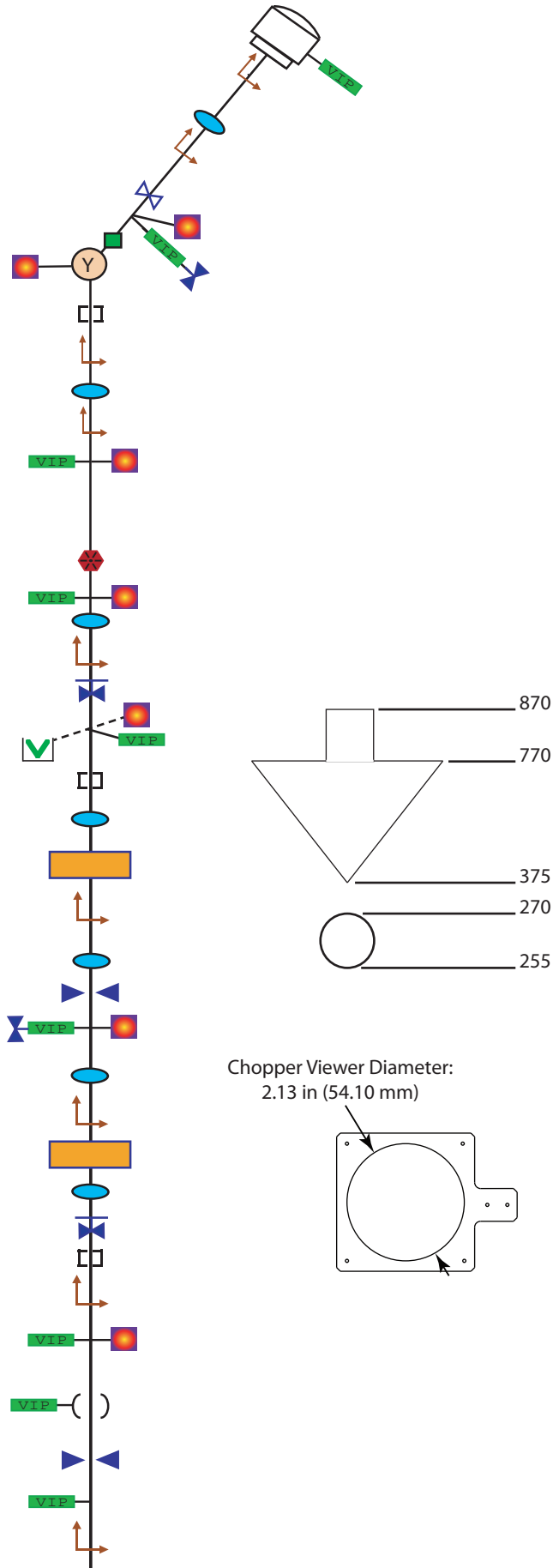


UITF QUICK REFERENCE DRAWING

Revision 12: 17 MAR 2021

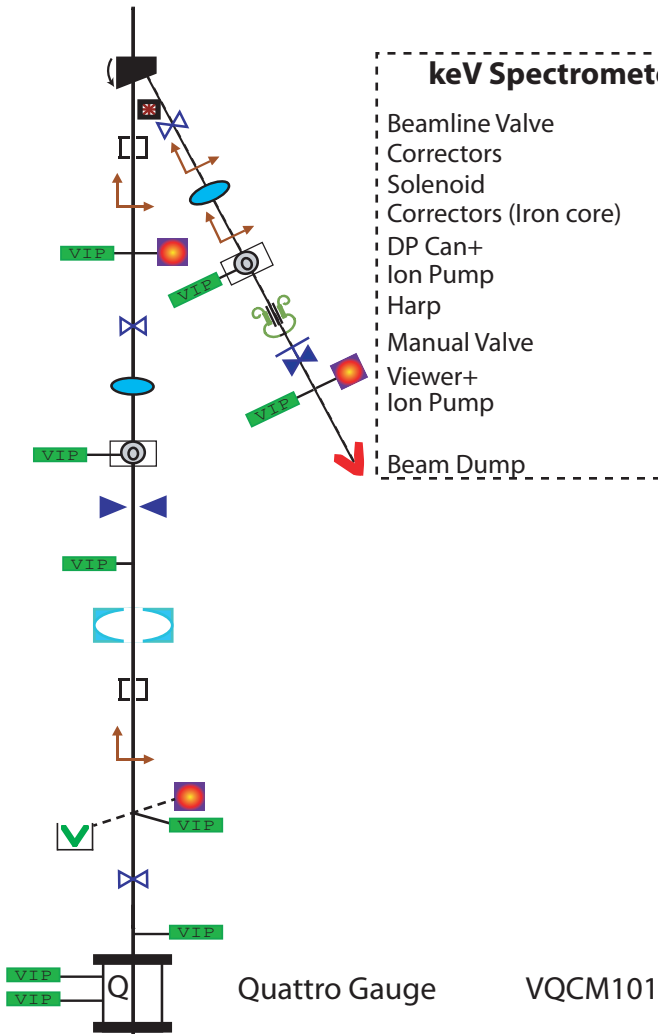
| | |
|--------------------|------------------|
| Ion Pump | VIPK101 |
| Correctors | MBHK101 H&V |
| Solenoid | MFHK101 |
| Correctors | MBHK102 H&V |
| Beamline Valve | VBVK201 |
| Viewer+Ion Pump+ | ITVK201+VIPK201+ |
| Roughing Valve | VRVK201* |
| Dipole | MDSK201 |
| Viewer | ITVK201A |
| BPM | IPMK201 |
| Correctors | MLHK201 H&V |
| Solenoid | MFBK202 |
| Correctors | MBHK202 H&V |
| Viewer + | ITVK202 + |
| Ion Pump+ | VIPK202+ |
| Quad | MQZK203 |
| Viewer + | ITVK203+ |
| Ion Pump+ | VIPK203+ |
| Solenoid | MFQK203 |
| Correctors | MBHK203 H&V |
| Manual Valve | VMVK203 |
| Viewer + | ITVK203A+ |
| Faraday Cup 1 + | IFYK203+ |
| Ion Pump+ | VIPK203A+ |
| BPM | IPMK203 |
| Solenoid | MFAK301 |
| Chopper Cavity | RIHK301 |
| Correctors | MLHK301 H&V |
| Solenoid | MFDK302A |
| Chopping Aperture | ISLK302 |
| Chopper Viewer+Ion | ITVK302+VIPK302 |
| Pump+ Rough. Valve | VRVK302* |
