

CEILING

Major Ceiling Systems Manufacturers Take A Close Look At The Industry, Their Products, The Future

• “Your ceilings can be something to look up to when you design in Howmet Custom Grid.”

• “Owens-Corning Integrated Ceiling Systems are designed to accommodate architectural, engineering and functional variables.”

• “Zerodec’s variety is boundless, with virtually no limit to its size, shape or texture.”

• “. . . the complete line of Armstrong panel and tile ceiling products . . . include acoustical materials offering a most comprehensive selection of design options, performance characteristics, and price ranges.”

• “Hunter-Douglas offers a sophisticated way to obscure such distracting objects as loudspeakers, wires and pipes within plenum.”

These statements have been taken from product catalogs of various

ceiling systems. In order to differentiate between the various companies, each with a multitude of systems and components, CONSTRUCTION DIMENSIONS asked the various manufacturers specific questions to help the contractor better understand the features of the varied systems. Of those companies questioned responses were received from eight ceiling system and component manufacturers. Their responses are as follows:

What type(s) of ceiling system does your company produce?

Bobby Hall, Product Manager, Interior Products, Howmet Aluminum Corporation: Howmet Aluminum Corporation is a totally integrated producer of architectural building products. Our aluminum ceiling sys-

tems are comprised of our patented “Speed Lock” system, which is stocked in several finishes. Our custom systems are varied, with configurations ranging from 9/16" wide with a screw slot to 9" wide with recesses. We fabricate to most job conditions, accommodating sprinkler heads, air supply, special light fixtures, etc.

J.B. Gibbets, Manager, Commercial Marketing, Owens-Corning Fiberglas Corporation: Owens-Corning . . . produces ceiling materials and systems of several different types. The ceiling materials that we produce are film faced Fiberglas ceiling panels, glass cloth faced Fiberglas ceiling boards, and we are just introducing on the West Coast mineral fiber ceiling panels and tile. Integrated

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ZERODEC'S HARRY: “We foresee a major move in all construction and retrofit work towards the use of non-combustible materials.”



HUNTER DOUGLAS KYSER: “Through the use of corrosion resistant materials, the end result is an attractive surface that will maintain its beauty for years.”



ARMSTRONG'S PETERSEN: “Armstrong has a continuing research program to find new ways to install ceilings and components faster.”

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ceiling systems supplied by OCF include acoustical ceiling products, suspension systems, lighting, air distribution, and, where required, background masking sound systems to assure speech privacy.

Bob Barry, President, Zerodec-Megacorp: Zerodec-Megacorp produces all types of ceiling enclosure systems in any size that is possible to transport. Most of our projects are custom in nature. Zerodec-Megacorp also offers a line of standard drop-in coffers for use in standard grid systems.

The range of possibility is only limited by the creativity of the architect or designer. For instance, we just completed the ceiling for the Golden Nugget Casino in Atlantic City. This project consisted of 8' X 8' coffers which were secured directly to the metal cross beams; literally thousands of feet of decorative moldings finished in metallic and ranging in size from 5" to 24" (moldings were drilled and screwed in place); and giant vaults suspended on braided stainless steel aircraft cable. Each vault measures 60' long X 15' wide X 8' high with built in bolt-together sections for easy handling and installation. These vaults, which hang 20' in the air, are constructed to maintain excess of 450 pound per sq. ft. load.

Zerodec-Megacorp produces anything required in retrofit work, and is particularly useful in restoration projects where exact reproduction is required.

R.A. Thornton, Product Manager, Architectural Ceilings, The Celotex Corporation: We do not produce systems per se, but do manufacture mineral fiber acoustical panels and tile in a wide range of surface patterns, texture and color, suitable for installation on virtually all types of metal suspension systems available in the market.

Frank E. Kyser, National Sales Manager, Hunter Douglas, Inc.: Hunter Douglas manufactures a wide variety of linear metal ceiling systems for both the new construction and renovation industry. The ex-

perience of the worldwide Hunter Douglas engineering staff has developed the widest range of panel carriers in our industry. Each carrier is especially designed to properly fit and support a specific panel profile. These patented carrier designs can be used singly or in combination to provide a wide variety of design possibilities. Some are engineered for exterior applications requiring wind-loading, others are designed for high impact and traffic areas, and still others are designed for interior applications.

