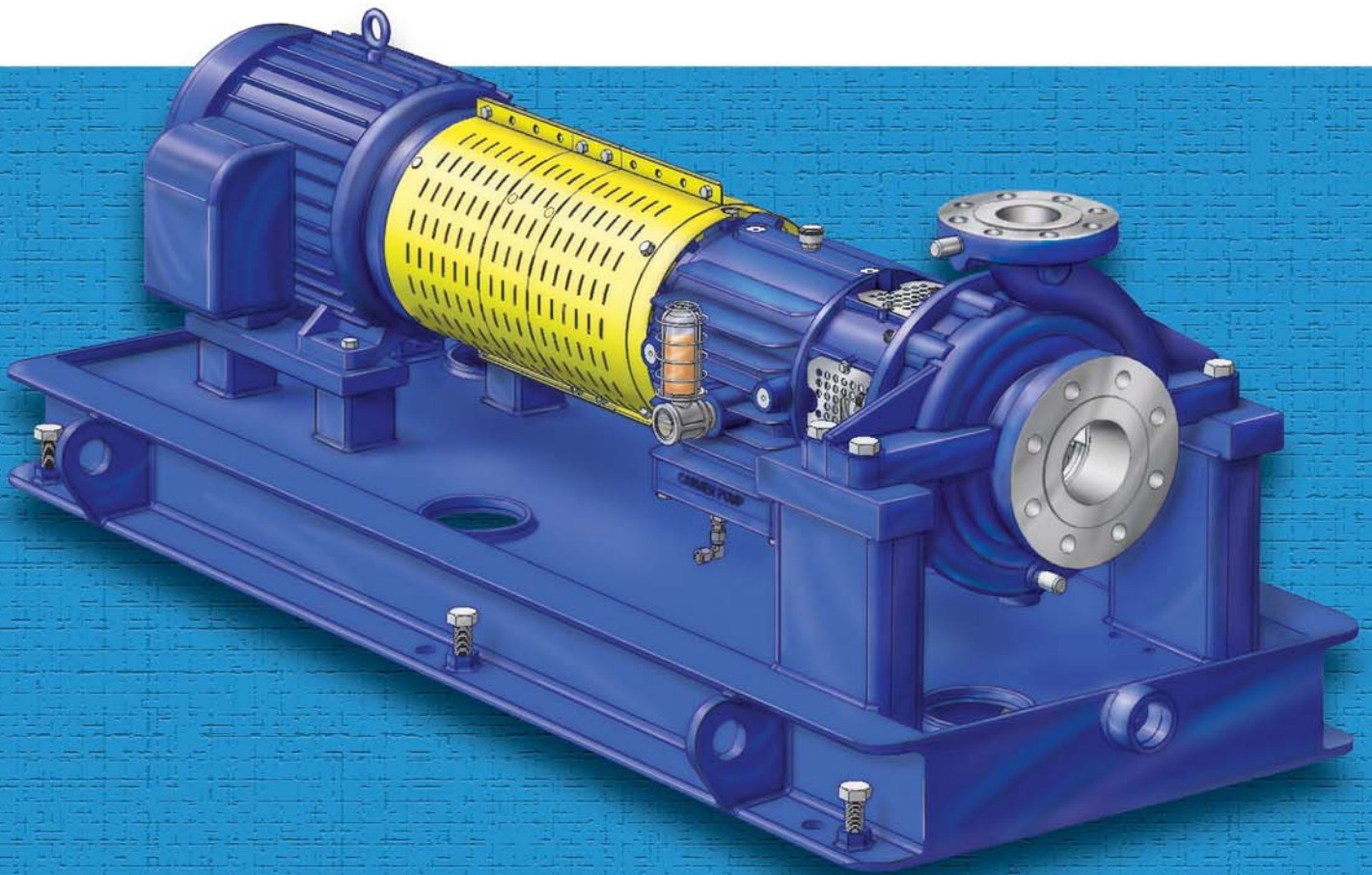


# ***API Maxum Series***

*For Flows to 9,000 GPM*



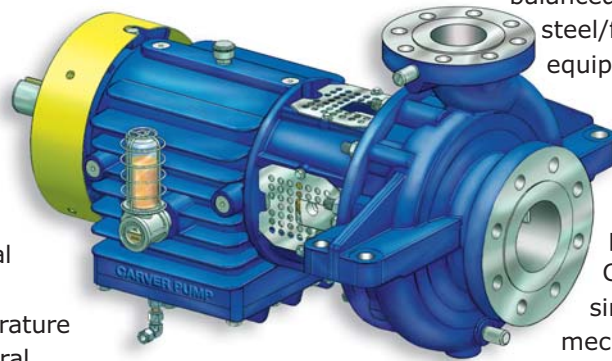
 **Carver<sup>®</sup>**

***Creating Value.***

# The API Maxum Series

The API Maxum is Carver's offering specifically designed to meet the needs of the Hydrocarbon Processing Industry. Fully compliant with latest edition API 610 specifications, the API Maxum is a horizontal, end suction – top discharge, centerline mounted unit. Designed for optimum reliability, these units feature rugged construction and state of the art mechanical design features. These units are well suited for applications that include petroleum refining/production/distribution, petrochemical/chemical processing, boiler circulation/high temperature applications, and general industrial use. A workhorse in the industry, these pumps are designed for years of service, in some of the toughest environments imaginable.

Created specifically for the Hydrocarbon Processing Industry, the API Maxum benefits other markets as well. Hydraulic performance extends to over 9,000 GPM and 720 feet of head. Capable of operating up to 400°F without external cooling and 600°F with cooling makes this pump ideal for mid-high temperature applications. Operating at speeds up to 3,500 RPM, this range is covered by thirty-five sizes available in either, all Steel, Steel with 12% Chrome trim, all 12% Chrome, or all CD4MCu



materials of construction as standard. In addition to these, higher alloys such as Alloy 20, Hastelloy B or C, Monel and Titanium are also available.

