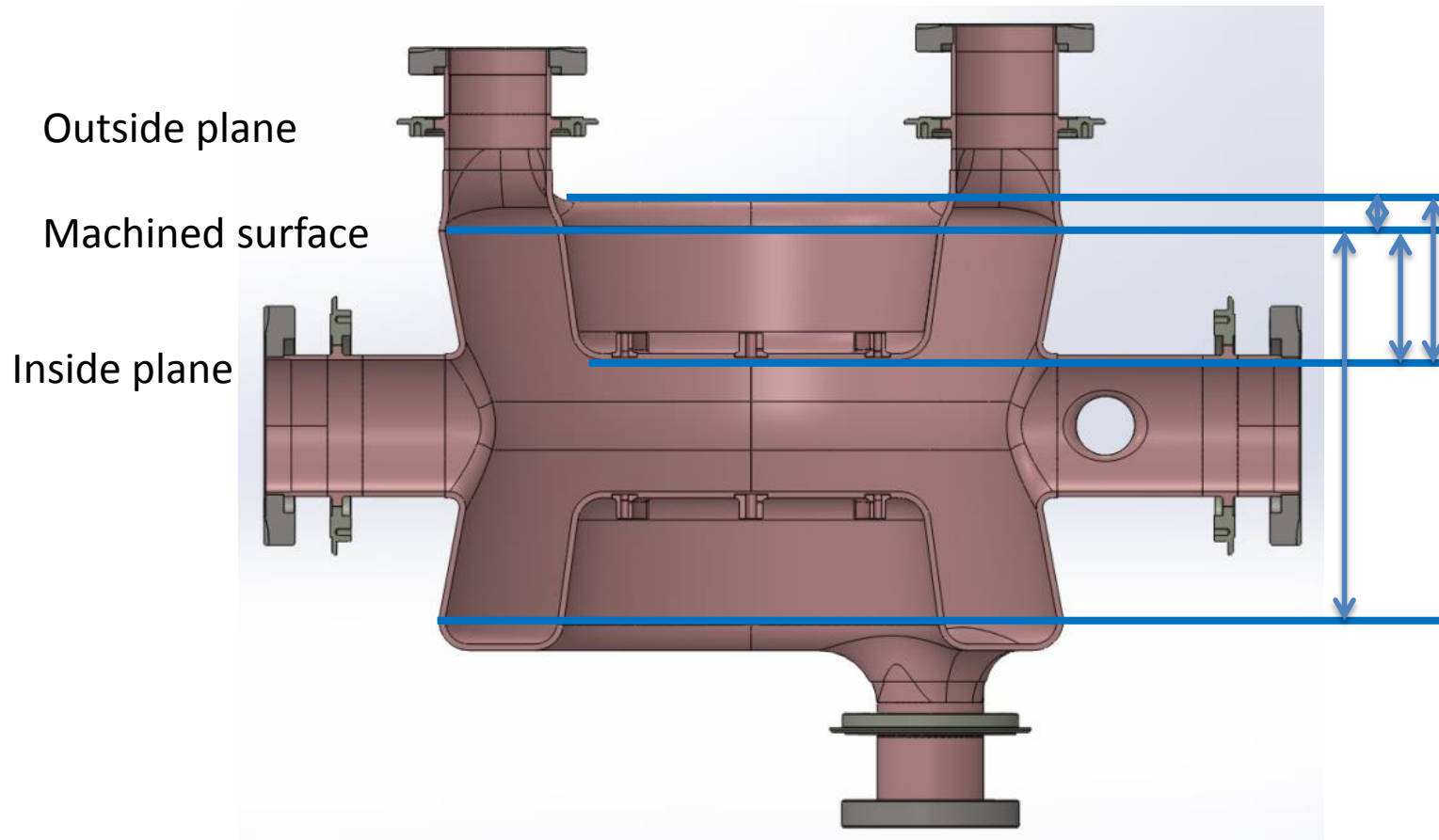



DQW Update Oct.21, 2016

1. Cavity arrived October 6, 2016 Thursday
2. CMM measurement
 - Dimensions needed to determine weld shrinkage
3. RF surface inspection
4. Weld structural visual inspection
5. Thickness measurement location marking
6. Incoming frequency measurement
7. Machined edge grinding
8. Weld prep BCP 20 microns
9. Flange assembly checking
10. Bulk BCP tooling ready



