

VISCOSITY I RHEOLOGY I TEXTURE I TRAINING



# of groundbreaking first and innovative thinking

# **MANUFACTURING!**

LAMY RHEOLOGY is a long-time leader in the field of Rheology.

For more than 65 years, LAMY RHEOLOGY has supported you in the design and analysis of your products, by manufacturing your measuring instruments, viscometers, rheometers, texture analyzers and temperature controls.

As the only French manufacturer of viscometers and rheometers, our desire is to defend the «Made In France», which is why all our instruments are carefully manufactured in France in workshops on a human scale. The entire manufacturing process is carried out in France. With us, the assembly of our machines is carried out by our employees who master our know-how and are fully committed to respecting quality.

In this context of improvement, our innovations seek to achieve sustainable development and cutting-edge performance.

LAMY RHEOLOGY is present in France and around the world to bring you the best solution to your expectations in the field of analytical measurement of your products.

In order to meet the demands of our customers worldwide, we rely on an extensive network of specialized and experienced resellers in the field of rheology.

So you can get our products in more than a hundred countries.

Our experience as well as our permanent internal development, allow us to meet the needs of customers in a very personalized

#### The satisfaction of our customers has always been our priority!









Camille







**Stanislas** 

Carla

Pascaline Chloé

### **NEWS**



#### **CFR-21**

The 21 CFR Part 11 standard is a regulation that defines the criteria for guaranteeing the reliability and authenticity of electronic records and signatures in the computerized systems of the pharmaceutical sectors regulated by the American FDA. It is only relevant for instruments connected to a computer and using software. The new RheoTex software is now offered with an option to make it compliant with this standard. Audit Trail, data protection, user management and electronic signatures are examples of the functions that we invite you to discover with our RheoTex software (p72-73).

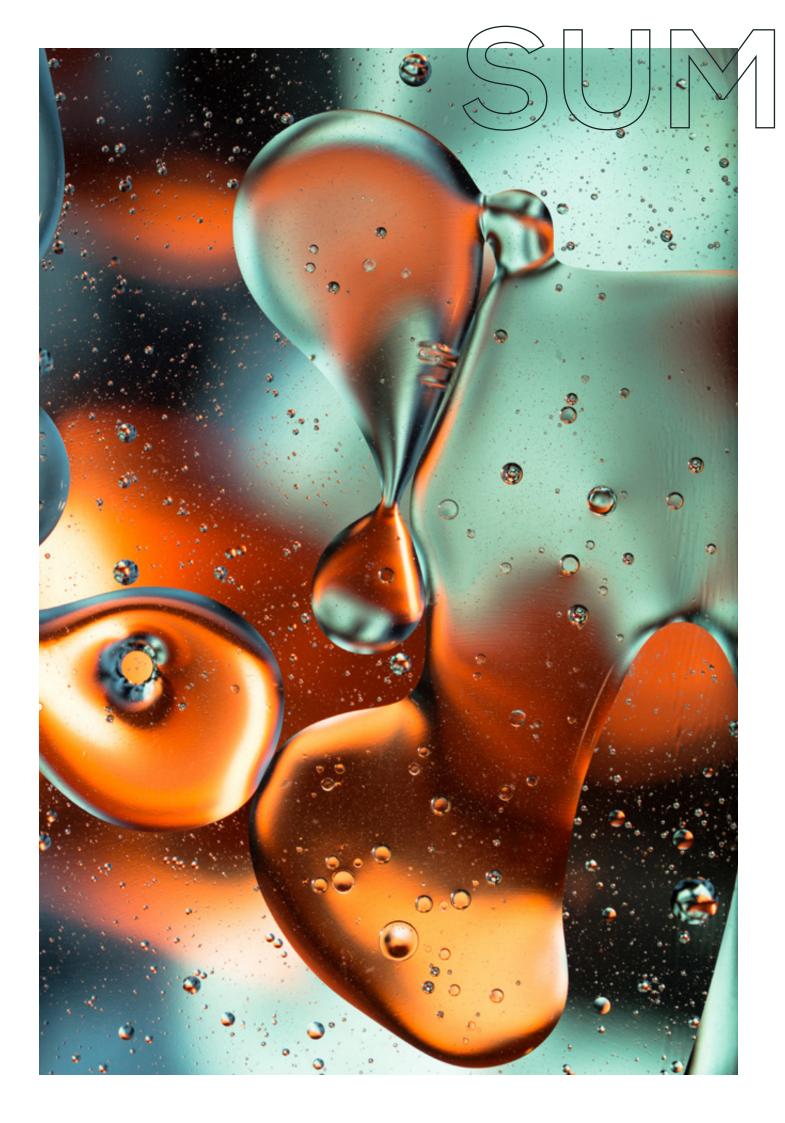
### **CP-1000**

The CP-1000 series instruments (FIRST PRODIG CP-1000 and RM 100 CP-1000) offer more possibilities than any other viscometer in the world. Equipped with the springless motor technology available from many years, they offer unequalled user-friendliness and modularity by integrating a support for cone-plane measurements and a space to install a beaker for the use of measuring mobiles such as MS-RV/LV, MS KREBS or MS VANE. Equipped with fluid circulation for temperature control, these instruments are also efficient when used alone or controlled by the RheoTex software. We invite you to discover the extended functions of the FIRST PRODIG CP-1000 (p16) and the incredible measurement range of the RM 100 CP-1000 (p20).



### LIMS

A LIMS or Laboratory Information Management System is a type of software designed to improve laboratory productivity and efficiency, by tracking data associated with samples, experiments, laboratory workflows, and instruments. To allow a complete integration of these products, Lamy Rheology now integrates a LIMS function to its entire range (excepted B-ONE PLUS). Easy to use, the instruments automatically generate a file in selectable format (JSON, extended JSON, XML or ASCII) via the chosen connectivity (USB, RS232 or LAN).





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#### **VISCOMETERS AND GELTIMERS**

# SELECTION GUIDE CHOOSE YOUR INSTRUMENT:

● Standard | ○ Optional

|                                  | DEVICES    |            |                   |                 |                            |             |                           |                           |                |                  |
|----------------------------------|------------|------------|-------------------|-----------------|----------------------------|-------------|---------------------------|---------------------------|----------------|------------------|
| FUNCTIONS                        | B-ONE PLUS | FIRST PLUS | FIRST PRO<br>PLUS | FIRST<br>PRODIG | FIRST<br>PRODIG<br>CP-1000 | RM 100 PLUS | RM 100<br>CP-1000<br>PLUS | RM 100<br>CP-2000<br>PLUS | GT-300<br>PLUS | GT-300<br>PRODIG |
| 7" TOUCH SCREEN                  | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| COUPLING                         | BAYONET    | BAYONET    | BAYONET           | BAYONET         | AC265                      | BAYONET     | AC265                     | AC265                     | BAYONET        | BAYONET          |
| DATA/USER SECURITY               | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| DATA MEMORISATION                | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| DATA TRANSFER                    | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| MULTI LANGUAGES                  | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| VISCOSITY LIMITS                 | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| USB FLASH DRIVE PORT             | •          | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| TEMPERATURE PROBE                | 0          | •          | •                 | •               | •                          | •           | •                         | •                         | 0              | 0                |
| LIMS                             |            | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| USB/RS232 CONNECTION             |            | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| PRINTER CONNECTION               |            | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| RHEOTEX COMPATIBILITY            |            | •          | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| MANAGE TEMPERATURE<br>UNIT       |            |            | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| QCLIMITS                         |            |            | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| INBUILT SOFTWARE FOR PROGRAMMING |            |            | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| TIME TO STOP METHOD              |            |            | •                 | •               | •                          | •           | •                         | •                         | •              | •                |
| MULTI INTERVAL METHOD            |            |            | •                 | •               | •                          | •           | •                         | •                         |                |                  |
| RAMP METHOD                      |            |            |                   | •               | •                          |             |                           |                           |                |                  |
| DATA ANALYSIS                    |            |            |                   | •               | •                          |             |                           |                           |                | •                |
| CURVE ON DISPLAY                 |            |            |                   | •               | •                          |             |                           |                           |                | •                |
| PAGES                            | 8          | 10         | 12                | 14              | 16                         | 18          | 20                        | 22                        | 24             | 26               |

### **B-ONE PLUS**





- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- External temperature probe (option).
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.

### - AVAILABLE INSTRUMENTS

| Reference | Designation   | Viscosity range (mPa.s) |
|-----------|---|-------------------------|
| N600000   | B-ONE PLUS VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with standard stand)    | 200 to 240M             |
| N600200   | B-ONE PLUS VISCOMETER WITH SPINDLE KU 1-10 (with standard stand)          | 40 to 140KU             |
| N600009   | B-ONE PLUS VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with rack stand)        | 200 to 240M             |
| N600300   | B-ONE PLUS LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with standard stand) | 15(1*) to 22M           |
| N600309   | B-ONE PLUS LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with rack stand)     | 15(1*) to 22M           |

M for million / (\*) Can reach 1 mPa.s with MS ULV (p.82). Not included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

# COMPATIBLES MEASURING SYSTEMS

MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63).

### - OPTIONS & ACCESSORIES

- · Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- GuardLeg (p71).





#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 250 rpm

#### **Torque range**

Standard Version: 0.05 to 13 mNm LR version: 0.005 to 0.8 mNm

#### **Accuracy**

+/- 1 % of the full scale

#### Repeatability

+/- 0,2 %

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature (in option)

#### Languages

French/English/Russian/Spanish/Turkish/German/Italian

#### **Supply voltage** 90-240 VAC 50/60 Hz

Connection
Hz USB port

#### **Dimensions and weight**

Head: D180 x H230 x W130 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg

### **FIRST PLUS**





- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.
- LIMS function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation  | Viscosity range (mPa.s) |
|-----------|--|-------------------------|
| N700700   | FIRST PLUS VISCOMETER WITH SPINDLE RV-2 TO RV-7 (with standard stand)    | 200 to 240M             |
| N700709   | FIRST PLUS VISCOMETER WITH SPINDLE RV-2 TO RV-7 (with rack stand)        | 200 to 240M             |
| N700300   | FIRST PLUS LR VISCOMETER WITH SPINDLE LV-1 TO LV-4 (with standard stand) | 15(1*) to 22M           |
| N700009   | FIRST PLUS LR VISCOMETER WITH SPINDLE LV-1 TO LV-4 (with rack stand)     | 15(1*) to 22M           |

M for million / (\*) Can reach 1 mPa.s with MS ULV (p.82). Not included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

4 Spindles LV or 6 spindles RV (p79) / 1 Integrated temperature probe / 1 Standard stand or rack stand (p70) / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.

### **COMPATIBLES MEASURING SYSTEMS**

MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63).

### **OPTIONS & ACCESSORIES**

- Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- RheoTex software (p72-73).
- GuardLeg (p71).





#### Type of instrument

Rotating springless viscometer with 7" Touch

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and

#### **Torque range**

Standard Version: 0.05 to 13 mNm LR version: 0.005 to 0.8 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

Accuracy Repeatability 

Viscosity (cP / Poises or mPa.s / Pa.s) Speed - Shear rate - Torque (% - mNm) -Shear stress - Time - Temperature

#### Languages

Supply voltage

French/English/Russian/Spanish/Turkish/ German/Italian

90-240 VAC 50/60 Hz 4 - 20 mA **Printer PC** connections connection RS232, USB and USB Host Port -Ethernet Compatible PCL/5

**Analog output** 

#### **Dimensions and weight**

Head: D180 x H230 x W130 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg



### **FIRST PRO**





- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.
- Direct control of temperature unit.
- Multistep method.
- LIMS function.
- QC limits function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation  | Viscosity range (mPa.s) |
|-----------|--|-------------------------|
| N702700   | FIRST PRO VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with standard stand)    | 200 to 240M             |
| N702709   | FIRST PRO VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with rack stand)        | 200 to 240M             |
| N702300   | FIRST PRO LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with standard stand) | 15(1*) to 22M           |
| N702309   | FIRST PRO LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with rack stand)     | 15(1*) to 22M           |

M for million / (\*) Can reach 1 mPa.s with MS ULV (p.82). Not included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

4 Spindles LV or 6 spindles RV (p79) / 1 Integrated temperature probe / 1 Standard stand or rack stand (p70) / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.



MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76).

### COMPATIBLES TEMPERATURE CONTROLS

EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63).

### - OPTIONS & ACCESSORIES

- Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- RheoTex software (p72-73).
- GuardLeg (p71).



#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 250 rpm

#### Torque range

Standard Version: 0.05 to 13 mNm LR Version: 0.005 to 0.8 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

| Accuracy                  | Repeatabilit |
|---------------------------|--------------|
| +/- 1 % of the full scale | +/- 0,2 %    |

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

Supply voltage

French/English/Russian/Spanish/Turkish/German/Italian

| 90-240 VAC 50/60 Hz | 4 – 20 mA        |
|---------------------|------------------|
| PC connections      | Printer          |
| RS232, USB and      | connection       |
| Ethernet            | USB Host Port -  |
|                     | Compatible PCL/5 |

Analog output

#### **Dimensions and weight**

Head: D180 x H230 x W130 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg

### **FIRST PRODIG**





- Speed or shear rate control.
- Inbuilt software for programming.
- Constant, Multistep or ramp method.
- Direct curve on display.
- Direct analysis with regression.
- Direct report editing.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Direct control of temperature unit.
- LIMS function.
- QC limits function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation   | Viscosity range<br>(mPa.s) |
|-----------|---|----------------------------|
| N707700   | FIRST PRODIG VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with standard stand)    | 200 to 240M                |
| N707709   | FIRST PRODIG VISCOMETER WITH SPINDLES RV-2 TO RV-7 (with rack stand)        | 200 to 240M                |
| N707300   | FIRST PRODIG LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with standard stand) | 15(1*) to 22M              |
| N707309   | FIRST PRODIG LR VISCOMETER WITH SPINDLES LV-1 TO LV-4 (with rack stand)     | 15(1*) to 22M              |

M for million / (\*) Can reach 1 mPa.s with MS ULV (p.82). Not included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

4 Spindles LV or 6 spindles RV (p79) / 1 Integrated temperature probe / 1 Standard stand or rack stand (p70) / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.

MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76).

### COMPATIBLES TEMPERATURE CONTROLS

EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63).

## - OPTIONS & ACCESSORIES

- Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- RheoTex software (p72-73).
- GuardLeg (p71).



#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 250 rpm

#### **Torque range**

Standard Version: 0.05 to 13 mNm LR version: 0.005 to 0.8 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

| Accuracy                  | Repeatability |
|---------------------------|---------------|
| +/- 1 % of the full scale | +/- 0,2 %     |

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

French/English/Turkish/German/Italian

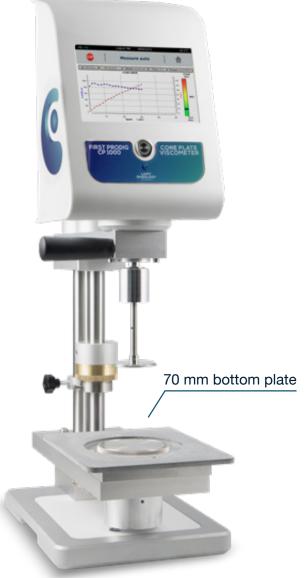
| <b>Supply voltage</b><br>90-240 VAC 50/60 Hz | <b>Analog output</b> 4 – 20 mA                                |
|--|---|
| PC connections<br>RS232, USB and<br>Ethernet | Printer<br>connections<br>USB Host Port -<br>Compatible PCL/5 |

#### **Dimensions and weight**

Head: D160 x H270 x W200 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg



### FIRST PRODIG CP-1000





- CP-1000 stand for cone-plate measurement.
- Quick attachment with AC265 coupling.
- Manual lift for gap adjustment.
- Speed or shear rate control.
- Inbuilt software for programming.
- Constant, Multistep or ramp method.
- Direct curve on display.
- Direct analysis with regression.
- Direct report editing.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- QC limits function.



| Reference | Designation                                      | Viscosity range<br>(mPa.s) |
|-----------|--|----------------------------|
| N707500   | FIRST PRODIG CP-1000 VISCOMETER (+5°C to +65°C)* | 3 to 80M **                |

M for million / \* Maximum temperature range with circulating bath (not included). / \*\* According to cone-plate MS CP (p84). Not included.



