

IRISH STANDARD

I.S. EN 746-4:2000

ICS 25.180.01

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INDUSTRIAL THERMOPROCESSING

**EQUIPMENT - PART 4: PARTICULAR SAFETY** 

REQUIREMENTS FOR HOT DIP GALVANISING

THERMOPROCESSING EQUIPMENT

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:

April 7, 2000

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 746-4

January 2000

ICS 25.180.01

#### English version

# Industrial thermoprocessing equipment - Part 4: Particular safety requirements for hot dip galvanising thermoprocessing equipment

Equipements thermiques industriels - Partie 4: Prescriptions particulières de sécurité pour les équipements thermiques de galvanisation à chaud Industrielle Thermoprozeßanlagen - Teil 4: Besondere Sicherheitsanforderungen an Feuerverzinkungsanlagen

This European Standard was approved by CEN on 22 November 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **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of an identical text or by endorsement, at the latest by July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.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 Galvanising 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

The annexes A and ZA are informative.

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#### 0 INTRODUCTION

The 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 Galvanising 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 galvanising equipment are shown in Fig. 1 and Fig. 2.

NOTE: There are many variations in the design of galvanising 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.



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