



# Newsletter

European Federation for Welding Joining and Cutting

Spring • 1997 • 4

## Editorial

Since 1993, when the large Internal Market of the European Union became a reality, great changes have taken place in the industrial world, especially concerning management and production.

These changes aim to achieve a better product quality without any further cost increase. The uniformity of the product characteristics relies on the employment of qualified operators, processes and equipment. The need for such qualifications is particularly important when special processes, for which the quality cannot be entirely verified by final inspection, are involved.

Surface coating, painting, composite manufacture, welding and brazing are examples of such processes. If quality is to be guaranteed they require competent controls before and during operation; quality management systems alone are normally insufficient to provide adequate assurance that such processes have been carried out correctly.

To this end, the CEN Technical Committee 121 "Welding" has developed a specific process standard: EN 729 "Quality requirements for welding". This standard regards all aspects of the quality of the final construction which may be affected by welding and allied processes.

The EN 729 is not intended to replace the EN ISO 9000; it can be used specifically integrate EN ISO 9000 when applied for welding Manufacturers or can be used by itself for organizing and qualifying the welding related activities.

EN 729 doesn't necessarily require any assessment or certification; Manufacturers may, on their own responsibility, declare compliance with it. However a certification by EN 729 can be an important tool in ensuring Customers that the Manufacturer is competent and exercises adequate control of the special process "welding" so that the welded products comply with the contract and/or code requirements. Verifying and certifying that a Manufacturer does in fact operate control of "its welding" requires special assessors who have qualified knowledge and experience not just of welding in general, but also of its application in the industrial sector concerned.

The European Federation for welding, Joining and Cutting (EWF), by virtue of its unique international expertise, has developed a high integrity and specialized certification system-to guarantee Manufacturer compliance with EN 729. Great care has been taken to detail the interpretation of EN 729 in terms of third party assessment, to specify and register properly trained scheme assessors and devise an operational structure so that certification of Manufacturers will be consistent whenever the scheme rules are applied. Company reliability and product quality are winning elements in today's stiff international market competition. After about eight thousand years of application, the welding technology is now facing the considerable changes brought about by the new European regulations. The few years that still remain before the new millennium constitute therefore a period of both reflection and commitment toward the great opportunities offered to the industrial organizations able to cope with this challenge.

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## • EWF Scheme for Manufacturer Certification

## • Procedure for Evaluation and Registration of EWF Manufacturers Certification Scheme Assessors

## • Manufacturer Assessment Procedure



## The Standard

The EN 729 deals with quality requirements for Manufacturers involved in fabrication by welding. The Standard is in four parts:

Part 1 Guidelines for Selection and Use

Part 2 Comprehensive Quality Requirements

Part 3 Standard Quality Requirements

Part 4 Elementary Quality requirements

It is for the fabricating Manufacturer to decide whether to follow Part 2, 3 or 4 and this will depend on the specified welding quality requirements. If it is required to satisfy the quality system requirements of ISO 9001 or ISO 9002 Part 2 of EN 729 must be used. In any other situation Part 2, 3 or 4 may be used and the selection would normally depend on how critical the welding operations were to the quality and fitness of the product. For example Part 2 may be appropriate for the manufacture of large, thick-walled pressure vessels, but Part 4 may be adequate for the manufacture of garden gates.

