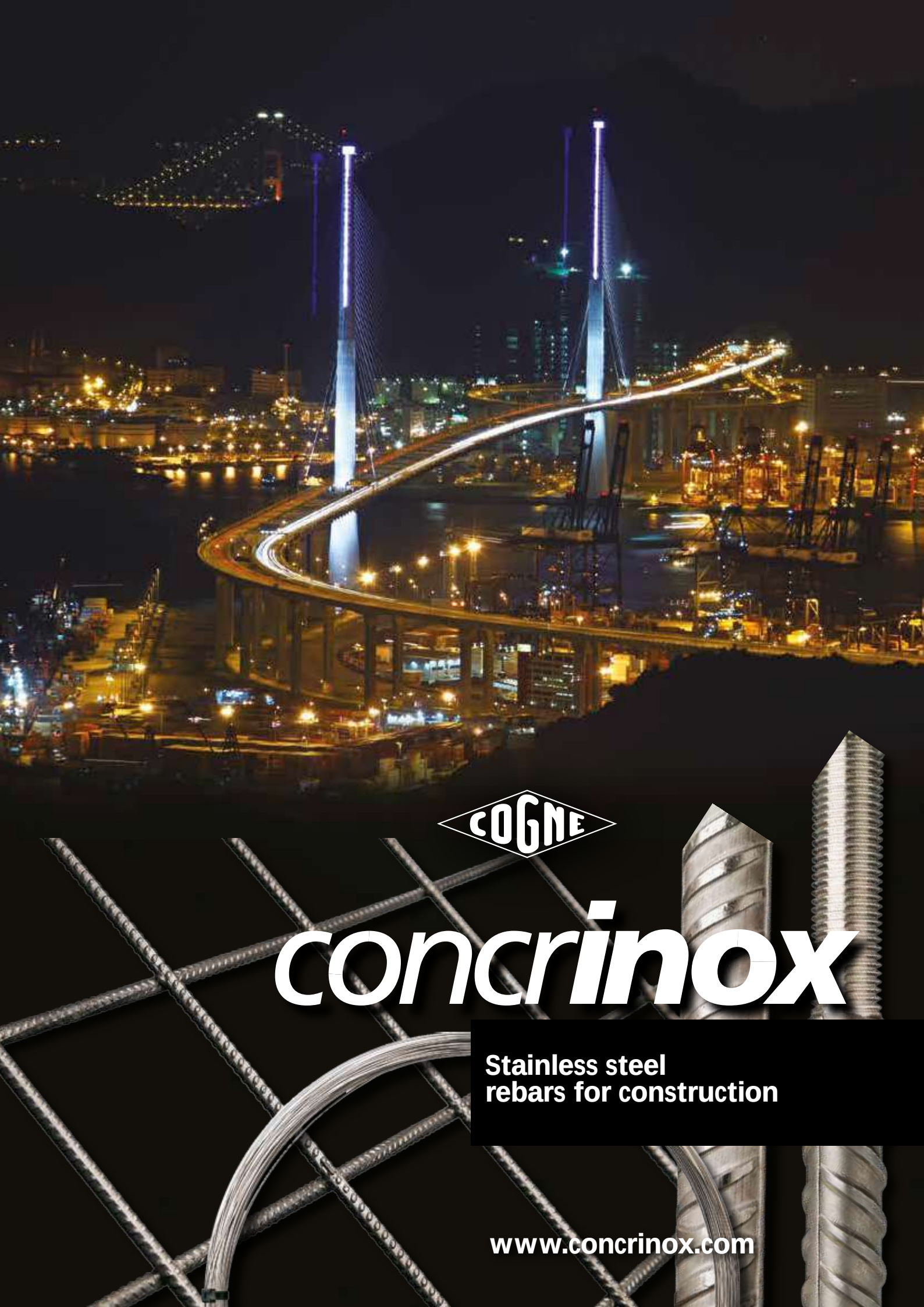

COGNE
concrinox
Stainless steel
rebars for construction
www.concrinox.com

Hong Kong's Stonecutter cable stay bridge is open!

Spanning 1018m over the Rambler Channel, the bridge is a strategic link for the airport and the container terminal, both of which are amongst the busiest cargo facilities in the world. **Cogne Acciai Speciali** was instrumental in supplying the stainless steel bar for the structure. Nearly 4000T of grade 1.4301 and 1.4462 stainless reinforcement and smooth bar were supplied by Cogne A.S. for the bridge structure. Stainless steel reinforcement was utilized in the outer 300mm of any part of the exposed concrete piers, using full strength coupling systems effectively producing a continuous bar from the foundations to the road deck level. **This was the world's first application of the 50mm diameter stainless reinforcement.**
A requirement for the bridge designed by Arup was that all the reinforcement material should be CARES approved, Cogne A.S. worked tirelessly to provide a full CARES approved system of couplers and bars for this structure.