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

1 Stand with 70mm bottom plate / 1 Double rod with stop ring and adjusting gap / 2 Silicon pipe (1m) / 1 Integrated temperature probe / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth. 1 Adaptor bayonet-AC265 (Ref. 800146).

MS-CP (p84), MS-PP\* (p85), MS-RV (p79), MS-VANES (p81), MS-KREBS (p81) (\*with accessory 100047)

# - OPTIONS & ACCESSORIES

- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- Protection cover (Ref. 121019).





#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 250 rpm

#### **Torque range**

From 0.05 to 13 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

#### Accuracy

+/- 1 % of the full scale

#### Repeatability

+/- 0,2 %

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

French/English/Turkish/German/Italian

| upply voltag    | Analog output |
|-----------------|---------------|
| 0-240 VAC 50/60 | 4 – 20 mA     |
| 7               |               |

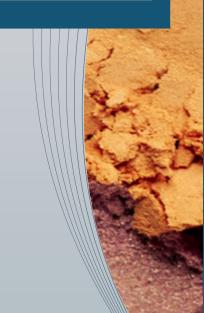
#### PC connections RS232, USB and Ethernet

Printer connection
USB Host Port -

Compatible PCL/5

### Dimensions and weight

D320 x H550 x W200 mm Weight: 14 kg



### RM 100 PLUS





- Speed or shear rate control.
- Huge speed and torque range.
- Direct control of temperature unit.
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Multistep method.
- LIMS function.
- QC limits function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation                                  | Viscosity range (mPa.s) |
|-----------|--|-------------------------|
| N100000   | RM 100 PLUS VISCOMETER (with standard stand) | 1 to 780M*              |
| N100009   | RM 100 PLUS VISCOMETER (with rack stand)     | 1 to 780M*              |

M for million / \* According to measuring system (p76-83). Not Included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

1 Integrated temperature probe / 1 Standard stand or rack stand (p70) / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.

MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76), MS-R (p78).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63), EVA MS-R (p61).

### **OPTIONS & ACCESSORIES**

- Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- RheoTex software (p72-73).
- GuardLeg (p71).



#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### Torque range

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

#### Accuracy

+/- 1 % of the full scale

+/- 0,2%

Viscosity (cP / Poises or mPa.s / Pa.s) Speed - Shear rate - Torque (% - mNm) -Shear stress - Time - Temperature

#### Languages

French/English/Russian/Spanish/Turkish/ German/Italian

#### Supply voltage

90-240 VAC 50/60 Hz

**PC** connections

RS232, USB and Ethernet

Analog output 4 - 20 mA

Repeatability

#### **Printer** connection

USB Host Port -Compatible PCL/5

#### **Dimensions and weight**

Head: D180 x H230 x W130 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg



### RM 100 CP-1000 PLUS





- CP-1000 stand for cone plate measurement.
- Quick attachment with AC265 coupling.
- Manual lift for gap adjustment.
- Speed or shear rate control.
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- · Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Multistep method.
- LIMS function.
- QC limits function.



| Reference | Designation   | Viscosity range (mPa.s) |
|-----------|---|-------------------------|
| N100365   | RM 100 CP-1000 CONE PLATE VISCOMETER (+5°C to +65°C)* | 1 to 190M **            |

M for million / \* Maximum temperature range with water circulating bath (not included). / \*\* According to MS CP spindle (p84) not included.



#### - WHAT'S INCLUDED WITH DEVICE? (according to part number)

1 Stand with 70mm bottom plate / 1 Double rod with stop ring and adjusting gap / 2 Silicon pipe (1m) / 1 Integrated temperature probe / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth / 1 Adaptor bayonet-AC265 (Ref. 800146).



MS-CP (p84), MS-PP\* (p85), MS-RV (p79), MS-VANES (p81), MS-KREBS (p81), (\*with accessory 100047)

## - OPTIONS & ACCESSORIES

- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- Protection cover (Ref. 121019).





#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### **Torque range**

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

Accuracy +/- 1 % of the full scale

Repeatability +/- 0,2 %

#### Dienlay

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

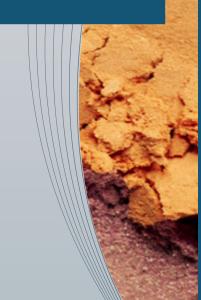
French/English/Russian/Spanish/Turkish/German/Italian

**Supply voltage** 90-240 VAC 50/60 Hz **Analog output** 4 – 20 mA

PC connections RS232, USB and Ethernet Printer
connection
USB Host Port Compatible PCL/5

#### **Dimensions and weight**

D320 x H550 x W200 mm Weight: 14 kg



### RM 100 CP-2000 PLUS

/ The viscometer dedicated for cone-plate measurements /





- For cone plate measurement.
- Quick attachment with AC265 coupling.
- Speed or shear rate control.
- Huge speed and torque range.
- Direct control of temperature unit.
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Multistep method.
- LIMS function.
- QC limits function.

### AVAILABLE INSTRUMENTS

| Reference | Designation  | Viscosity range<br>(mPa.s) |
|-----------|--|----------------------------|
| N170000   | RM 100 CP-2000 PLUS VISCOMETER AIR PELTIER (+10°C to +70°C)                        |                            |
| N170100   | RM 100 CP-2000 PLUS VISCOMETER AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*       |                            |
| N170200   | RM 100 CP-2000 PLUS VISCOMETER LIQUID PELTIER** (-20°C to +100°C)                  |                            |
| N170300   | RM 100 CP-2000 PLUS VISCOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER* | 1 to 190M<br>(according to |
| N170400   | RM 100 CP-2000 PLUS VISCOMETER (Room T°C to +300°C)                                | spindles MS CP<br>(p84))   |
| N170500   | RM 100 CP-2000 PLUS VISCOMETER (Room T°C to +300°C) WITH PROGRAMMER*               | (po+))                     |
| N170800   | RM 100 CP-2000 PLUS VISCOMETER AIR PELTIER (0°C to +150°C)                         |                            |
| N170900   | RM 100 CP-2000 PLUS VISCOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*        |                            |

M for million / \* Allow temperature setting by measuring head or RheoTex software. / \*\* Water circulating bath required. Not included.



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

- 1 Temperature unit with 70mm bottom plate / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate /
- 1 Microfiber cloth.

MS-CP (p84), MS-PP\* (p85), (\*with accessory 100047)

## - OPTIONS & ACCESSORIES

- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- Protection cover (Ref. 121019).





#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### Torque range

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

tability

**Analog output** 

| Accuracy                  | Repeat  |
|---------------------------|---------|
| +/- 1 % of the full scale | +/- 0.2 |

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

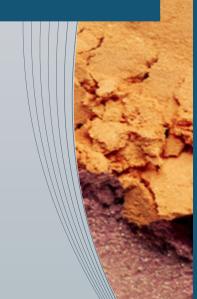
Supply voltage

French/English/Russian/Spanish/Turkish/German/Italian

| 90-240 VAC 50/60 Hz                          | 4 – 20 mA  |
|--|--|
| PC connections<br>RS232, USB and<br>Ethernet | Printer<br>connection<br>USB Host Port -<br>Compatible PCL/5 |

#### **Dimensions and weight**

D610 x H700 x W340 mm Weight: 22 kg



### GT-300 PLUS





- Inbuilt software for programming
- RheoTex software included.
- Direct control of temperature unit.
- Measure with disposable hooks and cups.
- Sample temperature probe (option).
- Low sample volume.
- Temperature ramp available.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- QC limits function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation  |
|-----------|--|
| N125000   | GT-300 GEL TIMER Room T°C                                      |
| N125100   | GT-300 GEL TIMER (Room T°C to +300°C)                          |
| N125200   | GT-300 GEL TIMER (Room T°C to +300°C) WITH PROGRAMMER*         |
| N125400   | GT-300 GEL TIMER AIR PELTIER (+15°C to +60°C)                  |
| N125500   | GT-300 GEL TIMER AIR PELTIER (+15°C to +60°C) WITH PROGRAMMER* |
| N125600   | GT-300 GEL TIMER AIR PELTIER (0°C to +150°C)                   |
| N125700   | GT-300 GEL TIMER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*  |

<sup>\*</sup> Allow temperature setting by measuring head or RheoTex software.



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

#### **OPTIONS & ACCESSORIES**

- Barcode reader (p70).
- Touch screen protector (p70).
- Breakable Thermocouple 25 m type K (Complete kit with connector) (Ref. 000645).
- 100 Disposable cups aluminium (Ref. 700011).
- 100 Disposable steel hooks low volume (Ref. 700040).
- 100 Disposable stainless steel hooks (Ref. 700010).
- Protection cover (Ref. 310119).

Disposable cup (aluminium) (by 100) Ref. 700011



Disposable hook (stainless steel) (Vol. 50-80mL) (by 100) Ref. 700010



Disposable hook (steel) (Vol. 35-50mL) (by 100) Ref. 700040







#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### Torque range

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

#### **Accuracy**

Repeatability

+/- 1 % of the full scale +/- 0,2 %

#### Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

French/English/Russian/Spanish/Turkish/German/Italian

#### Supply voltage

90-240 VAC 50/60 Hz 4 - 20 mA

#### **PC** connections

RS232, USB and Ethernet

### Printer connections

**Analog output** 

USB Host Port -Compatible PCL/5

#### **Dimensions and weight**

GT300 without temperature unit:

D320 x H650 x W200 mm. Weight: 14 kg

GT300 with temperature unit:

D610 x H700 x W340 mm. Weight: 22 kg

### GT-300 PRODIG





- Inbuilt software for programming.
- Direct curve on display.
- Direct Gel time analysis.
- Direct report editing.
- Direct control of temperature unit.
- Measure with disposable hooks and cups.
- Sample temperature probe (option).
- Low sample volume.
- Temperature ramp available.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- QC limits function.

### - AVAILABLE INSTRUMENTS

| Reference | Designation   |
|-----------|---|
| N129000   | GT-300 PRODIG GEL TIMER Room T°C                                      |
| N129100   | GT-300 PRODIG GEL TIMER (Room T°C to +300°C)                          |
| N129200   | GT-300 PRODIG GEL TIMER (Room T°C to +300°C) WITH PROGRAMMER*         |
| N129400   | GT-300 PRODIG GEL TIMER AIR PELTIER (+15°C to +60°C)                  |
| N129500   | GT-300 PRODIG GEL TIMER AIR PELTIER (+15°C to +60°C) WITH PROGRAMMER* |
| N129600   | GT-300 PRODIG GEL TIMER AIR PELTIER (0°C to +150°C)                   |
| N129700   | GT-300 PRODIG GEL TIMER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*  |

<sup>\*</sup> Allow temperature setting by measuring head or RheoTex software.



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

#### **OPTIONS & ACCESSORIES**

- Barcode reader (p70).
- Touch screen protector (p70).
- Breakable Thermocouple 25 m type K (Complete kit with connector) (Ref. 000645).
- 100 Disposable cups aluminium (Ref. 700011).
- 100 Disposable steel hooks low volume (Ref. 700040).
- 100 Disposable stainless steel hooks (Ref. 700010).
- RheoTex software (p72-73).
- Protection cover (Ref. 310119).

Disposable cup (aluminium) (by 100) Ref. 700011

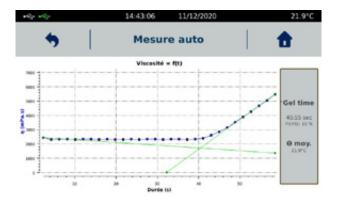


Disposable hook (stainless steel) (Vol. 50-80mL) (by 100) Ref. 700010



Disposable hook (steel) (Vol. 35-50mL) (by 100) Ref. 700040







#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### **Torque range**

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

### Accuracy Repeatability +/- 1 % of the full scale +/- 0,2 %

#### **Display**

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### Languages

French/English/Turkish/German/Italian

| 90-240 VAC 50/60 Hz              | 4 - 20 mA                          |
|----------------------------------|------------------------------------|
| PC connections<br>RS232, USB and | Printer connection USB Host Port - |
| Ethernet                         | Compatible PCL/5                   |

#### **Dimensions and weight**

GT300 PRODIG without temperature unit: D320 x H650 x W200 mm. Weight: 14 kg

GT300 PRODIG with temperature unit: D610 x H700 x W340 mm. Weight: 22 kg



#### PORTABLES AND INDUSTRIALS VISCOMETERS

# SELECTION GUIDE CHOOSE YOUR INSTRUMENT:

● Standard | ○ Optional

|                                  | DEVICES        |                 |          |          |
|----------------------------------|----------------|-----------------|----------|----------|
| FUNCTIONS                        | PORTABLE B-ONE | PORTABLE RM 100 | RM 100 i | RM 100 L |
| 7" TOUCH SCREEN                  | •              | •               | •        | •        |
| COUPLING                         | BAYONET        | BAYONET         | BAYONET  | SPECIAL  |
| DATA/USER SECURITY               | •              | •               | •        | •        |
| DATA MEMORISATION                | •              | •               | •        | •        |
| DATA TRANSFER                    | •              | •               | •        | •        |
| MULTI LANGUAGES                  | •              | •               | •        | •        |
| VISCOSITY LIMITS                 | •              | •               | •        | •        |
| USB FLASH DRIVE PORT             | •              | •               | •        | •        |
| TEMPERATURE PROBE                | 0              | •               | •        | •        |
| LIMS                             |                | •               | •        | •        |
| USB/RS232 CONNECTION             |                | •               | •        | •        |
| PRINTER CONNECTION               |                | •               | •        | •        |
| RHEOTEX COMPATIBILITY            |                | •               | •        | •        |
| QC LIMITS                        |                | •               | •        | •        |
| INBUILT SOFTWARE FOR PROGRAMMING |                | •               | •        | •        |
| TIME TO STOP METHOD              | •              | •               | •        | •        |
| MULTI INTERVAL METHOD            |                | •               | •        | •        |
| BATTERY MODE                     | •              | •               |          |          |
| LARGE CONTAINER<br>MEASUREMENT   | •              | •               | •        |          |
| ONLINE MEASUREMENT               |                |                 |          | •        |
| PAGES                            | 30             | 32              | 34       | 36       |

### PORTABLE B-ONE





- Autonomy more than one hour.
- Charge indicator.
- Direct measure with time to stop.
- Usable with standard or rack stand (option).
- User and locked mode.
- · Data recording and USB transfer.
- Torque gage on display.
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.

## - AVAILABLE INSTRUMENT

| Reference | Designation  | Viscosity range (mPa.s) |
|-----------|--|-------------------------|
| T600700   | B-ONE PORTABLE VISCOMETER WITHOUT MEASURING SYSTEM | 200(15**) to 240M*      |

M for million / \* With MS-RV (RV2 to RV7) (p79). Not included. / \*\* Can reach 15 mPa.s with MS BV (p80).



- WHAT'S INCLUDED WITH DEVICE? (according to part number)

- 1 Carrying case (p70) / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth /
- 1 Harness.



MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63).

### - OPTIONS & ACCESSORIES

- Standard or rack stand (p70).
- HELIPRO stand (p66).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- Bayonet spindle rack (p71).
- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).









- Autonomy more than one hour.
- Charge indicator.
- Huge speed and torque range.
- Usable with standard or rack stand (option).
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.
- Multistep method.
- LIMS function.
- QC limits function

### AVAILABLE INSTRUMENTS

| Reference | Designation   | Viscosity range (mPa.s) |
|-----------|---|-------------------------|
| T100100   | RM 100 PORTABLE VISCOMETER WITHOUT MEASURING SYSTEM | 200(1**) to 240M*       |

M for million / \* With MS-RV (RV2 to RV7) (p79). Not included. / \*\* Can reach 1 mPa.s with MS DIN19 (p76).



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

- 1 Integrated temperature probe / 1 Carrying case (p70) / 1 Touch screen stylus / 1 User manual.
- 1 Calibration and checking certificate / 1 Microfiber cloth / 1 Harness.



MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76), MS-R (p78).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63), EVA MS-R (p61).

