

# RECIPROCATING PUMPS RANGE OVERVIEW

HEAVY DUTY, HORIZONTAL, SIMPLEX,  
DUPLEX, TRIPLEX, QUINTUPLEX, API 674 &  
ASME STANDARDS

**CLYDEUNION®**  
PUMP





## CLYDEUNION PUMPS – AN INTRODUCTION

ClydeUnion Pumps is the culmination of a long and eventful engineering legacy, well known for supplying reliable and robust engineered pumping solutions. Through the highly-respected, ground-breaking core companies from which we originate, we are able to claim a 140-year history. Now we are playing an instrumental role in securing the vital energy and water resources that a sustainable society will rely on in the future.

Our engineered-to-order pumping technology is used to carry out all kinds of critical industrial functions. The vast majority of nuclear power plants currently in operation around the world employ our reactor feed pumps. We are also a valued flow control engineering partner to the oil & gas industry – supporting upstream, downstream, transportation and offshore exploration activities. Other key areas we address include seawater desalination, waste water treatment, mining and steel production.

Combining a wealth of pump and system design knowledge with facilities equipped with the latest design, analytical and pump testing equipment, we provide our customers with exceptional products and service – so as to boost efficiency and ensure prolonged operation. In addition to providing aftermarket service on all our current products, we also offer continued support on legacy pumps.

### WHY CHOOSE CUP RECIPROCATING PUMPS?

The streamlined reciprocating pump portfolio represents reduced complexity and improved parts interchangeability, offering easier product selection and faster turnaround.



## HIGH TECHNOLOGY PUMPS FOR THE MOST DEMANDING SERVICES

Celeros Flow Technology's ClydeUnion Pumps brand specializes in the design and manufacture of API 674 reciprocating pumps and pumping packages. At Celeros FT you will find a commitment to quality throughout the company. Celeros API 674 pumps were manufactured in a plant whose Quality Management System was certified as being in conformity with ISO 9001:2015 by a certification body. The ClydeUnion Pumps brand has a worldwide reputation for providing optimized reliability in the most severe duty applications.



### SEAWATER REVERSE OSMOSIS

Worldwide demand for clean water continues to increase. With very high efficiency and reliability, our reciprocating power pumps are ideally suited for seawater reverse osmosis. ClydeUnion Pumps reciprocating pumps, combined with energy recovery systems, provide the industry's most efficient solution for your high pressure reverse osmosis pumping needs. They also offer the added benefit of delivering filtered seawater at constant flow to the membranes at varying system pressures.

### GENERAL INDUSTRY

Celeros FT supply ClydeUnion Pumps reciprocating power pumps for a wide range of industrial services including high pressure water blasting, cleaning and cutting, metals descale, mine dewatering, hydraulic charge, hydrostatic test, chemical processing and high pressure mixing. The experience gained in these segments enable us to offer our customers engineered products tailored to their specific requirements.

### OIL & GAS PRODUCTION

Our pumps can be found operating wherever there are oil fields, both onshore and offshore. High efficiency and reliability are major benefits of ClydeUnion Pumps equipment - both of which are vital considerations in the oil and gas industry. Pumps have been supplied to satisfy a wide range of pumping services including: high pressure seawater injection and disposal, methanol injection, blowout preventer charge pumps, subsea hydraulic systems, gas processing systems for dehydration and gas sweetening. ClydeUnion Pumps reciprocating pumps are designed to handle all types of industry related fluids.

### REFINERIES

Today's complex refinery processes demand specialized pumping solutions. Extremes of temperature, high-pressure and the ability to handle volatile fluids, calls for highly engineered pumps that can perform reliably in such arduous conditions. Celeros FT has many years of worldwide experience in the supply of ClydeUnion Pumps special reciprocating pumps to the refinery industry as well as for nuclear applications, and is committed to providing its customers with solutions for the most complex of pumping requirements.

## RECIPROCATING PUMPS - HEAVY DUTY HORIZONTAL PUMPS

ClydeUnion Pumps reciprocating power pumps are designed with exceptional versatility to efficiently meet the requirements of a wide variety of pumping applications. They are ruggedly designed for minimum maintenance and to meet the heavy-duty requirements of continuous operation in general industry, as well as API 674 services.

