



HIGH TEMPERATURE ASPHALT FLOW MEASUREMENT



Petrochemical Industry



Measuring Task

Non-intrusive flow measurement of high temperature asphalt

When measuring high-temperature and high-viscosity asphalt with a traditional flowmeter, the measurement result will be affected by the characteristics of the medium.

Measured with Flexim clamp on ultrasonic flowmeter, there is no pressure loss, no obstruction, and the measurement result is not affected by the high temperature and high viscosity characteristics of the medium.

the plant – and therefore electricity generation – as little as possible.



Solution

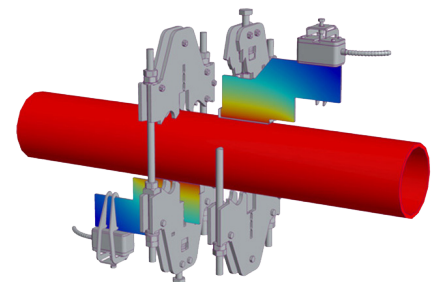
The FLUXUS® F704 A2+WaveInjector® (WI) proved to be the ideal tool for this challenging measuring task. They previously used wedge flow meters, oval gear flow meters, wet ultrasonic flow meters, mass flow meters and other flow meters to measure high-temperature asphalt. These traditional flow meters have many measurement problems and heavy maintenance workload due to the influence of medium's material characteristics. Using Flexim clamp on ultrasonic flowmeters, the measurement is not affected by the high temperature and high viscosity of the medium, no pressure loss, no obstruction, used for nearly 7 years, achieved continuous and stable measurement, maintenance-free.



Measuring point with WaveInjector® and FLUXUS® F704 A2 transmitter



Measuring point with WaveInjector® integrated into the insulation



The patented WaveInjector® separates the transducers thermally from the hot pipe.

Measuring Points and Instrumentation

Pipelines	Stainless steel OD: 6.25", Wall thickness: 0.28"
Medium	High temperature asphalt
Measuring Devices	FLUXUS® F704 A2 clamp-on ultrasonic flowmeters WaveInjector® (WI)

Advantages

- Can measure high temperature and high viscosity asphalt, coal tar and other high temperature slurry.
- Independent of the adhesion of materials

Customer:

Wuhai Baohua Wanchen Coal Chemical Co., Ltd. Inner Mongolia

Wuhai Baohua Wanchen Coal Chemical Co., Ltd. is a joint venture company jointly funded by Shanghai Baosteel Chemical Co., Ltd. and Inner Mongolia Yellow River Energy Technology Group Co., Ltd. The company was officially registered and established on March 4, 2013. It is located in Qianlishan Industrial Park, Haibowan District, Wuhai City, Inner Mongolia, with superior geographical environment, abundant natural resources and convenient transportation.

Shanghai Baosteel Chemical is a large and competitive coal chemical enterprise in China. Its main business is the production, sales and scientific research of metallurgical chemical products. It is one of the main business segments of Baosteel Group. Inner Mongolia Yellow River Energy Technology Group has nearly 10,000 employees and total assets of more than 20 billion yuan. It is also a demonstration enterprise of industrial circular economy in the autonomous region. It is a large-scale enterprise group that develops across regions, industries, and multiple industries.

Wuhai Baohua Wanchen Coal Chemical Co., Ltd. is mainly engaged in the production and sales of chemical products such as washing oil, anthracene oil, coal tar pitch, crude phenol, and naphthalene.



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