

Molygraph VLG 620
successfully passed
pressure testing conditions
on 3 different OEM valves.



Industry: Oil & Gas | **Application:** Sealing of Wellhead and Xmas tree valves
Valve Make: McEvoy 2-1/16" (5k), FMC 3-1/8" (5K), Cameron FL 2-1/16" (5K) | **Client:** Valve Maintenance Company | **Location:** Malaysia

Overview

A valve maintenance company based in Malaysia required a valve sealant. The Malaysian distributor for Molygraph suggested VLG 620 to replace the current product being used. The customer required certain testing to be done to evaluate the quality and sealing properties of the lubricant.

Challenge

- ⚙ Should pass the pressure testing conditions on 3 different OEM valves.
(FMC, Cameron and McEvoy)
- ⚙ Excellent ability to seal the valve.

Solution

MOLYGRAPH VLG 620

Synthetic Valve sealant with a special thickener and polymer base oil combination

- ⚙ Superb resistance to hydrocarbons, Co2 and H2S.
- ⚙ Excellent sealing ability.
- ⚙ Wide Temperature capability -40 to +230°C.



Testing Plan

- ⚙ All valves are cleaned inside out to remove the grease sealant left over.
- ⚙ Water is injected inside the gate valve assembly (Simulation of actual scenario at off-shore facility) at a specific rate.
- ⚙ Injection of VLG 620 sealant and then re-running the pressure test.
- ⚙ Recording of data using digital pressure gauge.

Benefits of VLG 620

Technical Specifications	Test Method	VLG 620	Competitor Product
Thickener	*CTM	Inorganic	Inorganic
Base Oil	*CTM	Synthetic Polymer	Synthetic Polymer
Four Ball Wear Scar	ASTM D-2266	0.408 mm	0.542 mm
Four Ball Weld Load	ASTM D-2596	620 kg	400 kg
Resistance to Diesel	*CTM	Pass	Pass
Resistance to Hexane	*CTM	Pass	Pass
Temperature Range	-	-40 to +230°C	-29 to +230°C

VLG 620 Performance

Property	Description	Before Sealant	After Sealant
McEvoy 2-1/16	Seal	Valve is passing from 0 psi to test pressure of 4400 psi in 7 mins.	Pressure maintained to 4400 psi for 15 mins.
FMC 3-1/8	Seal	Valve is passing from 0 psi to test pressure of 3700 psi in 5 mins.	Pressure maintained to 3700 psi for 15 mins.
Cameron FL 2-1/16	Seal	Valve is passing from 0 psi to test pressure of 3400 psi in 10 mins.	Pressure maintained to 3400 psi for 15 mins.

Results

1. VLG 620 successfully sealed 3 different OEM valves.
 2. It was able to seal the valves successfully within the time frame during the trial period.
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**Sealed 3 different
OEM valves.**

**Tests at a higher pressure
than the incumbent product.**



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