

# TRAINING **CUSTOMER SERVICE / SERVICE**





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## AT FIBRO IN HASSMERSHEIM

- |   |             |  |
|---|-------------|--|
| 1 | GDF 1       | Gas springs  |
| 2 | GDF 2       | Gas spring without refit                                     |
| 3 | StGDF 1     | Controllable gas springs                                     |
| 4 | GNS 1       | Flex cam system  |
| 5 | VBS 1       | Connector system   |
| 6 | BetrSichV 1 | German Ordinance on Industrial Safety and Health             |
| 7 | GDF 6       | Gas spring without refit<br>Information on PED and BetrSichV |
| 8 | HSP 1       | Manual hose press  |

# ONSITE

## AT THE CUSTOMER'S LOCATION

9	GDF 3	Gas spring without refit
10	GDF 4	Gas springs
11	GDF 5	Gas spring without refit Information on PED and BetrSichV
12	StGDF 2	Controllable gas springs
13	GNS 2	Flex cam system
14	BetrSichV 2	German Ordinance on Industrial Safety and Health
15	HSP 2	Manual hose press
16	FETU	FIBRO Electronic Tapping Unit – Electronic thread tapping
17	WPM	Wireless Pressure Monitoring System



# TRAINING COURSES **AT FIBRO HASSMERSHEIM**

## **ALL OFFERS ARE VALID FOR:**

- 1.)** A REGISTERED CUSTOMER NUMBER
- 2.)** A GROUP WITH 1-5 PARTICIPANTS  
CATERING INCLUDED\*

*\*CATERING CONSISTS OF BREAKFAST WITH DRINKS AS WELL  
AS LUNCH (FOR COURSES LONGER THAN 3.5 HOURS)*

**FIXED PRICE UPON REQUEST**

# 1 GDF 1

**DURATION: 6 HOURS INCLUDING BREAK**

- Structure and function of FIBRO gas springs
- Organization into assembly-specific groups:
  - a) Disassembly or set-up from above
    - 2480. 12./13. 21. 22.1 23. 31. 32. 33. 82.
    - 2481. 12./13.
    - 2484. 12./13.
    - 2485. 12./13.
    - 2486. 12
    - 2487. 12. 82.
    - 2488. 12. 13.
  - b) Disassembly or set-up from below
    - 2490. 14.01000. - 18300.
    - 2496. 12.
  - c) Handling of non-repairable gas springs
    - 2479.030 / 031. / 032. / 034.
    - 2482.74.
    - 2490.14.00420. - 00750
- Dismantling and re-erection of one spring per group (a) and (b)
- FIBRO gas springs in a combined system
- Fault detection and corrective measures
- Hassmersheim factory tour

## 2 GDF 2

**DURATION: 5 HOURS INCLUDING BREAK**

- Handling/working with gas springs
- Installation guidelines
- Trouble shooting Guide
- Filling/Draining
- Connector system Minimes/Micromess
- Hassmersheim factory tour

## 3 StGDF 1

**DURATION: 5 HOURS INCLUDING BREAK**

- **Theory**
  - a) Design and mode of operation of controllable gas springs
  - b) Explanation of the control times and control options
  - c) Cooling controllable gas springs
  - d) Accessories and connection options of controllable gas springs incl. air and cooling
- **Practice**
  - a) Practical instruction of hose connection in different variants
  - b) Filling and draining the combined systems
  - c) Trouble shooting Guide
- Hassmersheim factory tour

## 4 GNS 1

**DURATION: 5 HOURS INCLUDING BREAK**

- **Theory**
  - a) Structure and function of flex cam systems
  - b) Presentation of the different flex cam types
  - c) Combined arrangement
  - d) Flex cam system accessories
- **Practice**
  - a) Practical instruction in different variants
  - b) Filling and draining the combined systems
  - c) Trouble shooting Guide

## 5 VBS 1

**DURATION: 3 HOURS INCLUDING BREAK**

- Training for safe operation of the FIBRO manual hose press machine
- Lay out and production of hoses
- Set-up of FIBRO gas spring accessories
- Hassmersheim factory tour

## **6** BETRSICHV

**DURATION: 5,5 HOURS INCLUDING BREAK**

- Topics of the gas springs training (GDF)
- Topics of the controllable gas springs training (StGDF)
- Topics of the flex cam systems training (GNS)
- General topics
- Theory of BetrSichV
- Hassmersheim factory tour

