



# **DHV "EDS"**

ELASTOMERIC DELTA SEAT  
TRUNNION BALL VALVES



# Why use the DHV Elastomeric Seat Design?

- Western Canada's oilsands industry provides some challenges regarding the selection of materials used in pipeline valves used for midstream applications.
- Bitumen produced from the oil sands contain complex long chain hydrocarbon molecules known as **asphaltenes**. These highly complex molecules make the bitumen sticky, viscous and almost rock-solid at room temperatures. Asphaltene content can vary from 10% to over 20%. Alberta's bitumen also has a relatively high sulphur content – as much as 5%, and up to 0.5% fine solid particles.
- Diluting bitumen makes it much easier to transport using trucks, rail cars or specifically transporting via pipelines.
- Dilbit is a bitumen diluted with one or more lighter petroleum products, typically natural gas liquids or Naptha.



**STRENGTH THROUGH DISTRIBUTION**

# DHV - EDS Seat Design

## EDS SEAT DESIGN FEATURES

- Seat carriers include FKM/Viton GLT-AED O-rings rated at -46C.
- The new EDS valves use an Elastomeric FKM/Viton GLT-AED Delta seat rated -46C.
- The Delta seat/wiper ring design affords exceptional contact to the ball and ensures positive sealing even on partially damaged ball seat surfaces caused by flow abrasion (sand).
- The Delta seat provides both low pressure and high pressure sealing capabilities (Delta seat + wiper ring) that are not possible with a standard Polymeric seat design.
- The Delta seat wiper ring (DEVLON\R-PTFE\PEEK) also provides a "wiping action" to the ball and is effective for cleaning the ball as the ball cycles open-closed.

## GENERAL FEATURES

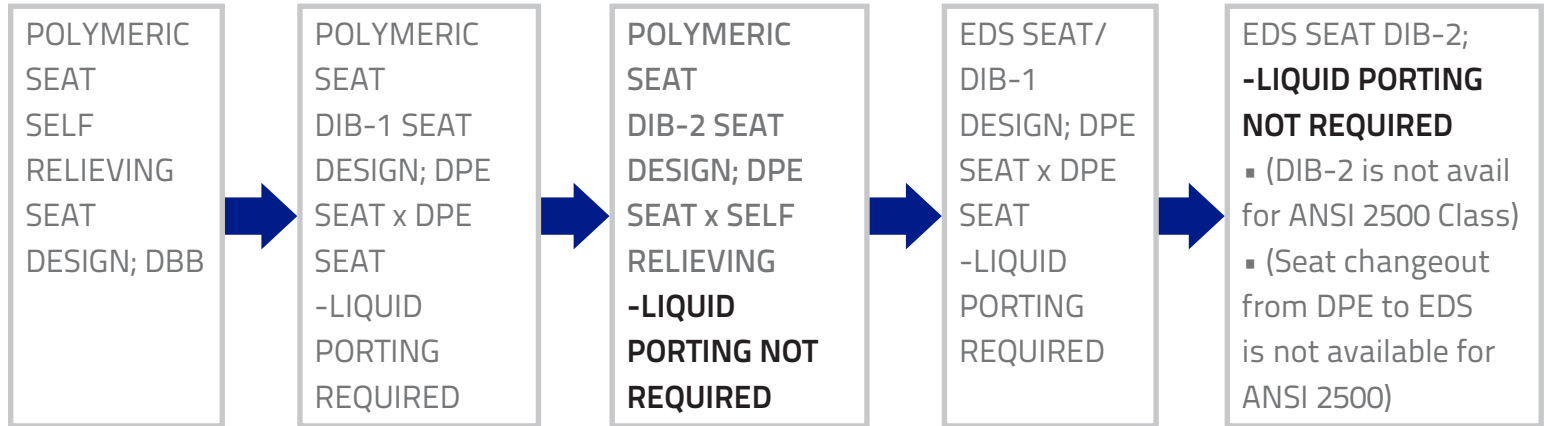
- A-350-LF2 Class 1, 3 pc bolted body
- EDS seat carriers are completely interchangeable in existing DHV – forged trunnions
- All valves supplied as DIB-1 as defined by ISO/API 6D as standard with body vent plugged for future liquid port
- All valves are supplied with HNBR/ Graphite - 3 level stem seal as per ISO 15848 -1 low emission specification
- Delta seat and carrier O-rings are Viton AED-GLT rated to -46C, explosive decompression compliant
- Standard trim is 3 mil, low Phosphorus ENC.
- DIB-2/Delta seat design available for ANSI 150-ANSI1500 pressure ratings.

