# **HEAT TREATMENT**

### Course **Information**

Covers heat treatment requirements for the fabrication of pressure vessels, steam generators and process equipment.

The following fabrication codes are dealt with in this course:

- ASME VIII
- EN13480
- BS2633
- EN13445
- AWS D1.1

Heat Treatment Practitioner performing local heat treatment of welded fabrications on site, or in a workshop, using resistance heating, will benefit from this course. The course is also suitable for maintenance personnel who are responsible for supervising heat treatment operations. Candidates who preferably have a Grade 10 qualification as well as experience in engineering and/or metal working is recommended.

#### **Course Content**

- **PRACTICAL** Determining pre- and post-weld heat treatment requirements to codes and standards
  - Determining heating and insulation band widths
  - Determining heating configurations on nozzles
  - Setting up equipment for weld heat treatments thermocouples, heaters, insulation
  - Operating heat treatment equipment

#### **THEORY**

- Basic metallurgy
- Heat treatment definitions
- Welding processes
- Welding effects on materials why is heat treatment necessary?
- Heat treatment cycles, heating and cooling rates, soaking temperatures, soaking times
- Code and material specification requirements for welding
- Pre-heat, post-weld heat treatment, normalising, annealing, hydrogen removal
- Methods of heat treatment
- Equipment

## Practitioner

Course duration: 10 days

**PRICING** (Including VAT)

Corporate Member R 28 090

Non-Corporate Member R 30 316

\*Prices subject to change

#### **SUCCESSFUL CANDIDATES WILL:**

1

understand the necessity to perform pre- and post-weld heat treatments 2

be able to determine heat treatment cycles in accordance with various codes 3

be able to set up and operate heat treatment equipment

#### **Course Schedule | Heat Treatment Practitioner**

JOHANNESBURG, DURBAN, CAPE TOWN					
WEEK	COURSE INFORMATION	HRS	JHB 01	DBN 01	CPT 01
1	Welding Processes	40	23-27 Nov	*	*
	Materials				
2	Post Weld Heat Treatment Codes	40	30 Nov - 03 Dec	*	*
	Examination - Paper A	3	04 Dec	*	*
	Examination - Paper B	3	04 Dec	*	*

<sup>\*</sup> Contact **elizabeth.shole@saiw.co.za** who will put you on the waiting list. As soon as there are five prospective students, a course will be scheduled.

www.saiw.co.za

Please refer to contacts on page 16

