

### Wax





Measurement Category	Paraffins
Measurement Target	Determination of the pour point (No-flow point), ASTM D5985 (rotational method)
Sample Materials	Crude oil, refinery products
Pressure Range	Ambient
Temperature Range	-45 to +150 °C (portable) optional -55 °C (stationary with extra chiller)
Sample Quantity	Approx. 30 ml
Repeatability	Typical 0.1 °C (Ref. oil), 0.3 °C (Crude oil)
Dimensions	26 x 38 x 16 cm (height with measuring head 43 cm)
Weight	Approx. 9.5 kg + 4.5 kg transport case
Supply	Power supply and water supply
Price Range	
Special Features	<ul> <li>Accurate method for pour point measurement (ASTM D5985)</li> <li>Can be used for crude oils</li> <li>Fully automated test procedure</li> <li>Portable with transport case</li> <li>Wide temperature range from -55 to +150 °C (other methods only up to +80 °C)</li> </ul>



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### Basic requirements Situation (s)

- Current accuracy is too low
- Device is not portable
- Existing device provides unreliable results
- Temperature above 80 °C required
  - Current manual effort is too high (D97)

#### Requirement criteria

- Which oilfield chemicals do you sell? (good: paraffin inhibitors)
- Is the focus more on wax deposits or pour point depressants?
   (qood: PPD | bad: wax deposits, wax solvents → WL, CF)
- Which measuring method do you currently use?
   (good: ASTM D97 (tilting), D5xxx | bad: 6xxxx --> unreliable result?)
- Which temperature range do you require?
   (good: > 80 °C | ok: -45 to +150 °C | bad: < -50 °C)</li>
- Are 1 °C (D5xxx) or 3 °C (D97) accuracy ok for the qualification of your chemicals or do you need a higher accuracy?
   (good: higher accuracy required | bad: ok as it this)
- How many tests do you actually run per day? With how many systems?
- How many tests do you actually run in parallel?
- How long does a measurement take on average? (good: > 1 h | bad: < 30 min)</li>
- How many tests would you like to run per day?
   (good: GAP between ACTUAL and SET: Factor >1)



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Optional add-on products (Up-selling)		
Extended physical properties	Т	
Software	<b>/</b>	
More measuring stations	×	
Maintenance	<b>/</b>	
Additional features	Transport case	
Spare parts (if required)	<b>/</b>	
Documents for customs	<b>/</b>	
Customizing	<b>/</b>	
Service	<b>/</b>	
Training	<b>/</b>	
Optional by-products (cross-selling)		
Calibration set	<b>/</b>	
Test measurement	<b>/</b>	
Chiller	<b>/</b>	
Gas booster	X	
PC	<b>/</b>	
Other	Demo Device	



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Reason for purchase 1	Safety: Your pour point determinations are more accurate and reliable than with any other ASTM method.
Reason for purchase 2	Comfort: You can use the instrument for on-site measurements due to its robust design, wide-range power supply, integrated temperature control and rugged transport case.
Reason for purchase 3	You increase the repeatability and reliability of your tests and thus ensure the effectiveness of your chemicals. For this reason, our customer Hans-Jörg Oschmann (ChampionX) bought 12 PPTs.
Reason for purchase 4	Safety: You increase the reliability of your results because you can also adjust the test parameters for special cases in production.
Reason for purchase 5	Safety: You ensure the reliability of your measurement and reduce the required measurement time by obtaining additional information about the thermal behavior of the sample from its temperature profile.
Reason for purchase 6	Safety, comfort, money: You can still secure your system control with the ASTM D5985. This saves costs and time for a conversion.





### For all devices

Step 1	Step 2
In the first step after our discussion, you will receive a quotation for the system with various variants and options. On this basis, you can initiate an internal budget discussion and use secure arguments.	In the second step, you discuss the requirements and the available budget internally with your colleagues. We support you with our advice and helpful documents.
Step 3	Step 4
In the third step we evaluate the quotation with you - based on your internal requirements - and compile the variants and variables as you need them for your application. On this basis you can make a well-founded decision.	If we are perceived as your best alternative, we would be pleased to receive your order. Afterwards we will deal with the details of production, delivery and commissioning. Also, we will send you the order confirmation with the 1st invoice (70% advance payment) and set an expected delivery date.
Step 5	Step 6
1 month before delivery you will receive the 2nd invoice (30 %). After receipt of payment, we will send the system to you.	In the sixth step, we accompany the commissioning and train your staff. Four weeks after commissioning, we arrange a telephone feedback discussion with you and clarify questions and previous experience.

