SYSTEMS CASE HISTORY

CASE No 3444O

In 2004, 4 off CAPI A1 dual cartridge seals were installed in some CPC vertical inline API 610 process pumps, sealing natural gas liquid on an offshore platform in Alaska, USA. The seals replaced John Crane type 48MP/48LP which had a mean time between failure of 6 weeks.

The CAPI's were installed in a plan 53 modified system and employed an innovative stand mounted support system, which is a hybrid plan 53/54 system

The system had a small footprint, therefore ideal for restricted offshore space and did not require an electrical supply as the plan 54 circulation pump was air actuated.

Customer Name:	On Request	Customer Town:	DEADHORSE PLATFORM ALASKA
Industry:	OIL & GAS	Axial Movement:	0.008
Area Of Plant:	NGL injection	Radial Movement:	0.002
Product:	Natural Gas Liquid	Temperature:	100 DEG F
Machine Type:	API 610 PUMP	Concentration:	
Manufacturer:	CPC PUMPS INTERNATIONAL	Discharge Pressure:	250 PSIG
Manufacturers ID:		Shaft RPM:	3600
SerialNo:		System Type:	API PLAN 53M
Z/Standard:		Barrier Fluid Type:	Royal Purple 22
Dry Running:	NO	Bulk Temperature of System:	
Seal Type:	CAPI A1 DUAL	Temperature on Seal Gland	125 DEG F
Seal Size:	2.250	Abrasive:	NO
Wetted Parts:	316 SS	Seal Chamber Pressure:	175 PSIG
Faces:	SIC/C/SIC/C	Position:	VERTICAL
Elastomers:	VITON	Seal GA:	7134128
Atex Compliance:	No	System GA:	8007759

Systems Solution

- **System type** – Compact 107
- **Installed** – October 2004
- **Performance –** The seals have currently operated for over three years without failure, increasing the equipment mean time between failure by over 24 fold. The customer is clearly delighted with the seal and system performance and in 2007 ordered an additional system for similar application. The savings for this application is over $200k (£100k) over the past three years based on compilation of repair costs, prior to the CAPI installation. This saving clearly excludes the significant gains the platform has made to production efficiencies.