

# The World of Foundry

On-line skills development



[www.e-learning-fonderie.com](http://www.e-learning-fonderie.com)

From designing  
to manufacturing  
casting parts



Combining interactivity, autonomy and expertise through our 2 solutions :

- ✓ **Tutored e-training**
- ✓ **E-consultation**



## “The World of Foundry”

### a tool for progressing throughout your professional life

in order to :

- ✓ Self-adapt to the rapid and constant changes in the operating techniques,
- ✓ Become more reactive to the hazards of industrial manufacturing,
- ✓ Increase the autonomy and versatility of people at their work place.

### Developing your skills is a major challenge ...

... facing this challenge, AXCO Forming and CTIF have developed a suitable and unique tool

## “The World of Foundry”

Professional training via the Internet

for all people involved in materials manufacturing through foundry based techniques

### “The World of Foundry”

Dedicated to all people working in companies involved in materials manufacturing ...

#### ✓ Designers

You become enabled to establish constructive dialogue with foundry people (manufacturing department, research department, etc.)

#### ✓ Foundrymen

**Manufacturing operators:** you become enabled to operate the good working practices at your place

**Managers, supervisors, salesmen :** it introduces you to the elementary principles of foundry techniques

#### ✓ End users of castings

It helps you in better defining your requirements

#### ✓ Purchasers of castings

It explains to you the potential of castings, which is essential when drawing up your technical specifications

#### ✓ Teachers and academic people

It enables you to discover or update your knowledge of the various aspects of casting



### “The World of Foundry”

Major assets ...

#### ✓ Cost effectiveness

The training is performed on-site (close to the workshop or the office) : no travelling costs, no time wasting, no work loss

#### ✓ Flexibility

The training or consultation sequences are organised according to the availability of the trainee

#### ✓ Customized progression

The trainee self adapts his learning process to his initial knowledge level & his own specific needs, and he works at his own speed.

#### ✓ Attractivity

The multimedia concept (sound, voice, text, video, 2D/3D animations, drawings), the interactivity and the availability of a wide variety of self-evaluation exercises ensure the instruction is lively, varied and motivating

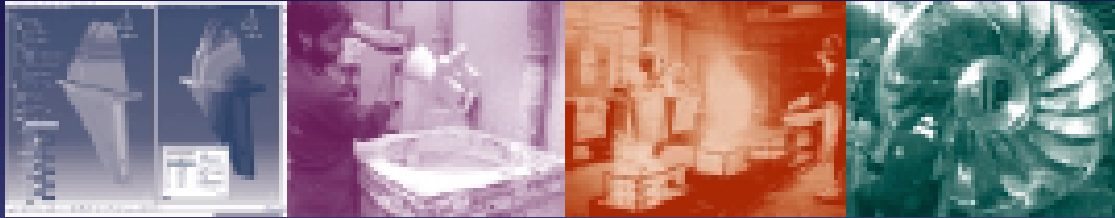
#### ✓ Efficiency

Interactivity enhances the receptiveness and learning conditions through permanent involvement of the trainee

#### ✓ Traceability

Through tutored e-training, the work performed by the trainee (subjects studied, time taken, exercises performed) are saved in a comprehensive data base





Through combined interactivity, autonomy and expertise,

## **“The World of Foundry”**

brings you a concrete, cost-effective and innovative response

- ✓ expert knowledge, permanently available on your PC via the Internet,
- ✓ presented in the form of a lively and attractive interactive multimedia application,
- ✓ accessible either as a professional training tool or as a personal improvement tool

### **The generic foundry techniques**

1. Introduction to foundry techniques
2. The metallurgy of steel
3. The metallurgy of cast iron
4. The metallurgy of aluminium alloys
5. Sand casting
6. Metallic mould casting : permanent die casting
7. Metallic mould casting : pressure die casting
8. Metallic mould casting : low pressure die casting
9. Quality, safety and the environment

### **Lost pattern precision casting**

1. Presentation of the process
2. Metallurgical basis of the process
3. The pattern and the cluster
4. The mould
5. The manufacturing process of the part
6. The quality and performance of the part

