

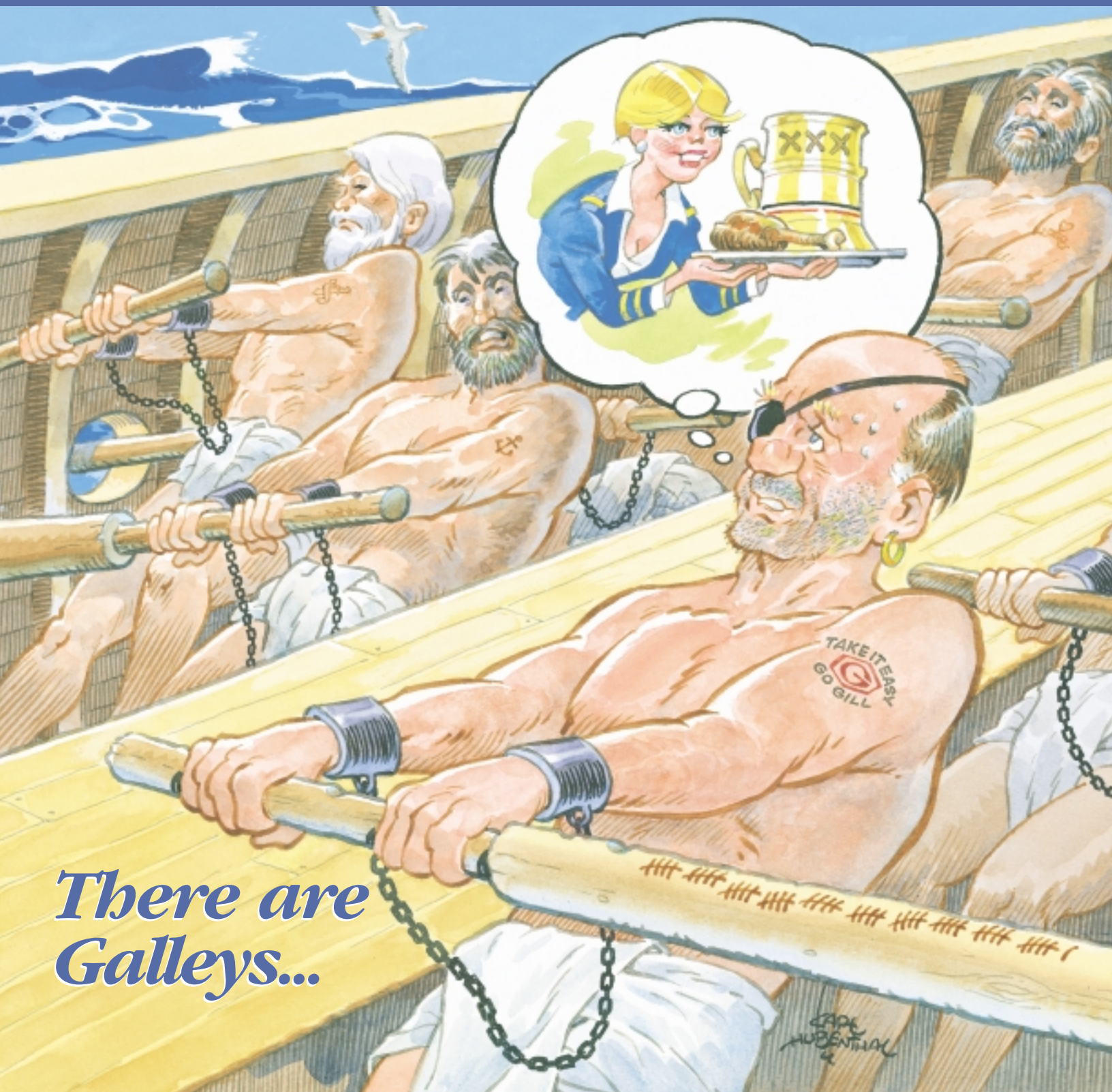
VOLUME 33
FALL 1996
NUMBER 4



THE M.C. GILL DOORWAY

"We try hard enough to make it happen"

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*There are
Galley...*

*...and
there are
Galleys.*



Today's airlines with long haul routes, and especially those with wide-body aircraft, offer a relatively extensive meal service. Likewise, those airlines still require galley areas for food preparation. For which, the M.C. Gill Corporation says a hearty *thank you*, because in the complete line of sandwich panels we manufacture are those used to construct and repair galleys.