Standard features include renewable wear rings, API 610 seal chamber for 682 mechanical seals, back pull-out construction, dynamically balanced impellers, heavy duty carbon steel/finned bearing housing equipped with labyrinth type oil seals with fan cooling. Locations are also included for customer supplied vibration and temperature probes as a standard. Common options include single, double or tandem mechanical seals, various seal flush systems, and several bearing lubrication configurations. Heavy duty baseplates, cooling jackets, and various levels of performance testing are also available, depending on the individual user requirements.

Together, these features combine to produce some of the most efficient hydraulics in the industry and shaft deflection values meeting or exceeding that of API 610 requirements.

Most importantly, as with all our other pumps, the API Maxum 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 9,000 GPM (2,000 m<sup>3</sup>/hr)
- Heads to 720 Ft (220 M)
- Efficiencies to 88%
- Power to 900 HP (670 KW)
- Speeds to 3,500 RPM
- Temperatures to 600°F (315°C)



Approval Certification Number 95-370



European Community Certificate



## Features & Benefits

### Connections

ANSI 300 lb. flanges with centerline discharge assist in self-venting.

### Mounting

Centerline mounting assures full compliance with API 610 forces and moments.

### Wear Rings

Replaceable casing and backhead wear rings secured by an interference fit and locking screws reduce axial loads and extend rotor life.

