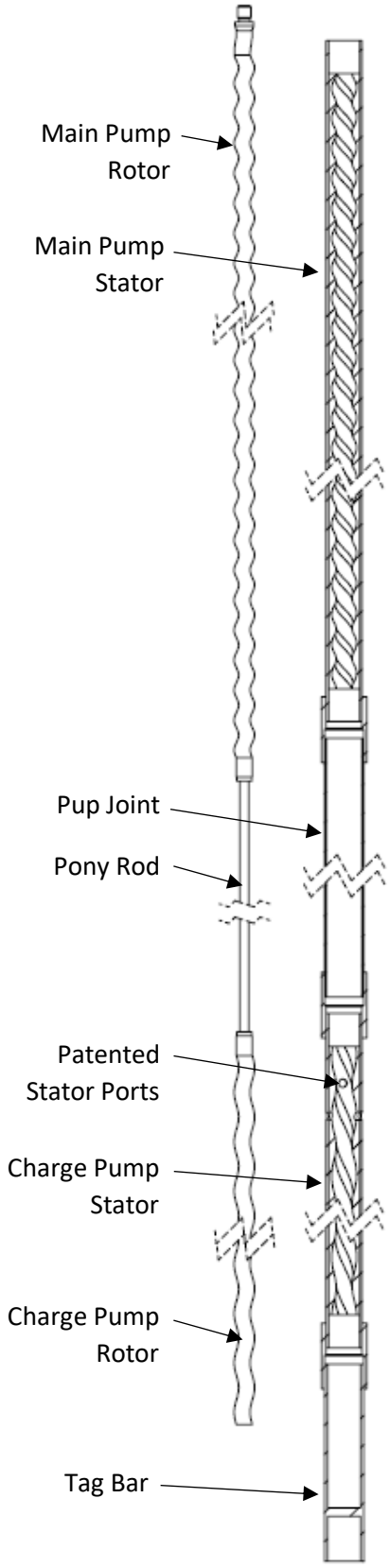
PCP Charge Pumps

High GOR pumping applications present many challenges. The foamy gaseous fluid mixture greatly reduces the efficiency of a conventional PCP by partially filling the cavities with free gas. It also creates heat inside the pump as this mixture progresses through the cavities, due to the fact that the gas is constantly being compressed and re-expanded in every cycle.

The Charge Pump System is a combination of 2 PCP's of different displacements. The Main Pump is sized for the production rate and lift requirements of the well. The Charge Pump is sized with greater displacement than the Main Pump and much less lift. It is also fitted with patented ports to allow some of the compressed free gas to be expelled from the Charge pump stator before it enters the main pump intake.

Patented stator ports designed to encourage mixing near the intake, prevent a free-gas "bubble" from forming at the low-pressure area near the intake.



Benefits:

- Increased pump efficiency
- Increased pump life
- Increased production
- Increased gas production up the annulus
- More accurate fluid level shots

Charge Pump Combinations	
Main Pump	Charge Pump
12-1600	60-200
18-1600	60-200
27-1600	60-200
35-1600	105-150
45-1600	105-150
60-1600	140-125
80-1600	140-125
98-1600	200-150
120-1600	200-150