Benefits of lightweight construction
Ready-cut, ready-designed, ready-marked

Lindab Comfort – solutions for a comfortable indoor climate

Big new contract for Italian fair

Steel – faster, easier, safer

The art of the impossible at Copenhagen School of Music
Jefasthuset in Höganäs is one in a long string of projects for which Lindab has supplied its modern lightweight construction solution. Ready-cut and marked steel studs are supplied together with complete drawings for each section of the building, allowing fast, efficient, and problem-free fitting on the building site. “As there are 30 different types of elements, Lindab’s drawing service has been very valuable. Fast assembly and clearly marked reinforcement points have made things easier for our carpenters,” says Jonas Bildtgård from NCC, main contractor for Jefasthuset.
Lindab is an international group that develops, produces and markets products and system solutions in sheet metal for the Ventilation and Profile business areas.

The Ventilation business area offers ventilation components and complete indoor climate solutions to the ventilation industry.

The Profile business area supplies the construction industry with a comprehensive range of building components and complete building systems in steel for commercial and residential properties.

The Lindab Group employs over 4,500 people in 28 countries and had a turnover of SEK 6,214 million in 2005. Headquarters are located in Grevie, Sweden, outside Båstad on the beautiful Bjäre peninsula.

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Steel – the key to the future of simplified construction

Steel has always been our core business, and we can see many factors that indicate our commitment to steel as a raw material will remain the right one for the future.

We believe in steel and we are naturally not alone in feeling enthusiastic about the future of steel. In the USA the American Iron and Steel Institute is running a campaign that declares steel to be the backbone of North American industry. It generates more than 1.2 million jobs – more than the automotive industry, which employs just over one million Americans.

Steel has many benefits, perhaps the most important of which are its formability and recyclability. These characteristics correspond well with our core values and our environmental policy.

Throughout its history Lindab has exploited all the advantages of steel to simplify construction, whether this applies to ventilation, building systems or building components. We combine the favourable properties of steel with a process philosophy that leads to solutions that are as simple as they are ingenious. Many small details (such as the snap fasteners on our Rainline gutter outlets) have arisen through looking at the whole picture and asking how we can make the process simpler for the installer, for the developer and for the property owner. This is how we approach product development, by focusing on our customers’ total costs over the entire life of the product.

Our aim, as you know, is to provide simpler and more cost-effective building processes for our customers. The choice of steel as our medium has made this goal achievable, thanks to its many strong points: long life, a good strength-to-weight ratio, low lifetime cost, accurate formability, environmental benefits, suitability for prefabrication and system solutions, ease of transport, recyclability, etc. These factors mean that in many areas steel is increasingly replacing other materials.

To give a few examples from Lindab’s product categories, we can see how steel studs are replacing wood and concrete because of their dimensional stability, fire safety, sound insulation and mould resistance. Since they first appeared in the 1960s, the proportion of steel studs used in the internal walls of commercial buildings has risen to almost 90 percent.

The article in this issue on the Botium housing project gives added evidence of the success of steel studs in replacing timber studs in exterior and interior walls.

Ventilation products are of course mostly made from steel. Here, our task of simplifying construction is more about showing the advantages of circular (rather than rectangular) duct systems, and developing innovative products that give a better indoor climate. In this issue you can read more about the research and development that is taking place at our sound lab in Farum, and learn about our exploration centre in Haderslev, both in Denmark.

In order to develop faster, simpler and more ergonomic solutions we first need to understand our customers’ daily routines and problems. Together with customers in the ventilation industry we recently completed an in-depth study of how much time is spent on measurement, finding and preparing components, cutting and fixing ducts to the building and installing the systems themselves.

We will take a closer look at these interesting findings in a coming issue.

Apart from the superiority of steel as a material, we also believe in developing tools that further simplify construction by reducing installation time, waste and the risk of mistakes. Both of Lindab’s business areas offer software that assists in the design of systems and generates costings and drawings. As this is refined it will play an increasingly important role in the process from idea to finished project. This issue describes applications of ADT-tools (including the Höganas project) and CADvent, which forms part of a system solution that is integrated with the customer’s business system (Sydtotal).

We believe it is this process philosophy, combined with well-designed solutions delivering the lowest lifetime cost, that convinces our customers to work with Lindab.

Steel has a very bright future ahead – we hope you will help build it with us.

Kjell Åkesson,
CEO Lindab
Lindab invests in St. Petersburg

With a population of five million, St. Petersburg is one of the most cosmopolitan and fastest growing regions in Russia. As a major international port and the country’s second largest city it plays a leading role in industry, trade and infrastructure. A ring road now nearing completion will provide excellent access for transport in and around the city, which had suffered severe traffic congestion. “This transformation has sparked massive building activity in every part of the city,” reports Magnus Grönborg, plant manager at Lindab Ventilation in Grevie. “It’s also the reason why Lindab is now planning to establish its first ventilation factory in St. Petersburg. “Many residential projects are underway in the northern parts of the city. In the wake of these a number of large shopping centres are being built, and new companies – both domestic and international – are setting up business all along the ring road.”

The total market for circular duct systems in St. Petersburg is unofficially estimated at around EUR 9 million and is expected to grow by around 16 per cent each year. This is because the international companies setting up there build their premises to western European building standards, which generally dictate circular ventilation systems. In the longer term changing domestic requirements are likely to give further support to this trend.

“By the end of the year we expect to have both our sales organisation and manufacturing in place in Sestroretsk, a coastal suburb in the north of St. Petersburg,” adds Magnus Grönborg. “Our premises are next to the new ring road putting us in an excellent position for deliveries to the entire St. Petersburg region, as well as to Moscow and other nearby areas. We’re building up the organisation and by December we expect to have a workforce of around 15 people.”

The 4,500-square-metre premises that were recently prepared have good potential for future expansion. Local manufacturing will also mean big advantages over importing products from Lindab’s other European factories. “Having a local presence is also essential for building up customer relations and establishing the strong position we’re aiming for,” concludes Magnus Grönborg.

Top-level visit

Many people’s image of Luxembourg is of a tax haven somewhere in the region of France. To spread awareness of how misleading this image is – now that the country can increasingly be seen as a centre for services and research – a series of meetings between companies was recently organised by Nobelux, the chamber of commerce for Belgium, Luxembourg and the Nordic Countries. Jeannot Krecké, Luxembourg’s Minister of the Economy, and his delegation visited Sweden in mid-May. One of the companies they visited was Lindab in Grevie partly because of Lindab’s links with the country through the acquisition of Luxembourg-based Astron Buildings in 2005.

Following a presentation of the Lindab Group by CEO Kjell Åkesson, the minister and his delegation had the opportunity to see all aspects of production, from initial steel processing at Lindab Steel, to the manufacture of finished products at Lindab’s production units in Föslov and Grevie.

Q3 report from Lindab
Continuing success

Lindab’s success story continues. The interim report for the period January–September 2006 can hardly be interpreted any other way. Net sales rose to SEK 5,457 million, up 25 percent on the same period in 2005. Operating earnings (EBITA) totalling SEK 685 million, representing an increase of no less than 77 percent, and a continuing improvement in cash flow are among the more noteworthy elements of the report.

“We can clearly see continued strong financial growth,” says Nils-Johan Andersson, CFO for Lindab. “Our organic net sales growth for comparable units, once currency effects have been taken into account, amounted to 9 percent, which we regard as very positive. And if we include our acquisition of Astron Buildings S.A. our net sales growth was a full 26 percent.”

