

KOMO[®] product certificate



Number	K7044/09	Replaces	K7044/08
Issued	2008-10-15	Dated	2006-11-01
Valid until	Indefinite	Page	1 of 4

Mechanical Connections for Reinforcement Steel
Category 1, Types 2010, 3010, 4010 en 2020/2020P

Demu Metaalindustrie B.V.

STATEMENT BY KIWA

This product certificate is issued on the basis of BRL "Mechanical Connections for Reinforcement Steel" issued on 2006-6-12 by Kiwa, in accordance with the Kiwa Regulations for Product Certification.

Kiwa declares that legitimate confidence exists that the by the producer manufactured products on delivery comply with the technical specifications as laid down in this product certificate, provided that they have been marked with the KOMO[®]-mark in the manner as indicated in this product certificate.



Bouke Meekma
Director Kiwa N.V.

Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

Holder of Certificate
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Evaluated is:
quality system
product
Periodic inspection

Mechanical Connections for Reinforcement Steel, Category 1

PRODUCT SPECIFICATION

General

Mechanical connections for reinforcement steel meet the requirements of section 2 of BRL 0504. Straightening, cutting and bending of the rebar ends and rebar anchors meet the requirements of section 4.3.2 of BRL 0503 "Tack welded mesh reinforcements, reinforcement structures, cut and bend products". The reinforcement steel of these couplers in the FeB 500 HWL and HK grade meet the requirements of section 2 of BRL 0501 "Steel reinforcement" and, therefore, of section 3 "Term descriptions" and section 5 "Requirements" of NEN 6008.

Only complete mechanical couplers made of reinforcement steel produced from the rebar anchors and rebar ends specified under "Further specification" fall under this KOMO product certificate.

Further specification

Area of application

The products are to be used in concrete structures with a mainly static load. Fatigue strength category 2.

Category 1

These mechanical couplers can be applied in predominantly statically loaded concrete structures as described in NEN 6722, where a stress ripple $2 \sigma_s$ of 60 N/mm² (characteristic fatigue strength) is achieved at: 2 million load swings and a maximum stress of 0.6 Re;k of 0.6 Rp;0.2;k

Reinforcement steel grade and Characteristic diameter

The reinforcement steel is delivered in the grade FeB 500 HWL, for characteristic diameter Φ_k : 12 u/t 40 mm
 The reinforcement steel is delivered in the grade FeB 500 HK, for characteristic diameter Φ_k : 12 u/t 16 mm

Additional supply conditions

The reinforcement steel can be supplied in any required length.
 The reinforcement steel can be supplied as straight and bent rods where the bending mandrel must meet the requirements of section 4.3.2 of BRL 0503 "Tack welded mesh reinforcements, reinforcement structures cut and bend products".
 Types 2020 can be supplied as 2020 or as 2020P (with flattened end).

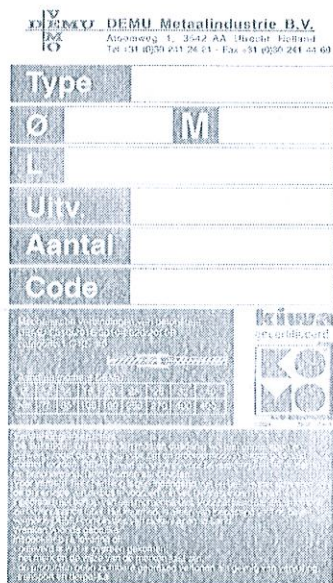
Quality marks

The products are provided with a label on which at least the following information is specified clearly and indelibly:

- KOMO logo;
- Certificate number;
- Name or logo of the certificate holder;
- Coupler type;
- Category number;

A packaging unit will be provided with one label with a certification mark.

The label can be as follows (see Figure 1)



Figuur. 1

Mechanical Connections for Reinforcement Steel, Category 1

Marking on the product:

The letter "D" for rebar ends on the crosscut edge of the reinforcement steel where the thread is.
The "DEMU" name on the thread bushing.

See the documentation and processing instructions of the certificate holder for more information.

TIPS FOR THE USER

Inspect the following upon delivery:

- That what has been agreed has been delivered;
- The mark and marking method are correct;
- The products do not exhibit any damage or defect as a result of transport or handling.

If you decide to reject the product(s) based on the above, contact:

- DEMU Metaalindustrie B.V.
- And, if required, Kiwa N.V.

Consult NEN 6722 and the processing instructions of the producer for information on the correct storage method.

