



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 1151:1999

ICS 23.080

**PUMPS - ROTODYNAMIC PUMPS -  
CIRCULATION PUMPS HAVING AN  
ELECTRICAL EFFECT NOT EXCEEDING 200  
W FOR HEATING INSTALLATIONS AND  
DOMESTIC HOT WATER INSTALLATIONS -  
REQUIREMENTS, TESTING, MARKING**

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*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland  
and comes into effect on.  
June 18, 1999*

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National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 1152:1994

ICS 65.060.10

**TRACTORS AND MACHINERY FOR  
AGRICULTURE AND FORESTRY – GUARDS  
FOR POWER TAKE-OFF (PTO) DRIVE  
SHAFTS – WEAR AND STRENGTH TESTS**

National Standards  
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*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
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January 27, 1995*

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 1151

February 1999

ICS 23.080

English version

Pumps - Rotodynamic pumps - Circulation pumps having an electrical effect not exceeding 200 W for heating installations and domestic hot water installations - Requirements, testing, marking

Pompes - Pompes rotodynamiques - Circulateurs de puissance absorbée n'excedant pas 200 W, destinés au chauffage central et à la distribution d'eau chaude sanitaire domestique - Exigences, Essais, Marquage

Pumpen - Kreiselpumpen - Umwälzpumpen mit elektrischer Leistungsaufnahme bis 200 W für Heizungsanlagen und Brauchwassererwärmungsanlagen für den Hausgebrauch - Anforderungen, Prüfung, Kennzeichnung

This European Standard was approved by CEN on 15 February 1997

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  
COMITE EUROPEEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 197 "Pumps", the secretariat of which is held by AFNOR.

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 August 1999, and conflicting national standards shall be withdrawn at the latest by August 1999.

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.

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