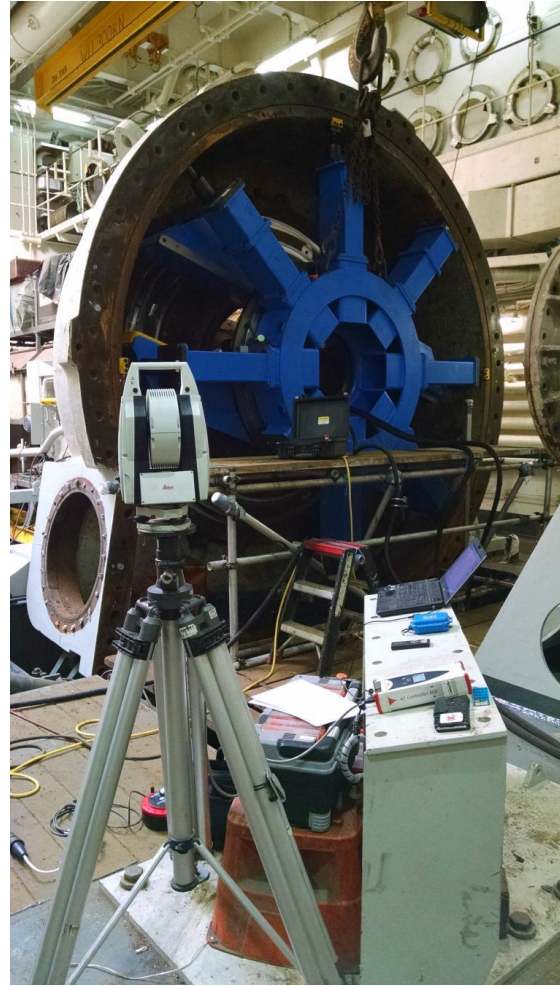


LASER ALIGNMENT OF MILLING MACHINE



Pump before machining



Milling machine aligned

Input data required from Customer:

1. Alignment reference (in this case pump shaft center bore and outer flange)

Output after alignment:

1. Machine centered (machine center of rotation is coincident with shaft center bore, meaning all machined diameters are coincident with center bore).

2. Machine leveled (milling head is rotating in the plane parallel to outer flange, meaning that machined flanges are parallel to the reference flange).
3. Dimensional control – machined diameters and machined depths check.

Report Example:

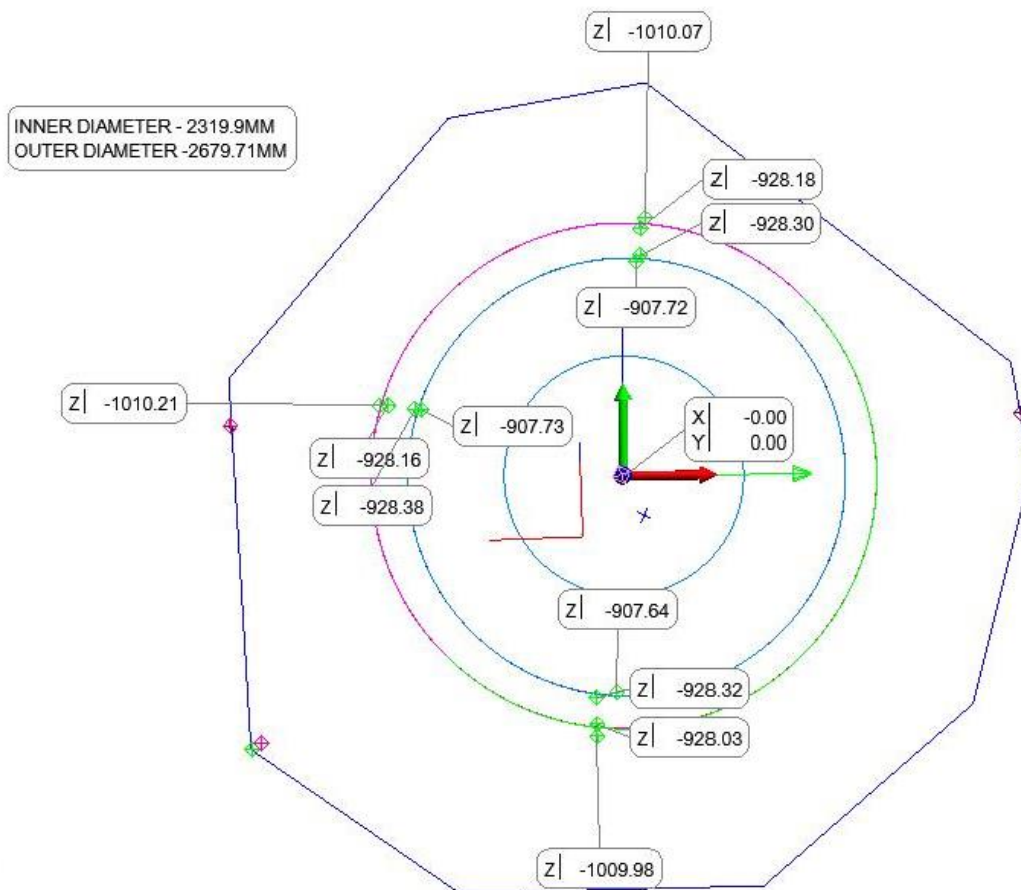
Report can be customized to the Customer requirements.

REFERENCE SYSTEM:

Z-AXIS NORMAL TO THE MAIN PUMP HOUSING FLANGE

ORIGIN SET IN THE CENTER OF THE SHAFT BORE.

Z-VALUE INDICATES DEPTH FROM THE MAIN FLANGE TO THE RESPECTIVE MACHINED FACE





Advantages of laser alignment:

1. Accuracy of measurements (up to 0.01mm) is maintained over big distances (up to 320m).
2. Software integration due to multi station functionality allows you to tight up all object (virtually not visible from one position) in one 3D image which allows you to acquire any relative dimension/position in space
3. Time savings: fast instrument installation, measurement acquisition and results reporting.