



QUALITY CONTROL & NDE GROUP  
SYSTEM RELIABILITY AND SAFETY ENTITY  
LPSC, VALIAMALA



Report No.: LPSC/SRS/QCNG/LME/RTSS/01/25

02.01.2025

RADIOGRAPHIC SHOOTING SKETCHES (FILM MODE)

Part Description: LOX EXHAUST CASING FOR LOX-METHANE ENGINE

Drawing No. LME1100-LOX-50AY

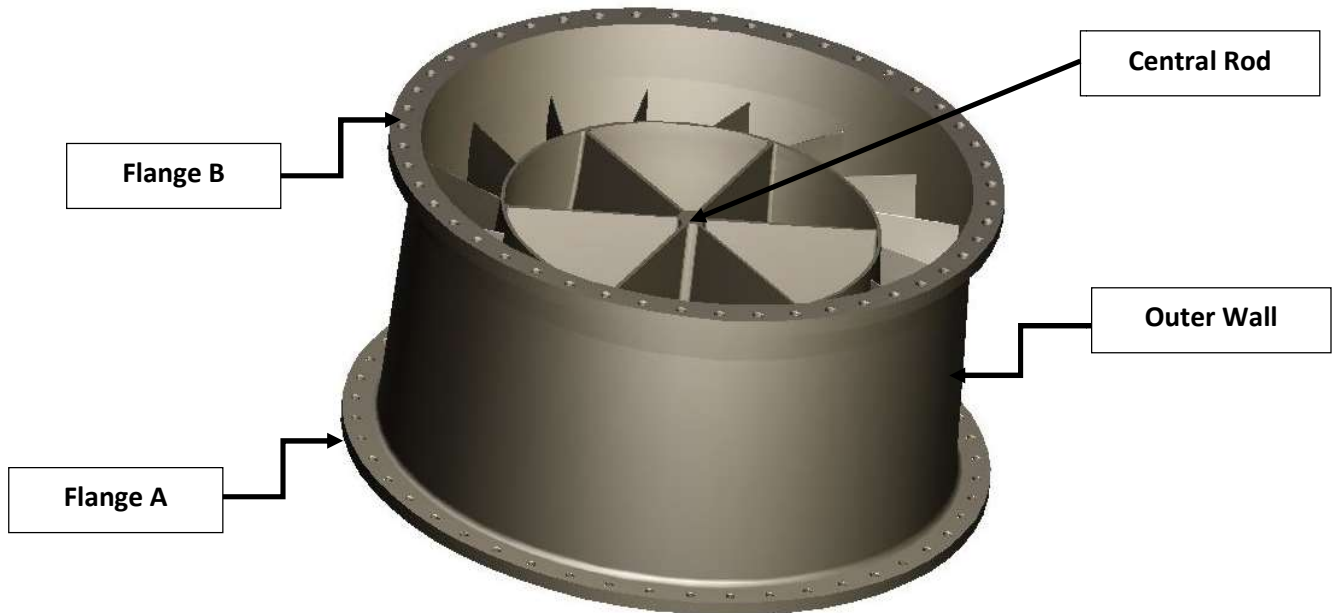


Figure 1

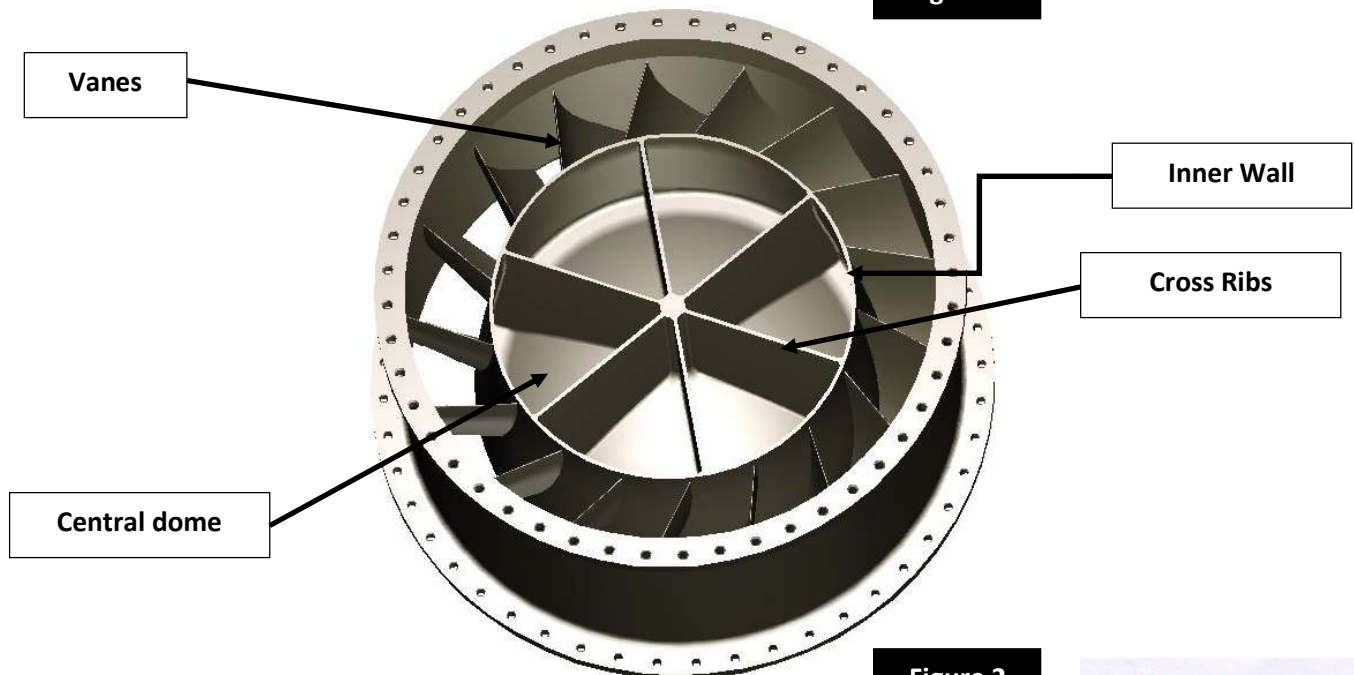
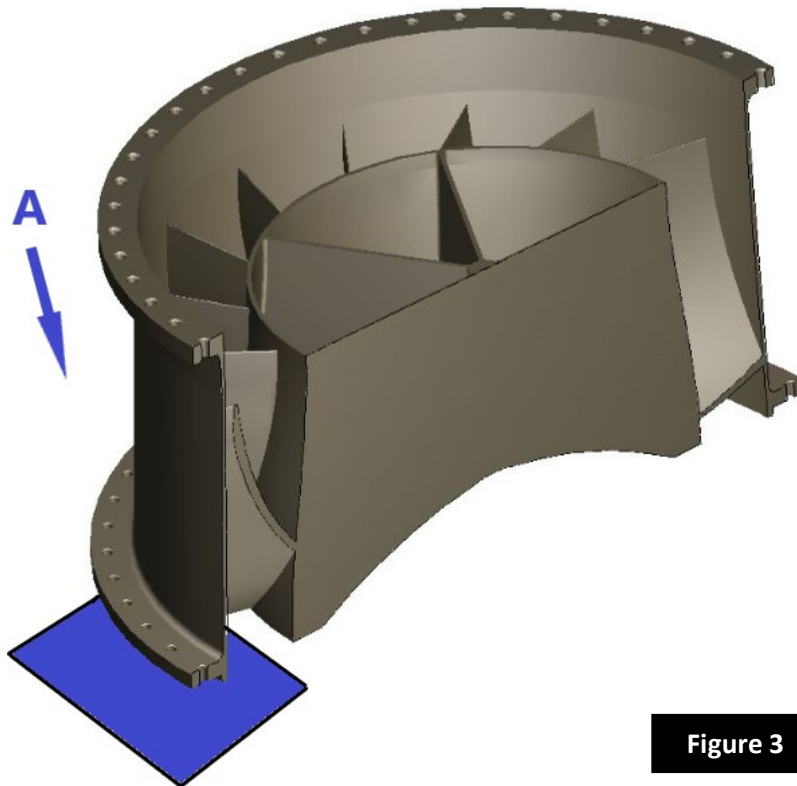


