

PUMPSETS FOR BENTONITE APPLICATIONS

EUROPEAN RENTAL CLIENT



VORTEX IMPELLER PUMPSET CASE STUDY



An existing client contacted Pioneer Pump with the aim of regaining their sales and rental market share specifically in the French Construction Industry with a focus on a €35 billion national infrastructure project.

REQUIREMENTS

Following discussions with the client, they stipulated that due to the nature of the infrastructure project, the pumpsets in question must be suitable for Bentonite applications and feature a quick access canopy for ease of maintenance and on-site cleaning whilst maintaining the required performance for the application.

METHOD

After evaluating the client's requirements, Pioneer Pump provided a sound attenuated 6" Vortex 150VL on a 3 month rental trial to ensure that the product performed as the client and project expected. Upon completion, the end-user confirmed that the pump provided performed with remarkable wear resistance in comparison to the competitor pump previously in use.

Performance data gathered during the trial period identified that the end user favoured a Pioneer 4" Vortex 100VM capable of delivering higher head than the previous tested 150VL model and was best suited for high-friction Bentonite applications.

To facilitate cleaning and tackle the common issue of drying and sedimentary Bentonite, Pioneer offered the customer a flushing outlet

on the priming chamber and a butterfly valve to isolate the priming system on a flooded suction application.

The success of the solution resulted in the launching of the 100VMB, a 4" Vortex Pumpset designed specifically for use on Bentonite applications including all features developed as part of the project.

RESULTS

Following completion of the trial period and subsequent engineering projects, the client, impressed by the quick solution turnaround and customer orientated support provided by Pioneer, ordered an additional 3 units for their own rental fleet, 2 of which were promptly resold locally.

Further engineering adjustments were made to improve pump-end accessibility and newly developed access panels can be simply retrofitted to previous models substantially reducing service and cleaning times on Bentonite specific applications.

Pioneer Pump's 4" 100VMB pumps are now exclusively utilised on what is dubbed as 'Europe's largest infrastructure project', proudly replacing competitor's products.

LARGE SOLIDS HANDLING

IMPROVED SERVICEABILITY

PUMP FEATURES

- Specially engineered flushing outlets and valves on priming system to assist with cleaning.
- Vortex impeller design allowing for large solids handling capabilities
- Additional Butterfly Valve for Bentonite Applications

PERFORMANCE DETAILS

- Standard Max Flow: 300 m³/hr (1320 usgpm)
- Standard Shut-Off: 46m (150 ft)
- Solids Size: 85mm (3.3 inches)

RESULTS

- Client secured large-scale project
- Pioneering Product Developed
- Increased client's pump fleet capabilities