IFEX 3000 Impulse Fire Extinguishing Technology

Manual

Fire Extinguisher Typ IFEX 3001/12 Backpack

1. Impulse Gun IFEX 3001  Serial-n°: ____________
2. Water container IFEX 3012  Fabr.-n°: ____________
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Safety regulations

BEFORE USE OF THE IFEX GUN AND BACKPACK
PLEASE READ THE INSTRUCTION MANUAL CAREFULLY!

NEVER AIM AT ANIMALS OR HUMAN BEINGS!
IN CASES OF DIRE EMERGENCY THE MINIMUM SAFETY DISTANCE IS 6 METERS!

BEWARE OF ELECTRICAL UNITS.
USE ONLY UP TO 1000 V;
MINIMUM SAFETY DISTANCE IS 1 METER.

CAUTION!
IFEX TECHNOLOGIES GMBH IS NOT RESPONSIBLE FOR ANY DAMAGE TO ANIMALS, HUMAN BEINGS OR MATERIAL CAUSED BY WRONG OR IRRESPONSIBLE USE AND OPERATION OF THE IFEX 3000 IMPULSE FIRE EXTINGUISHING EQUIPMENT.
IN CASE OF VISIBLE DAMAGE, USE OF THE FIRE FIGHTING UNIT IS NOT RECOMMENDED. EXCHANGE DAMAGED PARTS IMMEDIATELY! IN CASE OF SUBSTANTIAL DAMAGE PLEASE CONTACT IFEX TECHNOLOGIES GMBH.

IFEX 3000 PRODUCTS SHOULD BE USED FOR FIRE FIGHTING PURPOSES ONLY !!!
ALTERNATIVE USE OF IFEX 3000 PRODUCTS IS PROHIBITED.
FIRE EXTINGUISHER
12,5 LITERS WATER
13 A

1. OPEN CYLINDER VALVE
2. OPEN WATER VALVE
3. RELEASE TRIGGER LOCK
4. PULL TRIGGER TO OPERATE GUN

WARNING!
TO BE USED BY FIRE BRIGADE OR TRAINED PERSONNEL ONLY.
DO NOT AIM AT HUMAN BEINGS OR ANIMALS.
CAUTION WITH ELECTRICAL INSTALLATIONS.
DO NOT USE ABOVE 1000V! SAFETY DISTANCE 1METER.
FOLLOW INSTRUCTIONS IN OPERATION MANUAL.

AFTER USE ALWAYS RECHARGE AND KEEP READY FOR OPERATION!
THE FIRE EXTINGUISHER NEEDS TO BE TESTED ONCE A YEAR.
TO BE USED WITH RECOMMENDED FIRE EXTINGUISHING AGENTS OR ADDITIVES ONLY.

Fire extinguishing agent: 12,5 Liters Water with 375 ml PL-7/96
Propellant: 2 Liters Compr. Air 300 bar
Temperature range: +5° C bis + 60° C
N° of approval: P 2 - 1/01
Type: IFEX 3001/12

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Telephone: +49(0)4282 93060  Telefax: +49(0)4282 930626
Instruction for use and operation

A. Preparation

1. Fill the extinguishing agent container with extinguishing agent as described in point 7.1 of the filling instructions.
2. Fill the air pressure cylinder with air as described in point 7.2 of the filling instructions.
3. The unit is to be prepared for operation as described in point 8 of the test and filling instructions.
4. Put on personal safety wear and breathing apparatus as per standard safety regulations.

B. Use and operation

1. Take the Backpack (ready for operation) on shoulder and put the strap around the shoulder, adjust the shoulder straps and close the buckle.
2. Take the IFEX Impulse Gun, and put the strap over the shoulder.
3. Adjust the shoulder strap.
4. Hold the gun upwards at an approximately 30° vertical angle.
5. Check whether the water valve is closed.
6. Connect the water hose to the Impulse Gun.
7. Connect the air pressure hose to the Impulse Gun. Check whether the connections are in place.
8. Open the air pressure cylinder valve slowly. There will be 6 bar pressure on the water container and the water hose, and 25 bar pressure on the gun.
   Note: The pressure gauge on the pressure regulator only shows the approximate filling pressure of the air cylinder.
9. Further hold the gun upwards at an 30° vertical angle. Open the water valve. The gun is filled, when small amounts of water spray through the rubber diaphragm of the gun. Close the water valve. Release the trigger lock at the gun by turning it into fire (“F”)-position. The Impulse Gun is ready for use.
Please note:
The Impulse-technology achieves a very high velocity where water is shot from the gun at a high speed. This leads to a short but powerful recoil of the gun. In order to minimize this recoil it is advisory to move the gun forwards while shooting and to bend your body forwards with your legs in a so-called walking position. Always aim slightly below the aligned target. Pull the trigger evenly and let go immediately after the shot. The air pressure will be refilled automatically within 3 seconds. Open the water valve and repeat the extinguishing process as before. The most effective shot range is between 1 and 10 meters. The total shot range is 16 meters.

