

GENERAL DESCRIPTION:

Colt Ellisse provides a versatile and aesthetic means of providing shading using panels which either slide, fold vertically or fold horizontally. It can provide protection from the heat and glare of the sun, whilst allowing privacy.

APPLICATIONS:

Sliding or folding shutters can add a distinctive modern aesthetic, especially where there are large windows.

FEATURES AND BENEFITS:

*A wide range of configurations and colours.
Flexible controls. Robust, corrosion-resistant aluminium with stainless steel components.
Modular supply can reduce installation time.*

For technical details please see the following pages.



ENERGY SAVED THROUGH THE INTELLIGENT BUILDING ENVELOPE

Solar shading systems enable the façade to become an important part of the management of a building's energy. The desire for greater transparency of the building envelope means that buildings need to be equipped with increasingly complex technologies.

These include external sun protection and facade systems made of glass, metal, wood or fabric, either fixed or sun tracked, possibly equipped with photovoltaic technology.

Modern sun protection systems have an enormous potential for reducing the use of fossil fuels. Worldwide energy use in buildings is around 40% of the total.

Around half of a building's energy costs relate to heating and cooling and this is where there is high potential to significantly improve energy efficiency. Meanwhile modern glass office buildings often consume more energy for cooling in summer and for heating in winter.

One of the major challenges for our society is to ensure an affordable supply of energy for future generations. But the energy saving potential is enormous. A recent study (ESCorp-EU25) from the Physibel Institute in Maldegem, Belgium concluded that just within Europe, modern solar shading systems can reduce the amount of carbon dioxide (CO₂) required for the heating and cooling of buildings by approximately 111 million tonnes.

TECHNOLOGY FOR IDEAS

Colt hinged, folding and sliding shutters are designed and manufactured individually for each building. Different materials and colour schemes are available. The flexibility of such systems in adapting to any lighting situation provides the facade with a unique dynamic.

From complete blackout to diffuse light entry to total illumination of a room, nearly everything is possible.

Case histories include Marthashof in Berlin, the Fraunhofer Institute for Non-destructive Testing in Saarbrücken and the University of Potsdam. In all cases the Colt solutions which were developed were based on proven Colt system components.

So as to have confidence in the performance of an Ellisse system, Colt has carried out extensive full scale testing. Functional models have been subjected to full size load tests that simulate a ten-year period. Colt has carried out tests with wind speeds of up to hurricane strength in the company's own wind tunnel, so as to guarantee high quality and functionality.

University Hospital, Hamburg
Nickl & Partner Architects, Munich

Colt installed 1200 sliding shutters and 300 rotating shutters. The shading systems create a pleasant indoor climate and also reduce the energy usage and running costs.

There are three designs of Ellisse that Colt can provide: (a) sliding shutters, (b) vertically folding shutters and (c) horizontally folding shutters.

(A) SLIDING SHUTTERS

Ellisse manual or motorized sliding shutters can provide a dynamic effect.

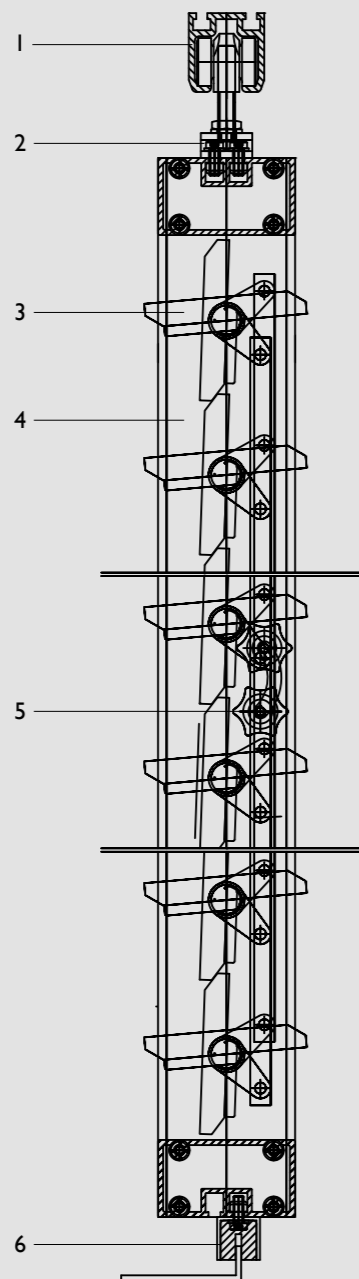
The individual sliding shutters are made of extruded aluminium frame profiles, which can then have different infill materials according to the customer's wishes (see last page).