Flooring, for both passenger and cargo compartments, is the largest single component of our sandwich panel line. However, the decision was made years ago that if the company was going to manufacture sandwich panels, we would ensure that our customers could make us their one-stop shopping center for virtually any type of panel used in any aircraft interior. Hence, M.C. Gill galley panels.

The difference between galley and flooring panels is one of "weight." Flooring panels are load-bearing and sometimes are part of an aircraft's

AEROSUD OF WITH

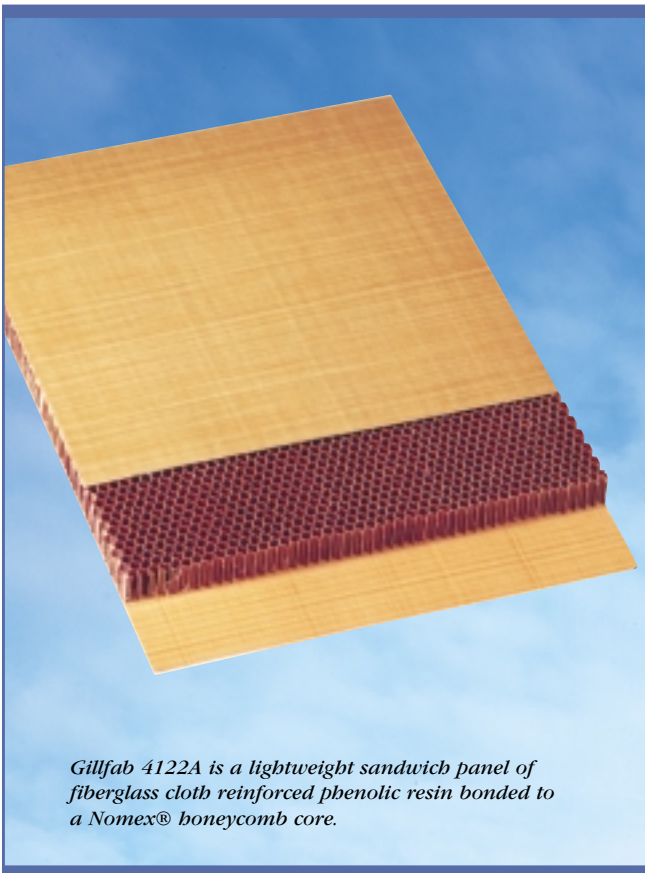


Because different airlines have different requirements, this galley is just one of many designs. Dimensions and galley components are tailored to each airline's specific needs.

primary structure. As a result, flooring panels are usually heavier than galley panels—both in core densities and facings' thickness because of the abuse they undergo.

As a rule, galley panels are out of the main traffic flows and the concomitant abuse, or used as vertical surfaces to cover or hide something. Therefore, they can be lighter in weight and less robust than flooring. Having made galley panels since the early 1960's, Gill is well aware of the requirements for these particular types of panels and how they differ from other interior end uses.

SOUTH AFRICA BUILDS GALLEYS GILLFAB® FIRE-RESISTANT PANELS



Which is one of the reasons that Aerosud, a privately held South African company, selected Gillfab 4122A as the material of choice for a major galley reconstruction on three South African Airways (SAA) 747's.