Figure 2

*Atul*  
02-02-2025

Table 1						
S. No.	Shooting View	Thickness*, mm	No. of Shots	Targeted Area (Refer Figures 1 & 2)	Technique	Remarks
1	A	10mm	A1 to A10	Flange A	SWSI	Figure 3
2	B	12mm	B1 to B10	Flange B	SWSI	Figure 4
3	C	3mm	C1 to C16	Outer Wall – Contour Film	SWSI	Figure 5
4	DA	3mm	DA1 to DA12	Outer Wall – Partial A	SWSI	Figure 6
5	DB	3mm	DB1 to DB12	Outer Wall – Partial B	SWSI	
6	E	3 + 3mm	E1 to E12	Outer + Inner walls	DWDI	Figure 7
7	FA	3 + 3mm	FA1 to FA17	Vanes – Partial A	DWDI	Figure 8
8	FB	3 + 3mm	FB1 to FB17	Vanes – Partial B	DWDI	Figure 9
9	G	3mm	G1 to G6	Cross Ribs - Partial	SWSI	Figure 10
10	H	5mm	H	Central Dome – Overall shot	SWSI	Figure 11
11	I	Various	I1 to I9	Vanes – Axial	DWDI	Figure 12
12	J	25mm	J1 to J6	Central Rod -Partial	SWSI	Figure 13
<b>Optical Density</b>		<b>1.8 to 3.0(2.3<sup>-20%</sup><sub>+30%</sub>)</b>		<b>Sensitivity</b>		<b>2-2T or 2%</b>
<b>Permissible U<sub>g</sub> Limit</b>		<b>0.1 max.</b>		<b>X-ray Tube Focal spot</b>		<b>1.5mm or finer</b>
<b>Feasible Radiographic Coverage</b>			<b>80% max.</b>			

\* Note: Exact thickness to be ensured.