Individual elements can be combined into a synchronous or asynchronous movable system. The motor control option has an automatic soft-start and soft-stop ensuring that the shutters move smoothly and quietly. The control system can be operated via standard switches or buttons and the system automatically switches off if there is an obstacle in the way.

Two low maintenance double bearings support the shutter at the top. An aluminium rail contains the rollers at the bottom.

Depending on the area of shading as well as the visual requirements, Ellisse can be run over multiple rails.

- 1 Upper guide rail
- 2 Slider
- 3 Wooden louvre
- 4 Side profile
- 5 Locking lever
- 6 Lower guide rail



*Belview Brussel,
Brussels, Belgium,
Architects A2RC, M. & J M Jaspers -
J. Eyers & Partners*

Colt designed a sliding shutter system with cedar wood louvre blades for the Belview Brussels building, which was awarded the International Property Award for the Best Mixed Used Building in the World. Cedar is a type of wood that is virtually maintenance-free and follows the trend for ecological buildings. Ellisse is an eye-catcher on this building. Due to the very narrow side profile, the sliding shutter could be integrated into the façade and provide a continuous appearance.



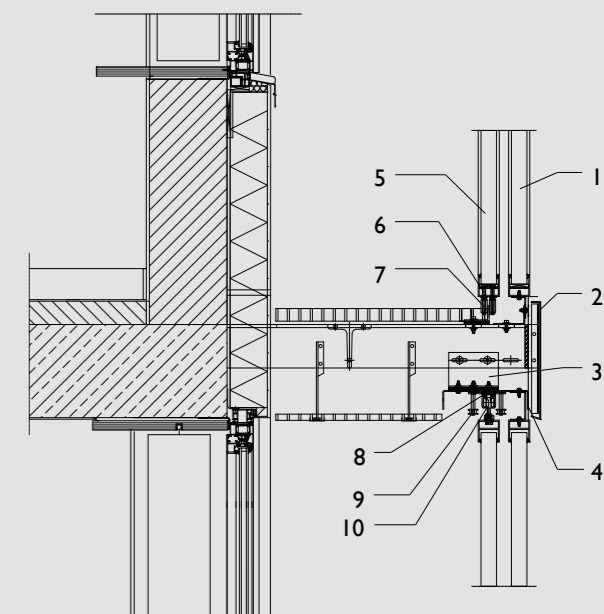


Fraunhofer IZFP Institute, Saarbrücken
Architect: wörner traxler richter
Planungsgesellschaft mbH, Frankfurt am Main

The Fraunhofer Institute for non-destructive testing (IZFP) is a research centre whose customers are mainly from the automotive industry. Its new building has glass, high-gloss painted surfaces and plastics borrowed from the automotive industry. The facade consists of a sliding shutter system with extremely lightweight polycarbonate sheets with differing light transmittances, ranging from “crystalline” to “opaque” materials.



Photo: © wörner traxler richter



- 1 Fixed element
- 2 Panel provided by customer
- 3 Support profile bracket
- 4 Lower mounting bolt for receiving the guide rail
- 5 Sliding elements
- 6 Lower guide rollers
- 7 Lower guide rail
- 8 Aluminium guide rail
- 9 Roller locking mechanism
- Sliding shutter drive
- 10 Double bearings

