

CASE STUDY

OVERHEAD ORIGAMI



*JAZZ PHARMACEUTICALS
PALO ALTO, CALIF.*



DIVISION 9 ENGINEERED-TO-ORDER WOOD CEILINGS

A linear wood ceiling of 70 feet by 35 feet fills the main break room at Jazz Pharmaceuticals. The ceiling's 196 individual triangular panels form 48 "pyramids."



9Wood used just two triangular panel designs to create a wood ceiling with perfect proportions

Whereas standard origami might use a single sheet of material, 9Wood's custom ceiling design for Jazz Pharmaceuticals used two panel designs made of solid Western Hemlock. The design is a completely custom solution.

"We couldn't just grab a standard SKU out of our catalog," says 9Wood Project Manager Joshua Crouch. "We had to design a special product and suspension system."

How did it come about?

Triangular panels. Architect Jacob Gelfand of STUDIOS Architecture asked 9Wood to come up with a "folded triangular acoustical wood ceiling."

Gelfand also wanted the ceiling to be economical.

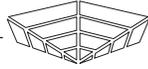
In response, the manufacturer developed a roughly 70-foot by 35-foot linear wood ceiling using solid Hemlock, but one based on only two triangular panel designs. The simplicity of using just two panel designs helped keep the ceiling affordable. It's organized into "pyramids and inverse pyramids," Crouch says. The ceiling is comprised of 196 triangular panels that combine to create 48 "pyramids." Each "pyramid" is about 7 feet by 7 feet square.

3-D software design. The ceiling was designed using 3-D software before estimating the project.



STUDIOS Architecture, San Francisco, Calif., wanted a "folded triangular acoustical wood ceiling." In response, 9Wood created a linear wood ceiling system of "pyramids and inverse pyramids."





PROJECT

The break room at Jazz Pharmaceuticals,
Palo Alto, Calif.

ARCHITECT

STUDIOS Architecture,
San Francisco, Calif.

CEILING CONTRACTOR

Ad-In Inc.,
Fremont, Calif.

CEILING SYSTEM

9Wood custom engineered
linear wood ceilings,
Springfield, Ore.

"That's how unusual it was," Crouch says. "Our estimator couldn't even quote the job until we had a design."

Each triangular panel is mounted with an angle bracket, using 3¼-inch bolts, to reveal blocking. "Because of the geometry folding up and down, we had to procure different angle brackets," Crouch says. "There was a lot of work done to get the hardware right on this project."

Six-week installation. The ceiling installation crews with Ad-In Inc. of Fremont, Calif., began by tying off the triangular panels before installing the channel grid. "We thought we would put the channel up first, but we couldn't. The panels were too wide and would not have fit through the channel grid," says Rudy Vargas, senior project manager at Ad-In Inc. "So, we lifted these panels into the air and suspended them with ceiling wire, and then connected the channel."

“A LOT OF THINGS HAPPEN AT THE POINTS—THE TRIM, CHANNEL AND PANELS ALL COME TOGETHER. YOU HAD TO BE A GOOD MECHANIC ON THIS JOB.”

Air diffusers, linear lighting and downlight fixtures are featured throughout the ceiling. In some places, the light fixtures are 12 feet in length, but the channel is only 10 feet long. "We had to hook channels together," says Rudy Vargas, senior project manager at Ad-In Inc.



In other words, we built the channel around the 'pyramids.'"

