Module 2
CVD Chamber

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1.0 Introduction

This module contains primarily the mechanical spare parts for the CVD chamber.

Any queries regarding the correct identification of parts should be addressed to STS Customer Services section.

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1.1 CVD Chamber Enclosure.

Drawing Number TP303025 **Figure Number** 1 **STS Ref.** AS303025

Item	Description of Part	Part Number	Notes
1	Blind grommet	248084	
2	9 Way D line socket	530033	
3	Connector D type screwlock	530025	
4	Gland plate	DT308681	
5	Chamber EMC enclosure adjusting plate	DT302679	
6	Blind grommet	248018	
7	Top right service panel	DT300474	
8	Electrical connection bracket assembly	AS310084	
9	GLAND 4-8mm PG9 metal	546319	
10	EMC Enclosure rear gland plate	DT300475	
11	EMC Enclosure (elect)	FB300479	
12	Temperature controlled top plate bracket	DT300228	
13	Removable gland plate	DT302007	
14	12 Way multi-connector	530377	
15	MESC CVD Chamber electrical kit	KC4827	
16	Enclosure service panel assembly	AS301088	
17	CVD Chamber pneumatics kit	KT301781	

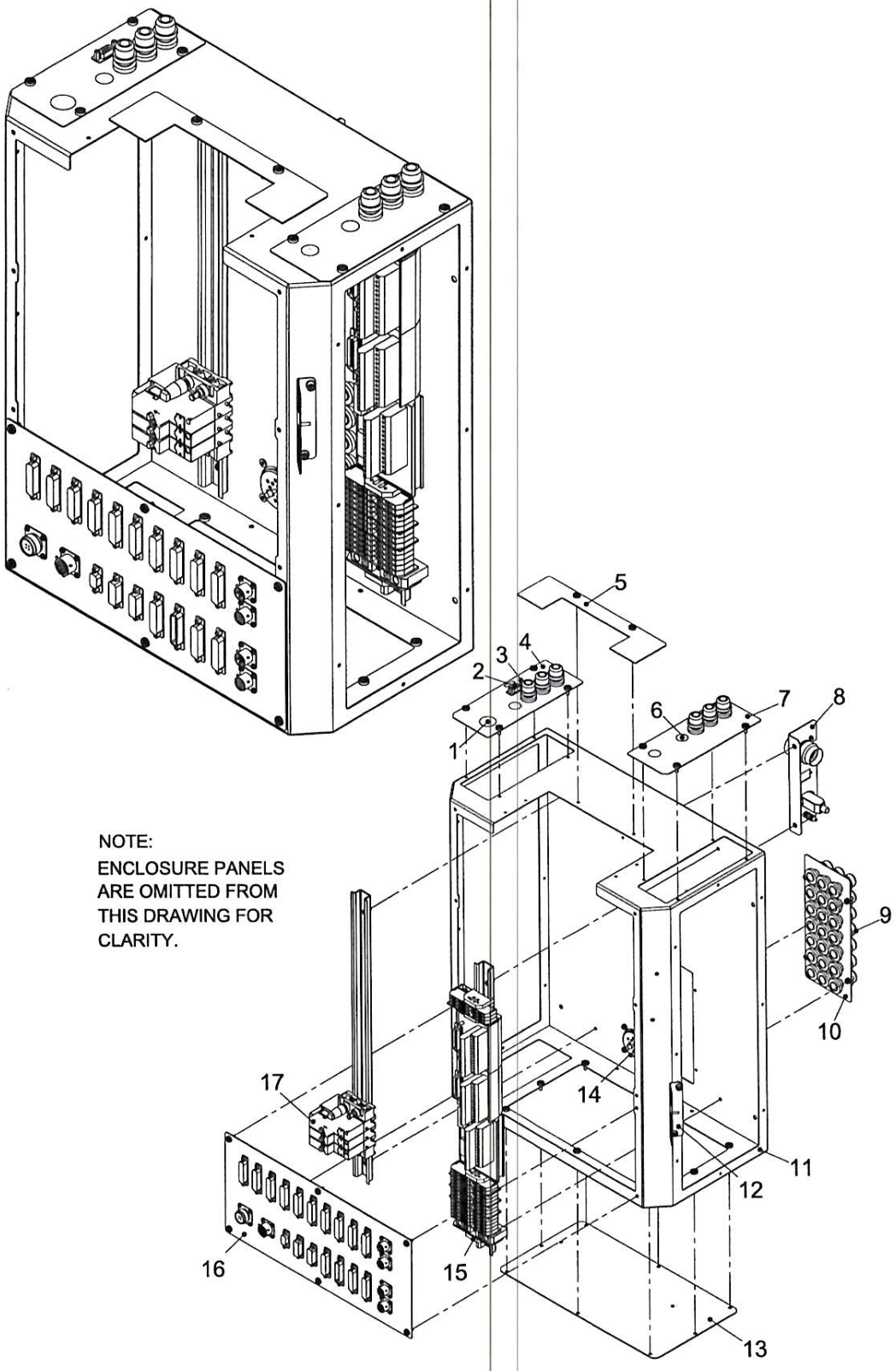


Figure 1 CVD Chamber enclosure.

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1.2 CVD Chamber service panel.

Drawing Number TP304099 **Figure Number** 2 **STS Ref.** AS304099

Item	Description of Part	Part Number	Notes
1	EMC Chamber mechanical service panel	1C4607	
2	Panel mounting coupling	266001	
3	Bulkhead union 1/4"	211871	
4	11mm Blind grommet	248016	
5	14.3mm Blind grommet	248014	
6	8mm Bulkhead connector	216848	
7	9.5mm Blind grommet	246913	