This strong organic growth is shared roughly equally between the Ventilation and Profile business areas.

“Behind these figures there is an interesting trend that’s worth highlighting,” adds Nils-Johan. “For the first time in Lindab’s history our net sales are now higher in central and eastern Europe than in western Europe. The strong growth in our ‘new’ markets in the east is a milestone for us, but perhaps not totally unexpected in light of the growth potential in these markets. The Nordic region shows continued steady development and in western Europe there are more and more signs of an upward trend. For example, we can see improved demand in Germany – the biggest market in this region.

The cost-saving programme in the Ventilation business area has had a clear effect on earnings for this area. “We can also see an improved trend in those Ventilation markets that previously showed problems with earnings, such as Germany and Switzerland,” reports Nils-Johan Andersson. “We now have the satisfaction of seeing most of our units performing very well and achieving the net sales and earning levels we planned for. This is partly the result of strong market growth, but it also shows that the solutions we’re offering the market are very well received.”

The share redemption process that followed the refinancing of Lindab in spring meant that Lindab’s shareholders received around SEK 1,200 million. “It’s our first ‘dividend’ since the year 2000 and can naturally be seen as a sign of the growth that now sets the group apart,” concludes Nils-Johan Andersson.
Rainline and Coverline Centers open up CEE
No success without products on hand

Availability has always been one of the keys to Lindab’s success. The strong growth that has marked Lindab’s presence in Central and Eastern Europe is partly the result of a product range that perfectly matches the needs of the thriving building industry in the region, and partly due to being close to its customers. Bosnia and Herzegovina, Bulgaria, Slovakia and the Ukraine are examples of the more recent markets where Lindab’s mix of product lines, customer support and quality have already achieved success. The Rainline roof drainage system and Coverline roof and wall cladding in particular have been well received by dealers, building contractors and consumers. “Naturally it’s our clear ambition to promote Lindab’s systems and solutions in these countries as strongly as possible,” comments Nabeel Alyyan, who has regional responsibility for the Profile business area in Central and Eastern Europe. “Anders Persson from Bravida Service, Niklas Bondesson from Energiteknik and Ronnie and Leif Nilsson from Gibrands were among the opening-week visitors who shared the same impressions: ‘It’s easier to find things on the shelves, more enjoyable to visit and you find lots of new items that you realize you need.’”

“We’ve had plenty of positive comments,” sums up Bertil Nilsson, who also reports an increase in sales of up to 40 per cent for some product categories. “This applies especially to tools, grilles and fasteners and is surely evidence that the new store concept has gone down well with our customers.”

It is for this reason that Rainline & Coverline Centers were recently opened in Sarajevo in Bosnia and Herzegovina, and in Sofia in Bulgaria.

“We’ll soon be opening centres in Bratislava in Slovakia and in Kiev in Ukraine. It is only by having our own well-stocked sales offices that we can make serious inroads into these markets. Availability and customer support are after all the key requirements for a building contractor or roofer. The new showrooms also allow us to display and present our key product systems on our own terms and in a totally different way. Most importantly, we can build relationships with hundreds of new customers,” adds Nabeel Alyyan.

“The response from contractors has been excellent so far and we can already see clear increases in sales.”

The newly opened Rainline & Coverline Centers in the capital cities of Bosnia and Herzegovina and Bulgaria give contractors and roofers quick and easy access to products straight from stock, as well as an opportunity to drop in for a coffee and take a look at the latest products.
First roof drainage, now lightweight construction

From Förslöv to Phi Phi Island

For over 10 years Swedish roof drainage expertise and quality have been finding their way from Förslöv in the municipality of Båstad to the new dream destination of Sweden: beautiful, warm and friendly Thailand.

"During the last few years, a container has left Förslöv each week destined for us here in Thailand," says Niclas Torsell, chief partner in the Thai company Swedish Rain Gutter, which imports Lindab Rainline to a market where western roof drainage was almost totally unknown until about ten years ago. "Naturally they have had roof drainage for a long, long time in Thailand, but it has been used to capture rain and provide drinking water. With roof overhangs of one to three metres, protecting the exterior was not really a priority. What has happened in the last 10-20 years is that western architecture and building ideals have become increasingly popular and, because this means shorter roof overhangs, modern roof drainage systems have suddenly found their place in the Thai building industry." ProTarget, a Thai company whose owner, Thanaphat Phatsriruang, is also a partner in Swedish Rain Gutter, markets, sells and installs all the imported roof drainage from Lindab, aided by 15 full-time employees.

Thailand is a country where concrete has reigned as a building material for many years. New ideas and new building methods have only taken hold gradually. "As usual, someone has to make the first move, and that's exactly what we're doing by introducing the lightweight construction system to the Thai market alongside Lindab's roof drainage," adds Niclas Torsell. "Following the tragic tsunami disaster the authorities informed the building industry that permanent buildings—in other words building of concrete and wood—are not permitted in shoreline areas. But the lightweight construction steel stud system is seen here as a method that can easily be erected—and dismantled and moved."

This is also part of the reason for the current delivery contract for a two-storey apartment building on the well-known Phi Phi Island. "As on several other lightweight construction projects we've been able to use Lindab's new ADT Tools CAD software for the whole design," reports Zacharias Fransson, who manages Profile export sales. Each building, of which this is the first, will consist of 24 small holiday apartments, and there are plans for up to 30 apartment buildings.

In autumn 2005 Thanaphat Phatsriruang visited Lindab's facilities in Förslöv, along with Niclas Torsell. "What appealed to them, apart from the lightweight construction system itself, was the way we were able to use ADT Tools to create a modular system that not only simplifies erection on site in Thailand, but also reduces the number of components, which has a beneficial effect on both material costs and freight costs," explains Niclas Ivarsson, who is responsible for developing ADT Tools at Lindab. "Most sea freight travels from Asia to Europe, so there is spare capacity in the opposite direction, which creates attractive freight opportunities to Thailand.

The prefabrication process that will take place in Thailand is something totally new to the Thai market. Lindab's lightweight construction products are assembled in a local factory and then freighted to the building site for erection. "It will result in faster and easier constructions, with a quality and freedom from leaks that far outstrips the usual Thai building standards," says Zacharias Fransson.

Thailand is currently experiencing a construction boom, which means there is a severe shortage of skilled labour. "Now we are introducing modern, European building technology and a level of quality that will make many local investors raise their eyebrows," concludes Niclas Torsell from Swedish Rain Gutter. "I believe our local presence and Lindab's expertise, know-how and quality in building with steel will make a real impression here in Thailand and lead to many orders."
Over the past year, Lindab’s Coverline product area has undergone significant expansion in its range of roof and wall sheeting and product systems. “We’ve extended our range so that it will appeal to sheet metal installers and contractors regardless of the degree of prefabrication and building method they choose,” explains Hans Andersson, product manager for Lindab Coverline. “We’re now offering a wide selection of sandwich panels, wall cassette systems and conventional roof and wall sheeting. This means we can offer cladding systems to suit almost every need and every building system.”

Lindab Sandwich Panels are a relatively new product that has been very well received. “We can see very steady growth in the market in central and eastern Europe, where we have been selling these products for some time,” continues Hans Andersson. “They’ve only just been launched on the Scandinavian market, but we can already see a lot of interest, and growing market share.”