### **OPTIONS & ACCESSORIES**

- Standard or rack stand (p70).
- HELIPRO stand (p66).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- Bayonet spindle rack (p71).
- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73)





#### Type of instrument

Rotating springless viscometer with 7" Touch

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### **Torque range**

From 0.05 to 30 mNm

#### **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

Repeatability

#### **Display**

Viscosity (cP / Poises or mPa.s / Pa.s) Speed - Shear rate - Torque (% - mNm) -Shear stress - Time – Temperature

#### Languages

French/English/Russian/Spanish/Turkish/ German/Italian

#### Supply voltage

90-240 VAC 50/60 Hz

**Analog output** 4 - 20 mA

#### **PC** connections

RS232 Port and USB

**Printer connection** USB Host Port -

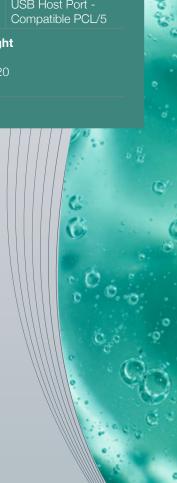
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#### **Dimensions and weight**

Head: Ø 90 mm

Box D60 x H260 x W120

Weight: 2 kg









- Industrial measure on large tanker.
- Continuous measurement or with time to stop.
- 4-20 mA output.
- 17m maximum distance between head and box.
- Usable with standard or rack stand.
- Huge viscosity range.
- Inbuilt software for programming.
- External temperature probe (option).
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.
- Multistep method.
- LIMS function.
- QC limits function

### - AVAILABLE INSTRUMENTS

| Reference | Designation  |
|-----------|--|
| T220200   | RM 100 i IMMERSION INDUSTRIAL VISCOMETER                   |
| T220230   | RM 100 i IMMERSION INDUSTRIAL VISCOMETER AC115             |
| T220250   | RM 100 i IMMERSION INDUSTRIAL VISCOMETER WITH PT100 SENSOR |

Measuring systems not included.



#### WHAT'S INCLUDED WITH DEVICE? (according to part number)

2m cable between measuring head and box / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.

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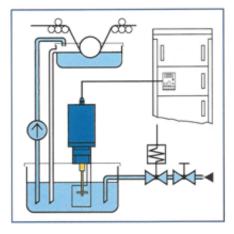
MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76), MS-R (p78).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63), EVA MS-R (p61).

### - OPTIONS & ACCESSORIES

- Standard or rack stand (p70).
- HELIPRO stand (p66).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- RheoTex software (p72-73).
- Cable extension 5 m (Ref. 113202) max 3 unit.



RM 100 i in use.



#### Type of instrument

Rotating springless viscometer with 7" Touch screen

#### **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

#### **Torque range**

From 0.05 to 30 mNm

#### **Accuracy**

+/- 1 % of the full scale

#### Repeatability

+/- 0,2 %

#### **Display**

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

#### **Application**

The RM100 i is dedicated to tank measurements for continuous monitoring of viscosity in production. Its 4-20mA analogue output is used to send the measured value to a central computer.

Numerous tailor-made solutions according to the customer configuration for integration into the process (length and height of the plungers, fixing on the cover of the measuring head with sealing,...).

#### Languages

French/English/Russian/Spanish/Turkish/German/Italian

Supply voltage

90-240 VAC 50/60 Hz

Analog output

PC connections

RS232, USB and Ethernet

Printer connection
USB Host Port Compatible PCL/5

#### Dimensions and weight

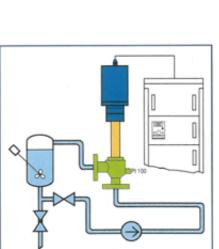
Head: Ø 95 mm

Box D140 x H260 x W120

Weight: 3 kg







RM 100 L in use.



15m cable between measuring head and box / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.



- Industrial on-line measurement.
- Continuous measurement or with time to stop.
- 4-20 mA output.
- Magnetic bearing for sealing.
- 30m maximum distance between head and box.
- Huge viscosity range.
- Inbuilt software for programming.
- External temperature probe (option).
- Printer connection.
- Compatible with RheoTex software.
- · Display of viscosity limits according to mobile and speed.
- Speed or shear rate control.
- · Multistep method.
- LIMS function.
- QC limits function



- Touch screen protector (p70).
- Viscosity standards oil (p71).
- RheoTex software (p72-73).
- Cable extension 5 m (Ref. 113202) max 3 units.
- Measuring cylinder and cell (see table next page).



## Type of instrument

Rotating springless viscometer with 7" Touch screen

## **Rotation speeds**

Unlimited number of speeds between 5 and 600 rpm

## Torque range

From 0.5 to 13 mNm

## **Accuracy**

## Repeatability

+/- 1 % of the full scale +/- 0,2 %

## Display

Viscosity (cP / Poises or mPa.s / Pa.s)

Speed - Shear rate - Torque (% - mNm) - Shear stress

## **Application**

The RM100 L is dedicated to on-line measurements for continuous monitoring of viscosity in production. Its 4-20mA analogue output is used to send the measured value to a central computer.

Numerous tailor-made solutions according to customer configuration for process integration.

## Languages

French/English/Russian/Spanish/Turkish/German/Italian

Supply voltage

90-240 VAC 50/60 Hz 4 - 20 mA

**PC** connections

RS232, USB and Ethernet

**Printer connection** 

USB Host Port -Compatible PCL/5

**Analog output** 

**Dimensions and weight** 

Box D140 x H260 x W120

Weight: 4 kg



## **AVAILABLE INSTRUMENTS**

Viscometer delivered with electronic box and measuring chamber. Need to be ordered with cylinder and cell.

|                        | 1                                  |                     |                    |                  |                     |                    |                     |                         |        |  |
|------------------------|------------------------------------|---------------------|--------------------|------------------|---------------------|--------------------|---------------------|-------------------------|--------|--|
| Designation viscometer | Reference viscometer               | Compatible cylinder | Reference cylinder | Compatible cell* | Reference<br>(cell) | SMS flange<br>(mm) | Flow rate<br>(m3/h) | Viscosity range (mPa.s) |        |  |
|                        |                                    |                     |                    | CD25             | 121038              | 25                 | 0.03 to 0.12        |                         |        |  |
|                        |                                    |                     |                    | CD38             | 121057              |                    | 0.05 to 0.5         |                         |        |  |
| RM 100 L               | T00000                             | MS DIN              | 404005             | CD50             | 121035              | 51                 | 0.1 to 1            | 0.41-10.07M             |        |  |
| Short                  | T220330                            | 20-15               | 121065             | CD75             | 121034              | 76                 | 0.5 to 2            | 2.1k to 0.67M           |        |  |
|                        |                                    |                     |                    | LD75             | 121033              | 76                 | 6 to 8              |                         |        |  |
|                        |                                    |                     |                    | LD100            | 121032              | 104                | 10 to 14            |                         |        |  |
|                        |                                    |                     |                    | CD25             | 121038              | 25                 | 0.03 to 0.12        |                         |        |  |
|                        |                                    | MS DIN 24           | 121036             | CD38             | 121057              | 38                 | 0.05 to 0.5         |                         |        |  |
|                        |                                    |                     |                    | CD50             | 121035              | 51                 | 0.1 to 1            | 100 1 - 0 1514          |        |  |
|                        |                                    |                     |                    | CD75             | 121034              | 76                 | 0.5 to 2            | 460 to 0.15M            |        |  |
|                        |                                    |                     |                    |                  |                     | LD75               | 121033              | 76                      | 6 to 8 |  |
| RM 100 L               | T220300<br>T220350<br>(with Fibox) |                     |                    | LD100            | 121032              | 104                | 10 to 14            |                         |        |  |
| Standard               |                                    |                     | 121026             | CD25             | 121038              | 25                 | 0.03 to 0.12        |                         |        |  |
|                        |                                    |                     |                    | CD38             | 121057              | 38                 | 0.05 to 0.5         |                         |        |  |
|                        |                                    | MO DINI OO          |                    | CD50             | 121035              | 51                 | 0.1 to 1            | 440 1 - 0514            |        |  |
|                        |                                    | MS DIN 30           |                    | CD75             | 121034              | 76                 | 0.5 to 2            | 113 to 35K              |        |  |
|                        |                                    |                     |                    | LD75             | 121033              | 76                 | 6 to 8              |                         |        |  |
|                        |                                    |                     |                    | LD100            | 121032              | 104                | 10 to 14            |                         |        |  |
| RM 100 L               | T00000                             | MS DIN              | 101000             | LD100            | 121032              | 104                | 10 to 14            | 5 to 401/               |        |  |
| Long T220320           | T220320 31.5                       | 121060              | CD75               | 121034           | 76                  | 0.5 to 2           | 5 to 13K            |                         |        |  |



## RHEOMETERS

# SELECTION GUIDE CHOOSE YOUR INSTRUMENT:

● Standard | ○ Optional

|                                  | DEVICES     |                     |         |                      |  |  |  |  |
|----------------------------------|-------------|---------------------|---------|----------------------|--|--|--|--|
| FUNCTIONS                        | RM 200 PLUS | RM 200 CP-4000 PLUS | DSR 500 | DSR 500 CP-4000 PLUS |  |  |  |  |
| 7" TOUCH SCREEN                  | •           | •                   | •       | •                    |  |  |  |  |
| COUPLING                         | BAYONET     | AC265               | BAYONET | AC265                |  |  |  |  |
| DATA/USER SECURITY               | •           | •                   | •       | •                    |  |  |  |  |
| DATA MEMORISATION                | •           | •                   | •       | •                    |  |  |  |  |
| DATA TRANSFER                    | •           | •                   | •       | •                    |  |  |  |  |
| MULTI LANGUAGES                  | •           | •                   | •       | •                    |  |  |  |  |
| VISCOSITY LIMITS                 | •           | •                   | •       | •                    |  |  |  |  |
| USB FLASH DRIVE PORT             | •           | •                   | •       | •                    |  |  |  |  |
| TEMPERATURE PROBE                | •           | •                   | •       | •                    |  |  |  |  |
| LIMS                             | •           | •                   | •       | •                    |  |  |  |  |
| USB/RS232 CONNECTION             | •           | •                   | •       | •                    |  |  |  |  |
| PRINTER CONNECTION               | •           | •                   | •       | •                    |  |  |  |  |
| RHEOTEX COMPATIBILITY            | •           | •                   | •       | •                    |  |  |  |  |
| MANAGE TEMPERATURE UNIT          | •           | •                   | •       | •                    |  |  |  |  |
| QCLIMITS                         | •           | •                   | •       | •                    |  |  |  |  |
| INBUILT SOFTWARE FOR PROGRAMMING | •           | •                   | •       | •                    |  |  |  |  |
| TIME TO STOP METHOD              | •           | •                   | •       | •                    |  |  |  |  |
| MULTI INTERVAL METHOD            | •           | •                   | •       | •                    |  |  |  |  |
| RAMP METHOD                      | •           | •                   | •       | •                    |  |  |  |  |
| DATA ANALYSIS                    | •           | •                   | •       | •                    |  |  |  |  |
| CURVE ON DISPLAY                 |             |                     | •       | •                    |  |  |  |  |
| PAGES                            | 40          | 42                  | 44      | 46                   |  |  |  |  |





- Constant, Multistep or ramp method.
- Direct analysis with regressions.
- Direct control of temperature unit.
- Huge viscosity range.
- Speed or shear rate control.
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- · QC limits function.

# IIII - AVAILABLE INSTRUMENTS

| Reference | Designation                                 | Viscosity range (mPa.s) |
|-----------|---|-------------------------|
| N200000   | RM 200 PLUS RHEOMETER (with standard stand) | 1 to 780M*              |
| N200009   | RM 200 PLUS RHEOMETER (with rack stand)     | 1 to 780M*              |

M for million / \* According to measuring system (p76-83). Not included.



## WHAT'S INCLUDED WITH DEVICE? (according to part number)

- 1 Integrated temperature probe / 1 Standard stand or rack stand (p70) / 1 Touch screen stylus / 1 User manual /
- 1 Calibration and checking certificate / 1 Microfiber cloth.



MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76), MS-R (p78).

## **COMPATIBLES TEMPERATURE CONTROLS**

EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63), EVA MS-R (p61).

# **OPTIONS & ACCESSORIES**

- Carrying case (p70).
- External temperature probe (p71).
- HELIPRO stand (p66).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- Bayonet spindle rack (p71).
- Barcode reader (p70).
- Touch screen protector (p70).
- Dymo printer (p70).
- Viscosity standards oil (p71).
- RheoTex software (p72-73).
- GuardLeg (p71).



## Type of instrument

Rotating springless rheometer with 7" Touch

## **Rotation speeds**

1500 rpm

## Torque range

From 0.05 to 30 mNm

## **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

## Accuracy

## Repeatability

## Display

Viscosity (cP / Poises or mPa.s / Pa.s) Speed - Shear rate - Torque (% - mNm) -Shear stress - Time - Temperature

## Languages

French/English/Russian/Spanish/Turkish/ German/Italian

Supply voltage 90-240 VAC 50/60 Hz Analog output 4 - 20 mA

**PC** connections

RS232, USB and Ethernet

**Printer connection** USB Host Port -

Compatible PCL/5

## What benefits are there for you?

Save your flow curves and calculate your rheological parameters directly without computer (Plastic viscosity, flow limit, regression model according to Newton, Bingham, Casson and Ostwald). Choose your attachment system tailored to your product constraints.

## **Dimensions and weight**

Head: D180 x H230 x W130 mm Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm Weight: 6.7 kg

# RM 200 CP-4000 PLUS



- Automatic lift for gap.
- Quick attachment with AC265 coupling.
- Constant, Multistep or ramp method.
- Direct analysis with regressions.
- Direct control of temperature unit.
- Huge viscosity range.
- Speed or shear rate control.
- Inbuilt software for programming.
- Direct measure with time to stop.
- · User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- · QC limits function.



## WHAT'S INCLUDED WITH DEVICE?

(according to part number)

1 Temperature unit with 70mm bottom plate / 1 Touch screen stylus / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.



## OPTIONS & ACCESSORIES

- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- Protection cover (Ref. 121019).



## Type of instrument

Rotating springless rheometer with 7" Touch screen

## **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

## **Torque range**

From 0.05 to 30 mNm

## **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

## Accuracy +/- 1 % of the full scale

Repeatability +/- 0,2 %

+/

## **Display**

Viscosity (cP / Poises or mPa.s / Pa.s)

Speed – Shear rate – Torque (% - mNm) – Shear stress -

Time – Temperature

## Languages

French/English/Russian/Spanish/Turkish/German/Italian

Supply voltage

**Analog output** 4-20 mA

90-240 VAC 50/60 Hz

Printer connection

PC connections
RS232, USB and Ethernet

USB Host Port -Compatible PCL/5

## What benefits are there for you?

Save your flow curves and calculate your rheological parameters directly without computer (Plastic viscosity, flow limit, regression model according to Newton, Bingham, Casson and Ostwald). Choose your attachment system tailored to your product constraints.

## **Dimensions and weight**

D610 x H700 x W340 mm

Weight: 22 kg



MS-CP (p85), MS-PP (p85) ,MS-DIN (p76, only for models N240256 and N240257)



| Reference         Designation         Viscosity range (mPa.s)           N240250         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C)           N240251         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*           N240256         RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C)           N240257         RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*           N240600         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)           N240601         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*           N240800         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)           N240801         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*           N240900         RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C) |           |  |                |
|--|-----------|--|----------------|
| N240251       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*         N240256       RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C)         N240257       RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*         N240600       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)         N240601       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*         N240800       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)         N240801       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*         N240900       RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | Reference | Designation  | • •            |
| N240256       RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C)         N240257       RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*         N240600       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)         N240601       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*         N240800       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)         N240801       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*         N240900       RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | N240250   | RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C)                           |                |
| N240257       RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*         N240600       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)         N240601       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*         N240800       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)         N240801       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*         N240900       RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | N240251   | RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*          |                |
| N240600         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)         1 to 63,6M (according to spindles MS CP (p85))           N240601         RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*         spindles MS CP (p85))           N240800         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)           N240801         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*           N240900         RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | N240256   | RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C)                  |                |
| N240600       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)       (according to spindles MS CP (p85))         N240601       RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*       (p85))         N240800       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)         N240801       RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*         N240900       RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | N240257   | RM 200 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER* |                |
| N240801 RM 200 CP-4000 PLUS RHEOMETER AIR PELITER (0 C to +130 C) WITH PROGRAMMER*  (p85))  N240801 RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*  N240900 RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +300°C)  | N240600   | RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)                            |                |
| N240800         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)           N240801         RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*           N240900         RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)  | N240601   | RM 200 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*           | spindles MS CP |
| N240900 RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)   | N240800   | RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)                     | (μου))         |
| ,  | N240801   | RM 200 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*    |                |
| NO 40001 DM 200 CD 4000 DLUS DECOMETED (Doom T°C to 1200°C) WITH DDOCDAMMED*   | N240900   | RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)                                   |                |
| N240901 NW 200 CF-4000 FLOS NECOWETEN (NOOH) 1 C to +500 C) WITH FROGRAMMEN  | N240901   | RM 200 CP-4000 PLUS RHEOMETER (Room T°C to +300°C) WITH PROGRAMMER*                  |                |





- Direct curve on display.
- Shear rate and speed control.
- Constant, Multistep or ramp method.
- Direct analysis with regressions.
- Direct control of temperature unit.
- Huge viscosity range.
- Inbuilt software for programming.
- Direct measure with time to stop.
- User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- QC limits function.

