

byko-visc RT

Rotational Viscometer

Viscosity is an important material property which needs to be specified and controlled in order to optimize how a liquid flows, spreads, or levels under certain conditions. As a manufacturer, viscosity specifications need to be developed and defined by R&D for the products used in specific conditions – often customization of recipes is required. In order to ensure a stable viscosity performance in production tests need to be run daily.

The new byko-visc RT is a rotational viscometer with a rotating spindle that is immersed into a fluid whose viscosity is to be measured. It runs on the principle, that the required torque to turn this spindle, is proportional to the viscosity of that fluid. The torque is measured by a highly sensitive spring which in turn sets the measurement range.



Flexible and precise

The byko-visc RT is the premier instrument for precise measurement results. Each test condition is recorded for detailed results analysis and review.

This precision is repeatable day-to-day and instrument-to-instrument thanks to BYK-Gardner's rigorous quality control. An ISO 17025 calibration certificate is supplied with each instrument to confirm this performance.

The byko-visc RT is available with three different spring configurations depending on your specific measurement needs:

byko-visc RT L is used for low viscosity applications and has a viscosity range of 4 cP to 6 million cP.

byko-visc RT R is used for regular applications and has a viscosity range of 26 cP to 40 million cP.

byko-visc RT H is used for highly viscous materials and has a viscosity range of 195 to 320 million cP.

Each model is also available as a Lite model which is a simpler, streamlined version with predefined speeds according to established ASTM and ISO standards. The Lite model is also available as a base version which includes no spindles in the delivery content.



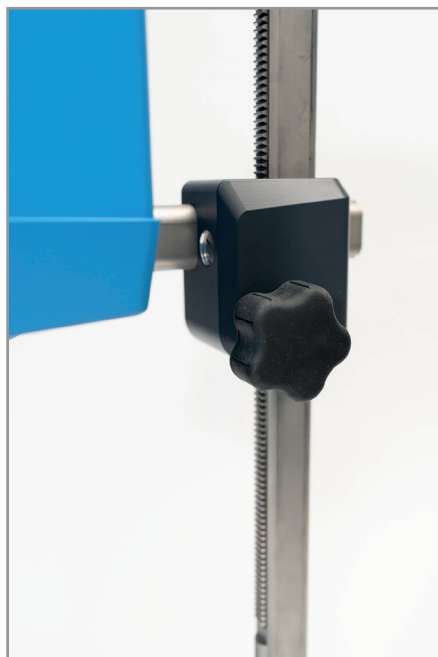
Ease-of-Use to increase efficiency

The new byko-visc offers intuitive navigation, a multitude of control options, and a large capacitive color touch-screen display. It includes preset buttons to quickly recall often used measuring parameters. These benefits reduce operator time, meaning you'll spend less time setting up and more time getting your work done.



Convenient adjustable stand

The adjustable stand allows a user to easily raise and lower the viscometer head by twisting the knob on the side. This allows for appropriate ergonomics due to both counter, and operator height and preference.



No effort spindle change

With the easy snap-on spindle attachment you can quickly switch out spindles with no effort. No need to screw on the spindle. This saves valuable operator time and protects the instrument!



Customize your unit

In order to maximize the instrument according to your specific needs, we offer a number of accessories to guarantee the best possible conditions for your applications. The byko-visc RT, as a rotational viscometer, measures relative viscosity values. This is because the measurement geometry is not absolute for standard measurements. That means, that these values can only be compared to values that are made in the exact same conditions. To remedy this, we offer adapters with defined geometry which will give absolute viscosity values, shear rates and shear stress. These come in two variations:

Small sample adapter (8361): This adapter is ideal for measurements of small amounts from only 8 to 13 mL. Special spindles (TL and TR for L and R+H versions respectively) are needed.

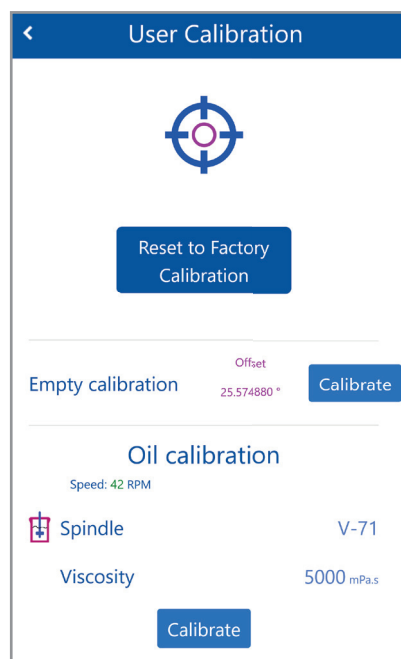
Low viscosity adapter (8362): This adapter is ideal for measurements of very low viscous materials in small (16 mL) amounts. A spindle is included.



