



## **PRODUCT CERTIFICATION**

### **SPECIAL REGULATION FOR CERTIFICATION OF CROWNING AND CLOSING DEVICES FOR VEHICULAR AND PEDESTRIAN AREAS**

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## Art. 1. FOREWORD

This **Special Regulation** applies to the certification of crowning and closing devices for vehicular and pedestrian areas.

## Art. 2. - SCOPE AND FIELD OF APPLICATION

The Special Regulation defines the methods and procedures for managing the technical and organisational system for issuing and maintaining the **Conformity Certificate** and the **Product Conformity Mark** as envisaged by the standards:

- EN 124-2:2015 – Gully tops and manhole tops made of cast iron
- EN 124-3:2015 - Gully tops and manhole tops made of steel or aluminium alloys
- EN 124-4:2015 - Gully tops and manhole tops made of steel reinforced concrete
- EN 124-5:2015 - Gully tops and manhole tops made of composite materials
- EN 124-6:2015 - Gully tops and manhole tops made of Polypropylene (PP), Polyethylene (PE) or unplasticized poly(vinyl chloride) (PVC-U)

This Regulation applies to crowning and closing devices, hereafter known as “Devices”, having a passage size of up to 1000 mm inclusive and intended to be installed in areas subject to pedestrian and/or vehicular traffic.

This Certification Scheme is compliant with the third party product certification scheme known as ISO Scheme 5.

## Art. 3. - REGULATORY REFERENCES

The standards relating to the products subject to this regulation are the following:

- EN 124-1:2015 – Definitions, classification, general principles of design, performance requirements and test method
- EN 124-2:2015 – Gully tops and manhole tops made of cast iron
- EN 124-3:2015 - Gully tops and manhole tops made of steel or aluminium alloys
- EN 124-4:2015 - Gully tops and manhole tops made of steel reinforced concrete
- EN 124-5:2015 - Gully tops and manhole tops made of composite materials
- EN 124-6:2015 - Gully tops and manhole tops made of Polypropylene (PP), Polyethylene (PE) or unplasticized poly(vinyl chloride) (PVC-U)
- UNI EN 124:95 - Gully tops and manhole tops for vehicular and pedestrian areas. Principles of construction, type tests, marking, quality control;
- UNI CEI EN ISO/IEC 17000:2005 - Conformity assessment - Vocabulary and general principles;
- UNI/TR 11256:2007 - Guide to the installation of crowning and closing devices in pedestrian and/or vehicular traffic areas (gully tops and manhole tops)
- [UNI CEI EN ISO/IEC 17065 “Requirements for bodies certifying products, processes and services;
- General Terms of Contract CP DOC 229 for all rights and duties of ICMQ and the customer.

## Art. 4. - DEFINITIONS

For everything relating to the terminology and classification of the crowning and closing devices, full reference is made to the definitions contained in the regulatory references reported in Art. 3 of the various parts of the UNI EN 124:2015 series of standards.

The following definitions also apply:

- Company/Manufacturer: entity that places the product on the market in its own name and under its own liability
- Main supplier: the company that supplies the finished product subject to certification
- Technical-commercial agreement: Agreement between the manufacturer and the main supplier that defines the product technical specifications and the control procedures to be carried out by the supplier on the certified product
- Model: Individual product, identified uniquely by a code, for which the Company requests the Product Certification
- Family: set of models that, in the opinion of ICMQ, present similar construction characteristics but different sizes
- Variant: Product similar, by construction characteristics, to the certified model
- Manufacturing and Control Plan: operational planning tool which sets out, in the correct order, the processing and control phases.
- Company laboratory: Laboratory present within the company for carrying out tests on the product in conformity with the standards and/or the applicable ICMQ documents on the certified product. If the company laboratory is used for certification tests and/or supervision, it must necessarily be qualified in advance by ICMQ, to verify the capacities of the operators, the instrumentation used and the calibration and management methods
- Construction design: Technical document that must necessarily include:
  - Unique identification code
  - Current date of issuance
  - Revision index
  - Product measurements and tolerances, if any

- Material for creating the finished product
- Weights of the cover and frame.
- Marking present on the frame and on the cover.

