Standard Methods of Practice Guidelines

for

Field Handling, Fabrication and Repair of

NX Stainless Steel Clad Rebar (NX-SCR™)
NX Stainless Steel Clad Dowels (NX-SCD™)

Introduction

NX-SCR™ is a stainless steel clad composite with a carbon steel core. It is made through a patented "green" process which results in a metallurgical bond during hot-rolling between its durable and corrosion resistant outer stainless steel cladding and its carbon steel core. Its design combines the very high corrosion resistance of stainless steel with the tensile strength, yield strength and elastic modulus characteristics of low alloy carbon steel, with the lowest life cycle cost in the industry.

NX has the following optimal properties & characteristics

- High level of corrosion resistance, equivalent to solid 316L stainless steel
- Aesthetic appeal of stainless steel
- Strength and ductility equivalent to black bar
- Lowest life cycle costs in the industry
- Can be bent up to 180 degrees without integrity of the cladding being broken

NX meets the requirements of AASHTO MP13M/MP13-04

Contents

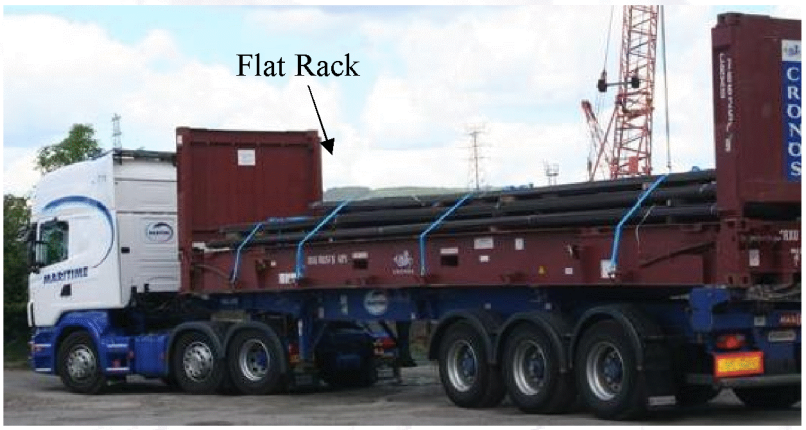
Material Arrival

Every bundle of NX is tagged at the point of manufacture with all-weather labels. Unique batch numbers printed on each label using indelible ink ensure traceability is maintained throughout the handling process.

NX Infrastructure Ltd THE WERN WORKS BRITON FERRY WEST GLAMORGAN UNITED KINGDOM SA11 2JX TEL: +44 (0) 1639 820999	BUNDLE NO BUNDLE WEIGHT BAR QTY BAR LENGTH SIZE TYPE BATCH NO GRADE PRODUCT	x xxxx KGS xx UNITS xx METRES xxMM DIAM. 316L xxxx 420 NX-SCR
CONSIGNEE (Customer address) XXXXXXXXX XXXXXXXXX XXXXXXXXX XXX	SHIPPING NOTE	xxxxxx-00x

It is vital that the batch number is quoted when communicating with NX Infrastructure.

A 'Flat Rack' method of shipment is preferred as it eliminates damage and distortion whilst in transit.



***Spreader bars MUST be used when removing bundles from the vehicle.**

***Bundles and partial bundles must be slung as shown.**

Normal handling will not damage the stainless steel cladding and special precautions as recommended for Epoxy Coated Rebar are not required.

A quantity of spare bar end caps will be provided with each shipment should any replacements be required due to incidental loss through normal handling.

