



# DT Online System

Semi-automatic dissolution testing with integrated UV-Vis analysis



**ERWEKA**

# The highlights of the new DT Online System

The ERWEKA Dissolution Online Systems are the perfect, semi-automatic solution for dissolution testing with integrated UV-Vis online analysis.

The DT 950 series with integrated, automatic Sampling station ASS-9 transports freshly taken samples directly to the UV-Vis analysis. The samples are analyzed directly and the data is evaluated and saved using our advanced Disso.NET software.

With the help of the Thermo Scientific™ Evolution 350™ Double-Beam Spectrophotometer that we recommend and which is fully integrated into the system, 5-minute cycles within a 150 nm range in the 190 to 1100 nm area, which is important for dissolution tests, can be tested and evaluated with high efficiency. In connection with the maintenance-free pump PVP 820, the customer can trust on highest reliability in dissolution testing.

100%

100% USP/EP/JP  
compliant dissolution  
testing



USP Method 1, 2, 5  
and 6



Thermo Scientific™ Evolution 350™  
Spectrophotometer for 5-min. cycles



Completely software  
controlled by Disso.NET



## Dissolution Tester DT 958

The ERWEKA DT 958 is the perfect dissolution tester for the ERWEKA DT online system. The DT 958 ensures absolutely reliable and reproducible test results. 100% USP/EP compliant, with a novel, innovative design and the usual ERWEKA quality and with integrated automatic sampling station ASS-9 and automatic tablet drop.

## High-precision pumping with the PVP 820

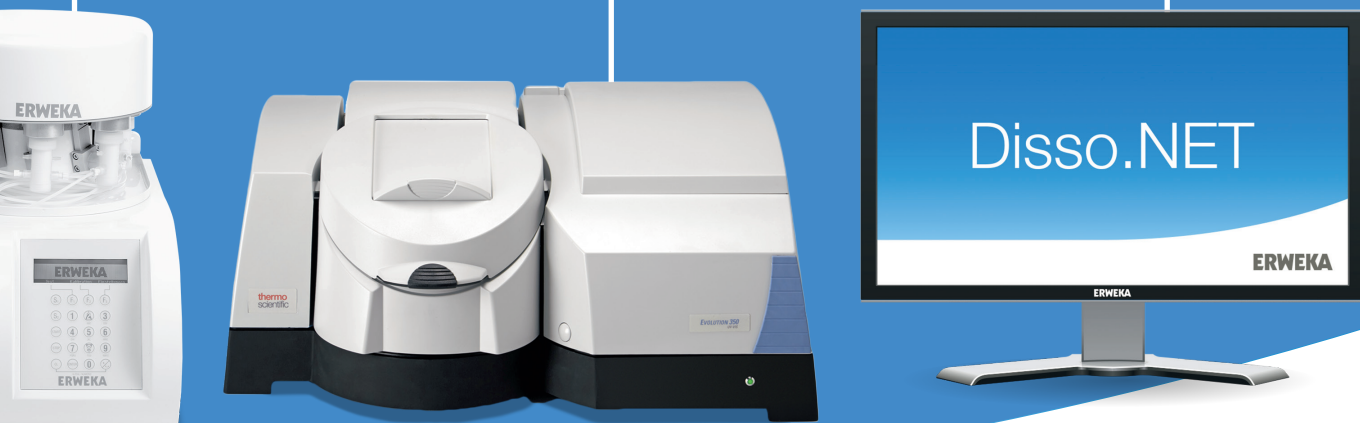
With the maintenance-free PVP 820 piston pump with almost wear-free ceramic pump heads, the samples are transported precisely from the dissolution tester to the Thermo Scientific Evolution 350 Photometer.

## Complete control with Disso.NET

The Windows software Disso.NET completely controls the entire dissolution system, manages methods with tests and generates the associated reports. The software tracks all changes that are made using the integrated 21 CFR part 11 compliant audit trail. Thanks to the full integration of the Thermo Scientific Evolution 350, the UV-Vis evaluation takes place directly in the Disso.NET - so the user has all the data of the dissolution test in one place.