# - AVAILABLE INSTRUMENT

| Reference | Designation       | Viscosity range (mPa.s) |
|-----------|-------------------|-------------------------|
| N500100   | DSR 500 RHEOMETER | 1 to 780M*              |

M for million / \* According to measuring system (p76-83). Not included.



WHAT'S INCLUDED WITH DEVICE? (according to part number)

- 1 Integrated temperature probe / 1 Standard stand (p70) / 1 Touch screen stylus / 1 User manual /
- 1 Calibration and checking certificate / 1 Microfiber cloth.



MS-RV (p79), MS-LV (p79), MS-BV (p80), MS-VANES (p81), MS-KREBS (p81), MS-SV (p83), MS-ULV (p82), MS-DIN (p76), MS-R (p78).



EVA LR (p62), EVA MS DIN (p60), RT-1 PLUS (p63), EVA MS-R (p61).

# - OPTIONS & ACCESSORIES

- Carrying case (p70, only measuring head).
- HELIPRO stand (p66).
- Small volume package (p68-69).
- THERMOCELL package (p67).
- Barcode reader (p70).
- Bayonet spindle rack (p71).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- External temperature probe (p71).
- GuardLeg (p71).



## Type of instrument

Rotating springless rheometer with 7" Touch screen

## **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

## **Torque range**

From 0.05 to 30 mNm

## **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

## Accuracy

Repeatability

% of the full scale +/- 0,2 %

## **Display**

Viscosity (cP / Poises or mPa.s / Pa.s) Speed – Shear rate – Torque (% - mNm) – Shear stress - Time – Temperature

## Languages

French/English/Turkish/German/Italian

| Supply voltage      |  |
|---------------------|--|
| 90-240 VAC 50/60 Hz |  |

**Analog output** 4 – 20 mA

## PC connections RS232, USB and Ethernet

Printer
connection
USB Host Port Compatible PCL/5

## What benefits are there for you?

Memorize your flow ramps, draw your curves and calculate your rheological parameters directly without computer (plastic viscosity, flow limit and rheological models: Newton, Bingham, Casson, and Ostwald).

Edit your measurement reports directly on printer.

## Dimensions and weight

Head: D160 x H270 x W200 mm

Aluminium stand: L280 x W200 x H30 mm Stainless steel rod: Length 500 mm

Weight: 6.7 kg

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## to **meet** your requirements /



**IIII** - AVAILABLE INSTRUMENTS



- · Automatic lift for gap.
- Quick attachment with AC265 coupling.
- Direct curve on display.
- Shear rate and speed control.
- Constant, Multistep or ramp method.
- · Direct analysis with regressions.
- Direct control of temperature unit.
- Huge viscosity range
- Inbuilt software for programming.
- Direct measure with time to stop.
- · User and locked mode.
- Data recording and USB transfer.
- Torque gage on display.
- Integrated temperature probe.
- Printer connection.
- Compatible with RheoTex software.
- Display of viscosity limits according to mobile and speed.
- LIMS function.
- QC limits function.

| Reference | Designation   | Viscosity range<br>(mPa.s)  |
|-----------|---|-----------------------------|
| N500400   | DSR 500 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C)                           |                             |
| N500401   | DSR 500 CP-4000 PLUS RHEOMETER AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER*          |                             |
| N500410   | DSR 500 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C)                            |                             |
| N500411   | DSR 500 CP-4000 PLUS RHEOMETER AIR PELTIER (0°C to +150°C) WITH PROGRAMMER*           | 4.100.014                   |
| N500420   | DSR 500 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C)                     | 1 to 63,6M<br>(according to |
| N500421   | DSR 500 CP-4000 PLUS RHEOMETER LIQUID PELTIER** (-20°C to +100°C) WITH PROGRAMMER*    | spindles MS CP              |
| N500430   | DSR 500 CP-4000 PLUS RHEOMETER (Room T°C to +300°C)                                   | (p85))                      |
| N500431   | DSR 500 CP-4000 PLUS RHEOMETER (Room T°C to +300°C) WITH PROGRAMMER*                  |                             |
| N500426   | DSR 500 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C) WITH PROGRAMMER* |                             |
| N500427   | DSR 500 CP-4000 PLUS RHEOMETER + CYL*** AIR PELTIER (+10°C to +70°C)                  |                             |

M for million / \* Allow temperature setting by measuring head or RheoTex software. / \*\* Need a circulating water bath. Not included. / \*\*\* Allow using of measuring system MS DIN 11S, 13S, 22S, 33S (p76), MS VANE (according to dimensions p81) and MS SV (p83).

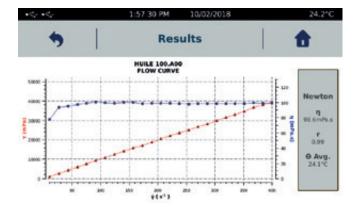


WHAT'S INCLUDED WITH DEVICE? (according to part number)

MS-CP (p85), MS-PP (p85), MS-DIN (p76, only for models N500426 and N500427)

# **OPTIONS & ACCESSORIES**

- Barcode reader (p70).
- Touch screen protector (p70).
- Viscosity standards oil (p71).
- Dymo printer (p70).
- RheoTex software (p72-73).
- Protection cover (Ref. 121019).





## Type of instrument

Rotating springless rheometer with 7" Touch

## **Rotation speeds**

Unlimited number of speeds between 0.3 and 1500 rpm

## Torque range

## **Temperature Probe**

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

## Accuracy

+/- 1 % of the full scale

Repeatability

+/- 0,2 %

## **Display**

Viscosity (cP / Poises or mPa.s / Pa.s) Speed - Shear rate - Torque (% - mNm) -Shear stress - Time - Temperature

## Languages

French/English/Turkish/German/Italian

Supply voltage

90-240 VAC 50/60 Hz

**PC** connections

RS232, USB and

Ethernet

**Analog output** 

Printer

connection **USB Host Port -**

Compatible PCL/5

## What benefits are there for you?

Memorize your flow ramps, draw your curves and calculate your rheological parameters directly without computer (plastic viscosity, flow limit and rheological models: Newton, Bingham, Casson, and Ostwald).

Edit your measurement reports directly on

## **Dimensions and weight**

D610 x H700 x W340 mm

Weight: 22 kg



## TEXTURE ANALYZER

**50** TX-700

**52** PROBES

53 FIXTURES

# AVAILABLE METHODS FOR OUR TEXTURE ANALYZER:

| METHODS                 | PROPERTIES   | PROBES & FIXTURES  | LOAD CELLS                              |
|-------------------------|--|--|---|
| COMPRESSION             | Compressibility, compactability,<br>springiness, relaxation, crush<br>strength, firmness, elastic, work/<br>load/deflection at rupture,<br>maximum load.                         | Flat probes - Cylindrical<br>probes (p52), TX-FCF (p54),<br>TX-MOF - TX-UPFSF (p55),<br>TX-CTPF (p56).   | 100N -250N -500N<br>(p50-51).           |
| PUNCTURE<br>PENETRATION | Firmness, gel strength, dipping<br>consistency, product toughness,<br>fracture force, 'cake' breaking<br>strength, semi-solid consistency,<br>actuation force.                   | Cylindrical probes - ½ Spherical probes - Spherical probes - Needles - Conical probes (p52), TX-FCF - TX- SAF (p54), TX-MPF - TX-CPF - TX-AVJ (p56). | 10N-20N-50N-100N-250N-500N<br>(p50-51). |
| CUTTING<br>SHEARING     | Bite force, firmness, toughness,<br>shear force.   | Knife probe - Clever probe -<br>Mesh probe (p52), TX-KFBF<br>- TX-WSF - TX-ECF (p54), TX-<br>VBJF - TX-MP - TX-STF -TX-<br>WBF (p55), TX-TRPF (p56). | 50N-100N-250N-500N<br>(p50-51).         |
| FRACTURE<br>BENDING     | Brittleness, snapping force, tip<br>strength, flexibility, force to bend,<br>bend modulus, fracture force,<br>flexure modulus.   | TX-TPBF - TX-FCF - TX-LCF<br>(p54).  | 100N-250N-500N<br>(p50-51).             |
| TENSILE                 | Tensile strength, tensile 'break<br>point', extensibility, stretchiness,<br>elongation, burst point, tensile<br>modulus, strength and strain to<br>fracture, fracture toughness. | TX-FTF (p54), TX-PTF (p55),<br>TX-KDEF - TX-RTF (p56), TX-<br>RSF (p57).   | 10N-20N-50N-100N-250N-500N<br>(p50-51). |
| ADHESION                | Adhesiveness, stickiness,<br>tackiness, peel force,<br>cohesiveness, tailing, stringiness,<br>legging, work of adhesion.   | TX-FCF (p54), TX-UPFSF -<br>TX-DSF (p55), TX-PF90 - TX-<br>GPJF (p56), TX-MAF (p57).   | 10N-20N-50N-100N-250N-500N<br>(p50-51). |





- Integrated temperature probe.
- Direct curve on display.
- Inbuilt software for programming.
- Data recording and USB transfer.
- Many different probes and fixtures.
- Interchangeable load sensors.
- Height adjustable tray.
- Compatible with RheoTex software.
- LIMS function.

# - AVAILABLE INSTRUMENTS

| Reference | Designation                    |
|-----------|--------------------------------|
| N151010   | TX-700 TEXTURE ANALYZER - 10N  |
| N151020   | TX-700 TEXTURE ANALYZER - 20N  |
| N151050   | TX-700 TEXTURE ANALYZER - 50N  |
| N151100   | TX-700 TEXTURE ANALYZER - 100N |
| N151250   | TX-700 TEXTURE ANALYZER - 250N |
| N151500   | TX-700 TEXTURE ANALYZER - 500N |



## WHAT'S INCLUDED WITH DEVICE? (according to part number)

1 Interchangeable load sensor / 1 Temperature probe PT100 (- $50^{\circ}$ C à + $300^{\circ}$ C) / 1 Height adjustable tray / 1 User manual / 1 Calibration and checking certificate / 1 Microfiber cloth.



## Type of device

Texture Analyzer operating in Compression and Tensile with 7" Touch screen

## **Choice of sensors**

10 N (1 kg), Resolution 0.001 N (0.1 g) 20 N (2 kg), Resolution 0.001 N (0.1 g) 50 N (5 kg), Resolution 0.001 N (0.1 g) 100 N (10 kg), Resolution 0.001 N (0,1 g) 250 N (20 kg), Resolution 0.01 N (1 g) 500 N (50 kg), Resolution 0.01 N (1 g)

## **Accuracy**

 $\pm$ /- 0.5 % of the full scale

## Speed range

From 0.1 to 10 mm/s +/-0.2 %

### Motion

Height: 200 mm / Resolution: 0.1 mm (0,01 mm with RheoTex)

## Temperature Probe

Equipped with a PT100 sensor which indicates temperatures between -50°C to +300°C

## Display

Strength – Speed – Distance – Temperature
- Time – Measuring probe – Load sensor Date/hour - Choice of strength units: gram or

## Languages

French/English/Turkish/German/ Italian

# CALIBRATION KIT (p57)

## Security and confidentiality

An «operator» function allows you to enter a username for your instrument. This user must then be identified using a 4-digit code. There is also a protected mode that locks your measurement conditions.

## Supply voltage

90-240 VAC 50/60 Hz

PC connections

Printer connection
USB Host Port Compatible PCL/5

## What benefits are there for you?

Table for attaching inserts: 120 x 220 mm. Available Operating Modes: Compression – Relaxation –Tensile – TPA Cycle – Penetrometry and relative compression mode also. Large selection of probes available and custom probes can be made with choice of material, shape and size according to your criteria. The TX700 has a large 7" colour touch screen which allows comfortable use and optimal viewing of measurements. Storage of your measuring methods. Data can be backed up and exported using a USB stick. External control thanks to the optional software.

## **Dimensions and weight**

D610 x W340 x H710 mm Weight: 25 kg

# - OPTIONS & ACCESSORIES

- Probes (p52-53).
- Fixtures (p53-55).
- Barcode reader (p70).
- Touch screen protector (p70).
- Calibration Kit: 10-20N (Ref. 150060); 50-250N (Ref. 150070); 500N (Ref. 150080).
- RheoTex software (p72-73).
- Load sensor: 10N (Ref. N150010);
   20N (Ref. N150020); 50N (Ref: N150050);
   100N (Ref. N150100); 250N (Ref. N150250);
   500N (Ref. N150500).
- Emergency stop button (Ref. 100700)

# PROBES

| Name / Material                                     | Ref.   | Ø<br>(mm)                                      | Height<br>(mm)                                     | Interest for  |     |
|---|--|--|--|---|-----|
| 1/2 SPHERICAL PROBE<br>316L Stainless Steel         | 130079<br>130174<br>130019<br>130049   | 8<br>16<br>30<br>40                            | -  | Consistency,<br>elasticity, adhesion and<br>spinning on gel and<br>cream.                               |     |
| FLAT PROBE<br>316L Stainless Steel                  | 130080<br>130083<br>130101<br>130175<br>130200<br>130177                               | 34<br>40<br>50<br>75<br>100<br>160             | -  | Consistency,<br>elasticity, adhesion and<br>spinning on a solid of<br>size smaller than the<br>plateau. |     |
| BLOOM PROBE<br>plexiglass                           | 130046   | 12.7   | 30   | Bloom Gel<br>Strength test  |     |
| CYLINDRICAL PROBE 316L Stainless Steel or Aluminium | 130077<br>130063<br>130078<br>130066<br>130124<br>130099<br>130037<br>130176<br>130126 | 2<br>3<br>4<br>6<br>10<br>20<br>25<br>36<br>50 | 35<br>35<br>35<br>35<br>40<br>40<br>40<br>40<br>50 | Measure in texture penetration on solid sample  |     |
| CONICAL PROBE 316L Stainless Steel                  | 130020<br>130047<br>121023   | 25<br>30<br>30                                 | 20° Cône<br>45° Cône<br>30° Cône                   | Measurement in consistency penetration on solid sample (spreading)                                      |     |
| NEEDLE  | 130179   | 3  | 60   | Core consistency  | -   |
| CLEAVER PROBE<br>316L Stainless Steel               | 130064R  | L. 25<br>mm                                    | 60° Angle  | Breaking Force,<br>Knack  | - A |
| SPHERICAL PROBE<br>316L Stainless Steel             | 130191<br>130134<br>130149   | 12,7<br>19,5<br>20                             | -  | Consistency,<br>elasticity and<br>adhesion on soft<br>to strong sample                                  | -   |
| MESH PROBE  | 130158R  | 50mm<br>(adjustable)                           | -  | Consistency of product with big particle as yogurt, sauce, jam.   |     |
| KNIFE PROBE   | 120012R  | -  | -  | Cutting force.  |     |

