



## OPERATING MANUAL

### Heavy-Duty 1/16th Gilson Sample Reducer SP-52

#### INTRODUCTION:

The Gilson SP-52 1/16th Sample Reducer is an adjustable inclined dividing table that guides granular materials of up to 1/2in (12.7mm) particle size past a series of splitting fixtures and openings to separate out a 1/16th representative sample of the original bulk sample. The final fraction is collected in a specimen container, and the remainder is diverted into a waste pan. The SP-52 features a 1.0ft<sup>3</sup> (28L) hopper with an adjustable sliding gate to regulate flow. The SPA-115 Waste Pan is included and will collect the 15/16th reject portion of a 1ft<sup>3</sup> bulk sample.

The recommended sample container for the SP-52 is the optional SC-20 Polyethylene 12qt (11L) Container. A tight-fitting poly lid is included. Using this container minimizes handling of the specimen, and the lid protects from moisture fluctuations and contamination. Any alternate containers used should not exceed approximately 11in (279mm) in height for proper fit under the collection chute.

#### SET UP:

The SP-52 Gilson 1/16th Sample Reducer is shipped bolted to a pallet and must be unbolted and removed prior to operation.

Place the SP-52 on a substantial, level surface with adequate room for placement of the sample collection and waste containers. The Waste Pan may weigh 140lb (64kg) or more when full and should be handled using proper equipment and techniques.

#### OPERATING INSTRUCTIONS:

Most dry, granular materials will flow well at the 45° position. Some materials will flow better and be divided more accurately at the 60° position. The dividing table of the SP-52 is quickly adjusted to either 45° or 60° of inclination using the spring-loaded positive locking knob on the side of the unit.

**Note:** Inclination must be set prior to loading the hopper. The weight of the sample will make it difficult to adjust when loaded.



SP-52

To adjust the incline, simply grasp the knob and compress the spring-loaded washer toward the ball with your fingers. Release the locking assembly into one of the holes at either end of the adjustment slot to lock at the desired incline.

Before use, position the included Waste Pan under the Sample Reducer between the legs of the divider, so that discharge from all eight of the waste openings is directed into the pan. The correct position will be farther forward for the

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45° inclination, and farther back for 60°. Make sure there is enough room in front for placement of the sample receptacle.

Position the SC-20 or other sample container under the single discharge chute in front of the unit to receive the 1/16th sample fraction.

**Note:** As with any device that yields truly representative samples, the weight of the final fraction from the Sample Reducer may not be exactly 1/16 of the bulk sample weight. It is more important for the final fraction to represent the physical characteristics of the whole.

To prepare a sample for dividing, the sliding gate of the hopper should be closed completely while the hopper is filled and the material is leveled and distributed evenly. Filling and leveling the hopper prior to dividing allows the material to flow evenly across the width of the dividing table. When ready, loosen the thumbscrew of the gate and adjust the opening gradually until the rate of flow out of the hopper is satisfactory. Tighten the thumbscrew and note the opening width. For subsequent processing of the same material, the gate can be opened directly to the desired width to release the material once the hopper is filled. The maximum gate opening is approximately 1 1/2in (38mm)

Once all of the material has emptied from the hopper, there should be only a small amount of residue remaining on the table. Using a soft-bristle brush, start at the top and brush any residue straight down to the nearest opening below. If residue at the 45° setting is excessive, change the inclination setting to 60°. If there is still too much residue at 60°, the material may contain too much moisture to flow properly and should be dried.

## DIMENSIONS:

At 45°: 22x29.5x40.8in (559x749x1,036mm) WxDxH  
Height of Final Fraction Chute: 14in (356mm)

At 60°: 22x21.5x44in (559x546x1,118mm) WxDxH  
Height of Final Fraction Chute: 11.25in (286mm)

Hopper: 16.5x20.25x10in (419x514x254mm) WxDxH  
Hopper Capacity: 1ft<sup>3</sup> (28L)

SPA-115 Waste Pan: 17.5x18x11.5in  
(445x457x295mm) WxDxH

## PARTS:

