

# Тестеры растворения DT-810

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

|                             |                                 |                                |                          |
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| Алматы (7273)495-231        | Калининград (4012)72-03-81      | Омск (3812)21-46-40            | Сыктывкар (8212)25-95-17 |
| Ангарск (3955)60-70-56      | Калуга (4842)92-23-67           | Орел (4862)44-53-42            | Тамбов (4752)50-40-97    |
| Архангельск (8182)63-90-72  | Кемерово (3842)65-04-62         | Оренбург (3532)37-68-04        | Тверь (4822)63-31-35     |
| Астрахань (8512)99-46-04    | Киров (8332)68-02-04            | Пенза (8412)22-31-16           | Тольятти (8482)63-91-07  |
| Барнаул (3852)73-04-60      | Коломна (4966)23-41-49          | Петрозаводск (8142)55-98-37    | Томск (3822)98-41-53     |
| Белгород (4722)40-23-64     | Кострома (4942)77-07-48         | Псков (8112)59-10-37           | Тула (4872)33-79-87      |
| Благовещенск (4162)22-76-07 | Краснодар (861)203-40-90        | Пермь (342)205-81-47           | Тюмень (3452)66-21-18    |
| Брянск (4832)59-03-52       | Красноярск (391)204-63-61       | Ростов-на-Дону (863)308-18-15  | Ульяновск (8422)24-23-59 |
| Владивосток (423)249-28-31  | Курск (4712)77-13-04            | Рязань (4912)46-61-64          | Улан-Удэ (3012)59-97-51  |
| Владикавказ (8672)28-90-48  | Курган (3522)50-90-47           | Самара (846)206-03-16          | Уфа (347)229-48-12       |
| Владимир (4922)49-43-18     | Липецк (4742)52-20-81           | Саранск (8342)22-96-24         | Хабаровск (4212)92-98-04 |
| Волгоград (844)278-03-48    | Магнитогорск (3519)55-03-13     | Санкт-Петербург (812)309-46-40 | Чебоксары (8352)28-53-07 |
| Вологда (8172)26-41-59      | Москва (495)268-04-70           | Саратов (845)249-38-78         | Челябинск (351)202-03-61 |
| Воронеж (473)204-51-73      | Мурманск (8152)59-64-93         | Севастополь (8692)22-31-93     | Череповец (8202)49-02-64 |
| Екатеринбург (343)384-55-89 | Набережные Челны (8552)20-53-41 | Симферополь (3652)67-13-56     | Чита (3022)38-34-83      |
| Иваново (4932)77-34-06      | Нижний Новгород (831)429-08-12  | Смоленск (4812)29-41-54        | Якутск (4112)23-90-97    |
| Ижевск (3412)26-03-58       | Новокузнецк (3843)20-46-81      | Сочи (862)225-72-31            | Ярославль (4852)69-52-93 |
| Иркутск (395)279-98-46      | Ноябрьск (3496)41-32-12         | Ставрополь (8652)20-65-13      |                          |
| Казань (843)206-01-48       | Новосибирск (383)227-86-73      | Сургут (3462)77-98-35          |                          |
| Россия +7(495)268-04-70     | Киргизия +996(312)-96-26-47     | Казахстан +7(7172)727-132      |                          |

# DT-810 Tablet Dissolution Tester

The DT-810 tablet dissolution tester is comprehensive, fully automated and designed for flexible measurement.

**8 samples with either the paddle method (standard) or the rotating basket method (optional). Stand-alone mode with manual sampling or integrated with a UV-Visible/NIR spectrophotometer or HPLC. And with 21 CFR part 11 compliance.**

## DT-810 Table Dissolution Tester

The tablet dissolution tester features a circular design that provides completely uniform water temperature. The Direct-Center™ automatic centering mechanism provides guaranteed positioning of the dissolution vessels and drive shafts for accurate dissolution tests with high reproducibility. All components are controlled by Spectra Manager™ (or CFR) for simple operation.