Take calibration into your own hands

When ordering a new instrument, we offer the option to apply a self-calibration function to the unit. This time and cost saving option allows you to recalibrate the instrument when needed, instead of shipping it back to a BYK service point. Several accessories are needed for this self-calibration:

- Small sample adapter (8361) with an appropriate spindle for your model
L Model: TL5 (4961) Spindle and Viscosity standard RT50 (4041)
R Model: TR8 (4965) Spindle and Viscosity standard RT500 (4043)
H Model: TR8 (4965) Spindle and Viscosity standard RT5000 (4045)
- Certified Thermometer (8363, not included for Lite models)
- Circulating Bath (8355)



Standards

ASTM D2196
ISO 2555
ISO 1652



Catalog Number	8347	8348	8349	8350	8351	8352	8356	8357	8358
Short Description	byko-visc RT Lite L, base	byko-visc RT Lite R, base	byko-visc RT Lite H, base	byko-visc RT Lite L	byko-visc RT Lite R	byko-visc RT Lite H	byko-visc RT L	byko-visc RT R	byko-visc RT H
Spring Type	L	R	H	L	R	H	L	R	H
Measuring Range	5 - 2 Mio. cP	30 - 13.3 Mio. cP	240 - 106 Mio. cP	5 - 2 Mio. cP	30 - 13.3 Mio. cP	240 - 106 Mio. cP	4 - 6 Mio. cP	26 - 40 Mio. cP	195 - 320 Mio. cP
No. of Speeds	21						Freely selectable		
Speed Range	0.3 - 200 rpm						0.1 - 250 rpm		
No. of Spindles	none			4	6		4	6	
Repeatability	0.2%								
Accuracy	1.0% full scale range								
Power supply	Worldwide power supply, 24 V voltage DC input / Separate 24 V DC power supply								
Weight	6.5 kg								
	14.3 lb								
Dimensions: L x W x H	25 x 31 x 47 cm								
	9.8 x 12.2 x 18.5 in								
Languages	English, German, French, Italian, Spanish, Russian, Japanese, Chinese								

Delivery Content

Instrument with stand and power supply
Spindle set 4982 - 4984 for L; 4988 - 4993 for R and H (RT and RT Lite only)
Spindle rack (RT and RT Lite only)
Spindle guard (RT and RT Lite only)
17025 certificate
Temperature probe 8363 (RT only)

Catalog Number	Short Description	Delivery Content
8361	Small Sample Adapter for byko-visc RT	Small Sample Adapter without spindle
8362	Low Viscosity Adapter for byko-visc RT	Low Viscosity Adapter LVA Spindle (4972)
8389	byko-visc RT User Calibration Option	
8364	Glass Beaker, 600ml, Low Form	
8363	Temperature Probe	
8354	Lauda Hydro H4	Instrument Power Supply Manual
8355	Lauda Loop L100	Instrument Power Supply Manual
4996	Viscosity Standard RT5	
4040	Viscosity Standard RT10	
4041	Viscosity Standard RT50	
4042	Viscosity Standard RT100	
4043	Viscosity Standard RT500	
4044	Viscosity Standard RT1000	
4045	Viscosity Standard RT5000	
4046	Viscosity Standard RT12500	
4047	Viscosity Standard RT30000	
4048	Viscosity Standard RT60000	
4049	Viscosity Standard RT100000	
4982	Spindle, L1	
4983	Spindle, L2	
4984	Spindle, L3	
4985	Spindle, L4	
4987	Spindle, R1	
4988	Spindle, R2	
4989	Spindle, R3	
4990	Spindle, R4	
4991	Spindle, R5	
4992	Spindle, R6	
4993	Spindle, R7	
8367	V-71 Vane Spindle	
8368	V-72 Vane Spindle	
8369	V-73 Vane Spindle	
8370	V-74 Vane Spindle	
8371	V-75 Vane Spindle	
4961	Spindle, TL5	
4962	Spindle, TL6	
4963	Spindle, TL7	
4964	Spindle, TR8	
4965	Spindle, TR9	
4966	Spindle, TR10	
4967	Spindle, TR11	
4972	LVA Spindle	