

indoor climate - our passion

Reference Buildings

Germany

Frankfurt on the Main

- Commerzbank
- Skyper
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Switzerland

Basel

- Gehry Building
- Maki Building

Zurich

- UBS Flurhof
- UBS Grünenhof
- UBS Bärengasse
- UBS Hochhaus zur Schanzenbrücke
- CS Metropol
- CS Sihlcity

Winterthur (Zurich)

• Wintower (Sulzer Hochhaus)

Commerzbank Headquarter Frankfurt

Over 40'000 sqm of General and Office Area, 15'000 sqm with active Radiant Cooled Ceilings.



The Commerzbank Tower is the tallest Building in Europe



Plank Type Panels in the Open Plan Office Area

The Architect Sir Norman Foster designed the 43story building with staggered sections in a spiral between the three facades. The resulting garden atrium areas, these are 4 stories high, make the potentially dark centre of the building light and bright and give room for relaxation.



Garden Atrium

Facts

- · Builder: HOCHTIEF AG, Frankfurt on the Main
- Architect: Foster and Partners
- General contractor: Dr. Gubert Objekt, head office Frankfurt AG
- Design engineer: Pettersson & Ahrens Ingenieur-Planung GmbH,Frankfurt o. t. Main
 Place: Kaiserplatz 1, 60261 Frankfurt o. t. Main
- **Opening:** 1997
- · Function: offices

Building structure:

- 40'000 sqm of general and office area
- Height 259m
- 56 floors
- · Radiant ceiling system:
 - Barcol-Air A11 Water Cooling System

Commerzbank Headquarter Frankfurt



Ceiling to Floor Windows results in bright Office Areas

As the heating and cooling of the building is achieved with a non air-only-system, as is the case in conventional buildings, the air exchange rate could be reduced to the minimal fresh air required without a proportion of recirculated air. This ensures high indoor air quality.

In addition the high heat insulation quality of the façade and glazing together with the use of radiant cooling systems versus conventional air-conditioning systems, have ensured up to 30% energy savings!

Since 1997 the Commerzbank has been a multistorey building workplace for over 2'500 people. The Commerzbank building is a symbol of innovation and the use of natural light. In addition to this it reflects the strong position of Frankfurt as a finance market.

The large window area gives a perfect view of the City of Frankfurt and the river Main.



Garden Area with Trees



Modular Office Area with Mega Type Panels







Skyper, Frankfurt am Main

Over 41'000 sqm of Office, Restaurant, Shopping and Apartment Area



Ventilation and a complex cooling meander with copper tubes that are pressed into aluminium heat conducting rail, guarantee the required system performance of 126 W/sqm.

The non-severable connection between the heat conducting rail and the ceiling panels is explicitly constructed according to the guidelines of the VHB process (Very High Bonding Method). The choice of special materials and production processes ascertains a continued elastic connection and a highly effective and practically no loss exchange of heat.

The cooling systems are hydraulically tested and installed into the ceiling panels in Barcol-Airs own factory.

Facts

- · Builder: Deka Immobilien Objekt Taunusanlage 1
- · Architect: J.S.K. Perkins & Will Partner, Frankfurt
- · General contractor: ARGE Skyper Taunusanlage 1
- · **Design engineer:** P. Berchtold, Sarnen
- · Installer: Imtech Deutschl. GmbH & Co KG, Frankfurt
- Place: Taunusanlage 1, 60261 Frankfurt on the Main
- · Opening: 2005

Skyper is a mix of modern and old architecture. On the very same estate there is a 1915 built Villa as protected monument and adjacent a high rise building that is connected by a glass hall with ceiling heights of nine meters.

The 153 meter office tower was completed at the beginning of 2005 following the placing of the foundation-stone in May of 2001 and beginning of construction in summer of 2002.

The Euro 7.6 billion Deka-Real Estate Trust acquires Skyper. Its gigantic glass surface is poses a serious challenge to any high rise designer due to the hot house effect in summer and considerable loss of heat during winter time.

Barcol-Air designed a closed Linear-grid system Cooling Ceiling with an ambitious, up-market design that disposes of sensitive heat loads (approx. 60% via radiation and 40% via convector).