Earl Phipps, Manager Marketing Communications, Donn Corporation: Donn Corporation is a manufacturer of suspended ceiling systems. We also manufacture a complete line of linear, tee bar, and integrated systems. We manufacture and market various suspended metal ceilings in both steel and aluminum, as well as steel web with aluminum cap, plus various linear metal ceiling systems that include aluminum, steel and concealed ceilings.

Ronald J. Petersen, Marketing Manager, Interior Systems Products, Architectural Ceilings Division, Armstrong World Industries: Armstrong manufactures exposed and concealed grid integrated ceiling systems in both flat and vaulted configuration with acoustical infill.

Jack E. Jones, Manager, Commercial Sales, Gold Bond Buildings Products, a National Gypsum Division: We manufacture products that go into drywall, plaster and acoustical tile and panel ceilings systems. We do not necessarily manufacture each and every component ourselves.

What are the unique features of your system(s)?

Hunter Douglas's Kyser: One of the latest additions to our new construction product line is the Box 4/6/8 system. This system is unique in that it offers the use of 4", 6" or 8" modular panels on a single carrier. The panels are available in all standard Luxalon colors, plus a nickel, brass and copper-plated mirror finish. The unique carrier, specifically designed not to impinge the panels, makes this system especially suitable for these highly reflective finishes.

Gold Bond's Jones: Unique fea-

tures of various systems may be considered as: monolithic, accessible, acoustical, fire-rated and moisture resistant. I'm not sure these features are truly unique in comparison to other products and systems.

Zerodec's Barry: The unique features of the Zerodec system are as follows: It will not melt, will not support combustion, will not generate smoke or toxic fumes, does not rely on oil for its basic constituents, contains no asbestos fiber, is produceable in any size or shape, is less costly than fiberglass, is easily repaired in the field, can have any surface finish desired including hard glass type, is easily formed in virtually any shape. Zerodec is priced less than comparable fiberglass products, and is very competitive with polyurethane. It is also strong and hard and can withstand considerable abuse.

Armstrong's Petersen: A variety of features are unique with Arm-

strong integrated ceiling systems, ranging from exclusive fastening systems to specifically designed lighting fixtures. There are three critical areas in which Armstrong Ceiling Systems offer outstanding performance:

1.) Quality lighting with high ESI performance—vaulted systems have unique ESI capabilities, which result in an unusual degree of lighting quality, with outstanding ESI per watt. These ceilings also have excellent VCP ratings.

2.) The c-series Supply-Air Linear Diffuser (SALD) is specifically designed to distribute both small and large volumes of air effectively into the conditioned space. Since SALD does not depend on the "Coanda" effect, dumping is not a problem. The Synercon 60 System has a totally integrated Variable Air Volume system complete with VAV boxes and integral thermostats. Again, air-handling capabilities are specifically designed for effective distribution over a wide range of air volumes.

3.) Open plan spaces, in a variety of designs and layouts, put unique and sometimes conflicting demands on the lighting, acoustical control, and air-distribution systems. Armstrong ceiling systems, using several types of acoustical panels, offer outstanding performance of lighting, air distribution, and acoustical functions.

Armstrong systems are also adaptable. They can be sized to meet the design requirements of almost any module, making it relatively simple to design, specify and install dramatic, efficient integrated ceilings in any building.

There are six Luminaire Ceiling Systems designed to meet a variety of design requirements.

Howmet's Hall: While other systems can be produced similar to ours, to our knowledge, we are the only

supplier with total in-house capabilities. We produce our own aluminum as well as fabricate and finish our own products.

Celotex's Thornton: Our acoustical products line offers functional performance characteristics and aesthetic appeal in variety sufficient to satisfy the needs of most designers, architects and other specifiers.

Donn's Phipps: Our Paraline linear metal system is the most complete product line on the market, the only system offered in both aluminum and steel pans, as well as in both types of suspension systems. Several of our ceiling designs are UL rated; we're the only ones in the linear metal business with that designation. We're also the only people in the industry offering both integral pan closures and integral pan splices.

Our DX grid system features a bayonet style attachment method. This helps it be the fastest installing product on the market.