Concrinox

The Worlds second longest Cable stay Bridge is open!

At the time of construction the newly opened stone cutter bridge was the longest cable-stay bridge in the world, it links the new Honk Kong International airport to West Kowloon. Should you have any requirement for stainless steel Cogne Construction Products, they are available throughout the world, please contact your local sales office.

Exposure condition	Steel designation
Stainless steel reinforcement in pre-cast structures, with no possibility of concrete deterioration that may result in exposure to increased chloride levels or carbonation	1.4003 *
Marine or bridge structures permanently submerged and where the reinforcement is permanently covered in concrete	1.4301
Marine or bridge structures either partly submerged or experiencing cyclic wetting/drying (e.g. in tidal zones) and where the reinforcement is permanently covered in concrete	1.4301
Stainless steel reinforcement embedded in concrete with normal exposure to chlorides in bridge structure soffits, edge beams, diaphragm walls, joints and substructures	1.4301
As above, but where additional relaxation of design for durability is required for specific reasons on a given structure or component i.e. where waterproofing integrity cannot be guaranteed over the whole life of the structure	1.4362 1.4436
Specific structural requirements for the use of higher strength reinforcement and suitable for all exposure conditions, for example dowel bars, holding down bolts and other structures protruding from the concrete	1.4462

Where stainless reinforcement is used, see EN 1992-1-1(2004) for information on relaxation of concrete cover.

* **Supplier must ensure that this steel type is fully passivated before use in pre-cast concrete**

The partial table from BS 6744 shows how, with the careful selective substitution of carbon steel with stainless steel it is possible to increase the service life of a structures whilst reducing the required concrete cover, hence reducing concrete cost, weight and also permitting more elegant shapes to be constructed.
In line with our commitment to international market Cogne hold certification and produce our products to a host of international standards, such as BS6744, ASTM 995A, DM 09/01/1966, and many more, the internationally recognised reinforcement certification authority CARES have also approved the full range of Concrinox, both for manufacture and also for the processing of stainless steel reinforcement.

identification

CONCRINOX

Hot-rolled bars

The rebar produced By Cogne Acciai Speciali are marked according to the Italian and European norms EN 10088/94

Cold drawn bars

Cut & Bend to your requirement with Cogne reinforcement Cut & Bend line

Stainless steel and concrete an ecological partnership

The superior performance of concrete with stainless steel reinforcement has been proven with long term structures in severely corrosive environments for over 70 years. In these times of ecological awareness, it is important to construct for the future. Exceptional service life is provided by the careful "selective substitution" of stainless steel reinforcement in place of the ordinary reinforcement, particularly in the critical and difficult to maintain areas of a structure. Stainless steel reinforcement is specified all over the world because of its superior performance.
Produced by Cogne Acciai Speciali, Concrinox performance is typified by:

- > High corrosion resistance and durability
- > Superior ductility and energy absorption in seismic situations
- > Low magnetic permeability
- > Superior cryogenic performance
- > High strength at elevated temperatures and excellent fire resistance
- > Outstanding machineability
- > Easy welding

For over 80 years Cogne Acciai Speciali has supplied the full range of stainless steel grades in Long Products. Our experience, combined with an established R&D facility, is at your disposal, to assist in the construction of the most effective structures. We are always ready to help project managers and designers to choose the most appropriate material for any specific application, providing the best pre-and-after sales technical assistance and support.
Shown opposite are some applications in which the Cogne stainless steel construction products have been used: Bridges, hospitals, Ports and Harbours, Flood protection, Liquid Natural Gas storage, Nuclear power stations, Military structures, Structures in Seismic regions.
Concrinox stainless reinforcement is provided in standard bars lengths of 3, 6 and 12m or cut & bent to meet the needs of your contract. Diameters available range from 3 to 50mm, in all the standard sizes (please note some sizes and grades may be subject to a minimum order quantity). We also provide material in coil form, for processing directly on your own link bender.
The standard grades of reinforcement are available for each corrosion environment, as proposed by the European committee for Reinforcing in the draft standard for stainless steel reinforcement, EC019025 and BS6744.
Careful selective substitution of carbon steel in conjunction stainless steel increases the service life of a structure. It enables reduction of the required concrete cover, hence reducing concrete cost, weight and also permitting more elegant shapes to be constructed.
In line with our commitment to the international market Cogne hold certification and produce our products to a host of international standards, such as: BS6744, ASTM 995A; DM 09/01/1966 and many others. The internationally recognised reinforcement certification authority CARES have also approved the full range of Concrinox, both for manufacture and processing of stainless steel reinforcement. For an increase in durability and structure longevity, combined with significant reductions in repair, maintenance and downtime costs as well as the long term beneficial effects within its environment – the answer must be Cogne Acciai Speciali and Concrinox.

