



烟台赛瓦机械设备有限公司

YANTAI ENERSERVA MACHINERY CO., LTD.

Cement Slurry Preparations Design and Fabrication Standards API Spec 10, GB/T10238

Constant Speed Mixer / Blender

The Constant Speed Mixer / Blender prepares oilwell cement slurry and fracturing fluid samples according to API specifications. The mixing speed can be preset to 4000 rpm and 12000 rpm according to the specifications. Custom mixing speeds and timings from 300 rpm to 18000 rpm can also be created. It meets the needs of slurry preparation for test samples such as cement slurry and admixtures.

4260A Constant Speed Mixer / Blender (Standard Model) 1L/1qt, Speed: 4000rpm, 12000rpm, 300-18000rpm

4260B Constant speed Mixer / Blender (Integrated Model) 1L/1qt, Speed: 4000rpm, 12000rpm, 300-18000rpm



4260A



4260B

Atmospheric Pressure Consistometer

The determination of cement slurry and its rheological properties, the detection of free water content and the evaluation of API fluid loss tests all require the use of an atmospheric pressure consistometer to pretreat the cement slurry.

2250B Atmospheric Pressure Consistometer (Standard Model) Atmospheric pressure, 93°C/200°F, 150rpm, Direct Reading Viscometer

2250C Atmospheric Pressure Consistometer (Recording Model) Atmospheric pressure, 93°C/200°F, 150rpm, potentiometer



2250B



2250C

Consistency Test Design and Fabrication standards: API Spec 10, GB/T 10238

Pressurized Consistometer (HTHP)



9040H



9040E



8322



9040 TOUCH



9040E TOUCH



8720



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Specially used to simulate the downhole temperature and pressure environment and measure the thickening time of oilwell cement. All models provide host computer data acquisition and control system, automatic temperature and pressure control, and single and double chambers are available. Variable speed, high and low temperature pressurized consistometers can also be customized according to user needs.

9040H Pressurized Consistometer, Single Chamber (Standard Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, EURO Controller

9040E Pressurized Consistometer, Double Chamber (Standard Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, EURO Controller

9040TOUCH Pressurized Consistometer, Single Chamber (Touchscreen Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, Siemens PLC Industrial Controller

9040ETOUCH Pressurized Consistometer, Double Chamber (Touchscreen Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, Siemens PLC Industrial Controller

8322 Pressurized Consistometer, Single Chamber (Touchscreen Model), 151Mpa/22000psi, 204°C/400°F, 150rpm, Siemens PLC Industrial Controller

9340 Pressurized Consistometer, Single Chamber (Containerized Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, EURO Controller

9340E Pressurized Consistometer, Double Chamber (Containerized Model), 207Mpa/30000psi, 260°C/500°F, 150rpm, EURO Controller

Portable Consistometer (HTHP)

The Portable Consistometer is lightweight and easy to transport and move. It can be used to test the thickening time of cement slurry in the laboratory or at the cementing site.

8720TOUCH Portable Consistometer (Touchscreen Model), 151Mpa/22000psi, 204°C/400°F, 150rpm, Siemens PLC Industrial Controller

Atmospheric Pressure Consistometer

Atmospheric Pressure Consistometer is used for cement slurry

thickening test under basic atmospheric pressure environment.

2250B Atmospheric Pressure Consistometer (Standard Model), atmospheric pressure, 93°C/200°F, 150rpm, Direct Reading Viscometer

2250C Atmospheric Pressure Consistometer (Recording Model), atmospheric pressure, 93°C/200°F, 150rpm, Potentiometer



Cement Curing and Compressive Strength Test

Standard: API Spec 10, GB/T 10238

Standards: GB/T17671 (Pressure Testing Machine)

Atmospheric Pressure Curing Box

The Atmospheric Pressure Curing Box is used to cure cement slurry in a constant temperature water bath under basic atmospheric pressure to form 2-inch or 50mm cubic cement specimens.

1080C Atmospheric Pressure Curing Box (Single Tank), atmospheric pressure, 93°C / 200°F, Dual Cement Strength Test Mold, 16EA Sample Blocks



1080C



1080E

1080E Atmospheric Pressure Curing Box (Double Tank), atmospheric pressure, 93°C / 200°F, Dual Cement Strength Test Mold, 24+24EA Sample Blocks, dual temperatures and dual controller, water bath circulation

Curing Chamber (HTHP)

The Curing Chamber is used to simulate the downhole temperature and pressure environmental conditions to cure the cement slurry into 2inch or 50mm cubic cement specimens.

3990G Curing Chamber (Single Chamber), Standard Model, 41Mpa / 6000psi, 370°C / 700°F, quadruple cement strength test mold, 8EA specimens

2990G Curing Chamber (Single Chamber), Standard Model, 41Mpa / 6000psi, 370°C / 700°F, quadruple cement strength test mold, 8EA specimens. Custom design of Single Chamber with 16EA samples is also available.