These units are driven via electric motors or diesel engines through V-belt or gear reducers. Stuffing boxes are specifically designed for applications to maximize packing life and minimize maintenance. Equipment can be packaged to meet the most stringent requirements of API 674.

There are thousands of ClydeUnion Pumps reciprocating power pumps operating worldwide on services as diverse as:

- HVGO high temperature charge at 800°F (426°C) and at 4,500 psig (310 barg) discharge pressure and with highly engineered sealing systems.
- Specialty chemical services with stringent emissions requirements
- High pressure carbamate and ammonia pumps for fertiliser service

- High pressure salt water or produced injection - high salinity, high pressure with sand, oil and H<sub>2</sub>S

### PROVEN PRODUCT INTEGRITY

The ClydeUnion Pumps reciprocating power pump encompasses a proven design history for excellence in reliability. ClydeUnion Pumps simplex, duplex, triplex and quintuplex pumps all have an enviable history of sound engineering, designed to exceed the rigorous requirements of API 674 and customer satisfaction.

### EASE OF MAINTENANCE

The simple modular construction of the reciprocating power pump offers ease of maintenance and reliability. A complete fluid end change-out can be completed in under eight hours. Routine packing, plunger and valve assembly changes are made easier either on site or at our service locations by our skilled service engineers.

### PUMPSETS & PACKAGES

Celeros FT has extensive experience in providing complex pumpsets including electric motors, gearboxes, special auxiliary lube oil systems, steam turbines, diesel engines, control panels and instrumentation.



# Reciprocating pump – Features

## 1 FLUID CYLINDER

- All API 674 material options
- Pressure integrity designed to ASME VIII and API 674

## 2 SUCTION MANIFOLD &

## 3 DISCHARGE MANIFOLD

- Reversible end-to-end
- All API 674 material options
- NPT, ANSI, API, SAE, and other connections available

## 4 LIQUID END BOLTING

- High strength alloy steel standard
- Stainless steel options available

## 5 VALVE ASSEMBLY

- Wing or Disc valves, depending on pump model and configuration required for suction and discharge conditions.
- Abrasion resistant valves available for slurry services
- Light and Heavy rate springs available for special requirements.

