



AUTOMATED UV / VIS AND SAMPLE COLLECTION

# DISSOLUTION ON-/ OFFLINE SYSTEM WITH UV-VIS

## **Semi-automated dissolution system with connected UV-Vis measurement and sample collection, controlled by Disso.NET.**

The ERWEKA Dissolution UV-Vis On-/ Offline System is the ideal system configuration for spectrophotometers. With the connected PC, the on-/ offline system can be conveniently controlled via our advanced Disso.NET software. The software also offers full control over all components.

Once the analysis is complete, the samples are conveniently stored using our own FRL 6/7/854 sample collector.

### FULL DISSOLUTION SOFTWARE SOLUTION

## **DISSO.NET**

The ERWEKA Disso.NET software is the perfect 21 CFR Part 11 compliant companion for our dissolution systems. The software provides support for all test methods that can be used with the ERWEKA DT dissolution testers, as well as the automated RoboDis II+.

Disso.NET helps with standard dissolution jobs, handles qualification tasks and provides control over every single function of the connected devices (e. g. dissolution tester, UV-Vis spectrophotometer or HPLC analysis device). The Audit Trail also creates detailed logs of all events and time periods. The software additionally includes an easy-to-use editor for comfortable programming of the dissolution methods (for highest repeatability). After finishing the dissolution test, Disso.NET generates comprehensive reports (as PDF-files) with your corporate logo and/or exports the results (e. g. in XML format).

Disso.NET 4 has an Active Directory connection, allowing for cross-system login data and user passwords. Countless passwords are thus avoided and easy handling is ensured.



**100% USP / EP / JP Compliant**

Like all ERWEKA products, the dissolution online systems are 100% USP / EP / JP compliant



**Easy Control of the Complete System**

Full system control of all connected components with the Disso.NET software



**USP Methods 1, 2, 5 and 6**

Use of a variety of attachments for different USP methods due to the standardized shaft design



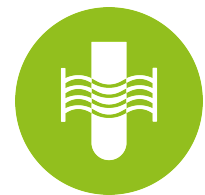
**Sample Collector FRL 6/7/854**

ERWEKA sample collector with up to 8 channels



**External Heater**

The external flow-through heater reduces the influence of external vibrations and ensures a constant temperature



**Advanced UV / Vis Analysis**

Different brands of UV / VIS analyzers are available

## PROVEN ERWEKA QUALITY THROUGHOUT COMPONENTS

### HEART OF THE DISSOLUTION ONLINE SYSTEM **DISSOLUTION TESTER DT 950**

The DT 950 is the centerpiece of our online system. It is 100% compliant with USP methods 1, 2, 5 and 6, enabling a wide range of dissolution tests to be performed with our system. It also offers the flexible high-head and low-head modes.

### PRECISE SAMPLING ACCORDING TO USP SAMPLING POINTS

### **AUTOMATED SAMPLING STATION ASS-9**

The automated sampling station ASS-9 is an add-on module for the DT 820 and DT 950. It allows samples to be taken directly from the vessel in accordance with the USP sampling points. These media are then pumped into the FRL 6/7/854 sample collector using the connected pump.



EFFICIENT & VERSATILE PUMP FOR ERWEKA DISSOLUTION SYSTEMS

## IPC 8 PERISTALTIC PUMP OR PVP 820 PISTON PUMP

The IPC 8 peristaltic pump offers an accuracy of +/- 0.5 ml and is the basic pump provided with ERWEKA dissolution systems. The PVP piston pump manufactured by Erweka has virtually maintenance-free ceramic heads and is used for high volumes.



ALWAYS THE RIGHT SOLUTION FOR YOUR NEEDS

## VERSATILE UV-VIS ANALYSIS DEVICES AVAILABLE

We offer several UV/VIS analysis devices for our online systems, all fully supported by Disso.NET.

- | Mettler Toledo UV7 (only for DT 950)
- | Analytik Jena Specord 200 & 210 Plus (for DT 950 & DT 9510)
- | Shimadzu 1900i Plus (only for DT 950)
- | Thermo Fisher Evolution Pro (only for DT 950)



EFFICIENT SAMPLE COLLECTION FOR SUBSEQUENT ANALYSIS

## SAMPLE COLLECTOR FRL 854 SERIES

The FRL 6/7/854 sample collector features a space-saving footprint and can hold up to 26 samples per tube. Its advanced design allows for easy cleaning underneath the removable tube rack.



