



PLAN VIEW

Item	Part No.	Description	QTY
1	9688919	Turbo-V 301 Navigator Pump, 8 in. CF	3
2	9689337	Turbo-V 301 Controller 120V/220V - 50/60 Hz	3
3	9689302	Turbo-V 301 Inlet Screen DN100	3
4	9689366	Pump, Turbo-V70, 4.5 CF	4
5	9689305	Controller, Turbo-V70, Rack, 120V	4
6	9689300	Inlet Screen, DN63	4
7	PTS3001UNIV	PTS 300 Varian InScroll Dry Vacuum Pump	2
8	12144-P44-AANI	VAT Series 12-Gate Valve, DN160, Pneumatic, ISO Flange, Pos. Ind, NM25 Ports	1
9	10840-UE24	VAT Series 10 UHV-Gate Valve, DN100, Pneumatic, 6" CF, Pos. Ind	2
10	16281-1332	Right-Angle Block Valve - Air-Operated - 24VDC - KF25	16
11	3061177	Axiden Alcatel ACOM 10000 Multi Channel Controller, 120V, 6 Connections	2
12	300433	Axiden Alcatel AHC 10101 Hx Cathode Plant Gauge, SE-10 To 1000 mBar, 100 mm Extent	8
13	304145	Axiden Alcatel Sensor Cable For ACOM 1000 Controller, 5m Length	8
14	2715198	Adhlex Alcatel Gauge - KF25 Welded Flange	5
15	7390	Connection Gauge-Connector Kit	5
16	KQ20000276	Cross, 4 Way, NM60, 2.78" Clearance, Stainless Steel	3
17	KI20000276	Tea, NM60, 2.78" Clearance, Stainless Steel	1
18	KE02000277	Elbow, NM60 2.78" Clearance, Stainless Steel	3
19	KC5053V	Seal, Centering Ring, NM60, Stainless Steel Vilon O-Ring	22
20	KQ604AV	Clamp, Quick, Wing Nut, NM60, Black	22
21	KO1000197	Clamp, Quick, Wing Nut, NM60, Black	2
22	KI01000197	Tea, NM25, 1.97" Clearance	6
23	KI01000340	Flexible Coupling, Non-Beaded, NM25, 39.4" Long	4
24	KF25000358	Flange, KF, Blank, NM25, Stainless Steel	4
25	KC265V	Seal, Centering Ring, NM25, Stainless Steel Vilon O-Ring	50
26	KQ255AV	Clamp, Quick, Wing Nut, NM25, Black	50
27	KC165AV	Seal, Centering Ring, NM16, Aluminum Burnt O-Ring	6
28	KQ165AV	Clamp, Quick, Wing Nut, NM16, Black	6
29	KQC1625A	Conical Reducer, NM25 To NM16, Stainless Steel	8
30	FC90900Q	6" OFF Copper Gaskets, 10/pkg	1
31	FC90450Q	4.5" OFF Copper Gaskets, 10/pkg	1
32	FG02750Q	2.75" OFF Copper Gaskets, 10/pkg	1
33	KRC2550S	Conical Reducer, NM60 To NM25, Stainless Steel	7
34	FA0490NW60L	Adapter, 4.5" OFF To NM60, Length = 2.5", Stainless Steel	2
35	FA0490Z75L	Adapter, 4.5" OFF To 2.75" CF, Length = 2.5", Stainless Steel	2
36	FN41050S	Half Nipple, 2.75" CF, 1.5" Tube Length = 2.46", Stainless Steel	2
37	KS500150BB	Weld Nipple, NM60, Bored For 1.5" Tube, Stainless Steel	10
38	QF25-100-SH	Adapter, QF25 To 1" ID Tube, Stainless Steel	2

- NOTES:**
1. THE ISOLATION VALVES (IV) FOR THE MAIN BEAMLINE ARE TO BE SPECIFIED BY THE TRIUMF DESIGN OFFICE.
  2. SCROLL PUMP EXHAUST IS TO BE CONNECTED TO A DRY EXHAUST SYSTEM.
  3. V70LP TURBO PUMP USED TO BACK BEAMLINE TURBO PUMPS.
  4. BACKING VALVE FOR THE V70LP TURBO PUMP IS CLOSED TO ISOLATE THE TURBO PUMP DURING VENTING / ROUGHING PROCEDURES. THE BACKING VALVES OF THE BEAMLINE TURBO PUMPS ARE FOR ROUGHING / BACKING.
  5. ROUGHING VALVE POSITIONED ON BACKING LINE FOR EVACUATING THE FORELINE AND/OR THE MAIN BEAMLINE.
  6. VENT VALVE POSITIONED ON BACKING LINE FOR VENTING THE FORELINE AND/OR THE MAIN BEAMLINE.
  7. AHC 1010 PIRANI GAUGES HAVE A RANGE FROM 4E-10 TO 750 TORR. ROUGH VACUUM GAUGE NOT NEEDED WITH AHC 1010 INSTALLED.

**Mnemonics:**

BV = Backing Valve
CCP = Cryopump Compressor
CG = Convection Gauge
CP = Cryopump
EV = Pump Exhaust Valve
FG = Flow Gauge
IP = Ion Pump
IV = Isolation Valve
GV = Gate Valve (For Pump)
HOV = Hand-Operated Valve
NV = Needle Valve
PR = Pressure Regulator
RVC = Rough Valve Cryopump
RP = Roughing Pump
SV = Solenoid Valve
TP = Turbomolecular Pump
TSP = Ti Sublimation Pump
VV = Vent Valve
XO = Cross Over Valve

REV	DATE	LOC	REVISION DESCRIPTION	BR	APP'D
2	JUNE 15, 2016	ISAC	Changed EBIT:BP1/PP2 To Scroll Pumps.	BR	
1	MAY 04, 2016	ISAC	Updated naming.	BR	
0	12-16-15	EBIT	Original Issue.	BR	

ALL DIMS IN INCHES  
 TOLERANCES UNLESS OTHERWISE SPECIFIED  
 FRACTIONS XX X  
 DECIMALS .XX X  
 ANGULAR SURFACE FINISH X X  
 IN

**TRUMP**  
 4001 WESBROOK MILLS  
 MANICOUAN BRITISH COLUMBIA  
 CANADA V0J 2S0

VACUUM SYSTEM SCHEMATIC  
 TITAN BEAMLINE - EBIT  
 ISAC EXPERIMENT HALL

SCALE: N.T.S.  
 DATE: 12/16/2015  
 DWG NO: ISK5041D  
 REV: 2