Aerosud is a young company but one with personnel providing years and years of experience. It was founded in 1990 by several former employees of Atlas Aircraft Corporation of South Africa. In six short years, the company has grown to more than 80 engineers, design draftsmen, and technicians. Aerosud consists of

TABLE 1 - GILLFAB 4122A DATA			
BASED ON 0.350" THICK PANEL WITH 0.020" FACINGS AND 3.0 PCF NOMINAL NOMEM CORE			
TYPICAL AVERAGE PROPERTY VALUES			
PROPERTY	TEST METHOD	UNIT	VALUE
Weight	ASTM C29	lb/sq ft (kg/sq m)	0.540 (2.64)
Thickness	ASTM C366	inch (mm)	0.350 (8.89)
Sandwich Peel	DPS 1.92	in-lb(N-m)/3 in width	36 (4.1)
Long Beam Flexural	DPS 1.92		
Ultimate Load		lb (N)	320 (1423)
Deflection @ 100 lb		inch (mm)	0.515 (13.08)
Flatwise Compressive Strength	DPS 1.92	lb/sq in (kPa)	360 (2482)
Flammability - 60 Second	FAR 25.853		
Self-Extinguishing Time		second	0
Burn Length		inch (mm)	1.3 (33.0)
Drip Extinguishing Time		second	0
Smoke Density	DPS 1500	D _s	23
OSU Heat Release	FAR 25.853		
Peak Heat Release Rate		kw/sq m	26
Total Heat Release		kw-min/sq m	18
Note 1 - Data above applies to Type A or Type B panel construction.			

three divisions: Engineering, Manufacture Repair and Maintenance, and Aircraft Interiors (the entity dealing with M.C. Gill Corp. on the galley project referred to above).

Aerosud has been involved in projects involving all of the Big Three airframe manufacturers, i.e., Airbus, Boeing, and McDonnell Douglas. These projects include construction and repair of class dividers, crew rest facilities, galley units, lavatories, stowage bins, and garment modules. In addition to South African Airways, their customers include Air Zimbabwe, LAM, Interair, COMAIR, Kenya Airways, Air Austral.