Industrial builders, building contractors and sheet metal installers are all target groups for sandwich panels. “A number of industrial builders have deliberately chosen to build roofs using this method,” reports Hans Andersson. “The panels can be quickly laid straight on the frame and studs. This saves a lot of time on the building site and results in a ready-insulated roof that is clad internally and externally.”

Because this method reduces the roof building time there is less exposure to the weather and less time needs to be spent on hazardous rooftop work, for example. One important product benefit of Lindab’s Sandwich Panels is the water-shedding, self-sealing joint that allows very rapid fitting and makes the end result totally watertight. Lindab’s Sandwich panels are also available in a sinusoidal profile, a unique feature in many markets.

Facade Cassettes are a type of product system that is in great demand in central and eastern Europe. In terms of the degree of prefabrication, these products fall between the fully prefabricated sandwich panels and site-built sheet metal walls. “Since summer 2006 we’ve been producing and marketing Lindab Facade Cassettes primarily in central and eastern Europe,” says Hans. “Our facade cassettes consist of box-shaped profiles that are installed horizontally, and can then be filled easily with insulation.”

Fitting is considerably easier than with traditional sheet metal cladding. The lip of the cassette overlaps the next cassette, and the chosen profiled sheeting is then screwed to this lap joint. The inside of the cassette creates the finished internal wall.

Profiled sheeting still accounts for the bulk of sales in this product area. The choice of different profiles and coatings undergoes continuous development. “Traditionally, we’ve tailored our range of profile sheeting to each market,” continues Hans. “This has sometimes meant that our range is perceived locally to be much narrower than it actually is. Now we are changing this strategy market by market, and offering more or less our entire profile range. Naturally this sometimes means an extra week on the delivery time for profiles that are not made locally, but we believe this is outweighed by the benefits of being able to offer a leading selection of products.”

“The changes we’ve made don’t just mean a broader product range. We’ve also extended the organisation to provide even better support on every project – from product systems and fixing to specification and logistics,” says Hans Andersson. “Roofs and walls obviously play a vital role in simplifying construction.”

Lindab’s extended range of roof and wall products gives contractors greater opportunities to choose the degree of prefabrication that suits them. (Top photo shows Sinus 26 wall profile and bottom photo shows Sandwich Panels).
Lindab Comfort – solutions for a comfortable indoor climate

When people talk about companies today they use many new words and expressions to define the essential aspects of a company. One of these is core product, a term for the key solutions that are central to a company’s success in the market place. In the case of Lindab’s Ventilation business area, this core product is clearly circular duct systems. These are used to transport air through a building and consist of effective, easily installed products that create leak-proof, energy-efficient ventilation systems.

But this is only one half of the system that is needed to provide a comfortable, healthy and temperate indoor climate. The other half directs and distributes the air around the room. Lindab, of course, has been active in this field for many years, but big changes have recently taken place, and a new focused product range has appeared and established its place in the indoor climate sector – Lindab Comfort. This is a result of the merger of two earlier acquisitions – Riscanco in Denmark and Teknoterm in Sweden – now the source of new and innovative solutions in the indoor climate field.

“The first big change is that we are clearly responding to the market’s demand for indoor climate products that are more efficient, aesthetically attractive and easier to install,” explainsFredrik Engdahl, head of the Lindab Comfort product area, when we meet him together with Göran Hultmark, development manager, and Jörgen Seeberg, marketing and sales manager at the main plant in Farum, Denmark. “The second important change is that we are allowing marketing and sales to be shaped by the existing buying process for these products. Duct systems are marketed primarily to installers, while the products we supply – air terminals, chilled beams, panels, electrical equipment, control systems and rectangular silencers – have to be marketed at an earlier stage, to consultants and architects.” What he is referring to is the specification process that forms an important part of every building project. “As a result of combining our Danish and Swedish expertise we’ve considerably improved our potential for success.”

The Lindab Comfort product area has a turnover of around SEK 500 million and comprises management in Farum and a total sales force of 70 in the Nordic region, plus production teams in Farum and Prague comprising 60 and 80 people respectively. “We can now see a marked growth in turnover and a boost in our business,” continues Fredrik Engdahl. “This, if anything, is proof that our new initiatives in product development and sales strategy are yielding results. The original focus on the Nordic markets is also being adjusted gradually by extending our presence into more and more European markets.”

Historically, Lindab has had a rather patchy market position in the region: strong in air terminals in Denmark, and equally strong in Sweden, but in this case for chilled beams. “We now intend to boost both areas in all the Nordic markets and, as Fredrik says, expand further into Europe,” adds Jörgen Seeberg. Expertise and know-how in marketing, product development and the technology behind indoor climate products are now concentrated in a single organisation. “This has very
“what we offer the market is effectively a two-stage rocket; first support and assistance in choosing the right product and specification, then product systems and solutions that offer more benefits than the competition”
clear and positive effects for our target customers,” explains Jörgen Seeberg. “Since our solutions have a great technical content it’s important that we can give our target groups – consultants and architects – the support and assistance they want. This close collaboration also gives us a basis for product development, since we constantly have an ear to the market.”

“To succeed in our particular product areas we have to be involved right at the initial decision-making process. That’s when system and terminal choices are made and the foundation is laid for the order that an installer will place three, six or even 12 months later,” interjects Göran Hultmark. “That’s why we’re concentrating on the project planning phase, when the consultants and architects make their decisions. Products that offer unique benefits in performance, installation and economy, and provide effective support to these groups in the form of IT support and full-scale tests, are important arguments for convincing people and selling our particular solutions.”

Lindab’s IT applications – CADvent, DIMsilencer, DIM comfort and TeknoSIM – are valuable examples of the expertise and level of support offered in this product area. The last two applications are key specifying tools for air and water-based products.

**When it comes to product development**

Lindab Comfort has upped the tempo considerably. “We can offer complete solutions with total freedom of choice throughout the chain: airborne cooling, waterborne cooling, VAV (Variable Air Volume), adjustment and of course air distribution to suit all needs. And we can do this whether it’s for an ordinary office, a canteen for 1,200 people, an ice-hockey arena or an opera house,” explains Göran Hultmark. “Over the past year we’ve launched a number of attractive, new, and to some extent ground-breaking, terminal products, such as Facilis, Versio, Integra and Formo.”

Versio is not just a unique ceiling terminal that marks an innovative approach to ceiling adaptation and grille mounting. “It is a totally new way of looking at product construction and design,” says Göran Hultmark. “You can offer 1,000 different products, all tailored to satisfy a specific task, or you can develop a clever base product with a modular design that allows it to be converted into just as many alternative products Versio is one such base product, which depending on the choice of diffuser, plenum box and ceiling adapter, is easily transformed to suit your needs. The magnetic base plate mounting simplifies adaptation to fit the ceiling as well as maintenance and servicing. Versio also opens up new opportunities for reducing capital tie-up in stock, since there are fewer components, and it adapts more readily to changes in the ceiling system. We’re the only company in our industry to have taken this lean distribution approach – using fewer components to create more opportunities.”

The Facilis ceiling terminal released in 2005 represents another new approach that has benefits at every stage of the chain – specification, distribution, installation, adjustment and operation. “Facilis provides reassurance at the specification stage and saves expensive adjustment time after installation,” comments Jörgen. “The terminal is supplied preset for the given air flow at the desired pressure, which can be specified during the project planning stage by using CADvent, for example.”

A new regulator – Regula Combi – is also ready for launch. This offers room control for all types of system, water or air, cooling or heating, and even VAV.