The construction design must be owned by the Company requesting the certification or the Company must hold its rights of use.

- Non-Conformity: this means both deficiencies of the Client's Production Control System ascertained during audits carried out by the ICMQ Inspectors, whose classification is indicated in the General Terms of Contract, and any lack of respect of the product requirements.

## **Art. 5. - APPLICATION SUBMISSION**

The Company must submit the certification application according to the methods envisaged by the ICMQ General Terms of Contract using the forms specifically provided.

The Company must specify all types, formats, and respective sizes of the Crowning and Closing Devices produced which will be subject to certification.

Together with the application, the Company must submit to ICMQ S.p.A.:

- A copy of the Quality Management System certification in conformity with the ISO 9001 standard, if present.
- Certificate issued by the competent Chamber of Commerce, Industry, Crafts and Agriculture indicating the registration at the Companies Register, if applicable
- Technical documentation of the product subject to the application (construction designs and technical files).
- Table defining at least the following elements:
  - Family name
  - Model code
  - Drive-over class
  - Design number corresponding with the revision index
  - Name of the main supplier of each individual model
  - Place of manufacture

## **Art. 6. - INITIAL ASSESSMENT VISIT AND INITIAL TYPE TESTS**

### **6.1. Visit to the Company**

The inspection visit must be carried out at the applicant Company. The initial tests and supervision will be carried out at laboratories qualified in advance in accordance with ICMQ procedures.

The Client will be informed of the audit duration when the offer is made in accordance with criteria defined by ICMQ or technical standards, where applicable.

The visit and the initial assessment tests are aimed at ascertaining that the Company meets all requirements envisaged by the certification scheme set out in standard EN 124, as well as verifying the compliance of the products - subject to the certification request - with the standards of reference specified in the application.

During the visit to the Company, the Inspector will check:

- that the qualitative level of the product is kept continuously compliant with the requirements of EN 124.
- the presence of all control documents originating from the main supplier and the correct archiving.
- Technical-commercial agreements with the main Suppliers (where applicable).
- Manufacturing and Control Plan.
- Instructions relating to the acceptance tests, production and final controls.
- Management procedure of providers of services (outsourcing), if any.
- Management procedure of non-conformities.
- Management procedure of measuring instruments.
- Management procedure of traceability of the product or the batch.
- Management procedure of design.
- Management procedure of purchases/suppliers.
- Management procedure of company laboratories (if applicable).
- Management procedure of production.
- Reports of tests carried out by the main suppliers or by the Company.

The initial assessment is broken down into an assessment visit and into the identification of a series of samples to undergo the set laboratory tests.

### **6.2. Production visit**

The production inspection visit may be conducted in the Company (if the production is internal to the company), and/or at the main Suppliers. It will include the following controls:

- Acceptance tests of raw materials
- Controls and tests upon receipt of semi-finished or finished products received from external suppliers
- Controls during the production phase
- Control and final tests of the products

During the initial visit, initial type tests may be carried out. The company, for that purpose, shall make available the equipment and personnel to carry out the following tests, mandatory, or optional, verified by a ICMQ technician:

	EN124-2		EN124-3		EN124-4		EN124-5		EN124-6	
<b>Mandatory tests</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>
Dimensional tests	X	X	X	X	X	X	X	X	X	X
Residual deflection detection tests	X	X	X	X	X	X	X	X	X	X
Load tests	X	X	X	X	X	X	X	X	X	X
Water absorption							X			
Fuel absorption							X			
Load deformation			X	X			X	X	X	X
Creep resistance							X	X		
Compressive strength					X	X				
Water/cement ratio					X	X				
Chlorides					X	X				
Water absorption of concrete					X	X				

