



WELCOME TO STEELCON

Steelcon

No. 1 in chimneys



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CUSTOMERS FIRST



Putting our customers first has been the key factor in Steelcon becoming the largest supplier of factory made steel chimneys and steel towers for the EU market and other chosen markets in the world.

It is Steelcon's vision to deliver a high-quality product that is the best one available on the market – right from the first contact with the customer until the finished product has been delivered.

Steelcon do not only deliver a product, but a total solution consisting of:

- advice
- construction
- production
- calculations
- project progress
- delivery and erection

and through providing an efficient service ensure that Steelcon's customers get value for money.

We have delivered more than 5,000 steel chimneys all over the world, and therefore Steelcon's total concept is unique within the industry. We have found solutions to complicated technical projects under very different conditions all over the world.

Steelcon offer to our customers superior quality achieved through flexibility and motivation among Steelcon's employees with extensive knowledge within the steel chimney industry.

Welcome to Steelcon

A handwritten signature in black ink, reading "Peder Møller Andersen". The signature is written in a cursive, flowing style.

Peder Møller Andersen
Managing Director



COMPANY PROFILE

ESBJERG

Steelcon's steel chimneys are mainly manufactured in our ultra-modern factories in Esbjerg

Steelcon is the leading manufacturer of factory-made steel chimneys. Since 1981 we have designed, manufactured and erected more than 5,000 steel chimneys for satisfied customers. We have gained unequalled experience and knowledge from these projects. Therefore, proof of our skills and professionalism are supported by references from our many satisfied customers who have required superior quality, fixed terms of delivery and service.

Steelcon's head office is situated in Esbjerg on the West Coast of Denmark. Here our highly trained staff of competent engineers and technicians is ready to solve any problems regarding your steel chimney from a height of 10 m to a height of 130 m.

We continue to take full advantage of our immense experience with a development department that includes some of the most recognised experts within the steel chimney industry. Here technological innovations are added to proven constructions providing our customers with the most up-to-date solutions as to design and technique at the most economic price.

Steelcon's steel chimneys are produced in our ultra-modern factories where a staff of skilled and competent platers, welders and fitters ensure that our engineers' lay-outs are converted with good workmanship into a quality product.

To complement our head office, Steelcon have built up a marketing- and sales network on various markets. Among others we have today our own offices in all the EU countries as well as representatives in the Middle East, the Far East, Australia etc.

From these offices we not only sell our products, but we also advise our customers – an aspect to which Steelcon gives top priority.

Included in Steelcon's programme are solutions for all fields of industry and for every requirement for factory-made steel chimneys. Our products are intended especially for energy- and environmental stacks used within the industry, for power-, incineration-, and district heating plants and cement works, and also for the chemical- and petrochemical industry as well as paper- and steel industry.

Each steel chimney is designed according to the customer's special requirements and demands, and the design is based on the national standards in force and the project specifications. Steelcon's engineering department develop steel chimneys according to various principles of construction of which the following are the principles we use most frequently:

SOLUTIONS FOR EVERY PURPOSE

■ Freestanding double walled steel chimneys with a statical structural shell with a flue gas leading insulated liner

This solution is technically good, due to the separation of the structural external shell and the flue gas leading insulated liner. Furthermore it is possible to choose from different types of materials, dependent on the flue gas composition and temperature. This solution can be extended with more liners with outlets from more boiler plants. The external shell can be given a surface treatment according the customer's wishes.

■ Freestanding double walled steel chimneys built together according to the customer's wishes and requirements when the customers need outlets from more boiler plants

This solution is an architecturally good solution that includes many individual variations of design.

■ Freestanding single walled steel chimneys made of different materials dependent on the use

These chimneys are mainly used as ventilation chimneys for ventilation systems and as towers for mounting of antennae for the telecommunication industry.

■ Insulated steel liners to be mounted into existing or new-built brick- and concrete chimneys

By means of this solution, an existing brick- or concrete chimney can be made environmentally correct.

■ Noise absorber for building-in into the chimney or into ductings

The noise absorbers are designed according to the demands of the authorities to control noise; they are made as round pylon dampers or baffle dampers

■ Ductings made as a total solution

We design and supply ducting including support, compensators, dampers, noise absorbers etc. Furthermore we offer the insulation and cladding to be included in the total package



Production

In Steelcon's factories we manufacture according to ISO 9001 and Certificate Class E DIN 18800-7, DIN 4133. Approved since 1995 according to the Miljøbeskyttelsesloven (Danish law of Environmental Protection) and awarded with an Environmental Diploma from the Dansk Miljø Netværk (Danish Environmental Network). The production facilities in Denmark include two workshops with a total space of 3700 m² and in addition the possibility of manufacturing with Steelcon's fabrication licensed partners in different locations of the world.



Quality test

Steelcon use up-to-date test- and control systems for the raw materials, sub-supplier production, own production and erection. We attach great importance to comprehensive documentation of the work we carry out.



Assembly and erection

Steelcon have our own erection staff who have specialised in erection of Steelcon's steel chimneys under many different conditions all over the world.

The erectors attend currently safety courses and are holders of among others the Safety Passport CCNSG.

STEEL CHIMNEYS

FAR UP

Steel chimneys with height from 10 m to 130 m and experience from several thousand stacks – this is Steelcon's large experience platform which we gladly share with our customers.

On the next pages we present a number of selected references, and we would like to inform you in details about these projects.



OUR REFERENCES

A whole world with Steelcon

We are everywhere: from Greenland in the North to the southern point of Africa – from Australia to Siberia. All over the world you can see Steelcon's steel stacks for different energy- and environmental plants used within the industry, for power-, incineration-, and district heating plants and cement works, and also for the chemical- and petrochemical industry as well as paper- and steel industry.

Steelcon contributes to a cleaner world.

Lakeside England

Lakeside is an interesting project including 3 steel chimneys each 75 m high and linked together in triangular plan formation surrounded by thirty-nine 10.5m diameter tubular rings to form the louvered appearance required by the project architects.

Type of plant:	Waste incineration
No. of chimneys:	3
Chimney height:	75 m
External diameter:	2300 mm
Internal diameter:	2000 mm
Liner material:	Corten steel





Antwerp Belgium

For a modern newly built environmentally acceptable incineration plant in Belgium we have delivered a steel stack consisting of 3 steel chimneys; they are built together and equipped with a closed measuring platform.

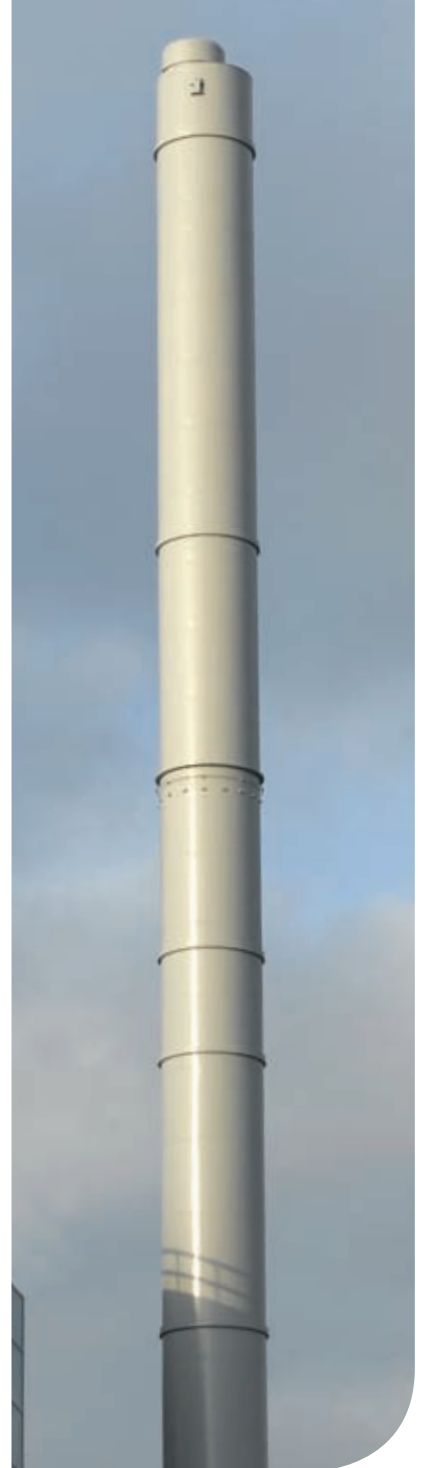
Type of plant:	Waste incineration
No. of chimneys:	3
Chimney height:	50 m
External diameter:	2250 mm
Internal diameter:	2000 mm
Liner material:	Glass fibre



Hamburg Germany

When paint is to be applied to the huge Airbus A380 it is carried out by Deutsche Airbus in Hamburg. This is where Steelcon have mounted 9 steel chimneys for the largest painter's workshop in the world.