### Impellers

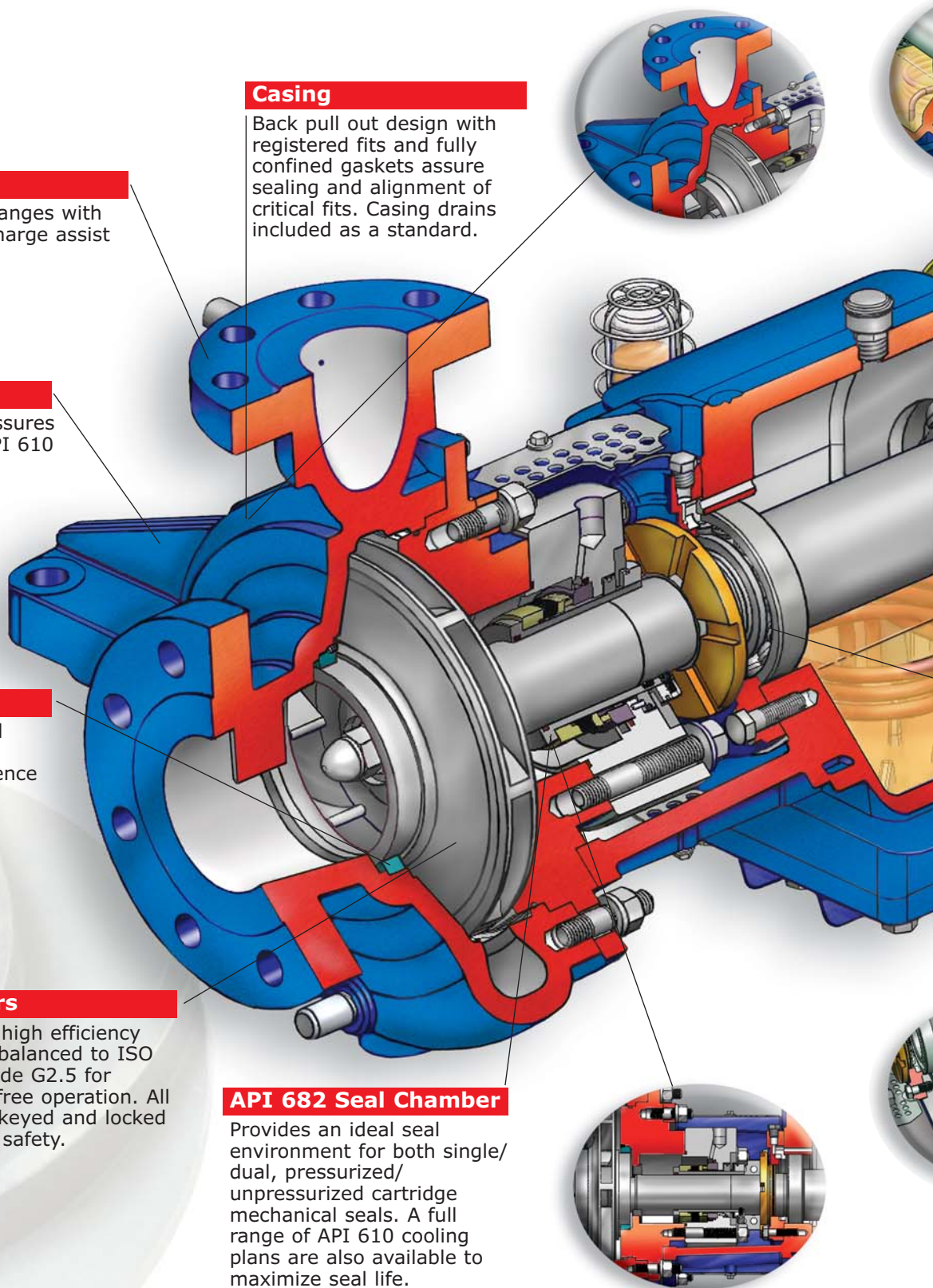
Enclosed, high efficiency impellers balanced to ISO 1940, Grade G2.5 for vibration-free operation. All impellers keyed and locked for added safety.