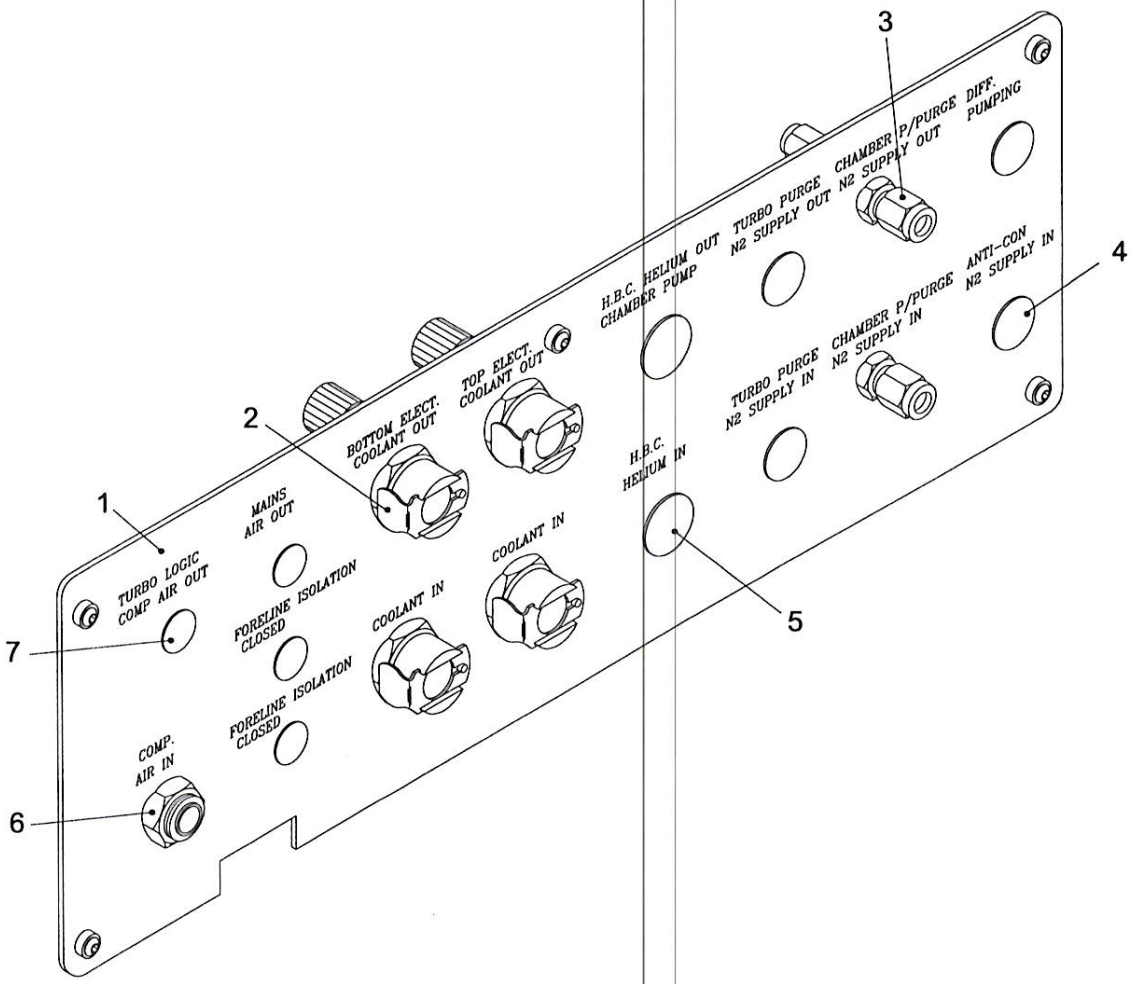


Figure 2 CVD Chamber service panel

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1.3 CVD Chamber & frame assembly.

Drawing Number TP306444 **Figure Number** 3 **STS Ref.** AS306444

Item	Description of Part	Part Number	Notes
1	O-Ring BS383	206348	
2	RIE CVD & ICP Chamber	112215B10	
3	RFI Shielding	282299	
4	O-Ring 260mmIDx3mm thick	206341	
5	O-Ring BS3593-57	206347	
6	CVD Baseplate	FB310352	
7	MKII Chamber frame assembly	AC4461	
8	Flowswitch assembly	AC3504	
9	RH Flowswitch assembly	AS311250	
10	Chamber busbar safety earth	1C4762	

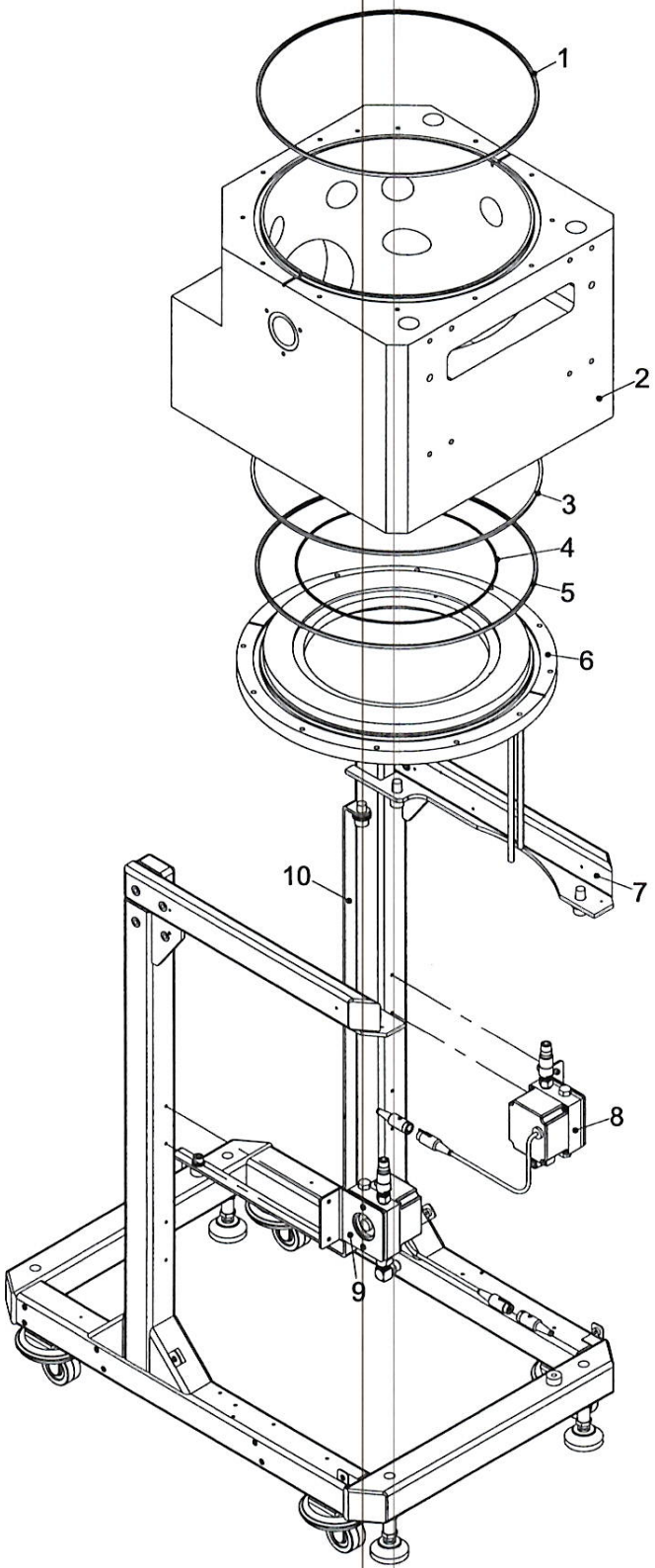


Figure 3 CVD Chamber & frame assembly

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1.4 CVD Lid lift assembly.

