

forum
architecture with aluminium

sapa:
buildingsystem



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Chief editor

Laurent Andrzejewski
laurent.andrzejewski@sapagroup.com

Legally responsible

Gunnar Ahlmalm

Address

Sapa Building System AB
574 81 Vetlanda
Tel. +46 383-942 00
Fax +46 383-76 19 80
e-mail: system.se@sapagroup.com
Internet: www.sapabuildingsystem.se

Photographs

if not stated otherwise:

Hans L. Bonnevier
Pictures by Bonnevier®
Ekbacken, Näranshult 1312
343 90 ÄLMHULT
e-mail: pix@pbbon.se
www.picturesbybonnevier.com

Layout

Per Nihl
Condesign Infocom AB
e-mail: per.nihl@condesign.se

Printed by

Davidsons Tryckeri AB
Box 219
351 05 Växjö
www.davidsonstryckeri.se
Forum is printed on Tom&Otto Silk 150 g



Cover: Kristianstad Arena, Sweden

Sapa Building System AB is the leading supplier of aluminium building systems in Scandinavia.

Sapa Building System AB develop and market systems for doors, windows, façades, glazed roofs and solar shading. We control the entire chain from production of dies, extrusion of profiles, surface treatment, and insulation to stocking system profiles and accessories. We are ISO 9001 certified. Our products are manufactured by independent licensed fabricators. Their commitment can comprise from know-how, support and consulting to production, delivery, installation, and after sales service of the products.

Sapa Building System AB has been active on the market for over forty years. Since then we have developed efficient products and extensive testing has also been carried out to relevant BS and EN test standards.

Our building system is adapted to the architectural entirety. Four combinable systems can be used to create a variety of applications and functions. With many years of experience in developing functional and architectural solutions Sapa offers a flexible building system with space for new ideas.

Our independent fabricators are trained on an ongoing basis to manufacture and supply our high performing systems.

Sapa AB, which is our mother company, is divided into three core business areas: Profiles, Building System and Heat Transfer.

Sapa develops, manufactures and markets value added profiles, profile based building systems and heat exchanger strips in light weight aluminium and is the leading independent manufacturer in the world.

Sapa's business concept is based on a close co-operation with its customers, who are mainly located in Europe, North America and Asia. Major customer segments include construction, transport, household, office and engineering industries.



Architecture Fair

Architecture Fair, northern Europe's first exhibition on architecture and urban design, premiered on October 24 to 25 in Gothenburg. Sapa Building System was naturally one of the contributors as exhibitor and lecturer.

The reference projects we have chosen to show as classic black and white pictures attracted much attention and curiosity among the visitors. On the fair stage, we held lectures on integrated solar cell solutions with many tips on what to consider when designing modern, energy efficient buildings.

The winner of our competition was...

During the fair we had a competition that was to guess which picture was not taken by our professional photographer Hans L Bonnevier. The winner of the competition was Karin Lindkvist at Liljewall Arkitekter of Gothenburg. Congratulations to Karin, who won a photo session with Hans L Bonnevier for either a portrait or an architectural image.

You can see our photos from the fair at sapabuildingsystem.se. Click on "Broschyren" and then on "Forum Svartvit".



*Karin Lindkvist,
Liljewall Arkitekter of Gothenburg*



Hans L Bonnevier, photographer.

Briefly about the photographer

Hans L Bonnevier is a professional photographer, specializing in architecture. Hans has worked with Sapa Building System for the last ten years and has photographed almost all the reference buildings that we use in our marketing materials and in our magazine Forum. His other specialties include orchids, glass, portraits and nature.

For more information visit www.picturesbybonnevier.se

news

ARTLINE®

We are now launching Sapa Artline, a new sliding door with minimalist and elegant design for maximum glass area and amount of light. The threshold is sunk into the floor and the frame is built into the adjacent walls to give a frameless impression.

Read more on our web site.