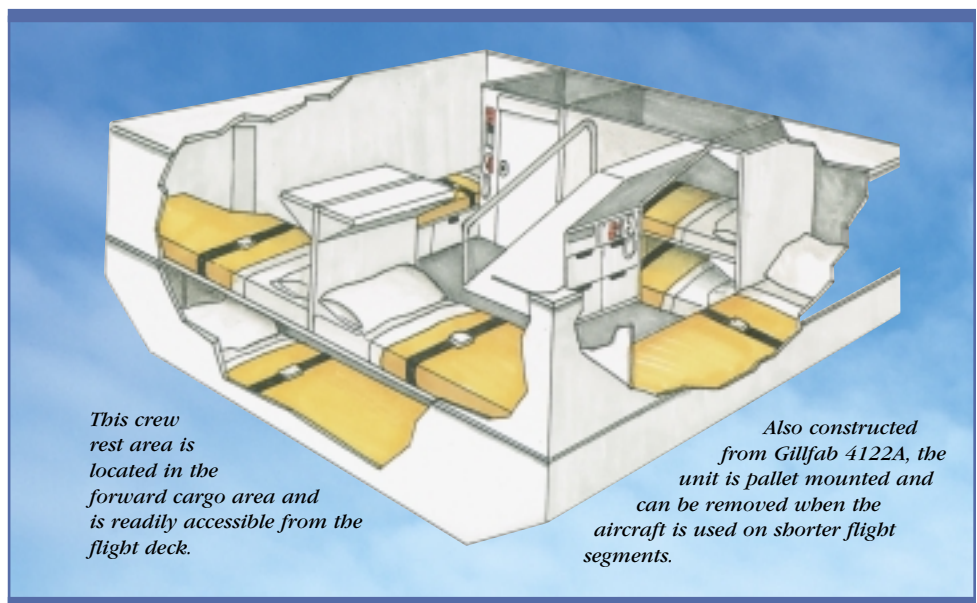
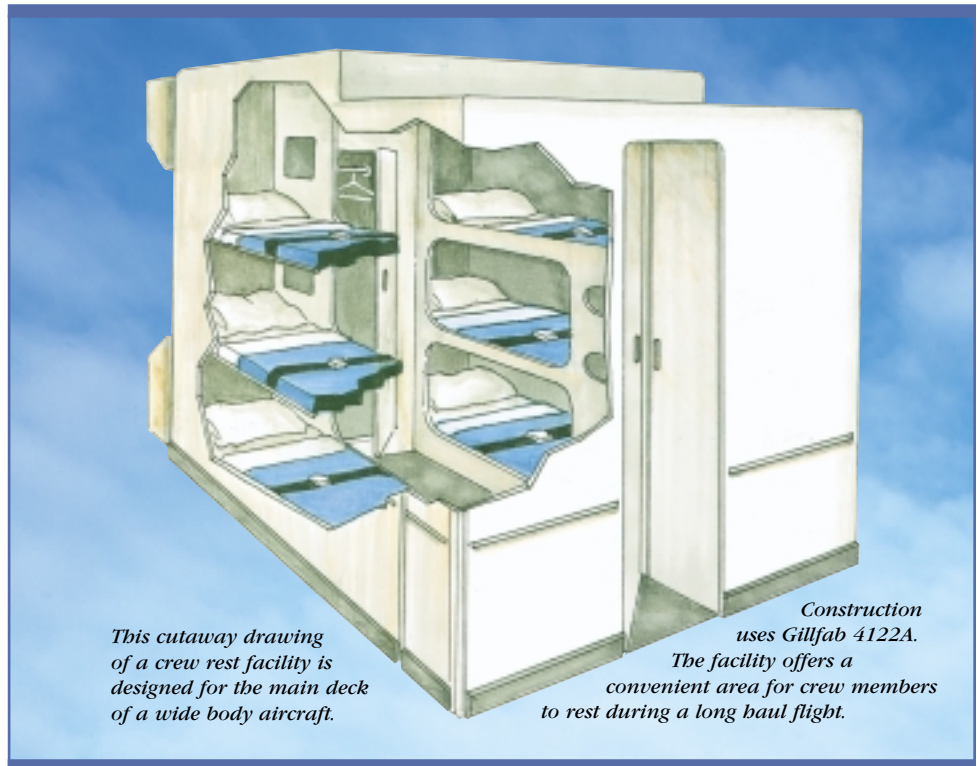
AEROSUD'S OTHER PROJECTS

LOW-SMOKE,

Fire Safety Factors are Mandatory.

As mentioned previously, Aerosud selected Gillfab 4122A for the SAA project. 4122A is an all phenolic panel and is used in enclosed areas (such as galleys) where low-smoke emission in a fire is crucial. The facings are fiberglass cloth reinforced phenolic resin with a Nomex® honeycomb core and modified phenolic adhesive. This construction results in a low-smoke and low-toxic emission panel, good burn through resistance and a low flash point in a fire—four features Aerosud considers mandatory.

As the data in Table 1 on page 3 for Gillfab 4122A show, the OSU (Ohio State University) heat release test results are 26/18, well below the FAA maximum of 65/65. Likewise, smoke density measures 23 D_S—far below the FAA's requirement of 200 D_S and some airframe manufacturers' internal requirements ranging from 50 to 100 D_S.



ALSO CALL FOR Low-Toxic GILLFAB 4122A

Although Gillfab 4122A has become the material of choice for galley construction and repair by Aerosud and other galley manufacturers and airlines, it is certainly not the only non-flooring panel made by the M.C. Gill Corporation. Space limitations preclude an exhaustive discussion of the panels listed in Table 2, but if you would like more information, please contact the Marketing Services Department at the address, phone or fax listed on the cover, e-mail your request directly to: doorman@mcgillcorp.com or visit our web site at www.mcgillcorp.com

No one has ever designed a sandwich panel that has been judged “best” for all, or “best” even for a single application.

