LORDERAN

TECHNICAL DATASHEET
DS-RC-1-3-EN · REV. B · NOV 2026

DISSOLUTION TESTER

1 / 3 Vessels
Compact Dissolution Tester

One or three vessels for formulation work and small QC labs — **260 mm** wide for the RC-1, **600 W**, with the same ±0.3 °C bath as the large models.

MODELS RC-1 RC-3 RC-6 RC-8





RC-1



CONTROL PANEL

1 · 3 TESTING STATIONS	**20–200** rpm SPEED, ±2 RPM	**±0.3** °C BATH STABILITY	**Rt–45** °C BATH RANGE
9 PRESET TIME POINTS	**5–900** min SAMPLING WINDOW	**±0.5** mm PADDLE RUN-OUT	**600** W POWER

01 Small footprint
RC-1 260 × 300 mm; RC-3 510 × 300 mm.

02 600 W
Low power for one or three stations.

03 Turn-over head
Easy vessel access and cleaning.

APPLICATIONS
Release testing · Formulation R&D · Profile comparison · Teaching labs

Warranty
Major defects: full refund or replacement.

Free DDP shipping
Duties paid, no surprise import charges.

30-day returns
Most new, unopened items.

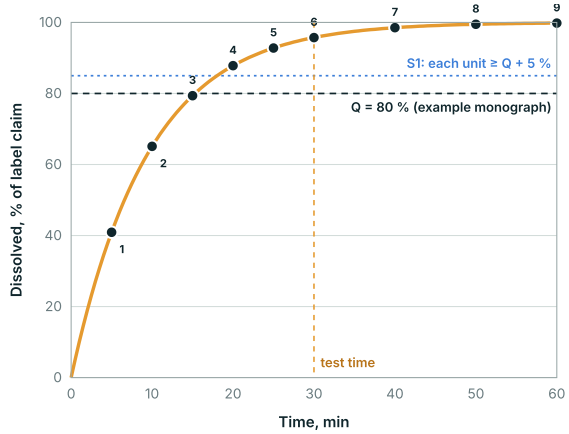
PRODUCT OVERVIEW

Basket or paddle, nine points to a profile

A compact dissolution tester with one or three vessels, for formulation work and small QC labs. A microprocessor controls temperature, speed and time, and basket and paddle units are imported **SUS316L**. The head turns over for easy vessel access.

Each vessel sits in a water bath heated evenly by **magnetically driven circulation**. Tablets dissolve under a rotating basket or paddle, and you sample at up to nine preset times; the tester beeps at each point and moves to the next.

Profile. Illustrative release curve with nine preset sampling points and the Q reference lines. Not test data.



HOW IT WORKS

01 Open
The head turns over for easy vessel access.

02 Bath
Rt–45 °C with ±0.3 °C stability, the same in every vessel.

03 Rotate
Basket or paddle at 20–200 rpm, ±2 rpm.

04 Sample
Nine preset time points from 5 to 900 min, with a beep at each.

STATIONS
1 · 3
by model

SPEED
20–200 rpm
±2 rpm

BATH
±0.3 °C
Rt–45 °C

RUN-OUT
±0.5 / ±1.0 mm
paddle / basket

CUMULATIVE AMOUNT DISSOLVED

$$Q_n = (C_n \cdot V + v \cdot \Sigma C_i) / LC \times 100\ \%$$

At sample n with media replacement: concentration C, vessel volume V, sample volume v, label claim LC; the sum runs over the earlier samples.

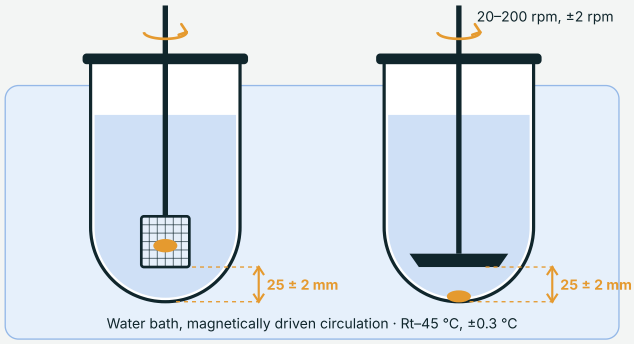
Deaerate the medium
Dissolved air forms bubbles on the basket and tablet and slows release.

Check the geometry
Height, centring and run-out of each shaft decide how reproducible the hydrodynamics are.

Sample at the same point
Draw midway between the medium surface and the top of the paddle or basket, away from the wall.