Facts

Facility: Science and Innovation Center
in Sarpsborg, Norway/ Passive building –
standard
Place: Grålum, Sarpsborg, Norway
Construction year: 2010 - 2011
Architect: AART architects A/S, Denmark

Fabricator: Saint-Gobain Bøckmann AS
Proprietor: Inspiria eiendom AS
Façades: Sapa 4150 SX, Sapa 3074 with
BIPV. Sapa 3050 inside.
Doors: Sapa 2050 and 2074.
Windows: Sapa 1074 SX, inward opening.



Sarpsborg, Norway

Inspiria Science Center: Passive building with close contact to the nature

The architect's description

Inspiria Science Center is part of a long term strategy to make knowledge the most important asset of the Østfold region. It is not only reflected in the science center's activities, but also in architectural ambitions, because the architecture was conceived and designed as a communicative platform to generate regional interest in the natural sciences and national interest in the region.

By reconsidering the framework for future learning environment, Inspiria Science Center combines communication and architecture into a whole full of inspiration and experience, forming new spaces for learning and supporting the idea of sustainability as a window of opportunity to increase the quality of life for both humans and the environment. The science center is designed as a passive building with a close contact with nature, by which architecture and the center's focus on energy, environment and health merge into a single narrative.

The narrative can be found in the building's basic form, where the natural cycle, cyclical repetitions and spiral forms merge with the technology cycle, expressed in the universal power of circular base forms. The goal has thus been to create a significant building, which in itself constitutes an identity mark for Inspiria Science Center by uniting the science center's activities in a total main concept.

The science center, which is expected to attract over 100,000 visitors per year, is aimed at schools, families and tourists who can get knowledge by playing in a variety of activities from interactive exhibitions and public workshops to a planetarium and an outdoor science park that is linked to the building's two exhibition levels.

