Comparisons	DBB Plug Type in General	PosiWell – DBB Gate
Design Code	API 6D	API 6D
Leakage Class	Class VI – Bubble Tight	Class VI – Bubble Tight
Body Material	A216 WCB – Chrome Plated	A216 – WCB – Phosphate Coating
Plug Material	A216 – WCB Chrome Plated	SS304 as standard
Stem Material	Ductile Iron / Carbon Steel /17-4 PH SS	SS304 as standard
Seal Material	Viton – as standard	RPTFE as standard
Seat Design	Molded on Slips – Need to replaced or repair by factory	Secured on SS304 Seat Ring – online replaceable
Gland Packing Seal	Graphite	Graphite
Bottom Cavity Flush	Small drain plug	Large cavity drain SS "Ball Valve" for flushing out foreign particles and rust scaling
Piggable	No ..Only for Full Bore Options	Yes – Full Bore as standard
Face to Face	B16.10 / B16.47 for Regular Bore Only. Full Bore are Non-Standard	B16.10 / B16.47 as standard

PosiWell DBB are designed by Engineers with Field Service & Repairs experience that's makes the difference ...

- Large Cavity to accommodate trapped debris and rust scales from within the piping systems, large Bottom Bleed valve to allowed flushing. (Not available on most DBB Plug Valve)
- Patented Seat design (4 points sealing) self cleaning by line pressure, economical online replaceable seat. Telfon (just good for about anything) is the standard seat material adopted. Teflon is an options and not available for some Plug Valve Make because molding Teflon onto the Slips is a tricky process, instead Viton and Modified Viton is being used and in some cases not compatible to aggressive chemical addictive that was blended in today's petroleum products.
- Stainless Steel Internal Parts and Alu-Bronze Slider are standard for PosiWell so as to eliminate corrosion issues which is the root cause to a seized plug valve in most cases. Stainless Steel Trim are an expensive options for Plug Valves in most cases.
- PosiWell DBB being a Full Bore as standard gives 25-30% more flow and is more competitive than regular bore (Reduced) of DBB Plug Valves.

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POSIWELL DBB / DIB-1
FULL BORE GATE VALVE

www.valvesco.be

Design and Specifications

Design	: API 6D, Dual Expanding Discs - DBB-DIB Gate Valves
Size Range	: 2” to 40” ANSI Class 150 – Class 300
	: ANSI 600 on request.
Pressure & Temperature	: ASME B16.34
Face to Face	: ANSI B16.10 RF Smoot Finish, 125-250AARH
Flanged Connection	: ASME B16.5, MSS-SP-44-B16.47
Testing	: API 6D, API598, PosiWell® Standards
Certification	: API 6FA – 3rd ed. 1999 (Firesafe)
	: EN ISO 15848-1 (Fugitive Emission)
Standard Operating	: Handwheel Operated for 2” to 10” (Gearbox: Optional)
	: TGM Gearbox for 12” and above as Standard
	: Automation “all types” available to specification
Bottom Drain	: SS 316 Ball Valve, NPT Threaded (Flanged end optional)
Bonnet Vent	: SS 316 Ball Valve with SS 316 Tubing – as Standard
Thermal Relief	: SS 316 Thermal Relief Valve – Cavity pressure relief with SS 316 Tubing – 25 PSI differential pressure to relief.
Stem & Discs	: SS 304 – as Standard (other Material on request)
Soft Seat	: RTFE (15% Glass Reinforced) – PTFE optional
Stem Seals	: Graphite – Live Load Packing Seals
Bonnet Gasket	: Graphite
Anti-corrosion	: Phosphate “Bath” Treatment as standard
	: Epoxy lining for aggressive products available on request
Painting	: 2 Part Epoxy Coating (to customer specification)

Patented Spring-Loaded Discs Design

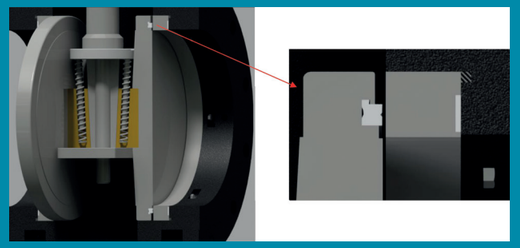


Fig. 1: Valve in closed position, springs decompressed, discs located on disc shoulders and retractred from Valve seats.