	EN124-2		EN124-3		EN124-4		EN124-5		EN124-6	
<b>Optional tests</b>	<b>V</b>	<b>S*</b>	<b>V</b>	<b>S*</b>	<b>V</b>	<b>S*</b>	<b>V</b>	<b>S*</b>	<b>V</b>	<b>S*</b>
Fatigue resistance							X			
Impact resistance							X		X	
Heat effect							X		X	
Pull out (only on D400 or above)	X		X		X		X		X	
Tilt test (only on D400 or above)	X		X		X		X		X	
Surface resistivity							X			
Light aging							X		X	
Hardness							X			
Skid	X		X				X		X	
Freeze-thaw					X	X				

A=Assessment – S=Supervision

(\*) ICMQ may request, at any time and at its sole discretion, the retesting of these characteristics.

The tests, whether mandatory or optional, must in any case be carried out again when one or more components have been modified with respect to the initial product

All tests that the company carries out, whether mandatory or optional, will be indicated in an attachment to the certificate.

If the company does not have the suitable equipment for carrying out those tests, a test report must be provided carried out at an accredited Laboratory or the test must be carried out at an unaccredited laboratory, subject to the qualification of ICMQ.

### 6.3. - Sampling criteria for initial type tests

The sampling will occur taking samples of crowning and closing devices directly in the Company according to the following table.

Test	Sample 1	Sample 2	Sample 3
Dimensional tests	A		
Residual deflection detection tests	A	A	A
Load tests	A	A	A
Water absorption	B		
Fuel absorption	C		
Load deformation	A	A	A
Creep resistance	E	E	E
Pull out	F		
Tilt test	F		
Fatigue resistance	G		
Impact resistance	H	H	H
Heat effect	H	H	H
Light aging	I		
Hardness	L		
Surface resistivity	M		
Skid	N		
Freeze-thaw	O		
Compressive strength**	P		
Water/cement ratio**	Q		
Chlorides**	R		
Water absorption of concrete**	S		

Sampling for 1 model per family.  
The same letter corresponds to the same sample

\*\* if the concrete is supplied with performance declared by an FPC certified plant in conformity with Ministerial Decree 14/01/2008, those tests do not have to be carried out as the company demonstrates with appropriate documentation that it keeps those characteristics under control.

The Inspector will proceed, at his sole discretion, to take the samples directly in the company warehouse.

The sample must be representative of each family. If, within the same family, there are several drive-over classes, the Inspector will take one sample for each drive-over class.

If the same product originates from two different suppliers, both must be tested.

The following table sets out the testing methods:

Characteristic	Regulatory reference
Dimensional tests	UNI EN 124-1:2015
Residual deflection detection tests	
Load tests	
Water absorption	EN ISO 62:08
Fuel absorption	EN ISO 175:2010 e EN ISO 14125:1998/AC:2002
Load deformation	EN 124-3, EN 124-5, EN 124-6 – Annex A
Creep resistance	P.to 6.3 EN 124-5
Pull out	Annex E – EN 124-1
Tilt test	Annex D – EN 124-1
Fatigue resistance	P.to 6.5 EN 124-5
Impact resistance	P.to 6.4 EN 124-5, EN 124-6
Heat effect	P.to 6.6 EN 124-5, p.to 6.2 EN 124-6
Light aging	P.to 5.10 EN 124-5, p.to 4.3 EN 124-6
Hardness	EN 59:1977
Surface resistivity	ISO 2878:2005

Skid	P.to 7.4 EN 124-1
Freeze-thaw	P.to 4.3 EN 124-4
Compressive strength**	EN 13369:2013
Water/cement ratio**	P.ti 4.5 e 4.6 EN 124-4
Chlorides**	EN 206:2013
Water absorption of concrete**	EN 13369:2013

#### 6.4. - Identification and marking of samples chosen by the Inspector

The products chosen by the Inspector, constituting the samples to undergo testing, must be marked as follows:

YYMMDD ID XX
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where : **YYMMDD** = year, month and date of the sample.  
**ID** = initials/digits of the Inspector  
**XX** = sequential sample number of the day in progress

The identification shall occur by way of writing with indelible markers so as to guarantee the inalterability of the data.  
The samples must be accompanied by the sample list prepared by ICMQ.