AART architects A/S



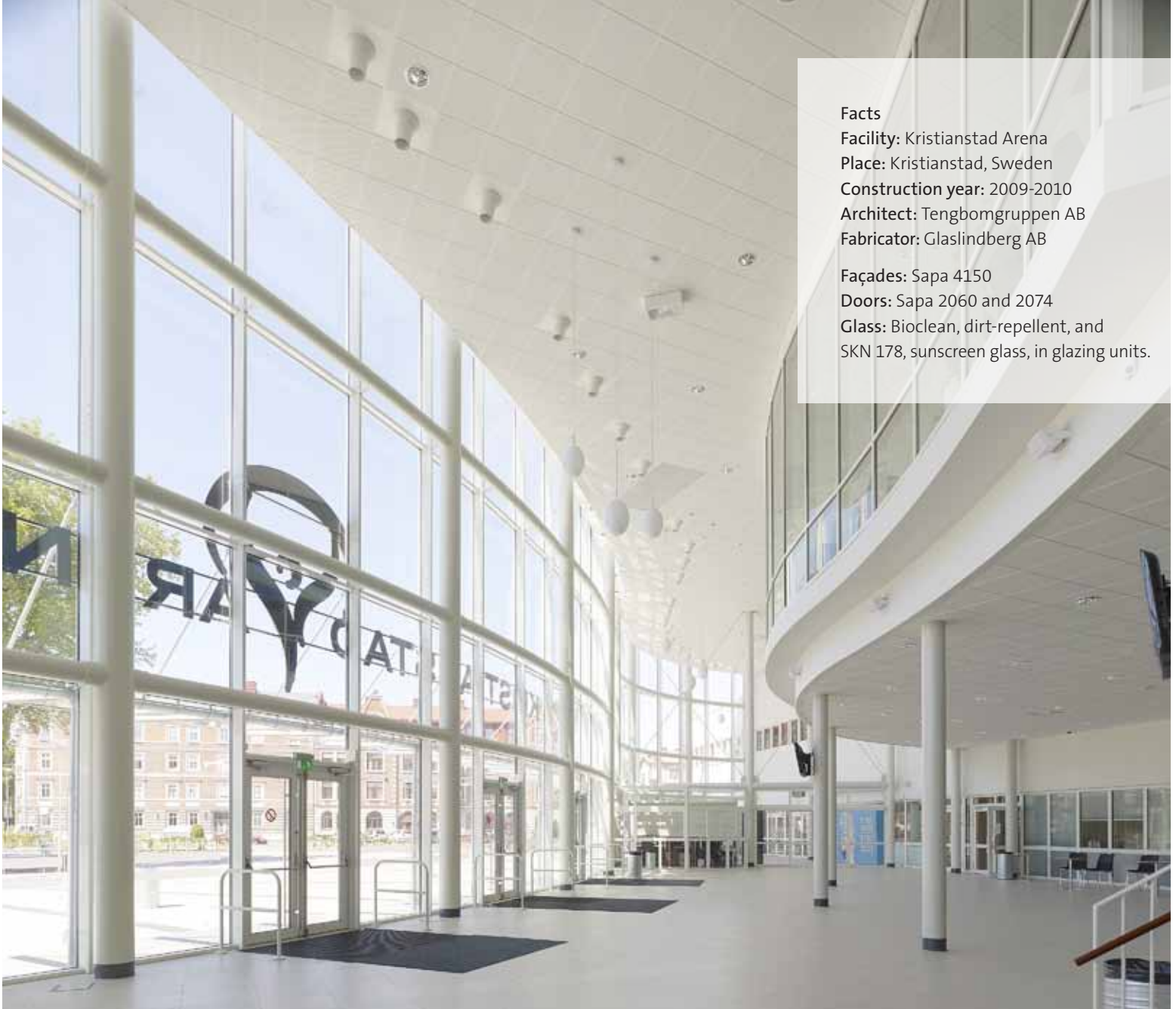


Sapa BIPV with monocrystalline solar cells









Facts

Facility: Kristianstad Arena

Place: Kristianstad, Sweden

Construction year: 2009-2010

Architect: Tengbomgruppen AB

Fabricator: Glaslindberg AB

Façades: Sapa 4150

Doors: Sapa 2060 and 2074

Glass: Bioclean, dirt-repellent, and SKN 178, sunscreen glass, in glazing units.

Kristianstad Arena, Sweden

Multifunctional sports facility

The architect's description

Sport has become a part of the entertainment machine and its buildings should be open and inviting. This has been our starting point when we designed the Kristianstad Arena. It comes as a simple functionalist building with brightly plastered walls, large glass surfaces and rounded corners.

The arena has been linked to an existing indoor sports facility and the thousand square metre foyer is the link. The main feature of the architecture is the large inviting glass facade of the foyer that is the arena's signature. The arena hall can be read out from the outside by its shape and warm red walls through the generous glazed surfaces. It is especially festive in the evening when the building is lighted.

Today's sports facilities are supposed to accommodate many different functions in their efficiently designed spaces. The Kristianstad Arena has a built-in adaptability that makes it multifunctional. Intelligent solutions with telescopic stands, generous backstage features and a roof structure with bridges and suspension devices provide great opportunities for different types of events such as competitions, shows, training, concerts, parties, conferences and exhibitions.

Tengbomgruppen AB, Architect SAR/MSA Christer Blomqvist



International art and design center in Värnamo, Sweden

Vandalorum

The Vandalorum museum in Värnamo, after many long years of waiting, finally got its first buildings completed. After Renzo Piano's first rough sketches with fins in many metre long lines the project was eventually passed to me for adaptation.

Renzo Piano was fascinated by the big wooden houses that characterize and stand out in the Swedish countryside. A new museum was planned on the outskirts of Värnamo, in Sweden's deep countryside, with the hope of creating a Swedish Louisiana, a center of art, a destination for anyone who crosses Sweden. A Swedish barn deployed around a courtyard in a refined arrangement, was the proposal that I took over.

The exciting thing about the building that I wanted to develop was how the construction and materials could interact. The buildings

had two distinct sides, and I wanted to emphasize these with different coating materials, wood and aluminium sheet, on each side of the building, instead of the traditional division between ceiling and wall. The strong wooden structure in my proposal was visible inside and ran through the building to the outside. It characterized the buildings both from a greater distance and up close.