*Atul*  
02-02-2025

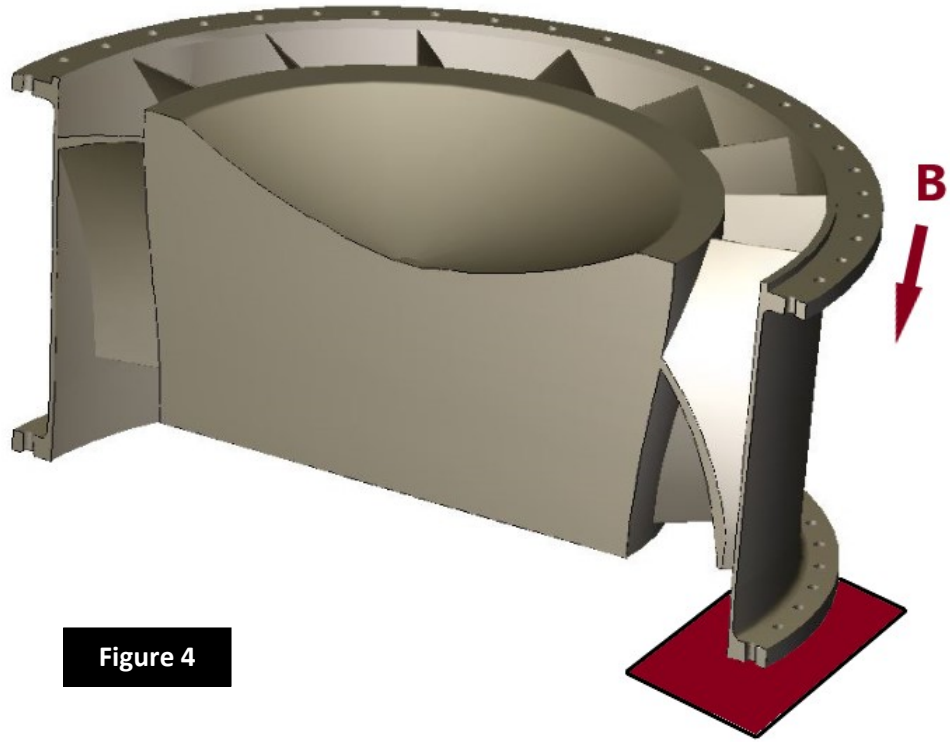


Figure 4

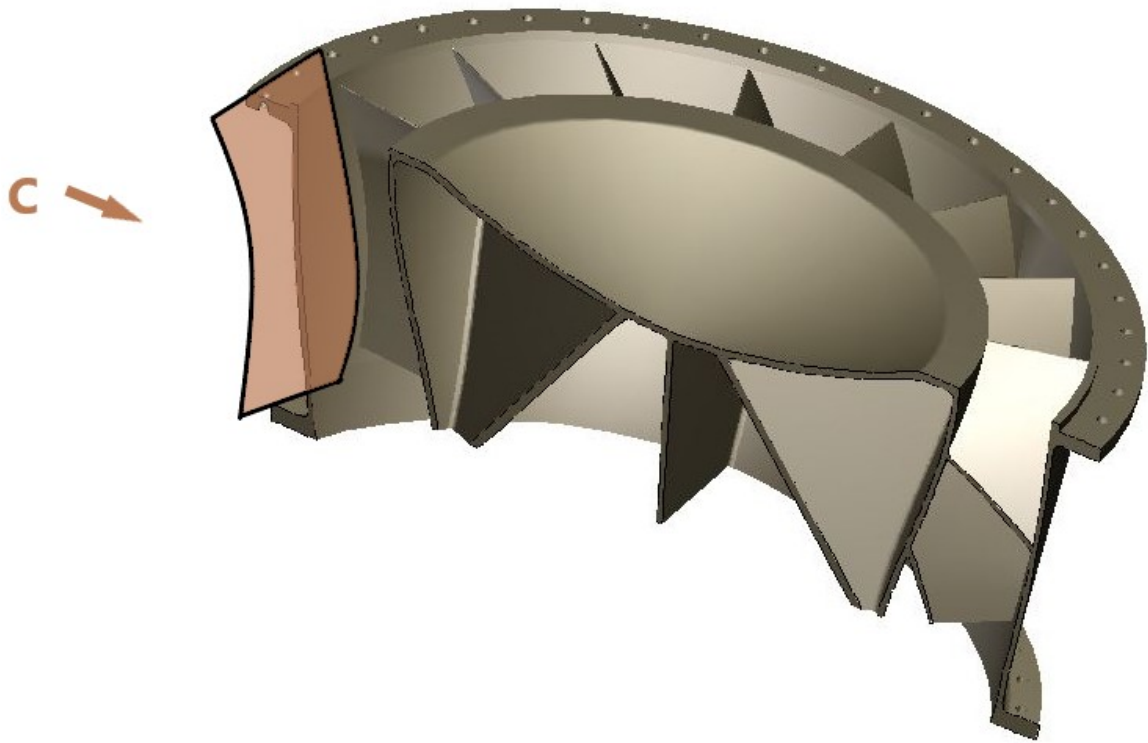


Figure 5