### **Designing & drawing the castings**

1. The fundamentals of foundry techniques
2. Major principles for the part's industrialisation
3. Major principles for designing and drawing the part
4. Metallurgical, thermodynamic and hydraulic phenomena
5. The beneficial support of computer applications
6. Machining allowances, dimensions precision & tolerances, surface finishing
7. Practical recommendations for the drawing properly the part
8. Technical recommendations for designing the part
9. Designing principles aimed at simplifying foundry operations
10. Foundry tooling used in the various foundry techniques
11. Establishing properly the technical specifications

## **The World of Foundry**

...

a comprehensive library  
of interactive modules

...

two operating modes  
for greater flexibility and efficiency

### **On line tutored e-training**

#### **6 initiation courses**

- ✓ Cast iron
- ✓ Steel
- ✓ Permanent mould casting
- ✓ Pressure die casting
- ✓ Low pressure casting
- ✓ Aluminium sand casting

#### **2 advanced training courses**

- ✓ Lost pattern precision casting
- ✓ Designing & drawing the castings

*At the moment, the on line tutored e-training is available only in french*

### **« A la carte » e-consultation**

- 1. First, identify the information packages of interest for you, among the 26 already available** : they allow you to discover, deepen or update your knowledge of various aspects of foundry work, whether related to manufacture or design of the parts
- 2. Then, select the consultation length of time adapted to your own needs** (an estimate is provided on-line for each module) : at any time, you can quickly access the knowledge made available through "The World of Foundry"
- 3 - Then browse among them, free from any constraint** : you may explore the knowledge of high level french foundry experts, benefiting from the comfort and clarity of the multimedia tool, with the advantage of total autonomy, and also you may measure your progress through regular self-evaluations

## **"The World of Foundry"**

### **A few statistics**

- ✓ 875 screens of educational and technical content
- ✓ 350 screens of evaluation exercises
- ✓ A total of some 30 hours of viewing available on [www.e-learning-fonderie.com](http://www.e-learning-fonderie.com)

**Available in French (translation into English and Spanish coming soon)**



## **Axco Forming**

### **Spreading knowledge through interactive multimedia training**

AXCO Forming designs, produces and integrates interactive multimedia contents for professional training.

In partnership with recognised specialists on the subjects covered, AXCO Forming provides the management and educational engineering of the project.

### **The advantages of interactive multimedia training**

- ✓ Relevance and effectiveness of the content ("state of the art")
- ✓ Efficiency and attractiveness of the tool
- ✓ Personalised and fulfilling approach for trainees
- ✓ Flexibility and cost effectiveness for the company

### **The major assets of AXCO Forming**

- ✓ The educational, technical and creative quality of its products
- ✓ A rigorous quality assurance approach to its projects, from the definition of the content to its deployment in the company
- ✓ The flexibility and reactivity for constructing and producing a training project in close collaboration with the customer company.
- ✓ A technical content suited to the technical requirements of each company : CD-ROM (single station or local network), e-learning platform to the international AICC standard (AXCO Forming's own platform or customer's platform)

### **AXCO Forming achievements**

- ✓ "The World of Foundry"
- ✓ "Electrical Risk : training in view of electrical accreditation"
- ✓ "Chemical Risk, Target is Safety" (in progress)
- ✓ Dedicated contents, aiming at satisfying specific needs of customer companies.



## **CTIF**

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## **CTIF**

### **A dual expertise, technical and educational**

A research centre dedicated to the forming of materials, essentially using foundry techniques, CTIF aims to promote quality and productivity in order to enable companies in the foundry business to be more competitive

### **A pole of experts to serve industry**

A pole of experts (150 people) in metallurgy, engineering and processes, established in France, CTIF contributes, through its research, standardisation and training activities, to the development of technologies in these fields

CTI, certified under ISO 9001, provides strategic consultancy services, R&D under private contracts, help in the design of parts, metallurgical investigations, processing, engineering, design and environmental advice

### **Complete range of training courses**

Through its expertise and its professional approach, CTIF is able to offer an ever changing product range: specific training with a programme suited to your expectations, inter-company training courses and Internet instruction

### **The major assets of CTIF**

- ✓ Listening ability and availability for analysing your needs and helping to define your objectives in terms of skills
- ✓ Adaptability to your operating constraints.
- ✓ Active and participative training based on actual cases and situations

### **CTIF operations**

- ✓ High impact operational events aimed at all your company workforce.
- ✓ 1500 hours/year of instruction
- ✓ 1200 hours/year of training