Photo: © wörner traxler richter

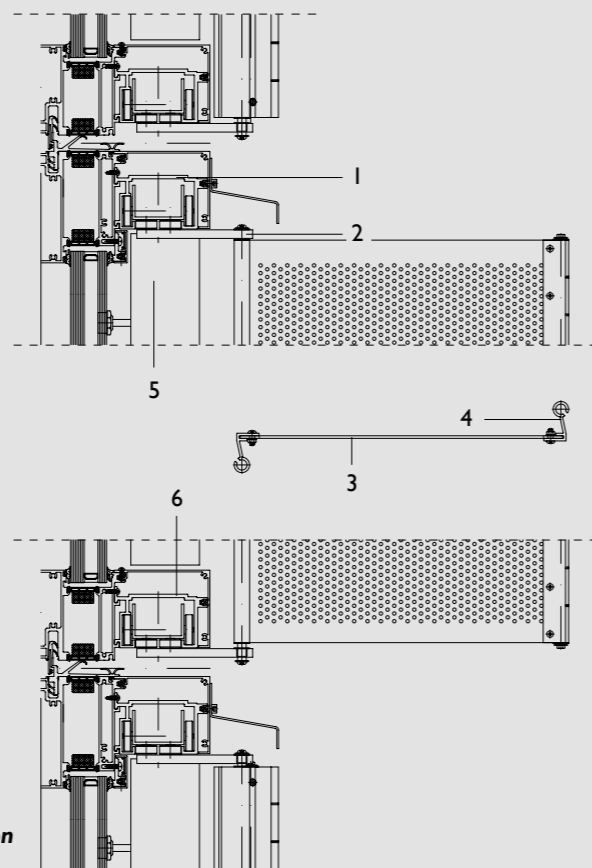


Child and Heart Centre, University Hospital Innsbruck
Nickl & Partner Architekten AG, Munich

The architect especially wanted the hospital building to have a human sense of scale. The materials and the layering of the facade play a major role here. The folding sliding shutters on the windows open and close like an accordion. The system provides optimum protection against sun and reduces the amount of direct light, though at the same time the view to the outside is virtually unhindered. These aspects are important for the patients of the clinic. The system also gives the clinic a distinctive appearance.

Along with the fixed windows and vertically arranged ventilation boxes, the folding shutters form one of the main elements of the facade design. In total Colt provided 200 such devices. The system was designed so as to be able to withstand the extreme local mountain winds.

- 1 Upper guide rail
- 2 Carriage with bracket
- 3 Louvre made of perforated metal
- 4 Encircling profile with hinge
- 5 Power unit
- 6 Lower guide rail



Detailed vertical section showing open shutters.

(B) VERTICALLY FOLDING SHUTTERS

This is the second version of Ellisse that Colt can provide.

By changing the opening angle, the viewer is presented with a different view of the facade with a fascinating play of light and shadow in the shaded rooms.

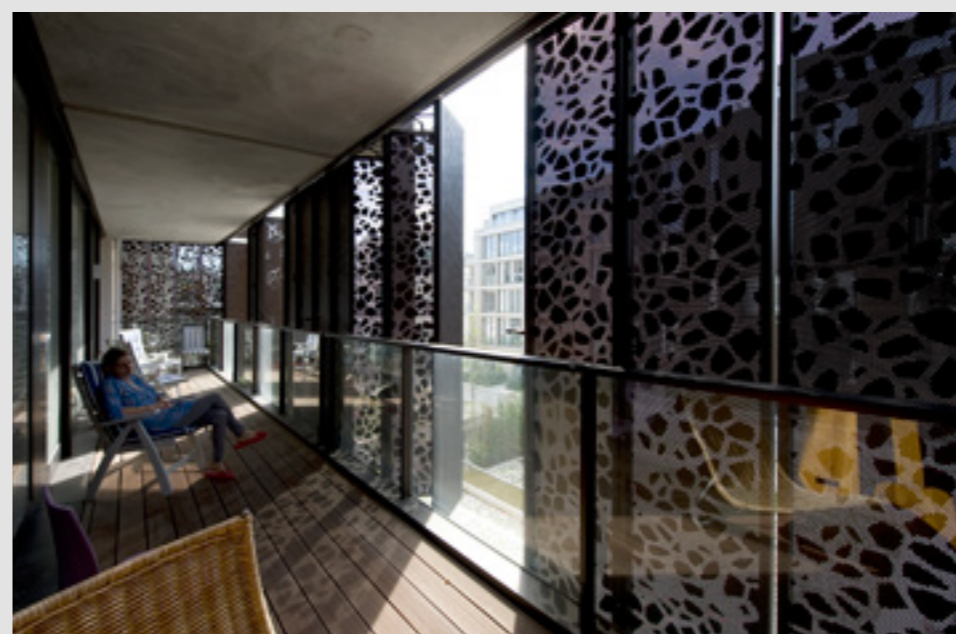
The advantage of this design is its space-saving potential when open and the unobstructed views.