Owens-Corning's Tibbets: The unique features of our products and systems are as follows:

Film faced Fiberglas ceiling panels offer a tough abuse resistant, easily cleanable, and easily fabricated ceiling product with high noise absorption, and in various thicknesses which can provide excellent thermal performance in the ceiling also. The film faced Fiberglas ceiling panels, available in numerous different patterns, are provided in several standard sizes from 24" X 24" to 48" X 48" and Fiberglas panels may be backloaded with additional insulation.

Glass cloth faced Fiberglas ceiling boards are high performance ceiling products providing the styling of glass cloth facings, high NRC values and in the 1½" thickness. All Fiberglas commercial ceiling panels and boards carry a 10 year warranty of dimensional stability.

Owens-Corning mineral fiber ceiling panels and tile offer high STC

ratings, with painted fissured surfaces and film faced surfaces.

Owens-Corning integrated ceiling systems are a family of eleven standard systems providing various levels of acoustical performance including open office speech privacy SPP60 and SPP70, various levels of air delivery and lighting quality, both flat ceiling systems and three dimensional coffered and vaulted ceiling systems are offered.

Discuss the speed and ease of installation.

Celotex's Thornton: Speed and ease of installation are dependent upon the mechanical system chosen for use with our tile, and the experience and expertise of the installing contractor.

Owens-Corning's Tibbets: Fiberglas film faced ceiling panels offer special benefits to the contractor in the ease of installation due to the easy fabrication of the product, and its ability to withstand the rigors of

installation without need for replacement or retouching of the surface finish. Because the product is inherently dimensionally stable, it is possible to install Fiberglas earlier in the construction cycle than other products. As far as the integrated ceiling systems are concerned they are pre-engineered and pre-coordinated to provide fast trouble free' installation.

Zerodec's Barry: Zerodec is very easy and clean to install. Parts are precise and all necessary hangers, straps, hooks, etc. are built right into each part as required. Many installations are merely "drop-ins" and mechanical. Where seams need to be filled, ordinary plastering techniques are used. Zerodec can be sawed, drilled, sanded, glued, nailed, screwed and shaped. Standard white glue works fine.

There is no mess with installing Zerodec, i.e., your experience with wet plaster techniques. This allows the contractor to move in and out of an area in days instead of weeks. A recent round column project in New Jersey reported that a crew of two men installed six to eight columns per day with no mess.

The parts are lightweight and easy to handle. Matched parts, i.e., column enclosures are shipped in pairs.

Howmet's Hall: Our standard "Speed Lock" system, using an integrated tab on the cross runners, is fast to install and is economical. This same integrated tab can sometimes be used on some of our custom systems. However, most custom sys-

tems require a mechanical fastener for more rigidity and strength. In this case, we engineer a system to meet the job requirements-at all times keeping in mind the cost of field labor and taking all steps possible to do all the fabrication and assembly which can be done to the system in our plant.

Armstrong's Petersen: Realizing that labor is a large percentage of the cost of any installation, Armstrong has developed systems that go up as fast or faster than any comparable systems in the country. Armstrong has a continuing research program to find new ways to install ceilings and components faster. Among the latest developments is a new way to install lighting fixtures faster. The systems are designed to fit together quickly and smoothly.

Donn's Phipps: We built our business by selling directly to acoustical

contractors; it's where our loyalty lies. We've tried to repay their faith in us by spending a disproportionate amount of capital spending on developing products that install faster. I'm confident that both our acoustical and linear metal lines are the fastest installing in the industry.

Gold Bond's Jones: I guess the answer to this question has to be considered relative. Acoustical lay-in panel systems are relatively easy to install, while plastered ceilings are more involved. Gypsum board falls in between.

A concealed grid acoustical ceiling system is usually more complex than an exposed grid acoustical ceiling system. Within each group there are varying degrees of complexity.

Hunter Douglas's Kyser: Simplicity is the key to the system. With the use of the exclusive Hunter Douglas grid clip, the renovation carrier is at-

tached to an existing main tee by merely pushing the clip on with your thumb. Next it's just a matter of snapping on the panels.

What is the accessibility to the plenum area?

Zerodec's Barry: If the ceiling is a grid type, it's a simple matter to reach the plenum. On custom installations, we engineer accessibility into the part as required.

Gold Bond's Jones: Accessibility can be designed into virtually every system. An exposed grid lay-in panel ceiling system likely has the greatest accessibility.

Celotex's Thornton: Accessibility to the plenum areas depends upon the suspension system.