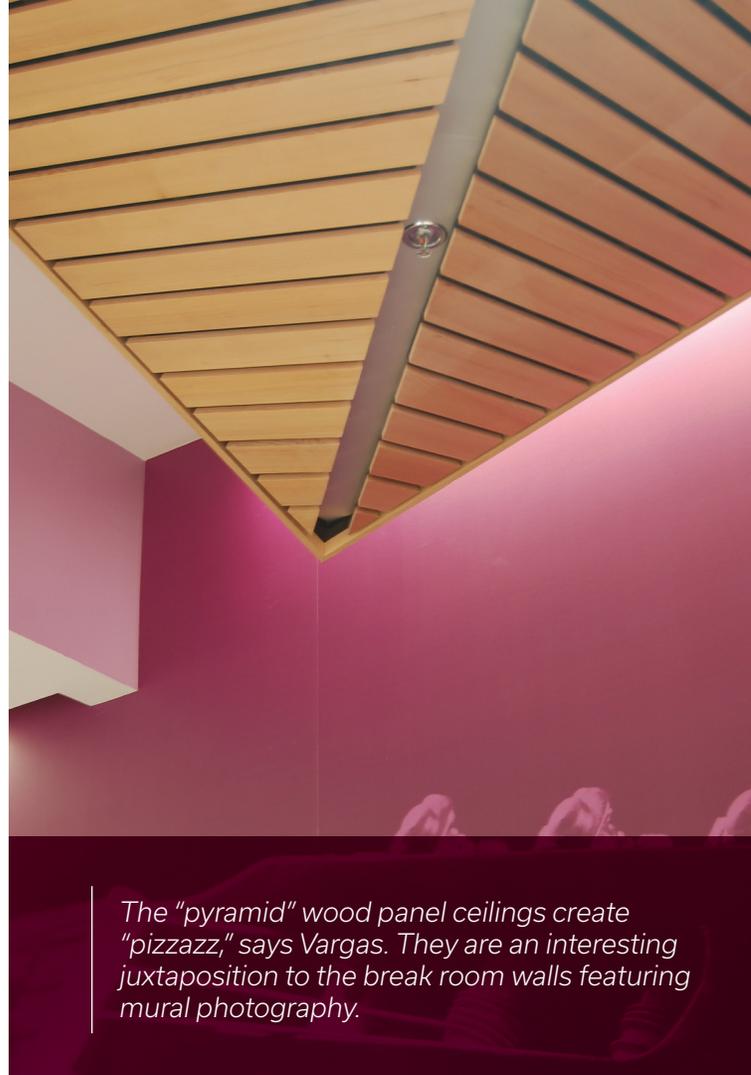
Once assembled, the pyramids were attached to metal carrying channel, which houses linear light fixtures, diffusers, sprinkler heads and more. 9Wood built four "pyramid" mockups in its warehouse to help the ceiling contractor better understand the installation particulars.

Installing the trim was tricky. "A lot of things happen at the points—the trim, channel and panels all come together," Vargas says. "You had to be a good mechanic on this job."

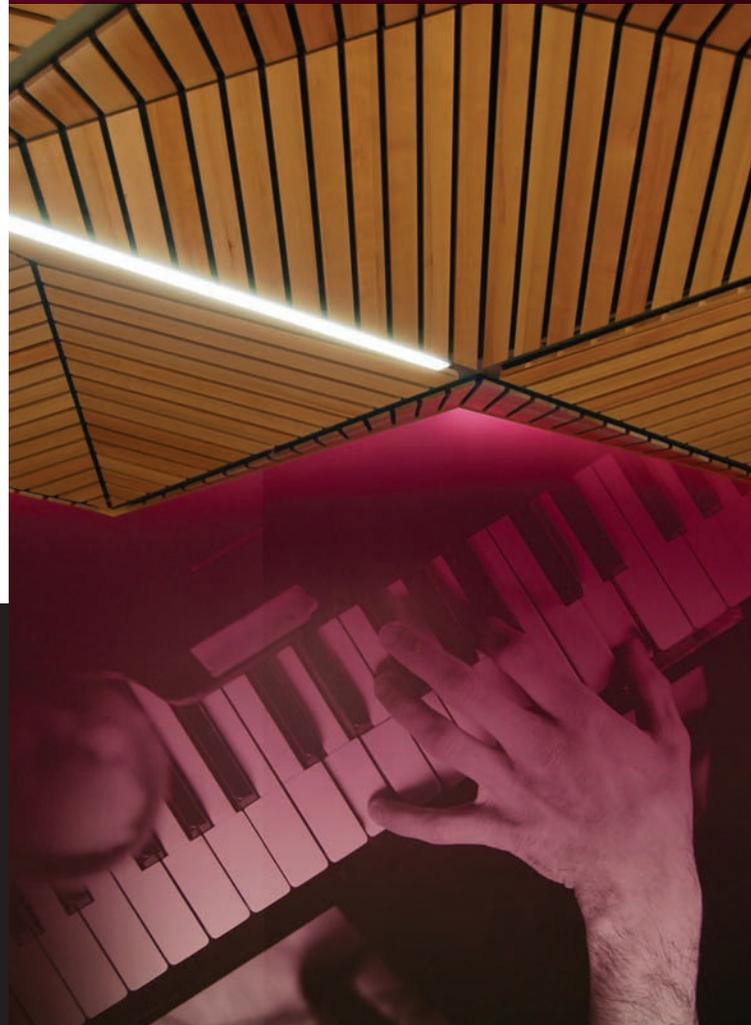
Vargas' crew worked for six weeks, from mid-September until the end of October 2017. He assigned five mechanics to the project, each with 15 to 20 years of experience. "It was a one-off job," says Vargas, who is proud of his crew's work. "There was nothing standard about it."



9Wood used solid, 5/8-inch by 3¼-inch, vertical grain Western Hemlock to create the ceiling panels. The panels attach to custom black reveal blocking using metal angle brackets (not visible) and 3¼-inch bolts (not visible).



The "pyramid" wood panel ceilings create "pizzazz," says Vargas. They are an interesting juxtaposition to the break room walls featuring mural photography.



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