#### **Abrasion Scrub and Washability Tester**

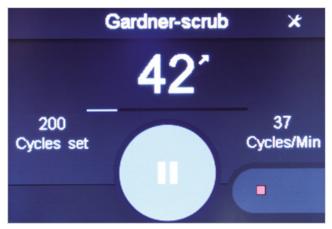
Coated and uncoated surfaces need to be tested for resistance to abrasion caused by a brush, sponge, scouring pad, sand paper, and other means. Abrasion resistance can be tested by wet abrasion methods using scrub media or cleaning solutions. The most common applications are testing the scrub resistance of interior wall paints, floor tiles, shower stalls, and furniture surfaces. The abrasion tester can examine the washability of a coated surface for the removal of stains. Detergents and cleaning solutions can be tested and evaluated in a reproducible manner.

# C BYK

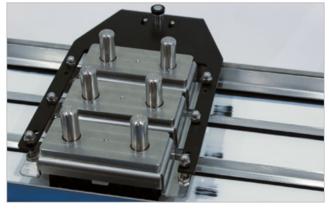
#### **Gardner-scrub Abrasion Tester**

The Gardner-scrub abrasion tester offers a versatile design for abrasion and washability testing applications. The instrument arm is designed to hold from 1 - 3 brush holders or ISO pad holders. A large selection of accessories are available to customize your test requirements. An intuitive touch screen operation makes it easy to change test parameters. The Gardner-scrub has a durable chain drive mechanism for long-term reliable operation.

- Reciprocating linear motion with a constant speed over the travel distance for repeatable results
- Compact design saves on counter space
- Easy to use touch screen display
- Instrument arm holds up to 3 brush or pad holders to increase output
- User selectable scrub rate from 6 60 cycle/minute
- Compliant with ASTM, DIN, and ISO methods with appropriate accessories
- Up to 4 kg (8.8 lbs) can be applied to the instrument arm
- Adjustable stroke length 22.9 27.9 cm (9 11 in.)
- Optional weights for custom applications



Gardner-scrub touchscreen display



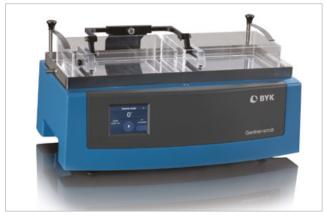
Gardner-scrub three brush configuration with Lilly Frame

Ordering Information			
Cat. No.	Description		
5060	Gardner-scrub, base		
5061	Gardner-scrub, ASTM D2486		
5062	Gardner-scrub, DIN 53778		
5063	Gardner-scrub, ISO 11998		
5097	Gardner-scrub, ECE 43		

#### \*Note:

For two or three brush or pad holder operation additional brush holders and pad holders must be ordered as accessory items.

# New!



Gardner-scrub, ECE 43

#### **Technical Specifications**

#### Comes with

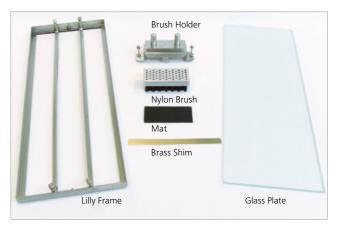
Instrument, Sample pan (5041), Scrub panels (5015) Power supply, Manual
Base model (5060), 1-Brush holder w/mat (5074), Nylon brush (5011),
Lilly frame (5038), Brass shim (6979), Glass plate (6980), Scrub panels (5015)
Base model (5060), 1-Brush holder w/mat (5075), Hog Brush (5010),
Liquid metering system (5037), Glass plate (6980), Scrub panels (5015)
Base model (5060), 1-Pad holder (5076), Scotch brite pads (5012),
1-ISO Arm adapter (5059), Glass plate (6980), Scrub panels (5015)
Instrument, 2-Acrlyic boxes, 2-Wiper holders, 2-Space plates 2mm,
2-Space plates 4mm, 4-pre-cut wiper blades, 200g scale, Sample pan

2 Space plates 411111,	+ pre cut wiper biddes, 2009 scare, sample pair	
Voltage	100 - 240 V, 50/60 Hz	
<b>Dimensions</b> 48.3 x 27.9 x 19.1 cm (19 x 11 x 7.5 in.)		
Weight 14.5 kg (32 lbs)		
Scrub Rate 6 - 60 cycles/minute		
Stroke Length	25.4 cm (10 inch) standard setting*	
	22.9 cm (9 inch), 27.9 cm (11 inch) optional settings*	
	13.0 cm (5.1 inch) - ECE 43 version only (5097)	

#### Note:

Stroke length is measured from the center brush location. To measure the stroke length from the brush end, add 8.9 cm (3.5 inches) to the center stroke length.

Optional stroke lengths must be set by local service center.