I was responsible for the adaptation, which we called "designed by Tina Wik from an original outline proposal by Renzo Piano Building Workshop". This work was completed in 2003.

The final Vandalorum is the result of further processing by those who continued the work.

Tina Wik Arkitekter AB



Facts on Vandalorum

Architects: Renzo Piano, Tina Wik (second architect), Johnny Grauengaard (BSV, proprietor representative) and building engineer Elisabeth Brengesjö (Atrio, completed the drawings). The decor is a collaboration between BSV, construction manager Bernt Sjöland and project manager Sune Nordgren, and includes, among other things, a reception desk by the Icelandic designer Sigurdur Gustafsson.

Source: Sveriges Arkitekter

Facility: Vandalorum

Place: Värnamo, Sweden

Construction year: 2011

Fabricator: Fasadia AB

Façades: Sapa 4150

Doors: Sapa 2074

Sliding doors: Sapa 2050, 2074

Glazed roof: Sapa 5050

Surface finish: Clear anodised



Sapa lift-slide door 2160 opens up to the terrace.





Sapa lift-slide door 2160 in both the bigger and the smaller unit.

Ulricehamn, Sweden

Villa with cubistic forms

The architect's description

The location of this house is beautiful but a bit difficult. The back faces the southwest, but slopes mainly to the northeast. The maximum allowable building area was less than the customer wished. The solution was an angled house built on three levels. The bottom level contains garage and living room. Most of the rooms are on the middle level, and on the top level, above the garage, there is a separate part for children. The living room has no upper floor but a magnificent ceiling height, giving the large room very nice proportions.

The house has a deck roof, which gives it the distinctive cubist form, which together with the stripped down details results in a house that is full of character and very functional. The windows are positioned so that the large windows face the garden side, while the smaller windows face the other directions, which gives good view to the outside but not to the inside.

Robert Käll, architect MSA

Facts

Facility: Villa

Place: Ulricehamn, Sweden

Construction year: 2010

Architect: Käll Arkitekter AB

Fabricator: Nordmarkens Fasader AB

Façades: Sapa 4150, fixed elements with custom-made frame profile on the inside

Doors: Sapa 2160

Windows: Sapa 1074, inward opening

Surface finish: Powder coating





Photo: Robin Hayes

Facts

Facility: Bylingen 1 block. **Place:** Stockholm, Sweden. **Construction year:** 2009
Architect: Argo Arkitekter AB. **Fabricator:** Alab. **Proprietor:** Skanska Fastigheter AB
Façades: Sapa 4150 with Expressive and Add. **Surface finish:** Powder coating RAL 7023 on the outside, white on the inside

Office building, Stockholm, Sweden

Bylingen block

The architect's description

A media house is adding...

– I was playing with my kids on the beach, in a small village outside Brighton, on the English Channel and saw tankers glide past. It was then the idea came to me. There on the beach, I realized that the difficult rocky edge on the site was a possibility, that the rocky edge was a wharf, and that the house would look like a ship which drew up to the wharf. The media company MTG is going out on the great seas to conquer new markets.

Shape of a ship

One of the major challenges of the project was to create a building that, despite its volume, does not feel like a square block. This was the starting point in the design of the building's shape and details. The elongated building follows the bend of the Ringvägen street and on the round ends it becomes narrower. The narrow ends give the building a neater expression. The shape of a ship is apparent.

Inspiration from the Royal Palace in Stockholm

I have drawn a lot of inspiration from the Royal Palace in Stockholm. The palace is in the baroque style and was designed by the architect Nicodemus Tessin the Younger, it has more than 600 rooms on seven floors. In other words, even Tessin struggled with large volumes. The façade of the office building in the Bylingen block has the same proportions in the length and height as the southern façade of the palace.

– The office building's façade is an oscillation between super scale, medium scale and small scale, which together generate a powerful energy.

The middle part of the palace's southern façade inspired the glazed middle section that faces the Ringvägen street and divides the building into three parts. In this way the building feels not so clumsy and elongated. The other long side, facing the Södersjukhuset hospital, has a completely different character. It is broken up by two stairwells of glass that provide views in three directions.

