

Successful Multiphase Start-up in NW-China

The first Multiphase Pump System for production purposes has been delivered to PetroChina in Xinjiang, People's Republic of China within the contracted time and was commissioned successfully.



Pump station in the desert

The unit is installed in the desert of North-West China and housed in a building due to extreme different ambient conditions over the year. Production of ShiXi oilfield is boosted, throughout hilly terrain, from a common header to a central separation station in about 10 km distance.

Currently, the oilfield consist of 5 clusters with a total number of about 60 wells, whereas all wells are artificial lifted by means of rod-pumps. Due to the use of a Multiphase Pump, the backpressure on the rod-pumps is reduced from 12 barg to actual 4 barg.



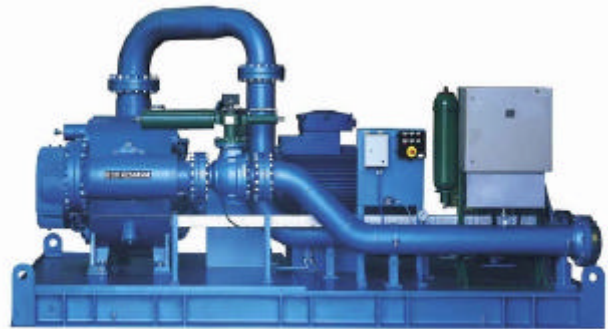
Team of PetroChina / Bornemann

Beside the expected extension of lifetime of the downhole pumps and a reduced energy consump-

tion, a significant increase of production is achieved due to higher efficiencies.

Initiating, engineering and implementation of the Multiphase Boosting Technology into the running production was realized by a dedicated and sophisticated team of production engineers, realizing chances and opportunities of an advanced production process.

One Multiphase Pump type MW 9.3-67 with necessary instrumentation and piping based on appropriated Bornemann standards is sufficient to meet customer requirements in regard of safety, reliability and needs of space.



Skid mounted MPP-unit

A fully skid mounted unit ensures a minimum of investment and engineering by customer but with full safety to operators and environment. Fully automatic and unmanned operation in remote areas is realized by using of a control system monitoring several safety interlocking and isolating of the unit via fail safe close shut off valves, if required.

The drive train, consisting of electric motor and Variable Frequency Drive (VFD), guarantees an adjustable and constant well head pressure by means of fully automatic speed variation of pump under a wide range of operational conditions, i.e. different numbers of producing wells.

Technical Data

Pump:	1 x MW 9.3-zk 67
Capacity:	680 m ³ /h / 102.650 BEPD
Installed power:	380 kW / 520 HP
Inlet pressure:	4 barg / 55 psig
Differential pressure:	17 barg / 250 psig
Viscosity:	120 cSt
GVF:	92 %
GOR:	490