Drawing Number TP303430 **Figure Number** 4 **STS Ref.** AS303430

Item	Description of Part	Part Number	Notes
1	CVD Lift pivot assembly	AS303423	
2	CVD Lift insulator	DT303420	
3	Integral CVD lift claw	DT303431	
4	Lifting cylinder	226035	
5	Push button release stop	550524	
6	Column lift mounting bracket	DT301736	
7	Integral CVD lift special spacer	DT303401	
8	Integral CVD lift clamping washer	DT301737	

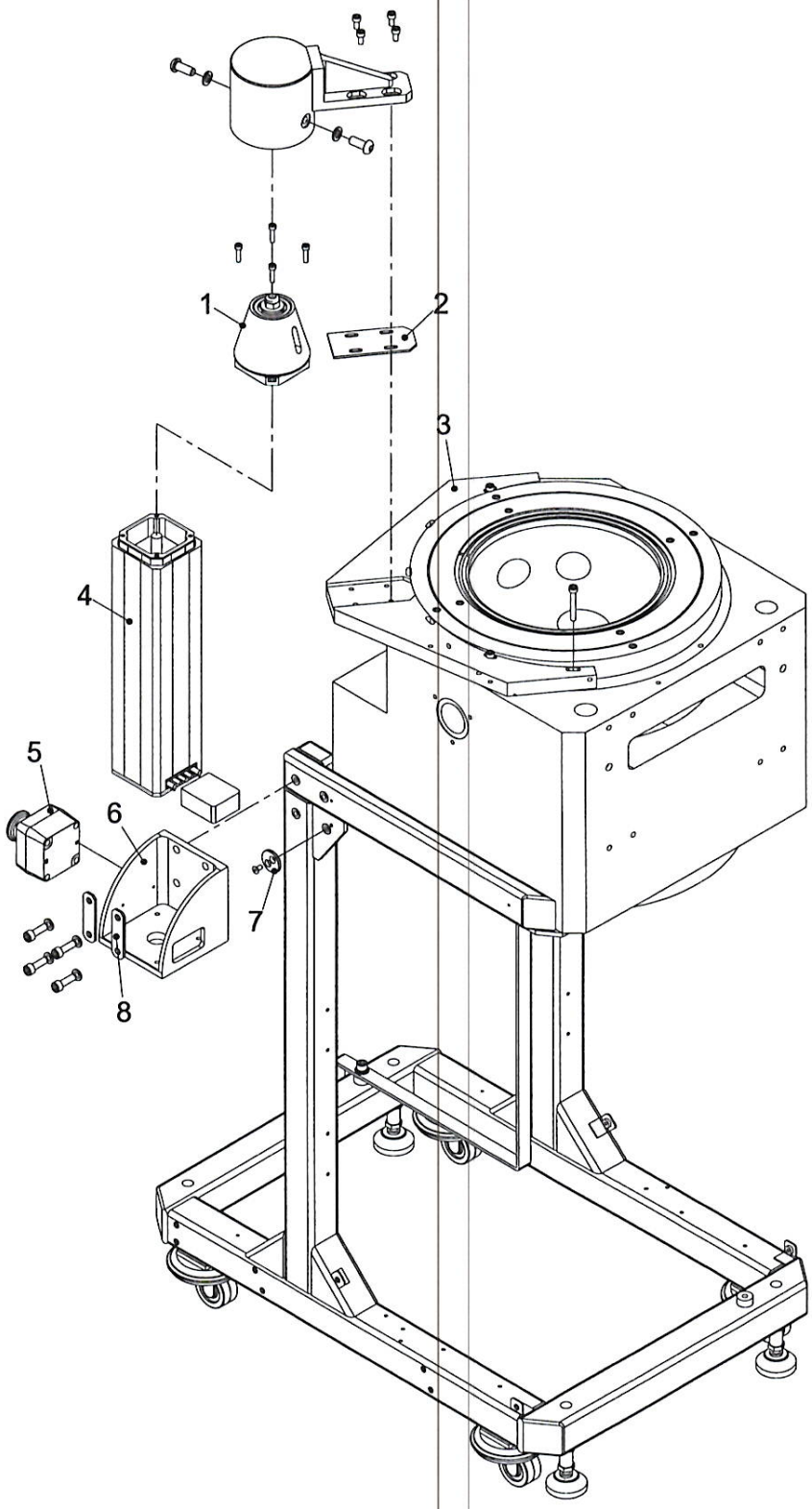


Figure 4 CVD Lid lift assembly

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1.5 CVD lift pivot assembly.

Drawing Number TP303423 **Figure Number** 5 **STS Ref.** AS303423

Item	Description of Part	Part Number	Notes
1	Lift pivot housing	DT302554	
2	CVD Lift pivot arm	DT303426	
3	CVD Lift special washer	DT303425	
4	SKF Bearing	246103	
5	Bearing spacer	DT301747	
6	CVD Lift pivot tube	DT303424	
7	CVD Lift pivot pin	DT303427	
8	CVD Lift top plate	DT303428	

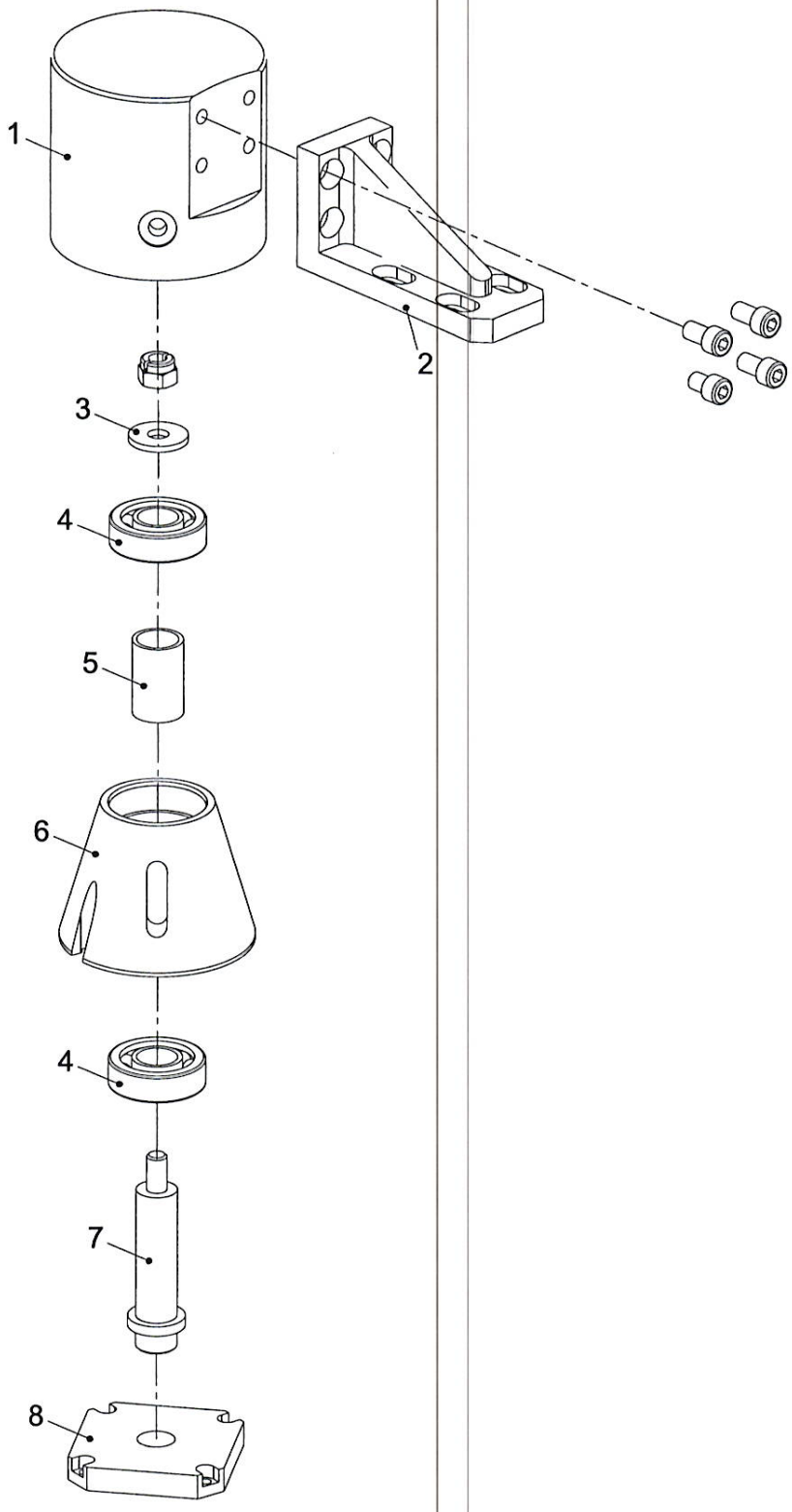


Figure 5 CVD Pivot lift assembly

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1.6 CVD Chamber externals kit.

