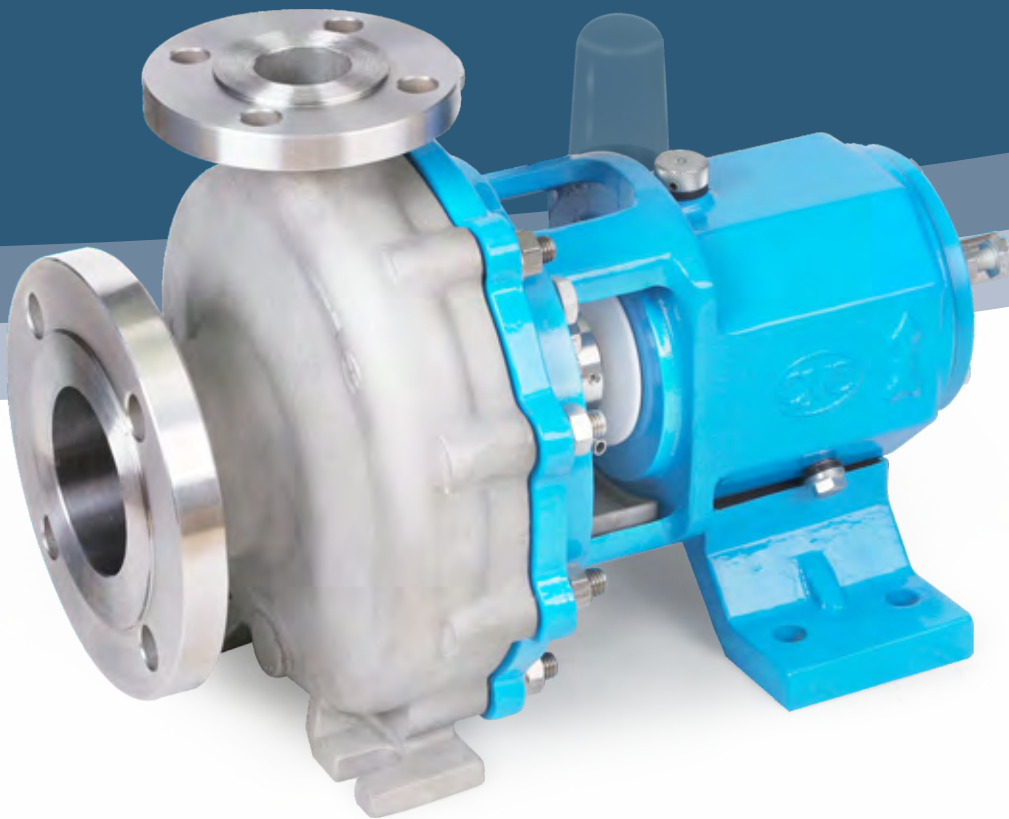




QLC/QST/QMT

# Single Stage End Suction Open Impeller ANSI Chemical Process Pumps



Available in

WCB (CAST STEEL) | CF8 (SS-304) | CF8M (SS-316) | CF3 (SS-304L) | CF3M (SS-316L)  
CN7M (ALLOY-20) | CW12MW (HASTELLOY-C) | N12MV (HASTELLOY-B)  
DUPLEX AND SUPER DUPLEX ALLOYS

The open impeller is the acknowledged best design for process services. It is ideally suited for corrosive/erosive liquids containing solids and stringy materials.

