

CHEMICAL
PETROCHEMICAL
REFRIGERATION
ENERGY
SERVICE



Workshops 2010 HERMETIC-Pumpen GmbH

With these workshops we provide you a great opportunity to qualify your staff and consequently to guarantee the safety of your plant.

General workshops

Workshop S 11

Explosion protection of canned motor pumps

Date: 27.04.2010, 19.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 1 day (9:00-12:00 / 13:30-16:00)
 Charges: 350 € per person plus VAT
 (overnight expenses not included)

Topic

- General details of explosion protection
- Explosion protection acc. to ATEX 100a
- Various types of explosion protection of canned motor pumps
- Repair work of explosion-proof components

Workshop S 21

The installed canned motor pump

Date: 03.05.2010, 26.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 1 day (9:00-12:00 / 13:30-16:00)
 Charges: 350 € per person plus VAT
 (overnight expenses not included)

Topic

- Design of canned motor pumps
- Operating range of canned motor pumps
- Type examples
- Operating details of canned motor pumps:
 - plant performance curve • adjustment of centrifugal pumps • NPSH and cavitation • monitoring of canned motor pumps • early warning of malfunction
- Explosion protection acc. to ATEX 100a

Technical workshops

Workshop S 31

Maintenance of canned motor pumps I (practical)

Date: 04.-05.05.2010, 10.-11.11.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 2 days (9:00-12:00 / 13:30-16:00 each)
 Charges: 700 € per person plus VAT
 (overnight expenses not included)

Topic

- Construction details of canned motor pumps
- Dismantling and installation of HERMETIC canned motor pumps
- Check of components, tolerances and dimensions
- Electrical and hydraulic tests of canned motor pumps
- Theory of axial thrust test
- Monitoring devices for canned motor pumps
- Failure causes of canned motor pumps

Workshop S 41

Maintenance of canned motor pumps II

Date: 11.-12.05.2010, 17.-18.11.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 2 days (9:00-12:00 / 13:30-16:00 each)
 Charges: 700 € per person plus VAT
 (overnight expenses not included)

Topic

- Check of components, tolerances and dimensions
- Repair of stators and rotors
- Electrical and hydraulic tests of canned motor pumps
- Axial thrust (balancing and rating)
- Details of explosion protection
- Repair work of explosion-proof components
- Monitoring devices for canned motor pumps and the respective adjustment
- Lifecycle costs
- Failure causes of canned motor pumps

All workshops including final examination and certificate.

Workshops regarding design and maintenance of canned motor pumps on demand.

General workshops

Workshop S 51

Explosion protection of liquid ring vacuum pumps

Date: 05.05.2010, 20.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 1 day (9:00-12:00 / 13:30-16:00)
 Charges: 350 € per person plus VAT
 (overnight expenses not included)

Workshop S 61

The installed positive displacement pump

Date: 26.04.2010, 27.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 1 day (9:00-12:00 / 13:30-16:00)
 Charges: 350 € per person plus VAT
 (overnight expenses not included)

Technical workshops

Workshop S 71

Maintenance of positive displacement pumps (practical)

Date: 17.-18.05.2010, 21.-22.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 2 days (9:00-12:00 / 13:30-16:00 each)
 Charges: 700 € per person plus VAT
 (overnight expenses not included)

Workshop S 81

Maintenance of vacuum pumps

Date: 20.-21.05.2010, 28.-29.10.2010
 Participants: min. 5 persons / max. 10 persons
 Duration: 2 days (9:00-12:00 / 13:30-16:00 each)
 Charges: 700 € per person plus VAT
 (overnight expenses not included)

All workshops including final examination and certificate.

Individual workshops on design and maintenance of positive displacement pumps on demand

Topic

- General details of explosion protection
- Explosion protection acc. to ATEX (Dir. 94/9 EC)
- Requirements for different groups of devices
- Characteristics for operation in zone 0 (i)

Topic

- Design of positive displacement pumps
- Field of application of positive displacement pumps
- Explanation on operation of positive displacement pumps:
 - Control and protection of positive displacement pumps
 - Monitoring
- Explosion protection acc. to ATEX (Dir. 94/9 EC)
- Shaft seal acc. to "TA-Luft"

Topic

- Construction details of positive displacement pumps
- Dismantling and installation of HERMETIC positive displacement pumps
- Examination of components; tolerances and clearances
- Hydraulic tests of positive displacement pumps
- Monitoring devices for positive displacement pumps
- Failure causes of positive displacement pumps

Topic

- Construction details
- Dismantling and installation of HERMETIC liquid ring vacuum pumps
- Examination of components; tolerances and clearances
- Hydraulic tests on liquid ring vacuum pumps
- Monitoring devices for vacuum pumps
- Failure causes of vacuum pumps

APPLICATION FORM

SEND FAX TO: +49-761-5830-280

We draw your attention to the fact that the workshop registration must be sent to us not later than 3 weeks before the required workshop starts. Please be informed that we cannot consider any registration after this date. We ask for your understanding.

Sender

Mr. / Mrs. (contact) _____

Company _____

Street _____

Postal code / City _____

Phone _____

Fax _____

E-mail _____

Invoice address
(if not in accordance with above mentioned address)

Date (please state) _____

Workshop (please mark)

- S 11 S 21 S 31 S 41
 S 51 S 61 S 71 S 81

List of participants

1 _____ 2 _____
3 _____ 4 _____
5 _____ 6 _____
7 _____ 8 _____
9 _____ 10 _____

Suggestions
(any required topics regarding workshop or training)

I still have some questions regarding topics,
organisation or course of workshops and would
therefore be pleased if you could contact me.

