

First Multiphase Pumps on Russian Platform



The first offshore platform for the Baltic Sea, completely manufactured inside Russia, is equipped with Bornemann Multiphase Pumps type MPC 268. These are

the heart of the customers production philosophy to boost the full production of the Kravtsov Oil Field direct to the treatment facilities onshore – over a distance of approximately 40km.



In the beginning of September 2003 the modules of the combined drilling and production platform have been shipped from the yard in Kaliningrad to their final location in the Baltic Sea. Start of oil production is scheduled for the beginning of 2004.

The full production depends on the reliability of the Multiphase Pumps. To achieve nearly 100% availability the concept was to install 3 Multiphase Pumps – with each 50% of production capacity – in parallel. During normal operation two pumps are running, one is standby.



Main screen of CCS

For maximum flexibility the system automatically runs up to three pumps in parallel – depending on the real field production at optimal wellhead pressure.

The Multiphase Boosting System consists of one Central Control System (CCS) and three identical Multiphase Pump skids.

As result of the long lasting Bornemann and Burgmann research and testing program a new double seal system was installed on these pumps for the first time. In combination with the new seal buffer fluid system – following the Bornemann experiences coming from the patented S3 seal system – safe, reliable and environmental clean operation is secured.

The well approved ball-valves with electro-hydraulic actuators guarantee immediate and safe shut in of the pumps when not in operation.



Heavy duty pump design plus approved equipment plus system and field know how stands for successful Multiphase Boosting.

Technical data for one complete system (3 pumps in automatic mode):

(metric units)

Pump type:	MPC 268-38
System capacity:	50 to 1050 m ³ /h
Pressure rating:	100 barg
Differential pressure:	up to 50 bar
Power consumption:	50 to 1300 kW

(customary units)

Pump type:	MPC 268-38
System capacity:	7500 to 157.500 BPD
Pressure rating:	ANSI 600#
Differential pressure:	up to 725 psi
Power consumption:	65 to 1700 HP

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