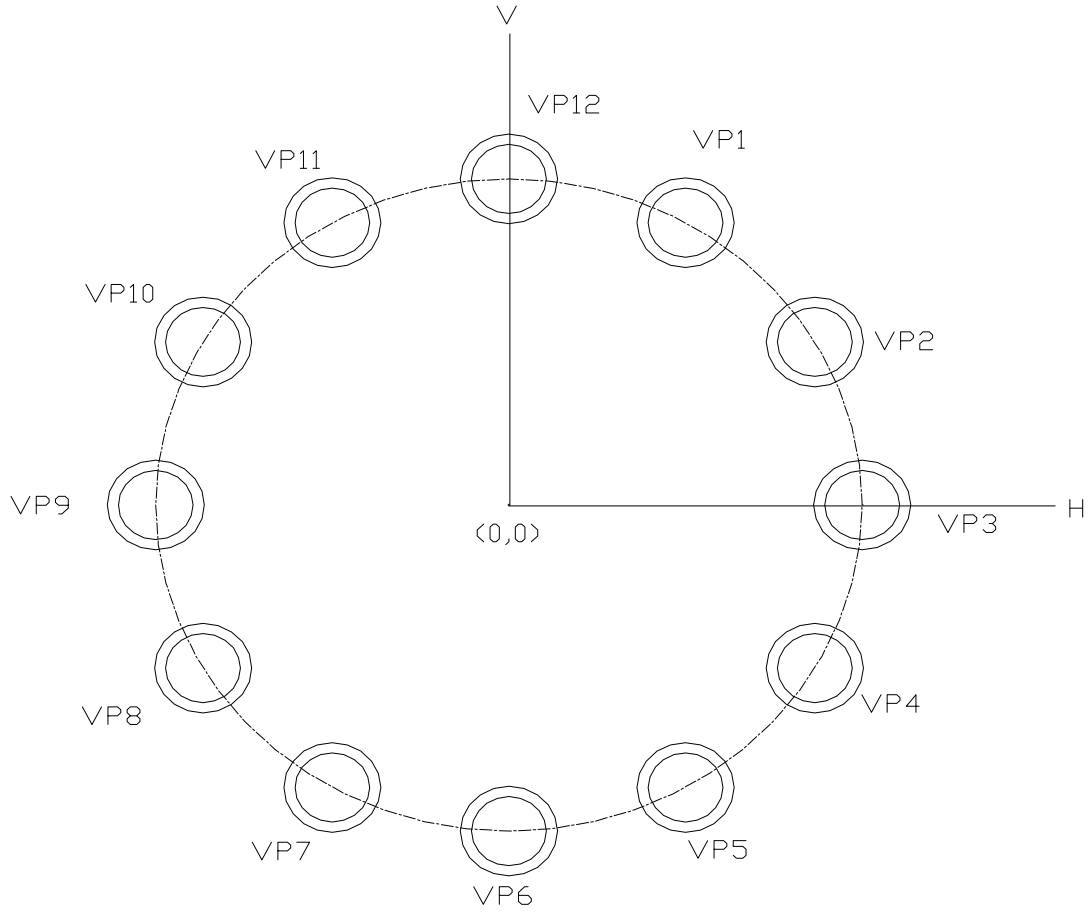


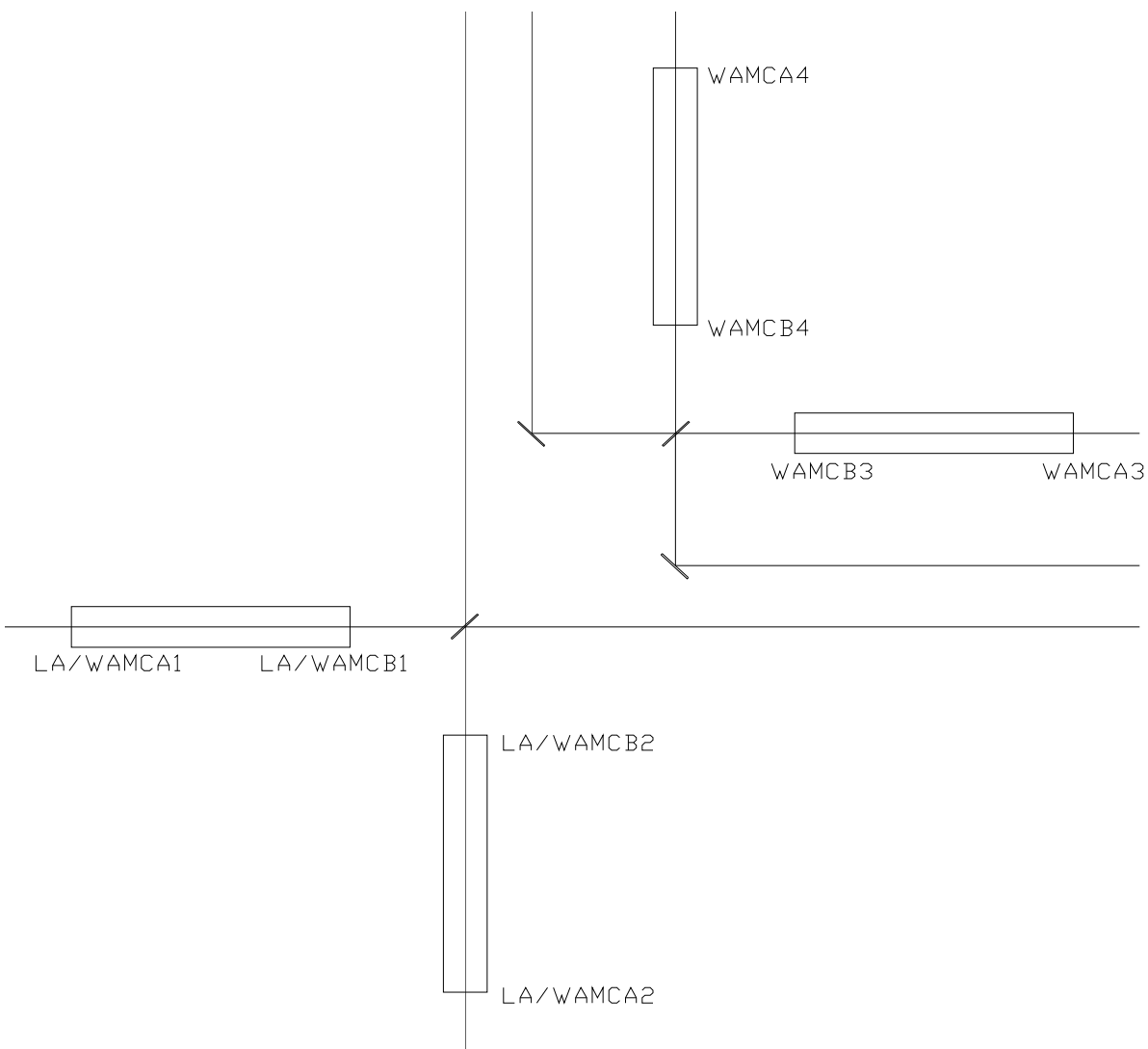
T0900653-v2 MC Tube Viewports
1/20/2010

WAMCA and WAMCB, LAMCA and LAMCB coordinates

H1	WAMCA1	WAMCB1	WAMCA2	WAMCB2
H2	WAMCA3	WAMCB3	WAMCA4	WAMCB4
L1	LAMCA1	LAMCB1	LAMCA2	LAMCB2



VIEWPORT ORIENTATION



MC TUBE NAMING CONVENTION

NOTE

Clocking angle clockwise from 12 o'clock

VIEWPORT	H Position, in	V Position, in	Clocking angle(deg)	Radius, in
WAMCB1/LAMCB1 TUBE				
WAMCB1 VP1	18.500	32.043	30.0	37.00
WAMCB1 VP2	32.043	18.500	60.0	37.00
WAMCB1 VP3	37.000	0.000	90.0	37.00
WAMCB1 VP4	32.043	-18.500	120.0	37.00
WAMCB1 VP5	18.500	-32.043	150.0	37.00
WAMCB1 VP6	3.225	-36.859	175.0	37.00
WAMCB1 VP7	-13.260	-34.542	201.0	37.00
WAMCB1 VP8	-32.043	-18.500	240.0	37.00
WAMCB1 VP9	-37.000	0.000	270.0	37.00
WAMCB1 VP10	-32.043	18.500	300.0	37.00
WAMCB1 VP11	-13.260	34.542	339.0	37.00
WAMCB1 VP12	3.225	36.859	365.0	37.00
WAMCB2/LAMCB2 TUBE				
WAMCB2 VP1	14.457	34.059	23.0	37.00
