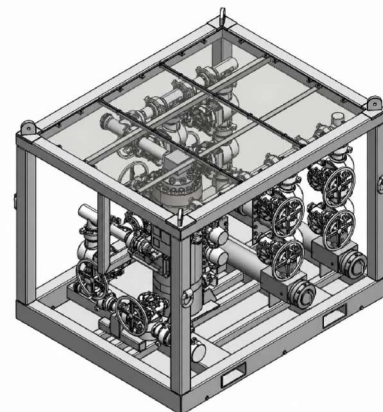


POWERCYCLONE

HPDU

Hydrocyclone primary separation combined with dual-barrel secondary screen filtration – removing bulk solids, reducing screen loading, and maintaining stable circulation for completion and workover operations.

PATENT PENDING NO. 19/056,939



HPDU UNIT

22 / 35 BPM

FLOW RATE

3" & 4" WECO

1502 CONNECTIONS

10K & 15K

PRESSURE (PSI)

150 / 200

FILTRATION (MICRON)

2500 PSI

MAX DIFFERENTIAL

KEY FEATURES

Hydrocyclone separation

Primary cyclonic separation removes bulk solids upstream of the secondary screen barrels.

Continuous circulation

Valve arrangement supports uninterrupted filtration and bypassing when required.

Limited differential pressure

Cyclonic separation reduces solids loading across the screen barrels during circulation.

Dual-barrel screens

Parallel screen barrels allow one side to remain in service while the other is isolated for cleaning.

Real-time digital monitoring

Pressure monitoring at key points supports differential pressure management.

Rig air & water only

No external electrical power required for continuous operation.



CYCLONIC SEPARATION, DOWN TO 10 MICRONS

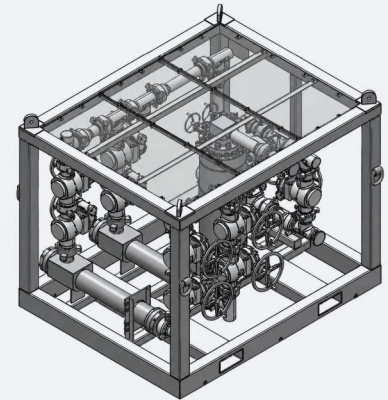
Under optimized conditions, the PowerCyclone removes debris down to 10 microns while parallel screen barrels with isolation capability keep circulation continuous – no shutdown required for cleaning.

MULTI-STAGE DEBRIS REMOVAL

- 1 Fluid enters the unit through the WECO inlet and is directed into the hydrocyclone.
- 2 Cyclonic force separates debris from the process stream.
- 3 Fluid continues through dual-barrel screens for secondary filtration.
- 4 Captured debris is collected independently for review or disposal.

AVAILABLE CONFIGURATIONS

SPECIFICATION	3" POWERCYCLONE	4" POWERCYCLONE
CONNECTION	3" 1502 WECO	4" 1502 WECO
FLOW RATE	22 BPM	35 BPM
PRESSURE RATING	10K & 15K PSI	10K & 15K PSI
DIMENSIONS	8'L x 9'W x 7.85'H	8'L x 10'W x 8.25'H
GROSS WEIGHT	15,000 lbs.	19,500 lbs.
CYCLONE CAPACITY	77.40 lbs.	77.40 lbs.
SCREEN CAPACITY	15 lbs. ea	18 lbs. ea
FILTER MICRON	150 / 200	150 / 200
UTILITIES	Rig Air / Rig Water	Rig Air / Rig Water
MAX DIFFERENTIAL	2500 PSI	2500 PSI



DUAL-BARREL SCREEN SECTION

OPERATIONAL HIGHLIGHTS

- Debris removal down to 10 microns (optimized conditions)
- Parallel screen barrels with isolation for continuous operation
- Real-time digital differential pressure monitoring
- Limited differential pressure across screen barrels during circulation
- DNV lifting specs on both configurations