

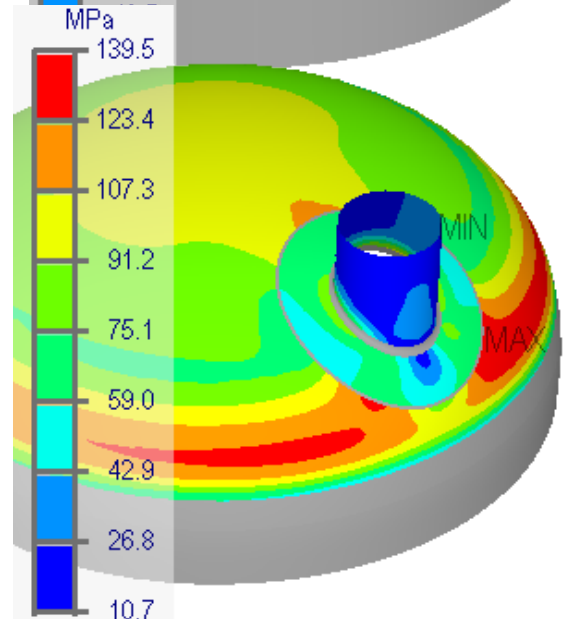
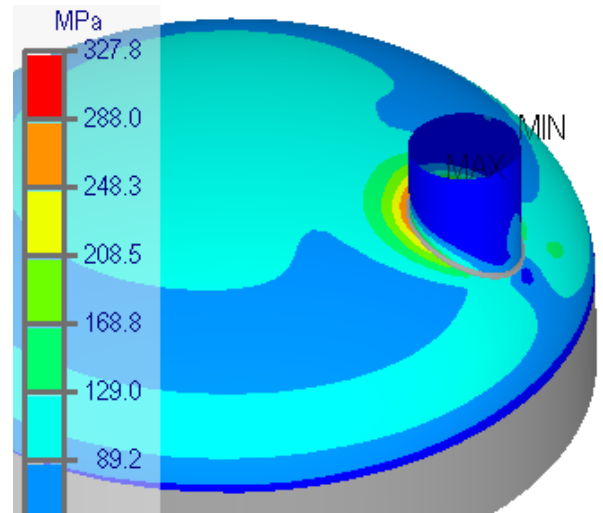
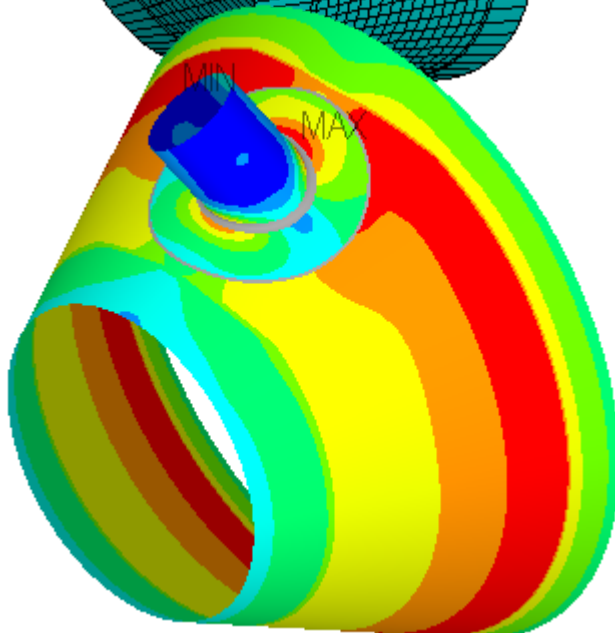
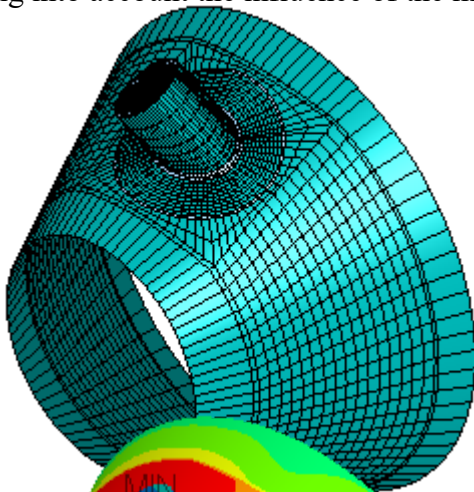
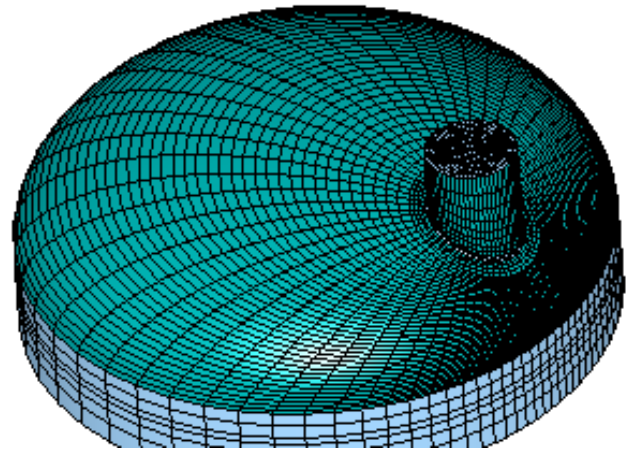
PASS/EQUIP NOZZLE-FEM