WAMCB2 VP2	32.043	18.500	60.0	37.00
WAMCB2 VP3	37.000	0.000	90.0	37.00
WAMCB2 VP4	32.043	-18.500	120.0	37.00
WAMCB2 VP5	14.457	-34.059	157.0	37.00
WAMCB2 VP6	0.000	-37.000	180.0	37.00
WAMCB2 VP7	-18.500	-32.043	210.0	37.00
WAMCB2 VP8	-32.043	-18.500	240.0	37.00
WAMCB2 VP9	-37.000	0.000	270.0	37.00
WAMCB2 VP10	-32.043	18.500	300.0	37.00
WAMCB2 VP11	-18.500	32.043	330.0	37.00
WAMCB2 VP12	0.000	37.000	360.0	37.00
WAMCB3 TUBE				
WAMCB3 VP1	18.500	32.043	30.0	37.00
WAMCB3 VP2	32.043	18.500	60.0	37.00
WAMCB3 VP3	37.000	0.000	90.0	37.00
WAMCB3 VP4	32.043	-18.500	120.0	37.00
WAMCB3 VP5	18.500	-32.043	150.0	37.00
WAMCB3 VP6	-6.425	-36.438	190.0	37.00
WAMCB3 VP7	-21.222	-30.309	215.0	37.00
WAMCB3 VP8	-32.043	-18.500	240.0	37.00
WAMCB3 VP9	-37.000	0.000	270.0	37.00
WAMCB3 VP10	-32.043	18.500	300.0	37.00
WAMCB3 VP11	-22.779	29.156	322.0	37.00
WAMCB3 VP12	-10.199	35.567	344.0	37.00

VIEWPORT	H Position, in	V Position, in	Clocking angle(deg)	Radius, in
