
technical *report*

WRITTEN DOCUMENTATION OF TECHNICAL DEVELOPMENT

detail *_sectional cut*

TRIPLE BOTTOM LINE: SOCIAL, ECONOMIC & ENVIRONMENTAL SUSTAINABILITY

Contemporary Brise soleil: Louvred Glass Windows

External solar shading is one of the most effective ways to control internal conditions of a building.

Radiation from the sun is transmitted, absorbed and reflected by the louvers. As a result solar heat gain is prevented from passing into the building, minimising ventilation requirements and reducing cooling loads. With the installation of a controllable system, adjustable louvres track the position of the sun, thereby reducing overheating. Equally, in winter the louvers may be adjusted in such a way that the building benefits from the heat from the sun, and they can be closed at night reducing heat loss. At the same time, daylight levels are enhanced, and at the same time levels of glare are reduced.

Carrier System:

Colt Carrier System 4: The system provides a back hung design solution with hidden control mechanisms integrated within the main vertical supports. This allows for seamless continuous louvers with unobtrusive supports when viewed from the outside, due to the louvers being installed in front of the supports. The incorporation of photovoltaic cells is possible

incorporation of photovoltaic cells is possible with this system.

Louvre Type:
Shadoglass

Support Components:

All principle support components are manufactured from corrosion-resistant aluminium alloy with stainless steel fixings.

Control system:

Soltronic: It is ideally suited for small to medium sized projects. It responds to external weather conditions automatically calculating the position of the sun, and adjusts the position of the louvers accordingly.

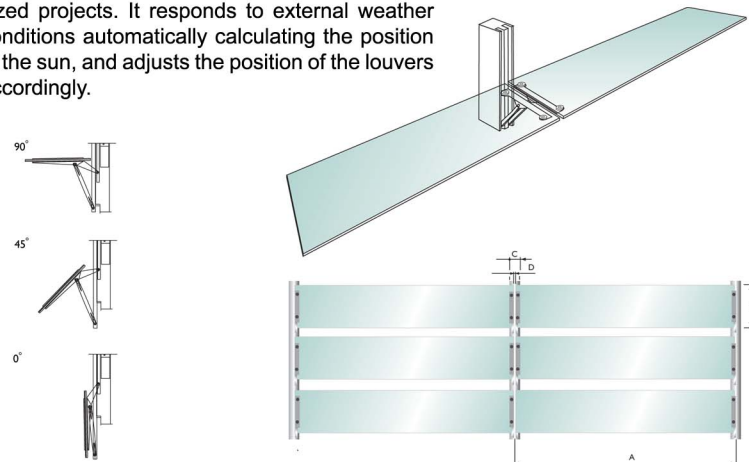
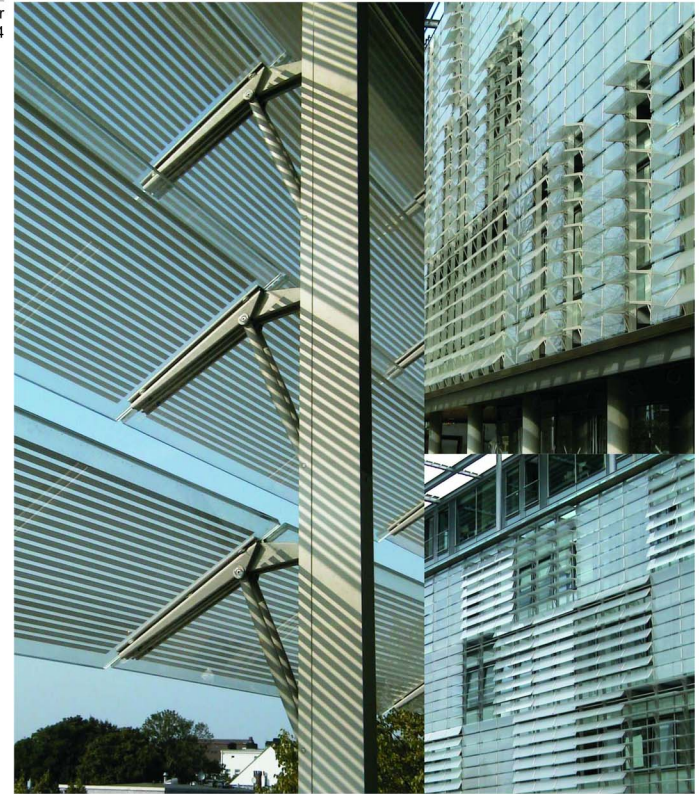