| Solenoid | MFDK302B |
| Correctors | MLHK302 H&V |
| Chopper Cavity | RIHK302 |
| Solenoid | MFAK303 |
| Manual Valve | VMVK401 |
| BPM | IPMK401 |
| Correctors | MLHK401 H&V |
| Viewer+ | ITVK401+ |
| Ion Pump | VIPK401 |
| Buncher Cavity+ | RIBK401+ |
| Ion Pump | VIPK401A |
| Aperture A3 | ISLK401 |
| Ion Pump | VIPK401B |
| Correctors | MBHK401A H&V |



UITF QUICK REFERENCE DRAWING

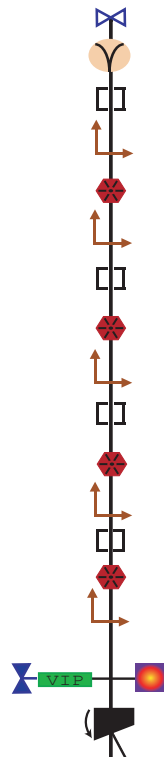
| | |
|-----------------------------------|------------------------------------|
| Spectrometer Dipole | MDIK402 |
| BLM | ILMK402 |
| BPM | IPMK402 |
| Correctors | MLHK402 H&V |
| Viewer+ Ion Pump | ITVK402 VIPK402 |
| Beamline Valve | VBVK403 |
| Solenoid | MFQK403 |
| DP Can+ Ion Pump | VDPK403+ VIPK403 |
| Aperture A4 | ISLK403 |
| Ion Pump | VIPK403A |
| Brock Cavity | ICBK403 |
| BPM | IPMK403 |
| Correctors | MLHK403 H&V |
| Viewer + Faraday Cup 2+ Ion Pump+ | ITVK403A+ IFYK403+ VIPK403B+ |
| Beamline Valve | VBVM101 |
| Ion Pump | VIPM101B |
| Cryomodule [M1] WG Ion Pumps | RM11 + RM12 VIPM1101/2 |