Measurement – Dimensional





Measurement – C1

| | | | | |
|--|--------------------|-----------------|------------------|-------|
|  | PART NAME : DQW_C1 | | October 07, 2016 | 19:08 |
| | REV NUMBER : | SER NUMBER : C1 | STATS COUNT : 1 | |



Overall Length

|  | MM | DIST1 - PLN4 TO PLN7 (YAXIS) | | | | | |
|---|---------|------------------------------|-------|---------|--------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 247.960 | 0.000 | 0.000 | 247.076 | -0.884 | 0.884 |  |



Flatness front plane

|  | MM | FLAT1 - PLN4 | | | | | |
|---|---------|--------------|-------|-------|-------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.309 | 0.309 | 0.309 |  |

Flatness far plane

|  | MM | FLAT2 - PLN7 | | | | | |
|---|---------|--------------|-------|-------|-------|--------|--|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.242 | 0.242 | 0.242 |  |


Parallelism of two planes

|  | MM | PARL1 - PLN4 TO PLN7 | | | | | |
|---|---------|----------------------|-------|-------|-------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.327 | 0.327 | 0.327 |  |


Measurement – T1

| | | | | |
|---|--------------------|-----------------|------------------|-------|
|  | PART NAME : DQW-T1 | | October 07, 2016 | 21:59 |
| | REV NUMBER : | SER NUMBER : T1 | STATS COUNT : 1 | |


Distance machined surface to inside plane.

| ↔ | MM | DIST1 - PLN2 TO PLN3 (YAXIS) | | | | | |
|----|---------|------------------------------|-------|--------|--------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 81.609 | 81.609 | 81.609 |  |

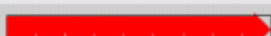
Distance machined outside front plane

| ↔ | MM | DIST2 - PLN2 TO PLN4 (YAXIS) | | | | | |
|----|---------|------------------------------|-------|--------|--------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 18.526 | 18.526 | 18.526 |  |

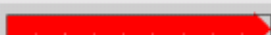
Flatness of machined datum plane

| ▭ | MM | FLAT1 - PLN2 | | | | | |
|----|---------|--------------|-------|-------|-------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.045 | 0.045 | 0.045 |  |








Flatness of cast plane inside

| ▭ | MM | FLAT2 - PLN3 | | | | | |
|----|---------|--------------|-------|-------|-------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.262 | 0.262 | 0.262 |  |

Flatness of cast plane outside

| ▭ | MM | FLAT3 - PLN4 | | | | | |
|----|---------|--------------|-------|-------|-------|--------|---|
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.605 | 0.605 | 0.605 |  |

Measurement – B2

| | | | | | | | |
|---|--------------------|------------------------------|------------------|---------|---------|---------|---|
|  | PART NAME : DQW-B2 | | October 08, 2016 | 00:21 | | | |
| | REV NUMBER : | SER NUMBER : | STATS COUNT : 1 | | | | |
| Distance machined plane to inside plane | | | | | | | |
| ↔ | MM | DIST1 - PLN2 TO PLN3 (YAXIS) | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 81.581 | 81.581 | 81.581 |  |
| Distance machined plane to outside plane | | | | | | | |
| ↔ | MM | DIST2 - PLN2 TO PLN4 (YAXIS) | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 18.455 | 18.455 | 18.455 |  |
| Distance inside plane to outside plane | | | | | | | |
| ↔ | MM | DIST3 - PLN3 TO PLN4 (YAXIS) | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 100.036 | 100.036 | 100.036 |  |
| Flatness of machined plane | | | | | | | |
| ▭ | MM | FLAT1 - PLN2 | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.034 | 0.034 | 0.034 |  |
| Flatness of inside plane | | | | | | | |
| ▭ | MM | FLAT2 - PLN3 | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 0.456 | 0.456 | 0.456 |  |
| Flatness of outside plane | | | | | | | |
| ▭ | MM | FLAT3 - PLN4 | | | | | |
| AX | NOMINAL | +TOL | -TOL | MEAS | DEV | OUTTOL | |
| M | 0.000 | 0.000 | 0.000 | 1.095 | 1.095 | 1.095 |  |

Next Week

- Test weld today, Cavity weld next week
- Frequency check
- Dimensional check (CMM)
- Leak check
- Frequency check
- Pre bulk BCP thickness measurement