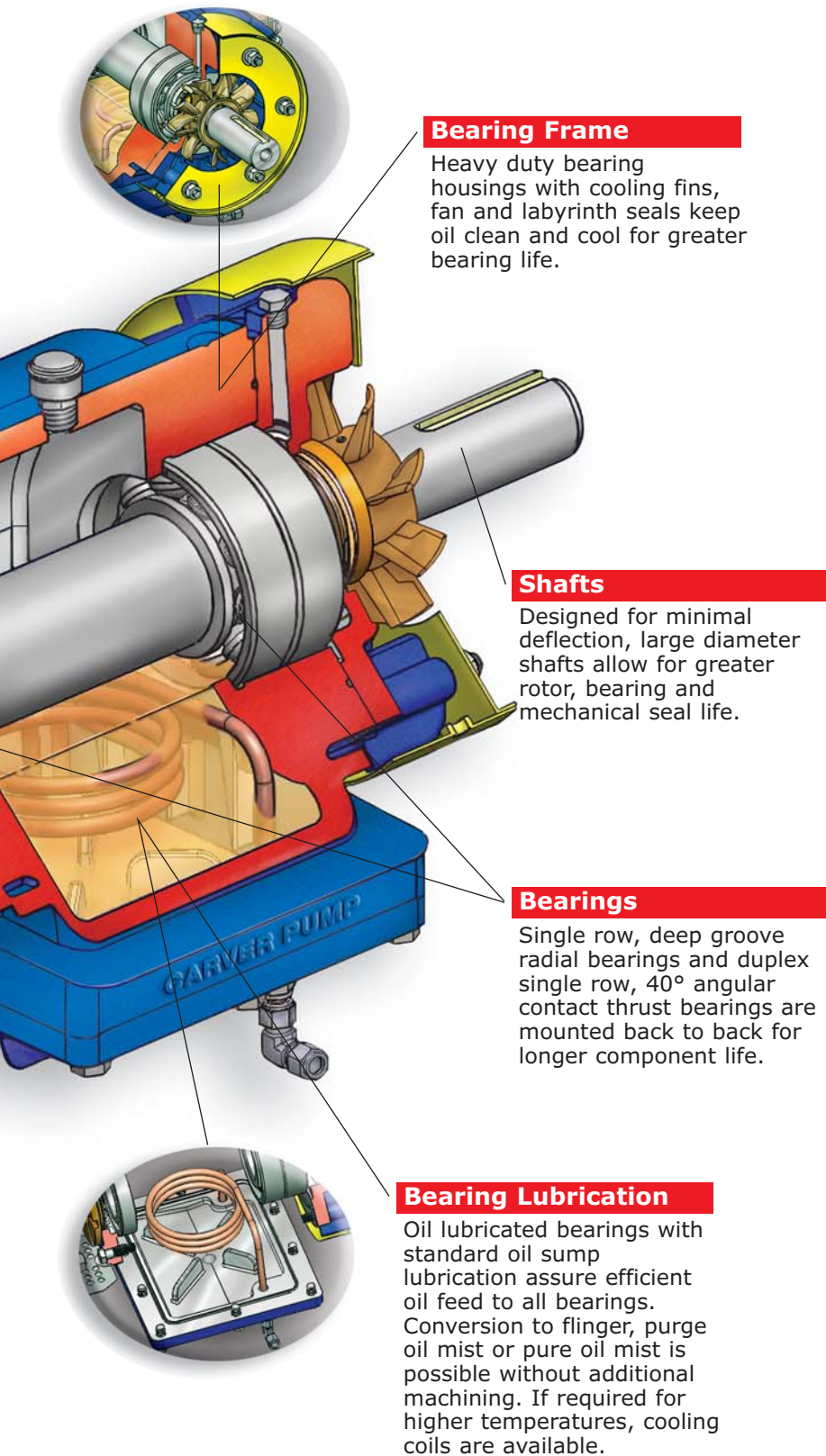
### Casing

Back pull out design with registered fits and fully confined gaskets assure sealing and alignment of critical fits. Casing drains included as a standard.

### API 682 Seal Chamber

Provides an ideal seal environment for both single/dual, pressurized/unpressurized cartridge mechanical seals. A full range of API 610 cooling plans are also available to maximize seal life.





**Bearing Frame**

Heavy duty bearing housings with cooling fins, fan and labyrinth seals keep oil clean and cool for greater bearing life.

