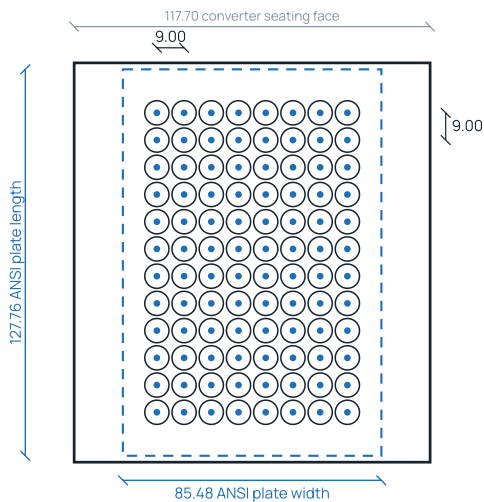


LABTIE 96-WELL POWDER DISPENSER CONVERTER MEASUREMENTS – ACCURATE MODULAR POWDER DISPENSER

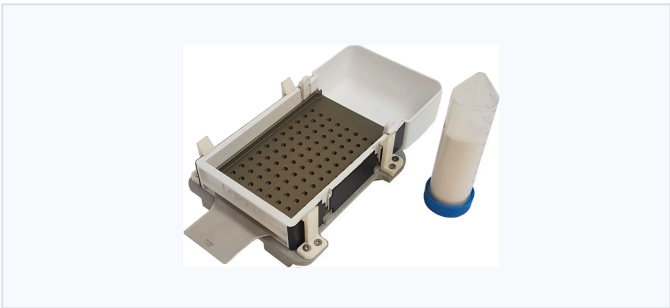
CS-96W-V6mm-3.2mm.STEP SolidWorks 2021 · 2024-04-16 Millimetre · single solid

The LabTIE 96-Well Powder Dispenser is an accurate modular powder dispenser for 96-well plates. This datasheet covers the converter measurements: the hole pitch, the plate seating face, and which 96-well plates the LabTIE 96-Well Powder Dispenser fits. All figures are taken from the released STEP solid, and the views are generated from that same geometry, so what is drawn and what is dimensioned are the same model.

FIG. 01 · TOP VIEW FROM THE STEP MODEL



THE LABTIE 96-WELL POWDER DISPENSER



The modular powder dispenser as supplied, with the converter seated on a 96-well plate.

Outlets	96, 8 × 12
Grid pitch	9.00 × 9.00 mm
Seating face	117.70 × 132.02 mm
Converter bore	Ø8.00 to Ø3.60 mm
Body height	10.00 mm

MEASUREMENT 1

Distance between the holes
9.00 mm

Centre to centre, equal on both axes. 96 positions in an 8 × 12 grid on exact 9.000 steps, so the grid measures 63.00 × 99.00 mm from first to last centre. Each position is a Ø8.00 mm pocket stepping down through Ø5.60 and Ø5.00 to a Ø3.60 mm outlet; the file name states 3.2 mm, which sits below the measured outlet.

MEASUREMENT 2

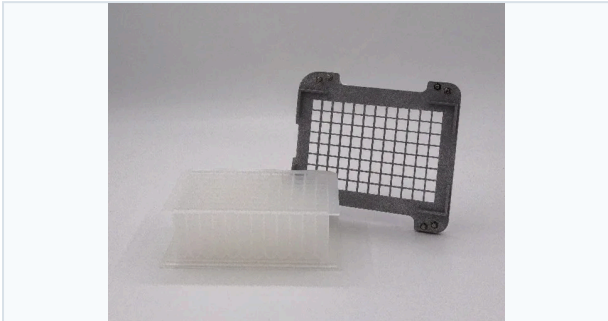
The Dispenser (converter) dimensions clear span
between brackets
132.02 mm length
117.70 mm width

This converter carries no bracket set, so there is no clear span to report: it seats directly on the plate rim over the full face measured above, which overhangs the ANSI plate on both axes. Four relieved corner pads, 2.30 mm deep with inner faces 99.28 mm apart across the width, keep the seating face clear of the plate's corner radii.

MEASUREMENT 3

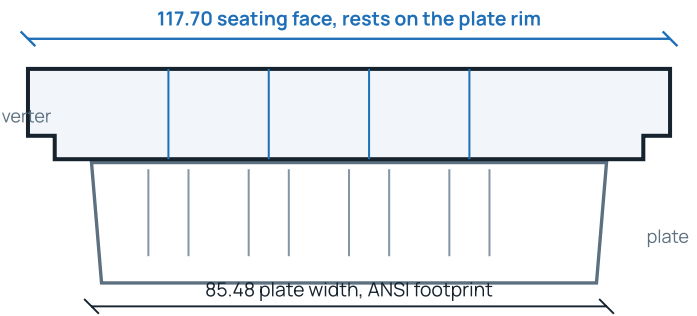
FIT ON THE PLATES

FIG. 02 · THE DISPENSER (CONVERTER)



The Dispenser (converter) as shown on the product page. The flat top part carries the 96 outlets on the 9.00 mm grid, and the underside seats on the plate rim so every outlet lands centred over a well.