ADVANCED DISSOLUTION SOFTWARE FOR PC

## CONTROLLED BY DISSO.NET

Disso.NET takes full control of ERWEKA online systems. The software offers a sophisticated user management, a wide range of features and comprehensive data export functions.



EASILY ADJUSTABLE TO YOUR REQUIREMENTS

## DT UV-VIS ON-/ OFFLINE SYSTEM VARIANTS

- | 14-vessel online system with DT 9510 series and IPC 16
- | ERWEKA PVP 620 or 820 pump available for filtration from 0.22  $\mu\text{m}$

## DISSOLUTION TESTER DT 950 SERIES

**TECHNICAL DATA**

<b>Weight</b>	42 kg
<b>Dimensions (H x W x D)</b>	850 x 650 x 650 mm
<b>Voltage</b>	115/230 V; 50/60 Hz
<b>Speed</b>	20-250 U/min
<b>Vessel volume</b>	400 ml / 1000 ml / 2000 ml
<b>Interfaces</b>	1x RS-232, 2x USB, 2x Ethernet/RJ45
<b>Test stations (DT 956)</b>	6 in 2 rows
<b>Test stations (DT 957)</b>	7 in 2 rows
<b>Test stations (DT 958)</b>	8 in 2 rows
<b>USP methods</b>	USP 1 / USP 2 / USP 5 / USP 6
<b>Fuses</b>	2 A
<b>Protection class</b>	I/EN 61140
<b>Protection type</b>	IP 21/IEC 529
<b>Operation</b>	Touchscreen 7", 800x480 Pixel
<b>Sampling positions</b>	High-head / Low-head / Cleaning mode
<b>Ambient temperature during operation</b>	+10 °C to +30 °C (ambient temperature min. -5 °C below set temperature)
<b>Storage &amp; Transport temp.</b>	+5 °C to +40 °C
<b>Relative humidity</b>	25-80 % non condensing

## DISSOLUTION TESTER DT 9510 SERIES

**TECHNICAL DATA**

<b>Weight</b>	110 kg
<b>Dimensions (H x W x D)</b>	850 x 1062 x 650 mm
<b>Voltage</b>	115/230 V; 50/60 Hz
<b>Speed</b>	20-250 U/min
<b>Vessel volume</b>	400 ml / 1000 ml / 2000 ml
<b>Interfaces</b>	1x RS-232, 2x USB, 2x Ethernet/RJ45
<b>Test stations (DT 9512)</b>	12 in 2 rows
<b>Test stations (DT 9513)</b>	13 in 2 rows
<b>Test stations (DT 9514)</b>	14 in 2 rows
<b>USP methods</b>	USP 1 / USP 2 / USP 5 / USP 6
<b>Fuses</b>	2 A
<b>Protection class</b>	I/EN 61140
<b>Protection type</b>	IP 21/IEC 529
<b>Operation</b>	Touchscreen 7", 800x480 Pixel
<b>Sampling positions</b>	High-head / Low-head / Cleaning mode
<b>Ambient temperature during operation</b>	+10 °C to +30 °C (ambient temperature min. -5 °C below set temperature)
<b>Storage &amp; Transport temp.</b>	+5 °C to +40 °C
<b>Relative humidity</b>	25-80 % non condensing

## SAMPLE COLLECTOR FRL 6/7/854

### TECHNICAL DATA

<b>Weight</b>	25 kg
<b>Dimensions (H x W x D)</b>	585 x 700 x 515 mm
<b>Channels</b>	6,7 or 8
<b>Max. capacity (not for 25 ml test tubes)</b>	26 sample intervals
<b>Valve</b>	Integrated 3 way valves
<b>FRL racks</b>	26 x 8 / 1.5 ml HPLC vials, 26 x 8 / 4.0 ml HPLC vials, 26 x 8 / 10 ml test tubes, 18 x 8 / 25 ml test tubes
<b>Voltage +/- 10%</b>	115 - 250 VAC; 50 / 60 Hz