10. When well trained in using the gun and rapid shooting is required, simply let the water valve open and shoot when the gun is filled. Use the filling time to consider where to place the next shot. For the extinguishing of smaller fires the gun can be filled with smaller amounts of water simply by opening the water valve for shorter periods or through a faster shooting frequence.

C. After use of the IFEX-Impulse Gun and Backpack

1. Close the water valve at the gun, and empty the water chamber by carrying out several shots without water.

2. Close the air pressure cylinder valve.

3. Empty the gun by pulling the trigger repeatedly, until there is no remaining air in the hoses and the gun.

4. Disconnect the air pressure hose from the gun.

5. Disconnect the water hose from the gun.

6. Open the buckle of the Backpack carrying unit and take the Backpack from the shoulder.

7. Release the air pressure from the extinguishing agent container by pushing the red knob of the pressure relief valve unless there is no remaining air pressure in the container.
8. Refill the extinguishing agent container with fire extinguishing agent as per point 7.1 and the air pressure cylinder as per point 7.2 of the filling instructions.

9. Put the hoses across behind the carrying unit for storage.

**Place the IFEX 3000 Impulse fire extinguishing equipment at its destined location.**

**Test and filling instructions**

**Please note carefully:**
These test and filling instructions describe the standard rules for testing by the user and for maintenance of the mobile IFEX 3000 Impulse Fire Fighting Equipment. Maintenance should be carried out as per DIN 14406, part 4, latest edition.

**Warning:** Before testing of the IFEX 3000 Impulse fire extinguishing equipment:
1. Make sure that the air pressure valve of the pressure cylinder is closed.
2. Use the drain valve on top of the extinguishing agent container to release remaining pressure.
3. Make sure there is no remaining pressure in the IFEX-Gun or hose. This is done by triggering the gun repeatedly until the remaining air in the hoses and gun is evacuated.

**Caution!** Use the gun always with shoulder strap according to the instruction manual as there may be a recoil due to the remaining air in the gun!

1. **Testing of the equipment**
   To ensure the perfect functioning of the equipment it is required to have it tested by an expert at least once a year. The periods between testing of the gun may need to be reduced if this is required by local regulations.

1.1 **Visual testing**
   Test the equipment's general condition (cleanliness, condition of the fittings, the hoses, the extinguishing agent container, the pressure containers, the safety equipment, the gun, the hose connections, the mounting of the extinguishing agent container and the air pressure cylinder, the labels).
   Equipment and fittings which are damaged will need to be replaced immediately.
1.2 **Spare parts**
Use certified spare parts only!
IFEX-original parts are certified.

1.3 **Testing** of the fire fighting equipment according to the testing regulations for "IFEX 3012 Impulse fire fighting equipment".

1.4 Preparation before use of fire fighting equipment IFEX 3012 according to the filling instructions for "IFEX 3012 Impulse fire fighting equipment" as per point 8.0.

2. **Testing of the IFEX 3001 Impulse Gun**

Caution! Note warning on page 6!

2.1 Disconnect the air pressure and water hose from the gun.
2.2 Check the shoulder strap for damages.
2.3 Check the screws at the front and back strap connections.
2.4 Check the membrane at the barrel front for damages (the membrane has 6 incisions from the center to the outside, ending approximately 6 mm from the outside).
2.5 Check the screwed cap on top of the membrane, if necessary tighten it with the supplied special tool.
2.6 Check the front handle for tightness, if necessary tighten with a 13 mm socket wrench.
2.7 Check the water connection at the gun and the water coupling for damages and cleanliness.
2.8 Check the water valve for external damages and operativeness of the valve. The valve body should easily slide on the valve axle.
2.9 Check the stability of the handle at the gun (key size 3 mm) as well as the operativeness of the triggering mechanism.
2.10 Check the operativeness of the trigger lock.
2.11 Check the air pressure connection at the gun handle for damages and cleanliness.
2.12 Pay attention for the pressure tests of gun, air cylinder and extinguishing agent container within the time limits prescribed in your country! Note page 12, point 6.3 and 6.4.
3. **Testing of the Backpack**
   **Caution! Note warning** on page 6!

