

Industrial thermoprocessing equipment —

Part 4: Particular safety requirements for hot dip galvanizing thermoprocessing equipment

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- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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thermiques galvanisation à chaud

Industrielle Thermoprozeßanlagen - Teil 4: Besondere
Sicherheitsanforderungen an Feuerverzinkungsanlagen

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Contents

	Page
FOREWORD	3
0 INTRODUCTION.....	4
1 SCOPE	4
2 NORMATIVE REFERENCES.....	4
3 DEFINITIONS	6
4 LIST OF HAZARDS.....	6
5 SAFETY REQUIREMENTS AND/OR MEASURES	10
5.1 General	10
5.2 Uncontrolled immersion or spillage of liquids into or onto the molten metal	10
5.3 Leakage or spillage of molten metal	11
5.4 Overheating of the molten metal	11
5.5 Hazard by chemical materials and substances	12
5.6 Falls into the molten metal (only for batch processes)	12
5.7 Ergonomic requirements	12
6 VERIFICATION OF SAFETY REQUIREMENTS AND/OR MEASURES.....	13
7 INFORMATION FOR USE.....	13
7.1 General	13
7.2 Specific information to be provided.....	13
ANNEX A (INFORMATIVE) Examples for hot dip galvanizing thermoprocessing equipment	17
ANNEX ZA (INFORMATIVE) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives.....	18

FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 186, Industrial thermoprocessing - Safety, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The full list of parts of EN 746 is given below:

EN 746 Industrial thermoprocessing equipment

- Part 1: Common safety requirements for industrial thermoprocessing equipment
- Part 2: Safety requirements for combustion and fuel handling systems
- Part 3: Safety requirements for the generation and use of atmosphere gases
- Part 4: Particular safety requirements for hot dip galvanizing thermoprocessing equipment
- Part 5: Particular safety requirements for salt bath thermoprocessing equipment
- Part 6: Particular safety requirements for material melting, remelting and liquid phase maintaining thermoprocessing equipment
- Part 7: Particular safety requirements for vacuum thermoprocessing equipment
- Part 8: Particular safety requirements for quenching equipment

Annexes A and ZA are informative.

0 INTRODUCTION

EN 746-1 “General Safety Requirements” contains the common safety provisions and devices for all types of industrial thermoprocessing equipment. This part of the standard details in addition those extra safety requirements which need special attention against the equipment listed in the scope.

This European Standard is a type C standard as defined in EN 292:1991.

The extent to which hazards are covered is indicated in the scope of this standard.

1 SCOPE

This part of EN 746 gives the specific hazards and safety requirements that shall be provided by the manufacturer for hot dip industrial batch and the bath of continuous galvanizing thermoprocessing equipment, whether it is used as an independent unit or an integrated part of a plant.

This part of EN 746 does not deal with the risks arising from any component handling equipment for the dip process or for the associated protective measures.

This part of EN 746 does not cover the handling, storage, transport, disposal, transfer or regeneration of the zinc and the processed material outside the limits of the equipment.

This part of EN 746 applies not only to the normal operation of the equipment but also to the safety of personnel and property in the event of abnormal operation and when foreseeable faults occur.

Examples of hot dip galvanizing equipment are shown in Figure 1 and Figure 2.

NOTE: There are many variations in the design of galvanizing equipment. Only two examples of the various types are given in this text.

2 NORMATIVE REFERENCES

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 137	Respiratory protective devices - Self-contained open-circuit compressed air breathing apparatus. Requirements, testing, marking.
EN 166	Personal eye-protection - Specifications
EN 292-1:1991	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology
EN 292-2:1991	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications
EN 345	Specification for safety footwear for professional use
EN 346	Specification for protective footwear for professional use
EN 469	Protective clothing for firefighters - Requirements and test methods for protective clothing for firefighting
EN 531	Protective clothing for industrial workers exposed to heat (excluding fire fighters' and welders' clothing)
EN 614-1	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles
EN 746-1:1997	Industrial thermoprocessing equipment - Part 1: Common safety requirements for industrial thermoprocessing equipment
EN 746-2	Industrial thermoprocessing equipment - Part 2: Safety requirements for combustion and fuel handling systems
prEN 1005-2:1998	Safety of machinery - Human physical performance Part 2: Manual handling of machinery and component parts of machinery
prEN 1005-3:1998	Safety of machinery - Human physical performance - Part 3: Recommended force limits for machinery operation
EN 1070	Safety of machinery - Terminology
EN 1093-4	Safety of machinery - Evaluation of the emission of airborne hazardous substances - Part 4: Capture efficiency of an exhaust system - Tracer method
prEN 1248:1998	Foundry machinery - Safety requirements for abrasive blasting equipment
EN 60204-1	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:1997)
EN 61310-1	Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:1995)