Drawing Number TP305160 **Figure Number** 6 **STS Ref.** KT305160

Item	Description of Part	Part Number	Notes
1	NW40 Viewport kit	AS300297	
2	Plug	102945E03	
3	CVD Lid guide assembly	AS306533	
4	Claw grip	216886	
5	ISO63 Blank flange	561460	
6	ISO63 Center ring	561189	
7	Burst pressure kit	KC6055	
8	Watlow heater kit	KT311909	
9	Pressure switch failsafe	236855	
10	NW40 Port blanking kit	KC4411	
11	Baratron assembly	KC4429	
12	ISO160 Center ring	571039	
13	ISO160/ISO100 Adaptor	216768	
14	Claw grip	216781	
15	Flange clamping bolts	211893	
16	ISO100 Center ring	561188	
17	ISO 100 to NW100 Adaptor	DT300142	
18	Exhaust throttle valve	236811	
19	Tapped flange Adaptor	DT300167	
20	Claw grip	216886	
21	Gate valve ISO100	216932	
22	Optical endpoint detector	A61998	

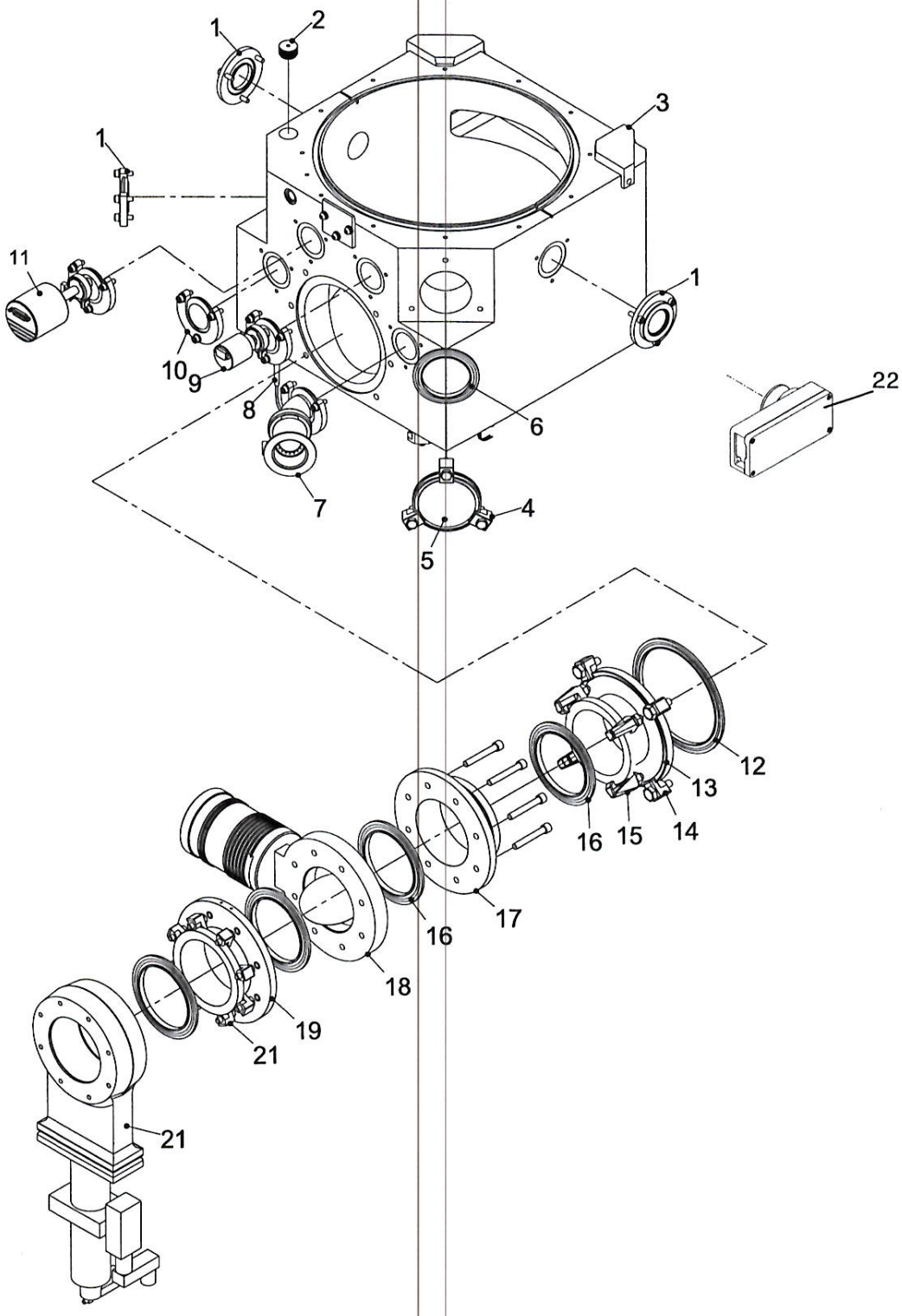


Figure 6 CVD Chamber external kit

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1.7 CVD Chamber external kit.

Drawing Number TP305783 **Figure Number** 7 **STS Ref.** KT305783

Item	Description of Part	Part Number	Notes
1	NW40 Viewport kit	AS300297	
2	Plug	102945E03	
3	CVD Lid guide assembly	AS306533	
4	Claw grip	216886	
5	ISO63 Blank flange	561460	
6	ISO63 Center ring	561189	
7	Burst pressure kit	KC6055	
8	Heater kit 700w heaters	KT309995	
9	Pressure switch failsafe	236855	
10	NW40 Port blanking kit	KC4411	
11	Baratron assembly	KC4429	

