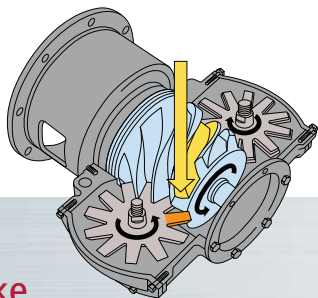


Extended surface water cooler provides efficient cooling and reliable operation in all operating conditions

Low noise radial cooling fans ventilate and cool the package and allow installation within the working environment

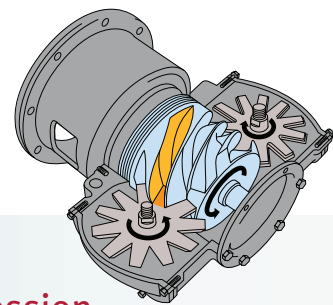
Enclosure filtration pre-filters air entering the compressor enclosure and maintains internal cleanliness and cooler performance

IP55, totally enclosed fan cooled high efficiency drive motor, flange coupled to the compression element for maximum drive efficiency  
20 and 30 HP Models have frequency inverter. 50, 67, 100 and 150 HP models use the "SR" Switched Reluctance drive system



### Intake

Atmospheric air enters the compression element and fills the flutes of the main rotor. The gate rotors engage with the flutes and form two compression chambers, above and below the main rotor.



### Compression

The gate rotors automatically follow the rotation of the main rotor reducing the volume in the flutes and compressing the air along the compression chambers. Purified water injected into the compression element lubricates, seals and cools the process.



Water purification system provides high quality injection water for lubricating, sealing and cooling the compression process

Fully integrated silenced package including cooler and water purification system reduces installation costs

Single stage, single screw water injected compression element delivers class leading energy efficiency, extended life and low lifetime operating costs. A two stage, heavy duty intake filter with 99.9% efficiency at 3 microns protects the compression element

All models are Variable Speed. The speed of the motor and thus the output of the compressor is adjusted to match your changing demands. Meaning you use just the energy you need and no more.

## A Reliable and Efficient Heart

At the heart of the compressor is an innovative single screw compression element, featuring a single main rotor with 6 flutes meshing with a pair of 11 tooth gate rotors, that is proven in thousands of installations.

Compression takes place in two chambers above and below the main rotor, as a result compression loads are balanced and bearing loads are significantly reduced. The low bearing loads extend compression element life and significantly reduce lifetime operating costs.

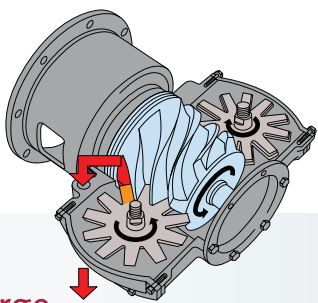
Water injected into the compression element provides lubrication, sealing and cooling. The superior cooling properties of water allows the compressor to operate at a low temperature providing near isothermal compression, low power consumption and class leading efficiency levels.

A reverse osmosis membrane cartridge filters the injection water entering the compressor; as a result the water is always maintained at a high purity level.

Direct coupling of the drive motor to the compression element, without gears or drive belts, ensures perfect alignment and efficient power transmission with minimum drive losses.

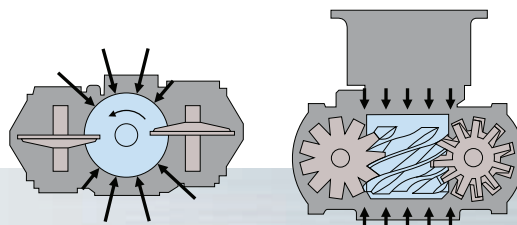
## 100% Oil-Free Construction

Low operating temperatures and bearing loads enable maintenance free sealed bearings to be used, totally removing the need for lubricating oil in the compressor. 100% oil-free compression is therefore guaranteed and the maintenance and environmental costs associated with oil and oil filter changes are eradicated.



### Discharge

The compressed air and water mixture is discharged from the compression element and passes into a water separation vessel. The low temperature rise of the air means that a final air cooler is not necessary.



### Reliability

Radial loads act on both the top and underside of the main rotor. Axial loads act on both sides of the main rotor flutes. As a result compression loads are balanced and bearing loads are low.