3.1 Check the Backpack carrying unit for damages.
3.2 Check the straps, strap holders and blocking units for damages.
3.3 Check the shoulder ring for damages.
3.4 Check the connection screws at the water container/carrying unit (Hexagon screws, key size 14 mm)
3.5 Check the pressure cylinder straps for damages and the velcro for strength.

4. **Check the extinguishing agent container and the mounted fittings**
   **Caution! Note warning** on page 6!

4.1 Disconnect all water and air hoses from the container and check the couplings.
4.2 Remove the air pressure cylinder from the backpack.
4.3 Check the extinguishing agent container for external damages, scratches in the paint and corrosion.
4.4 Check the water connection, the fittings at the container and the couplings for damages.
4.5 Check the air pressure connection and the fittings at the container and the couplings for damages.
4.5.1 Check the pressure gauge for damages.
4.6 Remove the filling unit from the container by turning the handle anti-clockwise.
4.7.1 Check the filling unit for damages.
4.7.2 Check the screw-in thread and the sealing o-ring for damages.
4.7.3 Check the reducing valve and spindle thread for damages.
4.7.4 Check the safety valve for damages.
4.7.5 Check the hex screw at the handle for tightness (key size 13 mm).
4.8 Empty the extinguishing agent container and check the inside visually.
4.9 Check the type plate and instruction sticker for damages and readability.
4.10 Dismantle the filter (key size 21mm) and check it for damages, if filter is mounted (optional).

**Reminder:**
1. All couplings, threads and other parts of the extinguishing unit need to be checked for cleanliness, and cleaned if necessary!
2. All parts which are dismantled for testing need to be re-installed expertly.
4.11 After re-installation of all parts and re-connection of the water connection the safety valve needs to be checked. Fill the container with water and air pressure. The valve requires 6 bar +10% tolerance (6,6 bar). If the safety valve opens before reaching 6,0 bar, or if it fails to open at 6,6 bar, the valve is to be renewed.

5. **Testing of the water and air pressure hoses including couplings**

   **Caution! Note warning on page 6!**

5.1 **Water hose:**
   Water hose from the Impulse Gun to the coupling at the water container.
   
   * Check the water hose visually for damages.
   * Check the couplings at the hose and the hose swaging sockets for damages and cleanliness.

5.2 **Pressure hoses:**
   a) Pressure hose from pressure regulator to the Impulse Gun.
   b) Pressure hose from the pressure regulator to the water container.

   * Check the pressure hoses visually for damages and cleanliness.
   * Check the couplings at the hoses and the hose swaging sockets for damages and cleanliness.

6. **Air pressure cylinder**

6.1 **The air pressure cylinder needs to be checked for:**
   - national pressure cylinder regulations.
   - cylinder valve for damages.
   - external damages.
   - air pressure of the container to be checked per test manometer.

   **the check-up needs to be done as follows:**
   1. Make sure the cylinder valve is closed.
   2. Remove the pressure regulator from the cylinder valve, fit test manometer, slowly open the valve and read the pressure:
      IFEX 3012 = 2 ltr./300 bar, Minimum pressure 270 bar/+20°C, if less, refill.

   **Note:** The pressure gauge at the pressure regulator shows the approximate filling pressure of the pressure cylinder only.
6.2 Pressure regulator
- Remove the pressure regulator from pressure cylinder valve (if not done already as per 6.1)
- Check the manometer glass for damages and cleanliness.
- Check the couplings and threads for damages and cleanliness.

6.3 Testing the extinguishing agent container:
The extinguishing agent container needs to be tested by a competent person according to Directive 2009/104/EC and national regulations. Note appendix A, page 1.
Reduce the pressure in the container to zero and empty the container completely. Disconnect all fittings apart from the air pressure fittings, close the connections. Remove the safety valve from the filling unit and close the connections.
Fill the container with water through the filling opening and close the filling unit. Fill the container with 7,8 bar through the air pressure connector. Check the pressure with a test manometer. The pressure must be held for 10 minutes. After testing empty the container and re-mount all fittings.