## System Features

- Complies with GLP/GMP, and USP, EP and JP requirements
- 21 CFR Part 11 compliant
- Excellent temperature stability using a circular bath
- Uniform temperature distribution between vessels
- Easy set up and maintenance
- Direct-center vessel centering for automatic alignment of vessels and drive shafts
- Test vessels manufactured with precise tolerances for vessel dimensions
- Spectra Manager™ Suite for operation and monitoring
- Automated tablet dropping system for dosage loading
- Automatic sampling tube positioning for upper and lower positions
- Amber bath & vessels for light-sensitive samples



## Dissolution Specifications

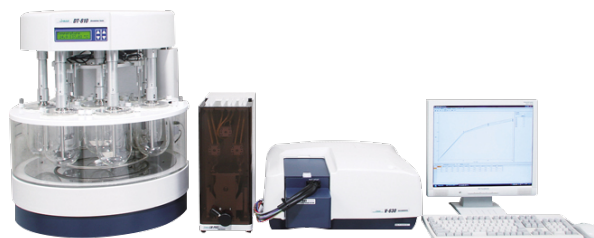
| Dissolution Tester Specifications   |                                                                                                              |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Number of Vessels                   | 8 vessels, 1000 mL each                                                                                      |
| Spindles                            | Test Method: Paddle method (Standard)                                                                        |
|                                     | Rotation speed of spindle 5 to 300 rpm                                                                       |
|                                     | Accuracy of rotation speed of spindle: ± 1 %                                                                 |
| Thermostatted Bath                  | Circular bath design with rotating function                                                                  |
|                                     | Stirring: Magnetic stirrer                                                                                   |
|                                     | Temperature control: circular heating element                                                                |
|                                     | Temperature range: 32-45°C (25°C room temperature)                                                           |
|                                     | Temperature accuracy: ± 0.1°C (32-45°C)                                                                      |
|                                     | Temperature stability: ± 0.05°C (32-45°C)                                                                    |
|                                     | Temperature accuracy (dissolution vessels): ± 0.1°C (32-45°C)                                                |
|                                     | Safety: Overheating protection using float switch, limit controller, temperature sensor                      |
|                                     | Drain port for quick and simple cleaning                                                                     |
| Sample Ports                        | Automated lifting and lowering by stepping motor                                                             |
|                                     | User declared automatic sampling                                                                             |
|                                     | Sampling position: automated by method parameters and solution volume                                        |
| Table Dropping                      | Automatic (tablets, capsules, test sinker)                                                                   |
| Vessel Centering                    | Direct-Center™ automated mechanism                                                                           |
| Temperature Sensor Position         | Vessel water bath, dissolution vessels (optional)                                                            |
| Power Requirements                  | 100,115, 200, 220, 230, 240 V; 50/60 Hz; 1100 VA (including LH-PV)                                           |
| Dimensions                          | 565(W) x 720(D) x 670(H) mm                                                                                  |
| Weight                              | Approx. 90 Kg (main unit including vessels and paddles; without water)                                       |
| Software Specifications             |                                                                                                              |
| Functions                           | System control and monitoring, data collection, data analysis                                                |
| Monitoring Items                    | DT-810: bath temperature, drive shaft rotation speed, sample flow, dissolution vessel temperature (optional) |
|                                     | Liquid handling unit: Autosampler position                                                                   |
|                                     | Fraction collector: Current sample status                                                                    |
|                                     | V-530: Absorbance value of specified cells                                                                   |
| Liquid Handling Unit Specifications |                                                                                                              |

|                                            |                                                                                                                                      |                                |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Model                                      | LH-PV2                                                                                                                               | LH-PV3                         |
| Number of Sample Lines                     | 8                                                                                                                                    |                                |
| Solvent Supply Procedure                   | 8-line peristaltic pump                                                                                                              |                                |
| Tubing                                     | PharMed&orig; tubing                                                                                                                 |                                |
| Roller                                     | stepping motor, normal and reverse flow                                                                                              |                                |
| Sampling Accuracy                          | 3% (when sampling 20 mL)                                                                                                             |                                |
| Switching Valve                            | 2 valves                                                                                                                             | 3 valves                       |
| Dimensions                                 | 160 (W) X 352 (D) X 311(H) mm                                                                                                        | 160 (W) X 352 (D) X 395 (H) mm |
| Weight                                     | 12 Kg                                                                                                                                | 13 Kg                          |
| <b>Fraction Collector Specifications</b>   |                                                                                                                                      |                                |
| Model                                      | FC-812AS                                                                                                                             |                                |
| Sampling Procedure                         | 8-nozzle filling mechanism                                                                                                           |                                |
| Sampling System                            | Freely moving X, Y, Z axis positioning                                                                                               |                                |
| Fraction Collection                        | 96 positions (20 mL test tubes)                                                                                                      |                                |
| Maximum Sampling Volume                    | 20 mL                                                                                                                                |                                |
| Minimum Sampling Interval                  | Sequence: 4 minutes (parameter dependent)<br>Sampling: 1 minute for first sample, 2 minutes minimum thereafter (parameter dependent) |                                |
| Contaminant Free Enclosure                 | Supplies as standard                                                                                                                 |                                |
| Power Requirements                         | 100,115, 200, 220, 230, 240 V; 50/60 Hz; 50 VA                                                                                       |                                |
| Dimensions                                 | 300 (W) X 496 (D) X 415 (H) mm                                                                                                       |                                |
| Weight                                     | 23 Kg (main unit and sample rack)                                                                                                    |                                |
| <b>8-Position Flow Cell Specifications</b> |                                                                                                                                      |                                |
| Model                                      | TQ-801                                                                                                                               |                                |
| Cell (Option)                              | 8: 10 mm path length flow cells<br>5, 2 and 1 mm path length flow cells (optional)                                                   |                                |
| Reference Position                         | single cell holder (100 mm cuvette)                                                                                                  |                                |