1915 built Villa as Protected Monument

- Function: offices, restaurants, shopping, apartments • Building structure:
 - 41'000 sqm of general and office area
 - Height 154m
 - 39 floors
- · Radiant ceiling system:
 - Barcol-Air A11 Water Cooling System

Skyper, Frankfurt am Main



Open Office Area

The three-part building ensemble represents a special combination of old and new. Develops in the multi-storeyed building on 39 floors approx. 41,000 sqm office surface, in the historical mansion further 7,000 sqm. The residential and office building offers on approximately 6,600 sqm place 52 dwellings, for business, restaurants and practices. Additionally a three-story underground parking with 200 parking spaces is built.



Activated Panels



Layout Shops



Layout Apartments

OpernTurm, Frankfurt am Main

Over 60'000 sqm of Office Area, 41'000 sqm with active A11 Hybrid Cooled Ceilings.



The OpernTurm is a skyscraper under construction in Frankfurt, Germany. The property is situated where Frankfurt's Westend meets the inner city, opposite "Alte Oper" on the corner of Bockenheimer Landstrasse and Bockenheimer Anlage. OpernTurm consists of a 170-m high-rise building and an approximately 26-m low-rise perimeter development facing towards the Alte Oper. The tower will have 42 levels, while the low-rise will have seven.

The site was once occupied by the Zürich Tower (Zürich-Haus), one of Frankfurt's first high-rise buildings, built in 1962. In 1998, Zürich Versicherung, the owner of the 68-m tall building, commissioned the architectural practice of Christoph Mäckler to design a new building that would be 22 m taller. In order to maximize land use, the building was rather capacious and appeared to be plump.

When completed in late 2009, OpernTurm will rise up in Opernplatz, the most prominent location

in Frankfurt, adding another landmark to the city's famous skyline. Its elegant appearance and the natural stone façade make it stand out from the glass towers of the city and cite its environment,

thus returning Opernplatz its original setting. The adjoining Rothschildpark will be extended by 5,500 square metres and redesigned in the style of an English garden. After the completion of the new skyscraper, the park in its historical form will again be accessible from Bockenheimer Landstrasse and through the Rothschild Gate on Bockenheimer Anlage. Half of the rental space of OpernTurm, 31,000 sgm, has already been completion 2009. leased. After in UBS Deutschland AG will move into its new German headquarters.



Facts

- · Builder: Tishman Speyer Properties
- · Architect: Prof. Christoph Mäckler
- · Designer: TechDesign GmbH
- Place: Bockenheimer Landstraße 2-4, 60306 Frankfurt
- · Opening: 2010
- · Function: offices
- · Main tenant: UBS Deutschland AG

· Building structure:

- 66'000 sqm of general and office area
- 41'000 sqm of activated ceiling
- Height 170m
- 42 floors plus Podium 7 floors
- · Radiant ceiling system:
 - Barcol-Air A11 Hybrid System

Gehry Building

Over 5'000 sqm of Office Area, A21 Honeycomb Ceiling with Acoustic Plaster, Cooling Slats.



Frank Gehry was born in Toronto, Ontario, Canada in 1929. He studied at the Universities of Southern California and Harvard, before he established his first practice, Frank O. Gehry and Associates in 1963. In 1979 this practice was succeeded by the firm Gehry & Krueger Inc.

Over the years, Gehry has moved away from a conventional commercial practice to a artistically directed atelier. His deconstructed architectural style began to emerge in the late 1970s when Gehry, directed by a personal vision of architecture,

created collage-like compositions out of found materials. Instead of creating buildings, Gehry creates ad-hoc pieces of functional sculpture.

In the large-scale public commissions he has received since he converted to a deconstructive aesthetic, Gehry has explored the classical architecture themes. In these works he melds formal compositions with an exploded aesthetic. Most recently, Gehry has combined sensuous curving forms with complex deconstructive massing, achieving significant new results.

