

# **DIETSMANN QUALIFICATION COLLEGE**TRAINING PROGRAMS & QUALIFICATIONS

www.dietsmann.com

Operation & Maintenance skills provider for the oil & gas, conventional & nuclear power generation and mining industries





# ABOUT **DIETSMANN TECHNOLOGIES**

Dietsmann Technologies is an operating company of Dietsmann, the leading independent specialist in Operation & Maintenance services and Maintenance Engineering & Inspection for continuous production plant in the oil & gas, conventional & nuclear power generation and mining industries, and works in accordance with good practices and Dietsmann's Quality Management System.

Dietsmann Technologies is Headquartered in a 24,000m<sup>2</sup> engineering and construction facility in Salies du Salat in south-west France and works closely with Dietsmann's 1,500m<sup>2</sup> maintenance and inspection engineering Technical Support Center in nearby Toulouse. Dietsmann Technologies also has permanent satellite facilities in Gabon, the Republic of Congo and Angola from where it works on substantial projects with energy company clients and contractor partners. Its engineers and technicians are ready to be mobilized for turnkey projects anywhere in the world.

The Dietsmann Qualification College, located in Boussens, 5 kilometers from Salies du Salat, provides customized training programs and qualifications to the oil & gas, power generation and mining industries as well as other industries, technical and engineering establishments. The total training area of 1,000m² includes a 500m² workshop. This workshop contains examples of equipment that needs to be maintained at sites including rotary machines, pumps, alternative and centrifugal compressors and sets of the most frequently used spare parts. Metrology training takes place in a dedicated, fully equipped room that replicates the metrology rooms found on site. The training area also includes two classrooms, an electrical workshop and an e-learning room.

The College benefits from easy access to the highway and rail networks and Toulouse airport. It takes no more than an hour to reach Boussens from anywhere in France.

# **3 TECHNICAL SITES** IN FRANCE



# **BOUSSENS**

DIETSMANN Qualification College - A 1,000m<sup>2</sup> facility providing Maintenance training & certification with:

- Mechanical, electrical, instrumentation,
   HVAC and metrology workshops/rooms
- HV / LV electrical accreditation room
- Instrumentation benches (gas & fluid loop)
- HVAC bench
- An E-learning room, 2 classrooms and a 500m<sup>2</sup> workshop

# **THE PHILOSOPHY - A TAILOR-MADE SOLUTION**

TRAINING THAT GUARANTEES QUALITY AND EXPERTISE



# AND INDUSTRIAL FIELD COMPETENCIES

- Mechanical
- Instrumentation
- Electrical
- Heating, ventilation and air conditioning
- Maintenance engineering courses









# **TRAINING** CUSTOMIZED TO YOUR OPERATIONAL NEEDS

The Dietsmann Qualification College, with its extensive experience in mechanical engineering, electrical engineering, instrumentation, HVAC and Maintenance Engineering as well as regulatory technical training (electrical qualifications, ATEX), is the expert in field maintenance. Qualification courses and programs are customized to answer your needs. Even if trainees have no previous experience the College will take them all the way through from an initiation course to the required qualification. The College can also offer an All-In training program package that incorporates and encompasses all your specific requirements.

# THE COLLEGE'S TRAINING COURSES AND PROGRAMS COVER A WIDE SPECTRUM OF MAINTENANCE-RELATED SKILLS:







# **MECHANICAL**

# **Training courses & qualifications**

- Coupling between pipes or components (selection and execution)
- Flange sealing (the various sealing systems and metal gasket fitting)
- Metrology
- Vibration measurement
- Endoscopy

### For

- Centrifugal / Volumetric compressors
- Pumps & compressors

# **ATEX certifications (INERIS)**

Mechanical staff levels 0 to 2

# INSTRUMENTATION

# **Training courses & qualifications**

- HART protocol
- Regulation loop:
   Gas loop / Liquid loop mounting
- Program Logic Controller set-up
- Fire Gas Security
- Vibration monitoring
- Instrumentation calibration:
   Level / Flow / Temperature / Pressure

## **ATEX certifications (INERIS)**

■ Electrical/instrumentation staff levels 0 to 2

# **ELECTRICAL**

# **Training courses & qualifications**

- Introduction to electrical schematics
- Protection relays Operator / Supervisor level
- Thermography
- Interlock consignment

# **Electrical Accreditations**

- For electrician and non-electrician
- Refresher programs

## **ATEX certifications (INERIS)**

■ Electrical staff levels 0 to 2





# HEATING, VENTILATION & AIR CONDITIONING

# Training courses & qualifications Junior

- Air evolution Psychometric chart
- Principle of refrigeration & air conditioning installations
- HVAC technologies/components

