

What to specify: Ceilings

HEAVY METAL

SAS International's **Malcolm Stamper** takes a closer look at metal ceilings

With increasing demands being made on the construction industry from both the design and sustainability angles, it is vital all options are considered when specifying a ceiling solution. Metal ceiling systems are both durable and versatile providing users with design solutions that can meet the most stringent of design briefs. Metal ceiling tiles offer a cost-effective and sustainable solution; tiles retain a residual value and are recyclable at end of life avoiding associated costly landfill charges.

While traditional suspended ceiling systems are still an option, it is not necessary to take a "best-fit solution". Each ceiling is different – not all buildings and projects are square and a tailored approach should be utilised whenever possible. With specification criteria ranging from acoustics, design, durability, installation, paint finish, accessibility, prefabrication and integration, metal ceiling systems are able to fulfill various specification and sector demands.

There are four principle types of metal ceiling systems – clip-in tiles, lay-in tiles, linear and tartan grid tiles and acoustic rafts or modules. All of them offer impressive ranges of versatility, making metal ceilings an ideal solution for any location.

Clip-in tiles

With ease of cleaning and secure ceiling voids, clip-in tiles are ideal for hospitals and food preparation areas along with transport environments. Tiles are supported by a concealed suspension grid and can be demounted from the grid or hinged downwards.

As upward pressure can be applied, strict cleaning schedules can be adhered to. To ensure performance in all environments, both sides of the tile can be painted. This is ideal for areas with high humidity, for example kitchens and wash rooms.

Lay-in tiles

Traditional modular lay-in tiles can be customised by utilising differing grid suspension options. Tiles are generally provided in cassette form with acoustic fleece, pad and backing foil. The range of grid includes traditional tee grid to flush aluminium finishes, with tiles laid directly in. Flexible offices can be accommodated with linear recesses for partitioning, removing any potential damage to the ceiling plane.

Linear and tartan grid tiles

Offering the facility to manufacture tiles in millimetre increments and mega panels sizes up to 1500 x 1500mm, these systems provide functionality and outstanding performance with a range of cost effective design options. This system is ideal for offices – both new and refurbishments – due to their ability to meet any building's grid size. To meet design requirements, the supporting profile and tiles can be provided in a range of shapes to allow waveform or radial designs to be created.

SAS International's System 330 "CoolCeil" offers an optional incorporated Radiant Chilled Ceiling system allowing a sustainable room comfort element to be specified which can help towards a building achieving a



Charlestown Mall, picture courtesy of Paul Tierney

higher BREEAM rating.

Specified throughout the 75 St Stephen's Green office redevelopment in Dublin by architects Burke Kennedy Doyle and Associates, the energy efficient ceilings were installed within an 85mm zone below the void to allow for a finished floor to ceiling height of 2700mm.

Acoustic rafts or modules

Ideal for education, acoustic lighting rafts or modules are directly suspended from a flat structural soffit or within coffers which allows free air movement to the structural slab for natural thermal mass cooling. Available with a range of acoustic treatments, they can be designed in a range of curved, flat or angled profiles, or a bespoke solution can be specified to meet project requirements.

SAS worked closely with architects and M&E consultants when developing System 600, which has allowed SAS to offer a wide range of cost effective solutions. This system works well within a variety of environments – meeting acoustic and ventilation requirements for schools and providing flexibility for commercial office partitioning.

Open soffit acoustic lighting rafts were installed in radial coffers throughout the open plan office space at the Commissioners of Irish Lights (CIL) headquarters in Dun Laoghaire (highly commended at the RIAI awards), with acoustic rafts that incorporate luminaires alternating with perforated acoustic rafts.

Bespoke ceilings

Building and ceiling design is not limited to square and rectangular; radial, vaulted and even waveform ceiling designs can be accommodated. Bespoke ceilings can provide a visually effective ceiling design while maximising space. At the recently completed Charlestown Mall outside Dublin, SAS International worked with HKR Architects in creating a bespoke solution for the ceilings that float down the central walkway of the Mall, utilising the SAS in-house design team.

Malcolm Stamper is brand manager at SAS International; the firm has recently introduced its 2008/2009 metal ceilings brochure. For more information and to request a copy email enquiries@sasint.co.uk