Special Cooling Slats



Model of Internal View

Facts

- · Builder: Novartis International AG, Basel
- Architect: Gehry Partners LLP, USA
- General planner: ANW Planergemeinschaft Arcoplan / Nissen & Wetzelaff, Basel
- **Utilitie management** / **Energy planner:** ADZ, Aicher, De Martin, Zweng AG Transsolar Energietechnik GmbH
- · Installer: MWH Barcol-Air, Stäfa
- · Place: Novartis Campus, Basel
- · Opening: 2009/10
- Function: state-of-the-art workplace
- Building structure:
 - 5'000 sqm of general and office area
 - Radiant ceiling system:
 - Barcol-Air A21 Honeycomb Ceiling with Acoustic Plaster
 - Cooling and Heating Walls
 - Cooling Slats

Maki Building

Over 6'000 sqm, A11 and in the Ground Floor spez. Metal Ceiling with Wood Design



through design drawing and detailing, to construction supervision. Further, Maki himself is committed to be available for direct client consultation at any time - not simply responsive, but pro-active in addressing a client's needs.

Maki and Associates was established in 1965 by Fumihiko Maki, upon his return from a ten year period of study, teaching, and practice in the United States. The office has been based in Tokyo throughout its 42 year history, and is currently staffed by forty architects, urban designers, and administrative personnel. This size has been purposefully limited to enable Maki to maintain a close working relationship with each firm member, and daily involvement with each project. Maki personally takes a leadership role in all commissions from design inception through to completion (including construction supervision).

As a mid-sized office, decision-making and communication at Maki and Associates retains the directness of smaller organizations; each member of the office is involved in and responsible for all aspects of projects, from budget and programming,





Facts

- · Builder: Novartis International AG, Basel
- · Architect: Maki and Associates, Tokyo
- General planner: Zwimpfer Partner Architekten SIA I
- · Installer: MWH Barcol-Air, Stäfa
- · Place: Novartis Campus, Basel
- · Opening: 2009
- Function: state-of-the-art workplace



- Building structure:
- 6'000 sqm of general and office area
- · Radiant ceiling system:
 - Barcol-Air A11 Water Cooling System (specific design)
 - Cooled Slats, entire exterior paneled with Solid Wood

UBS Bank Flurhof, Zurich

Over 35'000 sqm, U45 Hybrid



The Flurhof office building in Zurich-Altstetten has been let to UBS, which has located some of its IT services there. The 35-year-old property was in desperate need of renovation. The question was whether to renovate or build a new property to replace it. To find an optimum solution, a tender for a sole contractor was advertised. The Zurich-based general contractor Halter AG together with Stücheli Architects submitted a turn-kev renovation concept which was very convincing in terms of architectural, functional and economic aspects, while also having considerable cost advantages over the new building option. By adding a floor across the

entire length of the buildings, the existing building volume of around 92,000 m³ was increased to 147,000 m³. The building, just like new following the complete renovation, includes about 1,830 workstations and 177 parking spaces. It was a particular challenge to meet the tenant's need to ensure that certain individual areas could be used throughout the entire construction phase while others were being renovated. Following a construction period of around 28 months, all of the workstations were occupied on schedule in January 2007. The final work is currently being completed on the surrounding area and the terrace. This spacious complex with modern offices and compelling architecture has been built thanks to excellent cooperation between the planning team, tenant and owner.



Conference Centre

Facts

- · Builder: Turintra AG, Basel
- (UBS (CH) Property FundSwiss Mixed «Sima)
- · Architect: Stücheli Arch., Zurich
- · General contractor: Halter GU AG; Zurich
- · Installer: MWH Barcol-Air, Stäfa
- Project Management: Stokar +Partner AG; Basel
- · Place: Flurstr. 64-72, Zurich

Grand Control of Contr

Overview U 45 Hybrid Element

- · Opening: 2008
- · Function: offices, restaurant, conference centre
- Building structure:
- 6'000 sqm of general and office area
- · Radiant Ceiling System:
 - Barcol-Air U45 Hybrid System

UBS Bank Grünenhof, Zurich

Over 17'000 sqm, U45 Hybrid System



The building "Grünenhof" in the centre of Zurich contains the corner-houses "Astoria" "Delphin". and They have been built in 1911 resp. 1912, in period of late art nouveau. The in 1946 to 1948 constructed "Grünenhof"-south, -west and east- buildings also belong to the complex, as well as the UBS conventioncentre, accomplished not until 1991, located in the courtyard of the set of houses.

