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Chandler Engineering Co.

# **Model 7720 Bench-Top Pressurized Consistometer Datasheet**

**Cement Testing / Thickening Time Tests  
(Consistometers) Equipment**

**CHANDLER**  
ENGINEERING

## Model 7720

### ***BENCH-TOP PRESSURIZED CONSISTOMETER***

#### **A Critical Tool for Oil Well Cementing**

The Model 7720 Bench-Top Consistometer enables mobile and remote cement testing laboratories with very limited space to perform the fundamentally necessary testing of cement thickening time. This instrument is capable of testing cement thickening behavior in accordance with most API Spec 10A testing schedules.

#### **Engineering Excellence for Long-term Performance**

Chandler Engineering's renowned manufacturing and field service experience is evident throughout the design of the Model 7720. This small, rugged instrument employs many of the design features of our full-sized consistometers in order to provide years of reliable service.

A constant speed slurry cup drive rotates the cup at the required 150 rpm thereby improving testing accuracy and consistency. The drive's reliability is maximized by use of a magnetic coupling system to connect the drive motor to the cup. The slurry cup is the same highly reliable design as is found in our other consistometers. The manual pressure control system is both simple to use and reliable. An automatic pressure control system is optional.

#### **Operational Simplicity**

The Model 7720 Bench-Top Consistometer is simple to operate with all of the operational controls conveniently located on the front panel alongside visible indications of thickening time, pressure and temperature. The slurry cup is designed so that closure, heating and pressurization can be achieved quickly.

The programmable temperature controller accurately controls the rate of temperature rise of the slurry. Throughout the test, the built-in chart recorder tracks the temperature and cement consistency.



#### ***FEATURES***

- ✓ Small, Transportable Size for Field Locations, Mobile Labs and Offshore Platforms
- ✓ Automatic Shutdown
- ✓ Built-In Chart Recorder
- ✓ Programmable Consistency Alarm
- ✓ Magnetic Drive Coupling
- ✓ Optional Pressure Controller
- ✓ Optional Data Acquisition System

Operation can be further simplified by addition of the optional Model 5270 Data Acquisition and Control System which consists of interface electronics and custom software.

The usefulness of the Model 7720 Consistometer is not limited to the testing of cement thickening time. It can also be used to condition slurries for other tests such as measuring free water content, testing for fluid loss or rheological properties and viscosity.

## Specifications

|                           |  |
|---------------------------|--|
| Maximum Temperature       | 400°F / 204°C  |
| Maximum Pressure          | 20,000 psi / 138 MPa   |
| Slurry Cup Rotation Speed | 150 rpm  |
| Thickening Time Range     | 0 to 100 Bc (Bearden Units)  |
| Consistency Resolution    | 1 Bc   |
| Pressure Control          | Manual. Automatic pressure control is optional   |
| Pressure Medium           | White Mineral Oil  |
| Data Acquisition          | Two channel strip chart recorder (temp. & consistency)<br>Chandler Engineering Model 5270 Data Acquisition and Control System<br>for a stand-alone computer (optional) |
| Operating Temperature     | 32 to 120°F / 0 to 50°C  |
| Compliance                | API Spec 10A / ISO 10426-1   |

### Utilities

|                            |  |
|----------------------------|--|
| Power Supply<br>(optional) | 220 VAC +/- 15% 50/60Hz, 3kVA or 110 VAC +/- 10% 50/60Hz, 3kVA |
| Cooling Water              | 20-80 psi / 140 – 550 kPa                                      |
| Compressed Air             | 50-100 psi / 345 – 690 kPa                                     |

### Physical Dimensions

|                         |  |
|-------------------------|--|
| Dimensions (W x D x H): | 26 in. x 14 in. x 21.5 in. / 66 x 36 x 55 cm |
| Weight:                 | 220 lb / 100 kg                              |

### Shipping Information

|            |  |
|------------|--|
| Dimensions | 39 in. x 19 in. x 29 in. / 91 x 54 x 74 cm |
| Weight     | 300 lb / 136 kg                            |

*Manufacturer's specifications subject to change without notice*



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