ASTM D 2486 Accessories



ISO Method Accessories

### **Accessories**



DIN Brush Holder (5075) and DIN Brush (5010)



Sponge Holder (5073) and Sponge (8116) for ASTM D3450 and D4828

Ordering Information		Accessories	
Cat. No.	Description	Information	
5064	Accessory Kit, ASTM D 2486	Includes: ASTM brush holder & mat (5074), Nylon brush (5011),	
		Lilly frame (5038), Brass shim (6979), Glass plate (6980)	
5065	Accessory Kit, ISO 11998	Includes: 1-Pad holder (5076), ISO Arm adapter (5059),	
		Scotch brite pads (pk of 50) (5012), Glass plate (6980)	
5066	Accessory Kit, DIN 53778	Includes: DIN Brush holder & mat (5075), Hog bristle brush (5010),	
		Liquid metering system (5037), Glass plate (6980)	
5067	Accessory Kit, ASTM D 4213	Includes: Sponge holder 450g (5072), Polyurethane sponge (5071),	
		Scotch brite pad (5070), Lilly frame (5038), Glass plate (6980)	
5068	Accessory Kit, ASTM D 4828	Includes: Sponge holder 1000g (5073), Sponge (8116), Glass plate (6980)	
5069	Accessory Kit, ASTM D 3450	Includes: Sponge holder 1000g (5073), Weight 500g (5078),	
		Sponge (8116), Glass plate (6980)	
5074	Brush Holder and Mat, ASTM	Needed for ASTM D 2486, Dimensions: 1.5 x 3.5 inches (38.1 x 88.9 mm)	
5075	Brush Holder and Mat, DIN	Needed for DIN 53778	
6979	Brass Shim	Needed for ASTM D 2486	
5011	Nylon Brush	Needed for ASTM D 2486	
5010	Hog Bristle Brush, DIN	Needed for DIN 53778	
5038	Lilly Frame	Needed for ASTM D 2486; Designed for 1, 2, or 3 brush operation	
5037	Liquid Metering System	Needed for DIN 53778; consists of stand, burette assembly,	
		Glass tube, stop cock, clamp	
5093	Holding Clamp/Burette Assembly with Holding Clamp	Needed for 2 or 3 brush operation	
5012	Scotch Brite Pads (pk of 50)	Needed for ISO 11998	
5076	ISO Pad Holder	Needed for ISO 11998	
5059	ISO Arm Adapter	Needed for ISO 11998, can hold up to 3 pad holders (5076)	
5019	Replacement Mat	For brush holder 5074, 5075	
5098	ISO Standard Dirt	4.4 liters (1.0 gallon) dry , ISO 12103-1, A4. for ECE 43 model (5097)	
5099	Wiper Blades, 25 pcs.	65 cm (25.6 in.) length per blade, for ECE 43 model (5097)	

#### **Accessories**





**Ordering Information** 

Description

Cat. No.



Sand Paper Holder Weight (8118) and Sandpaper Holder (5058)

#### 5072 Sponge Holder, 450g 5073 Sponge Holder, 1000g 5078 Weight, 500g\* Weight, 1000g\* 5079 8116 Sponge, cellulosic (each) 5077 Sponge, B, cellulosic (pack of 6) 5071 Sponge, Polyurethane (pack of 6) 5070 Scotch Brite Pad, ASTM Glass Plate 6980 5041 Sample Pan 8129 Scrub Media, Abrasive 474 ml (1 pint) 8130 Scrub Media, Non-abrasive 474 ml (1 pint) 5015 byko-chart Black Scrub Panels, P121-10N 5016 byko-chart White Scrub Panels, P122-10N 8113 Hog Bristle Brush, ANSI 8111 Hog Bristle Brush 8117 Sandpaper Attachment Kit

#### **Accessories** Information Needed for ASTM D 4213. Dimensions: 3.0 x 3.75 x 0.875 inch (76.2 x 95.3 x 22.2 mm) Needed for ASTM D3450, D4828. Dimensions: 3 x 3.75 x 1.0 inch (76.2 x 95.3 x 25.4 mm) Fits on top of Brush and Sponge holders Fits on top of Brush and Sponge holders Needed for ASTM D3450, D4828, MPI 138. Dimensions: 3.0 x 3.75 x 1.5 inch (76.2 x 95.3 x 38.1 mm) Designed for Brush Holder 5074. Dimensions: 1.5 x 3.5 inch (38.1 x 88.9 mm) Needed for ASTM D4213. 3.0 x 3.75 inch (76.2 x 95.3 mm) Needed for ASTM D 4213. Dimensions: 3.0 x 3.75 inch (76.2 x 95.3 mm) Needed for ASTM, ISO, DIN methods Replacement; Comes standard with base model Needed for ASTM D 2486 / ASTM 3450 Needed for ASTM D 3450 / ASTM 4213 Box of 100; Needed for ASTM, DIN, and ISO methods, Dimensions: 165 x 432 x 0.25 mm (6.56 x 17 x 0.01 in.) Box of 100; Dimensions: 165 x 432 x 0.25 mm (6.56 x 17 x 0.01 in.) Perforated back for ANSI method Z 124.1; Fits brush holder 5074 & 5075 General use, 3.5 x 1.5 in. (8.9 x 3.8 cm); Fits brush holder 5074 & 5075 Meets method MIL-E-11237 specification; Includes Sandpaper holder, Rubber mat, 10 yards (914 cm) x 2 inch (5.1 cm) of 1/0 and 3/0 emory cloth. Needed for ASTM D 6736. Designed to hold any flat, thin sheet or cloth-type material with a minimum size of 2 x 5 inch (50.8 x 127 mm). Weight: 1 lb (454 gm) Weight: 3.5 lbs (1.59 kg)

5058

8118

2230

Sandpaper Holder

Dow Latex Applicator

Weight, for Sandpaper Holder

Needed for ASTM D 2486.

<sup>\*</sup>Note: The weights can not be used with the brush holder (5074) and sponge B (5077) in combination. These weights are not designed for Sandpaper Holder (5058).