2990E Curing Chamber (Double Chamber), standard model, 41Mpa / 6000psi, 370°C / 700°F, quadruple cement strength test mold, 8+8EA sample blocks



3990G



2990G



2990E



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Pressure Testing Machine

The Pressure Testing Machine is used to destructively determine the compressive strength of 2inch or 50mm cubic cement specimens.

300 Pressure Testing Machine, servo motor driven, ball screw, maximum load 300Kn/67500lbf



Curing Molds Standard: GB/T10238 (Cement cube sample), ISO10426-5; GB/T33293 (Expansion)

L00148 Cement strength test mold (copper test mold), Double, 4 specimens; for curing box

800100/4 Cement strength test mold (copper test mold), Double, 8 specimens; for curing chamber

800100/8 Cement strength test mold (copper test mold), Octuple, 16 specimens; for curing kettle



L00148

Expansion Used to determine the linear shrinkage or expansion properties of cement systems

TB20000 Ring Type expansion mold 63ml/φ98.4XH32

Settlement Used to determine the sedimentation stability of cement slurry

TB19000 Cement Settlement Test Mold φ30XH200



TB19000 TB20000

Static Gel Test, Gas-Liquid-Flow Analysis

Standard: GB/T39421 (Static Gel Strength Tester)

Standards: API Spec 10, GB/T19139

Cement Slurry Static Gel Strength

By calculating the penetration time and waveform change of ultrasonic waves, the development trend of compressive strength and the transition time of cement slurry gel strength are continuously measured and analyzed.

6265U Ultrasonic Static Gel Strength Tester, 10000psi / 69Mpa; 204 °C / 400 °F



Gas-Liquid-Flow Analyzer (FMA)

The Gas-Liquid-Flow Analyzer is a set of precision instruments designed to determine the sensitivity of different cement formulations to gas-liquid-flow issues.

8150 Gas-Liquid-Flow Analyzer (FMA), 1200psi / 8Mpa; 204 °C / 400 °F



Filtration Test, Cement Penetration

Standard: API Spec 10, GB/T19139

HPHT Filter Press (static)

The HPHT static Filter Press can measure the filtration performance of mud and cement slurry. It provides a reliable means to determine the filtration characteristics of oil well cement.

5300 HPHT Filter Press, Control Panel with Pressure Regulation Valve to control pressure, 1200psi/8Mpa; 260°C/500°F

5300Q HPHT Filter Press, pressure control by gas manifold at Nitrogen cylinder end, 1200psi / 8Mpa; 260°C / 500°F



5300



5300Q

HPHT Filter Press (dynamic)

This equipment is different from the static Filter Press. The cement slurry is adjusted by stirring at a speed of 150rpm. Then the chamber is inverted and the filtration test begins. The measuring cylinder and back pressure receiver are used to collect the filtrate to measure the fluid loss characteristics of the slurry.

8120 Stirring Filter Press, Pressure Reducing Valve to control pressure, 1200psi/8Mpa; 260°C/500°F



Cement Permeameter

Cement Permeameter is used to measure the relative permeability of liquid to cement samples. The test results are used to improve the design of cement slurry composition.

3030 Cement Permeameter, Helium source≥200psi; Max. 400psi



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Viscosity / rheology, density

Standard: API Spec 10, GB/T 19139

Viscosity

The viscometer is a coaxial cylinder rotational viscometer that contains the test fluid in the annular space (shear gap) formed between the outer sleeve and the float.

ZNN-D6 Six-Speed Rotational Viscometer, measurement accuracy: 1-25mPa.s (Newtonian fluid); 3, 6, 100, 200, 300, 600rpm

ZNN-D12 Twelve-Speed Rotation Viscometer, measurement accuracy: 1-25mPa.s (Newtonian fluid); 1, 2, 3, 6, 10, 20, 30, 60, 100, 200, 300, 600rpm



ZNN-D6

ZNN-D12

Mud Balance / Density Scale

The Mud Balance / Density Scale is a special instrument used to measure the density of drilling fluid and other liquid substances.

YM-3A Mud Balance, Stainless steel cup, cup volume: 140cm³, Range: 0.96-3.0g/cm³.

YYM Pressurized Density Scale, pressurize the test liquid to expel the gas inside the liquid. Cup volume: 210cm³, Range: 0.96-3.1g/cm³.



YM-3A



YYM

Mobile Cementing Laboratory

Mobile Cementing Laboratory

The mobile cementing laboratory uses a standard container (20 feet or 40 feet) as the basic structure, and to install the

lab equipments according to customers' requirements to meet the needs of users to carry out oilwell cement testing in the areas where the standard laboratory conditions are not available.

5250 (20 feet or 40 feet) Mobile Cementing Laboratory

Custom design on lab equipment layout and decoration solutions in the container according to the customers' specific requirements.