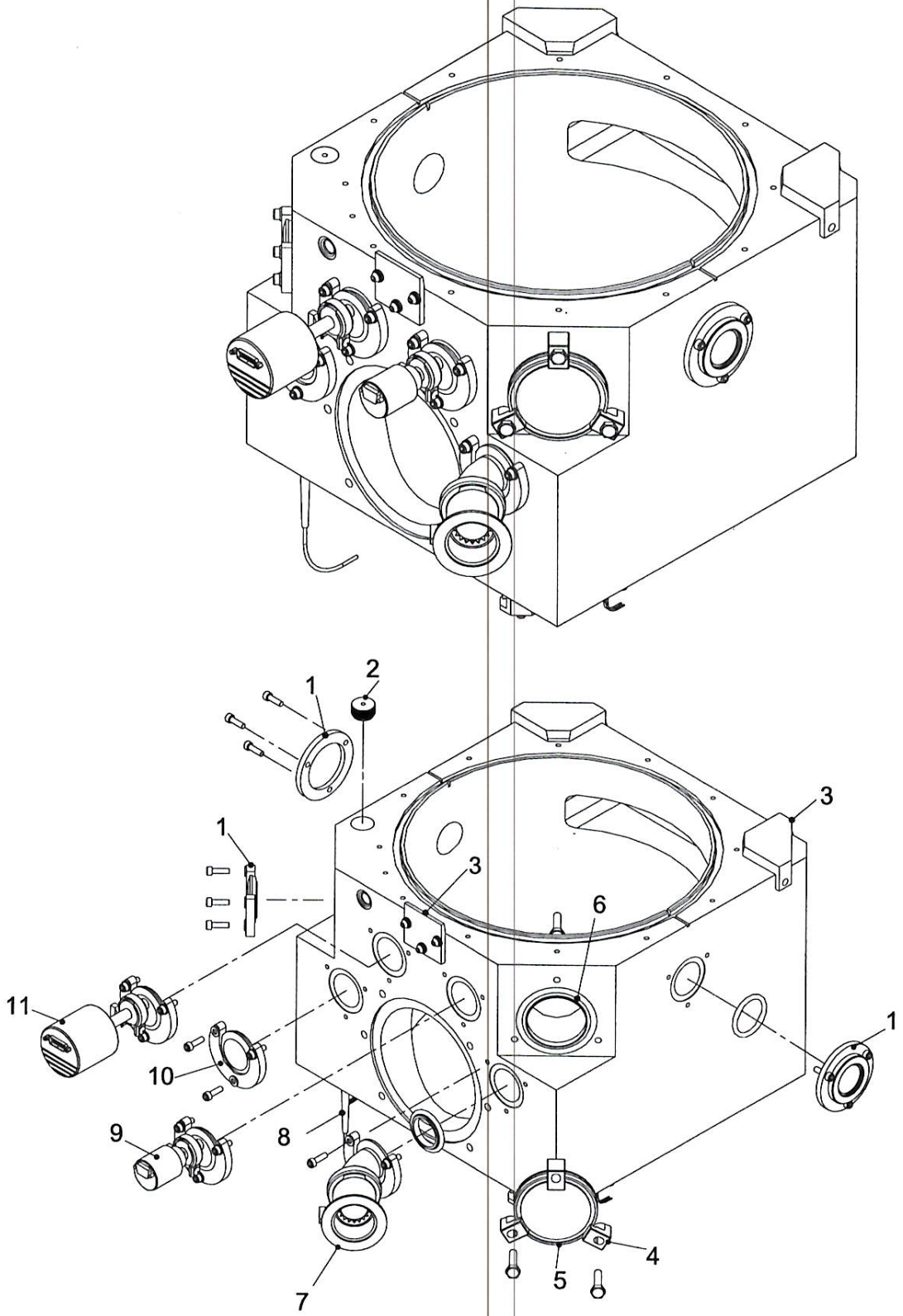


Figure 7 CVD Chamber external kit

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1.8 CVD Chamber externals kit (Kalrez seals).

Drawing Number TP305160 **Figure Number** 8 **STS Ref.** KT306445

Item	Description of Part	Part Number	Notes
1	NW40 Viewport kit	AS306491	
2	Plug	102945E03	
3	CVD Lid guide assembly	AS306533	
4	Claw grip	216886	
5	ISO63 Blank flange	561460	
6	ISO63 Kalrez o-ring kit	KT306544	
7	Burst pressure kit	KT306489	
8	Watlow heater kit	KT311909	
9	Pressure switch failsafe	236855	
10	NW40 Port blanking kit	KT306488	
11	Baratron kit	KT306490	
12	ISO160 Center ring	571039	
13	ISO160/ISO100 Adaptor	FB305136	
14	Claw grip	216781	
15	Flange clamping bolts	211893	
16	ISO100 Center ring	561188	
17	ISO 100 to NW100 Adaptor	DT300142	
18	Exhaust throttle valve	236811	
19	Tapped flange Adaptor	DT300167	
20	Claw grip	216886	
21	Gate valve ISO100	216932	
22	STS Optical Endpoint Detector	A61998	

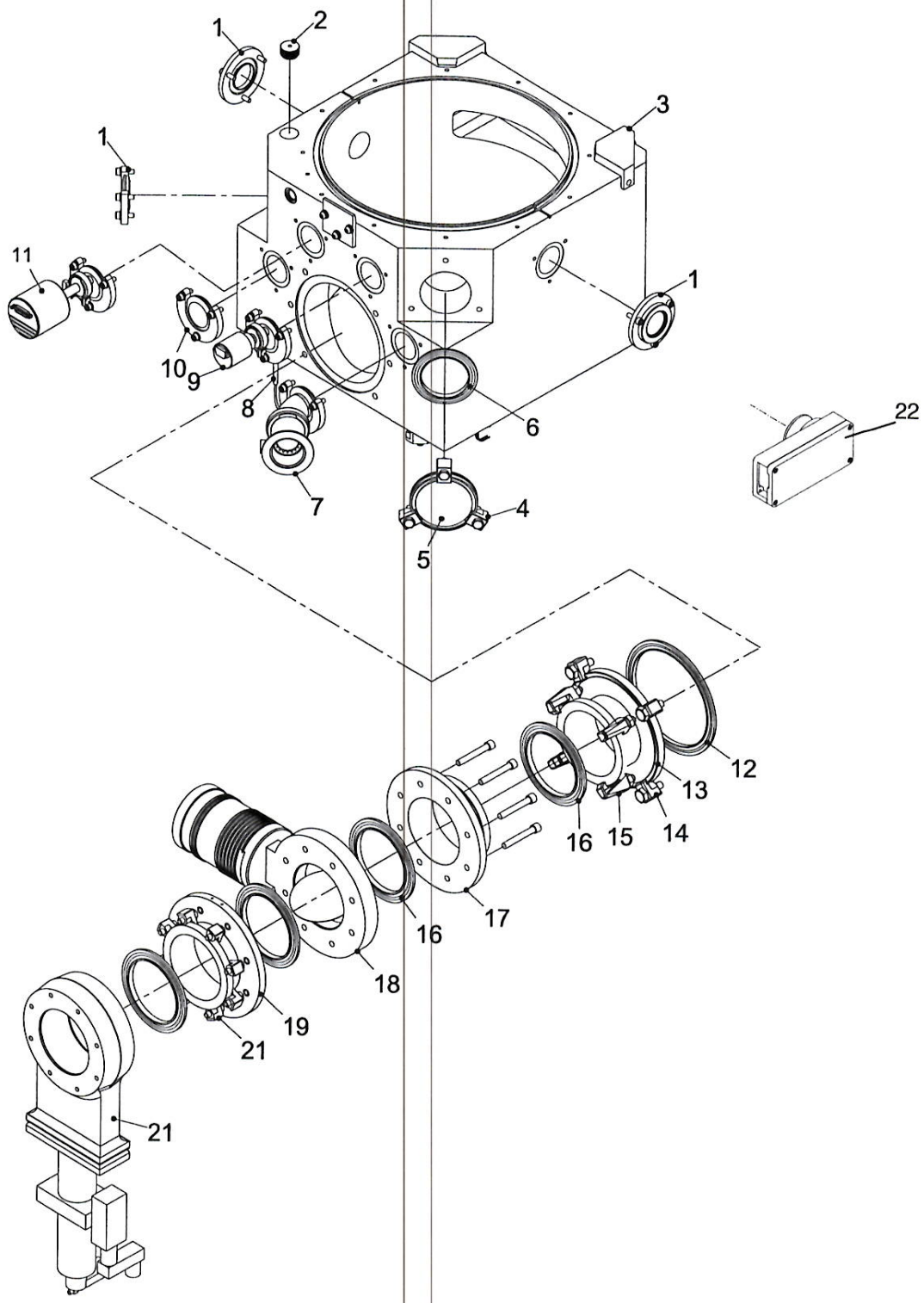


Figure 8 CVD Chamber external kit (Kalrez seals)

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1.9 NW40 Viewport kit.