The new terminal range also includes the new circular, flush-mounting Integra ceiling terminal and the architect-designed Formo, both of which have a wide choice of designs and an extensive selection of accessories for ceiling mounting. The complete terminal range is presented in the new Comfort 2006 air terminal catalogue.

In the case of chilled beams, Pilot is another example of a product that offers the flexibility that increasingly sets Lindab Comfort’s product strategy apart. “Pilot is a base product that the customer can easily adapt to suit different needs for air flow, throw direction, ceiling mounting, etc.,” says Göran Hultmark. “This has benefits from both the production and distribution perspective.”

**With many new products** on the market and more on the way, it is vitally important to communicate the benefits and features that Lindab Comfort now offers. “Personal contact through field visits to consultants and architects, combined with marketing that is clearly targeted at the right groups, are essential to success,” adds Jörgen Seeberg. “The full-scale tests that are carried out here in the laboratories in Furum let consultants, architects, installers and end customers see how our proposed solutions work and examine the results of measurements. This unique service definitely plays a big part in our ability to close deals. It lets us easily analyse air, heating and cooling distribution in a room and see how terminal and damper products interact and are affected by the test rig heat sources.”

Sales trends in the Lindab Comfort product area show good growth, and profitability is also well on a par with comparable product areas in the group. “The Nordic region currently accounts for 75 per cent of our turnover. Italy is one of the markets outside the Nordic region that has grown rapidly, and as mentioned we’ve now set our sights on central and eastern Europe, as well as Russia. We’re also taking a more proactive approach in Italy and Germany,” concludes Fredrik Engdahl. “With our newly merged international air and water team I can’t see anything on the horizon other than attractive new customer solutions for a better indoor climate and simplified construction.”
As you head north from the south of Sweden, through towns such as Markaryd, Ljungby and Alvesta, it’s not difficult to work out what is the most widely available building material in these areas. Spruce, spruce and more spruce, interrupted by the occasional oak or birch trees, line the roadside and file past the car windows. So when the Växjö-based architectural practice of Wibroe Arkitekter was commissioned to design around 30 stylish detached homes for the newly established garden village of Biskopshagen on the outskirts of Växjö the choice of material was obvious. Wasn’t it?

Botium is the name of the housing association that builds on the premise of constructing groups of houses with relatively small plots of land on a large communal park area. “Botium is a compound of the words bo (to live) and otium (calm, relaxation),” explains Henrik Wibroe, an architect whose late father, Ib Wibroe, designed and planned the area. He was also one of the five founders of Botium. The intention is that residents of Botium should not just live there but truly enjoy the opportunity to relax and enjoy life in their later years.

In addition to the 35 homes there will also be a communal building with communal living spaces, as well as a kitchen, sauna, overnight room and laundry for large items. “The idea is that this should be a hub for socialising, for example there are plans to cook and eat together here once a week,” explains Henrik Wibroe. “Ib Wibroe’s idea that residents should have a say in the design, feel and finishing touches for their homes soon resulted in a long waiting list for the 35 houses. The proportion of elderly residents is probably not as high as was first intended, but there will certainly be a very high proportion of happy residents.”

“Two factors made the whole thing special from our point of view,” says Anders Nilsson, site manager for PEAB in Växjö, the company responsible for building and erecting Botium. “The first was the architect’s vision that the residents should have an influence in the design and detailing of their homes. The second was that the architectural choices placed very special demands on the construction solutions. These two factors were the main reason why our company, PEAB in Växjö, chose steel as a construction material for the first time.”

A critical point in the chain of events was when PEAB’s consultant, CM-Byggkonsult, suggested straight off that the construction material should be changed from wood to steel. Wibroe Arkitekter had specified a large number of walls, which in this context were relatively high, at around 6.5 metres, and these walls were generously interspersed with large windows. “I can definitely say there was no one here who jumped for joy when steel was mentioned. Our building supervisors and all our carpenters had only ever considered building in wood,” continues Anders Nilsson. “But because CM-Byggkonsult had problems coming up with an acceptable design for timber construction, particularly due to the high wind loads, we ended up with a lightweight construction steel stud solution from Lindab.”

Roger Nilsson from Lindab’s Växjö branch had a tough time convincing them and selling the totally new building method. “After all, it didn’t just mean a new material for the builders, it also meant new tools – screwdrivers instead of hammers – and new fasteners – self-tapping screws instead of four-inch nails,” he explains. “Although they had initial doubts about this solution, the work on the big assembly table for putting the wall elements together was greatly simplified. The carpenters were of course supplied with section-marked, ready-cut steel studs and clear drawings for each wall element. This was good for them, since PEAB was initially shown a small number of variants for each house type. In actual fact almost every house was different.”

“When Lindab presented its solution, which was based on delivering the material for all the wall sections ready-cut, complete with a detailed building drawing, we started to see the bene-
fits of this approach,” says Håkan Jönsson, project manager at PEAB. “Naturally we had a few teething problems at the start, but now things are going really well and we definitely wouldn’t change the construction method. As the number of house variants – and wall sections – grew, Lindab’s support, drawings and marked steel studs became increasingly valuable. The fact that everything has been so accurate – deliveries, section markings and drawings – has naturally reinforced our impression that this was the right construction method.”

Every wall section has been designed by Henrik Blom from Lindab using Lindab’s new ADT Tools software. “Because the residents were given such a wide choice of options, every house has been just about custom-built,” explains Håkan Jönsson. “Before the build actually began there were several years of planning between the residents, architect and housing association. This resulted in the many variations we see now, as well as an overall solution that exceeded our own expectations. There is no doubt that the architect has been very successful and the close-to-nature homes that are now taking shape are very satisfying, but without the drawing support that Lindab provided I don’t know how we would have handled all the variations in a sensible way. The cost of this service has also been reasonable, as was the supplement we paid for ready-cut and marked deliveries.”

The two assembly teams require four days each to complete all the sections for a house. “We saved time on the sloping wall sections in particular. If we had been working with wood, each angled cut would have had to be precise, but with steel studs that overlap slightly there is some play that makes these joints much easier. With ready-cut studs and drawings for each section, the whole thing becomes rather like Meccano,” says Anders Nilsson. “When the sections are complete we can erect a house in a single day, and because the steel structure doesn’t require any drying time you can move straight on to the next stages – laying the roof, internal cladding, partition walls, etc. Admittedly a few of our carpenters are throwing longing glances at pieces of four-by-two timber, but most of them are convinced of the benefits of steel. This will definitely influence the next building project we take on.”

24 houses are now complete and occupied. The 11 remaining houses should be ready by Christmas. “The wall elements have been built with Lindab’s RY 145 and 195 exterior wall studs with an external cladding of Minerit board, while the roofs are site-built using Lindab’s high profile roof sheeting,” says Anders Nilsson. “This solution has definitely given Botium better houses than the timber houses that were originally planned. Steel gives the roofs and exterior walls a better U-value, by eliminating cold bridging. And there is almost no risk of damp or mould problems because unlike wood, steel does not absorb any moisture. For us, Lindab’s drawing service has been invaluable, and their delivery reliability has been very good. There were a few minor problems at the outset, but because supplying marked studs complete with drawings is also new to Lindab you have to expect a few teething problems. Now everything works without a hitch!”