# Flow System

## Continuous Photometric Analysis during Dissolution

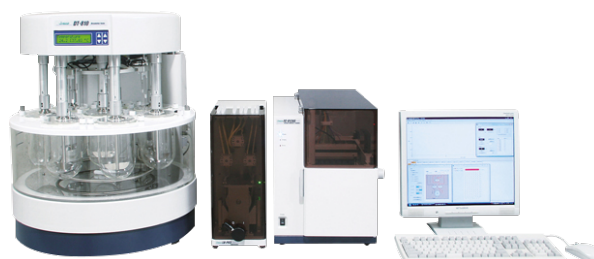
This system integrates the DT-810 with an 8-position flow cell accessory and a UV-Vis spectrophotometer. A peristaltic pump (LH-PV3) continuously circulates sample solution between the 8 dissolution vessels and the flow cell accessory. Absorbance values are measured at user declared intervals and dissolution rates are automatically calculated. External samples can also be introduced for analysis.



# Fraction System

## Analyze a Maximum of 12 Sets of 8 Samples

This system integrates a fraction collector and the LH-PV3 pumping unit for off-line testing. As many as 12 sets of samples with a volume of 20 mL or less can be collected from each dissolution vessel at pre-set intervals. Additional flow lines for solvent refills or line flushes using internal or external volumes are available.



# Fraction Flow System

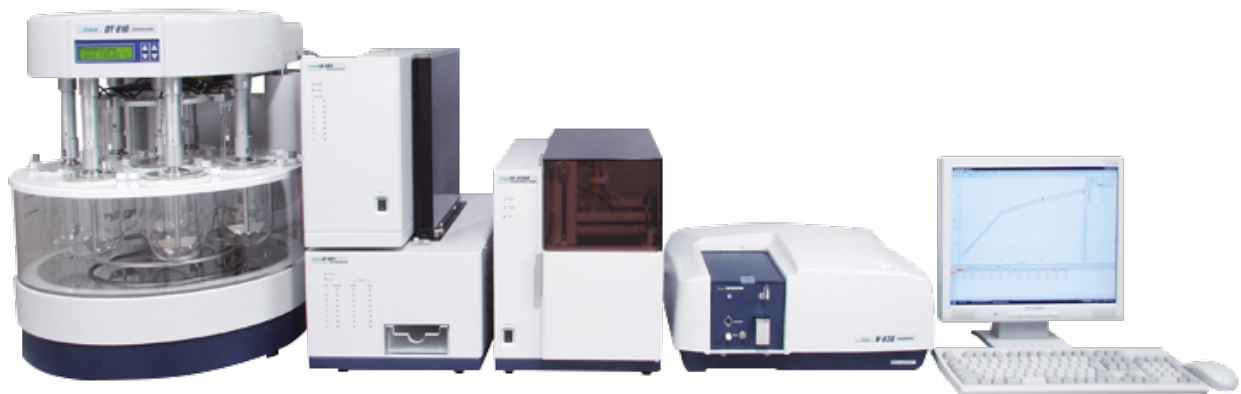
## Flexibility for On-Line and/or Off-Line Testing

This system combines the fraction collector and a flow cell installed in a UV-Vis spectrophotometer. Samples from the dissolution vessels are collected in test tubes using the fraction collector and sample aliquots are analyzed by the UV-Vis using the autosampling capability of the fraction collector. Residual sample volumes can be analyzed later using other techniques such as HPLC.



# Automated Filtration System

## Reduced Sample Preparation



This system includes the LH-SV8 8-position syringe pump and the AF-801 Automated filter changer. It provides automatic filtration of a maximum of 20 ml of sample solutions from all 8 vessels using 25 mm diameter membrane filters with a pore size of 0.45 micron (0.2 micron-optional). After each sampling, filters are automatically exchanged. The dedicated software can fully automate the dissolution testing including sample filtering.

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