

## CPA Products and Services 2014/2015

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### CPA Flow Conditioners

- Perforated plate isolating flow conditioners, available in 50E, 55E and 65E designs.
- 50E is stocked in sizes, 1" to 20", 316SS NACE MR0175 (ISO 15156), 65E is stocked in 3" to 12".
- Can custom manufacture for 3/8" to 48" pipe sizes.
- Available in Carbon Steel, FloCoat Carbon Steel, 304 SS, Aluminum, Hastelloy, Duplex, Monel, Inconel, Titanium, etc.
- Stocked for Raised Face (FOE/FOEL) installations, but can be ordered for Female or Male Ring Type Joint (RTJF/RTJM) flanges, pinned (TBR/TBRL), full width (FWO), weld in (WIO) and insertion (RIS) installations.
- Recommended minimum meter run lengths are 10D for liquid and AGA7 Turbine applications, 13D or 17D for AGA3/ISO5167/ASME-3M Orifice or AGA9 Ultrasonic applications.
- Compatible with all liquid and gas scenarios: methane, natural gas, air, carbon dioxide, nitrogen, water, petroleum products, crude oil and many others!

### CPA Flow Nozzles

- CPA offers flow nozzles for subsonic or sonic applications.
- Other custom designs, installation methods, materials are available upon request.
- For measurement applications, can be constructed with single taps for critical flow measurement (ASME-7M) or tap pairs for dP measurement (ASME-3M/ISO5167).
- CPA Sonic Nozzles are custom designed for specific installations and desired meter maximum flow rate and can vastly outperform the over speed protection capability of a restriction orifice plate.

### CPA Computational Fluid Dynamics (CFD) & Engineering

- CPA Computational Fluid Dynamics can be used to simulate and study the flowing behavior of pipe, piping elements, fittings, flow meters, flow conditioners and flow nozzles.
- Allows potential flow issues to be identified before piping or a meter station can be constructed, helping reduce operating costs and increasing measurement accuracy and repeatability.
- CPA CFD can be used to diagnose existing problems in flow meter installations.
- Can be used to pre-calibrate a meter station and determine the overall performance when in service.
- Can also be used to calibrate and determine coefficients of discharge for flow nozzles, orifice plates, or any other dP devices in a variety of fluid and piping installations.

### CPA Lifting Tabs

- CPA offers standard FloTab lifting paddles or the innovative FloAlign system for all flow conditioners, flow nozzles, or spacer plates.
- FloAlign is ANSI specific, and uses the flange bolt pattern to help align and hold the flow element in place.
- FloTab is not ANSI specific and can be used in multiple flange ratings.
- Additional 3/8" pinning hole is available for extra alignment.
- All tabs are engraved with critical element information to ensure that it is easily available when in service.

### CPA Spacer Plates

- CPA offers traditional spacer plates combined with FloTab paddles or the FloAlign centering and lifting tab system.
- Spacer plates are available in a range of thicknesses and materials.
- Come with CPA's standard aggressive flange finish.

### CPA Gaskets

- CPA offers CPA Spiral Wound ANSI Raised Face Gaskets and Fishbone Gaskets
- Available for ANSI 150# - 2500# applications.
- Stocked in ANSI 150# - 600# applications.
- Offered with inner sealing rings and outer centering rings.
- ANSI Ring Type Joint ring gaskets are also available.