

Duoline<sup>®</sup> lining systems extend the life of your tubulars



+ **DL-RING**<sup>™</sup>

+ **Premium Connection:**

*Meet demanding laboratory test requirements when coupled with VAM<sup>®</sup> TOP HT in VME type highly stressed loading applications.*

More than 500 hours of tests have been carried out with the **DUOLINE**<sup>®</sup> internal lining coupled with DL-RING and VAM<sup>®</sup> TOP premium connections. The tests have been carried out at the V&M Tubes test facilities. They give to the industry the reference of performance for **DUOLINE**<sup>®</sup> + DL-RING + VAM<sup>®</sup> TOP HT Premium connection.

SAMPLES	
<b>Material</b>	API L80 seamless pipe and DUOLINE 20 liner
<b>Size</b>	7" OD with #29 & #32 weight
<b>Connection</b>	VAM <sup>®</sup> TOP HT Premium – 100% Tensile Efficiency
<b>Liner Connection System</b>	<b>DL-RING</b> <sup>™</sup>



## PURPOSE

Validate the performance of a DL-RING™ option when combined with a field proven VAM® TOP HT Premium connection.

## RESULTS

### DL-RING BEHAVIOR

**Make & Break performance with VAM® TOP HT connection using:**

- Green Dope
- CLEANWELL™ option

**Ring integrity & shape OK when used in overall tolerance range.**

### RESISTANCE UNDER COMBINED LOADS

**Qualification done with Premium loads sequence including:**

- Tension [up to 650 kips \*]
- Tension + Internal Pressure
- Internal Pressure [up to 10 000 psi in capped end \*]
- Internal Pressure + Compression
- Compression [up to 550 kips \*]

### BENDING RESISTANCE

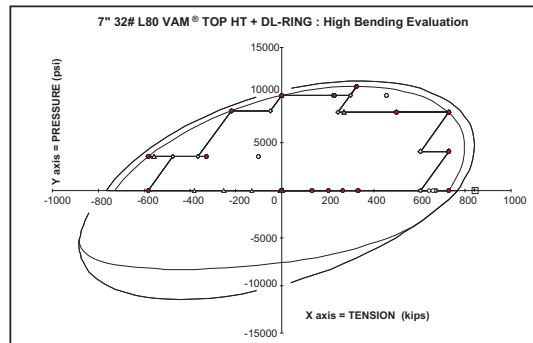
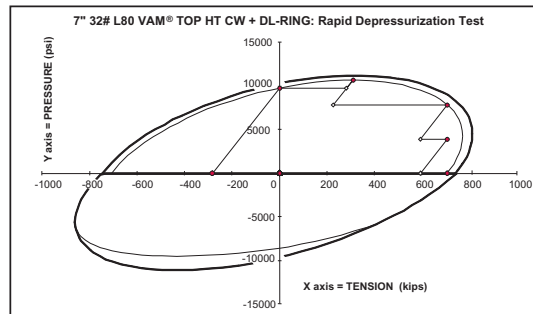
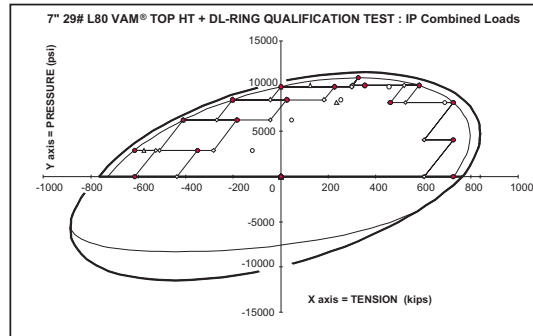
**Qualified with VAM® TOP HT connection up to:**

- 30 degree / 100 feet ratio

Technical summaries of the tests are available on demand. They include description of tests plans and more technical data as VME envelopes and load sequences.

\* Figures are related to the 7" weights used during the tests.

VAM® and CLEANWELL™ are trademarks belonging to Vallourec Mannesmann Oil & Gas France.



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ISO 9001:2008



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