**The sample code must correspond to the number of the report issued for that test in the case of company laboratory tests**

#### 6.5. - Sending of samples to the laboratory

The chosen samples, appropriately marked by the Inspector, must be sent to the laboratory designated by ICMQ S.p.A. or tested directly in the company laboratory in the presence of an ICMQ Inspector.

#### 6.6. - Assessment criteria

##### *Visit*

During the initial assessment visit, the Inspector will carry out all checks described in points 6.1 and 6.2. If the Inspector ascertains that not all requirements relating to the certification scheme are respected or identifies deficiencies in the necessary requirements, he may take samples and perform tests.

In that case, the initial assessment visit must be repeated with costs borne by the Company. The date of carrying out the supplementary visit will be agreed between the Company and ICMQ S.p.A..

### Tests

During the test session, the tests, mandatory or optional, indicated in point 6.2 will be carried out.

The acceptability criteria of the tests are defined by the standard. In the case of Non-Conformity, the following rule is applied:

**Table 1**

Dimension test Hardness test Water absorption Fuel absorption Fatigue resistance Light aging Surface resistivity Pull out Tilt test Hardness Surface resistivity Skid Freeze-thaw Compressive strength Water/cement ratio Chlorides Water absorption of concrete	<p>The test is conducted on one sample:</p> <pre> graph TD     P1[Prova 1] --&gt; D1{OK}     D1 -- SI --&gt; FINE1[FINE]     D1 -- NO --&gt; P2[PROVA 2]     P2 --&gt; D2{OK}     D2 -- SI --&gt; FINE1     D2 -- NO --&gt; PN1[PROVA NEGATIVA]     PN1 --&gt; A9[ART. 9]     A9 --&gt; D3{OK}     D3 -- SI --&gt; FINE1     D3 -- NO --&gt; PN2[PROVA NEGATIVA]     PN2 --&gt; A9           </pre>
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**Table 2**

Load deformation Residual deflection test Load tests Creep resistance Impact resistance Effect of high temperatures	<p>The test is conducted on one or more samples</p> <pre> graph TD     P1[Prova 1] --&gt; D1{OK}     D1 -- SI --&gt; FINE1[FINE]     D1 -- NO --&gt; PN1[PROVA NEGATIVA]     PN1 --&gt; A9[ART. 9]           </pre>
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The test samples must be stored for at least 2 months.

## Art. 7. - REQUIREMENTS RELATING TO THE SUPERVISION VISITS

### 7.1. - Supervision inspection visits

The supervision visits after certification has been provided will be carried out as defined by the individual parts of the applicable standard. During those supervision visits, the Inspector checks the same points as the initial visit indicated in par. 6.1 and 6.2 of this document.

### 7.2. - Sampling criteria for supervision tests

During the supervision tests, ICMQ will carry out the tests envisaged in par. 6.2 of this document according to a calendar prepared between ICMQ and the company in the initial visit phase. That calendar may be updated based upon any technical evolutions and/or the number of products subject to certification. The update shall occur in concert with ICMQ.

If the manufacturer does not have a warehouse, alternatively, the tests may be carried out in the presence of the ICMQ Inspector at the manufacturing company where the production process is performed once a year. The company must isolate, during the space of the year, one sample for each model and for each batch produced for the certified company. ICMQ will therefore carry out, during the visit, tests on all samples produced in the year.

### 7.3. - Identification and marking of samples chosen by the Inspector

See point 6.4 of this Regulation.

### 7.4. - Sending of samples to the laboratory

See point 6.5 of this Regulation.



## 7.5. - Assessment criteria

See point 6.6 of this Regulation.

