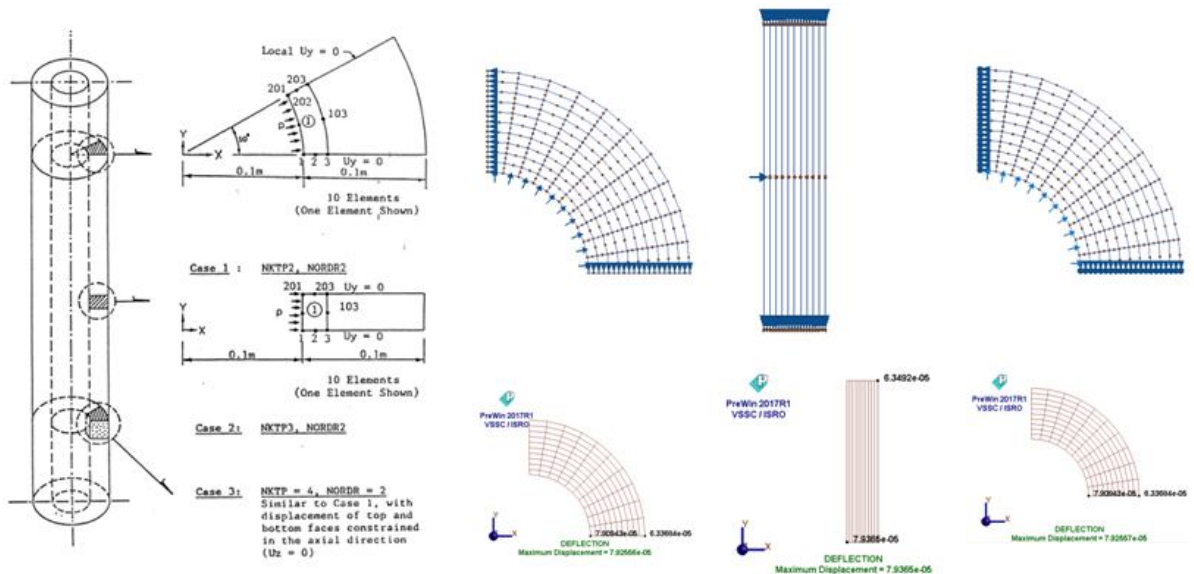


Static analysis of thick cylinder under internal pressure load



Material property	:	E=210GPa, $\nu = 0.0$				
Element type	:	Case 1. 2-D eight node plane strain element, Case 2. 2-D Eight node axisymmetric solid element, Case 3. 3-D twenty node solid element, thick cylinder with an inner diameter of 0.2 m and an outer diameter of 0.4 m. Internal pressure P = 100 MPa, $U_Y = 0$ on top and bottom surfaces allow for the expansion of the cylinder in radial direction only.				
Finite element Statistics	:	Number of nodes	Number of elements	Degrees of freedom		
		803	100	2197		

Output parameters Deflection in m(10^{-5})	Theoretical value		FEAST ^{SMT}		NISA2 [®]	
	Inner	Outer	Inner	Outer	Inner	Outer
Plane Strain	7.94	6.35	7.91	6.34	7.94	6.35
Axisymmetric	7.94	6.35	7.94	6.35	7.94	6.35
20 node solid	7.94	6.35	7.93	6.34	7.94	6.35