ANALYSIS OF STRESS, FLEXIBILITIES AND ALLOWABLE LOADS OF NOZZLE

The "PASS/EQUIP Nozzle-FEM" software is designed for stresses and flexibility calculation of nozzle-to-shell junctions using the Finite Element Method

Main features:

- Cylindrical and conical shells
- Elliptic, hemispherical and flat heads
- Pipelines branch connections
- ASME VIII div.1,2; EN 13445-3; GOST R 52857.1-2007; JB 4732-1995 Codes
- Allowable loads
- CIF and flexibility
- Extensive database of materials (ASME II Part D, EN standards, GB-713-2008, JB 4732-1995, GOST R 52857.1-2007)
- Any units setting
- Easy to use (Not require special training)
- Developed post processor
- Import models from the Passat Software
- Taking into account the influence of the mesh level



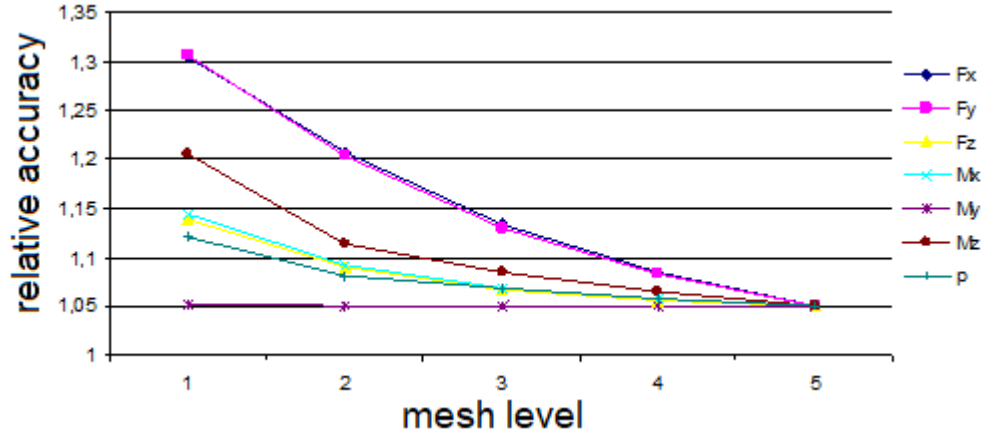
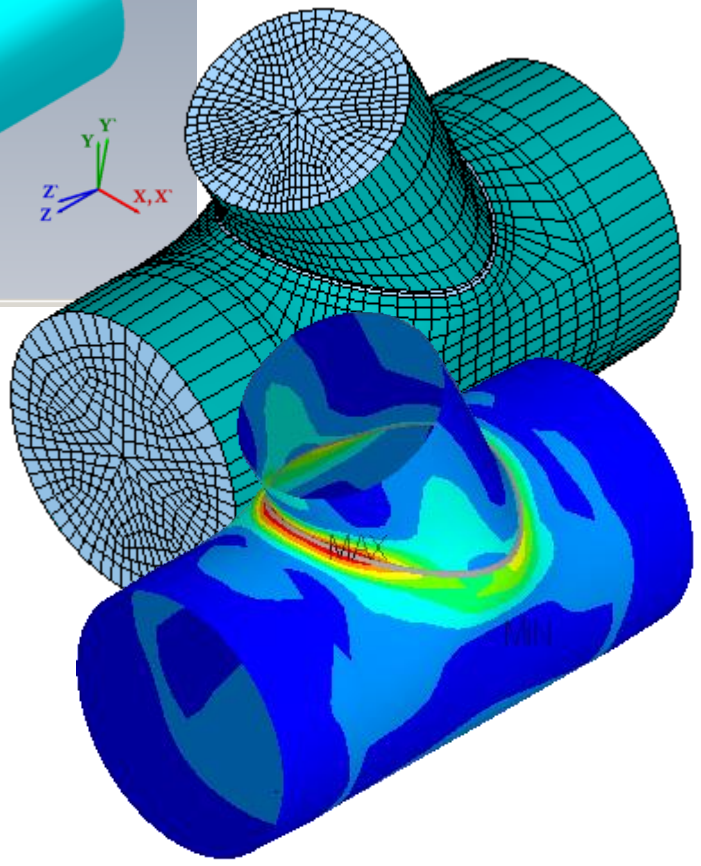
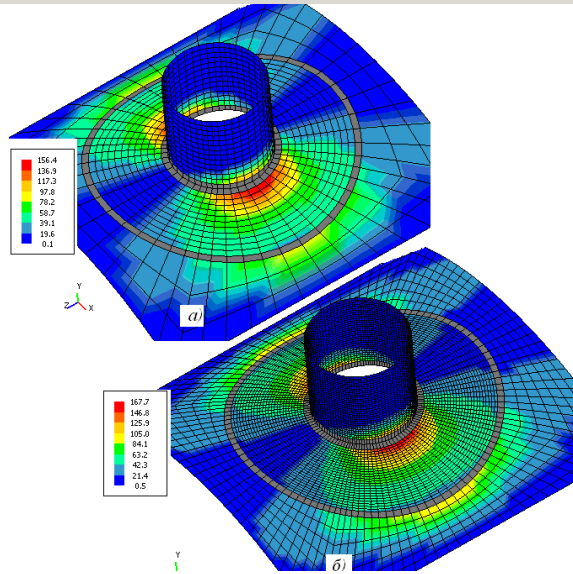
Loads

Coordinate system associated with:

Main Pipe Orientation

Branch Orientation

To the branch:	To the main pipe:
F1x:	F2x:
1000	N
F1y:	F2y:
50000	N
F1z:	F2z:
2000	N
M1x:	M2x:
5000	N m
M1y:	M2y:
5000	N m
M1z:	M2z:
3000	N m



Allowable individual loads on the nozzle without influence of other loads, including pressure *

F_{x^2} , kN	F_{y^2} , kN	F_{z^2} , kN	M_{x^2} , kN m	M_{y^2} , kN m	M_{z^2} , kN m	p , MPa
190.3	315.9	631	151.1	234.6	83.44	0.875

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* When exceeding any loading component, a reinforcing of nozzle connection is required. Or this loading component must be reduced

Allowable loads on the nozzle at the design pressure **

F_{x^2} , kN	F_{y^2} , kN	F_{z^2} , kN	M_{x^2} , kN m	M_{y^2} , kN m	M_{z^2} , kN m	p , MPa
41.68	69.19	138.2	33.11	51.38	18.28	0.3

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** When exceeding one or several loading components, a supplementary calculation of strength is required