Type of plant:	Ventilation
No. of chimneys:	9
Chimney height:	48 m
External diameter:	2900 mm
Internal diameter:	2700 mm
Liner material:	Stainless steel



Kolding Denmark

The fact that the incineration plant in Kolding needed a new kind of cleaning of flue gas also meant that they needed a new 60 m high steel chimney equipped with an internal ladder and lighting.

Type of plant:	Waste incineration
No. of chimneys:	1
Chimney height:	60 m
External diameter:	2500 mm
Internal diameter:	1500 mm
Liner material:	Corten steel



Florö Norway

The above 70 m high steel chimney has been manufactured for a factory producing fish feed; the factory is situated in Florö north of Bergen. The purpose of the new chimney was to eliminate odours from the factory. The chimney has been painted with 3 different colours. Steelcon is also able to deliver a solution with an artistic choice of colour according to the customer's special demands.

Type of plant:	Ventilation
No. of chimneys:	1
Chimney height:	70 m
External diameter:	2500 mm
Internal diameter:	2200 mm
Liner material:	Corten steel



Runcorn England

Steelcon have delivered three steel chimneys each 50 m high for a new boiler house of a chlorination plant in Runcorn close to Liverpool. The steel chimneys were transported by ship to Immingham where nine lorries transported the chimney sections further on to Runcorn. Three of Steelcon's erectors installed the chimneys in less than a week.

Type of plant:	Chemical plant
No. of chimneys:	3
Chimney height:	50 m
External diameter:	1900 mm
Internal diameter:	1700 mm
Liner material:	Corten steel



Waterford Ireland

Steelcon have delivered an 45.5 m extension to an existing steel chimney of 50 m. i.e. the final result is a 95.5 m high steel chimney. Due to the large diameter, the steel chimney / extension was transported by ship, and the erection was carried out by means of a 500 tons hydraulic crane.

Type of plant:	Industry
No. of chimneys:	1
Chimney height:	45,5 m
External diameter:	4900 mm
Internal diameter:	4600 mm
Liner material:	Stainless steel



Zorbau Germany

2 built-together-steel chimneys provided with measuring platform from which there is access to filter roof.

Type of plant:	Waste incineration
No. of chimneys:	2
Chimney height:	60 m
External diameter:	2200 mm
Internal diameter:	1900 mm
Liner material:	S235



Sudan Africa

Six beautiful 29.5m high Steelcon steel chimneys have been delivered in Sudan. According to the customer's wishes, he arranged the transport and the erection of the steel chimneys. The six double-walled steel chimneys with an external-/internal diameter of 1300/1100 were transported by lorry and ship. The end customer is a diesel engine-powered power station. The chimneys are painted with red and white aviation markings.

Type of plant:	Diesel engine-powered power station
No. of chimneys:	6
Chimney height:	29,5 m
External diameter:	1300 mm
Internal diameter:	1100 mm
Liner material:	Corten steel



Cacia Portugal

We have delivered and erected the above 80 m high steel chimney and it was the third one we have delivered to the Portuguese paper industry. Out of consideration for the air traffic, the steel chimneys have been painted with red/white colours at the chimney top.

Type of plant:	Paper industry
No. of chimneys:	1
Chimney height:	80 m
External diameter:	3000 mm
Internal diameter:	2700 mm
Liner material:	Corten steel



Kwinana Australia

Steelcon have delivered the above 70 m high steel chimney to an aluminium works close to Perth in West Australia.

Type of plant:	Steel industry
No. of chimneys:	1
Chimney height:	70 m
External diameter:	1800 mm
Internal diameter:	1400 mm
Liner material:	S235



Siggenthal Switzerland

Holcim – the cement concern is also one of Steelcon's customer, and we have delivered a steel chimney to one of their factories in Switzerland.

Kazakhstan

We have delivered a new 120 m high steel chimney for a refinery in the new Tengiz oil field in Kazakhstan. The total weight of the chimney is more than 250 tons. The order for erection of the chimney was also placed with Steelcon, and our erectors installed the steel chimney that was delivered in 7 sections.

Nijmegen the Netherlands

In Nijmegen in the Netherlands, an environmentally acceptable incineration plant for domestic waste has been installed. The two built-together-steel chimneys are provided with measuring- and top platforms.