**Shafts**

Designed for minimal deflection, large diameter shafts allow for greater rotor, bearing and mechanical seal life.

**Bearings**

Single row, deep groove radial bearings and duplex single row, 40° angular contact thrust bearings are mounted back to back for longer component life.

**Bearing Lubrication**

Oil lubricated bearings with standard oil sump lubrication assure efficient oil feed to all bearings. Conversion to flinger, purge oil mist or pure oil mist is possible without additional machining. If required for higher temperatures, cooling coils are available.

**Carver Pump Baseplates Insure a Secure Mount!**



Designed and manufactured by Carver Pump specifically for the Maxum Series, these fabricated baseplates insure a secure mount for your application. Heavy duty in nature, when combined with proper foundation preparation, these bases are a great starting point in making sure your pump/motor combination remain securely mounted.

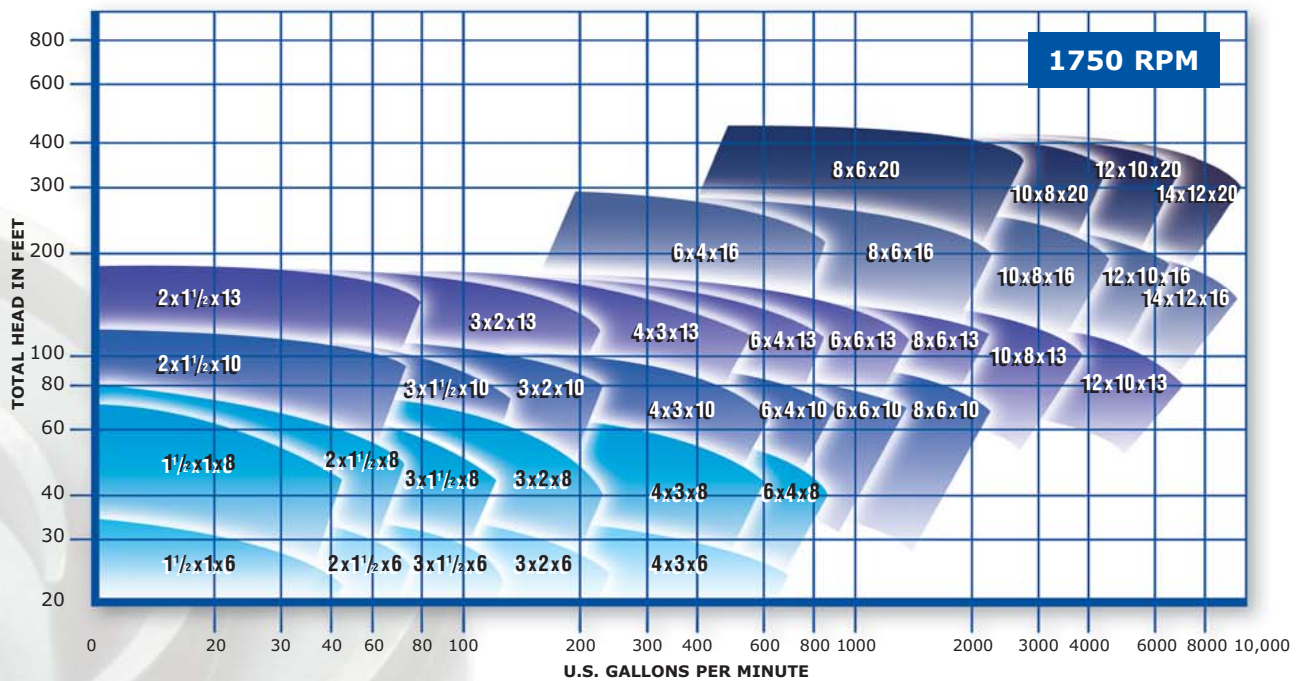
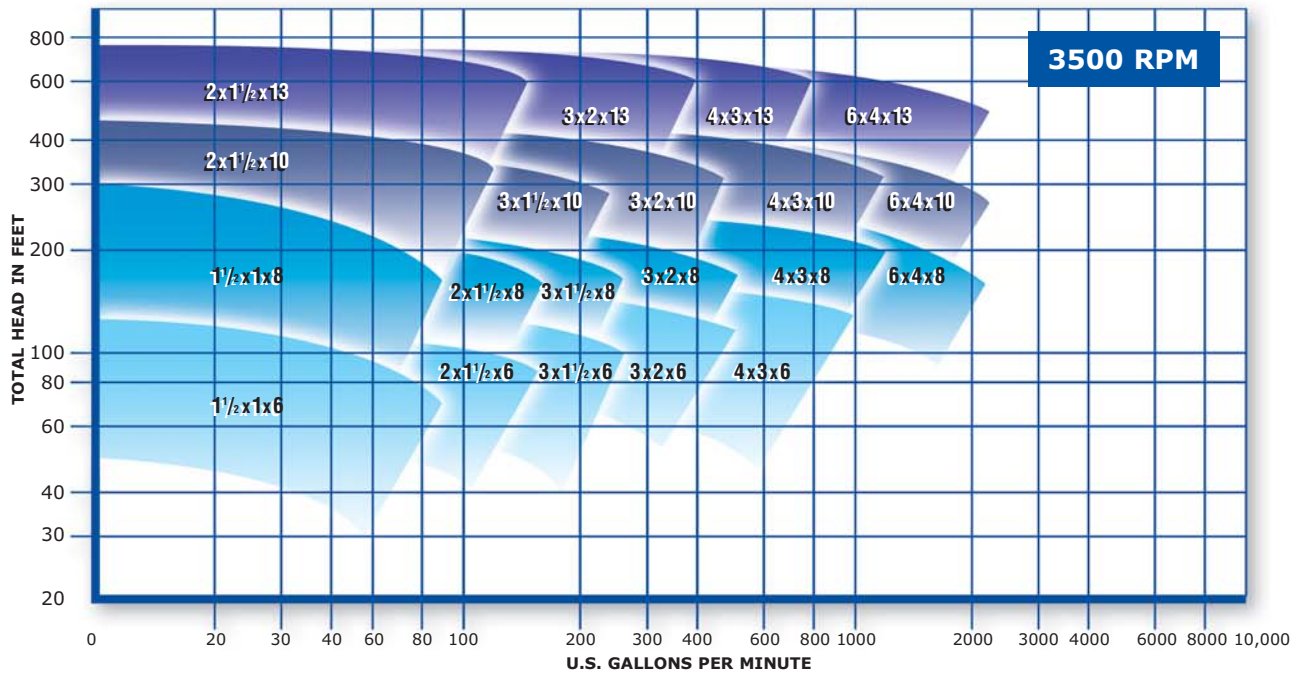
Fabricated from structural steel for maximum strength, each baseplate includes a recessed sloping deck with drain, grout and vent holes, integral lifting lugs and leveling jackbolts. Prior to shipping each unit is prepped and painted in accordance with our standard procedure for added surface protection.

Additional features are available upon request, such as motor alignment screws, additional grout/vent holes, or specialized surface preparation that may be required when using specific grout or protective surface coatings. Whatever the requirement, Carver Pump can typically customize the baseplate to meet or exceed your expectations!

Give your pump the support it needs – request a Carver Pump baseplate!



## Hydraulic Coverage



## Standard Materials of Construction

API Material Code	Casing	Impeller	Shaft	Wear Rings	Bearing Frame
S-4	Carbon steel	Carbon steel	AISI 4140	Ductile Iron	Carbon steel
S-6	Carbon steel	12% Chrome	AISI 4140	12% Chrome HD	Carbon steel
C-6	12% Chrome	12% Chrome	AISI 4140	12% Chrome HD	Carbon steel
D-1	CD4MCu	CD4MCu	Duplex SS	17-4PH	Carbon steel





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.



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