## Art. 8. - PRODUCT MARKING

The Company must affix on the frame and on the cover the following elements which must be immovable:

Mandatory details to be affixed to the frame and cover	Name and/or trademark of the company	Details visible even after installation
	Drive-over class	
	Standard of reference (UNI EN 124-X:2015)	
	ICMQ Product Mark	
	UNI conformity mark (if requested)	
	Production unit (even in codified form)	
	Date (month and year) and/or production batch	
Optional details	Additional marks relating to the application or the owner	
	Product identification	
	Serial number	
	Dimensions	

The measurements for reproducing the UNI mark are specified in Annex 2 of this Regulation

## Art. 9. - ACTIONS IN THE CASE OF PRODUCT NON-CONFORMITY

If, during the tests described in par. 6.6 of this Regulation, a sample is found to be non-conforming, ICMQ will request a technical investigation, in order to identify the causes that generated the Non-Conformity.

If the non-conformity relates to one of the tests indicated in table 2 of par. 6.6 another 3 samples of the same type will be tested. If one of these samples is declared non-conforming, the production connected to the discarded samples must be excluded from the delivery until the outcome of a further control. Within a period of 4 weeks, or within a period to be agreed, the manufacturer must be assessed again with respect to the non-conforming product, testing 3 products. If the result of the test of the 3 complete samples is satisfactory, the delivery may start again.

If, despite the Company having identified and applied the corrective actions of the identified problem, another negative result is determined, the Certification Committee will decide on any suspension or on the most appropriate actions to take.

## Art. 10. – CERTIFICATE DURATION AND RENEWAL

The duration of the certificate issued by ICMQ will expire on 31 December of the year in progress, unless it was issued in the months of October, November or December, in which case it will expire at 31 December of the next year.

By the expiry date of the certificate, ICMQ:

- having carried out the check of the correct payment of the invoices issued to the company
- having verified the presence of the supervision audits required for the year in progress

re-issues the certificates with updated expiry date and sends them to the client.

### 1.0 DEFINITION

The commercial extension is the opportunity of the company that holds the ICMQ product certificate (hereafter known as "Certified Company") to grant to another company (hereafter known as "Extended Company") use of the certificate in its name. The commercial extension is only possible following respect of very precise certification rules and it may be cancelled at any time by both parties or by ICMQ itself if one of the two companies contravenes the certification rules.

### 2.0 EXTENSION PROCESS

The Extended Company must complete and send to ICMQ the certification application specifying that it is a commercial extension.

ICMQ will send to the applicant company, which may be the Certified Company or the Extended Company, the offer and if it is accepted ICMQ will continue in the certification process.

To be able to continue in the certification process, the following mandatory information must be provided:

2.1 Company name of the extended company

2.2 Product code(s) of the certified company for which the commercial extension is requested

2.3 Documentation to be sent to ICMQ

2.3.1 Contract or letter of agreement between the certified company and the extended company.

The document must contain:

- Correspondence table of product codes, as well as any trade name of the family, between the certified company and the extended company. The codes provided must be sale codes that the extended company intends to insert in the certificate
- Authorisation granted to the extended company relating to the use of the existing certificate.
- A declaration in which the extended company undertakes to manage non-conformities and/or complaints/reports, internal or originating from the market, in relation to the products subject to extension. That information, if it arises, must be communicated to the certified company which must assess and manage it.
- A declaration in which the extended company undertakes not to modify the certified product and/or the technical documentation associated with it other than the logo of the manufacturer.

2.3.2 Image of the logo that will be affixed on the product(s) subject to extension.

All documentation must be sent to ICMQ, for each product.

ICMQ, having examined the documentation provided by the company and following the positive outcome of the Certificate Committee, will issue the requested certificate.

ICMQ will issue a certificate with unlimited duration. ICMQ, every three years, reserves the possibility of carrying out, subject to a written communication, a verification at the extended company.

