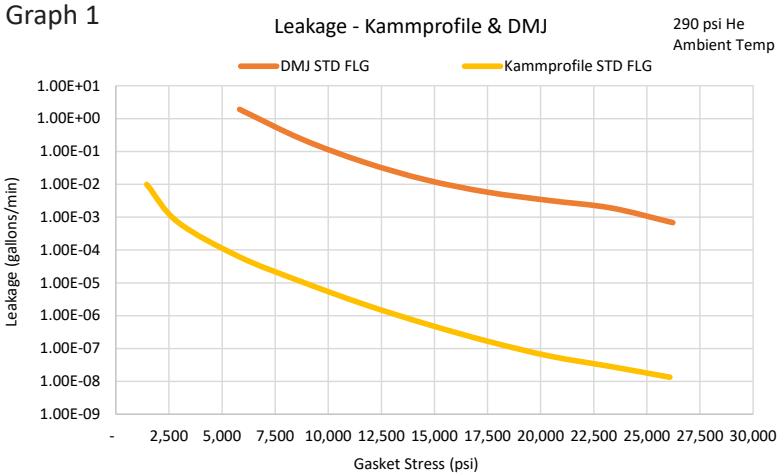
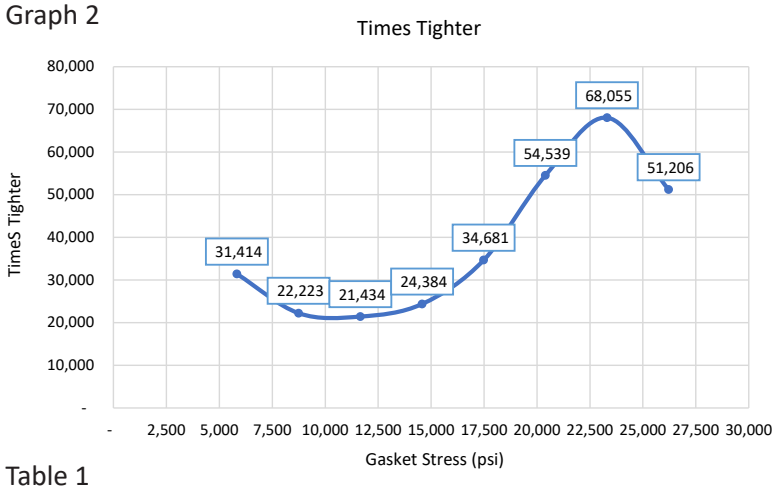
LEAKAGE PERFORMANCE STUDY
DMJ (DOUBLE METAL JACKETED) vs KAMMPROFILE GASKETS

Graph 1



Graph 1 – The Kammprofile gasket has much lower leakage results when compared to the DMJ gasket at ambient temperature at an internal pressure of 290 psi (20 Bar). Leakage is measured at an initial gasket stress of 725 psi (5 MPa). The load was increased incrementally and the leakage was measured at each incremental stage.
The DMJ gasket had such high leakage rates at the first three gasket stress points the test machine could not record the values.
As can be seen from the results graph the Kammprofile out performed the DMJ gasket under the same test environment.

Graph 2



Graph 2 – This illustrates how much of a tighter seal a Kammprofile gasket provides over a DMJ gasket especially at the recommended gasket stress in assembly (20,000 to 25,000 psi).

Table 1

	Kammprofile	DMJ	
Sbel (O-1) Bolt Stress	50,000	50,000	psi
Bolt Grade	ASTM A193 B7	ASTM A193 B7	
Bolt Diameter	3/4	3/4	inches
Number of Bolts	64	64	
K Factor	0.13	0.13	
Gasket ID	36.63	36.63	inches
Gasket OD	37.63	37.63	inches
Gasket Stress	16,572	16,572	psi
Required Bolt Stress - Gasket Assembly	**24,137**	**51,292**	**psi**
Required Bolt Stress - Gasket Operating	**45,688**	**70,536**	**psi**
Sgmax	***60,000***	***35,000***	***psi***
Sgmin-s	***8,000***	***17,000***	***psi***
Sgmin-o	***7,000***	***14,000***	***psi***

Table 1 illustrates how a Kammprofile gasket has superior advantages over a DMJ gasket on installation.
Maintaining the same bolt stress, grade, diameter, number of bolts, k factor and gasket ID OD in the example it can be observed the amount of bolt stress required to achieve enough gasket stress in assembly and operation is much higher for a DMJ gasket due to the higher gasket stresses needed for Sgmin-s and Sgmin-o. The Sgmin values reflect the minimum amount of gasket stress required to create a seal in assembly and operation.

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