## Thermo Scientific™ Evolution 350™

The Evolution 350™ is a double-beam photometer with xenon flash lamp from Thermo Scientific. It is completely USP/EP/JP compliant, offers selectable band width (0.5 - 4.0 nm) and enables 5-minute cycles within a 150 nm range. It is completely integrated in the Disso.NET from hardware control up to data evaluation.



# 100% USP/EP/JP-compliant Dissolution Tester DT 950 Series

The ERWEKA DT 950 series was developed in accordance with the USP/EP/JP requirements for testing tablets and other dosage forms. It combines the latest embedded-pc technology with excellent and user-friendly design. The drive head can be operated both in the high-head and in the low-head position and thus offers maximum flexibility. As part of the Dissolution Online System, it is completely controlled by the connected Disso.NET software - from the automatic tablet drop, to the control of the motors and the retraction and extension of the automatic sampling station ASS-9.

The manual drive head with gas spring support enables simple and quick lifting within a few seconds. It switches to remote mode during Disso.NET operation and displays speed and temperature. Evaporation is less than one percent within 24 hours (37 ° C, 50 rpm, 1000 ml). Thanks to its new, long-lasting plastic housing, corrosion is reduced to a minimum.

Thanks to its flexible upgradeability, a stand-alone DT 950 Series dissolution tester can be easily expanded to a full dissolution system. The DT 950 is therefore an extremely reliable and futureproof partner for daily dissolution test tasks.

100%

100% USP/EP/JP compliant dissolution testing



USP method 1, 2, 5 and 6



External heater for vibration free testing





Reliable double-beam photometer

## Thermo Scientific™ Evolution 350™

The Thermo Scientific™ Evolution 350™ is a robust and precise double-beam photometer with xenon flash lamp. With its performance optimized for demanding applications and selectable band widths of 0.5, 1.0, 1.5, 2.0 and 4.0 nm, it is ideally adapted to the diverse requirements of a dissolution system. The xenon flash lamp is extremely durable (>3 years) and is available within seconds - this eliminates long warm-up times and measurement operation can be started quickly. In combination with our dissolution tester, the Evolution 350 also enables 5-minute cycles without any problems.

With the ERWEKA Disso.NET, the Evolution 350 is seamlessly integrated into all ERWEKA dissolution systems either online, online/offline or the RoboDis II with up to 40 batches. This enables combined reports with detailed dissolution curves and, if necessary, the recalculation of the test data.

- Double-beam xenon flash lamp
- 5-minute cycles within a 150 nm range
- 100% USP/EP compliant
- Seamless integration in ERWEKA Disso.NET dissolution software
- Selectable gap widths (0.5, 1.0, 1.5, 2.0 and 4.0)

100%

100% USP/EP/JP compliant



Double-beam xenon flash



5-minute cycles in a 150 nm range



Full integration in Disso.NET software



## ERWEKA Systems Versatile configurations

ERWEKA dissolution systems can be configured in many ways and can be adapted to customer requirements and budgets. In addition to the recommended configuration with the perfectly integrated Thermo Scientific Evolution 350 and the maintenance-free piston pump PVP 820, there are variants with the cheaper peristaltic pump IPC 8, the Shimadzu UV-1900i photometer and the Analytic Jena Specord 20 Plus.

If the test volume is high, we also offer a DT Online System with a 14-Vessel DT 141x and the Analytic Jena Specord 210/16.