Hunter Douglas's Kyser: A broad range of accessories are available for all systems allowing the incorporation of air handling, lighting and accessibility to the plenum area.

Howmet's Hall: Accessibility to the plenum area with our "Speed Lock" system is no problem. In most cases, the ceiling tile is simply pushed upward. However, with some custom designs this accessibility can become more difficult.

Donn's Phipps: All of our systems are designed for easy plenum access.

Owens-Coming's Tibbets: All of the ceiling systems and ceiling products with the exception of 12 X 12 mineral fiber tile provide accessibility to the plenum area.

Armstrong's Petersen: Accessibility depends on the system. For a lay-in ceiling, accessibility is almost total. Armstrong has a patented Accessible Tile System with a pull down system. This allows tile to be installed on a concealed grid while providing full accessibility. A hook knife is used to pull down the grid in various locations and then as much tile as needed is removed to reach the area above.

What is the durability-in place of your system?

Donn's Phipps: Very good. Especially our linear metal Paraline system, which is available in high strength, low cost steel.

Howmet's Hall: Howmet's aluminum ceiling systems provide for a long life due to the corrosive resistance of aluminum,

Gold Bond's Jones: We consider the durability of all our ceilings to be very good. The systems are designed to last the life of the building. On many systems, the true durability is a function of how often the system is disrupted for accessibility to, and maintenance of the lighting, air handling and other mechanical systems.

Owens-Corning's Tibbets: We provide a ten year warranty on dimensional stability and thus durability on our Fiberglas base products.

Celotex's Thornton: Durability-in-place of Celotex acoustical panels and tile is equal to and consistent with industry standards of these types of materials.

Armstrong's Petersen: This is a difficult question to answer where the conditions under which the ceiling must serve are not given. Armstrong ceiling systems are durable and the acoustical material and other components are designed to withstand ordinary usage for a long period of time. Armstrong has developed special ceilings for use where conditions are more severe.

Zerodec's Barry: Zerodec claims that its life-in-place will match that of the support structure. We use special polymers that coat each fiber to protect it from deteriorating calcium hydroxide which attacks and destroys uncoated fiber. Zerodec is inert and due to its alpha cement base, will not deteriorate.

Do you have a fire-rated system?

Armstrong's Petersen: Yes, Armstrong was a pioneer in development of fire-rated ceilings and has many systems listed with UL.

Gold Bond's Jones: Many of our systems are used in fire-rated constructions. Most all components have a fire hazard classification, which includes flame spread, smoke development and fuel contribution.

Owens-Coming's Tibbets: All of our products and systems at this time carry a Class A-UL rating.

Howmet's Hall: At the present time, Howmet's, and to our knowledge no other aluminum ceiling system, is fire rated.

Donn's Phipps: Donn has dozens of UL listed designs.

Zerodec's Barry: Zerodec is an "O" rating across the board, although we haven't as yet applied to

UL for a "fire-rated" system report.

Celotex's Thornton: Celotex mineral acoustical products are available for use in systems requiring approval under both ASTM E-84 and ASTM E-119 tests and are rated and labelled accordingly, under appropriate UL designations.

What is the compatibility of your system with existing or new mechanical equipment?

Owens-Corning's Tibbets: Our products are both compatible with, and in the case of the integrated ceiling systems, incorporate the latest in equipment both—mechanical lighting and background masking sound.

Donn's Phipps: Because of our prominence in the suspension business, we have existing designs for almost every condition, as well as a large engineering staff available to consult on any unique problems.

Celotex's Thornton: Celotex products are not marketed in a packaged Celotex system, but can be and are incorporated as the acoustical element in a variety of suspension systems which are compatible with existing or new mechanical equipment.

Armstrong's Petersen: Armstrong ceiling systems are designed to be compatible with most commonly used products whether developed for Armstrong or other company products. Armstrong also customizes ceilings for special jobs.

Gold Bond's Jones: Generally, all of our systems are compatible with existing or new mechanical equipment. The limitations are related to those imposed by fire-rating requirements, equipment size and weight and other structural considerations.

Howmet's Hall: Our systems are compatible with existing and new mechanical equipment. We design the system to meet all the job requirements, so, as the market changes and new or unusual mechanical equipment is developed, Howmet meets those needs.

Zerodec's Barry: We build into Zerodec all allowances for supplementary systems, whether it's new or old construction makes no difference. We have even produced drop-in coffers with lighting as a premolded part of the part design.