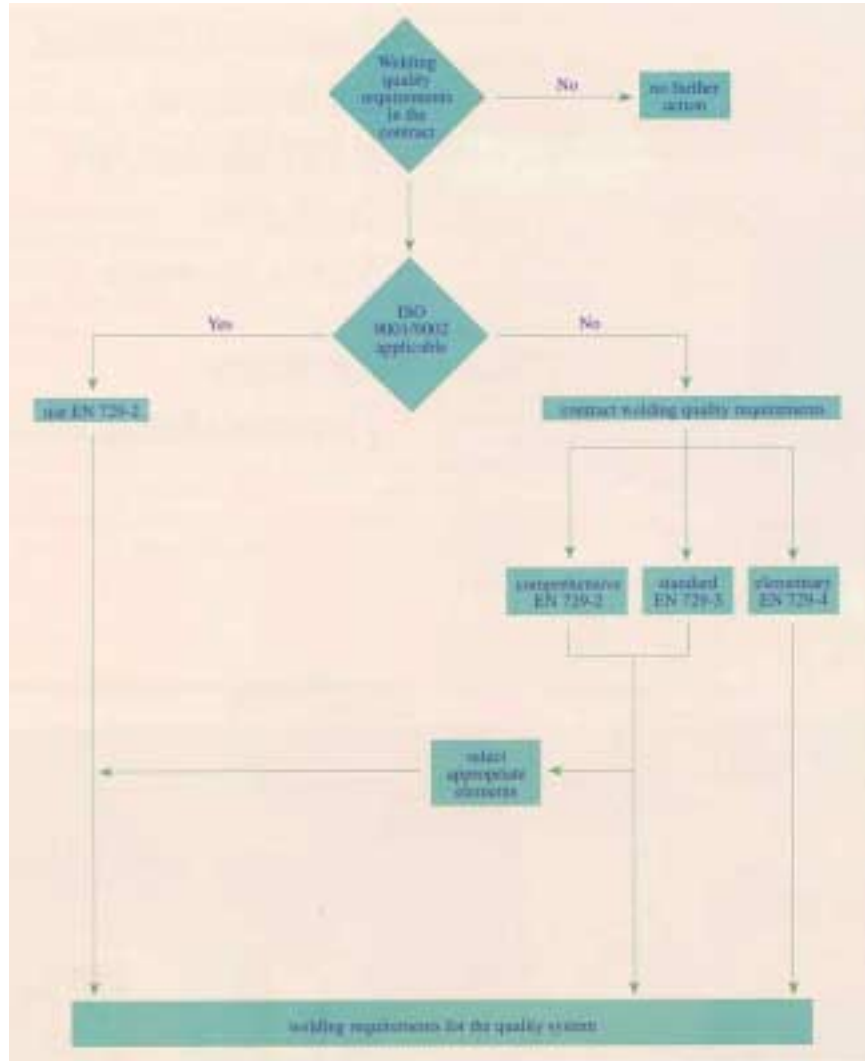


Fig. 1 - Flow diagram for selection of welding quality requirements

EN 729 requires the Manufacturer must comply with all relevant EN standards. However the welding industry is extremely diverse and, at present, there are some manufacturers who do not follow relevant EN standards. For example, where the industry sector or Customer specifies other standards for welder or procedure approval, non destructive testing, etc. Another requirement of EN 729 that Manufacturers

may be unable to demonstrate, is that Manufacturer's sub-contractors must also comply with EN 729. In such cases the EWF EN 729 Certification Scheme approach is that the Manufacturers can be assessed and certified for compliance with EN 729, provided that the actual standards or specifications used guarantee adequate technical control.

## The Scheme

The EWF EN 729 Certification Scheme is based on the following documents:

**Doc. EWF 483-01**

Rules for the implementation of EWF Guidelines for the Certification of Manufacturers in Accordance with EN 729

**Doc. EWF 487-01**

Interpretations for Fabricators Intending to Comply with EWF Certification Scheme for EN 729

**Doc. EWF 488-01**

Procedure for Evaluation and Registration of EWF Manufacturer Certification Scheme Assessors

**Doc. EWF 489-01**

Manufacturer Assessment Procedure

**Doc. EWF 490-01**

Questionnaire on the Quality Requirements for Welding EN 729-2

**Doc. EWF 491-01**

Questionnaire on the Quality Requirements for Welding EN 729-3

**Doc. EWF 492-01**

Questionnaire on the Quality Requirements for Welding EN 729-4.

## The Structure

The uniform application of the EWF EN 729 Certification Scheme is guaranteed by appointing one organisation in each country to act for EWF. These organisations, assessed and monitored against specific rules (Doc. EWF 483-1) are known as the EWF Authorised National Bodies for Company Certification (ANBCCs)

and are responsible for ensuring that the standards of assessment and certification are maintained. In this, the objective is that EWF certified Manufacturer will have demonstrated that they have achieved and identified minimum level of capability over a specified scope of activity, irrespective of the country in which they had been qualified

## The Interpretation

Manufacturers using welding were among the first to become involved in the implementation of quality management systems and this welding engineers, with long experience of working within such systems, but with the added benefits of academic qualifications and specialised experience, understand clearly how EN 729 is to be interpreted.

The Doc. EWF 487-01 reports the interpretations and clarifications provided by the scheme for each Part of the EN 729 and concerning important items such as:

- . Contract and design review
- . Subcontracting
- . Welding Personnel

- . Inspection, Testing and Examination personnel
- . Equipment
- . Storage of parent materials
- . Calibration
- . Identification and traceability

In particular, as far as the welding personnel is concerned:

- . An authorised welding coordinator who is not qualified under EWF scheme for personnel may be acceptable but the onus is on the manufacturer to clearly demonstrate that his/her technical knowledge is at the appropriate level to the industrial sector concerned.

## The Assessment

The assessment procedure, reported in Doc. EWF 489-01, takes into account three subsequent phases:

- . the information phase and assessment preparation
- . the assessment phase
- . the certification phase

It is specified that the Assessment Team (one or more persons depending on the specific

circumstances, such as: size of the Company to assess, complexity of its process, etc.) must comprise assessors such that the aggregate of their detailed qualifications, knowledge and experience is adequate and relevant for the tasks involved in the proposed assessment.

In particular the Assessment Team must be competent in relation to the specific product welding activities to be assessed.

## The Assessors

The procedure for the evaluation and registration of EWF EN 729 Certification Scheme assessors is shown in Doc. EWF 488-01.