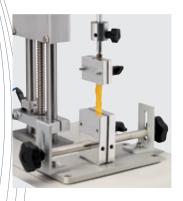
/ PROBES & FIXTURES SELECTION GUIDE /

# **FIXTURES**

TEXTURE ANALYZER

|   |   |   |   |   | , |   |     |
|---|---|---|---|---|---|---|-----|
|   | Č |   |   |   |   |   |     |
| WARNER-BRATZLER FIXTURE (TX-WBF)                      | • | • |   |   |   |   |     |
| WIRE SHEAR FIXTURE (TX-WSF)                           |   | • |   |   |   |   |     |
| LIPSTICK CANTILEVER FIXTURE (TX-LCF)                  |   | • |   |   | • |   |     |
| FILM COMPRESSION FIXTURE (TX-FCF)                     | • | • | • | • |   |   |     |
| KRAMER 5 BLADES FIXTURE (TX-KFBF)                     | • | • |   |   |   |   |     |
| 3 POINTS BEND FIXTURE (TX-TPBF)                       | • | • |   |   |   | • |     |
| FILM TENSILE FIXTURE (TX-FTF)                         | • | • |   |   |   |   |     |
| EXTRUSION FIXTURE (TX-ECF)                            | • | • | • | • | • |   |     |
| SYRINGE ACTUATOR FIXTURE (TX-SAF)                     |   | • |   |   | • |   |     |
| KIEFFER DOUGH EXTENSIBILITY FIXTURE (TX-KDEF)         | • | • |   |   |   |   |     |
| SLIDING FRICTION FIXTURE (TX-SFF)                     |   | • | • | • | • |   |     |
| SPREAD TEST FIXTURE (TX-STF)                          | • | • |   |   | • |   |     |
| MINI OTTAWA FIXTURE (TX-MOF)                          | • | • |   |   |   |   | 5   |
| UNCOOKED PASTA FIRMNESS/STICKINESS FIXTURE (TX-UPFSF) | • | • |   |   |   |   | 5   |
| VOLODKEVICH BITE JAWS FIXTURE (TX-VBJF)               | • | • |   |   |   |   |     |
| MOHRS PROBE (TX-MP)                                   | • | • |   |   |   |   | 5   |
| DOUGH STICKINESS FIXTURE (TX-DSF)                     | • | • |   |   |   |   |     |
| PASTA TENSILE FIXTURE (TX-PTF)                        | • | • |   |   |   |   | e e |
| MULTIPLE PROBE FIXTURE (TX-MPF)                       | • | • |   |   |   |   |     |
| THREE RINGS PROBE CUTTING (TX-TRPF)                   | • | • |   |   |   |   |     |
| COMPRESSION TOP PLATE FIXTURE (TX-CTPF)               | • | • |   |   | • |   |     |
| CONFECTIONARY PENETRATION FIXTURE (TX-CPF)            | • | • |   |   |   |   | 4   |
| ADJUSTABLE VICE FIXTURE (TX-AVJ)                      | • | • |   |   | • | • | A   |
| 90° PEEL FIXTURE (TX-PF90)                            | • | • |   |   | • |   |     |
| ROLLER TENSILE FIXTURE (TX-RTF)                       | • | • |   | • | • |   |     |
| GENERAL PEELING JIG FIXTURE (TX-GPJF)                 | • | • |   | • | • |   |     |
| RAFT STRENGTH FIXTURE (TX-RSF)                        |   | • |   | • | • |   |     |
| MUCO ADHESION FIXTURE (TX-MAF)                        |   | • |   |   | • |   |     |
| BLOOM PROBE (TX-BLM)                                  | • | • |   | • | • | • |     |
| MESH PROBE (TX-MESH)                                  | • | • |   |   |   |   |     |
| KNIFE PROBE (TX-CKA)                                  | • | • |   |   | • | • |     |

# **FIXTURES**



TX-FTF: FILM
TENSILE FIXTURE
(Ref. 130092R)
Measure tensile strength
of film.



BEND FIXTURE (Ref. 130091R)
Breaking strength, Friability,

Springiness.

**TX-TPBF: 3 POINTS** 

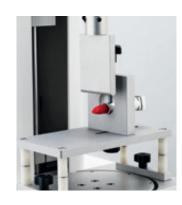


TX-KFBF:
KRAMER 5 BLADES
FIXTURE
(Ref. 130094R)
Hardness and tenderness
on small samples
(Requires table TX-FBT).



TX-FCF: FILM
COMPRESSION FIXTURE
(Ref. 130031R)
Accessory to measure
strength of film

(Requires table TX-FBT).



CANTILEVER FIXTURE
(Ref. 130147R)

Accessory to measure strength of lipstick.

**TX-LCF: LIPSTICK** 



WIRE SHEAR FIXTURE
(Ref. 130076R)

Accessory to measure
consistency of product
as Butter or Cheese.



TX-SAF: SYRINGE ACTUATOR FIXTURE (Ref. 130145) Study of needed strength to use syringe.



TX-FBT: FIXTURE
BASE TABLE
(Ref. 310106R)
Universal holder
for fixture and sample.



TX-ECF: EXTRUSION
CELL FIXTURE
(Ref. 100200)
Foward and backward
extrusion of liquid, cream,
paste, gel
(Requires table TX-FBT).

# **FIXTURES**



TX-MOF : MINI OTTAWA FIXTURE

(Ref. 130097)

Hardness and tenderness on small samples. (Requires table TX-FBT).



TX-UPFSF: UNCOOKED PASTA FIRMNESS/ STICKINESS FIXTURE

(Ref. 130152R)

Firmness and stickiness of uncooked pasta (Requires table TX-FBT).



TX-VBJF: VOLODKEVICH BITE JAWS FIXTURE

(Ref. 130068)

Shear cut and bite test. (Requires table TX-FBT).



**TX-MP: MOHRS PROBE** 

(Ref. 130165R)

Cutting test with blade for meat, fish... (Included 10 blades)



TX-SFF: SLIDING FRICTION FIXTURE

(Ref. 120013R)

Friction measurement according to ASTM D1894.



TX-DSF: DOUGH STICKINESS FIXTURE

(Ref. 121017)

Measure of dough stickiness. (Requires table TX-FBT).



TX-PTF: PASTA TENSILE FIXTURE

(Ref. 130168R)

Measure of noodle elasticity and rupture.



TX-STF: SPREAD TEST FIXTURE

(Ref. 130157R)

Measure of the spreading capacity of creams, pastes and gels.
(Requires table TX-FBT).



## TX-WBF: WARNER-BRATZLER FIXTURE

(Ref. 130074R)

Cutting blade fine. (Included 2 blades)

# **FIXTURES**



TX-TRPF: THREE RINGS PROBE CUTTING FIXTURE

(Ref. 130186)

Measure firmness of sample as pasta, rice, corn...



TX-KDEF: KIEFFER DOUGH EXTENSIBILITY FIXTURE

(Ref. 130148)

Measure of dough elasticity and rupture (Requires table TX-FBT).



TX-CTPF : COMPRESSION TOP PLATE FIXTURE

(Ref. 130153)

Measure firmness by uniform compression. (Requires table TX-FBT).



TX-MPF : MULTIPLE PROBE FIXTURE

(Ref. 130170R)

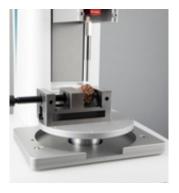
Probe for puncture on 9 sample. (Requires table TX-FBT).



TX-CPF:
CONFECTIONARY
PENETRATION FIXTURE

(Ref. 130190)

To hold small sample or candies while penetration test (Requires table TX-FBT).



TX-AVJ : ADJUSTABLE VICE FIXTURE

(Ref. 130208)

To hold sample as vegetables, jelly or sweets for Puncture test.



TX-PF90 : 90° PEEL FIXTURE

(Ref. 130051R)

Measure adhesive strength to pull tape with angle 90°.



TX-RTF: ROLLER TENSILE FIXTURE

(Ref. 130194)

Measure tensile strength of fragile film thanks to grip of rollers.



TX-GPJF: GENERAL PEELING JIG FIXTURE

(Ref. 310105R)

Measure strength to remove lid from sealed container with angle 0°-45°-90°.



TX-RSF : RAFT STRENGTH FIXTURE (Ref. 130021)

Measures strength to remove wire raft hook from sample.



TX-MAF : MUCO ADHESION FIXTURE

(Ref. 130181)

Measures natural adhesiveness between a tablet and a mucous membrane.

## **CALIBRATION KIT**



10-20N (Ref. 150060) 50-250N (Ref. 150070) 500N (Ref. 150080).

## 8 PROBES KIT (Ref. 130166)



| Reference | Designation                          |  |
|-----------|--------------------------------------|--|
| 121023    | CONICAL PROBE 30°                    |  |
| 130019    | 1/2 SPHERICAL PROBE DIAMETER 30 mm   |  |
| 130037    | CYLINDRICAL PROBE H:40 mm Diam:25 mm |  |
| 130064    | CLEAVER PROBE 25 mm                  |  |
| 130077    | CYLINDRICAL PROBE DIAMETER 2 mm      |  |
| 130079    | 1/2 SPHERICAL PROBE DIAMETER 8 mm    |  |
| 130101    | FLAT PROBE DIAMETER 50 mm            |  |
| 130124    | CYLINDRICAL PROBE DIAMETER 10 mm     |  |

WE CAN ALSO MAKE CUSTOMISED PROBES AND FIXTURES ON REQUEST.



## **TEMPERATURE CONTROLS**



- 60 EVA MS-DIN / MS-R PLUS
- 61 EVA MS-R PLUS
- 62 EVA LR PLUS
- 63 RT-1 PLUS





- Temperature range -20°C to +150°C (according to model).
- Fast temperature regulation by Peltier element.
- Compatible with coaxial cylinders.
- Compatible with MS-R measuring system (according to model).

Chamber of EVA MS DIN/MS-R PLUS





## - AVAILABLE TEMPERATURE DEVICES

Compatible only with bayonet coupling device

| Designation          | Ref.    | Temperature range  | Туре       | Bath* | Prog*** | Compatible instrument     | Compatible<br>measuring<br>system | Dimensions<br>(pxlxh)<br>in mm | Weight |
|----------------------|---------|--------------------|------------|-------|---------|---------------------------|-----------------------------------|--------------------------------|--------|
| EVA MS DIN PLUS      | N950000 | +5°C to +65°C      | Peltier    | No    | No      |                           |                                   |                                |        |
| EVA MS DIN PLUS      | N950005 | +5°C to +65°C      | Peltier    | No    | Yes     |                           |                                   | 610x340x650                    | 15Kg   |
| EVA MS DIN PLUS      | N950003 | -20°C to +100°C    | Peltier    | Yes   | No      | B-ONE<br>FIRST            | MS DIN, MS                        |                                |        |
| EVA MS DIN PLUS      | N950012 | -20°C to +100°C    | Peltier    | Yes   | Yes     | RM100**                   | SV, MS ULV,                       |                                |        |
| EVA MS DIN PLUS      | N950008 | 0°C to +150°C      | Peltier    | No    | No      | RM200 MS-Chocolat DSR 500 |                                   |                                |        |
| EVA MS DIN PLUS      | N950009 | 0°C to +150°C      | Peltier    | No    | Yes     |                           |                                   |                                |        |
| EVA 100 PLUS         | N950100 | Room T°C to +100°C | Electrical | No    | No      |                           |                                   |                                |        |
| EVA MS DIN/MS-R PLUS | N950002 | +5°C to +65°C      | Peltier    | No    | No      |                           |                                   | 610x340x650                    | 15Kg   |
| EVA MS DIN/MS-R PLUS | N950004 | +5°C to +65°C      | Peltier    | No    | Yes     |                           |                                   |                                |        |
| EVA MS DIN/MS-R PLUS | N950013 | -20°C to +100°C    | Peltier    | Yes   | No      | RM100**   MS DIN, MS      | MS DIN, MS<br>SV, MS ULV,         |                                |        |
| EVA MS DIN/MS-R PLUS | N950020 | -20°C to +100°C    | Peltier    | Yes   | Yes     | RM200<br>DSR 500          | MS-Chocolat,<br>MS-R              |                                |        |
| EVA MS DIN/MS-R PLUS | N950030 | 0°C to +150°C      | Peltier    | No    | No      |                           | I WIS-IT                          |                                |        |
| EVA MS DIN/MS-R PLUS | N950040 | 0°C to +150°C      | Peltier    | No    | Yes     |                           |                                   |                                |        |

<sup>\*</sup> Circulating bath not included. Required for counter cooling of Peltier. / \*\* Compatible with Portable RM100 and RM100 i. / \*\*\* Allow temperature setting by measuring head or RheoTex software.

# **EVA MS-R PLUS**





- Temperature range +12°C to +60°C.
- Can accommodate two instruments.
- Support for 9 simultaneous samples.



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Compatible only with bayonet coupling device (not compatible with B-ONE / FIRST).

| Designation           | Ref.    | Temperature range | Туре    | Compatible instrument | Compatible<br>measuring<br>system | Dimensions<br>(pxlxh) in mm | Weight |
|-----------------------|---------|-------------------|---------|-----------------------|-----------------------------------|-----------------------------|--------|
| EVA MS-R PLUS 9 Holes | N950200 | +17°C to +45°C    | Peltier | RM 100*               | MS-R                              | 610x340x650                 | 15kg   |
| EVA MS-R PLUS 9 Holes | N950210 | +12°C to +60°C    | Peltier | RM 200<br>DSR 500     |                                   |                             |        |

 $<sup>^{\</sup>star}$  Compatible with Portable RM100 and RM100 i.

# **EVA LR PLUS**





## Compatible with bayonet coupling device

| Designation  | Reference Temperature range |                | Туре    | Compatible<br>measuring<br>system | Dimensions<br>(pxlxh) in mm | Weight |  |
|--------------|-----------------------------|----------------|---------|-----------------------------------|-----------------------------|--------|--|
| EVA LR PLUS* | N950006                     | +15°C to +45°C | Peltier | MS RV-LV                          | 610x340x650                 | 15kg   |  |

<sup>\*</sup> Usable with 600ml beaker.

# RT-1 PLUS





- Temperature range from Room T°C to +300°C.
- Economic electric oven.
- Compatible with bayonet coupling device.
- Compatible with norms ASTM D4402 and D3236.

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# -AVAILABLE TEMPERATURE DEVICES

## Compatible with bayonet coupling device

| Designation               | Reference Temperatur range |                               | Туре       | Compatible<br>measuring<br>system | Dimensions<br>(pxlxh) in mm | Weight    |
|---------------------------|----------------------------|-------------------------------|------------|-----------------------------------|-----------------------------|-----------|
| RT-1 PLUS +<br>PROGRAMMER | N130130*                   | Room T°C to +300°C Electrical |            | MS SV, MS DIN,<br>MS ULV.         | 610x340x650                 | 15kg      |
| RT-1 PLUS                 | N130110                    | Room T°C to +300°C            | Electrical |                                   |                             | January V |

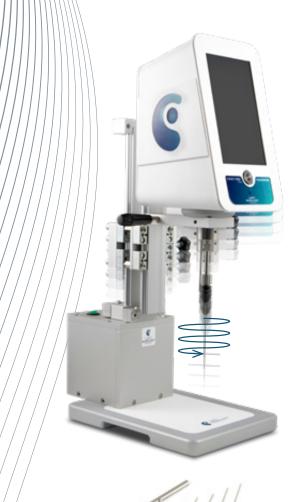
<sup>\*</sup> Allow temperature setting by measuring head or RheoTex software.



## **OPTIONS & ACCESSORIES**



- 66 HELIPRO
- 67 THERMOCELL PACKAGE
- 68 WATER JACKET
- 69 SMALL VOLUME PACKAGE
- 70 ACCESSORIES
- 72 RHEOTEX SOFTWARE



The HELIPRO device makes it possible to measure viscosity of gels, pastes, creams and more generally products that do not flowing.

When a measuring mobile turns in this type of product, we can observe appearance of cavities around the rotating spindle which has effect of reducing measured viscosity values. Through its movement vertical, HELIPRO system with its mobile T shape will prevent formation of cavities within product and will ensure reliable and

This accessory is compatible with viscometers and rheometers from the LAMY RHEOLOGY range except FIRST PRODIG CP-1000, RM 100 CP-1000/2000 PLUS, RM 200 CP-4000 PLUS, GT-300 PRODIG and DSR 500 CP-4000 PLUS.



