

RSV Series

In-line Vertical Multistage



Since we built our first pumps in 1938, the Carver name has become synonymous with value. Today we are recognized as one of the world's leading centrifugal pump companies, building pumps to the most demanding engineering specifications and military standards in the world.

Our company is located in Muscatine, Iowa, 25 miles southwest of the Quad Cities area. Our operations there include some of the most modern manufacturing equipment and pump development software available, and we are committed to the highest quality possible in our products and our people. Along these lines, Carver was also one of the first American pump companies to attain ISO 9001 certification—the most recognized standard for quality in the world.

From an applications standpoint Carver has traditionally built pumps for water, oil, and chemicals for both the public and private sectors. Our product line includes both horizontal and vertical end suction, multi-stage, axial split case, self-priming, API, and solids-handling pumps that all carry the same Carver trademark: lasting value from solid, straightforward designs engineered to provide many years of service.

These pumps are also backed by unparalleled aftermarket support. Our network of stocking distributors, manufacturer's representatives and certified service centers throughout the world means that no matter where your pump may be installed, there are local sales and service people ready to support your aftermarket needs.



Carver Pump Company

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Creating Value.



The RSV Series

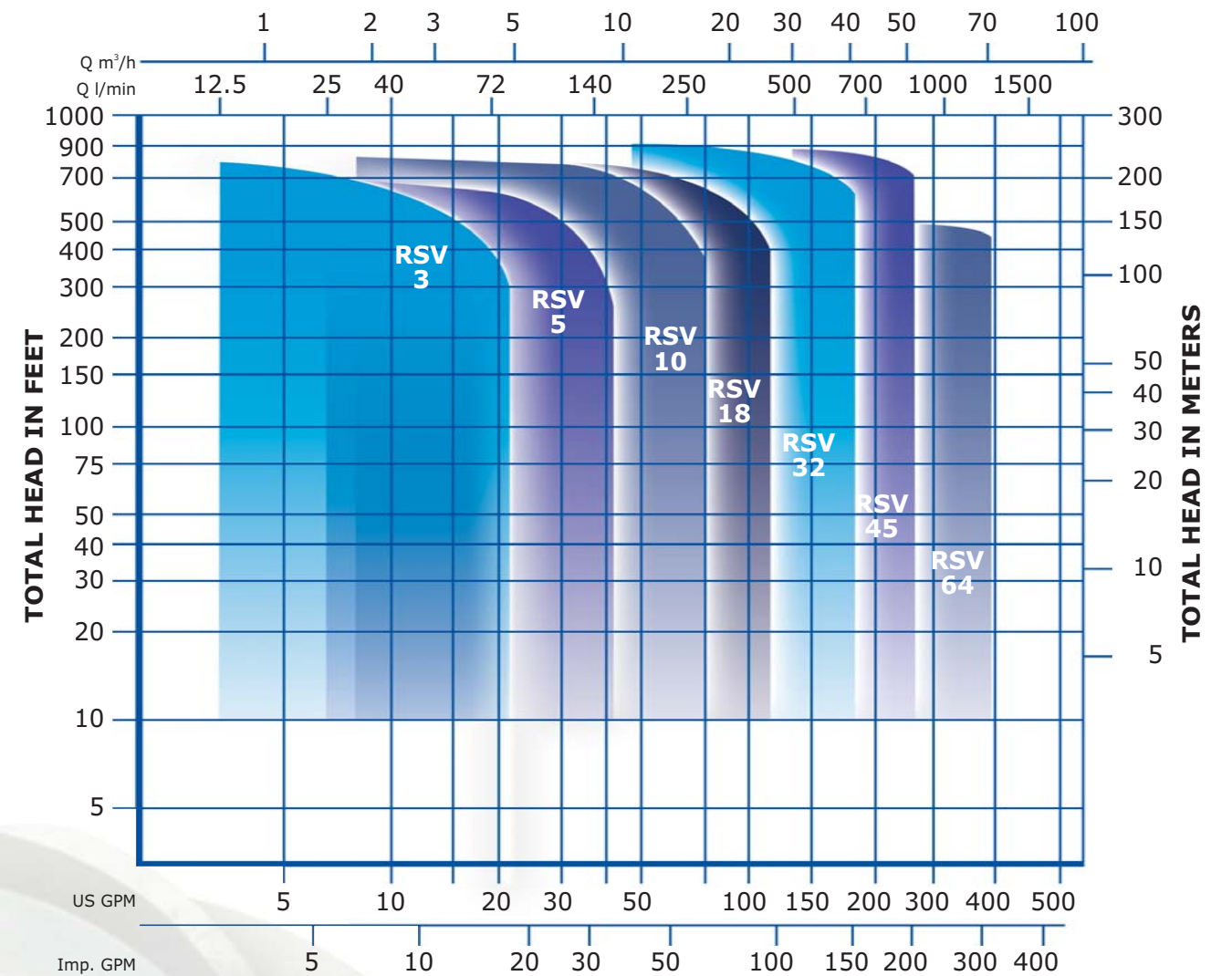
Among its many advantages, the RSV offers the technical benefits of:

- Standard NEMA motors
- Integral thrust bearing on 5 HP and larger pumps to handle axial thrust loads
- Air vent in casing cover allows proper venting preventing air entrapment and dry run
- Liner ring is a self-aligning, floating design constructed to prevent swelling at high temperatures
- Tungsten carbide lower pump bearings and sleeves are standard construction for all services, providing maximum operating life
- Direct drive pump and motor shafts are keyed for positive, reliable power transmission with no adjustments necessary



- "Flexible" floating outer casing allows for thermal expansion in hot water applications, preventing deformation due to pressure fluctuations
- Anti-erosion measures – a dish-shaped insert is fitted to the intermediate casing designed to promote smooth flow and prevent high velocity areas that accelerate erosion
- Square-edge six spline shaft (RSV 3-18) or twelve spline shaft (RSV 32-64) provides positive location and drive of impellers eliminating wear
- Dimensions & flanges – installation is to market accepted dimensions for easy upgrade of existing installations
- Mechanical seal – Silicon/Carbon/Viton mechanical shaft seal; cartridge seal standard on Models 32, 45, and 64
- Positive Sealing – O-rings between intermediate casings provide positive sealing

Hydraulic Coverage



Why an RSV?

Reasons for selecting an RSV pump over a single impeller pump for higher head applications are:

- In-line configuration simplifies installation.
- The radial and axial loading on a single impeller pump can be excessive.
- The diameter required with a single impeller pump would be difficult to keep balanced.
- The NPSH required with a high speed, single impeller pump will be significantly higher than that of a multi-stage pump.

Standard Materials

- Impeller304SS / 316SS
- Intermediate Casing..304SS / 316SS
- Bottom CasingCast Iron / 304SS / 316SS
- Outer Casing304SS / 316SS
- Shaft316SS
- Wear RingPTFE / AISI 316

Design Data

- ImpellerEnclosed, high efficiency
- MountingVertical in-line
- Thrust bearingSealed ball bearings
- Radial bearingTungsten carbide
- ConnectionANSI raised face flanges (150, 250 & 300 lbs.)

Hydraulics

- Flows to 400 GPM
- Heads to 930 ft.
- Efficiencies to 80%
- Power up to 50 HP
- Speeds up to 3,500 RPM
- Temperatures to 250° F (120° C)

Applications

- Water supply systems
- Reverse osmosis
- Water Boosting
- Washing systems
- Fire fighting
- Water treatment plants
- Boiler feed
- Jockey pump services
- Hot & cold water
- Circulation
- Irrigation
- Sprinkler systems
- Filtration
- Heat exchangers