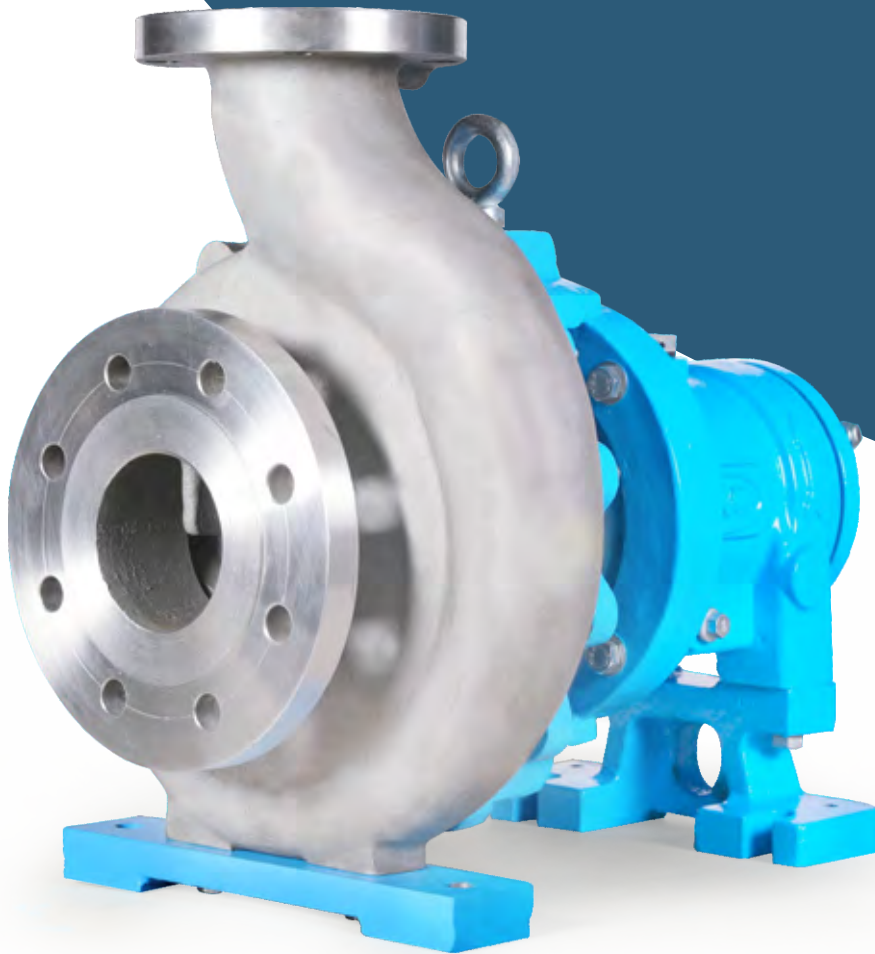
## Fields of Application

Corrosive, pure and contaminated media in the chemical, pharmaceutical and petrochemical industries, in metal processing, waste disposal and recycling etc.

## OPTIONS

Bearing Frame, Bearing Cover & Leg can be provided in the different material of construction depending on the application. manufactured for acid application in all CF8M material of constructions.





## Design

Single stage, frame mounted chemical process pump of heavy duty design. Flanges with holes drilled to ANSI B16.5 Cl.150.

**Mechanical seal :**

Single, Double, Inside, Outside etc.

## Operating Range

50 Hz Operation

Flow Rates 1-1500 m<sup>3</sup>/hr

Delivery Heads Upto 120 m

**Performance curve of particular model available on request.**

**Operating Temperatures :**  
-60/+300 °C

**Operating Pressure :**  
Upto 16 bar (235 psi)

**Solids :**  
Depends On Pump Design.

## Cut View of Pump



## Features & Specifications

### 1 Impeller

- Open impeller with curved vanes.
- **Secured against loosening** if the pump is started up in the wrong direction of rotation.
- With back pump out vanes to offset axial thrust.
- Allows for simple restoration of clearances when wear takes place.
- Back pump out vanes reduce pressure on the shaft seal.

### 2 Bearing Frame

- Very sturdy one piece cast iron bearing frame with oil bath lubrication
- Original flow, pressure and efficiency are maintained by simple external adjustment resulting in long term energy and repair parts savings.

### 3 Casing

- Casing is having 10mm to 12mm wall thickness a, increased reliability and maximized casing life.
- Top centerline discharge for air handling, self venting.
- Back pull-out design for ease of maintenance.
- Integral casing feet prevent pipe load misalignment – maximized seal and bearing life.
- Serrated flanges standard for positive sealing against leakage. Meets ANSI B16.5 requirements. Class 150 RF flanges standard.

### 4 Pump Shaft

- Rigid shaft designed for minimum deflection at seal faces—less than 0.002 in. (.05 mm).
- Bearings sized for longer average life under tough operating conditions.
- Available with or without shaft sleeve.