Drawing Number TP300297 **Figure Number** 9 **STS Ref.** AS300297

Item	Description of Part	Part Number	Notes
1	Modified O-ring carrier	111047E01	
2	O – Ring BS326V E-60C NW40	E00017	
3	Soda lime discs	110866E02	
4	Gasket DN40KF	110867E01	
5	Viewport flange DN40KF	110863D02	
6	Caphead screw, M6x20mm	471780	

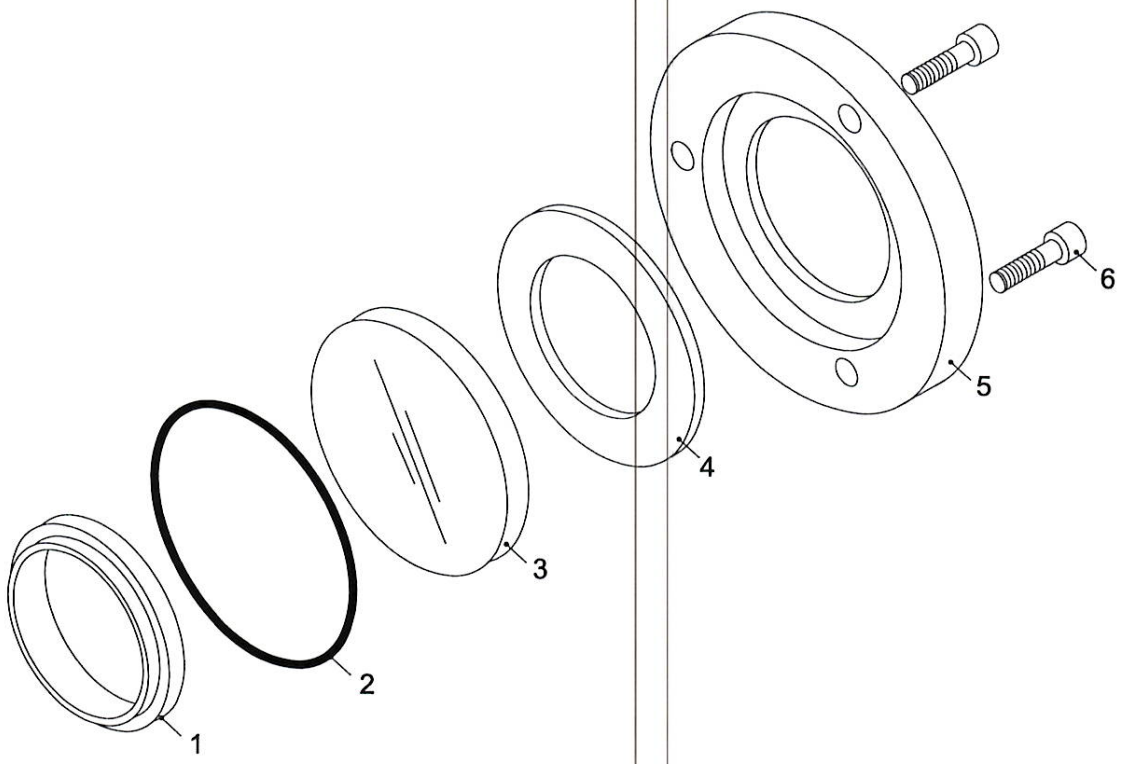


Figure 9 NW40 Viewport kit

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1.10 NW40 Viewport kit (Kalrez seals).

Drawing Number TP300297 **Figure Number** 10 **STS Ref.** AS306491

Item	Description of Part	Part Number	Notes
1	Modified O-ring carrier	111047E01	
2	O – Ring BS326 KALREZ 4079	206349	
3	Soda lime discs	110866E02	
4	Gasket DN40KF	110867E01	
5	Viewport flange DN40KF	110863D02	
6	Caphead screw, M6x20mm	471780	

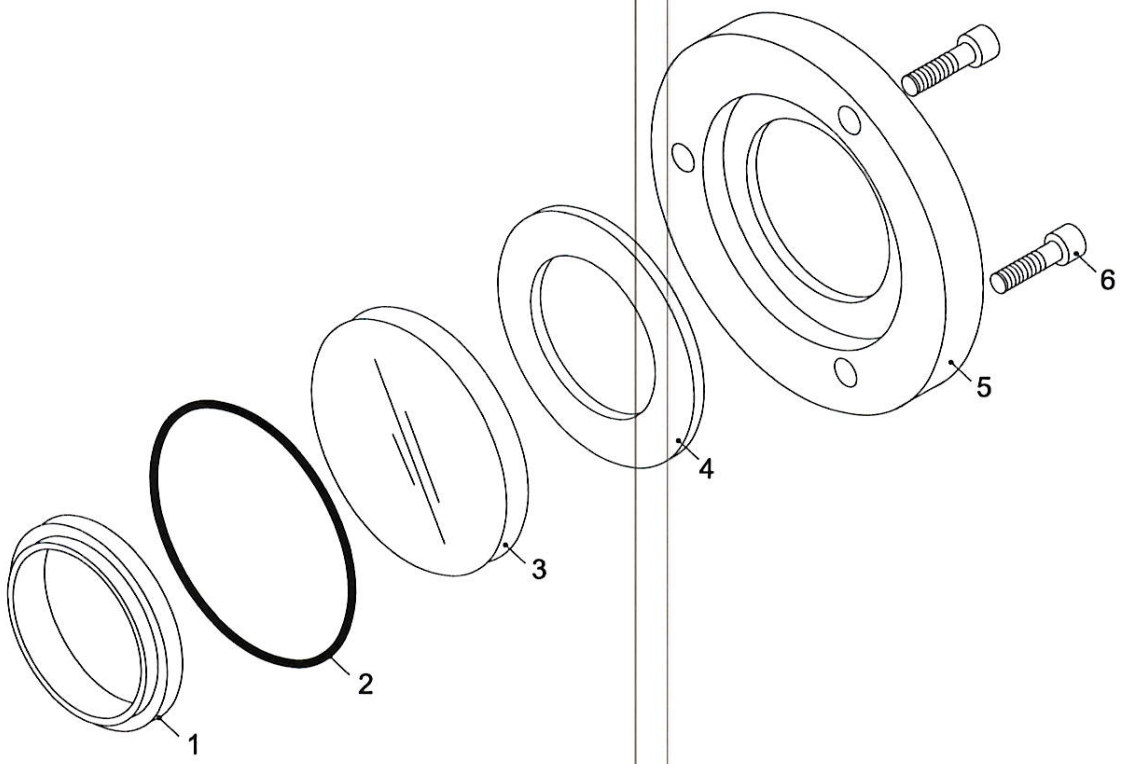


Figure 10 NW40 Viewport kit (Kalrez seals)

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1.11 CVD Lid guide assembly.