That is the reason M.C. Gill manufactures a wide variety of panels using different facings, core, and adhesives. Moreover, if you don't see a panel construction in the table above that is quite what you need, give us your specifications and we'll build one that will meet them precisely. The experience we've gained in our 51+ years in business will virtually guarantee we can provide exactly what you want.

TABLE 2 PARTIAL LISTING OF M.C. GILL GALLEY PANELS				
PART NO.	CORE	FACINGS	ADHESIVE	DESCRIPTION
4022	Nomex h.c.	Phenolic/glass	Epoxy	High Impact and corrosion resistant
4030	Aluminum h.c.	Aluminum	Epoxy	Core and facings to customer specification
4037	Nomex h.c.	Phenolic/glass	Epoxy	Intermittent 350° F service temperature
4106	Nomex h.c.	Aluminum	Epoxy	Light weight/rigid
4109	Nomex h.c.	Phenolic/carbon	Epoxy	High strength/very stiff
4122A	Nomex h.c.	Phenolic/glass	Phenolic	High strength/low weight

Much has been written, televised and broadcast of late concerning the life threatening conditions produced by smoke and toxic emissions in passenger cabins of commercial aircraft as a result of a fire. No one is more concerned about these perils than the airlines, the airframe manufacturers, and the vendors that supply them, including M.C. Gill Corporation.

We recognized the need for and first produced a phenolic resin based low-smoke/low-toxic emissions cargo liner more than 30 years ago—long before the above concerns were being trumpeted about in the media. Since then, we have developed and marketed a dozen or more constructions utilizing phenolic resins. There are no OEM cargo liner specifications worldwide known to us to which one or more of these Gilliners is not specified.

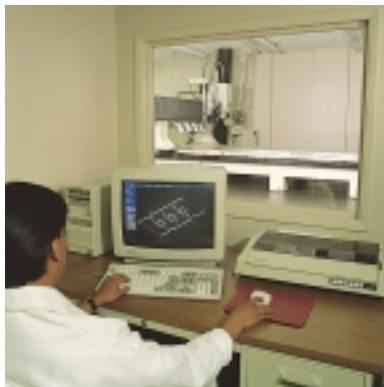
Two of the three major airframe manufacturers install low-smoke/low-toxic emission M.C. Gill cargo liner as original equipment in every airplane that comes off their assembly lines. Moreover, one of them uses Gill low-smoke flooring panels as original equipment in the passenger compartments of all models of their aircraft—and we have been producing those types of panels for 35 years.



A quality assurance technician inspects work in progress. The CNC operator, right, sits at the control panel.

CNC

We started out fabricating flooring panels for McDonnell Douglas/Long Beach...then, flooring panel kits (one kit = one shipset) for Douglas/Salt Lake City...then, more flooring panels for Long Beach... then, cargo liner for Long Beach...and along the way we have profiled base plates for pre-production units of ground combat tactical trainers...and window frames for commercial aircraft...and, radome skins...and shipping/storage containers for satellites...and tooling...and samples for our R & D lab to test...and on...and on.



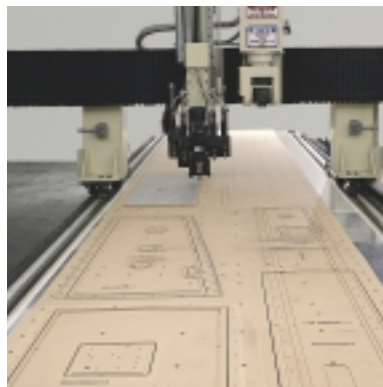
Technician operating the master console which is located in an enclosed dust-free environment.



The tool storage bar at the back holds five tools. Programmed in advance, the router head automatically selects the proper tool.



