

TETRA Advanced Cyclone Technology

INCREASE THE CAPTURE OF FRAC SAND AND SOLIDS WITH HIGHER EFFICIENCY

Overview

The TETRA advanced cyclone technology is a high efficiency hydrocyclone designed to increase the frac sand and solids capture with higher efficiency than traditional sand separators and cyclonic sand traps. Our proprietary design provides centrifugal action to accelerate and capture smaller particles while remaining under erosive velocities of the multiphase flow, with no flow restriction.

Features and Benefits

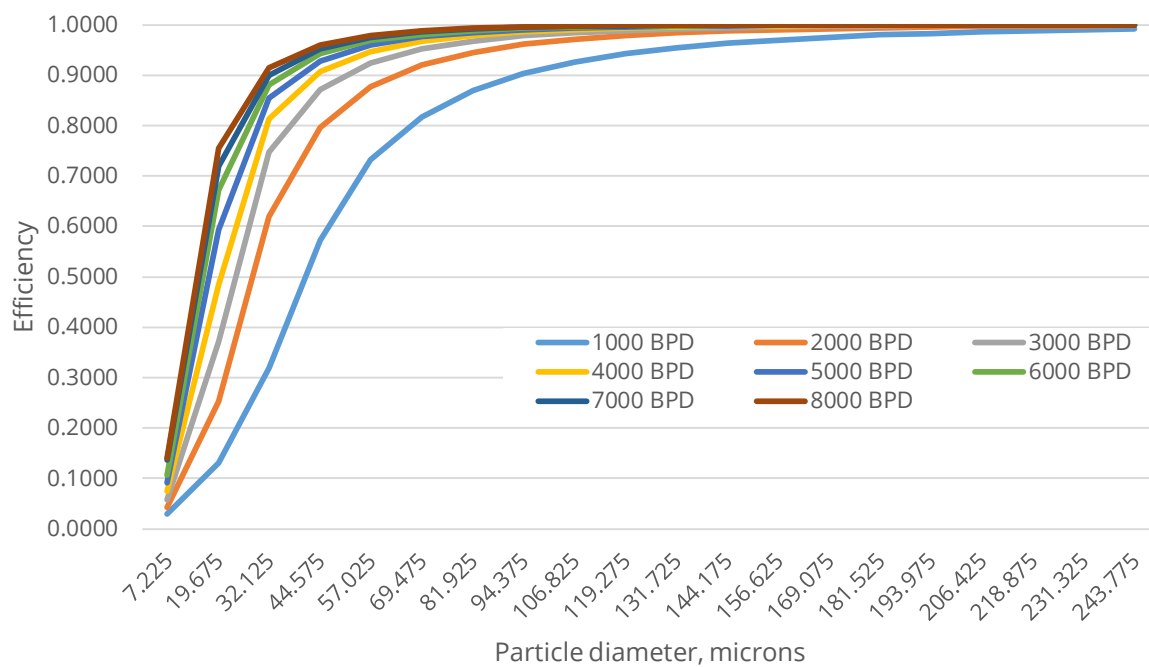
- High efficiency hydrocyclone design
- Modular design (2", 3" 4" pipe)
- Design to meet API 6A, 10Ksi and 15Ksi
- Sour service per NACE MR0175
- Increased efficiency over traditional sand separators
- Low pressure drop
- High capacity containment
- No line restriction
- No moving parts



Design Parameters

Maximum Allowance Working Pressure (psig)	10,000
Design Code	API 6A
Design Temperature Range	P+U, -20°F to 250°F
Material Class	DD-NL
PSL	Level 3
Service	Sour Service per NACE MR0175
Vessel Capacity (frac Sand)	533Lb (9212 in ³) / 942 Lb (16268 in ³)
Inlet Connection	3 -1/16 10M per API 6A
Outlet Connection	3 -1/16 10M per API 6A
Flush Connection	3 -1/16 10M per API 6A
Dimensions (LxWxH)	56" x 60" x 142"

2" Configuration / 10,000 psig / Efficiency Curves for Crude Oil



	1000 BPD	2000 BPD	3000 BPD	4000 BPD	5000 BPD	6000 BPD	7000 BPD	8000 BPD
Pressure Drop, psi	0.33	1.82	5.25	11.40	21.03	34.94	53.89	78.67
Overall Sep. Efficiency	0.8614	0.8981	0.9142	0.9246	0.9327	0.9386	0.9431	0.9458
Inlet Liq. Velocity, ft/s	2.78	5.52	8.26	10.99	13.73	16.47	19.21	21.94