

## Automatic Softening Point Tester

# asp-6

- Ergonomically color-coordinated display for high visibility and intuitive switch operation.
- Enhanced versatility including Ethernet for LIMS, USB port for flash memory or keyboard. Password protection and data storage (max.200 results).
- All-in-one chassis design: compact, lightweight and premium.

## Intelligent full-auto Operation

asp-6 automates the softening point test by ring-and-ball method for bitumen or similar substances, prescribed in ASTM D36, ASTM E28, EN 1427 and IP 58. The theme of the 6th generation model is "Ergonomic, Versatile and Premium. A photo-electric device with wide light beam is employed to assure a reliable automatic detection of softening point.



### Easy operation

Just set up the specimen, choose the bath liquid type, and press the START key; all the rest of the test procedures such as heating, softening point detection, and heater cooling are performed automatically.

### Reliable falling detection

Thanks to the wide light projector and wide light receiver, asp-6 detects ball even if the ball falls with some angle.

### Data handling

asp-6 can store up to 200 test results and export to an optional printer or to a LIMS through RS232 /Ethernet port.

## Specifications

# Automatic Softening Point Tester *asp-6* CE

|                          |   |                                       |         |
|--------------------------|---|---------------------------------------|---------|
| Test methods             | ASTM D36, ASTM E28, EN 1427, IP 58, etc   |                                       |         |
| Type                     | Two-rings & two-balls   |                                       |         |
| Measuring range          | Ambient to 200 °C (392 °F)  |                                       |         |
| Temperature sensor       | PT-100 in stainless steel sheath  |                                       |         |
| Softening point detector | Light projector : LED      Light receiver : photo-diode   |                                       |         |
| Display                  | 5.7 inch color LCD with back light  |                                       |         |
| Heater                   | Nichrome coil heater : 1,000 W @100V or 1,000W @220V  |                                       |         |
| Sequense control         | By an on-board microcomputer  |                                       |         |
| Test mode                | ASTM D36 water, ASTM D36 glycerin, EN 1427 water, EN 1427 glycerin  |                                       |         |
| Stirring                 | Magnetic stirring, selectable from 0 to 300 rpm   |                                       |         |
| I/O Port                 | Ethernet x 1 for LIMS<br>USB x 1 for Flash Memory or Keyboard<br>RS-232C x 1 for LIMS / PC or Optional Printer  |                                       |         |
| Data storage             | Last 200 sets of test results   |                                       |         |
| Safety mechanism         | Automatically shuts off and the problem is reported by buzzer and display, in case :<br>( a ) The sample falls on only one side and not on the other within the set temperature range,<br>( b ) The sample does not fall on either side within the set upper limit temperature,<br>( c ) Light projector or receiver is found defective,<br>( d ) Temperature sensor is found defective,<br>( e ) Temperature sensor is not placed in the right position,<br>( f ) Built-in battery is found drained out, or<br>( g ) Control computer runs away (no display) |                                       |         |
| Size ( W x D x H )       | 230 x 470 x 440 (mm)  |                                       |         |
| Weight                   | 15 kg   |                                       |         |
| Installation site        | RT : 10 to 40 °C, RH: Less than 90% ( no condensation )   |                                       |         |
| Power supply             | 1,500 VA(max)   |                                       |         |
| Ordering Information     | Code No.  | Part Name                             | Qty     |
| Standard accessories     | 1. ASP-02-005   | Ring holder and bottom plate assembly | 1 pc    |
|                          | 2. ASP-02-411   | Shouldered ring                       | 6 pcs   |
|                          | 3. ASP-02-414   | Ball, 3/8in.                          | 6 pcs   |
|                          | 4. ASP-02-413   | Ball centering guide                  | 2 pcs   |
|                          | 5. 010-00-231   | Beaker                                | 1 pc    |
|                          | 6. ASP-02-420   | Beaker hanle                          | 1 pc    |
|                          | 7. 520-00-241   | Temperature sensor rest               | 1 pc    |
|                          | 8. ASP-04-042   | Temperature sensor assy               | 1 pc    |
|                          | 9. MPC-02-032   | AC power cord 100 / 120 V 3.0 m       | or 1 pc |
|                          | 10. MPC-02-033  | AC power cord 220 / 240 V 2.5 m       |         |
|                          | 11. ASP-04-416  | Stirrer                               | 1 pc    |
|                          | 12.   | Instruction manual                    | 1 copy  |
| Opional accessories      | Printer, BS2-80TS w / connecting cable, Mini USB keyboard   |                                       |         |
| Suggested spares         | Code No.  | Part Name                             | Qty     |
|                          | 1. ASP-02-005   | Ring holder and bottom plate assembly | 1 pc    |
|                          | 2. 100-00-003   | Heater coil 100/120 V 1,000 W         | 1 pc    |
|                          | 3. 100-00-015   | Heater coil 200/240 V 1,000 W         | 1 pc    |
|                          | 4. 030-00-303   | Light receiver board                  | 1 pc    |
|                          | 5. ASP-04-042   | Temperature sensor assy               | 1 pc    |
|                          | 6. ASP-02-411   | Shouldered ring                       | 20 pcs  |
|                          | 7. ASP-02-414   | Ball, 3/8in.                          | 20 pcs  |
|                          | 8. ASP-02-413   | Ball centering guide                  | 2 pc    |
|                          | 9. 010-00-231   | Beaker                                | 1 pc    |
|                          | 10. ASP-02-420  | Beaker handle                         | 1 pc    |

Specifications subject to change without prior notice. 201904P