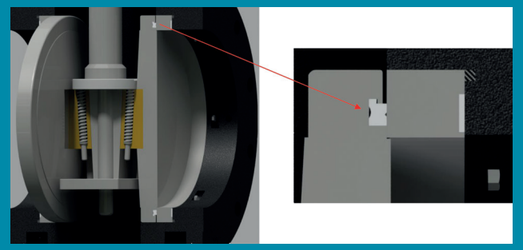


Fig. 2: Springs are compressed, discs expanded sealing on soft seat and metal to metal seat achieving bubble tight shut-off to API 6D – DBB/ DIB-1 standard.

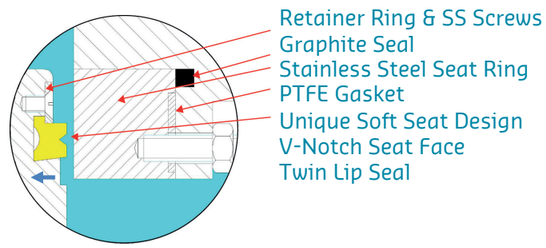
The PosiWell® patented spring-loaded discs design ensures that seat tightness is maintained during Thermal Expansion and Contraction, and ensures that both the discs are adequately retracted before the discs start their uplifting motion. See “Patented Seat Design” page for more details about the patented seat design.

PosiWell® - Innovation by Design

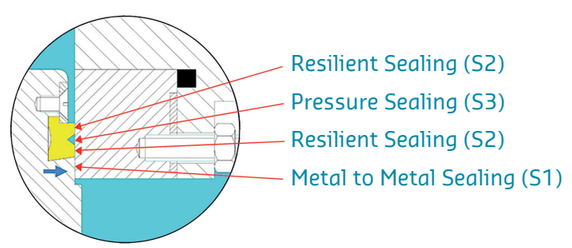
Patented Seat Design

PosiWell® DBB-DIB valves are designed with a unique patented sealing concept (S1, S2 and S3). Expanding Discs primary seal will be Metal to Metal contact (S1). For secondary seal, Soft V notch seat ring with twin lip sealing points (S2) and Pressure Sealing (S3), the concave back of the resilient seat allows for the expansion and compression of the seat face. Foreign debris will be flushed through by flow pressure before the expanding discs compress the Resilient & Metal Seat. Seat is designed for fast and easy in situ replacement.

DISC RETRACTED



DISC FULLY EXPANDED



Valve Feature Summary

- Key feature of PosiWell® DBB/DIB-1 Valves
  - * Full Bore – MAX FLOW – increase Flow Rate vs. Plug Valves
  - * Full bore allowing pipeline pigging
  - * Large bottom cavity and drain for easy release of foreign particles entrapment.
  - * Full compliance to API 6D – ISO14313 dd. Aug 2015 Valves for DBB and DIB
- Product castings
  - * Body and Bonnet – components cast in Taiwan
    - Body as Bonnet Zinc Phosphate treated – NO electroless Nickel plating.
      ~NO peeling, NO flaking, NO cracking.
- Internal components
  - * Wedge, disc, and Stem – Stainless Steel – NO electroless Nickel plating.
    - NO peeling, NO flaking, NO cracking
- Dual expanding discs [patented spring-loaded design]
  - * Discs – Stainless Steel
  - * Metal to Metal contact with Seat Ring
  - * Solid wedge
- Seat Ring
  - * Stainless Steel
    - c/w back up graphite seat
    - c/w RTFE back up ring
- Soft Seat-Patented
  - * Standard RTFE alternative PTFE
    - Twin lip seal
    - Centre “V” notch pressure seal
  - * Soft seat “in-situ” - “in-line” replaceable
- Stem Packing
  - * Live loading
  - * Graphite Packing
- Fire Safe
  - * Primary seal is Metal to Metal tested to API 6FA
  - * Secondary seal RTFE/PTFE alt. (see above soft seat)
- Thermal relief – Bonnet Bleed – Body drain – as standard feature
  - * Valves and piping Stainless Steel
  - * Thermal relief valve drain can be installed either side of flange
- Low friction – Lower Torque
  - * Use of smaller actuators
- Other Key Features
  - * Davit Crane (optional feature)
    - The valve’s Body has a cast in design feature to adapt our unique lifting arm “Davit type Crane” potentially eliminates the need of costly heavy lifting cranes in extreme difficult accessible areas.