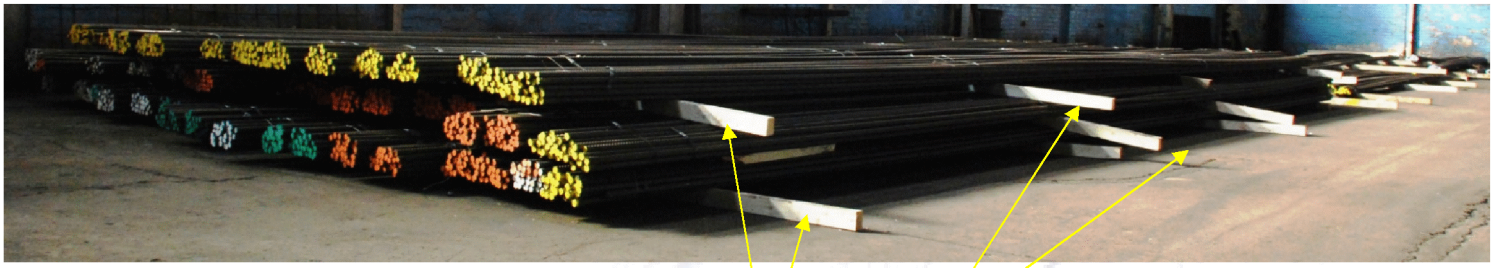
Always use an approved method to reseal bar ends as described within these guidelines.

Storage

NX stainless clad rebar is normally supplied in a pickled condition. NX SCR may be handled and stored according to typical practices for stainless steel rebars. Carbon steel banding and wire ties should not be used. In addition, black bar should not be stored along side or on top of NX SCR.

Individual bars or bundles must be stored in an isolated location i.e. away from carbon steel products used on site. This is to avoid rust from carbon steel bars running on to and staining the NX-SCR. Such staining will not impair the corrosion resistance of the stainless steel cladding, but it is unsightly and could cause confusion about stainless steel "rusting".

Individual bars or bundles must be placed on supports when stored to ensure excessive local bending or twisting of the bar is avoided.



Supports – max 3 meters apart

Fabrication

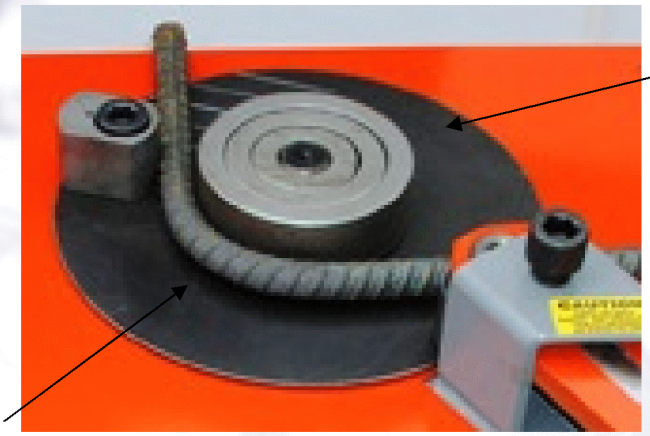
Should on site cutting be required, the preferred method is to cut and not shear. The carbon steel core of the bar will be exposed and will therefore need to be resealed.

Always use an approved method to replace cap as described within these guidelines.

Should on site fabrication be required, bars must be bent to radii larger than or equal to those in AASHTO MP13M/MP13-04 specification.

Guidance table of former diameters

Bar Designation	Former Diameter
#5 (16mm)	56mm
#6 (19mm)	95mm
#7 (22mm)	110mm
#8 (25mm	125mm



Bars must be placed in a lubricated guide and across two pins free to rotate.

Repair

Re sealing bar ends

** Ensure appropriate PPE is used and all Health & Safety rules are observed.*

Method

Remove any sharp edges resulting from the cutting operation.

- **NX-SCR and NX-SCD must not be flame cut**

Apply sealing media provided to bar. Allow to dry.

- **Ensure exposed core is clean prior to application.**
- **Only sealing media specified by NX Infrastructure should be used.**

Place cap provided over the bar end and twist in the direction of the ribs, whilst applying force. Continue to force cap on to bar until fully located.

- **Only end caps specified by NX Infrastructure should be used.**

Cladding

**Welding of NX-SCR and NX-SCD is not advised.*

Contacts

If you require any further information regarding our products and their applications, please do not hesitate to contact us.

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