Type of plant:	Cement industry
No. of chimneys:	1
Chimney height:	100 m
External diameter:	3300 mm
Internal diameter:	3000 mm
Liner material:	Corten steel

Type of plant:	Petrochemical industry
No. of chimneys:	1
Chimney height:	120 m
External diameter:	4000 mm
Internal diameter:	3700 mm
Liner material:	Corten steel

Type of plant:	Waste incineration
No. of chimneys:	2
Chimney height:	80 m
External diameter:	2900 mm
Internal diameter:	1800 - 2500 mm
Liner material:	Corten steel



Schönebeck Germany

Steelcon have delivered a large number of steel chimneys for high-powered combined heat and power stations that are installed all over Europe. This delivery was for Schönebeck in Germany.

Type of plant:	Combined heat and power plant
No. of chimneys:	2
Chimney height:	36 m
External diameter:	2500 mm
Internal diameter:	2x900, 2x600 mm
Liner material:	Stainless steel



Redcar England

For a Corus steel works close to Middlesbrough to the north east of England we have delivered the above 120 m high steel chimney. As well as the chimney, we also delivered the ducts for two heaters with built-in dampers and compensators.

Type of plant:	Steel industry
No. of chimneys:	1
Chimney height:	120 m
External diameter:	4000 - 2200 mm
Internal diameter:	1980 mm
Liner material:	Corten steel



St. Avold France

For a combined heat and power plant in France we have delivered a 73 m high steel chimney provided with 4 flue gas leading liners for 4 boiler plants.

Type of plant:	Combined heat and power plant
No. of chimneys:	1
Chimney height:	73 m
External diameter:	2600 mm
Internal diameter:	4x850 mm
Liner material:	Stainless steel

SERVICE

FAR AHEAD

Steelcon are with you all the way making available our competent and impartial advice concerning service requirements on steel chimneys. Through regular, systematic inspections, the stability and the condition of the steel chimney will be revealed. Even the most solid steel chimney will be influenced by the weather conditions and environmental exposure, and corrosion might occur; however, using information gathered any maintenance or repair can be carried out to coincide with scheduled plant shutdowns assuring expensive non-scheduled shutdowns are avoided.



WE ASSIST YOU – ALL THE WAY



SERVICE

Further to a professional visual inspection, each inspection also includes ultrasonic measurements and photos as well as an estimation of the stability of the steel chimneys. The information will be included in a detailed report. Together with the report, the customer will receive our proposals for any necessary repairs, surface treatments, and maintenance. Steelcon are specialised in these areas of work also.

The report describes the inspection of the structural part and the flue gas leading part of the steel chimney. During the inspection,

the base part, shell, ladder, platform, surface treatment, flange connections and emission sampling ports are examined.

The inspection of the flue gas leading part includes the liner bottom, flue gas inlet and top. The inspection can also be extended by means of a man basket by which the inspector can be lowered down inside the liner.

Further to the inspection and repairs of the steel chimney, we also offer you the following services:

■ Statical calculations

If the shell thickness of the steel chimney is significantly reduced due to corrosion, we recommend to carry out a new statical calculation based on the results of the ultrasonic measuring of the inspection. It will then be determined whether reinforcement of the shell should be necessary.

■ Repainting

After a number of years, surface corrosion might occur on the steel chimney which can lead to severe corrosion later on. Minor damages can be repaired, however, if corrosive attacks have been discovered on larger areas we recommend to repaint all surfaces of the steel chimney.

■ Antennae for telecommunication

Steelcon offer to carry out control calculations of existing steel chimneys for the preparations and mounting of antennae. Details of deliveries in Europe of more than 5,000 steel chimneys are available in Steelcon's database.

TOWERS

Steelcon design special slender tower constructions according to the customer's requirements



OUR REFERENCES

Steelcon offer our customers tower solutions according to their requirements such as:

- Towers for telecommunication
- Advertising pylons
- Chimney – towers for telecommunication
- Flare stacks

Steelcon deliver a total solution including:

- Design
- Project progress
- Calculation
- Fabrication
- Construction
- Delivery and erection

Easington England

For a refinery in Easington we have delivered a flare stack. The flare stack is made of stainless acid resistant steel according to the customer's requirements and Steelcon's design.