The panel is adjusted on a roller table to ensure proper alignment of inserts. The inserts then are set into the panel.

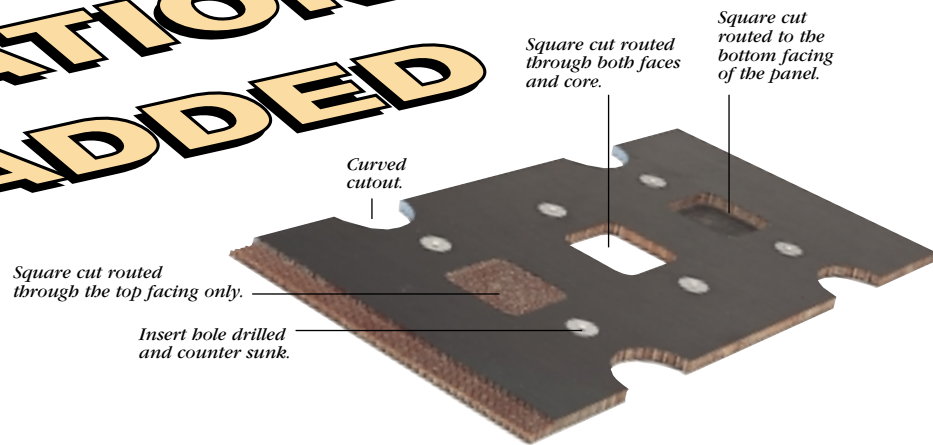


The first CNC machine. The machined-in-tool paths serve as a vacuum chuck to hold raw stock panels in place for detailing.

But, let's start at the beginning.

Two years ago, we announced that McDonnell Douglas-Salt Lake City had awarded the M.C. Gill Corp. a long term contract to provide fabricated flooring panels for their portion of the MD 80/90 program. The announcement in the Fall 1994 Doorway also reported our purchase and installation of a 3-and 5-axis CNC (Computer Numerically Controlled) profiler. We mentioned somewhat in passing that the facility we constructed to house the CNC was large enough to accommodate a second machine, should demand ever warrant it.

FABRICATION VALUE ADDED



Demand did warrant, and late in August of this year, we took delivery of our second CNC profiler, a Thermwood Extended Model 53.

This model is a heavy duty, fixed table CNC Machine Center designed to route, bore and machine full sheets of material into finished parts. To accommodate M.C. Gill sandwich panels and to increase the machine's flexibility we bought the model with a 5' x 20' fixed bed. The machine and its CAD (Computer Aided Design) control system were up and running in early September.

New Features Result In Productivity Increases

Although both of our CNC machines operate at approximately the same speed, the new one has an automatic tool changer. Essentially, it is a tool storage bar at the back of the table that holds five different tools—more than adequate for most of the fabricating work we do. When the CAD program calls for a different function, e.g., drilling vs. routing, the head returns to the rear of the table; places the tool it was using in an empty carrier on the tool bar; releases the tool; moves to the appropriate carrier that holds the next tool required; installs that tool; and moves into place to perform that function—all automatically!

A second feature is a hand held programmer. It is a terminal, about the size of a large calculator which can program, edit and adjust

programs right at the part. Most of the programming is done away from the machine; often, however, programs will require adjustments and changes to operate properly. The hand held programmer can make adjustments at the machine in just a few minutes and although they are normally minor, reprogramming away from the machine can take much longer, possibly hours to correct a minor adjustment.

Laser calibration is another feature. It assures the highest level of positioning accuracy. As a result, parts can be machined to a $\pm .005$ " tolerance.

Expansion – An Extension of Corporate Philosophy

We have long realized that to maintain industry leadership we had to manufacture products that offered more value added for our existing and potential customer base. This value added concept coincides with the Company's pursuit of vertical integration. It enables us to provide the OEM and replacement markets with additional services, with control over the quality of the finished product. It should be noted that it is also our policy NOT to compete with our customers. However, we know of no customer of ours that is doing this much needed work.