All the houses, which have floor areas of between 92 and 147 square metres, have site-built walls that were produced using Lindab’s lightweight construction steel stud system. The large number of high exterior walls and irregular window spacings create high wind loads that a steel structure can withstand better than wood.
Sydtotal is one of Sweden’s fastest-growing and most successful contracting companies in ventilation and other installation contracting. Since it was founded in 2000 the company has gone from zero to well over SEK 400 million in turnover and now employs almost 160 people, from Malmö in the south to Borlänge in the north. Sydtotal is already the leading ventilation installer in the south of Sweden. Company founder and partner Erling Pålsson sees no slowdown in sight, in fact the company intends to continue improving efficiency.

“Profitability in our business is generally too low. The fact that we are well above the average is entirely thanks to our policy of continuous change; we are continuously streamlining, simplifying and improving every aspect of our process,” says Erling Pålsson with conviction. To succeed in this, you have to be able to see what needs to be changed and have the courage to do so.”

“One of the key elements of the whole business is CAMvent, our general system for everything from tenders, bid processing and project management to installation, balancing and even warranty claims,” explains Erling Pålsson. “The basis of our business is the tender information and drawings that are linked to each individual project and also form the basis for our costing. Because we have been designing and specifying most of our projects with Lindab’s CADvent application for some time now, we have been able to improve many stages of our process. The task of specifying and producing drawings had been made easier and more reliable. Our costings and lists of materials are as close to reality as you can get, and we have found that we were on the same wavelengths. This lead to a joint project, the first phase of which is just about complete and in place.”

“The project has several different parts,” says Björn Broberg, product manager for IT solutions in the Ventilation business area. “The basic task was to link together CAMvent with CADvent and thus create a direct link to Lindab’s database. We also needed to transfer the projects that weren’t designed in CADvent to this 3D environment so that every single project would contain all the data that provides the foundation for an efficient and profitable process – including products, quantities, sections and times.”

The result is that all information from CADvent is now automatically copied to CAMvent and hence to Sydtotal’s Pyramid, business system. Through a connection with Lindab, orders are passed straight from Pyramid to Lindab’s order system, and as deliveries are made Lindab sends electronic invoices direct to Pyramid. “The end result is an unbeatable level of accuracy and efficiency,” says Erling Pålsson. “We now have all the information we need to make our process even more impressive. We can do costing more accurately. We can plan and divide each job based on the project timeline. We get section-based complete deliveries that reduce installation time and eliminate waste. This also means that our fitters don’t have to waste time walking round looking for the right part. Now we get parts in packages that are clearly marked with the section identity. We can even control our own production and send manufacturing data straight to the machines in our production plant.”

Costings that are regarded as “ballpark figures” have long been a feature of ventilation contracts. One reason has been the shortage of information caused by a lack of a complete list of materials and component plan. Another reason is that contractors have never managed to integrate this important process information into their business systems.

“This new system gives us a degree of accuracy and control that allows us to plan, control and check every stage of our process optimally,” says Erling Pålsson. “It means that we get our calculations right on every single project – regardless of the type of contract – which benefits us, our customers and our suppliers. Now we can shift our attention to the bigger picture and always make the choices – in terms of products, delivery and installation – that give us the best and most economic end delivery. I’m absolutely convinced that this makes us even more competitive.”

Erling Pålsson (right), founder and partner in Sydtotal, is more than satisfied with the new process solution that Lindab has helped create.

Björn Broberg (left) product manager for Lindab IT solutions in the Ventilation business area, was responsible for the system administration and adaptation work behind the solution.
Big new contract for Italian fair

The Roman Forum, Coliseum, Trevi Fountain and the multitude of restaurants, bars and shops in Rome are not its only attractions. It is also very much the commercial and industrial centre of Italy, as well as a leading venue for trade fairs. The new exhibition centre – Nuova Fiera di Roma – is the latest phase in a process that actually began back in 1953 with the opening of Rome’s first exhibition centre at Via Cristoforo Colombo. In order to offer more modern and spacious exhibition premises with good facilities and easy travel access, a total of 14 new exhibition halls have now been built in a completely new district of the city close to Rome’s major motorways. When the second phase is completed in 2009, the airy and elegant exhibition complex designed by architect Tommaso Valles will comprise 22 exhibition halls with a total expo area of 186,000 square metres, as well as service buildings and offices covering a further 25,000 square metres.

“We’re very pleased to be once again involved in a big, prestigious exhibition contract. This time it’s for our customers Aertermica Sp.A. and Gruppo PSC Sp.A.,” explains Roberto Zattoni from Lindab in Italy. “For the 14 new halls we supplied the entire duct system, including silencers and fire dampers, Lindab RCW ceiling terminals for cooling and heating, as well as standard terminals.”

In spring 2005 Lindab supplied a comprehensive ventilation system for the new Milan exhibition centre. “Lindab’s delivery to Milan definitively influenced our choice of supplier for Nuova Fiera di Roma,” says Daniele Tracino, sales manager for Aertermica. “But what clinched the decision was our assessment that Lindab would undoubtedly give us the best value for money. Naturally other suppliers also submitted tenders. Their prices were roughly on a par with Lindab’s, but the big difference lay in the support that Lindab offered in the form of project management and quality assurance with CADvent, as well as providing spiral winding equipment to manufacture ducting right on the construction site.”

Deliveries for Nuova Fiera di Roma began in November 2005 and were completed in July this year. “By setting up duct manufacturing equipment on the construction site I’m sure we broke the record for just-in-time delivery,” adds Roberto Zattoni. “The handmade duct components were manufactured here in Volpiano and at Lindab’s new factory in the Czech Republic, while the RCW and other terminals came from Lindab’s factories in Denmark.”

“All the deliveries went very smoothly and were accurate and on time,” comments Daniele Tracino. “There were some minor delays with a few grille deliveries, but they did not affect us, and considering the size of the contract it all worked out better than expected. For me, the biggest advantage of having Lindab as a supplier was the on-site duct manufacturing and perfect integration between duct and terminal products. Continuously managing the project with the CADvent application gave us additional security and assurance, so from the Aertermica perspective we were very pleased with Lindab’s overall support, product quality and technical solutions.”

This was the first time Lindab and Aertermica had done business and worked together. “But we are already looking for solutions to new Aertermica projects, and as they say themselves, the entire partnership at Nuova Fiera di Roma worked superbly and we’re now looking forward to doing more business together,” concludes Roberto Zattoni with satisfaction.
Multi-Storey Buildings in steel are a growing sector for Lindab’s Astron Buildings, the market leader in prefabricated steel buildings for the European market. “Each year we select a multi-storey building as Astron MSB of the Year,” explains David Brodetsky, Managing Director of Lindab Building Systems Division (of which Astron Buildings is a part). “When we came to choose the winner for 2005, in spring 2006, there were several nice looking projects but the IPES project scored highest marks. The jury felt that the six-storey Liberty building in Gent, which has a total area of 24,000 square metres including 14,500 square metres of office space, and was built independently by IPES, our Belgian dealer, qualified for first place in a spectacular and obvious way.”

IPES and Astron Buildings have a long history of collaboration behind them. “We go back almost 20 years,” explains Thierry Storme, Managing Director of IPES (Industry Project and Engineering Systems nv), based in St.-Denis Westrem in Belgium. “Around 50 per cent of our work is turnkey contracts for outside developers, and the rest is independent contracts, of which the Liberty building is a good example. In fact we’ve sold so many Astron Buildings projects over the years that we are members of what is known as Astron Buildings’ 250,000 square metre club.” Since the company was founded in 1982 the focus has rested on the Belgian market, and particularly the area in and around Gent. “The average building area for a typical IPES project is between 3,000 and 10,000 square metres, which means that the Liberty project was a little out of the ordinary, both in area and the number of floors. When we build independently, as in this case, it is always office projects, which we then lease out to one or more tenants. Contracts for other developers consist mainly of warehouse buildings and distribution premises.”

