 x 7	N4083264VD
O-ring, FPM75, 40 x 4	B4070644PV
High-vacuum oil, OM 090, 10 ml	BN845806-T
Shutter for ESQ	
Shutter	BB385033-X
Rod, 237 mm, cpl.	102099044
Washer	BB178174
Cap nut, M10	102076486
Bottom cover	
Cover plate, rear, 770 x 740	BB276946
Cover plate, rear, 770 x 275	BB399030
Shield set (No 6)	
Protective shield	102096440
Protective shield, 1 view port, cpl.	102050955
Protective shield	BB277932
Protective shield, 2 parts	102046562
Protective shield	BB160773-X
Rail, right	102047625
Rail, left	102047627
Washer	BB180887
Screw, hex head, vented, A2, M5x10	BB145467
Protective shield	102047616
Bolt	102125613
Spring	BB343819
Protective shield	BB160772
Bolt	102047620
Bolt	BB277933
Cap nut, M8	102011556
Bolt	102049318
Protective shield, top, cpl.	BB269085-X
Nut, hexagon, A2, M6, 0.5D	N3407043X
Threaded bolt, hex socket, vented, M6x25	102125693