Can be flexibly adapted to customer requirements



Dissolution testing with up to 14 digits



Full integration of all system components in Disso.NET software

Art. No.	Dissolution Online System UV-Vis
27960	UV-Vis Online System with Evolution 350, IPC 8 for DT 95x + Disso.NET 4
27028	UV-Vis Online System Analytic Jena Specord 210, IPC16 for DT 141x/DT 161x
27961	UV-Vis Online System with Shimadzu 1900i, IPC 8 for DT 95x + Disso.NET 4
27962	UV-Vis Online System with Evolution 350, PVP 820 for DT 95x + Disso.NET 4
26983	UV-Vis Online System Analytic J. Specord 210, PVP 1420 for DT 141x/DT 161x
27963	UV-Vis Online System with Shimadzu 1900i, PVP 820 for DT 95x + Disso.NET 4

### High volume testing with DT 141x and Analytic Jena Specord 210/16



## Technical specifications Thermo Scientific™ Evolution 350™

Optical Design	Modified Double-Beam with sample and reference cuvette/accessory positions	
Spectral Bandwidths	Selectable 0.5, 1.0, 1.5, 2.0, 4.0 nm	
Light source	Xenon flash lamp	
Detector	Detector dual-matched silicon photodiodes	
Grating	Holographic, 1200 lines/mm, blazed at 240 nm	
Beam Separation	210 mm	
Scan Ordinate Modes	Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, Log(1/R), Log(Abs), ABS × Factor, Intensity, 1st–4th Derivative	
Wavelength	Range	190–1100 nm
	Accuracy	±0.20 nm (546.07 nm Hg emission line), ±0.30 nm, 190–900 nm
	Repeatability	Standard deviation for 10 measurements <0.05 nm
	Scanning speeds	Variabel, up to 6000 nm/min
	Data interval	10, 5, 2, 1, 0.5, 0.2, 0.1, 0.05 nm
Photometric	Range	>4 A
	Accuracy - Instrument*	1A: ±0.004 A – 2A: ±0.004 A – 3A: ±0.006 A
	Repeatability	1A: ±0.0025 A
Stray light	198 nm: 2.4 A KCl – 220 nm: 3.5 A NaI – 340 nm: 4.0 A NaNO <sub>2</sub>	
Baseline Flatness	±0.0015 A (200–800 nm) – 2.0 nm SBW, smoothed	
Dimensions (W × D × H)	61 × 53 × 38 cm	
Weight	22 kg	
Electrical Supply	100–240 V, 50–60 Hz	

Data according to the manufacturer, subject to change.

## Technical data DT 950 series

Supported USP methods	USP Method 1 (Basket), Method 2 (Paddle), Method 5 (Paddle-over-disk), Method 6 (Rotating Cylinder) with 6 or 8 test stations
USP/EP/JP compliance	100%
FDA Mechanical Calibration	check
Device control	Manually via LED display and membrane keys on the device, 100% controllable via Disso.NET software
Evaporation	<1% (measured at 50 RPM, 1000 ml, 37 ° C over 24 h)
Vessel centering	Automatic centering rings
Heater	External heating with a heating range of 25 - 45 ° C; minimizes vibrations
Tablet insertion	Manual tablet insertion or optional automatic tablet insertion (controllable via Disso.NET)
Leveling	Adjustable feet for quick leveling
Connections	RS 232 interface for PC connection, USB-B interface for firmware updates, USB-A for printers
Dimensions (HxWxD)	940 mm x 830 mm (with heater) x 640 mm
Weight	47 kg
Power connection	115 V or 230 V, 50/60 Hz

## Technical data PVP x20

Pump	PVP 620/720/820	PVP 1220/1420
Channels	6, 7 or 8	12 or 14
Valves	-	
Accuracy	+/- 0.5 m.	
System compatibility	DT Online System, DT Offline System, DT On-/Offline System	
Benefits	Filtration down to 0.22 µm with a flat membrane filtration. Particularly suitable for fully automatic dissolution systems.	
Dimensions (HxWxD)	420x280x475	420x275x575
Weight	21 kg	28 kg
Power connection	115 V or 230 V, 50/60 Hz	

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Product specifications are subject to change and are subject to change without notice. **v.1.3.7.21**

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