D330 x W200 x H500mm Weight 9Kg



- 1 Stand with motorized lift.
- 1 Complete case (Ref. 950500) with 6 T-Bars (Ref. 180006) and holder (Ref. 200200).
- Tools for lift setting.



T-bars spindles with viscosity range\* (mPa.s)

| Designation | 5.4       | Instrument LR |         | B-ONE A | ND FIRST | RM100, RM200, DSR500 |         |
|-------------|-----------|---------------|---------|---------|----------|----------------------|---------|
| T-Bars**    | Reference | Minimum       | Maximum | Minimum | Maximum  | Minimum              | Maximum |
| T-A (91)    | 180091    | 93            | 740K    | 930     | 12M      | 930                  | 28M     |
| T-B (92)    | 180092    | 186           | 1.5M    | 1,9K    | 25M      | 1,9K                 | 56M     |
| T-C (93)    | 180093    | 464           | 3.7M    | 4,6K    | 60M      | 4,6K                 | 140M    |
| T-D (94)    | 180094    | 1K            | 7.5M    | 9,2K    | 120M     | 9,2K                 | 280M    |
| T-E (95)    | 180095    | 1,9K          | 15M     | 18,6K   | 240M     | 18,6K                | 558M    |
| T-F (96)    | 180096    | 4,6K          | 37M     | 46,4K   | 600M     | 46,4K                | 1400M   |

T-Bars spindles and holder

# THERMOCELL PACKAGE





- Temperature range from Room T°C to +300°C.
- Economic electric oven.
- Compatible with bayonet coupling device.
- Compatible with norms ASTM D4402 and D3236.



- Immersion PT100 probe with holder (Ref. 000696)
- Lid for cup MB-SV13R (Ref. 130185)

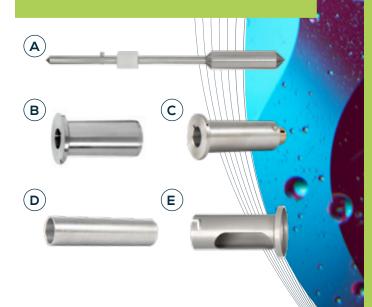


Immersion PT100 probe (Ref 000696)



- A Choice of one MK-SV spindle (p 83).
- B Cup MB-SV13R (Ref. 116213).
- C Holder H-SV13RD for disposable cup MB-SV13RD (Ref. 116313)
- D 5 Disposable cups MB-SV13RD (Ref. 116413 for 100pcs).
- E Centring tool ST-R (Ref. 114436).

RT-1 PLUS oven (Ref. N130130).







# WATER JACKET CT-DIN

from -20°C to +180°C (Ref. 111914) 2 Silicon pipes 1m included



Ø100 x H200 mm Weight 3Kg

# WATER JACKET CT-LC

from -20°C to +65°C (Ref. 600800) 2 Silicon pipes 1m included



D70 x W70 x H160 mm Weight 1,5Kg



MS-DIN (p76), MS-VANES according to spindle (p81), MS-ULV (p82), MS-SV (p83).

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# **SMALL VOLUME PACKAGE**

Our "SMALL VOLUME PACKAGE" solutions guarantee you the possibility of measuring the viscosity or small quantities of sample. Easy to use and compatible with all our instruments (except FIRST PRODIG CP-1000, RM 100 CP-1000/2000 PLUS, RM 200 CP-4000 PLUS, GT-300 PLUS, GT-300 PRODIG and DSR 500 CP-4000 PLUS), these package include: One water jacket (CT-DIN or CT-LC), an MK-SV measuring spindle (p83), an MB-SV measuring chamber (p83) and the necessary accessories (centring piece and pipe). The use of a circulation bath (not supplied) is necessary for temperature control. The MK-SV mobile and the MB-SV chamber must be indicated when ordering the low volume kit.

SMALL VOLUME PACKAGE SVP 180

(Ref. 600950)

SMALL VOLUME PACKAGE SVP 65

(Ref. 600900)

Temperature range: -20°C to +180°C (with circulation bath not included)

Temperature range: -20°C to +65°C (with circulation bath not included)



Centring tool ST-R

One spindle MK-SV

One chamber MB-SV

Water jacket





- Water Jacket CT-DIN (Ref. 111914).
- Centring tool ST-R (Ref. 114436).
- 2 Silicon pipes (1m).
- One spindle MK-SV (choose page 83).
- One chamber MB-SV (choose page 83



- Water Jacket CT-LC (Ref. 600800).
- Centring tool ST-R (Ref. 114436).
- 2 Silicon pipes (1m)
- One spindle MK-SV (choose page 83).
- One chamber MB-SV (choose page 83)

# **ACCESSORIES**

## **BARCODE READER**

(Ref. N330000)

## DYMO LABEL PRINTER

(Ref. 500200) + paper roll (Ref. 500300)



This barcode reader allows you to quickly identify your sample without risk of data entry errors. It is compatible with all instruments in the LAMY RHEOLOGY range thanks to their USB port and with RHEOTEX software when connected to the computer. Included USB cable and holder.



This DYMO printer can be connected to all compatible instruments (except B-ONE PLUS and B-ONE PORTABLE viscometer). It allows rapid printing at the end of measurement or at time intervals set by user while measurement. USB cable supplied and roll of paper.

## STANDARD STAND

(Ref. 112950)





The standard stand allows you to install your LAMY RHEOLOGY viscometer or rheometer on table. Thanks to its stop ring, it is recommended when the height of the measurement position is constant. Included according to instrument model, it includes a rod, a stop ring, a safety sleeve, a arm and a base.



The rack stand allows you to install your LAMY RHEOLOGY viscometer or rheometer on table. Thanks to its notched rod system, it allows easy vertical movement of measuring head and is recommended when height of measuring position varies according to container or measuring spindle used. Included according to instrument models, it includes a notched shank, arm and base.

## **TOUCH SCREEN PROTECTOR**

(Ref. 000630)

## **CARRYING CASE**

(Ref. 100048) or without foam (Ref. 100500)



The screen protector provides permanent protection for touch screen of instruments in the LAMY RHEOLOGY range. It is effective against projections and dust while ensuring ease of use.



If you want to transport or store your instrument, we offer this robust transport case suitable for your viscometer or rheometer. A space is dedicated for storage of accessories such as supports or measuring systems.

# **ACCESSORIES**

Volume and viscosity value at 23°C

Standard Silicone Oil 100 mPas (100 ml)

Standard Silicone Oil 1000 mPas (100 ml)

Standard Silicone Oil 3500 mPa.s (100 ml)

Standard Silicone Oil 5 mPas (100 ml)

Standard Silicone Oil 50 mPas (100 ml)

Standard Silicone Oil 500 mPas (100 ml)

Standard Silicone Oil 100 mPas (250ml)

Standard Silicone Oil 1000 mPas (250ml)

Standard Silicone Oil 5 mPas (250ml)

Standard Silicone Oil 50 mPas (250ml)

Standard Silicone Oil 500 mPas (250ml)

Standard Silicone Oil 100 mPas (500ml)

Standard Silicone Oil 1000 mPas (500ml)

Standard Silicone Oil 5 mPas (500ml)

Standard Silicone Oil 50 mPas (500ml)

Standard Silicone Oil 500 mPas (500ml)

Standard Silicone Oil 5000 mPa.s (500ml)

Standard Silicone Oil 5000 mPa.s (250ml)

Standard Silicone Oil 5000 mPa.s (100 ml)

260100

261000

265500

260005

260050

260500

265000

250100

251000

250055

250050

250500

255000

500100

501000

500005

500050

500500

505000

## **VISCOSITY STANDARD OIL**



Our viscosity standard oils allow you to verify the correct measurement made by your instrument. The choice of oil must be made according to viscosity range of products measured and required volume (e.g. 500ml for MS RV or MS LV mobiles or 100 ml for MS DIN or MS SV mobiles). They are delivered with a certificate established by LAMY RHEOLOGY. Other standard oils for high temperature measurements or supplied with NIST certificate are available on demand.

# BAYONET SPINDLE RACK EXTERNAL TEMPERATURE PROBE WITH HOLDER

(Ref. 900026 and 405000)

This rack allows you to store in complete safety and near your instrument all the spindles having a bayonet coupling such as MS DIN, MS SV, MS-R, MS ULV, MS Krebs, MS Chocolat, MS VANE, MS RV and MS LR.

This temperature probe can be connected to viscometers and rheometers of LAMY RHEOLOGY range and is particularly well suited for B-ONE PLUS and B-ONE PORTABLE viscometers.

## GUARDLEG LV (Ref. 000685)

(Ref. 000590)



Allows correct positioning of MS-LV spindles in 600ml beakers for optimized viscosity measurement.

## **GUARDLEG RV**

(Ref. 000686)



Allows correct positioning of MS-RV spindles in 600ml beakers for optimized viscosity measurement.

# SOFTWARE

# The new RheoTex software developed by LAMY RHEOLOGY

allows control of all instruments (excepted : B-ONE PLUS)

The license file associated with the software allows you to automatically configure software to be compatible with instrument. Since the software base is the same, only an additional license is required when you have two devices to control by RheoTex. The installation of the software is not limited to one computer station.

The integrity of results and methods is guaranteed by using a database and by an optimized management of the users with specific rights.

New graphical tools allow custom management of the display of curves, tables and analysis results.

The 21 CFR option is available in two versions:

- Standard for only one approval electronic signature.
- Advanced for three level of electronic signature : Done-Review-Approval.



- Creation and saving of methods.
- Transfer data from device memory.
- Temperature ramp method.
- Use of mathematical tools for data analysis.
- Creation of free program.
- PDF report editing.
- Compatible with office software or experience creation (automatic measurement and analysis).
- 21 CFR Part 11 Compatible.





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# SOFTWARE



RheoTex for FIRST PLUS/FIRST PRO Ref. N311000 + license Ref. N311700

RheoTex for RM200 PLUS Ref. N311000 + license Ref. N311200

**RheoTex** for TX-700 **Ref. N311000** + license **Ref. N311777** 

RheoTex for GT300 PLUS Ref. N311000 + license Ref. N311300

**RheoTex** for DSR 500 CP 4000 PLUS **Ref. N311000** + license **Ref. N311504** 

RheoTex for GT300 PRODIG Ref. N311000 + license Ref. N311310 **RheoTex** for DSR 500 **Ref. N311000** + license **Ref. N311500** 

**RheoTex** for RM100 CP 2000 PLUS **Ref. 311000** + license **Ref. N311202** 

RheoTex for FIRST PRODIG, FIRST PRODIG CP 1000 Ref. N311000 + license Ref. N311710 RheoTex for RM100 PLUS, RM100 PORTABLE, RM100i, RM100L, RM 100 CP 1000 Ref. N311000 + license Ref. N311100

RheoTex for RM200 CP 4000 PLUS Ref. N311000 + license Ref. N311204

21 CFR option Standard Ref. N311020 Advanced Ref. N311021



## RHEOTEX FUNCTIONS ACCORDING TO INSTRUMENTS

|                                |  |            |               |              |             |              |               | PRODIG       |   |   |
|--------------------------------|--|------------|---------------|--------------|-------------|--------------|---------------|--------------|---|---|
|                                |  | USB, RS232 |               |              |             |              | 32            |              |   |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            |   |   |
|                                | *  | *          | *             | *            | *           | *            |               |              |   |   |
|                                |  |            | *             |              | *           | *            |               |              |   |   |
|                                |  |            |               |              |             |              |               |              | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                |  |            | *             |              | *           | *            |               |              |   |   |
|                                |  | *          | *             | *            | *           | *            | *             | *            |   |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * | 8 |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                |  |            |               |              | For C       | P4000        |               |              | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
|                                | *  | *          | *             | *            | *           | *            | *             | *            | * |   |
| Mathematic analysis of results |  | Maximun    | n, minimum, a | average, cur | ves average | , smoothing, | interpolation | n, inflexion |   |   |
|                                |  |            |               |              |             |              |               |              | * |   |
|                                | Newton, Ostwald, Bingham, Newton, Ostwald, Bingham, Casson, Power Law, Herschel-Bulkley, Casson-Steiner, Steiger Ory, Chocolat |            |               |              |             |              |               |              |   |   |

\* Only for temperature unit with programmer.



## **MEASURING SYSTEMS**

# SELECTION GUIDE CHOOSE YOUR MEASURING SYSTEMS:

|   |   | Measuring systems |   |       |       |              |  |                                     |   |
|---|---|-------------------|---|-------|-------|--------------|--|-------------------------------------|---|
| Sample type   | MS-RV/LV                                  | MS-DIN            | MS-SV   | MS-CP | MS-PP | MS-R         | MS-VANES                                     | MS-BV                               | MS-KREBS  |
| Low viscosity<br>(solid particles < 10µm)<br>ex : Paint, inks, shampoo, oil,<br>lotion, drinks                          | •   | •                 | •   | •     | •     |              |  | •                                   | •   |
| Low viscosity<br>(solid particles >10µm)<br>ex : Paint, inks, suspension,<br>chocolate                                  | •   | •                 | •   |       | •     | •            | •  | •                                   | •   |
| Medium viscosity<br>(solid particles < 10µm)<br>ex : Cosmetic cream, paint,<br>daily cream, inks, ketchup,<br>emulsion, | •   | •                 | •   | •     | •     | •            | •  | •                                   |   |
| Medium viscosity<br>(solid particles > 10µm)<br>ex : Cosmetic cream, road<br>paint, emulsion, grease                    | •   | •                 | •   |       | •     | •            | •  | •                                   |   |
| High viscosity<br>ex : Polymer, gum, cheese,<br>gel, asphalt  |   |                   |   |       | •     | •            | •  |                                     |   |
| Fragile Products<br>ex : cheese, yogurt, gel  |   |                   |   | •     | •     | •            | •  |                                     |   |
| Solid product<br>ex : Polymer,  |   |                   |   |       | •     |              |  |                                     |   |
| Heterogeneous products<br>ex : Sauce, soup, cement,<br>mortar   |   | •                 |   |       |       | •            | •  |                                     |   |
| Application   | One viscosity<br>value (Norm<br>ASTM2555) |                   | ity value, flow co<br>rature behaviou<br>or ISC |       |       | nous product | nt on heteroge-<br>t with/without<br>ticles. | ldeal for<br>portable<br>viscometer | Measure-<br>ment accor-<br>ding norm<br>ASTM D562 |
| PAGES   | 79  | 76                | 83  | 84    | 85    | 78           | 81   | 80                                  | 81  |

These measuring systems are compatible with all instruments in the LAMY RHEOLOGY range except CP-1000/CP-2000 device, GT-300 PLUS and GT-300 PRODIG models.

These measuring systems are compatible with our temperature controls EVA DIN, EVA 100 and RT1 and water jacket CT-DIN and CT-LC.