## **7** GDF **6**

**DURATION: 4 HOURS INCLUDING BREAK**

- Handling/working with gas springs
- Installation guidelines
- Trouble shooting Guide
- Filling/Draining
- Combined systems Minimesh/Micromesh
- Information on PED and BetrSichV
- Hassmersheim factory tour



# 8 HSP 1

**DURATION: 3,5 HOURS INCLUDING BREAK**

- Training for the safe operation of the FIBRO manual hose crimping machine
- Lay out and production of hoses
- Set-up of FIBRO gas spring accessories
- Hassmersheim factory tour



# TRAINING COURSES **ONSITE AT THE CUSTOMER'S LOCATION**

## **ALL OFFERS ARE VALID FOR:**

- 1.)** A REGISTERED CUSTOMER NUMBER
- 2.)** A GROUP WITH 1-5 PARTICIPANTS

WE WILL BE PLEASED TO MAKE YOU AN INDIVIDUAL OFFER

## 9 GDF 3

**DURATION: 2,5 HOURS**

- Handling/working with gas springs
- Installation guidelines
- Trouble shooting Guide
- Filling/Draining
- Connector system Minimes/Micromess

## 10 GDF 4

**DURATION: 6 HOURS**

- Structure and function of FIBRO gas springs
- Organization into assembly-specific groups:
  - a) Disassembly or set-up from above
    - 2480. 12./13. 21. 22.1 23. 31. 32. 33. 82.
    - 2481. 12./13.
    - 2484. 12./13.
    - 2485. 12./13.
    - 2486. 12
    - 2487. 12. 82.
    - 2488. 12. 13.
  - b) Disassembly or set-up from below
    - 2490. 14.01000. - 18300.
    - 2496. 12.
  - c) Handling of non-repairable gas springs
    - 2479.030 / 031. / 032. / 034.
    - 2482.74.
    - 2490.14.00420. - 00750
- Dismantling and re-erection of one spring per group (a) and (b)
- FIBRO gas springs in a combined system
- Error detection and corrective measures

# 11 GDF 5

**DURATION: 2,75 HOURS**

- Handling/working with gas springs
- Installation guidelines
- Trouble shooting Guide
- Filling/Draining
- Combined systems Minimesh/Micromesh
- Information on PED and BetrSichV

# 12 StGDF 2

**DURATION: 4 HOURS**

- **Theory**
  - a) Design and mode of operation of controllable gas springs
  - b) Explanation of the control times and control options
  - c) Cooling controllable gas springs
  - d) Accessories and connection options of controllable gas springs incl. air and cooling
- **Practice**
  - a) Practical instruction of hose connection in different variants
  - b) Filling and draining the combined systems
  - c) Trouble shooting Guide

## 13 GNS 2

**DURATION: 3 HOURS**

- **Theory**

- a) Structure and function of flex cam systems
- b) Presentation of the different flex cam types
- c) Combined arrangement
- d) Flex cam system accessories

- **Practice**

- a) Practical instruction in different variants
- b) Filling and draining the combined systems
- c) Trouble shooting Guide

## 14 BETRSICHV 2

**DURATION: 4 HOURS**

- Topics of the gas springs training (GDF)Topics of the gas springs training
- Topics of the controllable gas springs training (StGDF)
- Topics of the flex cam systems training (GNS)
- General topics
- Theory of BetrSichV

## **15** HSP 2

**DURATION: 2,5 HOURS**

- Training for the safe operation of the FIBRO manual hose crimping machine
- Lay out and production of hoses
- Set-up of FIBRO gas spring accessories

## **16** FETU

**DURATION: 2,5 HOURS**

- Set-up, operation and handling, of the tapping unit
- Programming of new tools
- Error recognition and troubleshooting

# 17 WPM

**DURATION: 5 HOURS**

Prerequisite for this training is a registered GATEWAY, IoT

## **Part 1: Fundamentals of gas springs/hardware**

- Gas springs training 3 (2. hrs.)
- Working with gas springs
- Installation guidelines
- Set-up of WPM accessories
- Filling/Draining

## **Part 2: Gateway, IoT/Software**

- Technical fundamentals and general functionality
- Definition
- Connecting the gateway, IoT, to a PC and initial setup
- Software registration (optional)
- Notes on connecting with a PLC control unit
- WPM-APP functionality
- Independent setup of a system with data storage device and sensor

## **FIBRO GmbH**

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## **THE LÄPPLE GROUP**

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LÄPPLE AUTOMOTIVE  
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FIBRO LÄPPLE TECHNOLOGY  
LÄPPLE AUS- UND WEITERBILDUNG

## **Technischer Service**

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