## 6 STUFFING BOX ASSEMBLY

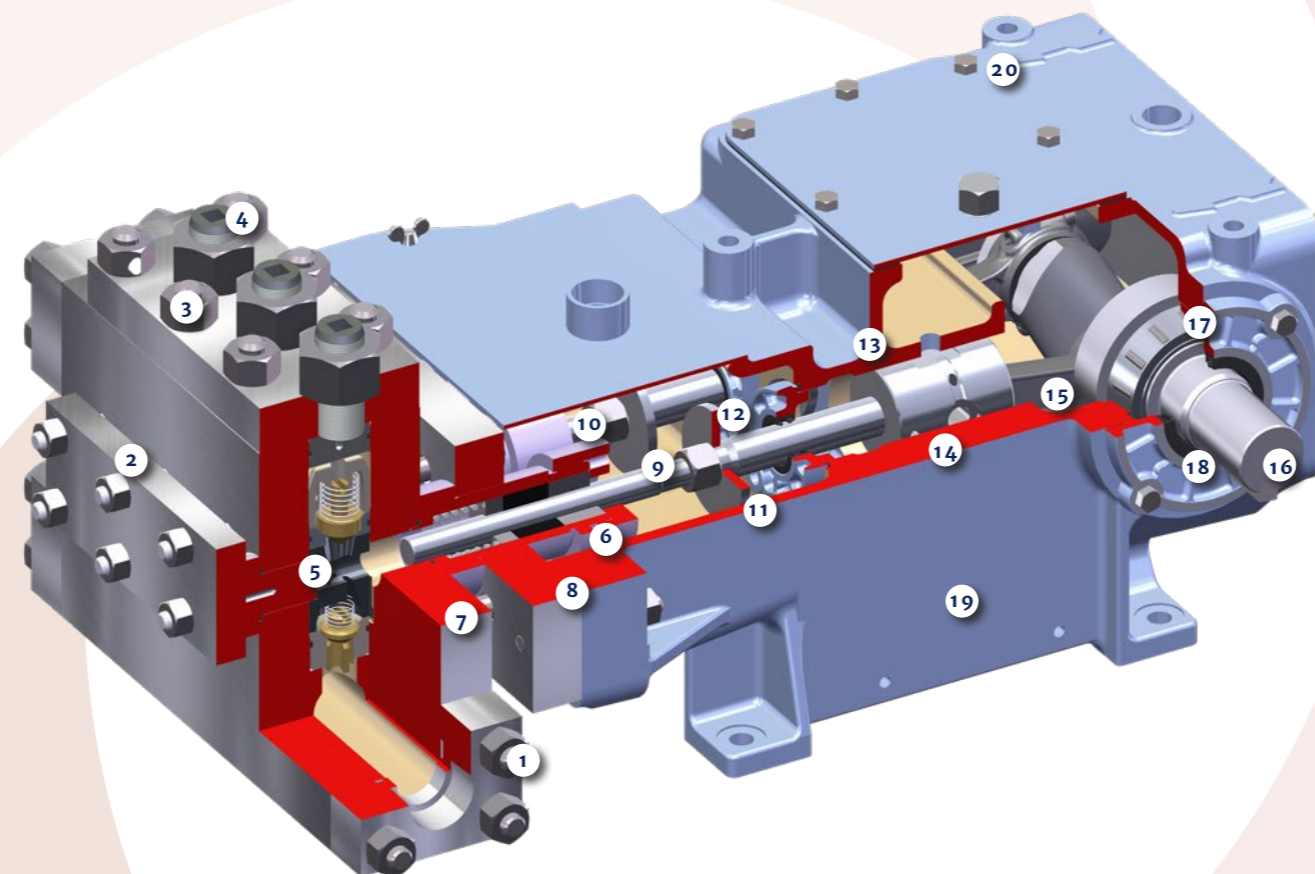
- All API 674 material options
- Standard self-adjusting spring loaded
- Adjustable stuffing box for more critical services
- Special leakage control (UNI-LOK®) with detection system

## 7 STUFFING BOX SPRING

- To provide automatic adjustment as packing wears

## 8 PACKING

- Square aramid fibre/telfon standard
- Special V-ring design for high pressure applications in various materials



## 9 PLUNGER

- Wide range of coatings available to accommodate any process
- Severe duties require special plunger hardness for optimum reliability

## 10 STUFFING BOX FLANGE

- Designed to maintain stuffing box position

## 11 CROSSHEAD EXTENSION STUB

- Provides accurate alignment between plunger and crosshead
- Offered in 12% – 13% chrome for corrosion and wear resistance

## 12 CROSSHEAD STUB SEAL

- Spring loaded lip seals or packing
- Severe duty seals available

## 13 CROSSHEAD

- Large diameter, full piston type for optimum support
- Cast iron operating against cast iron bores for excellent bearing surface
- Higher power models available with adjustable and replaceable shoes

## 14 WRIST PINS & BEARING

- Hardened steel pin operating against a sintered bronze bushing

## 15 CONNECTING ROD & BEARING ASSEMBLY

- Heavy duty ductile iron or steel rods with separate bolted caps
- Connecting rod bearings are split, replaceable, precision type babbitt lined steel

## 16 CRANKSHAFT

- One-piece SAE 4140 steel for toughness and high endurance limit
- Reversible in power frame for drive input from either side of pump for most models

## 17 CRANKSHAFT MAIN BEARINGS

- Two anti-friction taper roller bearings designed for 3 year L10 life
- Several of our larger models use spherical roller bearings