The fact that the Liberty building is close to one of the city’s motorways is no mere coincidence. “When we acquire land for development, access to transport routes is extremely important since it increases the value of the investment we make,” adds Thierry Storme. “The location of the Liberty Building right next to a slip road meant that the solution chosen by architects Yvan de Mossevelde and Denis van Impe incorporated several round building elements, which Astron Buildings then executed very well. The second...

The glass, aluminium and granite exterior of the Liberty building has a very contemporary, international look. The entire structural steel and concrete frame was supplied by Lindab’s Astron Buildings, in the form of a prefabricated building system designed for fast construction.

An attractive fixed price, short erection time and simplified construction due to a floor system that is an integral part of the structural steel frame were the deciding factors when Belgian company IPES chose Astron Buildings as a supplier for the spectacular Liberty building outside Gent. The six-storey structure also represented a height record for Astron Buildings, and was one of the reasons it was chosen as Astron Multi-Storey Building of the year in 2005.

Steel – faster, easier, and safer
“Deliveries from Astron Buildings went as smoothly as expected and followed the agreed plan. Astron Buildings’ engineers visited the construction site regularly during the erection phase, exactly as we requested. We regard this as an important aspect of quality assurance.”

important factor that influences all our own projects – of which the Liberty building is a fine example – is styling and architecture. We always aim to locate our own projects in attractive settings and create exteriors and interiors that incorporate beautiful modern architecture. This not only makes them more attractive and brings us more business, it also gives us the satisfaction of contributing to an appealing and stimulating urban environment.” The various elements of the building interact with each other in an exciting way, and the extensive use of glass and aluminium together with the granite exterior of the rotunda have undoubtedly added to the contemporary international appeal of the building that now takes pride of place on the outskirts of Gent. The main tenant is the Danish company Esko Graphics, which uses the building as its European headquarters.

When the plans for the Liberty building began to take shape, IPES had its sights set right from the start on using Astron’s Multi-Storey Building System. “It seemed to be a perfect opportunity to test their MSB system, but we naturally invited tenders from other suppliers as well,” adds Thierry Storme. “Astron Buildings’ fixed price tender, clear terms and carefully planned solution met all our requirements for cost, aesthetics and efficient construction. Whether we’re building for ourselves or for an outside developer a guaranteed final price gives us less uncertainty and added security. The deal itself was also completed at a time when steel prices were shaky, so the fixed price was very appealing, especially considering the price was five per cent below our budget.”

Astron’s MSB system ensures a very short build time, which in turn means early occupancy. The frame consists of prefabricated steel beams that are quickly joined together on site. The Liberty building took advantage of Astron Buildings’ Inodek system, which consists of prefabricated concrete floor panels that slot into I-beams to give a span of up to 7.5 metres. “This simplified fire prevention work on the structural frame considerably, but most importantly, because the structural floor panels add so little to the height they provide plenty of space for all the installations in the ceiling voids. The Inodek system also gives you the freedom to move or remove internal walls as tenants’ needs change.”

The project commenced in May 2004 and the first tenants were able to move in in June 2005. Delivery of Astron’s MSB system took less than three months, once the foundation work and construction of the concrete car parking facilities were completed. “The steel frame was erected in several locations at once on the relatively large building site,” explains Stefan Sergeant, project manager, who had been involved since day one. “This meant that erection went quickly, but also required careful coordination between the various construction teams and a very reliable delivery schedule. Deliveries from Astron Buildings went as smoothly as expected and followed the agreed plan to the letter. Astron Buildings’ engineers visited the construction site regularly during the erection phase, exactly as we requested. We regard this as an important aspect of quality assurance.”

Thierry Storme describes Belgium as primarily a market for concrete, but sees big growth potential for steel-based building systems with concrete decks. This is particularly true of the type of project represented by the Liberty building. “We now have several new development projects on the cards and when the first becomes a reality, Astron’s MSB system will be an excellent candidate for the frame and building system contract. Our good long-term relationship with Astron Buildings and the assurance and know-how they offer also bode well for the future. Perhaps we will soon be members of their 500,000 square metre club!” concludes Thierry Storme.

Astron’s Inodek system is a quick-build floor system with low intrinsic height. Spans of up to 7.5 metres create flexibility and openness in room layout and permit simple fire protection with few protection points. The low building height and lack of intermediate columns offer freedom of layout and simplify installation in ceiling voids.
Den Brune Kødby is an area with a very colourful past. Situated in the heart of Copenhagen, it was the site of the city’s new slaughterhouse area in the 1870s. Animals were brought here to feed the constantly growing population of the capital. Hundreds of thousands of cattle passed through Oshallen, Twillinghallen, Kalvehallen and the other buildings until the slaughterhouse trade was closed down in 1934 and transferred to new premises outside the city centre. For the rest of the twentieth century Den Brune Kødby was used by small-scale industry, but now the time has come for culture to take its place, this time in the service of children and young people.

Since summer the Copenhagen School of Music has made its home in the stable building where calves once awaited their fate. “The Music School has lived a roving life over the years and been housed in many different premises, some less suited to music activities than others,” says Ebbe Lund Nielsen, conductor at the School of Music in Copenhagen. “When it became clear that our new home was to be in Kalvehallen we were all very pleased. Especially as the building and architecture would be adapted to suit our high standards of acoustics and soundproofing, and the indoor climate would be appropriate for the expensive instruments and the people who would spend their time there. Now the transformation of Kalvehallen is complete and this fine old building now houses a totally new music hall, with its double-arched shape that bursts through the roof and boasts of new and exciting activities inside.”

The architectural design was the work of Kant Arkitekter.

“Our new music building is without doubt a dream come true,” continues Ebbe Lund Nielsen. “The big central music hall has space for up to 300 people, and the twenty or so large and small practice rooms that line the exterior walls of the building are all ideally equipped for our activities. Every room is so well soundproofed that a rock group can play in the room next door to a string ensemble without either disturbing the other.” Such strict acoustical requirements steered the design of the ventilation system to a very large extent.

The acoustic and performance requirements that were set for the system at the procurement stage were almost impossible in our eyes,” says Frank Just Larsen from Lindab, who was in charge of the ventilation project at the School of Music. “Especially when the consultant proposed mixing ventilation as the main principle for the system. With our long experience of indoor climate control we were able to say straight away that this type of system – and the fittings that were originally specified – would not satisfy the Music School’s requirements for noise level, air speed or VAV operation. But even impossible problems have solutions, and the one we suggested is now installed in these premises.”