The individual frames are always customised and are connected to each other via hinges. There can be either 2, 4 or 6 leaves in one unit.

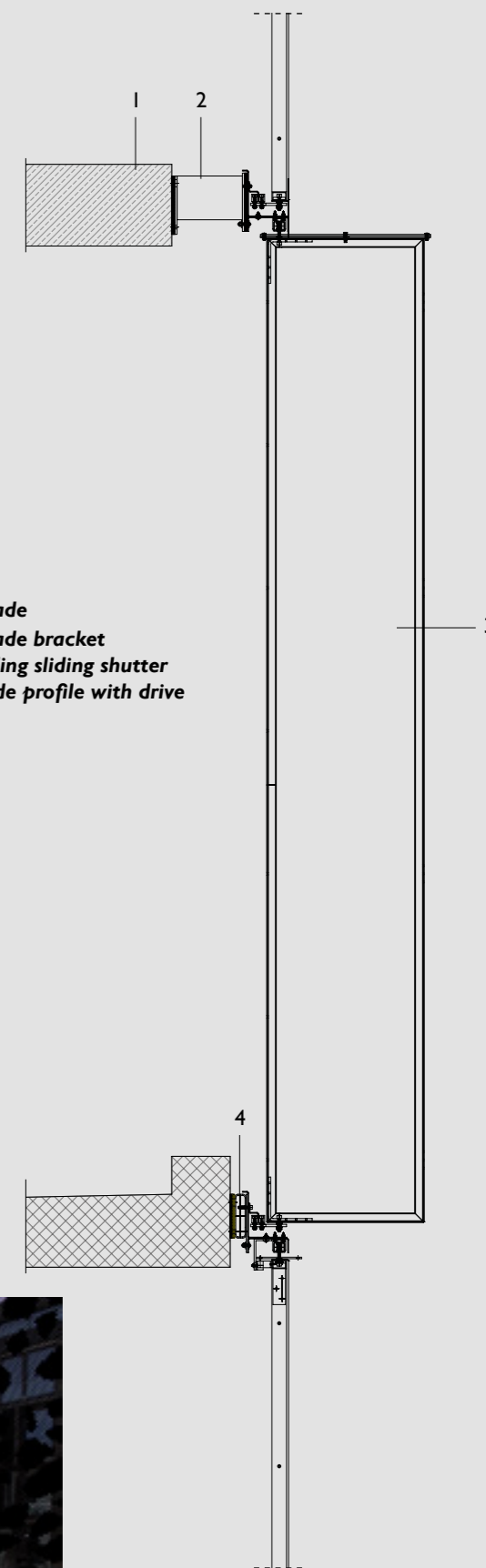
This type of Ellisse is available either with manual or electric controls.

Marthashof, Berlin, Grüntuch Ernst Architekten, Berlin

Here Colt provided foldable, storey-high folding sliding shutters made of dark brown perforated panels. These both shade and offer privacy. Because the residents can open or close the shutters as they desire, the facade becomes "lively".



- 1 Façade
- 2 Façade bracket
- 3 Folding sliding shutter
- 4 Guide profile with drive unit



(C) HORIZONTALLY FOLDING SHUTTERS

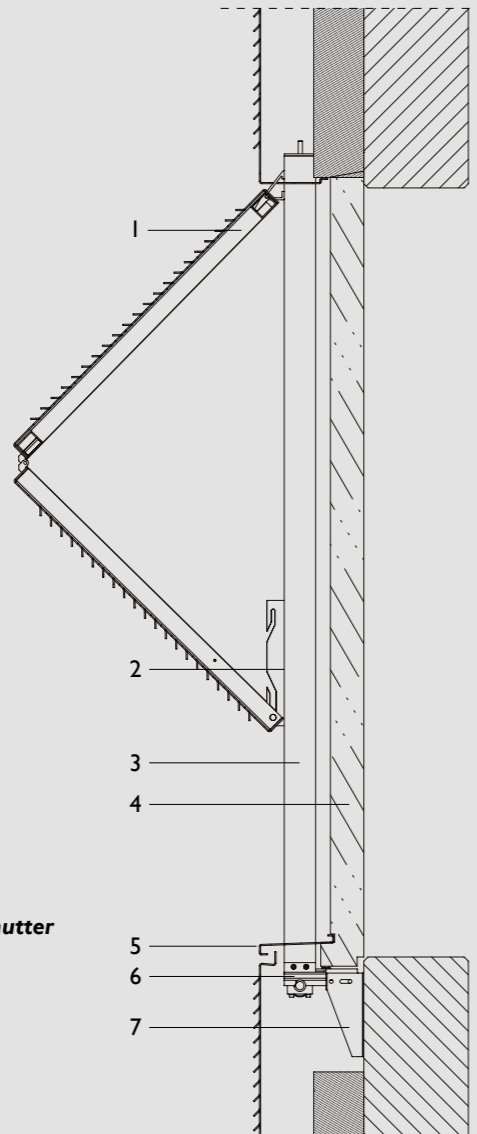
This is the third option that Colt can provide.

