## Analysis of Contact Width and Contact Stress of Three-Layer Corrugated Metal Gasket

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**Abstract :** Contact width and contact stress are important parameters related to the leakage behavior of corrugated metal gasket. In this study, contact width and contact stress of three-layer corrugated metal gasket are investigated due to the modulus of elasticity and thickness of surface layer for 2 type gasket (0-MPa and 400-MPa mode). A finite element method was employed to develop simulation solution to analysis the effect of each parameter. The result indicated that lowering the modulus of elasticity ratio of surface layer will result in better contact width but the average contact stresses are smaller. When the modulus of elasticity ratio is held constant with thickness ratio increase, its contact width has an increscent trend otherwise the average contact stress has decreased trend.

Keywords : contact width, contact stress, layer, metal gasket, corrugated, simulation

**Conference Title :** ICMMME 2017 : International Conference on Mechanical, Materials and Mechatronics Engineering **Conference Location :** Madrid, Spain

Conference Dates : March 26-27, 2017