Drawing Number TP306533 **Figure Number** 11 **STS Ref.** AS306533

Item	Description of Part	Part Number	Notes
1	Corner guide block	DT306328	
2	Centre guide block	DT306329	

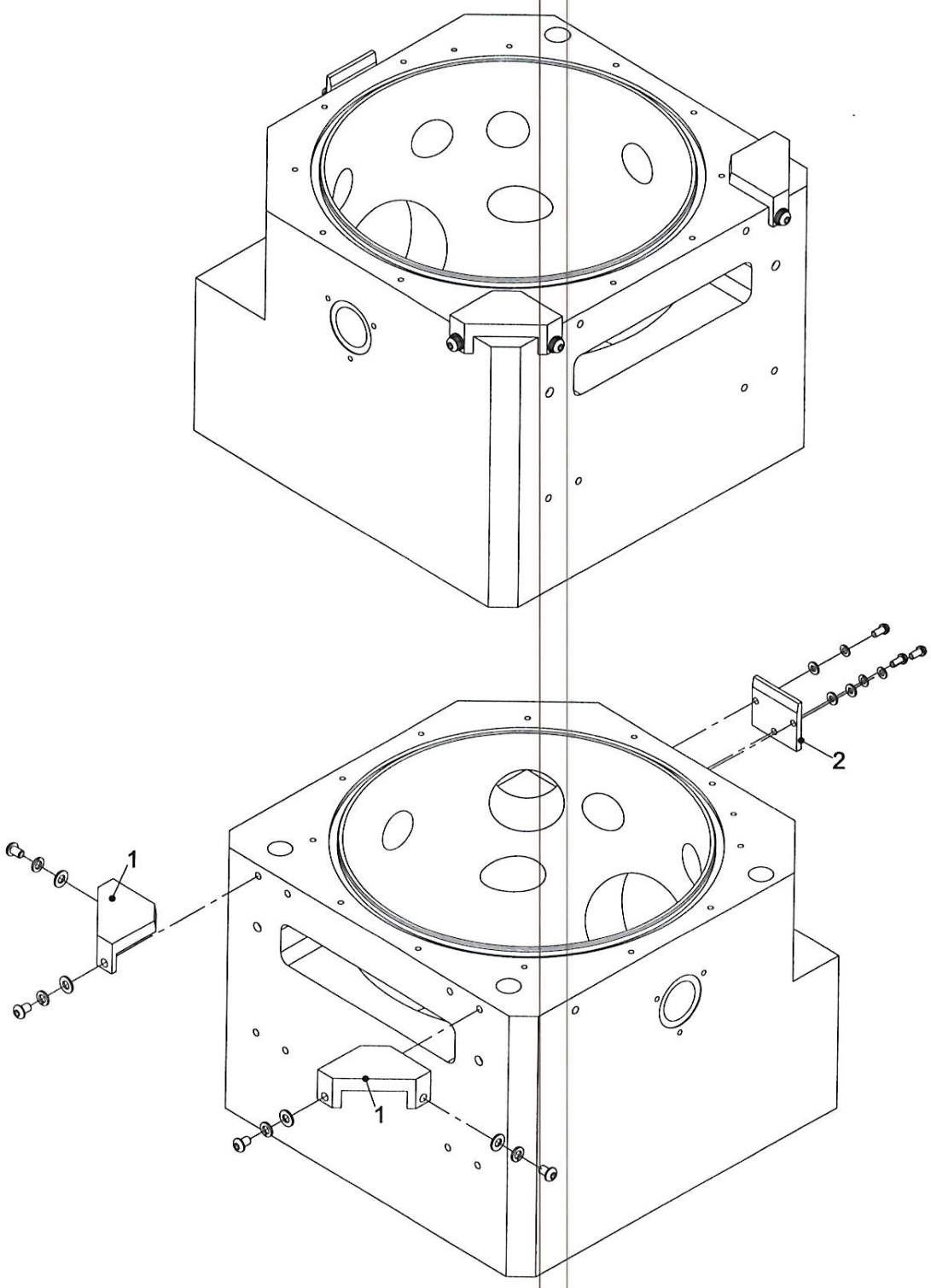


Figure 11 CVD Lid guide assembly.

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1.12 Burst pressure kit.

Drawing Number TP6055 **Figure Number** 12 **STS Ref.** KC6055

Item	Description of Part	Part Number	Notes
1	Burst pressure disc	561688	
2	NW-40 clamp (red screw)	248013	
3	Pneurop carrier ring	171471D04	
4	O-ring BS326V E-60C NW40	E00017	
5	Elbow NW40 45deg	236032	
6	Caphead screw M6x20mm	471780	
7	Washer, plain M6	4J0700	
8	"C" Flange clamp DN40KF	1C6040	