# **Senior expert**

- Basics of fluid handling, gas charge & discharge in accordance with regulations
- Air conditioning system trouble shooting and failure diagnostics training
- HVAC integrated system & Human
   Machine Interface (HMI) exploitation



# MAINTENANCE ENGINEERING

# Training courses & qualifications

# **Introduction to Maintenance Engineering**

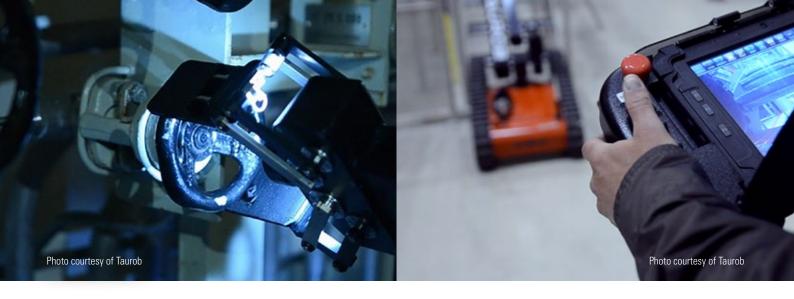
- Hierarchy breakdown
- Criticality study
- Lubrication study
- Failure mode, effect & criticality analysis
- Rotating permutation plan & maintenance planning studies



# GTIS JOINTING CERTIFICATION

# **Training courses & certifications**

- Level 1 and 2
- Bolt torquing
- Flange sealing (the various sealing systems and metal gasket fitting)



# **NEW:** ROBOTICS EXPERIMENTATION FACILITIES IN BOUSSENS

In addition to the 'conventional' training and education applications for which the Boussens Qualification College was designed and is being used, the facilities also offer ample opportunities for the testing of robotic technologies.

The deployment of robots for certain operation & maintenance related tasks is expected to become the norm within the foreseeable future. Developers of this new technology are currently focusing their attention on the industrial/ petrochemical applications for (semi-) autonomous robots.

These applications include, e.g., Non Destructive Testing (NDT)-tasks during the regular inspections of installations such as pressure vessels, storage tanks and larger diameter piping. Or the cleaning of equipment at difficult accessible locations.

As robots can be controlled remotely and maneuver 'independently' they could also be used to perform certain (standard and non-standard) tasks on unmanned platforms or in specific circumstances.

Other applications for robots include using drones for inspections of larger vessels and heat exchangers, flare systems or piping. The oil and gas industry is focusing continuously on working more efficiently and effectively and the utilization of robots will play a role in achieving this.

Developments in the area of Augmented Reality (AR) and Virtual Reality (VR) are now being implemented within the industry. The new training tools they are providing help operators and maintenance staff achieve the required quality level.

Operations and maintenance activities at high-capital industrial sites must be adapted to take into account changing circumstances and increasing demands in the area of Health, Safety, Social, Security, Environment and Quality (HSEQ). 'New Technologies' can be of great assistance when it comes to such challenges. Before adaptations are implemented in 'real-life' situations they must be tested, not only from a technical point of view, but also in respect of the 'human-interaction and (social) acceptance aspects.

Augmented Reality (AR) and Virtual Reality (VR) are prime examples of technology that supports changes in the day-to-day working environment and in particular in staff training. Developments in these evolving technologies are now being implemented within the industry. The new training tools they are providing can help operators and maintenance staff achieve the required quality level.

Facilities and opportunities, such as those available in the Dietsmann Qualification College, not only enable the use of robotics and other new technologies in mechanical, instrumentation and/or electrical applications to be tested on realistic industrial equipment, they also enable technicians to acquire the required competencies and qualifications related to these technological developments.



# A REFERENCE PARTNER

# **ADDED VALUE AND STRENGTHS**

# **Heavy operational machines**

 Practical training in using the operational equipment found on site, such as reciprocating and centrifugal compressors and centrifugal pumps

# **Simulated operating conditions**

- Testing benches equipped with fluid and gas loops simulate operating conditions
- Theoretical training is consolidated through practical exercises and tests
- 500m² practice area

# **Experts with a disciplined approach**

 Trainers selected on the basis of their expertise and knowledge acquired on Dietsmann sites around the world and their teaching skills

# Training packages customized to your needs

- Training courses and programs configured to the client's needs
- Qualifications customized to meet the client's operational needs

# **OUR COMMITMENT**

# THE DIETSMANN QUALIFICATION COLLEGE IS COMMITTED TO

- Providing a high standard of training and training facilities and creating a pleasant atmosphere that is conducive to learning
- Providing training courses and programs that meet clients' target specifications
- Providing trainees with constant support throughout their training
- Respecting AFNOR certifications (Training courses comply with AFNOR norms: 9001 & 14001; OHSAS 18001)