## 18 CRANKSHAFT OIL SEAL

- Spring loaded lip type elastomer seals

## 19 POWER FRAME

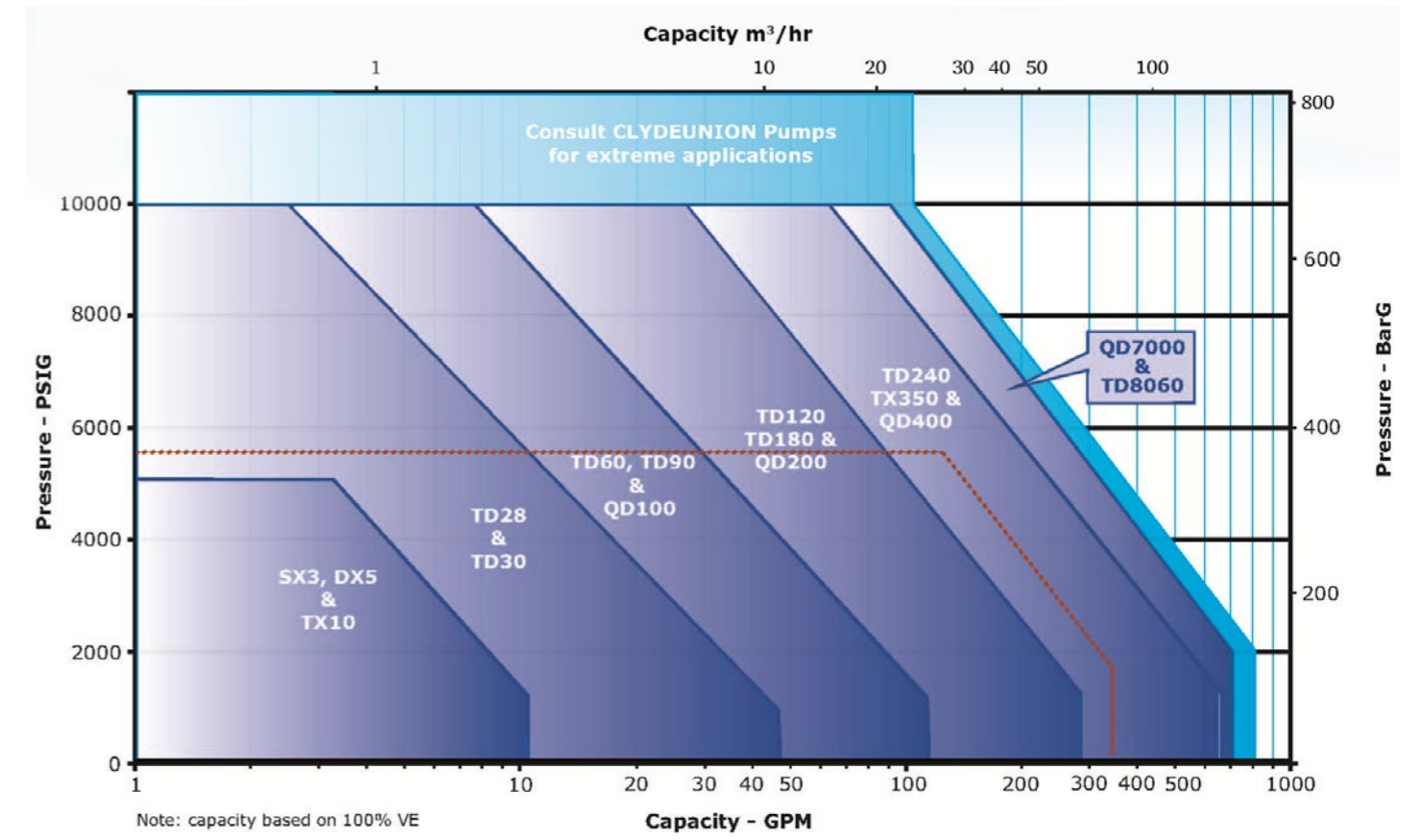
- A48 Class 30 cast iron as standard. Ductile iron and other materials available.
- Rugged construction and designed for ease of all maintenance operations.
- Full cylindrical crosshead bores – can be fitted with liners when required
- Available with gear packs with several ratios for most models
- Additional drive methods include self standing gears and V-belts

