



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 12569:2000**

ICS 23.060.01

**INDUSTRIAL VALVES - VALVES FOR  
CHEMICAL AND PETROCHEMICAL PROCESS  
INDUSTRY - REQUIREMENTS AND TESTS**

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Industrial valves - Valves for chemical and petrochemical process industry -  
Requirements and tests

Robinetterie industrielle - Appareils de  
robinetterie destinés aux procédés de  
l'industrie chimique et pétrochimique -  
Prescriptions et essais

Industriearmaturen - Armaturen für die  
chemische und petrochemische  
Verfahrensindustrie - Anforderungen und  
Prüfungen

This corrigendum becomes effective on 15 November 2000 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 15 novembre 2000 pour incorporation dans les trois versions linguistiques officielles de l'EN.

Die Berichtigung tritt am 15. November 2000 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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

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**Table 1 - Minimum requirements for non-destructive examination of steel castings**

	Steel castings (severity level)			
	level I	level I alternative	level II	Butt weld ends (see 13 below)
Prototype	S2/S3 (see 4 below)	S3/S4 (see 4 below)	S2	S1
	V3	V4	V2	V1
Production	S4 (one sample)	>50kg-S3/S4 (100%) ≤50 kg -S3/S4 (one sample)	S2 (10% or 3 samples min)	S1 (100%)
	no volumetric inspection	V4 (10% or 3 samples min)	V2 (10% or 3 samples min)	V1 (100%)
If sample unacceptable	Inspect 10% (min 3 samples). If any unacceptable, inspect 100%.	Inspect 100%	Inspect 100%	

1: For all materials and severity levels it is the responsibility of the manufacturer to apply the amount of testing necessary to guarantee the required quality taking into account the method of casting.

2: All castings shall be subjected to 100% visual examination in accordance with EN 12454.

Required severity levels:

	Severity level	Identification
Surface inclusions	2	B 2
Gas porosity	2	C 1
Laps and cold shuts	2	D 2
Scabs	1	E 3
Chaplets	2	F 3
Welds	2	J 2

3: Severity levels should be in accordance with annex A.

4: The higher severity level applies to magnetic particle testing, the lower severity level applies to liquid penetrant testing.

5: A prototype casting shall be inspected for each size, pressure rating, material group and casting method. If any of these parameters are changed a new prototype inspection is required.

6: The prototype casting cannot be considered as a production sample except in the case of a single casting.

7: Where there is only one piece in a batch for which no prototype tests exist, this piece shall be tested as a prototype.

8: Surface examination shall provide 100% coverage of the sample.

9: Volumetric examination of prototype castings shall provide 100% coverage of the sample.

10: Volumetric examination of production castings shall provide coverage of critical sections as a minimum.

11: Critical sections shall be defined by the manufacturer after examination of the prototype casting.

12: A production sample consists of a minimum of one piece from each unique cast and heat treatment batch.

13: The maximum length of linear defects for surface test shall be 3 mm.

14: Spheroidal graphite cast iron shall be inspected to level I only when specified by purchaser.

15: Where the manufacturer is responsible for welding stub pipes to a valve, the butt welding ends of this joint can meet inspection level S2/V2.

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September 1999

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This European Standard was approved by CEN on 16 August 1999.

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