FEATURES

Designed for reproducible results



01 Temperature

- **Even bath heating** by magnetically driven water circulation
- Rt–45 °C, **±0.3 °C** stability
- Same temperature in every vessel

02 Control

- **Microprocessor** control of temperature, speed and time
- Preset any time; preset and live values alternate
- **Nine time points**, beep at each
- Auto-test, diagnose and alarm

03 Compact

- RC-1 just **260 × 300 mm**
- RC-3 **510 × 300 mm**
- **600 W** for one or three stations

04 Head & parts

- **Turn-over head**
- Basket and paddle in imported **SUS316L**
- Paddle run-out ±0.5 mm; basket ±1.0 mm

ACCEPTANCE FOR IMMEDIATE-RELEASE DOSAGE FORMS · USP <711>

Stage	Units tested	Criterion
S1	6	Each unit not less than Q + 5 %
S2	6 more (12)	Average of 12 ≥ Q; no unit less than Q − 15 %
S3	12 more (24)	Average of 24 ≥ Q; not more than 2 units below Q − 15 %; no unit below Q − 25 %

Q is the amount dissolved specified in the monograph, as a percentage of the labelled content. Reference summary for planning; the current pharmacopoeia and the product monograph govern the test.

TECHNICAL SPECIFICATIONS

Technical specifications

Parameter	RC-1	RC-3	RC-6	RC-8
TESTING				
Testing Station	1	3	6	8
Speed Range	20~200 rpm			
Speed Accuracy	±2rpm			
Temperature Range	Rt~45.0°C			
Temperature Stability	±0.3°C			
Preset Timing Nine Points	5~900 min			
Paddle Radial Run-Out	±0.5 mm			
Basket Radial Run-Out	±1.0 mm			
INSTRUMENT				
Power Supply	220V/ 50Hz, 110V/ 60Hz			
Power	600W	600W	1200W	1200W
Dimension	260×300×480 mm	510×300×480 mm	960×320×480 mm	960×440×480 mm

Specifications from the LORDERAN product documentation. Subject to change without notice for product improvement.

AT A GLANCE

MODEL
RC-1
Stations
1
Power
600W
Dimension
260×300×480 mm

MODEL
RC-3
Stations
3
Power
600W
Dimension
510×300×480 mm

MODEL
RC-6
Stations
6
Power
1200W
Dimension
960×320×480 mm

MODEL
RC-8
Stations
8
Power
1200W
Dimension
960×440×480 mm

THE LORDERAN TABLET TESTING RANGE · THIS MODEL HIGHLIGHTED

Instrument	Models	Highlights
Dissolution, manual turn-over head	**RC-1 · RC-3 · RC-6 · RC-8**	**1–8 vessels, ChP 2020 parameters stored**
Dissolution, auto-lifting head	RC-6D · RC-8D · RC-8DS · RC-12D	Up to 12 vessels, self-inspection alarms
Dissolution, auto-lifting + turn-over	RC-3DT · RC-6DT · RC-8DT	3–8 vessels, lifts and turns over
Disintegration tester	BJ-1 · BJ-2 · BJ-3	6–18 tubes, independent stations
Friability tester	CS-4 · CS-2 · CS-3 · CS-1	1 or 2 drums; CS-1 20–90 rpm
Hardness tester, manual	YD-1	2–199.9 N, ±0.5 %
2-in-1 hardness + friability	PJ-2D	2–199.9 N, two drums
4-in-1 tablet tester	PJ-4D · PJ-6D	Hardness, friability, disintegration, dissolution

DISSOLUTION TEST REFERENCE · USP <711>

Item	Apparatus 1 · Basket	Apparatus 2 · Paddle
Medium temperature	37 ± 0.5 °C	37 ± 0.5 °C
Height above vessel bottom	25 ± 2 mm	25 ± 2 mm
Vessel	1 L nominal, hemispherical bottom	1 L nominal, hemispherical bottom
This tester	SUS316L basket, run-out ±1.0 mm	SUS316L paddle, run-out ±0.5 mm

Reference summary for planning; the current pharmacopoeia and the product monograph govern the test.

APPLICATIONS & SERVICE

Where it works, and what comes with it

Release testing
Routine QC of tablets and capsules against the monograph.

Formulation R&D
Nine-point profiles to compare prototypes.

Profile comparison
Reference against test product at the same time points.

Universities
Teaching the basket and paddle methods.

INSTALLATION

Supply
220 V / 50 Hz or 110 V / 60 Hz.

Bench
Level, vibration-free bench; leave space above for the head to lift or turn over.

Media
Deaerated medium at 37 °C; water for the bath.

WARRANTY & SERVICE

Warranty
Major defects under warranty: full refund or replacement.

30-day returns
Return most new, unopened items within 30 days.

Free DDP shipping
Delivered duty paid, no surprise import charges.

Formal quotation
PDF quote on request, with a confirmed ship date.

Request a quotation

Send your application, model and quantity through www.lorderan.com and we will reply with a formal PDF quotation.

DS-RC-1-3-EN · Rev. B · Nov 2026 · Calculated values are reference figures.
Specifications may change without notice for product improvement.

LORDERAN

www.lorderan.com

Laboratory and environmental test equipment