### 5 Back Plate

- A **special back plate** was designed for the stationary internal seals.
- **Big bores back plate** for double, cartridge seals is also available as an option.

### 6 Mechanical Seal Options

- Internal and external mechanical seal.
- Cartridge seal.
- Double seal for solids laden and crystallising media.

## Priming Chamber

Centrifugal pumps may require a priming chamber as an auxiliary means of lifting liquid from below the pump centerline to the pump inlet or from the liquid surface over a tank wall. The answer to this requirement is this line of easy to use and install priming chambers. Once the priming chamber is filled, the pump can be started and re-started without subsequent re-priming.

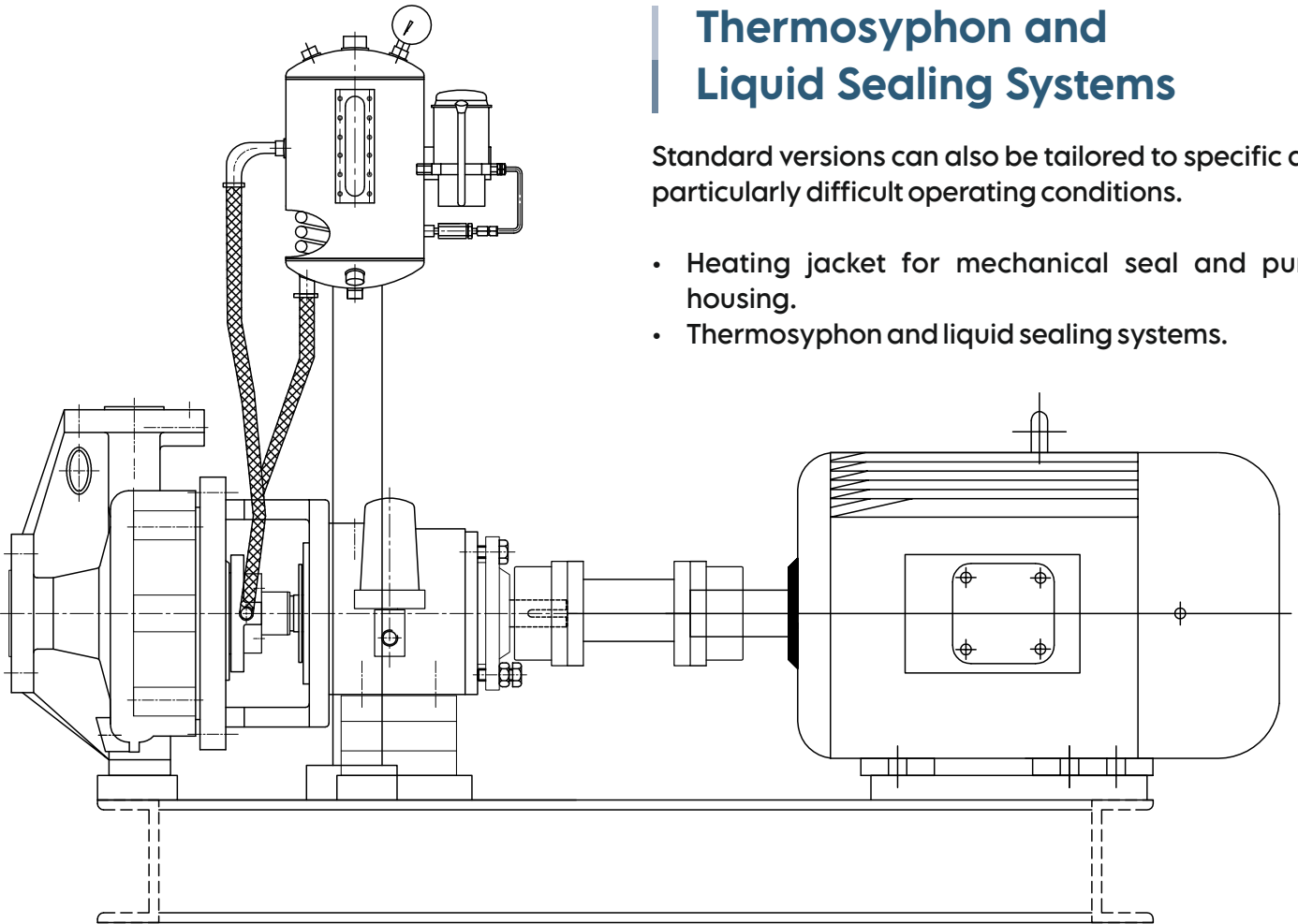
Each time the pump is turned off, the priming chamber retains a volume of liquid. When the pump is re-started, it pumps the entrapped liquid out of the priming chamber, creating a vacuum in its place. Atmospheric pressure then forces liquid from the tank or sump up the suction hose or pipe to the pump, completing the prime.



