

OPERATING INSTRUCTIONS

Gilson Sample Splitter

23-3425

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Contents

	Section	Page
1	Introduction	3
2	Operation	3

1 Introduction

This splitter was designed for the reduction of test samples which are too large in volume to be conveniently handled. It divides samples so that half is representative of the original total sample. Handles any material from sand sizes up to 150 mm.

The unit is of strong construction. The hopper, which holds up to 28 dm³ (1 ft³), is lever-actuated. The splitter chute provides wide flexibility in sizes of chute openings. Each chute bar is 12.5 mm ($\frac{1}{2}$ inch) wide so that adjustment is provided for any increment of 12.5 mm which will divide into the total 610 mm chute width an even number of times. Chute widths of 12.5 mm, 25 mm, 38 mm, 50 mm, 75 mm, 100 mm or 150 mm ($\frac{1}{2}$, 1, 1 $\frac{1}{2}$, 2, 3, 4, or 6 inch) may therefore be selected by proper positioning of the chute bars.

Overall height: 1 meter approx.
Hopper size: 735 mm long x
480 mm wide approx.

2 Operation

- 2.1 Adjust splitter bars for desired chute width as follows:
 - 2.1.1 Loosen two wing nuts, one on each end of splitter.
 - 2.1.2 Lock the hopper in the open position by using the safety lock beside the hand lever.
 - 2.1.3 Flip the adjustable chute bars back and forth to form alternate right and left chutes of desired width. A chute width of two or three times material topsize is recommended. Check to be sure the width chosen results in the same number of chutes in either direction.
 - 2.1.4 Tighten wing nuts, remove safety lock, and close hopper.
- 2.2 Place sample in closed hopper, distributing as you pour, and level by hand until material is evenly distributed from side-to-side and from front-to-back in the hopper. Position pans.
- 2.3 Open gates of hopper using a smooth, rather fast motion of the hand lever. Sample will divide to half the original portion, in each of the bottom pans.
- 2.4 If a smaller sample fraction is needed, transfer portion in one pan to closed hopper, level and split again. Repeat until the desired fraction is reached, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$ etc.
- 2.5 Sampling accuracy can only be as good as the methods employed. We suggest the following additional tips be employed as part of your standard sampling procedures.
 - 2.5.1 Prior to splitting your sample fraction, mix the sample by repetitive dividing and recombining entire sample in the hopper. Repeat until starting sample is thoroughly mixed.

- 2.5.2 When pouring samples into hopper, always use care to distribute material back and forth in layers as you pour.
- 2.5.3 If bridging or hangup of material occurs in the chute bar area, reset the splitter for wider chute widths.
- 2.5.4 Always be sure your chute bar setting gives an equal number of alternating chutes in each direction. The following chute openings are permissible:
- 12.5 mm, 25 mm, 38 mm, 50 mm, 75 mm, 100 mm or 150 mm ($\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, 3, 4, or 6 inch).