Because of its "O" rating, and the fact that it's a non-conductor of electricity, makes it a natural for light fixture applications. Its heat transmission is equal to standard wall-board.

What is the range of styles and finishes of your system?

Gold Bond's Jones: The general range of styles and colors is competitive. That is, we have a wide

range. Color is usually a result of field painting, except for pre-finished acoustical tiles and panels. These are for the most part white.

Howmet's Hall: Howmet offers finishes ranging from clear anodize to polished bright clear or gold aluminum. Also, we offer a wide range of painted finishes to meet almost any job condition. Howmet also has the capability of offering our integral-colors hardcoat anodizing, in medium and dark bronze and black.

Zerodec's Barry: The range of styles and colors is almost endless. We've been able, so far, to produce everything that's been requested. We've produced extremely authentic wood grains, stone and marble, glass-smooth, orange-peel, rough texture, etc. Zerodec takes all finishes from water-based paint, lacquer, vinyl to enamels and can be covered with any of the simulated vinyls, wallpapers, metallic foils, etc. We can also furnish parts finished in

specular gold, silver, pewter, copper, bronze, etc. in certain applications.

Hunter Douglas's Kyser: Hunter Douglas offers a wide variety of colors and finishes that enables these systems to adapt to the mood of a space or create an exciting new look. Through the use of corrosion resistant materials, the end result is an attractive surface that will maintain its beauty for years.

Armstrong's Petersen: Armstrong has the broadest range of styles and finishes in the ceilings industry. Armstrong has introduced a wide range of color in many finishes, fabric surfaced ceilings, a broad assortment of textures, and panels scored to look like individual tiles.

Celotex's Thornton: Celotex mineral acoustical products are furnished in a variety of sizes, colors, patterns and textures.

Donn's Phipps: Donn offers many, many styles in all product lines. We offer 19 standard finishes including polished aluminum and

high reflectance copper and brass in Paralane. Since we do our own coil coating, we can offer special color match services.

Owens-Corning's Tibbets: Our range of styles and colors has been covered in our other answers, but basically products with embossed film facings, glass cloth facings and painted mineral fiber surfaces are offered.

What trends do you see in material, styles and colors?

Celotex's Thornton: Trends are toward wider use of non-directional patterns, and toward some increase in the use of muted designer colors.

Owens-Corning's Tibbets: We see a definite interest and demand for colors in ceilings. As far as styling is concerned, there continues to be a desire on the part of many designers and users for a monolithic appearance, and a larger module. Trends in materials seem as always to be dic-

tated by the performance required in the space.

Howmet's Hall: Howmet has found recent trends to be toward very narrow ceiling grid, with screw slots. A trend in finishes has been the bronzes and textured whites.

Donn's Phipps: We see a trend toward numerous new styles and material. Colors will also expand. We at Donn now have at least four new systems to introduce in the near future.

Gold Bond's Jones: There appears to be a trend toward more color, more concern for fire safety, more concern for incorporating greater thermal insulation in the system and a trend toward products designed for the remodeling and repair market.

Zerodec's Barry: We foresee a major move in all construction and retrofit work towards the use of non-combustible materials. The MGM Grand disaster, for instance, would not have occurred if the Casino ceiling had been Zerodec. We also see a



growing trend toward the use of ceilings as a design statement. The almost forgotten ceiling is getting more and more attention from architects and designers alike.

For the first time, the creative planners can express themselves in the area of ceiling and wall design, knowing that a functional, good appearing and cost effective product is available.

With conservation of energy, one

of the foremost goals of all planners, products that are non-petro based and have excellent insulation value are going to be in demand.

As is a known fact, the retrofit of old buildings is going to become more prevalent due to the high cost of new work. "Skin" type products will be in great demand. Products that are structurally sound and that can be sealed air tight will be in demand for use in creating plenums without having to use duct work.

Armstrong's Petersen: The latest trends are toward more color, linear look, improved lighting efficiencies, rough texture, and fabric surfaced tiles. Armstrong is meeting these trends with a series of product introductions. Among them are Tascon lighting (pendant type fixtures), Trimlok System, and Parabolok System. Armstrong is meeting the demand for a linear look with a low-cost "Second Look Ceiling" panel that is scored to look like individual linear tiles.