In accordance with the ministerial decrees D.M. 09/01/1996 and 16/01/1996, Cogne Acicai Speciali's for building application are certified by the Section "Scienze della Costruzione e Geo-struttura" of the "POLITECNICO DI TORINO"

RESISTANCE TO CORROSION AND SUPERIOR DURABILITY

Bridges

Bridges, Giudecca island (Venice)

Surtees Bridge,
A66 over the Tees in Middlesborough

RESISTANCE TO CORROSION AND TOUGH IN LOW TEMPERATURES

Ports, docks, industrial plants

Bideford Quay 3000 M24
anchors installed to hold slabs

REDUCED COVER AND ELEGANT STRUCTURES

Viaducts

Highway Torino-Bardonecchia (Fréjus)

M3 Junction 4 viaducts refurbishment
(approximately 40 tonnes of 1.4301 Stainless steel)

Highway Torino-Piacenza

SUPERIOR FIRE RESISTANCE AND HIGH FATIGUE PERFORMANCE

Tunnels and road network

S. Angel Airport (Treviso)

Renovation and adjustments of the motorway section
Soulx-Bardonecchia (Turin)

State road 18 Naples – Reggio Calabria

Fast flowing traffic road eastwest, Palermo city

M3 Bridge refurbishment - UK

NONMAGNETIC

Hospitals, airports

C.A.T. room and magnetic resonance,
Buccheri Hospital (Palermo)

Operating rooms

Control Tower (Newcastle airport)

ENVIRONMENTALLY FRIENDLY

Environmental projects

Epinel Residential Complex,
Cogne (Aosta Valley)

Mountain refuge Chaligne (Aosta Valley)

HIGH PERFORMANCE IN EARTHQUAKES

Architectural ties and new construction

Giubileo Church (Rome)

San Giacomo Palace (Naples)

Pirellone (Milan)

Town Hall, Naro (Agrigento)

Council Estate, "Vucciria" (Palermo)
"Vucciria" (Palermo)

Lampedusa Island Villa (Agrigento)

ADAPTABILITY TO ANY TYPE OF MATERIAL

Restoration

Archaeological Park "Valle dei Templi" (Agrigento)

Grimani Palace, seat of the Monuments and Fine Arts Office (Venice)

Fuga Palace
Poveri Hotel (Naples)

Baia Castel (Naples)

Restored San Michele cemetry (Venezia)

Archaeological site Ercolano/Pompei (Napels)

Porta Palace (Turin)

Steri Palace, seat of University Rectorship (Palermo)

CONCR**INOX**

ribbed wire rod in coils

cold drawn	I·4301	6-12 mm	304L
	I·4436	6-12 mm	316L
	I·4362	6-12 mm	324
	I·4462	6-12 mm	329A
hot rolled	I·4301	14-24 mm	304L
	I·4436	14-24 mm	316L
	I·4362	14-24 mm	324
	I·4462	14-24 mm	329A

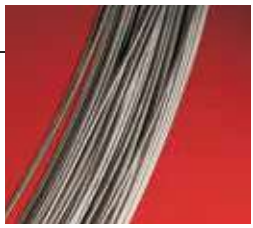
CONCR**INOX**

ribbed bars

cold drawn	I·4301	6-12 mm	304L
	I·4436	6-12 mm	316L
	I·4362	6-12 mm	324
	I·4462	6-12 mm	329A
hot rolled	I·4301	14-50 mm	304L
	I·4436	14-50 mm	316L
	I·4362	14-50 mm	324
	I·4462	14-50 mm	329A

CONCR**ITIE**

ties



I·4301	1,20 mm	304L
I·4401	1,20 mm	316L
I·4462	1,20 mm	329A

CONCR**IFIX**

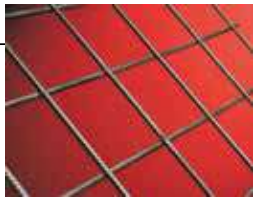
anchoring systems

I·4301	12-36 mm	304L
I·4436	12-36 mm	316L
I·4362	12-36 mm	324
I·4462	12-36 mm	329A

diameter on customer request

CONCR**IMESH**

electro-welded frames



I·4301	6-12 mm	304L
I·4436	6-12 mm	316L
I·4362	6-12 mm	324
I·4462	6-12 mm	329A

diameter on customer request

CONCR**IWELD**

wire for welding

308 LSi	1,20 mm
316 LSi	1,20 mm
E 329	1,20 mm