

**Abstracts of IIW Documents
Commission XII - Flux and Gas Shielded
Electrical Welding Process.**

- A.C. Labiri,
Chairman, IC-XII.

**Doc : IIS/IIW-953-87(ex. doc XII-1014-87)
FLUX AND GAS SHIELDED WELDING
CONSUMABLE SPECIFICATIONS.**

by *D.N. Shackleton (UK)*

The International Institute of Welding (IIW) has been recognised by the ISO as an international standardisation organisation. One of the primary aims in authorising the IIW is to reduce the time taken to draft and approve new international standards.

This document explains the work done by the Commission XII and its priorities for the future standardisation programme on the specification of consumables for SAW, MIG, ESW etc. processes. These projects were all carried out by Sub-Commission XII-D and the finished documents have been forwarded to the ISO for consideration by their Committee TC 44/SC 3.

Sub-Commission XII-d has started work with a classification of Carbon and Low Alloy Steel Welding wires for a) Gas shielded and b) Submerged Arc Welding processes. The recent lists were presented in documents XII-913-85 for the gas shielded and XII-912-85 for submerged arc welding processes. Both documents have been published in the *Welding in the World* - Vol. 25, No. 3/4 and No. 7/8, 1987.

The manufacture of the steel welding wires involves a number of different production processes and to ensure consistency in the specifications for finished wire and the rod from which it is manufactured, Commission XII has prepared a document XII-977-86 on the requirements for steel rod for manufacture of carbon and low alloy steel welding wires. This document contains references to the compositional grades and provides options for tighter elemental ranges where such restrictions are considered necessary by the purchaser. In addition to the above,

Commission XII has provided advice on the level of Copper to be included in ferritic steel welding wires vide the document XII-980-86 sent to the ISO. Commission XII-D has identified five priorities for action from its overall programme for immediate future. These are listed below :

Specification for

- i) C-Mn steel welding consumables for submerged arc welding,
- ii) Same as above for gas shielded arc welding,
- iii) the classification of shielding gases for gas shielded arc welding
- iv) C-Mn steel welding consumables for flux cored wire arc welding, and
- v) the classification of austenitic steel welding wires for submerged arc and gas shielded welding.

To accomplish this work, a modular approach is being adopted since many of the parts in welding consumables specifications are common so that a sound base exists when the first specifications are drafted. It is hoped that adequate contact has been made to ensure that particular national interests have been taken into account when the specification was prepared. If this is so, when the draft is circulated to the national standards organisations for assessment, the specification will be adopted, if not, rejection can be expected.

It is intention of Sub-Commission XII-D that discussion will have taken place before the draft specification is distributed and not after rejection. For this to happen, good links must exist between those responsible for the drafting of national welding consumables specifications and the members of IIW Sub-Commission XII-D. The information given in this article will stimulate these contacts in these countries where existing links can be strengthened and through the wider knowledge of Sub-Commission XII's activities, lead to a

broader membership in the Sub-Commission than at present. Membership is obtained through the Member-Societies of the I IW but in the event of difficulty or for further information, contact may be made with the Sub-Commission Chairman at the following address :

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Editor's Note : *These members interested in working on this subject in association with I IW-Sub-Commission XII-D may write to the Chairman, Indian Commission XII at the following address :*

Mr. A.C. Lahiri, Chairman
Indian Commission - XII
C/O. Indian Oxygen Ltd.,
P-43, Taratala Road,
Calcutta - 700 088.

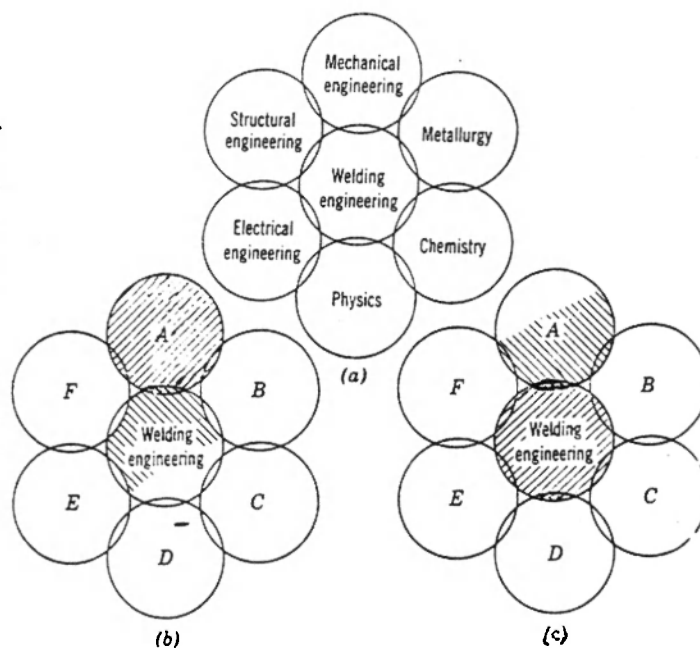
The ideal Welding Engineer !

"No man can hope to be an expert in all the aspects of Welding Engineering. This fact, however, should not discourage the practicing or prospective welding engineer. Today, no engineering field is so limited that a man can master it in depth.".....The topography shows "how the area of welding engineering is overlapped by many other engineering disciplines"...."The ideal Welding Engineer, typifies with a background in all the aspects of welding engineering, and specialised training or experience in one of the overlapping zones, for example, in welding metallurgy, applied mechanics, or applied electrophysics."

Harry Udin et. al.

'Welding for Engineer'

Publ. John Wiley & Sons, Inc. New York.



A Request from the Editor

To

The Hony. Secretaries,
IIW-Branches.

To make the IWJ more informative to the readers, it is requested that an extract of the technical lecture delivered at the Technical Meetings, may please be sent to the Head Quarters, addressed to the Editor, IWJ and the envelop is marked "Tech.Meet" at the left-hand bottom corner. The Tech-Meet reports will be published in the ensuing IWJ issue along with the photographs and proceedings, if any.

Editor