| keV Spectrometer Beam Line | |
|----------------------------|---------------------|
| Beamline Valve | VBVK501 |
| Correctors | MBHK501 H&V |
| Solenoid | MFQK501 |
| Correctors (Iron core) | MCR501AH/V |
| DP Can+ Ion Pump | VDPK501+ VIPK501 |
| Harp | IHAK501 |
| Manual Valve | VMVK501A |
| Viewer+ Ion Pump | ITVK501 VIPK501A |
| Beam Dump | IDLK501 |



| MeV Beam Line | |
|--|---|
| Beamline Valve | VBVM201 |
| Viewer+ Ion Pump | ITVM201 VIPM201 |
| BPM | IPMM201 |
| Correctors | MLHM201 H&V |
| Manual Valve | VMVM301 |
| Diff Pump | VDPM301A |
| Ion Pump | VIPM301A |
| Roughing Valve | VRVM301A* |
| Diff Pump | VDPM301B |
| Ion Pumps | VIPM301B |
| Diff Pump | VDPM301C |
| Manual Valve | VMVM401 |
| Correctors | MLHM401 H&V |
| BLM | ILMM401 |
| Fast Valve | VFVM401 |
| PSS BCM Cavity | SBCM401 |
| Viewer (YAG)+ Getter Pump (NEG)+ Ion Pump+ Roughing Valve | IYGM401+ VGPM401*+ VIPM401+ VRVM401* |
| Faraday Cup (FC3) | IFYM401 |

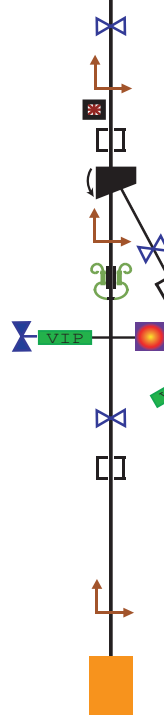
| | |
|----------------|--------------|
| Beamline Valve | VBVM501 |
| Yao Cavity | ICVM501 |
| BPM | IPMM501 |
| Correctors | MLHM501 H&V |
| Quad | MQJM501 |
| Correctors | MLHM502 H&V |
| BPM | IPMM502 |
| Quad | MQJM502 |
| Correctors | MLHM503 H&V |
| BPM | IPMM503 |
| Quad | MQJM503 |
| Correctors | MLHM504 H&V |
| BPM | IPMM504 |
| Quad | MQJM504 |
| Correctors | MLHM504A H&V |
| Viewer+ | ITVM504 |
| Ion Pump | VIPM504 |
| Roughing Valve | VRVM504* |
| MDLM504 | MDLM504 |



25° vertical chicane continues page 4.

Wastewater (600-) Beam Line

| | |
|----------------|--------------|
| Beamline Valve | VBVM601 |
| Correctors | MLHM601A H&V |
| BLM | ILMM601 |
| BPM | IPMM601 |
| Dipole | MDLM601 |
| Correctors | MBHM601B H&V |
| Harp | IHAM601 |
| Viewer+ | ITVM601+ |
| Ion Pump+ | VIPM601+ |
| Roughing Valve | VRVM601* |
| Beamline Valve | VBVM602 |
| BPM | IPMM602 |
| BLM | ILMM602 |
| Correctors | MBHM602A H&V |
| Solenoid | MPTM602 |



Level (42" elevation) beam line section continues this page.