The navigating bridge

At the top of the building is MTG's management. Here there is a recessed terrace towards the Ringvägen street and the city. From here you can see symbolically over the oceans – from here the compass reading is taken when the media house casts off.

Jim Forsberg, Argo Arkitekter AB

Facts on MTG

Modern Times Group (abbreviated MTG) is an international media company working with TV, radio and games. Some examples of brands using MTG are TV3, Viasat, TV1000, Strix, P5, Rix FM, Lugna Favoriter, Power Hit Radio and Bet 24.

Source: mtg.se/sv/





Facts

Facility: School. **Place:** Moss, Norway. **Construction year:** 2010-2011.

Architect: Heggelund & Koxvold AS Arkitekter MNAL

Fabricator: Saint-Gobain Bøckmann AS, HELLA SolCom

Proprietor: Moss Kommunale Eiendomsselskap KF

Façades: Sapa 4150, Sapa 4150 cold façade, Sapa 4150 F30

Solar shading: Sapa 4150 Wing

Doors: Sapa 2050 och Sapa 2074

Windows: Sapa 1074 SX, Sapa 1074 TX and Sapa 1050

Surface finish: RAL 7043 and 7037, clear anodised

Moss, Norway

School with sports facility

The architect's description

The assignment was to plan a new secondary school with 6 departments and associated sports facilities (multipurpose hall and swimming pool) at Kambo, Moss. The area is Kambo-Nøkkeland existing sports center.

The facility shall provide a comprehensive solution which means that the secondary school together with the sports hall is perceived as a combined learning and activity facility, and shall provide satisfactory solutions for students, employees and other users. High degree of joint use with the community shall make the facility an important local community creator.

The school building

The secondary school includes 3 age levels with 4 class groups and a special department. The planned number of students is 360 with 36 teachers. The sports hall contains a standard multi-purpose hall, a swimming pool and a separate gym.

The sports hall will be used by the school and local sports associations, and can be rented out for private events. The former clubhouse for Kambo IL was demolished to make room for the school and a new artificial turf facility is being built. Removal of existing power lines running through the plot was planned to complete the swimming pool. The transfer of the power lines is deferred because of high costs and the swimming pool has to be built in stage 2.



Construction stage 1: Construction of the school and the multi-purpose hall with associated support functions. Construction stage 2: Construction of the swimming pool.

The site is open, sunny and a bit hilly with vegetation in the border zone. Kambo Primary School is located west of the site.

The existing parking lot for the school was moved to free play area for the schools. The secondary school and sports hall programs are closely linked.

The buildings are linked together physically by means of a "walkway" that contains the school's library/mediatheque. In this way, both facilities can be used throughout the school day under the same roof. It is planned to make it possible to use the library and part of the school for anyone other than the school's students and staff.

Downstairs is a special department as well as offices, employee locker rooms, arts and crafts rooms with the possibility of direct access to the open, warehouse, technical and other support functions.