FIG. 03 · SECTION: HOW THE CONVERTER SEATS ON THE PLATE



The converter rests on the plate rim rather than clamping around it, so plate wall thickness and skirt height do not affect the fit. What governs the fit is the grid: the outlets must register with the wells.

The grid registers with the ANSI/SLAS 96-well pattern on both axes

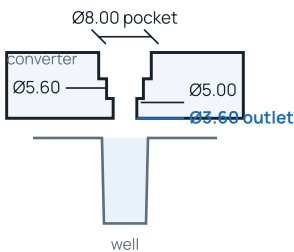
AXIS	GRID, FIRST TO LAST	PLATE	A1 OFFSET MEASURED	ANSI/SLAS	DEVIATION
Length, 12 columns	99.00	127.76	14.38	14.38	0.00
Width, 8 rows	63.00	85.48	11.24	11.24	0.00

VERIFIED FIT

A1 lands on the standard centre on both axes

A1 offset is the distance from the plate edge to the centre of well A1, the figure that decides whether a converter registers with a plate. The measured grid is centred on the 127.76 × 85.48 mm footprint to within 0.01 mm, which is the ANSI/SLAS 1-2004 and 4-2004 position, so every plate built to that standard registers. This converter seats on the rim, so the Bracket Taper Allowance (BTA) does not apply to it.

FIG. 04 · OUTLET BORE, SECTION DETAIL



WHAT LEAVES THE CONVERTER AT EACH POSITION

Each position is a stepped bore, not a straight hole. The Ø8.00 mm pocket takes the powder column from the mesh plate, and the three steps down to the Ø3.60 mm outlet keep the column centred as it drops, so the powder lands inside the well rather than on the plate rim.

Pocket	Ø8.00 mm
First step	Ø5.60 mm
Guide	Ø5.00 mm
Outlet	Ø3.60 mm
Web between pockets	1.00 mm

MEASUREMENT 4

THE 96-WELL PLATES THAT FIT

Named by brand and catalogue number, checked on the 9.00 mm grid and on the well opening the Ø3.60 mm outlet has to land inside.

BRAND AND CATALOGUE NO.	FORMAT	GRID PITCH	WELL OPENING	CLEAR	FIT
Greiner Bio-One 655101	Microplate, F bottom, PS	9.00 mm	6.96 Vendor	+3.36	Verified fit
Corning Costar 3596	Cell culture, TC treated, flat	9.00 mm	6.86 Vendor	+3.26	Verified fit
Thermo Nunc 167008	MicroWell, flat bottom	9.00 mm	6.96 Format	+3.36	Verified fit
Sarstedt 82.1581.001	Microplate, F bottom	9.00 mm	6.90 Format	+3.30	Verified fit
Eppendorf 0030730011	Microplate 96/U, round bottom	9.00 mm	6.90 Format	+3.30	Verified fit
Greiner Bio-One 780201	Deep well, 2 mL square	9.00 mm	8.00 Vendor	+4.40	Verified fit
Corning Axygen P-DW-20-C	Deep well, 2 mL square	9.00 mm	8.00 Format	+4.40	Verified fit
Greiner Bio-One 655090	µClear, glass clear bottom	9.00 mm	6.96 Format	+3.36	Verified fit
Bio-Rad HSP9601	Hard-Shell PCR plate	9.00 mm	5.50 Format	+1.90	Verified fit

Vendor · well opening published by the manufacturer. **Format** · the opening shared by that plate format, which every brand builds to. Clear is the well opening less the Ø3.60 mm outlet, the margin the powder column has as it leaves the converter. Every plate listed is on the ANSI/SLAS footprint at 9.00 mm pitch, so all register. Brand names are given so you can recognise your own labware; LabTIE is not affiliated with these manufacturers.

RESULT

Every 96-well plate on the ANSI/SLAS footprint fits, flat bottom, round bottom, square deep well and PCR alike. The grid is 9.00 mm on both axes with A1 on the standard centre to within 0.01 mm, and the converter seats on the plate rim rather than clamping it, so skirt height and wall thickness do not matter. The narrowest opening listed, a Ø5.50 mm PCR well, still clears the Ø3.60 mm outlet by 1.90 mm.

THE ONE FIGURE TO CONFIRM

Well pitch is the figure to confirm: it must be 9.00 mm. Half area and 384-well plates use a different pattern and need their own converter. Plate not listed? Send the plate name or part number with your quote request.