

INTRODUCTION

The European product specification **BS EN74-1:2005 Couplers, spigot pins and baseplates for use in falsework and scaffolds**, recognises the essential safety requirements for scaffolders, safety officers and other site personnel to be able to visually identify EN74 scaffold fittings, by placing a requirement on the coupler manufacturer to mark each EN74 scaffold fitting with a series of identification letters and numbers, clearly and durably.

Each coupler is marked by impressing or embossing on the flap of the body of the coupler and should be legible after the protective coating has been applied. The height of the characters should be at least 4.0 mm and their depth should be at least 0.2mm.

The key below shows the minimum markings to be found on all EN74 scaffold fittings, which may also contain extra letters or symbols, such as patent numbers, die or batch codes that the manufacturer has optionally added for their own marketing or production quality control purpose.

Couplers are marked in one or two lines with the following information, in the sequence shown:

- reference to EN74-1;
- registered trademark or the manufacturer (xx);
- year of manufacture (last two digits only);
- coupler class (A or B);
- type of ongoing production inspection if provided (L or M).

Example:

EN74-1 xx 05 A L

(this latter marking is a new requirement and critical to the validity of a new fitting described in Annex B, see extract below)

Apart from the methods used to test and assess EN74-1 scaffold fittings, the most significant change to the UK user was the introduction of a second load bearing class of right-angle coupler and sleeve coupler, respectively identified as class A for the lower strength fittings and class B for the higher strength fittings – hence the necessity to include the marking of either A or B on EN74 fittings.

Because of the relatively long life of scaffold fittings, the 1993 edition of BS5973 recognised that it would be some considerable time before EN74 fittings were in common site use and longer still before BS1139 couplers were no longer available. However there are now new load requirements and this fact should not in 2010 be excused in any new purchase of equipment.

Safe working loads for individual couplers and fittings

Coupler type	Resistance	Safe load, moment or stiffness
Right angle coupler (Class A)	Slipping force in kN	6.1 ⁽¹⁾
	Cruciform stiffness in kNm/rad	10.0 ⁽²⁾
	Cruciform bending in kNm	0.24 ⁽²⁾
Right angle coupler (Class B)	Slipping force in kN	9.1 ⁽¹⁾
	Cruciform stiffness in kNm/rad	15.0 ⁽¹⁾
	Cruciform bending in kNm	0.48 ⁽¹⁾
Friction type sleeve coupler (Class A)	Slipping force in kN	3.6 ⁽¹⁾
Friction type sleeve coupler (Class B)	Slipping force in kN	5.5 ⁽¹⁾
Internal Joint Pin	Slipping force in kN	0.0
Swivel coupler (Class A)	Slipping force in kN	6.1 ⁽¹⁾
Swivel coupler (Class B)	Slipping force in kN	9.1 ⁽¹⁾
Parallel coupler (Class A)	Slipping force in kN	6.1 ⁽³⁾
Parallel coupler (Class B)	Slipping force in kN	9.1 ⁽¹⁾
Putlog coupler	Slipping force in kN	0.63 ⁽³⁾
	Cruciform stiffness in kNm/rad	2.5 ⁽²⁾
	Cruciform strength in kNm	0.036 ⁽²⁾

Notes

(1) These figures are based on table 8 of BS EN74-1:2005 and are for use with type 4 steel tubes

(2) Data on cruciform strength and stiffness shall be obtained from the supplier/matrix

(3) From BS1139 Part 2 1991

Extract from EN 74-1:2005

ANNEX B (informative)

B.1 Manufacture of couplers should be controlled by one of the following inspection methods:

- Inspection level **L**

The production quality control is carried out only by a manufacturer approved to either EN ISO 9001 or another appropriate document.

- Inspection level **M**

The production quality control is carried out by the manufacturer itself and is supervised by an independent certification system.

For all other information refer to BS EN74-1:2005 Annex B.

Whilst every effort has been made to provide reliable and accurate information, we would welcome any corrections to information provided by the Writer which may not be entirely accurate, therefore and for this reason, the NASC or indeed the Writer, cannot accept responsibility for any misinformation posted.