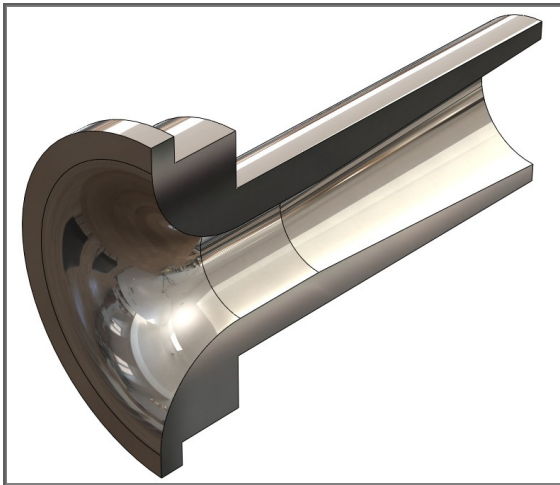


## CPA Sonic Nozzles

Canada Pipeline Accessories offers critical flow nozzles for use as measurement devices or flow limiters. Nozzles for these applications are designed in accordance with the customers preferred industry standards.



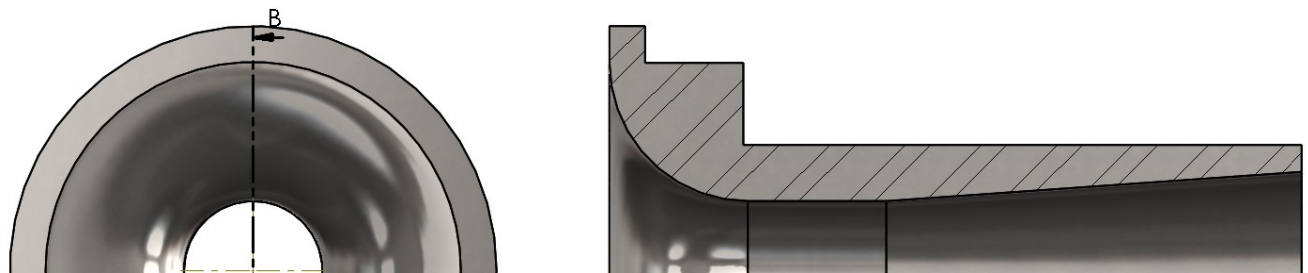
- No moving parts or required maintenance.
- Less than 15% pressure drop.
- Prevents costly meter over speed failures.
- Accuracy to suit need (0.1% - 1 of mass flow reading).
- Excellent repeatability.
- Flow rate is not affected by downstream flow disturbances.

### Flow Limitation

CPA Sonic Nozzles isolate flow meters from increased flow rates and unsteady flow scenarios that can result in severe meter damage. Flow limiting orifice plates are unsuccessful in this application and also have a much higher pressure drop.

### Flow Measurement

CPA Sonic Nozzles also provide a predictable pressure drop and repeatable operation. When combined with the CPA 50E Flow Conditioner, it creates an extremely accurate meter run which can be used to calibrate other measurement devices.



## CPA Sonic Nozzles

### Available Types

- ASME MFC 3M
- ASME MFC 7M
- ASME PTC 6
- ISA 1932
- ISO 5167

### Other Uses

- Over range protection of positive displacement, turbine and orifice meters.
- High accuracy metering, proving and reference measurement.
- Range extension of meters by changing the pressure at the flow meter.
- Noise control by moving a problematic pressure drop location away from a control valve.
- More environmentally conscious than control valves which can vent; particularly dealing with sour lines in populated areas.

