



## Technical Service Bulletin

September 2002 TSB103.03

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### Flush Cut Element Design

Hydranautics will be offering all of their standard eight-inch elements with a new flush cut design. The new seal carrier/anti-telescoping device (ATD) provides improved face-to-face contact for hydraulic loading giving you more uniform distribution of the loads. The new ATD retains Hydranautics signature perforated face plate which protects the membrane from large particulate damage.

The distinctive spiral pattern design lends itself to uniform water distribution across the face of the element. It balances the pressure on the outside of the element and the core tube. The new flush cut ATD can easily be identified by the ivory color and spiral configuration as opposed to the previously used gray, straight spoke ATD. New internal interconnectors were also introduced and will fit the new flush cut elements as well as the old style Hydranautics elements (please see attached photos). The new flush cut elements will be fully compatible with many other elements in the industry. Hydranautics is focusing on the method of internal sealing, providing the greatest assurance of integral sealing between elements in the pressure vessel. The non-flush cut element design currently in use allows for either internal or external sealing.

### Futures and Specs

- *Internal* interconnectors can be used and will be provided with each element.
- Each new flush cut element will be shipped with an *internal* interconnector, free of charge.
- *Internal* interconnector part numbers will differ between the SWC line and the remaining brackish product line (see attached drawings).
- *External* interconnectors and end adapters will no longer be functional with the new flush cut design elements.
- New style interconnectors are compatible with the flush cut and old style Hydranautics' elements.
- The new flush cut design is fully compatible with most of our competitors end adapters and interconnectors.
- Hydranautics' standard core tube ID is 1.125". Verify with pressure vessel manufacturer that end adapters meet these requirements.

- Hydranautics' O-Rings on the new interconnectors may be different from the O-Rings on interconnectors manufactured by other vendors (*for Hydranautics' interconnectors, use Parker O-Ring #2-119*).
- New end adapters will need to be ordered from the pressure vessel manufacturer for systems that currently use external fitted end adapters.
- Two end adapters will be needed per pressure vessel when the old style Hydranautics' elements are replaced with the new flush cut design.
- The brackish water element interconnector has tapered edges to allow easy access when probing is required. The seawater element interconnector is built with increased wall thickness for high-pressure operation.

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**NOTICE!**

Hydranautics has switched to internal interconnectors. These new interconnectors will fit the new flush cut elements as well as old style Hydranautics' elements. The part number of the new interconnector is 11518.0000 (11574.000 for ALL Seawater/SWC elements). Please contact the Hydranautics' Technical Service Department if you have any questions: 1-800-CPA-PURE (1-800-272-7873) or 1-760-901-2500.



*Old Seal Carrier/ATD with Internal Interconnector*



*New Seal Carrier/ATD with Internal Interconnector*



*Old Seal Carrier/ATD with External Interconnector*



*Old Seal Carrier/ATD with Both Interconnector*