## Thermosyphon and Liquid Sealing Systems

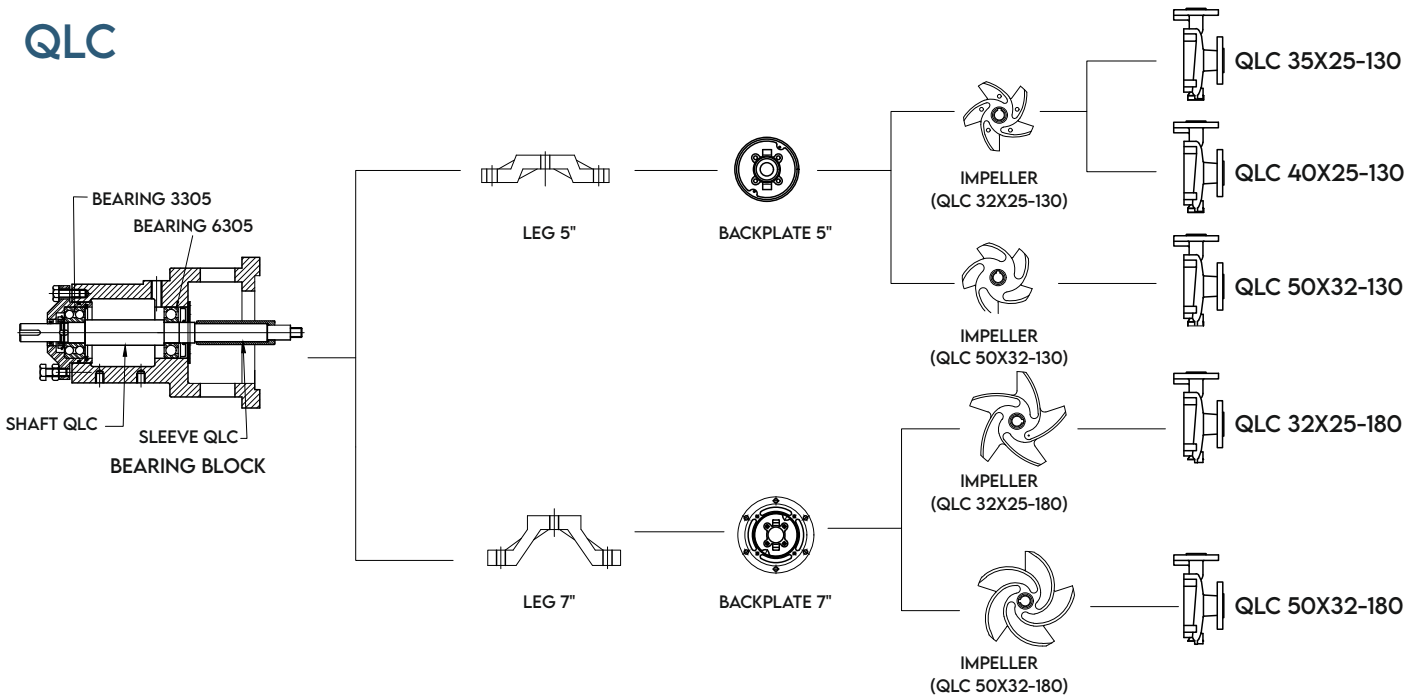
Standard versions can also be tailored to specific and particularly difficult operating conditions.

