

# RB



## At the core of compression excellence

### Benefits at a glance

- Delivers maximum efficiency
- Ensures highest availability
- Adapts to any application
- Enables fast maintenance
- Reliably handles all gas types

**Everllence**

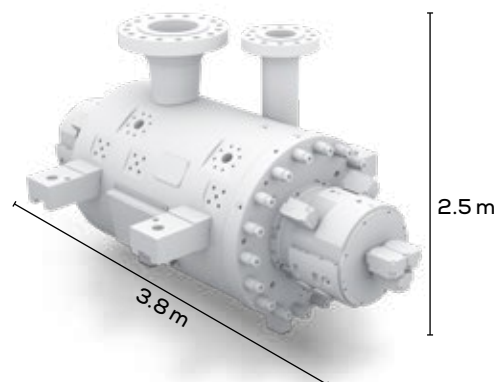
# RB

## Barrel-type centrifugal compressors

### Typical data<sup>1</sup>

Driver	electric motor, steam turbine or gas turbine
Min. suction pressure (bara)	≤ 1
Discharge pressure (bara)	up to 800
Flow rate (m <sup>3</sup> /h)	up to 230,000
Power range (MW)	up to 60
Efficiency	> 80 % overall efficiency
Number of impeller stages	up to 10
Number of stage groups	up to 4 (8 nozzles)

<sup>1</sup> depending on compressor configuration and project requirements



### Table of designs

RB sizes	Pre-engineered				Customized	
	RB 28	RB 35	RB 45	RB 56	RB xx – RB 112	
Design pressure (bara)	500	160	180	130	-	e.g. 800 for RB 28
Average inlet volume flow (Am <sup>3</sup> /h)	2,000	6,000	14,000	22,000	< 230,000	-
Length (mm)	1,350	1,600	1,880	2,500	4,500	adapted
Outer casing inner diameter (mm)	670	900	1,250	1,500	-	-
Max. power (MW)	20	30	40	60	-	-

#### General

The Everllence barrel-type compressor is a single-shaft centrifugal compressor for oil & gas, petrochemical, and industrial gas applications. It offers inlet flow rates from 100 to 230,000 Am<sup>3</sup>/h and discharge pressures up to 800 bar. Each compressor can have up to 10 impeller stages, supported by tilting pad bearings. The forged outer casing encloses a compact cartridge, available in cast or steel plate design.

Everllence typically delivers modular compressor packages including the compressor, driver, gearbox (if required), lube oil system, seal gas rack, process piping, and auxiliaries – minimizing installation time. Tandem or double back-to-back dry gas seals (DGS) ensure atmospheric sealing, with all seal and buffer gas control arranged on the DGS rack. Depending on the application, the lube oil system can be integrated or skid-mounted for onshore or offshore installations.

#### Flexible configuration

Everllence offers pre-engineered RB compressor packages, as well as fully customized designs for very high pressures, corrosive gases or demanding duties. Using proven standardized components ensures robust performance, shorter lead times, and cost efficiency.

#### Applications

- Upstream: i.e. gas lift, export, injection, CO<sub>2</sub> injection
- Midstream: gas processing, transport, storage, LNG, hydrogen, etc.
- Downstream: refining, fertilizers, chemical & petrochemical, hydrogen processes, methanol, olefins, ammonia, urea, etc.
- Industrial gases: e.g. air separation, nitrogen, oxygen, GTL, CTL
- Power Generation: fuel gas, CCS

#### Base characteristics

- Multistage compressor design (API & NACE compliant)
- Up to 4 compressor sections for side streams or intercooling
- Direct drive or geared configuration
- Up to 10 impeller stages (200 – 1,350 mm diameter)
- Closed impellers: milled, welded, brazed, or EDM
- Studded or flanged nozzles
- Base frame with anti-vibration mounts for FPSO and offshore applications

#### Unit control system

- Anti-surge and performance control
- Load sharing and start/stop sequencing
- Machinery protection (vibration, SIL-capable ESD)
- HMI visualization
- Control systems based on Siemens PCS7

#### Features

- Proven impeller families for low- and high-pressure ranges
- Modular train and component design
- Compact cartridge system
- Custom sealing configurations
- Compatible with electric motor, gas turbine, or steam turbine drives
- Broad range of gas compatibility and material options

#### Service, reliability & availability

- First introduced in 1968
- Over 38 million operating hours
- ≥ 98.5 % reliability
- Global Everllence PrimeServ support: spare parts, overhauls, repairs, modernization, and training.

#### Contact

**Everllence**  
8005 Zürich, Switzerland  
P + 41 44 278-2211  
info-ZUR@everllence.com  
www.everllence.com