

# SOFT PUMP SYSTEM

Precisely coordinates the output of all mud pumps and synchronizes the timing of the pump strokes.

AVAILABLE FOR ALL  
ELECTRICALLY DRIVEN PUMPS

## UNIQUE FEATURES

- Optimized pump pressure
- Improved MWD / LWD thanks to control of frequency and amplitude of pressure pulses
- Reduced stress of pulsation dampener bladder
- Reduced stress of high pressure piping, valves, etc.
- Reduced vibration within the mechanical part of the mud pumps
- Increased lifecycle of mud pump components and drive motors
- Easy adjustment of mud pump stroke per minute by the driller
- Can be installed on all electrically driven pumps
- Simple operation via HMI
- Field approved equipment
- Easy to retrofit



# TECHNICAL DATA

## SOFT PUMP SYSTEM

The Bentec SOFT PUMP SYSTEM is a software solution which is developed to precisely coordinate the output pump pressure of up to four mud pumps into the common high-pressure mud line and through the borehole.

The Bentec SOFT PUMP SYSTEM synchronizes the timing of the pump strokes and leads to equal peak distances. This eliminates uncoordinated high pressure peaks due to asynchronous pump strokes which can harm the high-pressure mud lines.

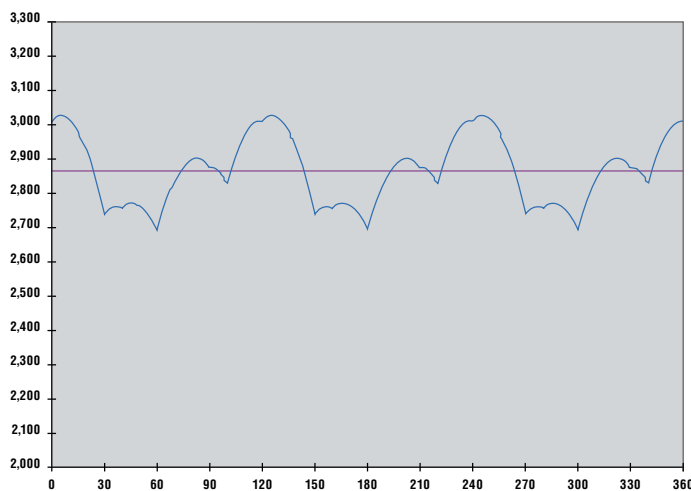
The resulting continuous low-peak pressure amplitude enables the filtration of mud pressure pulsation signals from the Measurement While Drilling or Logging While Drilling tools. This also helps to extend the lifespan of the entire mud line equipment such as mud pumps, high-pressure mud lines and pressure pulsation dampeners, which in turn minimizes maintenance and repair costs significantly. As a retrofit package the Bentec SOFT PUMP SYSTEM can be used for all types of electrically driven mud pumps.

The Bentec SOFT PUMP SYSTEM allows all pumps to be controlled with just one adjusting knob. In this parallel mode, the slave pumps adjust their speed depending on the speed of the master pump.

The Bentec SOFT PUMP SYSTEM is either controlled via an additional Human-Machine Interface or it can be integrated into a Bentec infoDRILL system. Stroke per minute indicators allow the number of strokes of every pump or each single pump to be counted. An alarm can also be set which indicates when a predefined number of pump strokes has been reached.

Bentec combines all of the experience it has gained from more than 17 years of developing and enhancing SOFT PUMP SYSTEMS to offer a highly reliable and field proven system.

**SOFT PUMP SYSTEM OFF**



**SOFT PUMP SYSTEM ON**