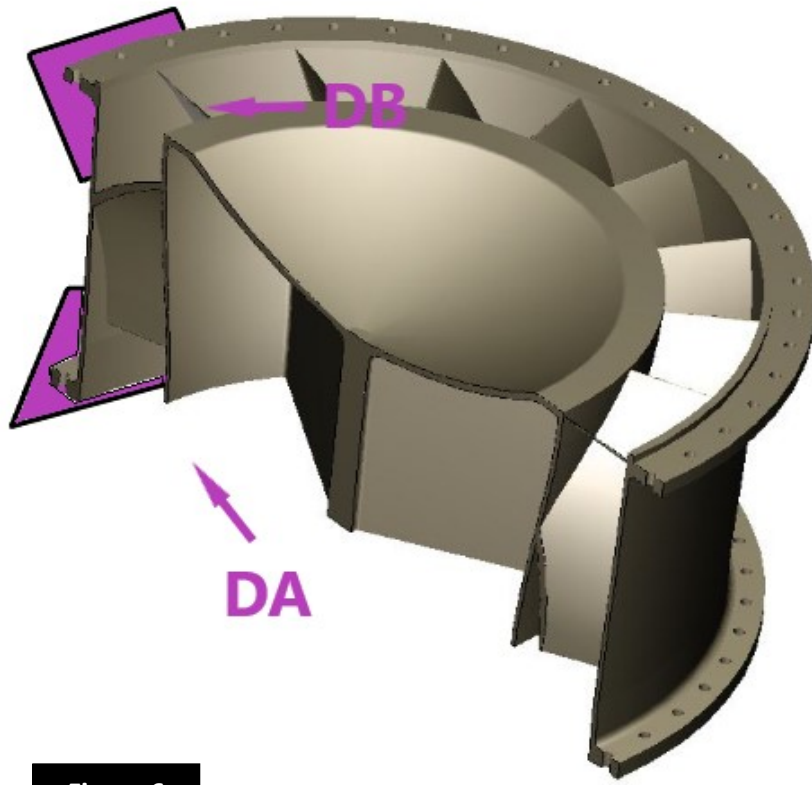


Figure 6

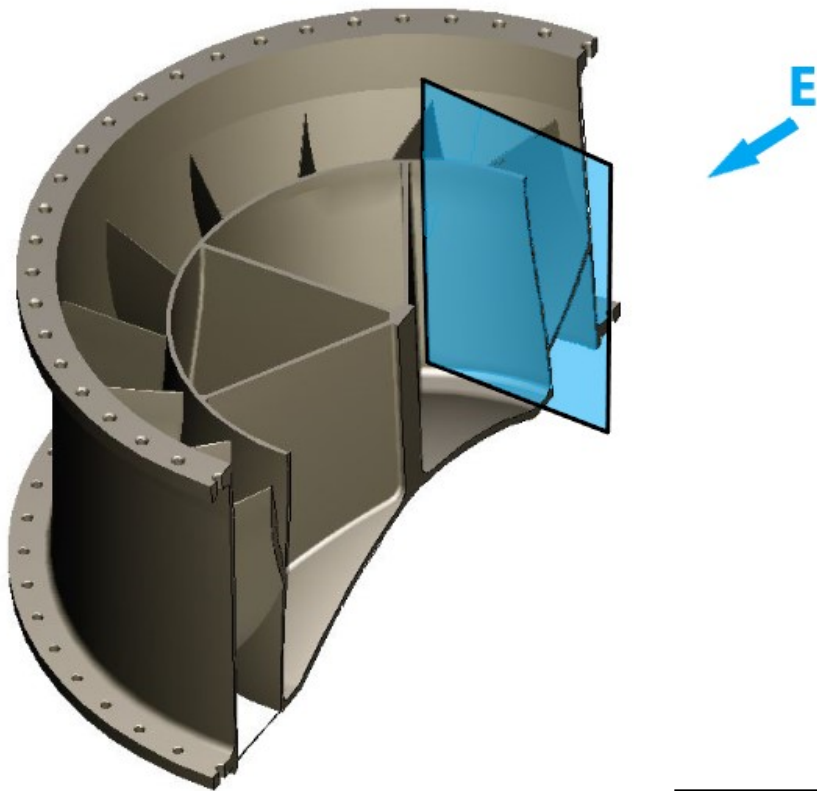


Figure 7

*Arturo*  
02-02-2025

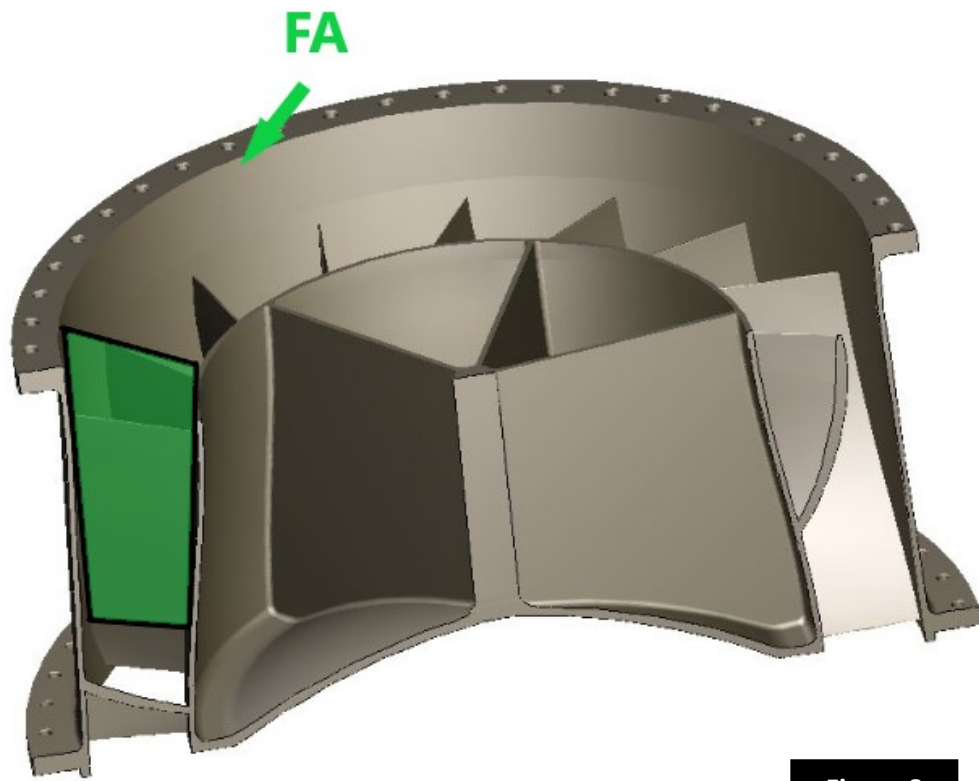