LIST OF DOCUMENTS MENTIONED*

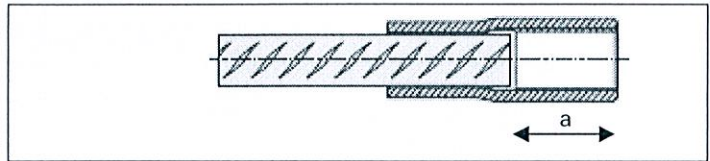
NEN 6722	"Regulations for concrete – Execution"
NEN 6008	"Steel reinforcement"
BRL 0501	"Steel reinforcement"
BRL 0503	"Tack welded mesh reinforcements, reinforcement structures and strapwork"
BRL 0504	"Mechanical reinforcement steel couplers"

* For the correct version of the above-mentioned standards, please refer to the last revision page of BRL 5070.

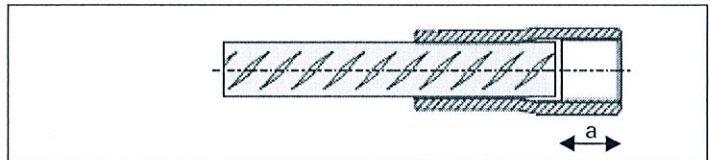
Mechanical Connections for Reinforcement Steel, Category 1

Additional information

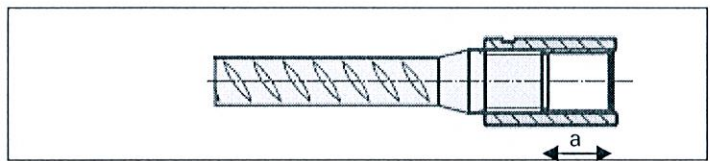
Rebar anchor 4010 (pressed version)



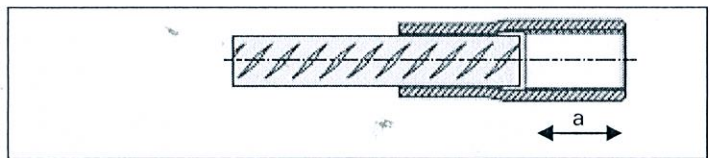
Rebar anchor 2010 (pressed version)



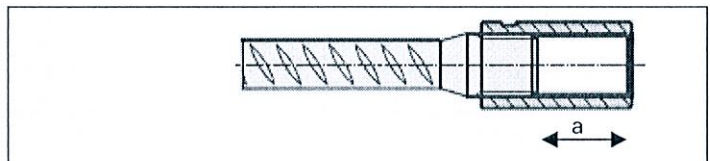
Rebar anchor 2010 (screwed version)



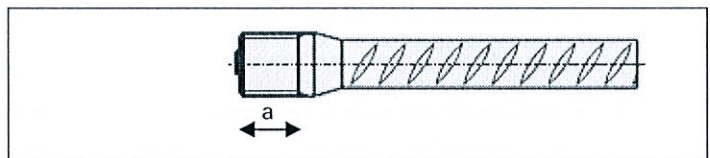
Rebar anchor 3010 (pressed version)



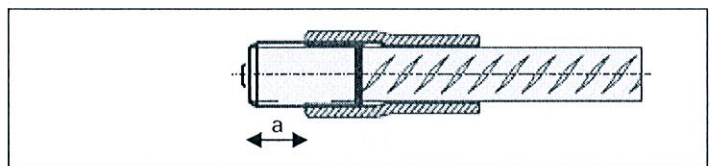
Rebar anchor 3010 (screwed version)



Rebar end 2020 (swaged and rolled version)



Rebar anchor 3010 (pressed version) with treading rod



Tightening torque

	$\Phi_k12/M16$	$\Phi_k14/M18$	$\Phi_k16/M20$	$\Phi_k20/M24$	$\Phi_k25/M30$	$\Phi_k28/M36$	$\Phi_k32/M42$	$\Phi_k40/M48$
rebar anchor 4010 size	25	29	33	38	48	57	65	
rebar anchor 3010 size	30	35	40	45	55	60	65	
rebar anchor 2010 size	16	18	20	24	30	36	42	48
rebar end 2020 size	≥ 25	≥ 29	≥ 33	≥ 38	≥ 48	≥ 42	≥ 44	≥ 54
Tightening torque (Nm)	75	85	100	160	250	325	400	400

Tightening torque tolerances +/- 5%

The rebar anchors can be manufactured with threaded connection or as pressed connection. The $\Phi_k40/M48$ only as pressed connection.

The rebar and $\Phi_k40/M48$ are manufactured from an rebar anchor type 2010 and provide with an treading rod in the connection piece.