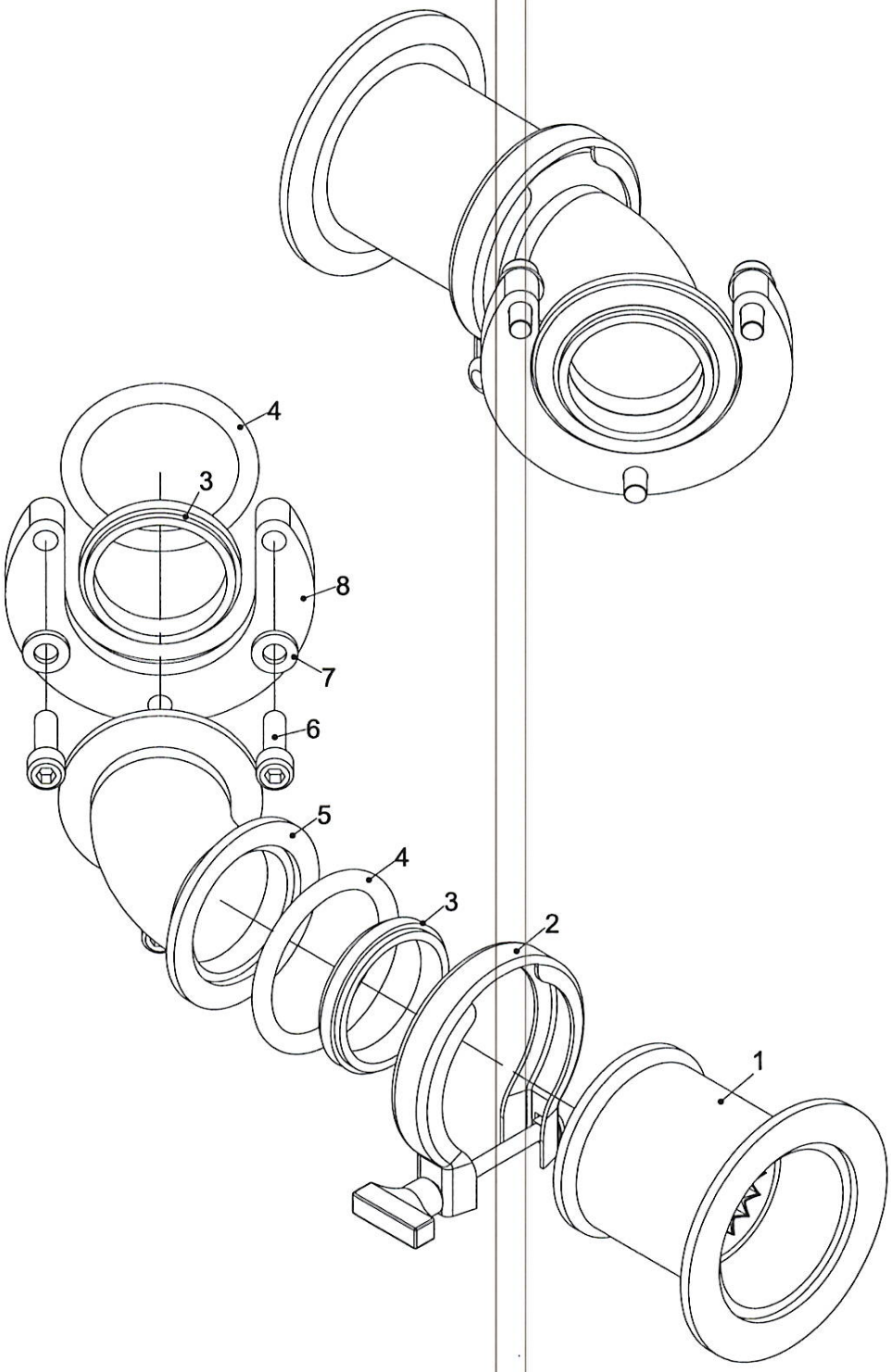


Figure 12 Burst pressure kit

1.13 Burst pressure kit (Kalrez seals).

Drawing Number TP6055 **Figure Number** 13 **STS Ref.** KT306489

Item	Description of Part	Part Number	Notes
1	Burst pressure disc	561688	
2	NW-40 clamp (red screw)	248013	
3	Pneurop carrier ring	171471D04	
4	O-ring BS326 kalrez 4079	206349	
5	Elbow NW40 45deg	236032	
6	Caphead screw M6x20mm	471780	
7	Washer, plain M6	4J0700	
8	"C" Flange clamp DN40KF	1C6040	

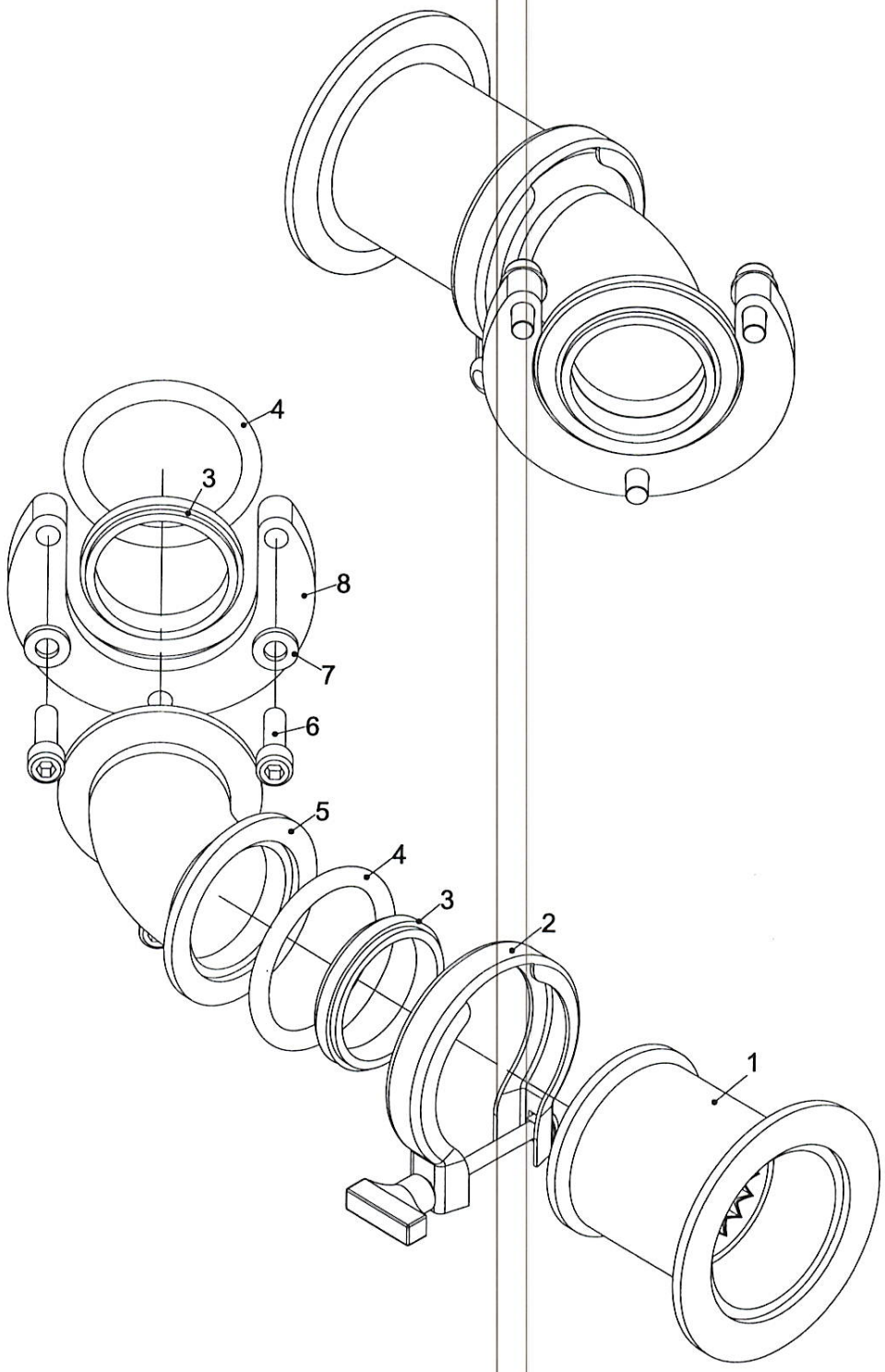


Figure 13 Burst pressure kit (Kalrez seals)

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1.14 Watlow heater kit.

Drawing Number TP311909 **Figure Number** 14 **STS Ref.** KT311909

Item	Description of Part	Part Number	Notes
1	Watlow AOV heater 120V 1000W	256744	
2	Snap switch 80deg N/C 16A	553030	
3	Cartridge heater 120V 500W	256442	
4	Bolt type thermocouple	266713	
5	Plain washer M5	4J0600	
6	Plain washer M6	4J0700	
7	Caphead screw M6 x 10mm	471750	
8	Stainless steel cable tie mounting clip	246262	
9	Washer, spring M3	4V0400	
10	Pozi pan head screw M3 x 10mm	226208	
11	Caphead screw M5 x 8mm	471640	