Figure 8

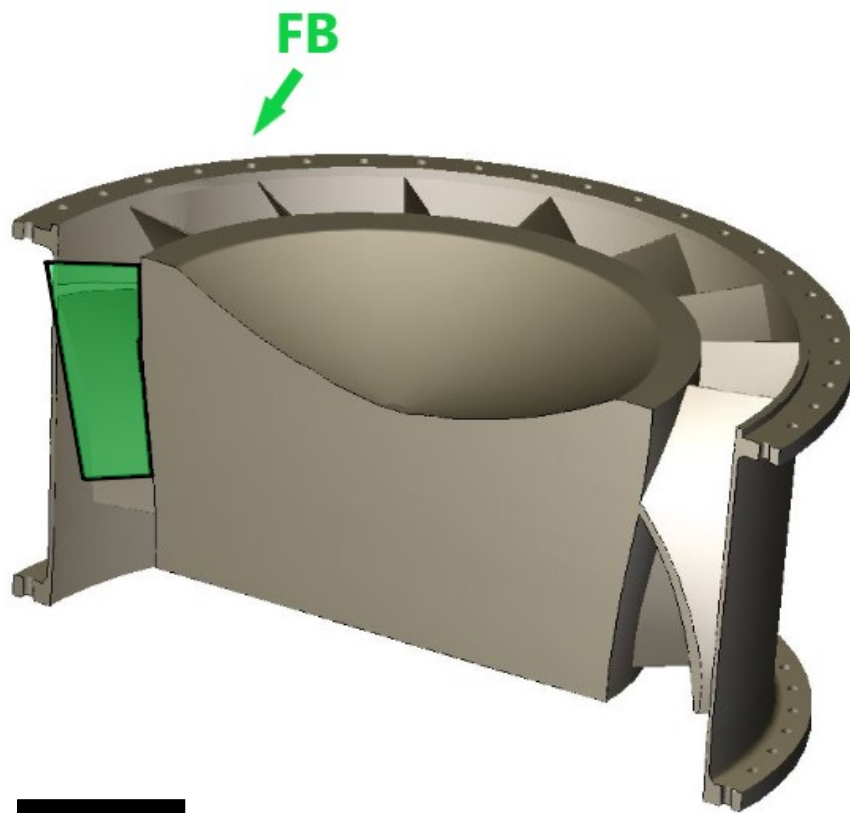


Figure 9

*Netwerk*  
02-02-2025

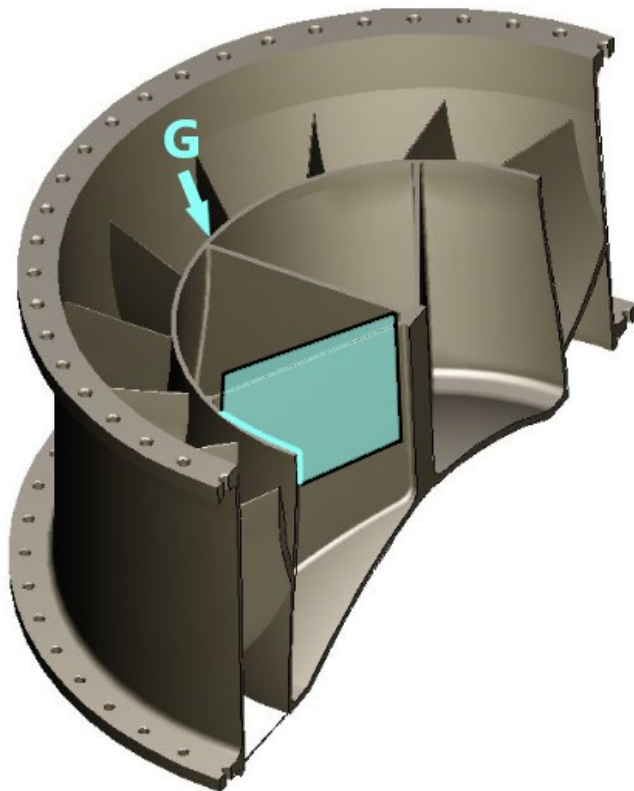