Fig. 8.1. The angle the louvres can rotate

Fig. 8.1. A detail of the seamless louvre system

Fig. 8.3. An application of Colt Carrier System 4



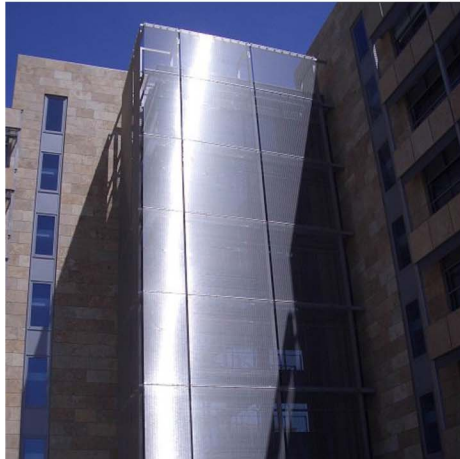


Fig. 8.12. An exterior application of the mesh



Fig. 8.8. Detail of rod eyebolt connection



Fig. 8.6. Detail of wire connection

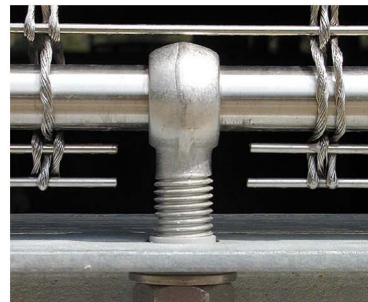


Fig. 8.10. Detail of rod eyebolt connection

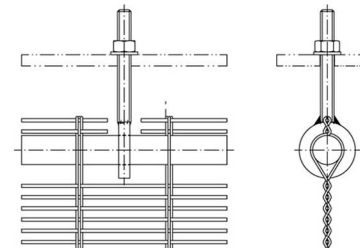


Fig. 8.5. Detail of top mounting

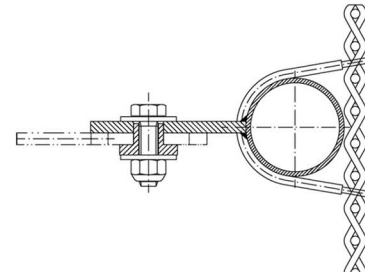


Fig. 8.6. Detail of intermediate mountings

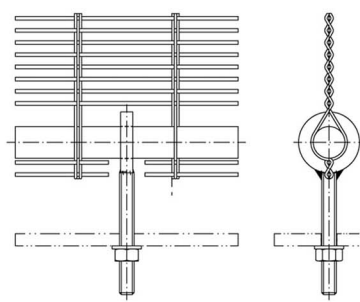


Fig. 8.7. Detail of bottom mountings

Metal Mesh Screen: Interior and Exterior

Specification:
Multi-Barrette 8113

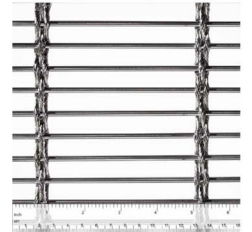


Fig. 8.4. Detail of Multi-Barrette 8113 mesh type

Vertical Mounting System:

Top & Bottom Mountings:

Wire cloth elements are tensioned to the top and bottom with eyebolts and a continuous angle iron, which are incorporated into the mesh with a round rod.

Intermediate mountings:

Wire cloth elements can be mounted with wire connectors, which run around a round tube that is located behind the mesh. The connectors interlock with the mesh from the back, being an almost invisible mounting system when viewed from the front.

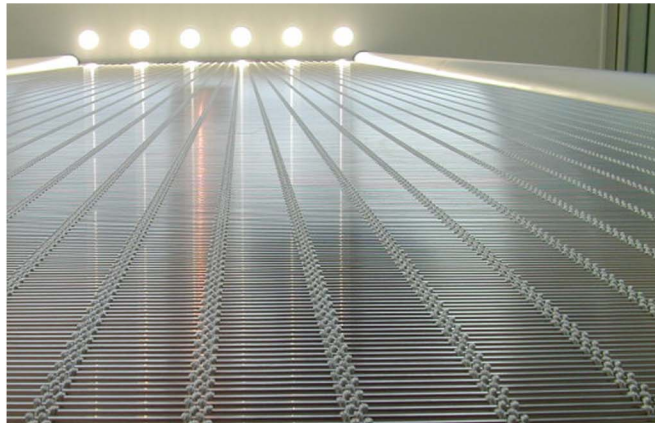


Fig. 8.13. An interior application of the mesh