KEF Series
Self-priming Pumps
For Flows to 750 GPM
The KEF Series

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

Hydraulic performance extends to 750 GPM and 130 feet of head with all wetted parts in 316 stainless steel as the standard, off-the-shelf material. Higher alloys such as CD4MCu, Alloy 20, Monel, and titanium are also available.

The KEF incorporates a separation and recirculation chamber at the pump discharge. As air-entrained liquid is pumped into this chamber, the air and liquid separate. The air passes out the pump discharge with the remaining liquid recirculating back to the pump volute, where it forms a seal between the impeller and pump casing. This process continues until all the air has been evacuated from the suction line, leaving only liquid in its place. At that point the pump is fully primed.

Common options include soft packing, single or double cartridge seals, and any type of seal flush plan. Special baseplates, v-belt mounting arrangements, and complete performance testing to ANSI or API specifications are also available.

The back pull-out KEF is based on the same product platform as all of Carver’s other industrial, end suction pumps. By sharing many of the same components this way, it makes the KEF a very cost competitive solution for any situation where capital expenditure budgets, maintenance ease, or long term reliability are a concern.

Putting it all together, the KEF is 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 KEF offers the reliability, low total life cost, and lasting value that has made Carver one of the most trusted names in pumps.

### Applications
- Bilge sewage transfer
- Chemical batch processing
- Hydrocarbon transfer
- Industrial water treatment
- Irrigation system supply
- Mine dewatering
- Municipal landfill evacuation
- Sludge handling
- Storage tank evacuation
- Sump collection and drainage
- Trash, wastewater, and effluent transfer

### Hydraulics
- Flows to 750 GPM (170 m³/hr)
- Heads to 130 ft. (40 m)
- Solids to 1.0 in. (25 mm) diameter
- Power to 30 HP (25 KW)
- Speeds to 3,500 RPM
- Temperatures to 250° F (120° C)
Why a KEF?
Among its many advantages, the KEF offers the technical benefits of:

- **Back Pull Out** – Allows inspection of rotating elements without disturbing the piping or driver connections.
- **Bearings** – Oversized bearings secured by locknuts, rather than snap rings, eliminate axial movements at the seal faces and impeller-to-casing clearances.
- **Casing** – 360° registered fits with fully confined gaskets assure proper sealing and alignment of critical fits.
- **Stuffing Box** – Extra large stuffing box accommodates large diameter seals, cartridge seals, throttle bushings, flush and/or quench connections.
- **Shafts** – Large diameter shafts with replaceable 316 SS sleeves exceed ANSI B73.1-1991 guidelines for shaft deflection.

**Standard Materials**
- **Casing** ...........316 stainless steel
- **Bearing frame** ....Cast iron
- **Impeller** ...........316 stainless steel
- **Mechanical Seal** ...,Carbon on ceramic or silicon carbide faces
- **Shaft sleeve** ..........316 stainless steel

**Design Data**
- **Input power** ........Up to 30 HP
- **Mounting** ...........Foot or close coupled with JP shaft extension
- **Bearing type** ........Deep groove, grease lubricated
- **Radial bearing** ........L10 life of 50,000 hrs.
- **Thrust bearing** ........L10 life of 25,000 hrs.
- **Connections** ........NPT or ANSI 150 lb. flange, depending on size
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
2415 Park Avenue • Muscatine, IA 52761
563.263.3410 • Fax: 563.262.0510
www.carverpump.com