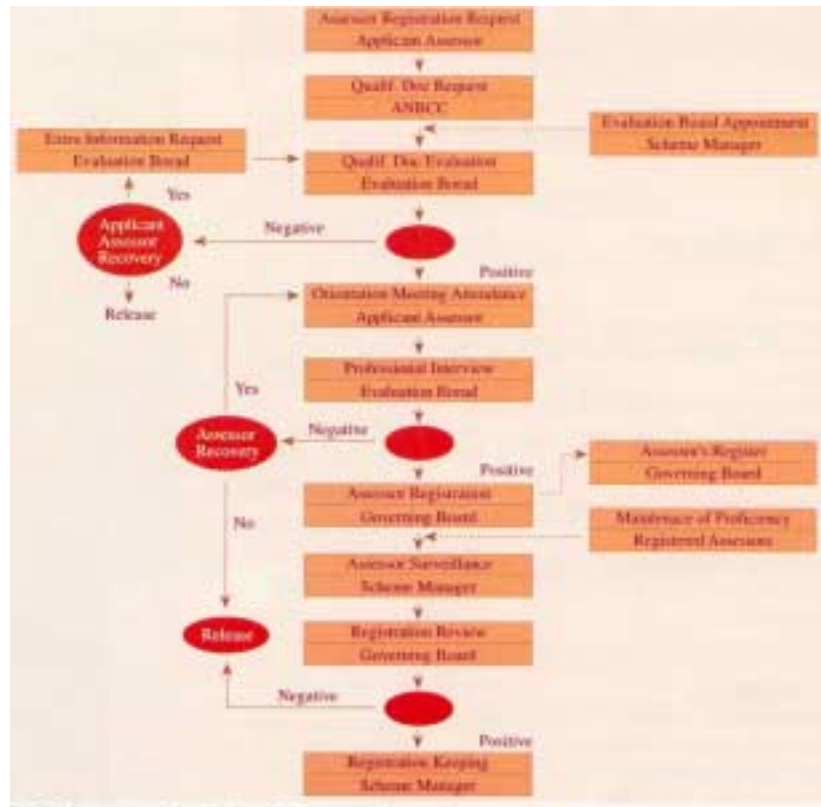


Fig. 2 - Assessor evaluation/registration procedure

The assessors must be either:

- . qualified and experienced in quality system auditing and experienced in welded fabrication, or
- . EWE or EWT with at least three years of work experience in the field of welded

fabrication and familiarity with quality management systems. After approval they are registered in the Register of assessors, according to their quality and engineering profiles and according to the type of products they are experienced on.

## The Questionnaires

The Doc. EWF 490-01, Doc. EWF 491-01 and Doc. EWF 492-01 concern the questionnaires on quality requirements for welding of the Part 2,3 and 4, respectively. They have been drawn up turning in

interrogative form all the substantial sentences of the EN 729 and the relevant EWF interpretations. During the assessment the questionnaires will be used as basic check lists.

## The Certificate

The Certificate witnesses the compliance of the assessed Manufacturer with the EWF EN 729 Certification Scheme. The Certificate scheduled defines the validity extension of the certification, according to the product(s) manufactured and the related scope.

The following items are considered:

- . type of product(s)
- . product standard(s)
- . parent material group(s)

- . welding and welding allied process(es)
- . deviations (e.g. non EN standards applied, specific requirements, etc.)
- . authorised welding coordinator(s)

The qualification, competence and experience, in the specific industrial sector, of the authorised welding coordinator(s) play the role of essential variable in the certification keeping.

# ETCETERA

## Eurojoin 3

a unique conference in Bern,  
Switzerland from 30th March to 1 st April 1998

The Authorised National Bodies (ANB) maintained their activities during 1996 with the number of certificates issued, in all categories, similar to 1995. Based on the reports by the ANBs Chief Executives the total number of certificates awarded until the end of 1996 is the following:

EWE	10057
EWT	1604
EWS	7917
EWP	94
EWI	980
ETSS	7

Vyskumny Ustav Zvaracsky, Slovakia, was the first ANB approved in an observer member country, followed by Instytut Spawalnictwa, Poland.



Technical program	Social program
<p><b>1. Design</b> Consideration of welding factors, calculations, expert systems. For designers and engineers, general managers and buyers</p>	<p>1. Meet your colleagues on a splendid gala evening</p> <p>2. Make a tour through the lovely back country of Bern, or go to feel the crisp air in the higher regions of the Alps</p>
<p><b>2. Economics in production Processes, handling, materials</b> For plant managers, experts and welders</p>	<p>3. Stroll through the pleasant streets of old Bern</p> <p>4. Dine on Swiss specialities in a relaxed atmosphere</p>
<p><b>3. Quality</b> Standards, test methods, fitness for purpose, personnel training and certification For inspectors, inspection personnel and manufacturers</p>	<p>SVS Swiss Welding Association St. Alban-Rheinweg 222 CH-4052 Basel Phone: +41.61.3178484 Fax: +41.61.3178480</p>

## Actual Structure of EWF