The entire construction except the "Astoria"-building is in property of UBS. Upper floors are used for offices. Ground-floor areas are rented to local stores. The convention-centre will, beside of the

UBS internal use, be rented to third-party too. The entire building-complex "Grünenhof" is a real place of interest beyond it's pregnant overall appearance of the locality.

Project intention of UBS is to revaluate the landmarked "Grünenhof"-south, -west and –east buildings and to supplement the "Grünenhof"-project with the new "Delphin"-building. Target is to have an optimum utility of the rooms as well as to provide attractive workplaces. The buildings achieve the newest standard of functional, ecological and economic architecture.



Facts

- **Builder:** UBS AG, represented by Group Real Estate Management Switzerland, Zurich
- · Architect: Stücheli Arch., Zurich
- · General contractor: Halter GU AG; Zurich
- · Installer: MWH Barcol-Air, Stäfa
- · Place: Nüschelerstrasse 9, Zurich



Key data

- Start of reconstruction 01.10.2007
- End of reconstruction approx. beginning of 2009
- Start of construction house "Delphin" approx. 2009
- Completion of house "Delphin" early summer 2010
- Construction-volume 63'800 m³
- Plot-area 3'934 m²
- Floor-area 12'600 m²
- Shop-area 1'200 m²
- Invention-costs 54.8 Mio. CHF
- Allocation max. 900 workplaces.
- · Opening: 2008
- Function: offices, local stores
- Building structure:
 - 5'000 sqm of general and office area
- · Radiant Ceiling System:
 - Barcol-Air U45 Hybrid System
 - Barcol-Air A21 Gypsum

UBS Bank Bärengasse, Zurich

Over 15'000 sqm, L11 / L21 Air Cooling Ceiling



UBS bank planned its no more state-ofthe-art appropriate building to submit of a fundamental redevelopment. In the course of this redevelopment the individual floors were completely converted, while in the other floors the daily business took interruption its course. At the same time to the visible changes in the respective floors in the background structural changes in the supply and control components were made.





Detail of Function



Facts

- · Builder: UBS AG, Zurich
- · Installer: Cofely AG, Zurich
- · Place: Bärengasse 16, Zurich
- · Opening: 1999/2007
- Function: offices
- · Building structure:
- 15'000 sqm of general and office area • Radiant Ceiling System:
 - Barcol-Air L11 / L21 Air Cooling System



UBS Hochhaus zur Schanzenbrücke

U45 Water and Air Cooling System



The building, which is principally used as office area by the UBS, was built between 1985 and 1989. The expression "Hochhaus zur Schanzenbrücke" is derived from the name of the nearby bridge over the "Schanzengraben". On the ground floor of the building two restaurants can be found. The building is a unit by itself. With its shiny aluminum facade it visually dominates the neighboring buildings.

The skyscraper was renovated between 2000 and 2002. During this perdiod the building was raised by one floor. By this increase an penthouse was added. The flag on top of the

building emphasizes the steamer-character of the house. The "Hochhaus zur Schanzenbrücke" is situated near the lake of Zurich, so that it can be seen really easy from there.

The "Hochhaus zur Schanzenbrücke" is an office building projected in 1962 by the architect Werner Stücheli (1916 - 1983). Stücheli was a committed supporter of high-rise buildings in Zurich. The "Hochhaus zur Schanzenbrücke" meets high architecture standards. Attention should be paid to the delicate division regarding the windows, to the slight misalignment of the whole building and to the horizontal floor-bands.





Key data / Keywords

Architect:

Werner Stücheli (1916 - 1983) Builder: UBS General contractor: Allreal Generalunternehmung AG Construction engineer: PGMM Schweiz AG Start of renovation: 2000 End of renovation: 2002 **Building function:** offices, gastronomy **Building structure:** 2'700 sqm land size / 85'000 cbm cubature / 14 floors Radiant ceiling system: Barcol-Air U45 Water and Air Cooling System

Credit Suisse Metropol, Zürich

13'310 sqm of General Area – thereof 4'500 sqm of Office Area (U44/45 Hybrid System / A21 Gypsum / specific Air-cooled Walls)



The Metropol is a urban symbol for trade, growth, wealth and culture situated in the heart of Zurich directly by the river (Limmat). The building is a premium business adress and a milestone of city development.