- Heating jacket for mechanical seal and pump housing.
- Thermosyphon and liquid sealing systems.

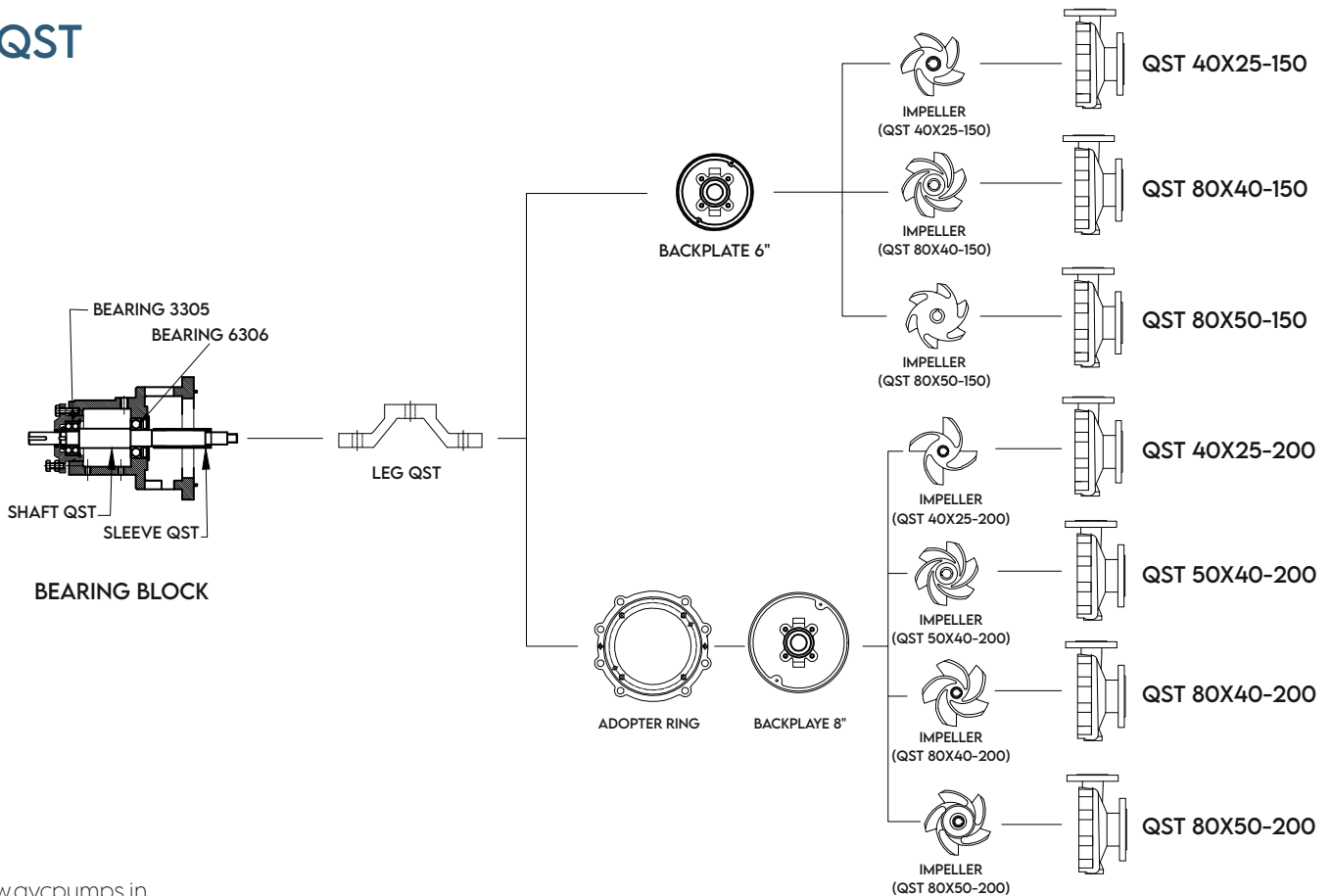


# Interchangeability Chart

## QLC

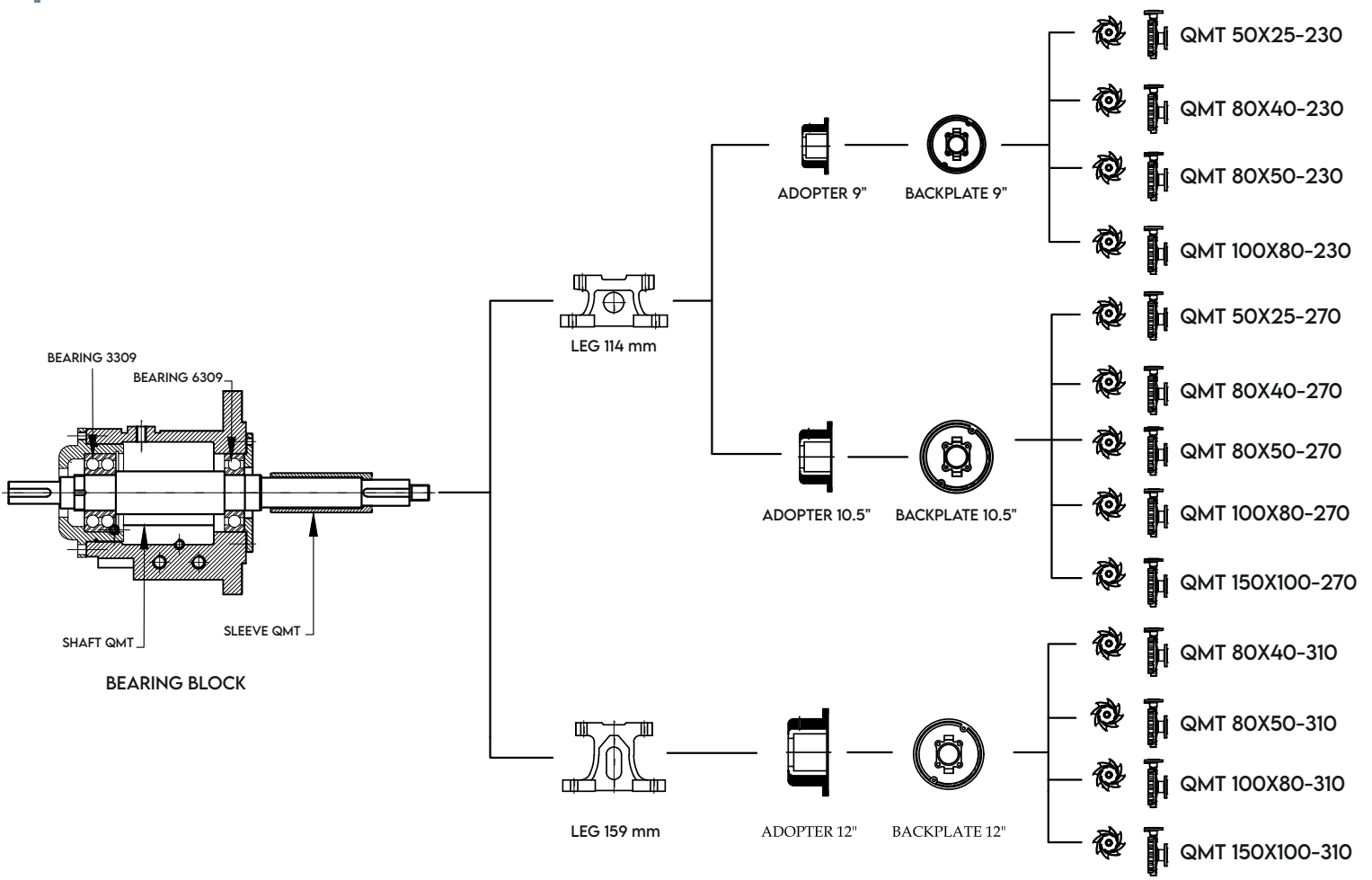


## QST





**QMT**



# Other QVC Process Pumps

Open impeller metallic pumps | Closed impeller metallic pumps

Horizontal self priming pumps | Vertical self priming pumps  
ANSI Open impeller metallic pumps



**QVC CHEMICAL EQUIPMENTS**