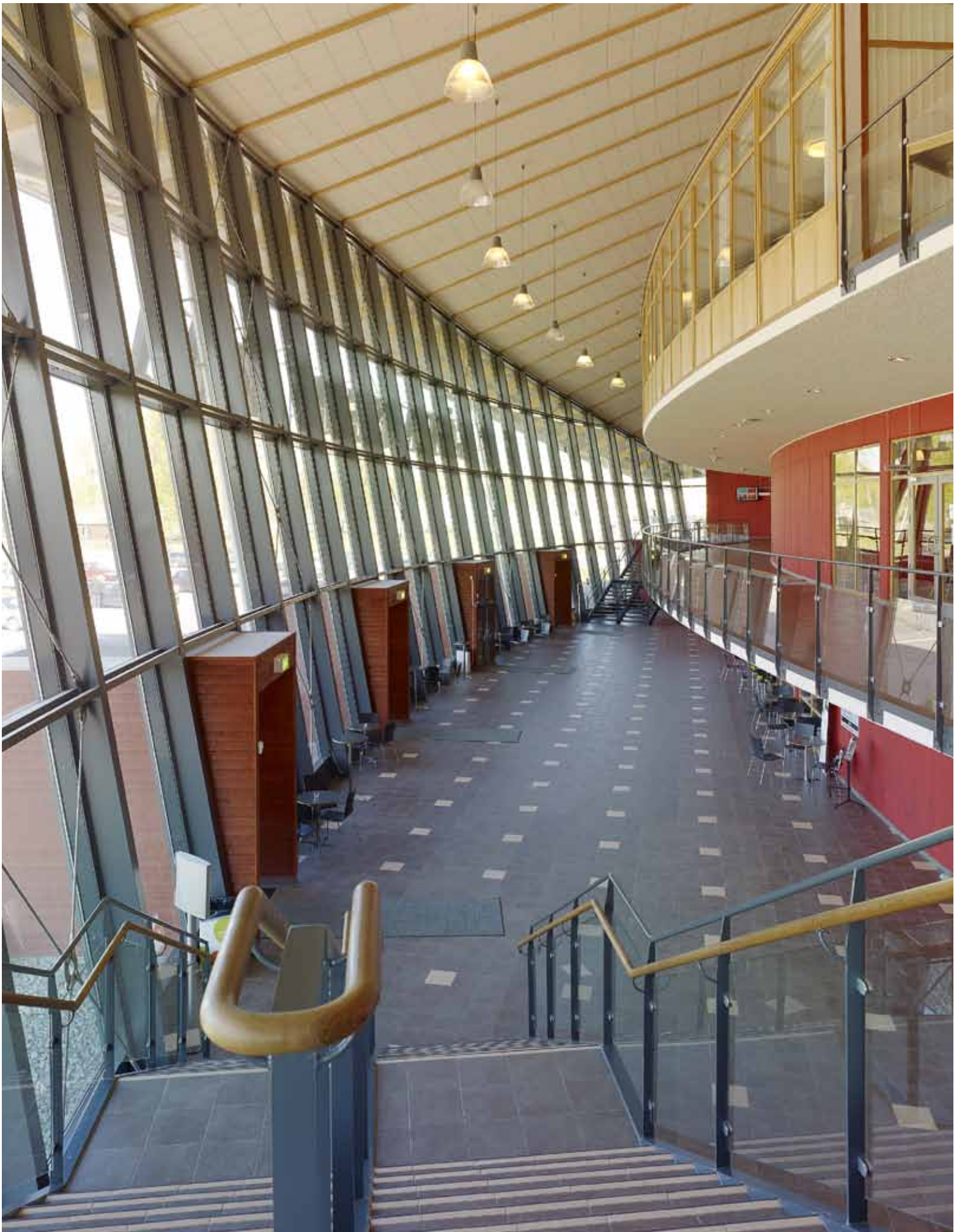
To the north you will find the main entrance to the school on the 1st floor. One is greeted by an open hallway that goes over two floors and a grand staircase connecting the first floor with the second floor. This is a part of the school building's central core. The staircase is intended as a part of a common mingling and staying area. There is a small staircase that connects the first floor with the basement. Lift is located by the stairs.

The different age level rooms are located on the 1st and the 2nd floor, with plenty of natural light and visual contact with the outdoor areas around the school, and are protected from direct view. The rooms are planned in the most flexible way in order to provide the school with facilities for a variety of uses. The canteen, which is on the 1st floor, is also positioned so that it can be easily used for serving, for example in connection with major events. It can also become a part of the gathering hall. The hall and the music room can also be used together or split up to provide as much flexibility as possible.

Use of materials

Exterior façades are mainly covered with wood panelling treated with iron sulphate paint. In contrast to this, parts of the façade are protruding sections covered with white laminate panels. Windows and glass walls are made of dark-coated aluminium. Parts of the glass surfaces are laminated with coloured foil. Inside the school a combination of plaster walls and glass walls has been used, as well as folding walls for flexible rooms. The floors are covered with shale tiles, linoleum, vinyl and tile flooring. The multipurpose hall has a synthetic sports floor with combined elastic coating.