## 20 TOP MOUNT MOTOR MOUNT

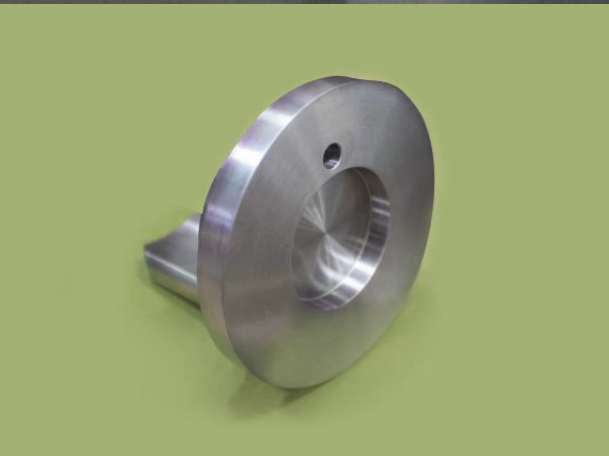
- For most models the power frame is suitable for top mounting motor for V-belt drive



## ENGINEERED TO ORDER RANGE CHART



●●●●● The red dotted line covers the reciprocating pump standard range.



## GLOBAL AFTERMARKET CAPABILITY – BEST IN SERVICE & RESPONSE

Our customer focused aftermarket organisation is positioned to provide comprehensive care for our varied and diverse product lines. Heritage and obsolete products benefit from the same level of attention and expertise ensuring that reliability and availability is maximised irrespective of a pump's length of service.

### GENUINE HIGH QUALITY

Original or upgraded specification spare parts, coupled with full engineering design capability, enables longevity of reliable operation. Highly skilled and experienced service engineers ensure accuracy in build and optimized performance. The worldwide presence of Celeros FT offers local service facilities globally.

### SERVICE SOLUTIONS

Celeros FT is committed to supporting our installed base wherever it may be. Depending on your location we will provide either direct service support or support via our local authorised service partners. Whichever option is provided, you can be assured of the best attention from fully qualified and experienced engineers.

- Upgrades & re-rates
- Service & overhaul
- Installation & commissioning
- Technical support
- Inventory management
- 3rd party equipment



### Parts & maintenance:

Any brand, any material, anytime.  
Heritage products, upgrades & improvements





# RECIPROCATING PUMPS RANGE OVERVIEW

HEAVY DUTY, HORIZONTAL, SIMPLEX, DUPLEX, TRIPLEX, QUINTUPLEX, API 674 & ASME STANDARDS

- | SPEED
- | EXCELLENCE
- | PARTNERSHIP



## EUROPE

Anncy, France	P: +33 45 005 5600	E: cu.annecy@celerosft.com
Glasgow, UK	P: +44 141 637 7141	E: cu.glasgow@celerosft.com

## AMERICAS

Baton Rouge, USA	P: +1 225 775 2660	E: cu.batonrouge@celerosft.com
Burlington, CA	P: 1 905 315 3800	E: cu.burlington@celerosft.com
Calgary, CA	P: +1 403 236 8725	E: cu.calgary@celerosft.com
Los Angeles, USA	P: +1 562 622 2380	E: cu.downey@celerosft.com
Houston, USA	P: +1 281 372 5040	E: cu.houston@celerosft.com
Kalamazoo, USA	P: +1 269 966 4600	E: cu.houston@celerosft.com

## ASIA

Beijing, CN	P: +86 10 5926-7000	E: cu.beijing@celerosft.com
Ghaziabad, IN	P: +91 120 4640 400	E: cu.newdelhi@celerosft.com
Rest of Asia & ANZ		E: Pumps.apac@celerosft.com

## MIDDLE EAST/AFRICA

Abu Dhabi, UAE	P: +971 2 408 1900	E: cu.uae@celerosft.com
Dubai, UAE	P: +971 (0)4-5289555	E: cu.uae@celerosft.com

Celeros Flow Technology reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction, and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information, visit [www.celerosft.com](http://www.celerosft.com).

CUP\_Reciprocating Pumps Range Overview\_241\_A4\_06/26

COPYRIGHT © 2026 CELEROS Flow Technology, LLC.

[www.celerosft.com](http://www.celerosft.com)