WAMCB4 TUBE				
WAMCB4 VP1	18.500	32.043	30.0	37.00
WAMCB4 VP2	32.043	18.500	60.0	37.00
WAMCB4 VP3	37.000	0.000	90.0	37.00
WAMCB4 VP4	32.043	-18.500	120.0	37.00
WAMCB4 VP5	20.690	-30.674	146.0	37.00
WAMCB4 VP6	5.149	-36.640	172.0	37.00
WAMCB4 VP7	-8.951	-35.906	194.0	37.00
WAMCB4 VP8	-32.043	-18.500	240.0	37.00
WAMCB4 VP9	-37.000	0.000	270.0	37.00
WAMCB4 VP10	-32.043	18.500	300.0	37.00
WAMCB4 VP11	-8.951	35.901	346.0	37.00
WAMCB4 VP12	5.149	36.640	368.0	37.00

MCA ALL TUBES				
WAMCA1 VP1	18.500	32.043	30.0	37.00
WAMCA1 VP2	32.043	18.500	60.0	37.00
WAMCA1 VP3	37.000	0.000	90.0	37.00
WAMCA1 VP4	32.043	-18.500	120.0	37.00
WAMCA1 VP5	18.500	-32.043	150.0	37.00
WAMCA1 VP6	0.000	-37.000	180.0	37.00
WAMCA1 VP7	-18.500	-32.043	210.0	37.00
WAMCA1 VP8	-32.043	-18.500	240.0	37.00
WAMCA1 VP9	-37.000	0.000	270.0	37.00
WAMCA1 VP10	-32.043	18.500	300.0	37.00
WAMCA1 VP11	-18.500	32.043	330.0	37.00
WAMCA1 VP12	0.000	37.000	360.0	37.00