When open, the this version enables cantilevered sun protection which is useful especially on summer days when the sun is high in the sky, and which enables the view to the outside to be entirely unobstructed.

The positioned of the shutter can be changed to accommodate the amount of sunlight. This type of Ellisse is available either with manual or electric controls, which push the shutter up or down.

University of Potsdam, Böge Lindner Architekten, Hamburg

This building has a gold coloured perforated aluminium facade comprising 535 facade elements with a total area of 1225 m² attached to all four sides of the building. The Ellisse system moves like an accordion as the individual elements are opened and closed. The position of the shutters depends on the amount of daylight and the individual shading requirements, and the façade is always changing.



- 1 Horizontally folding shutter
- 2 Guide rail with rollers
- 3 Mullion
- 4 Curtain walling
- 5 Drip tray
- 6 Connecting piece
- 7 Bottom bracket



FEATURES AND BENEFITS

A wide range of system types

Tested in Colt's own wind tunnel to withstand high wind loads

Selection of profiles according to the structural requirements

A wide range of louvre infill types are available, including rotating louvres.

Brings the façade to life

Can be installed in industrial and marine environments

Low maintenance

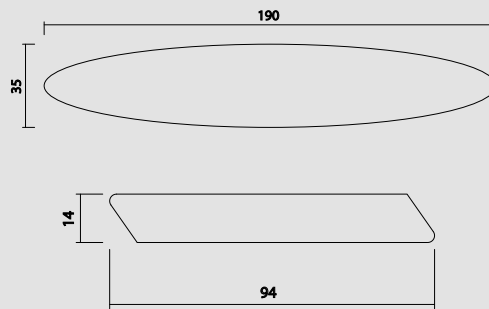
We offer a complete service, from design through to installation and servicing

SIZE CHART - FOR SLIDING AND FOLDING SHUTTERS

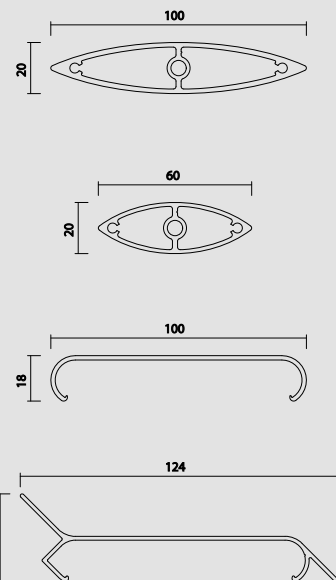
Width	WOODEN LOUVRES		ALUMINIUM LOUVRES	
	Height in mm	No. of louvres	Height in mm	No. of louvres
From 500mm to 1350mm in 50mm increments	1900	20	1880	17
	2080	22	2088	19
	2260	24	2296	21
	2440	26	2400	22
	2620	28	2608	24
	2800	30	2816	26
	2890	31	2920	27
	2980	32	3024	28
	3070	33	3128	29
	3160	34	3232	30

Dimensions / designs for folding shutters available on request.

WOODEN LOUVRES



ALUMINIUM LOUVRES



GENERIC TYPES

Colt Ellisse is available in three versions:

1. Sliding shutter with movable or fixed louvres
2. Vertically folding shutter
3. Horizontally folding shutter

CONTROLS

The controls mechanisms are integrated into the side sections irrespective of whether the system is controlled electrically or manually.

LOUVRES

The louvres are available in various sizes and dimensions. The standard materials are:

- Aluminium
- Red cedar
- Glass
- Perforated aluminium