bolt

Interface1_area:	1.895610e+02
Interface1_force:	7.906703e+03
Interface2_area:	6.911365e+01
Interface2_force:	1.026290e+04

fastener

Fastener1_axial_force:	1.019772e+04
Fastener1_axial_stress:	2.028773e+02
Fastener1_bending_moment:	1.456402e+03
Fastener1_bending_stress:	2.897420e+01
Fastener1_shear_force:	3.389518e+01
Fastener1_shear_stress:	6.743232e-01
Fastener1_torsion_moment:	1.598826e+00
Fastener1_torsion_stress:	1.590381e-02
Interface1_area:	3.151111e+02
Interface1_force:	7.841530e+03

preload: $10\ kN$

pressure: $p := 10\ MPa$ $A_p := 235.619\ mm^2$ $F_p := p \cdot A_p = 2.356\ kN$

$F_{bolt} := 10.2629\ kN$ $F_{fastener} := 10.19772\ kN$

$F_{flange} := 7.906703\ kN$ $F_{flange\_} := 7.84153\ kN$

$F_{bolt} - F_{flange} = 2.356\ kN$ $F_{fastener} - F_{flange\_} = 2.356\ kN$

$$diff := 1 - \frac{F_{fastener}}{F_{bolt}} = 0.64\%$$