## DESIGN & SPECIFICATIONS

- ISO 9001 – 2015 / API Q1 Quality System
- ASME B16.34 design
- API 6D compliant, API 16.10 dimensioning
- CSA Z245.15- Edition 2017
- API 6FA Firetest Certificate
- SIL-3 certified
- MSS SP55/SP-25
- Documentation as per BS/EN 10204-3.1
- NACE MR01-75/ISO 15156- 2017
- Canadian CRNs
- Valve rating -46C to +160C.

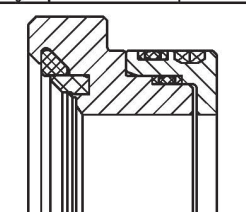
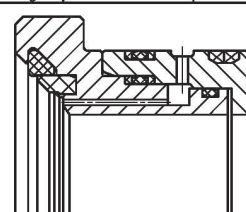
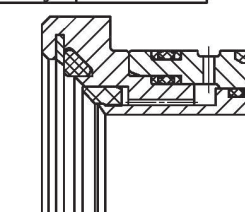
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# DHV EDS TRUNNIONS OFFER COMPLETE SEAT INTERCHANGEABILITY



2" FP to 36" FP ANSI 150-600	2" FP to 24" FP ANSI 900	2" FP to 24" FP ANSI 1500	2" FP - 6" FP ANSI 2500
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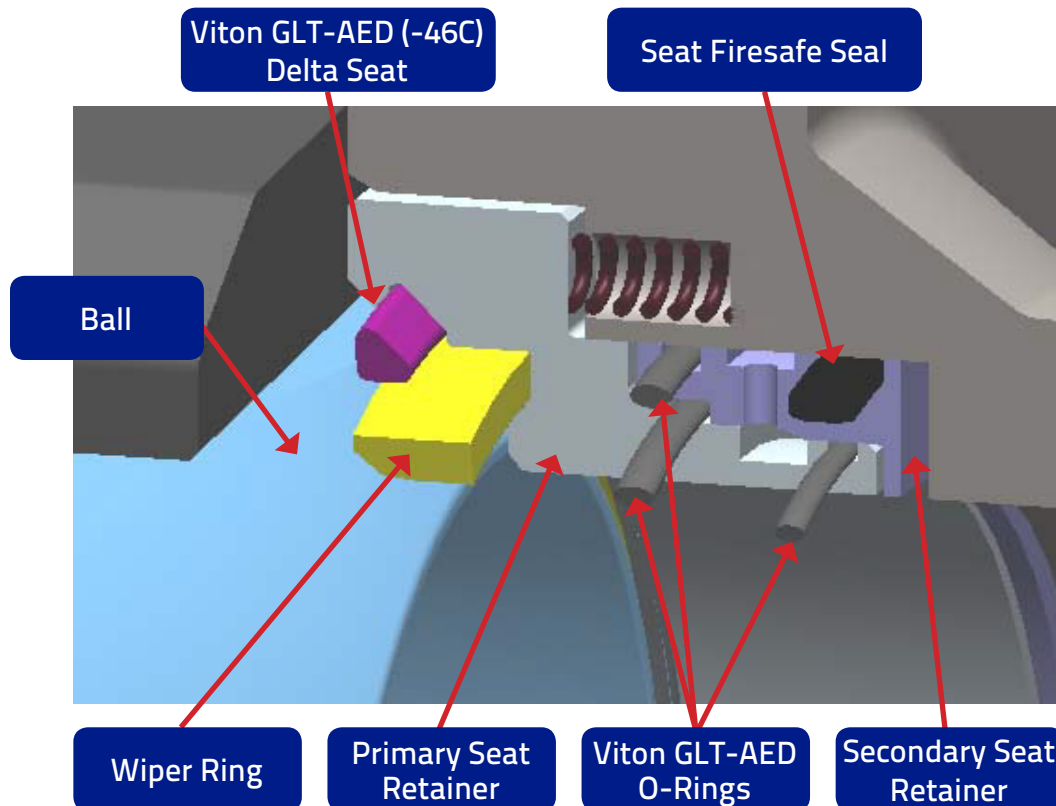
## DHV-EDS SEAT PROFILE FOR DIB-1

