



**OSCILLATING SPRAY TEST SYSTEMS**

MODELS OTU-1000 and OTU-1600

**Adjustable IPX3 / IPX4 Test Systems**

Built in accordance with IEC 60529, and meeting EN 60539, IEC 60335, IEC 60950, EN 60335, and others



**For IP Code testing to IPX3 “Protection against Spraying Water” and IPX4 “Protection against Splashing Water”**

*Shown with optional IP Code Turntable and stand*  
blue tarp erected for photo shoot, to help make the water visible...

This is the world's #1 Oscillating Spray Test System! ED&D Exclusive System sets up easily and is easy to maintain. Can fold against the wall when not in use. The unit includes **ISO 17025 Accredited** Certificate of Calibration - - in Scope! Measurement data or uncertainty data is available. Ships in wooden crate.

**OSCILLATING SPRAY TEST OVERVIEW:**

When testing for an IPX3 rating, the Oscillating Spray Test System uses a spray angle of 60° each side from vertical (120° arc) with an oscillating speed of 4 seconds/cycle (2 x 120° rotation = one complete back and forth pass). IPX3 testing requires a reduced number of nozzles on each spray tube – therefore, nozzle caps are included with the system.

When testing for an IPX4 rating, the Oscillating Spray Test System uses a spray angle of near 180° each side from center (near 360° arc) with an oscillating speed of 4 seconds/cycle (2 x 120° rotation = one complete back and forth pass). IPX3 testing requires a reduced number of nozzles on each spray tube – therefore, nozzle caps are included with the system.

Tube Radius	Degree IPX3		Degree IPX4	
	Open Nozzles	Flow Rate	Open Nozzles	Flow Rate
200 mm	8	0.56 L/min	12	0.84 L/min
400 mm	16	1.10 L/min	25	1.80 L/min
600 mm	25	1.80 L/min	37	2.60 L/min
800 mm	33	2.30 L/min	50	3.50 L/min
1000 mm	41	2.90 L/min	62	4.30 L/min
1200 mm	50	3.50 L/min	75	5.30 L/min
1400 mm	58	4.10 L/min	87	6.10 L/min
1600 mm	67	4.70 L/min	100	7.0 L/min

**Special Feature!:** ED&D uses **individual** caps to cover the open holes that are not in use vs. competitors that use a large plate that is mostly ineffective... *water tends to spray everywhere.*

**KEY FEATURES OF ED&D SYSTEM:**

- **COMPLETELY** adjustable tube height system allows moving the tube up/down to quickly establish the maximum 200 mm spacing from the spray nozzles as specified in the standards.
- **COMPLETELY** adjustable tube mounting system = allows for different size spray tubes to be easily installed.
- **FOLDS** to the wall when not in use (very beneficial) – the entire top beam and tube drive system has an integral heavy pin system that allows it to be folded to the wall in seconds after use = no far end tube support mounted to the floor!
- **AUTOMATED** system = automatically stops tube rotation and water flow at the precise test time! Also includes manual mode for flexibility.
- **DUAL** flow gauges = allow for accurate reading of flow rate for the full range of tube sizes (small tubes use 0-1 L/min gauge; larger tubes use 0-5 L/min gauge).
- **EXPERT-LEVEL TECHNICAL SUPPORT INCLUDED!** Our degreed engineers are among the leading Product Safety Engineers in the world. Many have years of experience working for NRTL's such as Intertek and UL. We aren't just experts in the mechanical and electrical design, but the testing as well!
- **EXTREMELY DESCRIPTIVE MANUALS.** One of the things that sets ED&D apart is the highly descriptive level of our User Manual's....as test experts we take you step by step through the Standard's requirement and include descriptive photo's every step of the way.