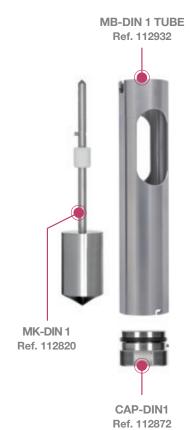
| Name               | Reference |
|--------------------|-----------|
| MK - DIN 1         | 112820    |
| MK – DIN 2         | 112821    |
| MK - DIN 3         | 112822    |
| MK – DIN 9         | 111875i   |
| MB-DIN 1 Tube      | 112932    |
| MB-DIN 2 Tube      | 112937    |
| MB-DIN 3 Tube      | 112938    |
| CAP-DIN 1          | 112872    |
| CAP-DIN 2          | 112877    |
| CAP-DIN 3          | 112878    |
| CAP-DIN 1 Mooney   | 112874    |
| ST-R centring tool | 114436    |
| MB-DIN 1 S Tube    | 112933    |
| MB-DIN 2 S Tube    | 112948    |
| MB-DIN 3 S Tube    | 112944    |

# MS-DIN

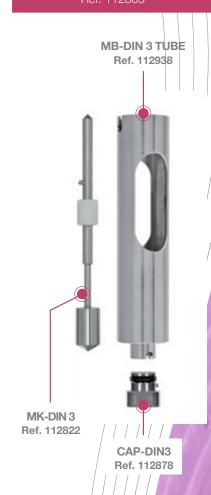
# **DIN 11 measuring system**Ref. 112801

# **DIN 22 measuring system** Ref. 112804

# **DIN 33 measuring system**Ref. 112805







## - MEASURING SYSTEMS WITH BAYONET COUPLING

|               |           |             |             |             |                |                       | Vis                | cosity range i          | n mPa.s                     |
|---------------|-----------|-------------|-------------|-------------|----------------|-----------------------|--------------------|-------------------------|-----------------------------|
| Measuring     | system *  | Spindle     | Сир         | Сар         |                |                       |                    |                         |                             |
| Designation   | Reference | Designation | Designation | Designation | Volume<br>(ml) | Shear rate<br>(s-1)** | Instrument<br>LR** | B-ONE<br>and<br>FIRST** | RM 100/200<br>and DSR 500** |
| MS DIN 11     | 112801    | MK-DIN1     | MB-DIN1     | CAP-DIN1    | 27             | 1,29N                 | 2,5 to 27K         | 25 to 0.44M             | 3 to 1M                     |
| MS DIN 11S*** | 112809    | MK-DIN1     | MB-DIN1S    | CAP-DIN1    | 27             | 1,29N                 | 2,5 to 27K         | 25 to 0.44M             | 3 to 1M                     |
| MS DIN 12     | 112802    | MK-DIN2     | MB-DIN1     | CAP-DIN1    | 46             | 0,35N                 | 11 to 145K         | 110 to 2.3M             | 18 to 5.5M                  |
| MS DIN 13     | 112803    | MK-DIN3     | MB-DIN1     | CAP-DIN1    | 61             | 0,15N                 | 92 to 510K         | 920 to 8.3M             | 146 to 19M                  |
| MS DIN 13S*** | 112808    | MK-DIN3     | MB-DIN1S    | CAP-DIN1    | 22             | 0,15N                 | 93 to 510K         | 920 to 8.3M             | 146 to 19M                  |
| MS DIN 19     | 112806i   | MK-DIN9     | MB-DIN1     | CAP-DIN1    | 25             | 3,22N                 | 0,8 to 10K         | 8 to 0.17M              | 1 to 0.39M                  |
| MS DIN 22     | 112804    | MK-DIN2     | MB-DIN2     | CAP-DIN2    | 22             | 1,29N                 | 4 to 53K           | 40 to 0.86M             | 7 to 2M                     |
| MS DIN 22S*** | 112815    | MK-DIN2     | MB-DIN2S    | CAP-DIN2    | 22             | 1,29N                 | 5 to 53K           | 40 to 0.86M             | 7 to 2M                     |
| MS DIN 33     | 112805    | MK DIN3     | MB-DIN3     | CAP-DIN3    | 14             | 1,29N                 | 20 to 265K         | 200 to 4.3M             | 34 to 10M                   |
| MS DIN 33S*** | 112814    | MK DIN3     | MB-DIN3S    | CAP-DIN3    | 14             | 1,29N                 | 20 to 265K         | 200 to 4.3M             | 34 to 10M                   |
| MS DIN 11M    | 112812    | MK-DIN1     | MB-DIN1     | CAP-MOONEY  | 23             | 1,29N                 | 2,5 to 27K         | 21 to 0.44M             | 3 to 1M                     |
| MS DIN 19M    | 112811i   | MK-DIN9     | MB-DIN1     | CAP-MOONEY  | 18,5           | 3,22N                 | 0,8 to 10K         | 8 to 0.17M              | 1 to 0.39M                  |
| MS DIN 23     | 112816    | MK-DIN3     | MB-DIN2     | CAP-DIN2    | 36             | 0,19N                 | 81 to 1M           | 810 to 17M              | 139 to 41M                  |

M for million, K for thousand, N for rotational speed (rpm) / \* Complete measuring system with spindle, cup and cap. / \*\* These values are given when complete system is used. / \*\*\* Include centring tool ST-R (Ref. 114436).

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Anchor-type measuring systems (316L stainless steel). These systems are ideally suited for measuring viscosity (value or curve) in the control or development of heterogeneous products, or having the appearance of soft solid at rest, present in cosmetics, paint, food or mineral chemistry industries.

Used with their respective buckets, they allow to apply a shear rate.

These systems are compatible with RM 100 PLUS, RM 200 PLUS and DSR 500.
These systems are compatible with our EVA DIN-MS-R PLUS and EVA MS-R PLUS temperature controls

## MS-R1 measuring system

Ref. 114500



### MS-R3 measuring system Ref. 114502



## MS-R2 measuring system Ref. 114501



### MS-R4 measuring system Ref. 114503





## MEASURING SYSTEMS WITH BAYONETTE COUPLING

| System      | System    | Complet | Complete set**** |       | Complete set**** |                | Complete set****              |                                 | Complete set**** |  | Diameter (mm) |  | Shear rate range for | Viscosity range for |  |
|-------------|-----------|---------|------------------|-------|------------------|----------------|-------------------------------|---------------------------------|------------------|--|---------------|--|----------------------|---------------------|--|
| Designation | Reference |         | rence            | inner | outer            | Volume<br>(ml) | RM 100/200 - DSR 500<br>(s-1) | RM 100/200 - DSR 500<br>(mPa.s) |                  |  |               |  |                      |                     |  |
| MS-R1***    | 114500*   |         |                  | 93    | 98               | 300            | 200 rpm                       | 1 to 40 UD                      |                  |  |               |  |                      |                     |  |
| MS-R2       | 114501*   |         |                  | 46    | 54               | 70             | 0.105 to 525                  | 12 to 3.6M                      |                  |  |               |  |                      |                     |  |
| MS-R3       | 114502*   | 111949  | 111950           | 23    | 36               | 25             | 0.09 to 450                   | 72 to 21.6M                     |                  |  |               |  |                      |                     |  |
| MS-R4       | 114503*   |         |                  | 20    | 36               | 25             | 0.075 to 375                  | 400 to 120M                     |                  |  |               |  |                      |                     |  |
| MK-R5       | 114429**  |         |                  | 5     |                  |                | 0.03 to 150                   | 1.5K to 475M                    |                  |  |               |  |                      |                     |  |

M for millions, K for thousand. / \* Complete system (bob+cup+centring tool). / \*\* Only spindle. Can be use with cup MB2 (Ref. 114311) and MB3 (Ref. 114314). / \*\*\* Can be used only at 200 rpm and UD result. / \*\*\*\* Complete set in case with cup and centring tool. / All data given in this table are given for information and can be changed according container used for measurement.

Measuring spindles according to ASTM / ISO 2555 (316L stainless steel). These systems are ideally suited for simple viscosity measurement at controlled rotational speed in all areas of activity. The standard recommends use of 600ml beaker for measurement.

| Name                       | Reference | Dimensions<br>(mm) |                                 |
|----------------------------|-----------|--------------------|---------------------------------|
| LV-1 spindle               | 111010    | Ø 18.80 - L 65,1   | •                               |
| LV-2 spindle               | 111011    | Ø 18,72 - L 6,86   |                                 |
| LV-3 spindle               | 111012    | Ø 12,60 - L 1,78   |                                 |
| LV-4 spindle               | 111013    | Ø 3,20 - L 31      |                                 |
| Axis R 1-6<br>without disc | 111000    | Threaded axis      |                                 |
| RV-1 Disc                  | 111001    | Ø 56,26            | RV-2 Disc RV-3 Disc             |
| RV-2 Disc                  | 111002    | Ø 46,93            | RV-1 Disc                       |
| RV-3 Disc                  | 111003    | Ø 34,69            |                                 |
| RV-4 Disc                  | 111004    | Ø 27,30            | RV-4 Disc RV-5 Disc RV-6 Disc   |
| RV-5 Disc                  | 111005    | Ø 21,14            |                                 |
| RV-6 Disc                  | 111006    | Ø 14,62            |                                 |
| RV-7 Spindle               | 111007    | Ø 3,20             | <del></del>                     |
| Axis L-R                   | 111008    | Adaptation axis    | Adaptor for Brookfield spindles |

# - SPINDLES WITH BAYONETTE COUPLING

|                        |                      |        |                    |               | Viscosity rar | nge in mPa.s              |
|------------------------|----------------------|--------|--------------------|---------------|---------------|---------------------------|
| Spindle<br>Designation | Spindle<br>Reference |        | ete set**<br>rence | Instrument LR | FIRST/B-ONE   | RM 100/200 and<br>DSR 500 |
| RV1                    | 111001*              |        |                    | Not Usable    | 100 to 0.6M   | 50 to 1.4M                |
| RV2                    | 111002*              |        |                    | 200 to 0.14M  | 200 to 2.4M   | 100 to 5.5M               |
| RV3                    | 111003*              |        |                    | 300 to 0.37M  | 300 to 6M     | 150 to 14M                |
| RV4                    | 111004*              | 111047 |                    | 400 to 0.74M  | 600 to 12M    | 200 to 28M                |
| RV5                    | 111005*              | 111947 | 111948             | 500 to 1.4M   | 1.2K to 24M   | 300 to 55M                |
| RV6                    | 111006*              |        |                    | 1200 to 3.7M  | 2.8K to 60M   | 500 to 130M               |
| RV7                    | 111007               |        |                    | 4500 to 15M   | 12K to 240M   | 2K to 550M                |
| LV1                    | 111010               |        |                    | 15 to 0.25M   | 200 to 4.3M   | 35 to 10M                 |
| LV2                    | 111011               | 444    |                    | 50 to 1.3M    | 1K to 20M     | 170 to 50M                |
| LV3                    | 111012               | 111    | 1014               | 200 to 5M     | 4k to 82M     | 650 to 190M               |
| LV4                    | 111013               |        |                    | 1000 to 22M   | 17K to 370M   | 3K to 860M                |

# MS-BV

Measuring spindle for 150ml beaker (316L stainless steel). These spindles are ideally suited for simple viscosity measurement at a rotating speed in control in all areas of activity. They are appreciated for their ease of use and the low volume of product needed compared to the MS RV/LV spindle.

These measuring spindles are compatible with instruments in LR version.

Compatible with EVA BV temperature control (price and item on demand).

|   | Name                  | Reference | Dimension<br>(mm) |
|---|-----------------------|-----------|-------------------|
|   | BV 1-100 Axis         | 117102    | -                 |
| <u>or</u>                                 | BV<br>centring device | 117202    | -                 |
|   | BV Disc n°1           | 117001    | Ø 45              |
|   | BV Disc n°10          | 117010    | Ø 40              |
|   | BV Disc n°100         | 117100    | Ø 20              |
| ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )   | BV 1000 Axis          | 117101    | Ø 4               |
| 100 mm m | 150-ml glass beaker   | 117150    | Ø 50-52           |
|   | MS TI Tube            | 118001    | Ø 50              |

# - MEASURING SPINDLES WITH BAYONET COUPLING

| Designation | Reference** | Complete Set*** reference | Viscosity range<br>FIRST/B-ONE (mPa.s) | Viscosity range RM 100/200-<br>DSR 500 (mPa.s) |
|-------------|-------------|---------------------------|--|--|
| BV1         | 117001*     |                           | 15 to 0.25M                            | 2 to 0.6M                                      |
| BV10        | 117010*     | 117000                    | 100 to 2M                              | 17 to 5.1M                                     |
| BV100       | 117100*     | 117000                    | 1K to 22M                              | 170 to 51M                                     |
| BV1000      | 117101      |                           | 10K to 220M                            | 1.7K to 510M                                   |

M for million, K for thousand / Use with glass beaker (Ref. 117150 for 10pcs) or plastic beaker (Ref. 117155 for 10 pcs). / \* Require additional axis (Ref. 117102). / \*\* Require centring tool (Ref. 117202). / \*\*\* Complet Set in case with additional axis (Ref. 117102) and centring tool (Ref. 117202).

# **MS-VANES**

These systems are ideal for viscosity measurement (value or curve) in control or development of all types of products even very high viscosity with or without particles (size <5mm).

They can be used for direct measurement in user's containers or in tubes of MS-DIN systems.



4 blades VANE

6 blades VANE



## MEASURING SYSTEMS WITH BAYONET COUPLING

|             |           |               |             | V           | iscosity range in mP | a.s                   |
|-------------|-----------|---------------|-------------|-------------|----------------------|-----------------------|
| Designation | Reference | Diameter (mm) | Lenght (mm) | LR Device   | B-ONE/FIRST          | RM 100/200<br>DSR 500 |
| MK-V71      | 111114    | 34,39         | 68,78       | 1,4 to 18K  | 14 to 300K           | 2,4 to 700K           |
| MK-V72**    | 120017    | 21,67         | 43,38       | 5,6 to 74K  | 56 to 1,2M           | 9,4 to 2,8M           |
| MK-V73**    | 111108    | 12,67         | 25,35       | 28 to 370K  | 280 to 6M            | 46 to 13M             |
| MK-V74**    | 111115    | 5,89          | 11,76       | 280 to 3,7M | 2,8K to 60M          | 463 to 139M           |
| MK-V75**    | 111111    | 8,026         | 16,05       | 111 to 1,4M | 1,1K to 24M          | 185 to 55M            |
| MK-V72/2**  | 111112    | 21,67         | 20          | 54 to 720K  | 540 to 11M           | 90 to 27M             |
| MK-V72/4**  | 111113    | 21,67         | 10          | 80 to 1M    | 800 to 17M           | 133 to 40M            |
| MK-V72-6P*  | 111121    | 21,67         | 43          | 30 to 400K  | 300 to 6,5M          | 50 to 15M             |
| MK-VT105**  | 440105    | 5             | 10          | 430 to 5,8M | 4,4K to 94M          | 726 to 218M           |
| MK-VT2010** | 442010    | 10            | 20          | 82 to 1M    | 820 to 17M           | 137 to 41M            |
| MK-VT2020** | 442020    | 20            | 20          | 12 to 150K  | 118 to 2,5M          | 20 to 5,9M            |
| MK-VT3015** | 443015    | 15            | 30          | 16 to 210K  | 160 to 3,4M          | 27 to 8M              |
| MK-VT4020** | 444020    | 20            | 40          | 7 to 90K    | 68 to 1,4M           | 11 to 3,4M            |
| MK-VT4040   | 444040    | 40            | 40          | 1,5 to 19K  | 15 to 320K           | 2,5 to 740K           |
| MK-VT5025** | 445025    | 25            | 50          | 4 to 45K    | 34 to 730K           | 6 to 1,7M             |
| MK-VT6015   | 446015    | 15            | 60          | 9 to 114K   | 86 to 1,8M           | 15 to 4,3M            |
| MK-VT6030   | 446030    | 30            | 60          | 2 to 26K    | 20 to 433K           | 3,5 to 1M             |
| MK-VT608    | 446008    | 8             | 60          | 30 to 400K  | 300 to 6,5M          | 50 to 15M             |
| MK-VT8040   | 448040    | 40            | 80          | 1 to 11K    | 9 to 182K            | 2 to 420K             |
| MK-VT8070   | 448070    | 70            | 80          | 0,5 to 3,2K | 3 to 52K             | 1 to 120K             |

M for million, K for thousand / \* VANE 6 BLADES. / \*\* These items can be used with tube MB-DIN1 (Ref.112932).

**MS-KREBS** 

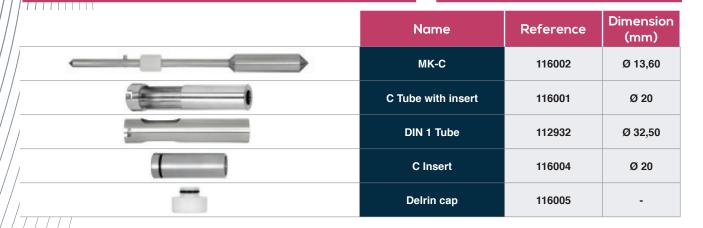
Krebs type measuring spindles compatible with ASTM D562 standard (316L stainless steel). These systems are ideal for viscosity measurement in Krebs units in control of all types of products. They can be used for direct measurement in user containers or in 600 or 150ml beakers.

| Name       | Reference | Dimension<br>(mm) |  |
|------------|-----------|-------------------|--|
| MK-KU 1-10 | 111100    | L. 54,11          |  |
| MK-75Y     | 111103    | L. 34,58          |  |

Coaxial cylinder measuring system compatible with OICCC standard (316L stainless steel).

