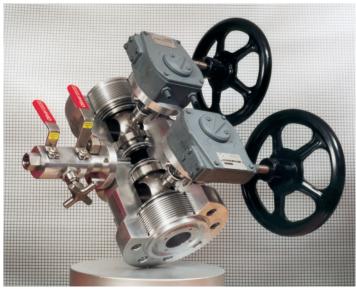
## WHY EVERY CUSTOMER SHOULD INSIST ON A COMPACT STYLE® OLIVER TWINSAFE TRUNNION DBB VALVE



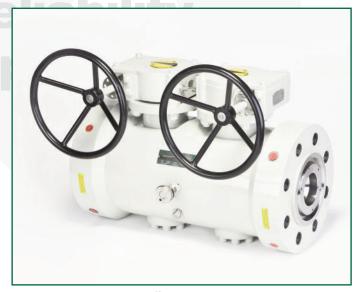
- Oliver Twinsafe Valves produce a range of trunnion mounted double block and bleed ball valves for critical piping applications.
- All Oliver Twinsafe Valves offer true double isolation with two independent ball valves contained in one valve body, guaranteeing absolute shut off and maximising the safe operation of any processing facility.
- Full through bore gives optimum flow capacity thus minimizing pressure loss and maximizing output.
- The range of trunnion valves are available in two distinct designs:
   CSL (compact standard length) single piece body with overall lengths in accordance with ANSI B16.10 up to 8" full bore and up to 12" reduced bore; FOSL (flanged Oliver standard length) 3-piece bolted construction incorporating standard flanged ends or hub connections, up to 14" full bore and up to 16" reduced bore.
- Where ANSI B16.10 length is not possible due to size constraints, but overall length is critical, we can offer COSL (compact Oliver standard length) single piece body with overall lengths reduced to a minimum, available up to 12" full bore.
- A range of soft and metal seat materials are available to suit most applications.
- Various vent options are available and our sister company, Oliver Valves, can supply an exhaustive range of vent valve configurations with needle valves
  from 5.4mm to 20mm bore, with screwed or bolted bonnet; double block & bleed valves, monoflange valves. Oliver Twinsafe vent valves are also
  available up to 2" bore.
- Cast & forged bodies are available in wide range of materials.
- Weld inlaying of either the full through bore or the seat cavities and sealing areas is available.

## The key benefits of the Oliver Twinsafe Valves are...

- Space saving the ability to replace single isolate valves with a true double block and bleed valve, but within the same overall length, ensures that
  expensive pipework is kept to an absolute minimum thus reducing the overall space requirements for associated equipment.
- Weight saving when compared to a conventional double block and bleed hook up of two separate ball valves with a central spool piece and vent
  valve, weight savings of over 50% are not unusual. When applied to a typical metering skid, the reduction in weight and space allows savings on
  additional pipework and the skid framework giving weight savings of around 33%
- Safety (Reduced Leak Paths, Double Isolation) when compared to a traditional hook-up of two single 3-piece isolated ball valves with standard trunnion design and a spool piece, the Oliver Twinsafe solution reduces the number of potential leak points by 8. Legislation is moving toward these leak points having to be individually tested to ensure the soundness of each joint, which is an expensive and time consuming operation. Every Oliver Twinsafe Valve has two separate bi-directional ball valves ensuring true double isolation, with various options available for venting of the cavity between each ball valve.
- Cost saving less items purchased. In today's world total cost of project is reviewed by contractors and their users. Compared to a traditional hookup, for example of a 6" 1500lb double block & bleed installation a total saving of over £5,000 on each installation is achieved, plus additional savings on completion times when you review the costs of man hours for assembly, gaskets, bolts, pipes, valves and fabrication.
- Full bore, maximum production rates full through bore ensures maximum flow rates and allows for pigging of production lines without restriction. For comparison a 6" double block & bleed plug valve with a CV of 1180 against a 6" double block & bleed twinsafe ball valve with a CV of 5074 equates to 44,532 barrels per day through the plug valves and 191,489 barrels per day through the Twinsafe valves. At an oil price of \$90 a barrel this is \$13,226,940 a day more through our valve than the plug valve! Therefore maximum through bore equals maximum profit.



## COMPACT STYLE®, SINGLE PIECE CONSTRUCTION (CSL)® (COSL)



4" Full Bore 2500 LB Standard ASME B16.10 Length Twinsafe valve



3" Full Bore 900 LB Standard ASME B16.10 Length Twinsafe valve



CSL - Retro fit (Brownfield) - offshore



CSL - New build (Greenfield) - offshore



**CSL - Onshore** 



**CSL** - Offshore