**OSCILLATING SYSTEM STANDARD COMPONENTS:**

- 1 Wall Mount with adjustable height beam and lifting crank (raise & lower the tube)
- 1 Motor Drive System (with clutch)
- 1 Operator Control Panel
  - Key on/off switch
  - Start/Stop switches
  - E-off switch
  - Timer
  - Water control switch
  - Oscillating control switch
  - Oscillating angle switch
- 1 Water Control Panel
  - Dual flow gauges: 0 - 1 L/min. & 0 - 5 L/min.
  - Water filter
  - Water control valve
  - Water control solenoid
- 1 Nozzle Cleaning Pin



**SYSTEM SPECIFICATIONS:**

<b>System Electrical Ratings:</b>	120 or 240 VAC (order as needed), 50 – 60 Hz., 15 A
<b>Oscillating Speed:</b>	4 sec. for 2 x 120° for IPX3 (10 RPM) 12 sec. for 2 x 360° for IPX4 (10 RPM)
<b>Oscillating Angles:</b>	IPX3: 60° from center (120° total) IPX4: Near 180° from center (near 360° total) (Standard accepts lesser angle to allow room for sample support)
<b>Tube Radius Size Options:</b>	200 mm, 400 mm, 600 mm, 800 mm, 1000 mm (Larger system available for 1200 mm, 1400 mm, & 1600 mm tubes)
<b>Drive System Dimensions:</b>	118.0 in. D x 19.5 in. W x 97.8 in. H (299.7 x 49.5 x 248.4 cm)
<b>Drive System Weight:</b>	311 lbs. (141.0 Kg)
<b>Operator Control Dimensions:</b>	8.5 in. D x 20.5 in. W x 22.0 in. H (21.6 x 52.0 x 58.9 cm)
<b>Operator Control Weight:</b>	50 lbs. (22.7 Kg)
<b>Water Control Dimensions:</b>	7.0 in. D x 29.0 in. W x 21.5 in. H (17.8 x 54.6 x 73.7 cm)
<b>Water Control Weight:</b>	25 lbs. (11.3 Kg)
<b>Flow Meters:</b>	0 – 1 L/min 0 – 5 L/min

- Units include detailed step-by-step instruction manual with photographs.
- Units include ISO 17025 accredited + NIST-traceable Certificate of Calibration.
- Units include all packaging and ED&D's signature heavy-duty wooden crating!
- Free expert-level technical support included
- Installation and training services available separately



AC-1415

**\*\*Order Larger Model OTU-1600 if you require tubes larger than size 1000mm\*\***

***For System Accessories = see next page***

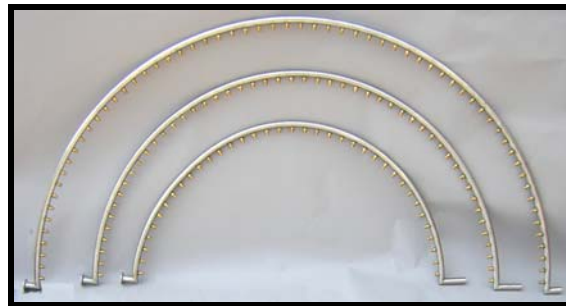
**SYSTEM ACCESSORIES (Order Separately):**

A) **SPRAY TUBES:** Spray tubes with different radius are available to allow for testing different sized samples. The standard system comes with 1 tube; it does not come with a specific spray tube – **you will need to select the proper sized tube(s) based on your test sample size(s)**. Order additional tubes if you need more than one. [If you require all tubes, ask about our discounted “Tube Package”].

**Spray Nozzle Size:** 0.4 mm I.D.  
**Spray Nozzle Spacing:** 50 mm on centers

Spray Tube Model #	Spray Tube Radius	Total # of Nozzles
OTU-200-2	200 mm	12
OTU-400-2	400 mm	25
OTU-600-2	600 mm	37
OTU-800-2	800 mm	50
OTU-1000-2	1000 mm	62
OTU-1200-2	1200 mm	75
OTU-1400-2	1400 mm	87
OTU-1600-2	1600 mm	100

*Nozzle caps included with each tube to close off nozzles for IPX3 testing*



*600mm, 800mm, & 1000mm spray tubes shown*

*Tubes now come yellow coated (as below)*



B) **IP Code Turntables and C) Telescoping Tilt Support:** The system may be used in conjunction with ED&D wet location turntable (such as model ETI-25) and the ED&D wet location telescoping tilt support (model ETI-35; accessory for the turntable).

*We also offer an optional perforated Tilt Support platform - - ask Rep for details*

**NOTE** – You are not required to rotate the test sample for these particular tests. However, for IPX4 testing, you will need to elevate the sample to allow the spray tube to pass under the sample (near 360° arc). *These devices will make set-up faster and testing easier.* (See separate brochure for this product category).



ETI-25 IP Code Turntable with ETI-35 Telescoping tilt support