	EDS1			EDS2			EDS3		
Scope	1-1/2~4"150~1500LB 1-1/2~2"2500LB			6~8"150~900LB 6~16"1500LB 3~6"2500LB			10~36"150~600LB 10~24"900LB		
EDS Features	It has no metal ring seams and is supported by a non-metal ring, so it is suitable for any pressure ratings and sizes.No sealant injection fitting.			It has no metal ring seams and is supported by a non-metal ring, so it is suitable for any pressure ratings and sizes.			The steel ring has a simple fixed structure and the non-metallic ring acts as a wipe. it is not suitable for 1500LB and above pressure grades. also It is not suitable for 4" and below caliber. Because of the delta ring is locked by a open steel ring		
EDS DPE	Wiper Ring	150~900LB DEVLON OR R-PTFE	1500~2500LB PEEK	Wiper Ring	150~900LB DEVLON OR R-PTFE	1500~2500LB PEEK	Wiper Ring	150~900LB DEVLON OR R-PTFE	
	Delta Ring	VITON GLT	VITON GLT	Delta Ring	VITON GLT	VITON GLT	Delta Ring	VITON GLT	
									

**STRENGTH THROUGH DISTRIBUTION**



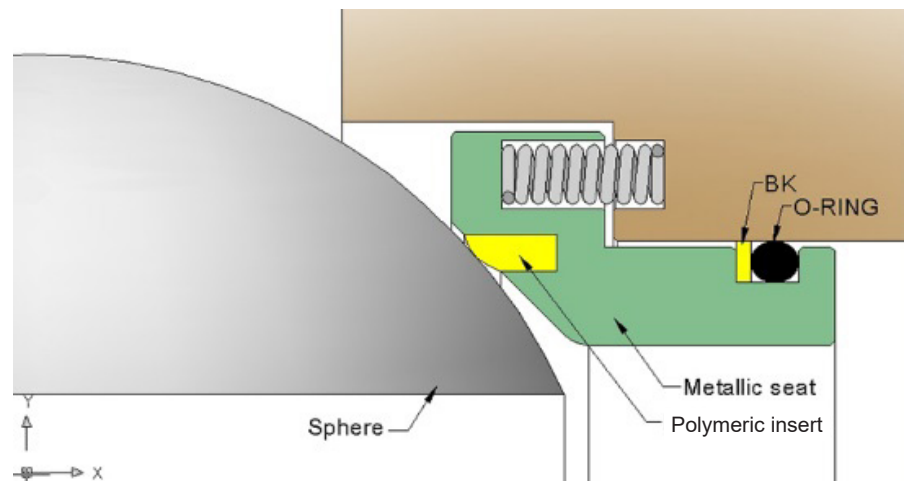
## DHV - ELASTOMERIC DELTA SEAT VS POLYMERIC SEAT



### DHV - ELASTOMERIC DELTA SEAT

Two Piece Seat  
Carrier Assembly

### TYPICAL- POLYMERIC TRUNNION SEAT



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## DHV - EDS ADVANTAGES

- DHV offers Elastomeric Viton GLT/AED (-46C) Delta Seat Design (EDS) in bore sizes 2" to 36" and Pressure Classes CL150 to CL2500.
- The DHV 'EDS' seat design offers reliable performance in high pressure applications (CL900, 1500, and even 2500!)
- DHV offers 'EDS' seat carrier interchangeability for all valve sizes and classes. From Self-Relieving configuration to Double Piston Effect Design. No machining required.
- Also available in DIB-2 seat configuration.
- Full Body design as per ASME B16.10.



3" ANSI 2500- EDS valves were N2 tested after immersion in cold box at -46C to validate the performance of the EDS seat design with the Delta seat / Viton seat carrier O-rings.

Tests were witnessed by third party and validated to 10 psig with zero leakage on a 5 minute seat test !

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OILFIELD SUPPLY NETWORK AND OFFERS ALL VALVE PRODUCTS  
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Top Valve Brand working for you.



Large Inventory - Same Day Shipping

## HISTORY

Founded by Fred and Debbie Atema, now a second generation continued success story, Altek has succeeded by staying true to family values, hiring and retaining great employees, carrying a large inventory of quality products, and developing a network of committed customers that know Altek delivers on every promise.

Altek now employs many family and key team members all committed to customer satisfaction and ensuring Altek's and its distribution partners' continued success.

## STRENGTH THROUGH DISTRIBUTION

All of our products can be accessed through your local distributors. We believe this ensures your communities' continued strength and allows the highest level of support for the users of our products. We are stronger together.

## MISSION AND VISION

- To be the preferred partner of our customers & suppliers by creating long-term relationships built on trust
- To supply products of the highest quality and provide the best customer service in the industry
- To create and sustain an excellent work environment for our employees
- To give back to the communities and industries that support us



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