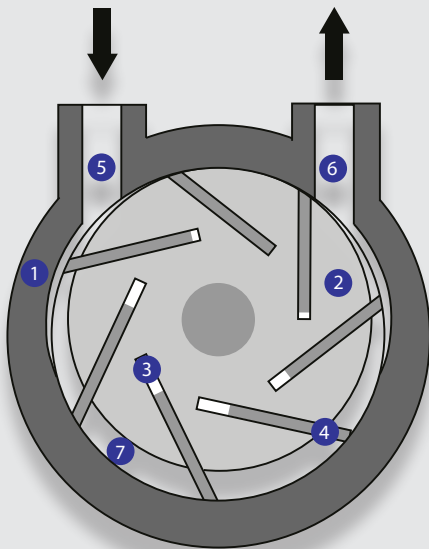




## ROTARY VANE PUMPS

## PRODUCT OVERVIEW

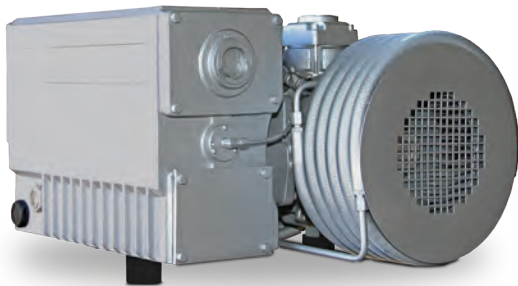
**REPUBLIC ROTARY VANE PUMPS** are available as dry-running or oil-lubricated. The VRT, DRT, DVT are single stage, dry-cooled and direct driven for continuous operation. The smaller pumps (408-440) come with integral motor, while the larger pumps (3060-3250) are available with or without motor. The dry vane compressor can reach up to 21.8 psig, and the dry vane pump can pull a maximum of 25.5" HgV. The oil-lubricated pumps (RX-Series) provide deeper vacuum with a maximum of 29.9" HgV and are available with or without motor.



### Working Principle

Rotary vane pumps consist of a cylindrical housing (1), eccentrically positioned rotor (2), and numerous free-moving vanes (4). The vanes are placed in the slots of the rotor (3) and, as the rotor turns, the centrifugal force throws the vanes against the cylindrical wall, creating a chamber between the rotor and the cylinder (7). The chamber volume changes as the rotor turns. From the inlet port (5), the chamber volume enlarges, and then decreases towards the outlet port (6). As air enters the inlet port (5) and the chamber enlarges (7), the vanes create a vacuum. As the air is pushed through the chamber and it becomes compressed, pressure is produced at the outlet port (6).

## Oil Rotary Vane Pumps



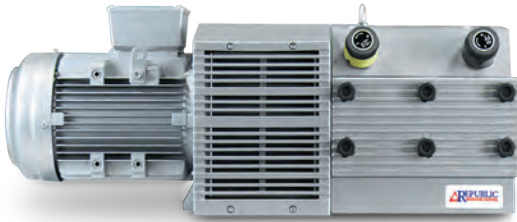
### Performance

- Air Flow: 11 cfm to 445 cfm
- Vacuum: Up to 29.9" HgV

### Features

- Compact and simple design
- Air cooled and direct drive
- Quiet operation
- Continuous duty
- Deep vacuum capabilities

## Dry Vane Pumps



### Performance

- Air Flow: 5 cfm to 177 cfm
- Vacuum: Up to 25.5" HgV
- Pressure: Up to 21.8 psig

### Features

- Oil free
- Ease of installation
- Quiet operation
- Air cooled
- Continuous duty

## Central Systems



Republic systems are offered in standard and custom configurations. Our systems utilize our wide range of products designed to meet your application. Systems are built in accordance to applicable standards such as: NFPA, NEMA, ASME, and UL control panels.

## APPLICATIONS

### Food & Non Food

- Vacuum packing
- Forming
- Blister
- Foil handling
- Labeling
- Carton erection
- Pick and place

### Industrial

- Autoclaves
- Composites
- Robotics
- Vacuum hold down
- CNC tables
- Thermoforming
- Pneumatic conveying
- Degassing
- Drying

### Environmental

- Aeration
- Soil vapor extraction
- Sparging

### Central Systems

- Laboratory
- Medical
- Dental
- Process

### Print

- Paper handling
- Binding
- Print press