## PVP PUMP X20

### TECHNICAL DATA

<b>Weight</b>	28 kg (for PVP 1220/1420)
<b>Dimensions (H x W x D)</b>	420 x 275 x 575 mm (for PVP 1220/1420)
<b>Voltage</b>	115 V or 230 V, 50/60 Hz
<b>Pump type</b>	PVP 1220/1420 (for DT 9510)
<b>Channels</b>	12 or 14 (for PVP 1220/1420)
<b>Valves</b>	/
<b>Accuracy</b>	+/- 0.5 ml
<b>System compatibility</b>	DT Online System, DT Offline System, DT On-/Offline System
<b>Benefits</b>	Filtration using 0.45 µm flat membrane filters, with other pore sizes available upon request. Particularly suitable for fully automatic dissolution systems.

## IPC PUMP 8/16

### TECHNICAL DATA

<b>Dimensions (H x W x D)</b>	125 x 145 x 220 mm
<b>Interfaces</b>	RS 232
<b>Channels</b>	8 or 16
<b>Accuracy</b>	25 ml +/- 5%
<b>Media replacement</b>	Standard
<b>Double filtration (optional)</b>	Only when first filtration with poroplast filters. No media replacement possible when double filtration.
<b>Required type of sample collector</b>	FRL 654 / 754 / 854
<b>System compatibility</b>	DT Offline / DT Online / DT On-/Offline
<b>Advantages</b>	Basic pump possible with DT 950/9510, needs regular replacement of tubing

## AUTOMATIC FILTER CHANGER AFC 825

### TECHNICAL DATA

<b>Dimensions (H x W x D)</b>	610 mm x 215 mm (without filter refill) or 580 mm (with filter refill) x 200 mm (without valves) or 215 mm (with valves)
<b>Voltage</b>	100-240 VAC +/- 10% / 50 and 60 Hz
<b>Interfaces</b>	RS 232
<b>Fuses</b>	115 V / 250 V, 2 x 3.15 A
<b>Filter requirements</b>	Pore size examples: 0.45 µm, with other sizes on request
<b>Supported filters</b>	- PALL Membrane Filter ACRODISC - Whatman Roby 25 syringe filters for robotic systems
<b>Stations</b>	12 valves for 6 stations / 16 valves for 8 stations

## ANALYTIK JENA SPECORD 200

### TECHNICAL DATA

<b>Weight</b>	22 kg
<b>Dimensions (H x W x D)</b>	290 x 590 x 690 mm
<b>Voltage</b>	85–264 V/AC, 50–60 Hz
<b>Optical design</b>	Double beam spectrophotometer with fixed spectral bandwidth (Specord 210 with variable spectral bandwidth)
<b>Spectral bandwidth</b>	1.4 nm
<b>Light source</b>	Combination of deuterium and halogen lamp
<b>Detector</b>	Two silicon photodiodes
<b>Spectrometric system</b>	Monochromator with imaging grating and aspherical quartz-coated optics
<b>Baseline deviation</b>	± 0.0005 A (200–1000 nm; slit 1.4 nm)
<b>Zero point transmission</b>	± 0.05 %T (200–1000 nm; slit 1.4 nm)
<b>Wavelength range</b>	190–1100 nm
<b>Wavelength accuracy</b>	± 0.1 nm (Deuterium line at 656.1 nm)
<b>Wavelength reproducibility</b>	≤ 0.02 nm
<b>Wavelength registration speed</b>	Up to 12000 nm/min
<b>Wavelength min. data interval</b>	0.02 nm
<b>Photometric range</b>	-3 to 3 A
<b>Photometric accuracy UV</b>	± 0.010 A
<b>Photometric accuracy Vis</b>	± 0.003 A
<b>Photometric reproducibility</b>	≤ 0.0005 A
<b>Stray light 198 nm (KCl)</b>	≤ 0.3 %T
<b>Stray light 220 nm (NaI)</b>	≤ 0.03 %T
<b>Stray light 240 nm (NaI)</b>	≤ 0.03 %T
<b>Stray light 340 nm (NaNO<sub>2</sub>)</b>	≤ 0.02 %T
<b>Baseline noise at 500 nm (RMS)</b>	≤ 0.0001 A