# **OUR TRAINERS**

# **ALL DIETSMANN QUALIFICATION COLLEGE TRAINERS**

- Are experienced professionals in their particular discipline
- Have considerable in-the-field experience gained working on operating sites around the world
- Are skilled teachers and communicators



contact-DQC@dietsmann.com

www.dietsmann.com/qualification-college

# DIETSMANN QUALIFICATION COLLEGE THE INDUSTRIAL MAINTENANCE SKILLS PROVIDER

## **FEEL FREE TO CONTACT US**

## **Boussens**

Zone d'Estarac 31360 Boussens, France tel: +33 (0) 561438127

# THE NETHERLANDS (GROUP HOLDING)

Wilhelminasingel, 19 4818 AC Breda, The Netherlands tel: +31 76 530 19 88 fax: +31 76 521 63 88

# MONACO (GLOBAL SUPPORT & COORDINATION OFFICE)

Gildo Pastor Center 7, rue du Gabian MC 98000, Monaco tel: +377 93 10 10 10 fax: +377 93 10 10 11

## UNITED ARAB EMIRATES (UAE - SUPPORT & COORDINATION OFFICE)

Office 4002 Jumeirah Business Center 1 Cluster G, DMCC P.O. Box 450171 Dubai, UAE tel: +971 4 4581 662

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## **ANGOLA**

Sonadiets Rua Augusto Silverino Ferreira 10/12 - 1° Andar Maculusso, Luanda Angola tel: +244 222 440 657

# BOLIVIA

Calle M. Terrazas, 14 Barrio Equipetrol Santa Cruz de la Sierra, Bolivia tel: +591 3 3705115

#### **BULGARIA**

DietsmannEnergoremont
10, Dimitar Manov street
1408 Sofia
Bulgaria
tel: +359 2 813 35 77
fax: +359 2 813 35 06

#### **CONGO (THE REPUBLIC OF)**

Avenue de Loango Boite Postale 1775 Pointe Noire The Republic of Congo tel: +242 22 294 44 71 fax: +242 22 294 43 50

#### **CYPRUS**

Krambis Building, Office 201 Stasikratous Street, 20 1065 Nicosia Cyprus tel: +357 222 50 446

# **FRANCE**

#### Salies du Salat

Zone Industrielle 31260 Salies du Salat France tel: +33 5 61 98 46 70 fax: +33 5 61 97 48 43

## Toulouse

8, rue Paul Mesplé 31100 Toulouse France tel: +33 5 61 43 81 10 fax: +33 5 61 43 81 12

### GABON

P.O. Box 1138 Port Gentil Gabon tel: +241 04 62 36 80 fax: +241 01 55 01 54

#### GHANA

36, Cantonments Crescent PO. Box CT 6622 Cantonments, Accra Ghana tel: +233 (0)30 276 5383 fax: +233 (0)30 276 2810

#### ITALY

Via Abruzzi, 25 00187 Roma Italy tel: +39 06 42020452 fax: +39 06 42010196

## **KAZAKHSTAN**

#### Atyrau

Satpayeva street,19 060012 Atyrau Republic of Kazakhstan tel: +7 7122 586 349/50 fax: +7 7122 586 348

## Aksai

Druzhba Narodov Street 2nd floor 27/2 090300, Aksai West Kazakhstan Region Republic of Kazakhstan tel: +7 71133 75 5 98 +7 71133 75 5 97

#### LIBY

Ahmed Ben Yazeed Street Hay Al-Andalus, 2 Tripoli Libya P.O. Box 93446 Tripoli Tower tel: +218 21 4782813/4/5 fax: +218 21 4782816

#### **MOZAMBIQUE**

Rua Zedequias Manganhela, 267 Kampfumu Maputo Mozambique tel: +258 84 3232750

# NIGERIA

NetcoDietsmann Ceddi Plaza, 3rd floor Plot 264 Tafawa Balewa Way Central Business District Wuse 2, FCT, Abuja Nigeria tel: +234 (0)80 988 855 32 fax: +234 (0)80 988 855 31

#### QATAR

Al Jazi Tower 15th floor West Wing Doha State of Qatar

# RUSSIA

BC «GlassHouse» Lyusinovskaya, 36/1 115093, Moscow Russia tel: +7 495 539 31 52

# **SOUTH SUDAN**

Juba Regency Hotel Office 3, Building 4 Plot 43, Block AXI Unity Road Juba Republic of South Sudan tel: +211 920 010 290

## SWITZERLAND

7, rue des Alpes 1201 Geneva Switzerland tel: +41 22 73 83 591 fax: +41 22 73 83 593