Figure 10

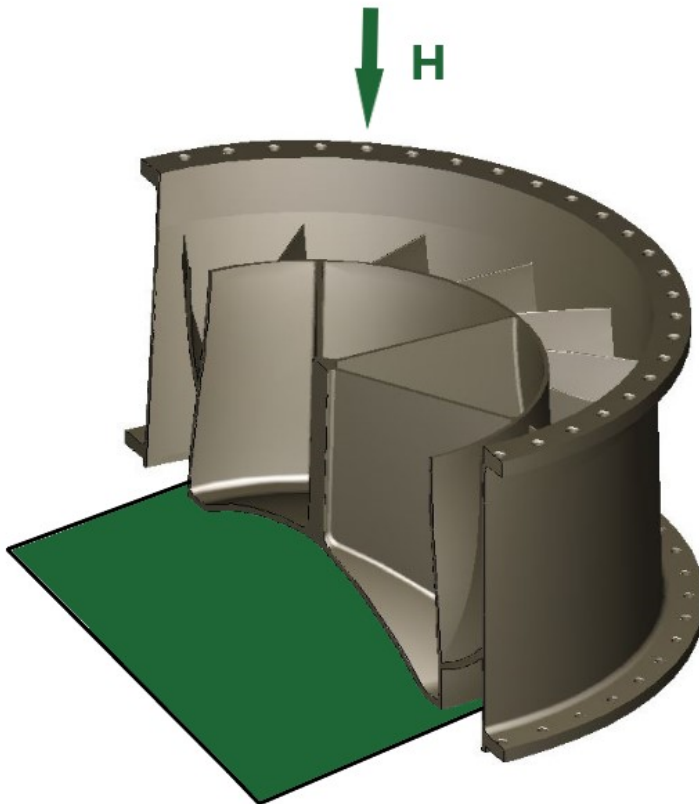


Figure 11

*Atkins*  
02-02-2025

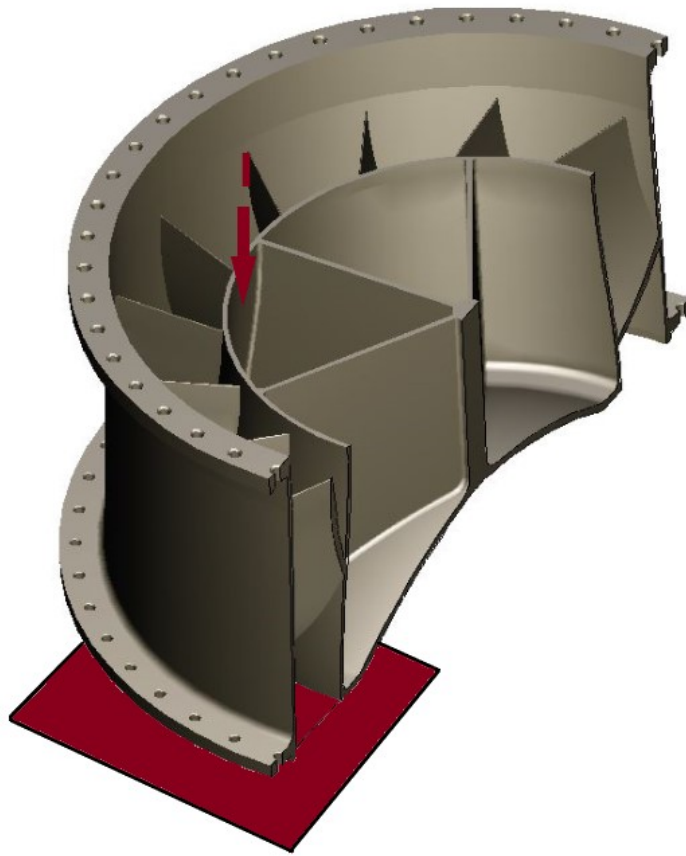


Figure 12

