KWP Series
Non-clogging Process Pump
For Solids to 1½" Diameter
The KWP Series

The KWP is Carver’s solids-handling pump series for handling water, oils, and chemicals in process and general industry applications. Primarily a horizontal unit, the KWP can be either frame mounted or close coupled.

Hydraulic performance extends to 1,300 GPM and 300 feet of head. This range is covered by four sizes in cast iron, and 316 stainless steel as the standard, off-the-shelf materials. Higher alloys such as CD4MCu, Alloy 20, Monel, and titanium are also available.

The KWP is designed for fluids with entrained solids and fibrous materials up to 1.5” in diameter. Wide passages in the two-vane enclosed impeller minimize clogging and crushing of the entrained material.

Common options include soft packing, single or double cartridge seals, and any type of seal flush plan. Bearing and casing heating jackets and complete performance testing to ANSI or API specifications are also available.

The back pull out design makes maintenance easy and lowers total life cycle cost. Shaft deflections are limited to 0.002” at the seal, making the KWP ideally suited for API Standard 610, 8th Edition applications.

All together, these features combine to make the KWP a pump of exceptional value, combining affordability with some of the most efficient hydraulics found in a pump of this type.

Most importantly, as with all our other pumps, the KWP offers the reliability, low total life cost, and lasting value that has made Carver one of the most trusted names in pumps.

Hydraulics
- Flows to 1,300 GPM (300 m³/hr)
- Heads to 240 ft. (100 m)
- Solids to 1-1/2 in. (38 mm) diameter
- Power to 50 HP (40 KW)
- Speeds to 3,500 RPM
- Temperatures to 250° F (120° C)

Applications
- Bilge sewage transfer
- Cellulose up to 3% bone dry
- Corrosive fluid transfer
- Fibrous materials
- Food processing
- Grain flotations
- Industrial water treatment
- Scrubbing residues
- Sludge handling
- Vegetable and water mixes
Why a KWP?
Among its many advantages, the KWP offers the technical benefits of:

- **Back Pull Out** – Allows inspection of rotating elements without disturbing the piping or driver connections.

- **Bearings** – Single row, deep groove radial ball bearings and double row, angular contact thrust bearings exceed ANSI B73.1 and API-610 requirements for shaft deflection.

- **Casing** – 360° registered fits with fully confined gaskets assure proper sealing and alignment of critical fits.

- **Bearing Frame** – Thick walled, with optional cooling coils available for higher temperature applications.

- **Shafts** – Large diameter shafts assure shaft deflections are under 0.002" at any point along performance curve.

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**Standard Materials**

- **Casing** . . . . . . . . . . . . Cast iron or 316 SS
- **Bearing frame** . . . . . . . . Cast iron
- **Impeller** . . . . . . . . . . . . Cast iron or 316 SS
- **Mechanical Seal** . . . . . . . Carbon on ceramic or silicon carbide faces
- **Shaft sleeve** . . . . . . . . . . 316 SS
- **Wear rings** . . . . . . . . . . 17-4 PH stainless steel

**Design Data**

- **Input power** . . . . . . . . Up to 50 HP
- **Mounting** . . . . . . . . . . . . Foot or close coupled with JM shaft extension
- **Bearing type** . . . . . . . . Deep groove, oil lubricated
- **Radial bearing** . . . . . . . . $L_{10}$ life of 50,000 hrs.
- **Thrust bearing** . . . . . . . . $L_{10}$ life of 25,000 hrs.
- **Connections** . . . . . . . . ANSI 150 lb. flanges
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.