

# DIN EN 74-1:2022-09 (E)

## Couplers, spigot pins and baseplates for use in falsework and scaffolds - Part 1: Couplers for tubes - Requirements and test procedures

---

Contents	Page
European foreword .....	4
Introduction .....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms, definitions and symbols .....	6
3.1 Terms and definitions.....	7
3.2 Symbols and abbreviations .....	8
4 Types and classes of couplers .....	9
4.1 Types of couplers .....	9
4.2 Classes of couplers.....	9
4.2.1 General.....	9
4.2.2 Transmissible internal forces, moments and related stiffnesses .....	10
5 Reference tubes and bar for coupler tests.....	13
6 General requirements.....	13
6.1 Materials .....	13
6.2 Design.....	14
6.3 Manufacturer's drawings .....	18
6.4 Production control .....	18
7 Test methods and evaluation of results.....	18
7.1 General.....	18
7.2 Slipping and failure force.....	22
7.2.1 Slipping force $F_s$ (RA,SW,PA,SF).....	22
7.2.2 Failure force $F_f$ (RA,SW,PA) .....	26
7.3 Pull apart force $F_p$ (RA).....	29
7.3.1 Purpose of test .....	29
7.3.2 Test arrangement .....	29
7.3.3 Test procedure.....	29
7.3.4 Evaluation of test results.....	29
7.4 Stiffnesses and moments.....	30
7.4.1 Cruciform bending stiffness $c_{\phi 1,MB}$ and $c_{\phi 2,MB}$ and cruciform bending moment $M_B$ (RA) .....	30
7.4.2 Rotational moment $M_T$ and stiffness $c_{\phi,MT}$ (RA) .....	34
7.4.3 Bending moment $M_B$ (SF) .....	36
7.5 Indentation (RA,SW,PA) .....	38
7.5.1 Purpose of test .....	38
7.5.2 Test arrangement .....	38
7.5.3 Test procedure.....	39
7.5.4 Evaluation of test results.....	40
8 Designation .....	40
9 Marking .....	40
10 Test report.....	41
11 Evaluation of test results.....	41

**12 Assessment ..... 41**

**13 Product manual ..... 41**

**Annex A (normative) Whitworth thread size 1/2 x 12 Tpi ..... 42**

**A.1 Nominal values ..... 42**

**A.2 Tolerances and limiting dimensions after coating ..... 43**

**Annex B (informative) Ongoing production control ..... 44**

**Bibliography ..... 46**