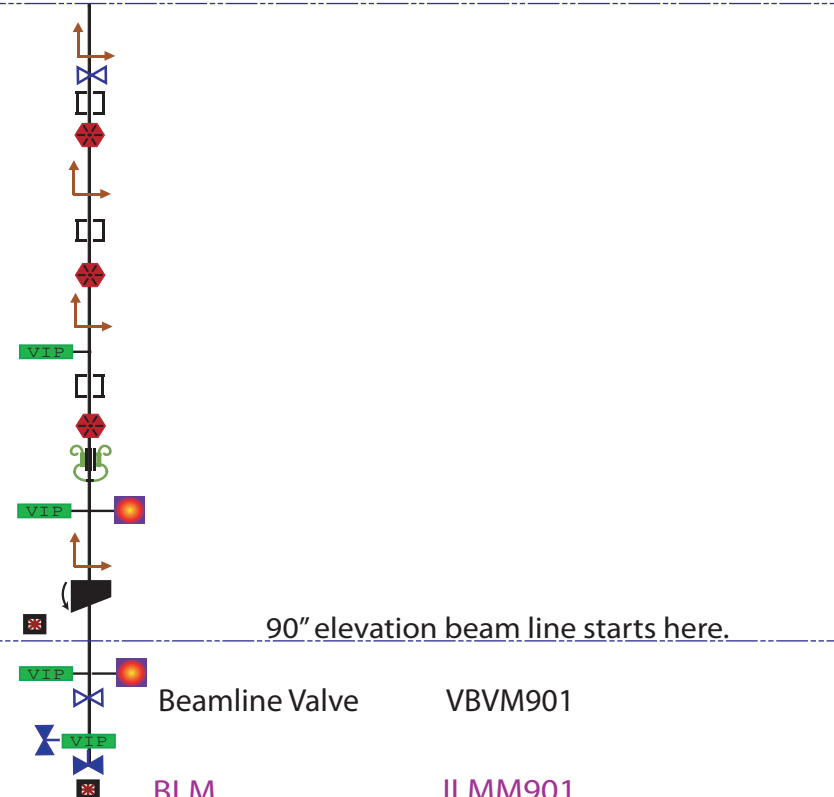
| MeV Spectrometer Beam Line | |
|----------------------------|-------------|
| 30° bend angle | |
| Beamline Valve | VBVM701 |
| BPM | IPMM701 |
| Correctors | MLHM701 H&V |
| Ion Pump | VIPM701 |
| BLM | ILMM701 |
| Quad | MQJM701 |
| Correctors | MLHM702 H&V |
| BPM | IPMM702 |
| Quad | MQJM702 |
| Harp | IHAM703 |
| Getter Pump (NEG) | VGPM703* |
| Ion Pump+ | VIPM703 + |
| Viewer | ITVM703 |
| Roughing Valve | VRVM703* |
| Beam Dump | IDLM703 |

25° vertical chicane continued from page 3

HDice Beam Line

| | |
|----------------|--------------|
| Correctors | MLHM801 H&V |
| Beamline Valve | VBVM801 |
| BPM | IPMM801 |
| Quad | MQDM801 |
| Correctors | MBHM802 H&V |
| BPM | IPMM802 |
| Quad | MQJM802 |
| Correctors | MBHM803 H&V |
| Ion Pump | VIPM803A |
| BPM | IPMM803 |
| Quad | MQDM803 |
| Harp | IHAM803 |
| Viewer+ | ITVM803 |
| Ion Pump | VIPM803B |
| Correctors | MBHM803A H&V |
| Dipole | MDLM803 |
| BLM | ILMM803 |

| | |
|----------------|----------|
| Viewer+ | ITVM804 |
| Ion Pump | VIPM804 |
| Ion Pump+ | VIPM902+ |
| Roughing Valve | VRVM901* |
| Roughing Valve | VRVM902* |



Wastewater (600-) Beam Line (Cont. from p. 3)

| | |
|-------------------|--------------|
| Correctors | MBHM602B H&V |
| Vertical Raster | MRAM602V |
| Horizontal Raster | MRAM602H |

| | |
|-------------------|----------|
| BPM | IPMM603 |
| Viewer (YAG)+ | IYGM603+ |
| Ion Pump+ | VIPM603+ |
| Roughing Valve | VRVM603* |
| Getter Pump (NEG) | VGPM603* |

| | |
|------------|-------------|
| Correctors | MBHM603 H&V |
|------------|-------------|

BLM ILMM603

| | |
|----------------|-----------|
| BPM | IPMM604 |
| Viewer (YAG)+ | IYGM604+ |
| Ion Pump+ | VIPM604A+ |
| Roughing Valve | VRVM604* |

| | |
|--------------------|-----------|
| Faraday Cup (FC4)+ | IFYM604+ |
| Ion Pump+ | VIPM604B+ |
| Cathode Gauge+ | VCGM604+ |
| Getter Pump (NEG) | VGPM604* |

Vacuum Thin Window VTWM604

BLM ILMM604

Target Ladder ITGM604

Video Camera ITVM604A

BLM ILMM605