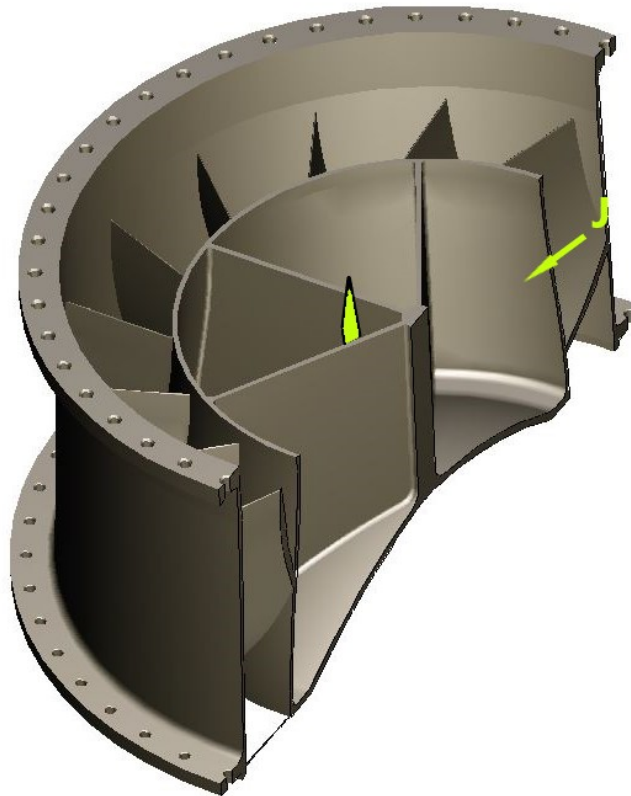


Figure 13

Prepared by:

*M. Anver Ali*  
02-02-2025

M. Anver Ali  
Sci./Engineer-SE  
NTTD/QCNG/SRQA