Not to toot our own horn, but...we made the decision two years ago to continue to provide the highest quality raw stock sandwich panels and flat laminates AND to offer our

customers the option of ordering those products detailed to their requirements. So, we dedicated a 5,800 square foot, three room facility. One room to house both of our CNC machines; a second in which to perform other steps in the sandwich panel fabrication process, such as...edge filling and finishing insert holes...positioning and installing inserts...priming. A third room houses the master CAD console and other programming equipment. All three rooms have separate air conditioning, as well as dust and particle collection/removal systems.

Good Business Practice.

We believe the growth of fabricated parts sales is due in part to M.C. Gill's continuing philosophy to upgrade and add new equipment and manufacturing capability...and thus provide our customers with even higher quality and more diverse products, at reasonable prices, and in a timely fashion. It's a business practice we've been following for more than fifty-one years and we would not be where we are today without it.

So, if you have a part or parts you would rather have us fabricate than doing it yourself call us with your requirements. All WE need to prepare a quotation is YOUR drawing of the part, a materials list, and the quantity desired. We'll do all the work. All you have to do is drop in the part and be on your way. It's that simple.

M.C. GILL EXPANDS TO SEVEN BUILDINGS



Purchase of this 77,000 square foot building and the 5.5 acres on which it sits closed escrow August 28, 1996. At

this writing, our engineering committee is considering plans for flexible utilization...to provide for further growth.

THE FUNNY SIDE

"I think my son's home from college,"
the woman told her neighbor,
"How do you know?"
"He hasn't written for money in three
weeks and my car's missing."

★★★★★

As the father of seven reminisced, "If my
first child coughed or sneezed, I'd call an
ambulance. When the last one swallowed
a nickel, I told him it was coming out of
his allowance."

★★★★★

Never dine in a restaurant where the
maitre'd's name is Heimlich.

★★★★★

The shorter the time between flights, the
greater the distance between gates.

★★★★★

The safari hunter was being chased by a
lion and it became obvious the lion was
going to win. The hunter dropped to his
knees and prayed, "Lord, make this lion a
Christian." At that moment, the lion
dropped to its knees and said, "Lord, thank
you for this food I am about to receive."

★★★★★

Attorney to client, "The blood test results
came back and your DNA matches exactly
with that found on the victim."
"That's terrible!" moaned the client.
"It's not all bad news," replied the lawyer,
"Your cholesterol is down to 135."

NEWS FLASH

Gillfab 5433C is
now qualified to
Boeing's BMS 7-326,
Ty 7 specification.

5433C can be
used as flooring in
the cargo
compartments of
Boeing aircraft. It is
a sandwich panel
constructed from
aluminum facings
bonded to a
woven fiberglass
cloth core.

Trivia

If you think you've had it tough, consider
the following: When he was 22, he failed
in business; at 23, he ran for his state
legislature and lost; at 24, he again failed
in business; his sweetheart died when he
was 26 and he had a nervous breakdown a
year later. He ran for office and was
defeated at ages 34, 39, 46, 47, and 49.
Persistence pays, however. At age 51,
Abraham Lincoln was elected President of
the United States.

★★★★★

At an auction last December, an
anonymous buyer paid \$5,520 for a
diamond-monogrammed gold shochorn
belonging to Frank Sinatra.

★★★★★

The chances are also 1 in 4 that an
employee of a professional basketball team
is a player.

★★★★★

Besides the hoof prints of Tom Mix's,
Gene Autry's, and Roy Rogers' horses, the
only non-human footprints at Grauman's
Chinese Theater are those of Donald Duck
and some of the Star Wars characters.

★★★★★

An elephant has 100,000 muscles in its
trunk.

★★★★★

To get rid of warts, steal a neighbors
dishrag and rub it over them.

★★★★★

Some oak trees can produce almost 90,000
acorns in a year.