The architect Heinrich Ernst built the business house between 1892 and 1895. The Metropol with its baroque facade represents Zurichs Belle Epoque. From 1944 on the building stood in the possession of the City of Zurich. The municipal tax administration used the office areas in the upper floors for its businesses. Between 1988 and 1992 the face of the building was costly and classy renovated. After the municipal tax administration moved out the Clariden Leu AG assumed the historic building (cantonal building protection) and the corresponding construction law.

After two years of extensive building renovation the bank Clariden Leu AG moved into the Metropol. The new prestigious business location of Clariden Leu AG has about 330 modern offices that are used by units of the Private Banking Division.



The renovation of the Metropol was a challange for the architect team and the builder. Not only aspects of statics, of earthquake protection and of monument care had to be considered. The planned office area needed the newest infrastructur to meet the requirements of modern bank business. For this purpose Clariden Leu AG choose our economical and ecological hybrid ceiling systems in order to provide and to guarantee thermal and acoustical comfort.





In order to create more space for the public area in the ground floor, the courtyard was closed with an assembly. The listed areas in the upper floors of the building (customer area) have been extensively renovated. This workings resulted in 25 modern conference rooms and offices. With the event hall and the restaurant METROPOL on the ground floor the Clariden Leu AG reopened the Metropol building for the public.

Facts

Builder:

Clariden Leu AG, Zurich **Responsibility:** Dr. Roland Herrmann, COO Clariden Leu AG **Project management:** Mr Martin Eberle, Credit Suisse General contractor/architect: Martin Spühler Architekten AG, Zurich **Construction engineer:** Heyer Kaufmann Partner Bauingenieure AG, Zurich Installer: MWH Barcol-Air AG, Stäfa Place: Börsenstrasse 10, CH-8001 Zürich **Building function:** offices, gastronomy **Opening offices:** august 2007 **Opening restaurant:** august 2007

Key data / Keywords

Start of reconstruction: january 2006 End of reconstruction: april 2007 Building structure: > 13'310 sqm of general and office area / 2'098 sqm land size / 48'530 cbm cubature / 7 floors (F0, F1-F6) Radiant ceiling system: Barcol-Air U44/45 Hybrid System / Barcol-Air A21

Barcol-Air U44/45 Hybrid System / Barcol-Air A21 Gypsum / Barcol-Air specific Air-cooled Walls





Credit Suisse Sihlcity, Zürich

97'000 sqm of General Area – thereof 15'000 sqm Office Area (A11 Hybrid System)

Sihlcity is a progressive realisation of a completely original idea of urbanity: the combination of different uses in a manageable location. The variety of offers at about 100'000 sqm floor space includes restaurants, pubs and coffee bars, cinemas, a cultural center, a club, a health and wellness center, a hotel, a shopping mall, service areas and urban dwellings. The co-owner



community SihlcityZurich is made up of the enterprises SwissPrimeSite and five real estate investment vehicles, which are managed by Credit Suisse.

Sihlcity is a close ensemble of old and new architecture – a skillful interaction of tradition and innovation, of closeness and distance, of weight and lightness. Furthermore it is a meeting place with cultural character of both contemporary and traditional ideals.

A total of four industrial and factory buildings have been renovated carefully. Sihlcity is situated in the heart of the Kalanderplatz where the 60 meters high chimney can be

found. Sihlcity is a remarkable landmark. The "Kalander Building" and the ancient "Paper

Storehouse", both from the 1950s, are bordering the so-called Utoplatz. This buildings have been integrated effectively into the new group of adjoined houses on Sihlcity's north side. The old buildings are used as a base for the new construction volume. The face of the buildings is dominated by the issue of layered arrangements, accentuated in its effect by the horizontal band made of concrete and by the membranes made of glass and metal.

Amidst Sihlcity is a multi-storey shopping mall. It impresses with its imposing spatial relationships and its interesting lighting. Elegant terrazzo floors and balustrades contrasts the colourful shopping area.