Lindab’s solution is based instead on a displacement system, with all the equipment housed in a climate control cabinet. “It has a displacement terminal that spreads cooled supply air at low speed out into the room. This forces the warm, stale air upwards so that it can be drawn away by the exhaust air terminal at the top of the cabinet,” explains Frank. “But the cabinet also houses circular silencers, a silenced plenum box and two VAV terminals.” Testing was carried out in the usual way at Lindab’s laboratories in Farum, and gave excellent results. “We gradually managed to convince everyone involved that our solution was the best possible answer to the ‘impossible’ problem of supplying fresh air and meeting the very demanding noise limit

Every room at the Copenhagen School of Music “floats” on insulation, has no parallel internal surfaces and has an acoustic attenuation of around 75 dBA between rooms. “The goal was to give the rooms good acoustics and avoid the conduction of noise to adjacent rooms,” explains Ebbe Lund Nielsen, conductor at the School of Music. “Although it’s not fully adjusted yet, Lindab’s ventilation solution has given us the indoor climate we wanted – fresh air, practically silent and tailored for the number of people in each room.”
Solution-in-a-box Lindab-style

The climate control cabinets that Lindab supplied to the School of Music neatly solve the specified requirements for air speed, noise level and VAV operation. In each room there is a cabinet that houses the supply and exhaust air terminals, silencers and VAV equipment. These cabinets are connected to the fan rooms in the building by PVC supply and exhaust air ducts cast into the floor slabs. The largest cabinets handle an air volume of 580 m$^3$/h and the smallest 260 m$^3$/h.
If you’ve ever wondered how it feels to stand in the middle of a giant Lindab ventilation duct and feel the air stream around you, or want to see Bruce Willis gaze out of another duct, Zippo lighter in hand, and yet hastily “just another working day for Lindab”, then Lindab’s exploration centre in Haderslev, Denmark, is just the place.

The exploration centre, which opened a couple of years ago, is currently being modernised so that it can serve its intended role as a centre for training and information even better. “It’s open to contractors, consultants and architects,” explains Martin Seemann from Lindab in Denmark, “but it’s also designed for internal training. The centre’s goal is to combine information with entertainment and, through a mix of reality, multimedia, action and special effects, give visitors an understanding and sense of how Lindab’s ventilation solutions work on your bare skin.”

All the activities are controlled by a central control unit that regulates sound, light, smoke and air effects with perfect timing. “It gives a fascinating overall experience and presents many of our important products in a new and interesting way,” says Martin Seemann. “If you want to see a different side of Lindab you should come along.”

Ventilation at close quarters

In issue 2•2005 of Lindab Direct we described a campaign that the Ventilation business area is promoting all over Europe to convince customers about the benefits of Lindab’s rubber-sealed Lindab Safe duct system. An important aid to these activities was the “test box” that allowed leak tests and pressure measurements to be carried out on the two system types that customers were invited to assemble and evaluate.

“Here in Switzerland we’ve held a number of workshops where we asked installers and consultants to assemble and do tests on a rubber-sealed system (Lindab Safe) and a taped and bonded system (Lindab Vent),” reports Halvard Nyman, head of Lindab’s Swiss ventilation operations. “One customer who was totally convinced of the benefits of Lindab Safe was Herzog Haus-technik AG in Lucerne.”

Herzog Haustechnik AG employs 90 people, trains around 20 apprentices each year and has a turnover of around SFR 4 million. The company was founded back in 1937 and is a leading company with a proven track record in the HVAC field, offering everything from advice and planning to installation, servicing and maintenance of ventilation and climate control installations. “We’ve been a customer of Lindab for around 10 years,” says Erich Dürmüller from Herzog. “We naturally knew of this product before we took part in the Lindab Safe workshop, but because we thought the price was too high we had chosen not to use it until then. Lindab’s workshop changed our opinion of Lindab Safe and was the deciding factor in our decision to switch to Lindab Safe.”

The benefits highlighted by Erich Dürmüller from Herzog are greater freedom from leaks, a precise fit that permits better joints between system components and the alignment lip on large-diameter ducts. “We now use Lindab Safe in 90 per cent of our installations. We’ve not had time to evaluate how the switch from Lindab Vent to Lindab Safe affects our competitiveness, but it’s perfectly clear that we can now fit ducts faster, more accurately and give the customer a system that has less leaks and is more energy efficient,” he says. “We have a very positive view of our partnership with Lindab and our day-to-day contacts with Marcus Hurschler at Lindab AG. We find their development and testing activities very impressive and innovative, and this also applies to their delivery service. Their express deliveries in particular give us big advantages over our competitors. If we could ask for anything more it would be better compliance with Swiss standards for certain products, but that’s all.”

Inspirational Swiss Safe workshop

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**Complete solution for Maritime Directorate**

The Norwegian Maritime Directorate is the authority responsible for improving safety and environmental standards for Norwegian-registered vessels and international shipping visiting Norwegian ports. In June 2003 the Norwegian Parliament decided to decentralize and rationalize the number of government bodies, of which the Maritime Directorate was one. It now occupies spacious new 9,000-square-metre headquarters in Haugesund, which should be fully operational by the start of November.

“The entire ventilation and indoor climate system has been installed and is almost fully attuned,” says Geir Øvernes, project manager for installation with Teknisk Bureau Haugesund. “We’ve worked closely with Lindab for many years, so it was natural to choose them, especially when the solution they presented was so appropriate.”

“During a visit to Teknisk Bureau Haugesund in mid-2005 I had an opportunity to present what was then our completely new Facilis air terminal,” explains Ingvart Skogland from Lindab. “Oddmund Pedersen, from Teknisk Bureau, expressed his interest in it and told me about a new contract they had just received from the Maritime Directorate.” This was the origin of the big supply contract that included not only the complete circular duct system and 33 Facilis terminals, but also CAV and VAV equipment, rectangular silencers and fan cowls for the canteen, etc.

“The Facilis terminals were intended to simplify balancing and installation,” adds Geir Øvernes. “We’ve now seen that they can do this, and that the use of Facilis actually reduced the number of dampers and silencers. But before we went this far Lindab carried out a full-scale test on a Facilis set-up in Farum and said that they wanted to assist us with our CADvent specification. We sent the CADvent files to Lindab as we produced them, and Lindab carried out pressure drop and noise calculations, and made the necessary adjustments. It was a new way of working for us, but it worked so well that it could set the pattern for our future collaboration with Lindab – specifying, scheduling and ongoing quality assurance.”

At present the Norwegian Maritime Directorate is testing its system and logging temperatures, humidity, air flows, etc. “It’s an interesting process that we’re keen to follow,” concludes Geir Øvernes. “When it’s complete all the data will be recorded and documented. The comments we’ve heard so far from the client and architect have all been positive.”

**Fresh wind for Danish ventilation**

Since 1 April 2006 new buildings and extension projects in Denmark have been covered by new building regulations. The rules governing energy consumption have been tightened and draught-proofing requirements have been stiffened. All ventilation must also fall within the collective energy limits. Taken as a whole, this not only places stricter requirements on ventilation systems, but also means they must be achieved in an effective and energy-efficient way.

“The new legislation gave us a golden opportunity to turn attention on the importance of good ventilation in homes, and the fact that Lindab offers complete and effective solutions,” reports Martin Seemann, marketing manager for ventilation at Lindab in Denmark. “The availability of fresh air indoors is one of the little essentials of life. When you have it you take it for granted, but when it deteriorates, due for example to the draught-proof building methods that are now required, you soon notice it in the form of tiredness, allergies and a stale atmosphere.”