Type of tower:	Flare Stack
No. of towers:	1
Tower height:	45 m
External diameter:	1500 mm
Internal diameter:	20" - 14"





Fårup Denmark

An order for delivery of a tower for telecommunication was placed with Steelcon; it had to be made as a tower with a smooth surface. The tower is equipped with an internal ladder making access to the top possible. Furthermore, the upper approx. 20 m is of a lattice construction with a glass fibre cover mounted around the construction in order to hide the antennae.

Type of tower:	Design tower for telecommunication
No. of towers:	1
Tower height:	50 m
External diameter:	1650 mm



Kolding Denmark

We have developed a steel chimney with an additional function, i.e. as tower for telecommunication. The chimney-tower for telecommunication has been designed in a way that makes it possible to cover the antennae by means of glass fibre rings which have the same colour as the structural shell.

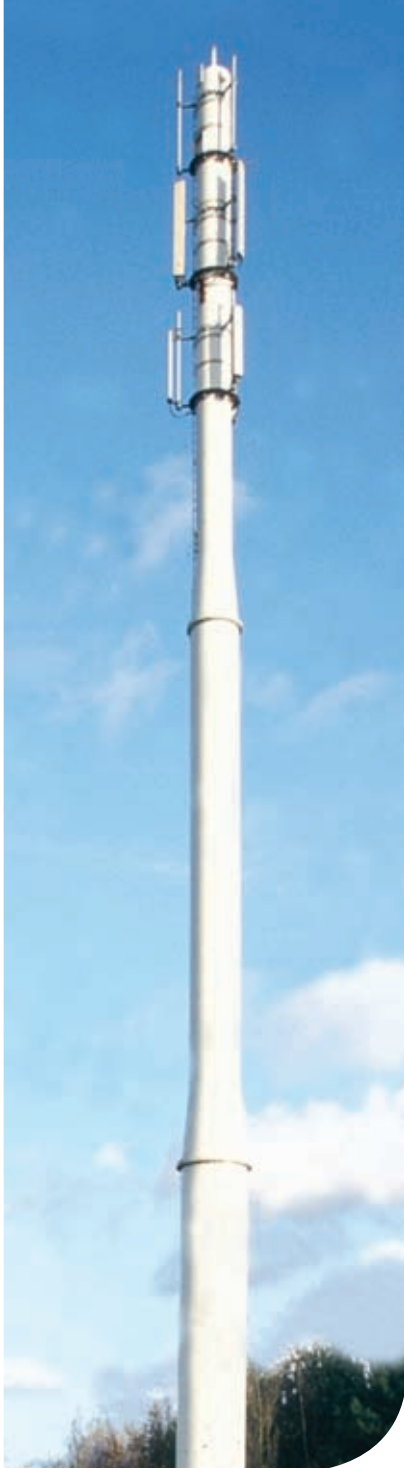
Type of tower:	Chimney tower for telecommunication
No. of towers:	1
Tower height:	24 m
External diameter:	2100/1300 mm



Felsberg Switzerland

We have delivered more slimline pylons for telecommunication at Sunrise in Switzerland. They have been designed as slender as possible in order to fit into the environment. Above: slimline pylon in Felsberg with the Alps in the background.

Type of tower:	Slimline tower for telecommunication
No. of towers:	1
Tower height:	34 m
External diameter:	1050/710/355 mm



Flemish Highway Belgium

Steelcon have delivered 40 slimline pylons for the Flemish Highway Telecommunication Project in Belgium. They have been erected along the highways in Belgium.

Type of tower:	Slimline tower for telecommunication
No. of towers:	40
Tower height:	42 m
External diameter:	1600/1220/914 mm



Kolding Denmark

The demands made on the architectural appearance of the pylons are becoming greater, especially in city areas, where the need is to disguise that the pylons are for telecommunication purposes. This pylon type has been developed in a way that makes it possible to cover the antennae behind plates made of acrylic. For this pylon type it is possible to choose from all the standard RAL colours.

Type of tower:	Design tower for telecommunication
No. of towers:	1
Tower height:	35,5 m
External diameter:	900/355 mm



Advertising pylon Germany

Steelcon has also delivered pylons to be used for advertising purposes, i.e. advertising signboards can be mounted onto the pylon. Above: a 40 m high advertising pylon mounted at a highway in Germany.

Type of tower:	Advertising pylon
No. of towers:	40
Tower height:	35,5 m
External diameter:	2550 mm

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