These measuring spindle measure viscosity and flow limit of chocolates according to Casson regressions models as recommended in OICCC standards.

These measuring systems are compatible with our EVA DIN, EVA 100 temperature controls and our water jacket CT-DIN and CT-LC.



# MS-ULV

instruments.

Measuring system for low viscosities usable with instruments LR version (Stainless steel 316L and Aluminium). This system, unlike the MS-RV/LV or MS-DIN systems, makes it possible to measure low viscosity products in control by

applying a shear rate. Its advantage is to be compatible with LR

This measuring system can be used with our temperature controls EVA DIN and RT1 and our water jackets CT-DIN and CT-LC (according to models, see table).

| Name               | Reference | Dimension<br>(mm) |   |
|--------------------|-----------|-------------------|---|
| MK-C19             | 116015P   | Ø 19              |   |
| C Tube with insert | 116001    | Ø 20              |   |
| Delrin cap         | 116005    | -                 |   |
| C Insert           | 111934    | -                 | • |
| ST-R centring tool | 114436    | -                 |   |
| MB-C Alu Cup       | 114306    | Ø 20              |   |

## MEASURING SYSTEMS WITH BAYONET COUPLING FOR LR DEVICE

| Designation | Reference | Included |        |        |        |        | Volume | Shear rate  | Viscosity        |
|-------------|-----------|----------|--------|--------|--------|--------|--------|-------------|------------------|
|             |           | Spindle  | Cup    | Holder | Сар    | Tool   | (ml)   | range (s-1) | range<br>(mPa.s) |
| MS-ULV*     | 116030    | 116015P  | 116001 |        | 116005 |        | 21     | 1 - 510     | 1 to 26K         |
| MS-ULV/D**  | 116031    | 116015P  | 114306 | 111394 |        | 114436 | 21     | 1 to 510    |                  |

K for thousand / \* Not compatible with oven RT-1. Can be used without temperature unit. / \*\* Include 100 disposable cup (Ref. 114306). Must be used with temperature unit or water jacket.

## MS-SV

Measuring systems for low volumes (316L stainless steel or aluminium).

These systems make it possible to measure products in small quantities by applying a shear rate at temperature up to +300°C (according to items, see table). With RT-1 and THERMOCELL package, these systems are compatible with ASTM D3236.

These measuring systems are compatibles with small volume package SVP65/180, water jacket CT-DIN/CT-LC, THERMOCELL package and our temperature controls EVA DIN and RT-1.



Measuring cylinder MK-SV



Measuring chamber MB-SV13RC (Ref. 116214)



Disposable cup MB-SV13RD (Ref. 116413)



Holder H-SV13RD for disposable cup MB-SV13RD (Ref. 116313)



Measuring chamber MB-SV13R (Ref. 116213)



Centring tool ST-R (Ref. 114436)



Delrin cap, temperature maximum 80°C (Ref. 116215)

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## MEASURING SYSTEMS WITH BAYONET COUPLING

|                    |           |                        |                            |             | Viscosity range in mPa.s |            |              |                    |
|--------------------|-----------|------------------------|----------------------------|-------------|--------------------------|------------|--------------|--------------------|
| Measuring Cylinder |           | Compatible chamber**** |                            |             | Shear rate               |            | B-ONE/       | RM 100/            |
| Designation        | Reference | Designation            | Reference                  | Volume (ml) | (s-1)                    | LR device  | FIRST        | RM 200/<br>DSR 500 |
| MK-SV414*          | 116114    | MB-SV6R*               | 116206                     | 3           | 0,4N                     | 44 to 5,8M | 440 to 95M   | 73 to 219M         |
| MK-SV415*          | 116115    | MB-SV7R*               | 116207                     | 4,4         | 0,48N                    | 15 to 2M   | 155 to 33M   | 26 to 77M          |
| MK-SV416*          | 116116    | MB-SV8R*               | 116208                     | 4,6         | 0,29N                    | 39 to 5,2M | 394 to 85M   | 66 to 197M         |
| MK-SV418           | 116118    |                        | 116213<br>116214<br>116513 | 7,5         | 1,32N                    | 1 to 120K  | 9 to 1,9M    | 2 to 4,5M          |
| MK-SV421           | 116121    |                        |                            | 8           | 0,93N                    | 1 to 188K  | 14 to 3M     | 2 to 7M            |
| MK-SV425           | 116125    |                        |                            | 10          | 0,22N                    | 174 to 23M | 1,7K to 377M | 291 to 870M        |
| MK-SV427           | 116127    | MB-SV13R               |                            | 12          | 0,34N                    | 7 to 0,99M | 75 to 16M    | 12 to 37M          |
| MK-SV428           | 116128    | MB-SV13RC**            |                            | 13          | 0,28N                    | 15 to 1,9M | 147 to 31M   | 24 to 73M          |
| MK-SV429           | 116129    | MB-SVD***              |                            | 13          | 0,25N                    | 29 to 3,9M | 294 to 63M   | 49 to 146M         |
| MK-SV431           | 116131    |                        |                            | 11          | 0,34N                    | 10 to 1,3M | 100 to 21M   | 16 to 49M          |
| MK-SV434           | 116134    |                        |                            | 11          | 0,28N                    | 19 to 2,5M | 194 to 41M   | 32 to 96M          |
| MK-SVC             | 116002    |                        |                            | 13          | 0,43N                    | 3 to 420K  | 32 to 6,8M   | 5 to 15M           |

M for million, K for thousand, N for rotational speed (rpm). / \* Not compatible with RT-1PLUS and THERMOCELL PACKAGE. / \*\* This cup can be used without centring tool ST-R. Need CAP (Ref. 116215). Temperature max 80°C. / \*\*\* This item include 100 disposable cup MB-SV13RD (Ref. 116413) and holder H-SVRD (Ref. 116313). / \*\*\*\* These items need centring tool ST-R (Ref. 114436 include with THERMOCELL and SVP65/180).

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# MS-CP

Measuring systems compatible with DIN 53019 / ISO 3219 / ASTM D4278-D7395 (316L Stainless Steel). These systems make it possible to set the shear rate in order to carry out viscosity measurements or to obtain curves to study flow behaviour, yield stress or thixotropy.

They are particularly suitable for measurements on very small quantities for control or development of homogeneous products with or without particles (size <100µm), guaranteeing easy cleaning. AC 265 coupling guarantees rapid set-up of the measuring system, better maintenance and increased repeatability.

These measuring systems are compatible with FIRST PRODIG CP-1000, RM100 CP-1000 and RM100 CP-2000.





## MEASURING SYSTEMS FOR CP-1000 AND CP-2000 INSTRUMENTS

|             |           |                  |           |                |                     | Viscosit               | y range in mPa.s         |
|-------------|-----------|------------------|-----------|----------------|---------------------|------------------------|--------------------------|
| Designation | Reference | Diameter<br>(mm) | Angle (°) | Volume<br>(ml) | Shear rate<br>(s-1) | FIRST PRODIG<br>CP1000 | RM100 CP1000 /<br>CP2000 |
| MK-CP1005   | 265115    | 10               | 0,5       | 0,002          | 12N                 | 640 to 13M             | 106 to 31,8M             |
| MK-CP1020   | 265120    | 10               | 2         | 0,01           | 3N                  | 2,5K to 55M            | 424 to 127M              |
| MK-CP1030   | 265130    | 10               | 3         | 0,01           | 2N                  | 3,8K to 80M            | 637 to 191M              |
| MK-CP06     | 2651418   | 14,04            | 1,8       | 0,02           | 3,3N                | 840 to 18M             | 139 to 41,8M             |
| MK-CP03     | 2651945   | 19,06            | 0,45      | 0,015          | 13,3N               | 85 to 1,8M             | 14 to 4,1M               |
| MK-CP05     | 2651918   | 19,06            | 1,8       | 0,05           | 3,3N                | 335 to 7,2M            | 56 to 16,7M              |
| MK-CP09     | 2651930   | 19,06            | 3         | 0,1            | 2N                  | 550 to 11,9M           | 92 to 27,3M              |
| MK-CP2005   | 265205    | 20               | 0,5       | 0,018          | 12N                 | 80 to 1,7M             | 13 to 3,9M               |
| MK-CP2015   | 265215    | 20               | 1,59      | 0,058          | 3,8N                | 250 to 5,4M            | 42 to 12,5M              |
| MK-CP2020   | 265202    | 20               | 2         | 0,073          | 3N                  | 320 to 6,8M            | 53 to 15,9M              |
| MK-CP02     | 2652445   | 24               | 0,45      | 0,03           | 13,3N               | 42 to 0,9M             | 7 to 2M                  |
| MK-CP2405   | 265245    | 24               | 0,5       | 0,031          | 12N                 | 46 to 1M               | 8 to 2,3M                |
| MK-CP51Z    | 2652415   | 24               | 1,5       | 0,1            | 4N                  | 140 to 2,9M            | 23 to 6,9M               |
| MK-CP04     | 2652418   | 24               | 1,8       | 0,12           | 3,3N                | 170 to 3,6M            | 28 to 8,3M               |
| MK-CP2420   | 265242    | 24               | 2         | 0,126          | 3N                  | 190 to 3,9M            | 31 to 9,2M               |
| MK-CP52Z    | 265243    | 24               | 3         | 0,2            | 2N                  | 280 to 5,9M            | 46 to 13,8M              |
| MK-CP01     | 265345    | 30,2             | 0,45      | 0,06           | 13,3N               | 20 to 0,4M             | 3 to 1M                  |
| MK-CP10     | 2653012   | 30,2             | 1,2       | 0,15           | 5N                  | 60 to 1,2M             | 9 to 2,7M                |
| MK-CP08     | 2653030   | 30,2             | 3         | 0,38           | 2N                  | 140 to 3M              | 23 to 6,9M               |
| MK-CP4005   | 265405    | 40               | 0,5       | 0,146          | 12N                 | 10 to 0,2M             | 2 to 0,5M                |
| MK-CP4010   | 265401    | 40               | 1         | 0,29           | 6N                  | 20 to 0,4M             | 3 to 1M                  |
| MK-CP4015   | 265515    | 40               | 1,59      | 0,465          | 3,8N                | 32 to 0,7M             | 5 to 1,5M                |
| MK-CP4020   | 265402    | 40               | 2         | 0,585          | 3N                  | 40 to 0,8M             | 7 to 2M                  |
| MK-CP4040   | 265404    | 40               | 4         | 1,17           | 1,5N                | 80 to 1,7M             | 13 to 4M                 |
| MK-CP07     | 2654830   | 48               | 3         | 1,5            | 2N                  | 35 to 0,7M             | 6 to 1,7M                |
| MK-CP40Z    | 265488    | 48               | 0,8       | 0,4            | 7,5N                | 9 to 0,2M              | 2 to 0,4M                |
| MK-CP42Z    | 2654815   | 48               | 1,5       | 0,76           | 4N                  | 18 to 0,3M             | 3 to 0,8M                |
| MK-CP41Z    | 265483    | 48               | 3         | 1,5            | 2N                  | 35 to 0,7M             | 6 to 1,7M                |
| MK-CP5005   | 265505    | 50               | 0,5       | 0,285          | 12N                 | 5 to 0,1M              | 1 to 0,2M                |
| MK-CP5020   | 265502    | 50               | 2         | 1,142          | 3N                  | 21 to 0,4M             | 3 to 1M                  |
| MK-CP6005   | 265622    | 60               | 0,5       | 0,5            | 12N                 | 3 to 60K               | 1 to 0,1M                |
| MK-CP6010   | 265610    | 60               | 1         | 1              | 6N                  | 6 to 0,1M              | 1 to 0,3M                |
| MK-CP6020   | 265602    | 60               | 2         | 2              | 3N                  | 12 to 0,25M            | 2 to 0,6M                |
| MK-CP6030   | 265603    | 60               | 3         | 3              | 2N                  | 18 to 0,3M             | 3 to 0,9M                |

## MS-CP

Measuring systems compatible with DIN 53019 / ISO 3219 / ASTM D4278-D7395 (316L Stainless Steel). All cones-plate presented on this page present a truncation ( $50\mu m$ ) compatible with our instruments with automatic lift.

They are particularly suitable for measurements on very small quantities for control or development of homogeneous products with or without particles (size <5µm for cone-plate), guaranteeing easy cleaning. AC 265 coupling guarantees rapid set-up of the measuring system, better maintenance and increased repeatability.

These measuring systems are compatible with RM 200 CP-4000 and DSR 500 CP-4000.









## MEASURING SYSTEMS FOR RM200/DSR500 CP4000 PLUS

| Designation | Reference | Diameter (mm) | Angle (°) | Volume (ml) | Shear rate (s-1) | Viscosity range<br>(mPa.s) |
|-------------|-----------|---------------|-----------|-------------|------------------|----------------------------|
| MK-CP1010   | 365101    | 10            | 1         | 0,005       | 6N               | 212 to 63,6M               |
| MK-CP2005   | 365205    | 20            | 0,5       | 0,018       | 12N              | 13 to 3,9M                 |
| MK-CP2010   | 365210    | 20            | 1         | 0,04        | 6N               | 26 to 7,9M                 |
| MK-CP2020   | 365202    | 20            | 2         | 0,073       | 3N               | 53 to 15,9M                |
| MK-CP2404   | 365244    | 24            | 0,45      | 0,03        | 13,3N            | 7 to 2M                    |
| MK-CP2405   | 365245    | 24            | 0,5       | 0,031       | 12N              | 8 to 2,3M                  |
| MK-CP3510   | 365351    | 35            | 1         | 0,2         | 6N               | 5 to 1,4M                  |
| MK-CP4005   | 365405    | 40            | 0,5       | 0,146       | 12N              | 2 to 0,5M                  |
| MK-CP4010   | 365401    | 40            | 1         | 0,29        | 6N               | 3 to 1M                    |
| MK-CP4020   | 365402    | 40            | 2         | 0,585       | 3N               | 7 to 2M                    |
| MK-CP4040   | 365404    | 40            | 4         | 1,17        | 1,5N             | 13 to 4M                   |
| MK-CP5005   | 365505    | 50            | 0,5       | 0,285       | 12N              | 1 to 0,24M                 |
| MK-CP5020   | 365502    | 50            | 2         | 1,142       | 3N               | 3 to 1M                    |
| MK-CP6010   | 365601    | 60            | 1         | 1           | 6N               | 1 to 0,3M                  |
| MK-CP6020   | 365602    | 60            | 2         | 2           | 3N               | 2 to 0,6M                  |
| MK-CP6005   | 365605    | 60            | 0,5       | 1           | 12N              | 1 to 0,1M                  |

M for million, K for thousand, N for rotational speed (rpm).

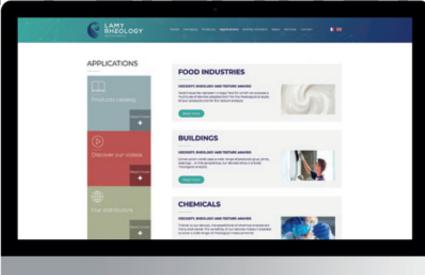
MS-PP

| Designation | Reference | Diameter (mm) | Volume* (ml) | Shear rate* (s-1) | Viscosity range*<br>(mPa.s) |
|-------------|-----------|---------------|--------------|-------------------|-----------------------------|
| MK-PP20     | 265020    | 20            | 0,314        | 1N                | 200 to 61,1M                |
| MK-PP25     | 265025    | 25            | 0,491        | 1,3N              | 83 to 24,8M                 |
| MK-PP28     | 265028    | 28            | 0,616        | 1,5N              | 52 to 15,7M                 |
| MK-PP35     | 265035    | 35            | 0,962        | 1,8N              | 22 to 6,5M                  |
| MK-PP40     | 265040    | 40            | 0,63         | 4,2N              | 6 to 1,9M                   |
| MK-PP50     | 265005    | 50            | 1            | 5,2N              | 3 to 0,78M                  |



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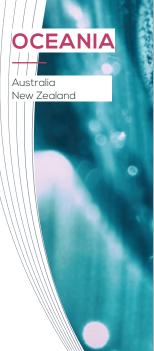
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