Lindab Denmark is now conducting a broad campaign aimed at dealers, homeowners and house builders. “We’ve set up our own website www.villaventilation.dk to inform people about the benefits, describe what Lindab’s home ventilation system looks like and how it works, and even give calculations of the investment required in a standard Lindab home system. I think most people would agree that an extra monthly cost of 17 Euro is a very reasonable amount for fresh air and low energy consumption,” says Martin. “We’re also trying to expand our dealer base, inviting new companies to be dealers and giving them the tools – a PowerPoint planning guide, brochu-
Successful Norwegian “facelift” for Rainline

Roof drainage systems have been one of Lindab’s flagship product lines for decades. Reaching out to new markets and consolidating and improving positions in existing markets is an important part of the Lindab Rainline marketing. The new “Give your house a facelift” campaign is Lindab’s biggest marketing initiative to date and has been very successful in the Hungarian, Czech and Polish markets. In spring 2006 it was the turn of Norway (and Sweden) to put its efforts behind the campaign. “By early 2006 we were able to present a very complete and attractive campaign package to our dealers and builders,” says Dan Inge Rolland, head of the Profile business area in Norway. “We had national advertising in the daily press and trade press, 230 TV advert slots on the Discovery channel, an extensive range of brochures and in-store materials, and our own website (takrenner.no) to attract dealers.”

The response was very positive. “The dealers welcomed the campaign with open arms,” says Trine Larsen, who was responsible for much of the practical work of adapting the campaign for the Norwegian market. “We sold 80 per cent more campaign packages than in spring 2005 when we offered a more ‘standard’ campaign package. The 2006 package covered a basic range of guttering, down pipes and components, plus of course access to all the available campaign material and clear references to all 95 participating dealers.”

Seen over an annual perspective, Lindab in Norway expects at least a 10-per-cent rise in Rainline sales. “This campaign definitely strengthened Lindab’s position in Norway, both with our dealers and with consumers. As one of our dealers put it: ‘At last someone is doing something for roof drainage’. The satisfying part is that it not only means a ‘facelift’ for houses that now have new roof drainage; it’s also meant a facelift for our dealers’ businesses, which is of course an important aspect of this work,” concludes Dan Inge Rolland.

First Finnish building contract

Since spring 2006, Lindab in Finland has had a new group of products to offer the domestic market, in the form of Lindab Building Systems – commercial and industrial buildings and building systems in steel. “There are no other foreign companies at all in this sector of the Finnish market,” reports Hannu Ilpoinen, “and because we can offer product systems that have an excellent reputation and also comply well with Finnish standards, we felt it was time to start marketing Lindab Building Systems here as well.”

For the past eight months or so LBS has been marketed in Finland under the guidance of Joakim Joona, project manager for commercial and industrial building sales in Finland. “We signed agreements with a number of dealers,” he says, “and we’ve already received several orders.”

The very first building contract was for farm owner Rabbe Lindros. The building, on the Kimitö archipelago, is now complete and is used for drying grain. “The frame was erected in next to no time by a company called THY, and the customer then fitted the Z-beams for the walls and roof, covered them with Lindab HB polyester-coated sheeting and installed the other components,” adds Joakim Joona. “We’re already seeing growing demand, and with the benefit of the Lindab brand in the Finnish building market I think there are good prospects for favourable sales growth.”

Building system and ventilation for Japan

We all know that Asia sells more products to Europe than Europe sells to Asia. So how do you fill all the empty freighters that head back east? “The CasaBona system works just as well for building homes in Japan as it does in Europe,” says professor Gudni Jóhannesson at the Royal Institute of Technology in Stockholm, who developed the system. “Because freight prices to Asia are attractive, Staalhe Company Ltd in Gifu City, Japan, is now trying out the system on a housing project.”

CasaBona is a building system we have reported on previously. It uses an integrated construction system for the prefabricated roof and wall elements, in which sheet metal profiles made by Lindab are an important component. The delivery includes frames and sheet metal outer wall and roof profiles, as well as duct systems and chilled beams from Lindab.
Lightweight construction system for Skåne’s third tallest building

Malmö has its Turning Torso, which is of course the tallest apartment block in Sweden. But the municipality of Höneganäs is not far behind, since, at 15 storeys high, the new Jefasthuset in the Vesta block will actually become the third tallest building in southern Sweden. “Erecting such a tall building in a relatively low-built setting has naturally sparked some reactions,” says Jonas Bildtgård, who is supervising the project for NCC. “Many people, including myself, believe that this building will become just as popular in Höneganäs as the Turning Torso has been in Malmö. In fact all 38 apartments have already been let,” Jefasthuset has a very attractive location right next to Höneganäs port and beach area, with spectacular views across the Öresund and Kullahalvön peninsula.

Lindab used its new IT application, Lindab ADT-tools, to specify all the exterior walls. “We’re supplying section-marked studs and components together with element drawings on an ongoing basis,” reports Mattias Pettersson, a technical salesman with Lindab. “With the aid of this information, NCC’s carpenters are building curtain wall elements on site that consist of 145 mm studs with cross-laid internal insulation.” Lindab is also supplying the framed roof, as well as zinc sheet for the exterior wall elements and all construction components, rainwater systems and sheet metal roofing.

“Using lightweight construction was a natural choice for us as we’re familiar with it. It also means we’re not dependent on the weather,” adds Jonas Bildtgård. “Since we’ll be finishing the building work this autumn it’s very important that we don’t build in a load of moisture. We avoid that problem entirely by using steel.”

The drawings from ADT Tools and the labelled deliveries have kept production running smoothly for NCC. “With 30 different types of elements, Lindab’s drawing service has been very valuable to us. Fast assembly and clearly marked reinforcement points have made things easier for our carpenters,” concludes Jonas. “Every delivery from Lindab has matched our delivery plan, we got the support we needed from Mattias and Lindab’s engineers, and overall we are completely satisfied with Lindab’s efforts. Throughout the build Lindab has also come up with new detail solutions that have saved us time. Naturally, that’s something we appreciate!”

Production line walls

There is no doubt that Lindab’s new ADT Tools application has got off to a good start. “When Göteborgs Egnahems AB decided to build 44 energy-efficient homes in the shape of 12 link houses and five terraces at Bottnevägen, in Torslanda, the wall and roof construction was one of the first areas we looked at,” report Christer Lachonius and Lennart Carlsson from Lindab, in Hisings Backa. “Early on we managed to convince the building contractors, Kungsbäcka Byggnads AB and Ivar Kjellberg AB, to choose steel this time, even though they had previously built a similar development with internal and external walls from timber. We were able to present a complete solution that included section-marked deliveries as well as complete section drawings produced with our new ADT Tools software.”

One of the reasons for choosing steel was that Göteborgs Egnahems AB wanted to evaluate the use of steel as a building system – to assess aspects such as production time, total cost, methods, energy consumption and quality. When Bottnevägen is complete, by the end of the year, it will be possible to compare steel with timber.

“We’ve already been able to establish that the combination of site-built wall sections and subsequent fitting works very smoothly,” says Christer. “Steel also eliminates all the problems with moisture and mould.”

The only source of heating the apartments have is underfloor heating in the bathroom, but then the outer walls are almost 450 mm thick. “We assemble the wall sections, which measure up to 40 square metres, on site. We actually assemble them on a big table on wheels, which thanks to the ground gradient is easily rolled out when the sections are complete,” explain Niklas Bergström and Henrik Johansson, who have manufactured around 100 elements so far. “The sections are then lifted on to a trailer, driven to the building site and lifted into place using a mobile crane. Effectively we have a production line for house construction on the building site. With Lindab’s clear drawings from ADT Tools and deliveries of labelled, ready-cut studding for each individual element, it’s like putting together Meccano. It couldn’t be easier!”
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