MARCEGAGLIA
Headquarters
quality department

DECLARATION OF PERFORMANCE

NR. 0103/009 Rel. 1

Identification code of the product-type	Welded tube made of non-alloy structural steel S235JRH in accordance with EN10210:2006.
Identification of the construction product	In accordance with the information included in the identification label with barcode and/or bundle number and in the inspection certificate.
Intended use of the construction product	Hot finished hollow sections of non-alloy and fine grain for structural uses of circular, square, rectangular or elliptical forms.
Manufacturer (registered office)	**Marcegaglia S.p.A.** Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN) – Italia
Production plant	**Casalmaggiore** s.s.420 Sabbionetana – 26041 Casalmaggiore (CR) - Italia
System of assessment and verification of constancy of performance of the construction product	2+
Name and identification number of the notified body	RINA Service S.p.A. – Via Corsica, 12 – 16128 Genova - Italia **0474**

Issued the certificate of conformity of the factory production control on the basis of the following elements:

- starting inspection of the production plant and of the factory production control.
- surveillance, evaluation and continuous audits of the factory production control.

DECLARED PERFORMANCE

Essential characteristics	Performance	Harmonised technical specification
Tolerances on dimensions and shape	in compliance with table 2	EN10210-2:2006
Elongation	in compliance with table 1	EN10210-1:2006
Tensile strength		
Yield strength		
Impact strength		
Weldability (CEV)	0.37% max	
Durability	N.P.D.	

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Marcegaglia S.p.A. by:

Roberto Ing. Ferrari
Casalmaggiore Plant Manager

Casalmaggiore 21/07/2014

This declaration of performance is valid only in presence of the material identification label and the waybill or the inspection certificate issued after delivery.

Table 1 – Mechanical properties							
Steel grade		**Minimum yield strength R_{eH}**	**Tensile strength R_m**		**Minimum elongation A (a,b)**	**Minimum impact energy**	
Steel name	**Steel number**	**[MPa]**	**[MPa]**		**[%]**	**KV in J(d)**	
		Specified thickness in mm				**Test temperature**	**Min. impact energy**
		≤ 16	**≤ 3**	**> 3 ≤ 100**	**≤ 40**		
S235JRH(c)	**1.0039**	235	360÷510	360÷510	26	20°	27

a. Longitudinal values. Transverse values are 2% lower.
b. For thicknesses < 3 mm, see 9.2.2 of EN10210-1:2006.
c. The impact properties are verified only when Option 1.3 is specified.
d. For impact properties for reduced section test pieces see 6.6.2.

Table 2 – Tolerances on shape, straightness and mass			
Outside dimensions (D, B e H)	**Circular hollow sections**	**Square and rectangular hollow sections**	**Elliptical hollow sections**
	± 1% with a minimum of ± 0,5 mm and a maximum of ±10 mm	± 1%[1] with a minimum of ± 0,5 mm	
Thickness (T)	-10% [2]		
Out of roundness (O)	2% for hollow sections having a diameter to thickness ratio not exceeding 100[3]	-	
Concavity/Convexity (x_1, x_2)(4)	-	1%	-
Squareness of side (θ)	-	90° ± 1°	-
External corner profile (C_1, C_2 o R) [5]	-	3T maximum at each corner	-
Twist (V)	-	2 mm[1] plus 0,5 mm/m length[1]	
Straightness (e)	0,2[1]% of total length and 3 mm over any 1 m length		
Mass (M)	± 6 % on individual delivered lengths		

Tolerances on length(3)	Exact length	2000 mm ≤ L ≤ 6000 mm	⇒ 0; + 10 mm
		> 6000 mm [7]	⇒ 0; + 15 mm
	Standard length	4000 mm ≤ L ≤ 16000 mm	⇒ +/- 500 mm[6]

1. For elliptical hollow sections of sizes H<250 mm the permitted tolerance is twice the value given in this table.
2. The positive deviation is limited by the tolerance on mass.
3. Where the diameter to thickness ratio exceeds 100, the tolerance on out of roundness shall be agreed.
4. The tolerance on convexity and concavity is independent of the tolerance on outside dimensions.
5. The sides need not to be tangential to the corner arcs.
6. Option 2.1 (EN10210-2:2006) the tolerance on approximate length is 0; +150 mm.
7. Common lengths available are 6m and 12m.