# Gardner-scrub



## **Abrasion Scrub 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.

# **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. A large selection of accessories is 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.

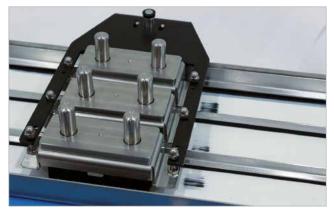
- Reciprocating linear motion with a constant speed over the travel distance for repeatable results
- Compact design saves on counter space
- Easy to use touch screen display
- Instrument arm holds up to 3 brush or pad holders to increase output
- User selectable scrub rate from 6 60 cycle/minute
- Compliant 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 weighs for custom applications

Standards		
ASTM	D1792, D2198, D2486, D3206, D3207,	
	D3450, D4213, D4488, D4828	
ISO	11998	
DIN	53778, 13300	
Canadian Government	26-GP-3a	
Specification		
Commonwealth of	W-4	
Pennsylvania Specification		
US Federal Specification	P-C-431a, P-D-220A, P-R-201b, P-W-155,	
	T-1279D, TT-P-18, TT-P-22, TT-P-23a,	
	TT-P-26a, TT-P-29B, TT-P-30, TT-P-47a,	
	TT-P-51d, TT-P-88a, TT-P-508	
FTMS	141A, 6141, 6142	
US Military Specification	MIL-C-3004, MIL-C-46057, MIL-E-11237,	
	MIL-P-13340A, MIL-P-15422B	
US Navy Specification	512C20C	
Rock Island Arsenal	rsenal RIX-268	
Specification		





Gardner-scrub touchscreen display



Gardner-scrub three brush configuration with Lilly Frame



# Gardner-scrub Accessories

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

#### Comes complete with:

### Gardner-scrub, base

Instrument, Sample pan (5041), Power supply, Manual

#### Gardner-scrub, ASTM D2486

Base model (5060), 1-brush holder w/mat (5074), Nylon brush (5011), Lilly frame (5038), brass shim (6979), Glass panel (6980), scrub panels (5015)

### Gardner-scrub, DIN 53778

Base model (5060), 1-Brush holder w/mat (5075), Hog Brush (5010), Pump (5037), Glass plate (6980), Scrub panels (5015)

### Gardner-scrub, ISO 11998

Base model (5060), 1-Pad holder (5076), Scotch brite pads (5012), Glass plate (6980), scrub panels (5015)

#### Note:

For two or three brush/pad operation additional accessories must be ordered separately.

Technical Specifications		
Comes with		
Instrument, Sample pan (5041), Power supply, Manual		
Base model (5060), 1-brush holder w/mat (5074), Nylon brush (5011), Lilly frame		
(5038), brass shim (6979), Glass panel (6980), scrub panels (5015)		
Base model (5060), 1-Brush holder w/mat (5075), Hog Brush (5010), Pump (5037),		
Glass plate (6980), Scrub panels (5015)		
Base model (5060), 1-	Pad holder (5076), Scotch brite pads (5012), Glass plate	
(6980), scrub panels (	5015)	
Voltage	100 - 240 V, 50/60 Hz	
Dimensions	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*	

#### \*Note:

Stroke length is measured from the center brush location. The stroke length measured from the brush end add 8.9 cm (3.5 inch) to the center stroke length. The optional stroke lengths must be set by instrument supplier.

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: Pad holder (5076), 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), Pump (5037),
		Glass plate (6980)
5067 Access	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 & 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	Pump Assembly	Needed for DIN 53778
5012	Scotch Brite Pads (pk of 50)	Needed for ISO 11998
5076	Pad Holder	Needed for ISO 11998



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# **Additional Accessories**

Ordering Information		Accessories
Cat. No.	Description	Information
5072	Sponge Holder, 450g	Needed for ASTM D 4213, Dimensions: 3.0 x 3.75 x 0.875 inch (76.2 x 95.3 x 22.2 mm)
5073	Sponge Holder, 1000g	Needed for ASTM D3450, D4828. Dimensions: 3 x 3.75 x 1.0 inch (76.2 x 95.3 x 25.4 mm)
5078	Weight, 500g	Fits on top of Brush holders
5079	Weight 1000g	Fits on top of Brush holders
8116	Sponge (pack of 6)	Needed for ASTM D3450, D4828; Dimensions: 3.0 x 3.75 x 1.5 inch (76.2 x 95.3 x 38.1 mm)
5077	Sponge, B (pack of 6)	Designed for Brush Holder 5074, Dimensions: 1.5 x 3.5 inch (38.1 x 88.9 mm)
5071	Sponge, Polyurethane (pack of 6)	Needed for ASTM D4213; 3.0 x 3.5 inch (76.2 x 95.3 mm)
5070	Scotch Brite Pad, ASTM	Needed for ASTM D 4213, Dimensions: 3.0 x 3.75 inch (76.2 x 95.3 mm)
6980	Glass Plate	Needed for ASTM, ISO, DIN methods
5041	Sample Pan	Replacement; Comes standard with base model
8129	Scrub Media, Abrasive 474 ml (1 pint)	Needed for ASTM D 2486
8130	Scrub Media, Non-abrasive 474 ml (1 pint)	Needed for ASTM D 3450
5015	byko-chart Black Scrub Panels P121-10N	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.)
5016	byko-chart White Scrub Panels, P122-10N	Box of 100; Dimensions: 165 x 432 x 0.25 mm (6.56 x 17 x 0.01 in.)
8113	Hog Bristle Brush, ANSI	Perforated back for ANSI method Z 124.1; Fits brush holder 5074
8111	Hog Bristle Brush	General use, 3.5 x 1.5 in. (8.9 x 3.8 cm); Fits brush holder 5074
<b>8117</b> Sa	Sandpaper Attachment Kit	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.
5058	Sandpaper Holder	Designed to hold any flat, thin sheet or cloth-type material with a minimum sample size
		of 2 x 5 inch (50.8 x 127 mm). Weight: 1 lb (454 gm)
8118	Weight, for Sandpaper Holder	Weight: 3.5 lbs (1.59 kg)
2230	Dow Latex Applicator	Needed for ASTM D 2486.



## Ordering Information

Part No.	Description	Additional Information
PB-8110	Brush Holder and Mat	Needed for ASTM D 2486; Holds brushes listed below; Dimensions 1.5 x 3.5 inches
PB-8111	Hog Bristle Brush	Non-perforated
PB-8112	Nylon Brush	Meets ASTM D 2486
PB-8113	Hog Bristle Brush	Perforated for ANSI method Z 124.1
PB-8115	Sponge Holder (7.6 x 9.5 cm)	Dimensions: 3 x 3.75 inches
PB-8116	Sponge	
PB-8129	Scrub Medium Abrasive, 1 pint	Needed for ASTM D 2486; Extremely uniform medium for performance of scrub tests; Simulates effect of commercial cleaning compounds; Abrasive medium contains silica for accelerating the tests.
PB-8130	Scrub Medium Non-abrasive, 1pint	Needed for ASTM D 2486; Non- abrasive
PB-8119	Liquid Container	For containing wet solution for testing; 1200ml capacity; Comes with mounting stand
PB-8120	Lilly Frame	Needed for ASTM D 2486; For confining media to area of path of brush or sponge; Rubber gasket with adjustable width; Includes 4 "C" clamps; Length: 17.1 inches
PB-8121	Frame	Similar to Lilly Frame; Fixed path width for use with brushes only; Includes 4 "C" clamps
PB-8122	Brass Shim	Needed for ASTM D 2486; For attaching to middle of glass test plate under scrub panel; Dimensions: 6.5 in x 0.5 in x 10 mils