*Jon Heggelund and Christian Cleve Broch
Heggelund & Koxvold AS Arkitekter MNAL*





Facts

Facility: Göransson Arena

Place: Sandviken, Sweden

Construction year: 2009

Architect: San-Ark Arkitekter AB

Fabricator: Rockpart AB

Proprietor: Göranssonska Stiftelsen

Façades: Sapa 4150

Doors: Sapa 2060, 2074

Surface finish: Powder coating, NCS-S 7502-B



Clean transitions in a complex location with specially designed cover plates between the large slanted and curved glazed surfaces.

Multiarena in Sandviken, Sweden

Göransson Arena

Description

The Göransson Arena is located at Jernvallen in Sandviken, a historic sports area in the district. The indoor arena with seating for approximately 10,000 people and an area three times larger than the Globe in Stockholm, was inaugurated in May 2009.

The Göransson Arena is a so-called multi-purpose arena, which by its size and design allows for various events and meetings in sport, culture and business. The arena is used for both elite sport and cultural purposes such as concerts and art exhibitions. Exhibitions, conferences

and other gatherings of associations, companies and organizations are other important events at Göransson Arena.

The artificially frozen ice surface, 67 x 111 m (65 x 105 playing area) corresponds to four ice hockey pitches. The arena's total building area is approximately 12,940 m². The arena has 3,100 seats on the stands, 700 standing places on the stands and 5,000 places on the floor, 300 seats in the restaurant, and 400 seats for conference guests.

Facts from www.goranssonarena.se



Facts

Facility: ABB Place: Ludvika, Sweden Construction year: 2008 Architect: SWECO FFNS Fabricator: Dala Metallpartier AB
Contractor: Skanska Façades: Sapa 4150 Doors: Sapa 2074 Glazed roof: Sapa 5050 Surface finish: Powder coating, RAL 7043

Information and support

SAPA BUILDING SYSTEM AB OFFICES

Sweden:

HEADOFFICE
Sapa Building System AB
574 81 Vetlanda Phone +46 383 942 00
Fax +46 383 76 19 80
e-mail: system.se@sapagroup.com
www.sapabuildingsystem.se

Denmark:

Sapa Building System
Langhøjvej 1 Indgang A 8381 Tilst
Phone +45 86 16 00 19
Fax +45 86 16 00 79
e-mail: system.dk@sapagroup.com
www.sapabuildingsystem.dk

Finland:

Sapa Building System
Sinikalliontie 18 A, 02630 Espoo
Phone +358 9 86 78 280
Fax +358 9 86 78 28 20
e-mail: system.fi@sapagroup.com
www.sapabuildingsystem.fi

Lithuania:

UAB „Sapa Statybų Sistemose“
Kirtimu g.47, LT-02244 Vilnius
Phone +370 5 2102587
Fax +370 5 2102589
e-mail: system.lt@sapagroup.com
www.sapabuildingsystem.lt

Norway:

Sapa Building System
Pb. 34, 2027 Kjeller
Phone +47 63 89 21 00
Fax +47 63 89 21 20
e-mail: system.no@sapagroup.com
www.sapabuildingsystem.no

AGENTS

Hungary:

Vetlanda Kft.
Szabó Illunka u. 22, HU-1015 Budapest
Phone +36 12 25 06 41
Fax +36 12 25 06 42
e-mail: tamas.kiss@vetlanda.hu
www.vetlanda.hu

Nordikal Kft

Bartók Béla út 152, HU-1113 Budapest
Phone +36 1 204 0052
Fax +36 1 204 0053
e-mail: zatyko.csaba@nordikal.hu
www.nordikal.hu

Iceland:

Gluggasmiðjan hf.
Vidarhöfða 3, 112 Reykjavík
Phone +354 577 50 50
Fax +354 577 50 51
e-mail: Gluggasmiðjan@gluggasmiðjan.is
www.gluggasmiðjan.is