Credit Suisse uses a total of 15'000 sqm office area within Sihlcity. This office area is spread over several floors on several buildings. The corresponding offices, open plan offices and conference rooms are equipped with our A11 hybrid system. Credit Suisse reached this decision not only because of a serious consideration regarding lifecycle-costs. The balance between innovation and environment-friendliness in line with Sihlcity's philosophy was also very important.

Facts

Builder/investors: Credit Suisse (75.8%) / Swiss Prime Site AG (24.2%) General contractor: Karl Steiner AG, Hagenholzstrasse 60, CH-8050 Zürich Architect: Theo Hotz AG, Münchhaldenstrasse 21, CH-8034 Zürich Building services engineering: Aicher, De Martin, Zweng AG – Räffelstrasse 25, CH-8045 Zürich Installer: MWH Barcol-Air AG Place: Kalanderplatz, CH-8045 Zürich Building function: sales area, service area, office area, apartments, storage, wellness, gastronomy, culture, cinema, hotel business Investment volume: CHF 600 millions Workplaces: 2'300 Visitors per day: 20'000



Key data / Keywords

Start of construction: july 2003 Opening: march 2007 Building structure: 41'990 sqm land size / 97'000 sqm of general area / 24'000 sqm of service area – thereof 15'000 sqm office area (Credit Suisse) / 19'000 sqm culture, cinema and hotel area / 13'000 sqm of apartment, storage and wellness area Radiant ceiling system: Barcol-Air A11 Hybrid System



Wintower, Winterthur (Zurich)

General Area:13'000 sqm basement, 25'000 sqm upper floors – thereof 20'000 sqm Office Area (A11 Water Cooling Ceiling, Linear-grid Systems)

The Wintower (formerly known as Sulzer Hochhaus) was built by the architects Suter & Suter (Basel) from 1962 to 1966. With its 24 floors and with its height of 92 meters above ground the building was classified as Switzerland's highest skyscraper during the period from 1966 to 2003. While the Sulzer Hochhaus demonstrated Winterthur's and Sulzer's economic boom in the sixties, the skyscraper lost a little bit of its glamour of yor since Sulzer – a international technology company – exceeded slowly its "golden age" and stumbled toward a crisis.

In 1998 the building was acquired by the real estate company Wintower Immobilien AG, which is to 100 percent property of Bruno Stefanini's (a locale estate agent) foundation for art, culture and history. Since then the building bears the name Wintower. In 2005, with a investment volume of 40 million Swiss francs, the reconstruction started by a adding to more floors, so that the building



height increased from 92 meters to almost 100 meters. Furthermore the thermo insulation was enhanced, a replacement of elevators and windows took place and а asbestos abatement was launched. Last but not least the sanitary engineering, the electric infrastructure and the air conditioning were upgraded to a futureproofed level.

Facts

Builder/investors: Wintower Immobilien AG, CH-8400 Winterthur (Bruno Stefanini, Winterthur) General contractor: Unirenova, CH-8050 Zürich Architect: Bruno Lehmann, CH-8408 Winterthur Construction engineer: Emch+Berger AG, CH-8052 Zürich Building physics: Leuthardt+Mäder, CH-8306 Brüttisellen Building services engineering: Polke, Ziege, von Moos AG, CH-8032 Zürich Place: Neuwiesenstrasse 15, CH-8400 Winterthur Building function: office area Investment volume: CHF 40 millions

Key data / Keywords

Start of reconstruction: 2005 End of reconstruction: 2009 Building structure: 20'000 sqm office area Height of construction: 100 meters Number of floors: 26 Radiant ceiling system: Barcol-Air A11 Water Cooling Ceiling (linear-grid systems) **MWH** Barcol-Air

indoor climate – our passion





The History of MWH Barcol-Air AG

- In 1979 Barcol-Air was founded by Helmut Sokolean in Stäfa, Switzerland
- In November 1996 Barcol-Air was acquired by SIEBE
- SIEBE merged with BTR in February 1999 to become Invensys
- 29. September 2006 Barcol-Air was acquired by MWH Heiterschen and now known as MWH Barcol-Air
- New owners since January 2009 "Marco Billeter, Klaus Roschmann"
- MWH Barcol-Air has 30 years of Radiant Cooling experience

MWH Barcol-Air AG

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