Enter results of test in maintenance record
Appendix A page 2 by an expert.

6.4 Testing the air pressure container of the gun:
The air pressure container needs to be tested by a competent person according to Directive 2009/104/EC and national regulations. Note appendix A, page 1, point 1.2.
Remove the bursting disc, close the opening with a cylinder screw. Connect the air pressure hose from the pressure source to the air pressure coupling of the gun. A pressure regulator with 60 bar pressure needs to be connected to the coupling. Put the gun in a water basin, slowly open the valve at the pressure source, put 60 bar pressure on the pressure container, observe the manometer, close the valve as soon as 60 bar pressure is reached. This pressure needs to be held for 30 seconds. Reduce the pressure after the test. Re-install the bursting disc after the test.
(TÜV-bursting test at 03.02.95; \(P_{adm} = 45\) bar, \(V = 0,8l\), \(P_{Test} = 58,5\) bar), TÜV agreed rounded \(P_{Test} \text{ value} = 60,0\) bar.

Enter result of test in maintenance record
Appendix A page 3 by an expert.
NOTE: National regulations may differ from the above. Make sure to check local testing regulations.

6.4 Maintenance label:
Maintenance dates need to be entered on the label, which should not obstruct any prints from the manufacturer.
Note DIN 14406-4 latest edition.

The Maintenance/Testing needs to be confirmed on page 18 "Maintenance record" of the manual.

Deficiencies will have to be repaired and faulty or deficient parts are to be exchanged only by use of original parts, note point 1.1 and 1.2. After complete examination of the entire IFEX- Fire Extinguishing unit return the unit to operability according to page 12.

7. Filling of the container

7.1 Filling of the extinguishing agent container:
IFEX 3012 mobile fire extinguishing equipment = 12.5 Liter-extinguishing agent container
a) Fill the container with 12.5 liters of fresh and clean water mixed with 375ml (+3%) PL-7/96 through the filling opening.

b) Tighten the top filling closure firmly.

7.2 Filling of the air pressure cylinder:
Check the air pressure level with a test manometer.
- Test as follows:
  1. Make sure the cylinder valve is closed.
  2. Remove the pressure regulator from the bottle, adjust the test manometer, open the valve slowly and read the pressure:
IFEX 3012 = 2 ltr./300 bar, minimum pressure 270 bar/+20°C, if less, refill.
Caution!

It is strictly forbidden to fill the container with other substances then water, air or certified/recommended additives (PL-7/96)!

Please Note:

The fire extinguishing unit is to be used for fire extinguishing only. For training purposes please use the mobile IFEX 3035 and IFEX 3050 units.

8. Getting the unit ready for use

8.1 Make sure that the extinguishing agent container and the air pressure cylinder are filled according to point 7.1 and point 7.2.

8.2 Fit the air pressure cylinder at the side of the water container using the 2 straps (the connection for pressure regulator in outside direction).

8.3 Screw the pressure regulator into the cylinder valve of the air pressure cylinder.

8.4 Connect the air pressure hose from the pressure regulator with the water container coupling.

Remark: The air pressure-hoses to the extinguishing agent container and impulse gun are ready fitted at the pressure regulator.

8.5 Put the hoses (air pressure and water hose) behind the carrying unit assy.

The Backpack fire extinguishing unit is now ready for use.
Machinery and tools for maintenance

The following list of tools is without reference to the instructions. The listed tools are to be used for their specific purposes only.

1. Test pressure gauge 0 to 400 bar
2. Double open-end wrench 13 x 15 mm
3. Double open end wrench 14 x 17 mm
4. Double open wrench 19 x 22 mm
5. Open-end wrench 20 mm
6. 2 pcs. open-end wrench/ring wrench 7 mm
7. Hook spanner 60-90x5 mm
8. Pipe angle wrench 13 x 110 mm
9. Hexagon screwdriver 4 mm (for inner hexagon screw)
10. Pozidrive screwdriver size Pz 2
11. Socket wrench key size 13

Torques:

Front support grip 25 Nm

Pistol grip
(key size 3 mm inner hexagon) 7 Nm

Fastening screws 30 Nm

Ermeto- hose/ screw joints 6-PL 25 Nm

Safety valve 20 Nm

Drain and outlet valve 15 Nm
1. Impulse Gun IFEX 3001, assembly

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**Part List**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Air power chamber</td>
<td>DIN 1253</td>
</tr>
<tr>
<td>2</td>
<td>Water barrel</td>
<td>Plastic</td>
</tr>
<tr>
<td>3</td>
<td>Shoulder strap</td>
<td>A2</td>
</tr>
<tr>
<td>4</td>
<td>Front support grip</td>
<td>Stainless steel 1.4301</td>
</tr>
<tr>
<td>5</td>
<td>High performance valve</td>
<td>Plastic</td>
</tr>
<tr>
<td>6</td>
<td>Snap on air pressure connection</td>
<td>Steel 1.4301</td>
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<tr>
<td>7</td>
<td>Muzzle with split diaphragm</td>
<td>Stainless steel 1.4301</td>
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<td>8</td>
<td>Screwed cap</td>
<td>DIN 1253</td>
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<tr>
<td>9</td>
<td>Hexagon nut</td>
<td>Stainless steel 1.4301</td>
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<tr>
<td>10</td>
<td>Washer-Teflon</td>
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<tr>
<td>11</td>
<td>Piston grip w. trigger &amp; locking dev.</td>
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<tr>
<td>12</td>
<td>Forward support for shoulder strap</td>
<td>Stainless steel 1.4301</td>
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<td>13</td>
<td>Rear support for shoulder strap</td>
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<td>14</td>
<td>Burst disc with socket wrench</td>
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<td>15</td>
<td>Water valve</td>
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<td>16</td>
<td>Specially designed valve</td>
<td>Stainless steel 1.4301</td>
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<td>17</td>
<td>Screwed cap</td>
<td>Stainless steel 1.4301</td>
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<td>18</td>
<td>Special wrench for screwed cap</td>
<td>Stainless steel 1.4301</td>
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</tbody>
</table>

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**Remark:**

Order of spare parts: Please use part list nos.
2. Fire Fighting Equipment IFEX 3012 Backpack

Paint: 1) Red RAL 3000
2) W/o stainless steel - blank

Order of spare parts:
Please use part list nos.

Remark:
### 3. Top Filling Unit and Filter, IFEX 3012 Backpack

#### 1. Top filling unit assy.

![Diagram of top filling unit assy.]

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Qty.</th>
<th>IFEX Code</th>
<th>Description and Type</th>
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<td>2.2</td>
<td>1</td>
<td>IF-BP-300001-3D</td>
<td>Grease trap/gauze</td>
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<td>2.1</td>
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<td>IF-BP-300001-3D</td>
<td>Flat sealing</td>
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<td>2</td>
<td>1</td>
<td>09000004</td>
<td>Water filter 1/2&quot; RG 5</td>
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<td>1.6</td>
<td>1</td>
<td>0180000037</td>
<td>PVC-Protection for handle</td>
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<td>1.5</td>
<td>1</td>
<td>180000036</td>
<td>Handle for top filling unit</td>
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<td>1.4</td>
<td>1</td>
<td>09000034</td>
<td>O-Ring sealing Ø 39 x 5</td>
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<td>1.3</td>
<td>1</td>
<td>18000057</td>
<td>Screw for handle SW 13</td>
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<td>1.2</td>
<td>1</td>
<td>09000035</td>
<td>Quick coupling with relief valve - G 1/8&quot;</td>
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<tr>
<td>1.1</td>
<td>1</td>
<td>09000033</td>
<td>Safety valve 6 bars - 1/4&quot;</td>
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<td>1</td>
<td>1</td>
<td>9100</td>
<td>Top filling unit assy.</td>
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</table>

#### 2. Filter 1/2" (OPTIONAL)

![Diagram of filter 1/2"]

**Remark:**
Order of spare parts: Please use part list nos.

### Instruction for test and refilling

1. Top filling unit
2. Filter

IFEX 3012 Backpack

IFEX Code: IF-3000-110
4. Components Carrying Unit, IFEX 3012 Backpack

- Strap holder
- Ring for shoulder strap
- Strap (one side)
- Buckle
- Carring Unit
- Blocking unit right
- Blocking unit left

M8x20 screw for carrying unit for (key size13) extinguishing agent container secured with DELO ML 3868.
Maintenance and test certification for Backpack IFEX 3012

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<tr>
<th>IFEX Technologies GmbH</th>
<th>IFEX 3000 IMPULSE FIRE EXTINGUISHING TECHNOLOGY</th>
<th>Nr.: IF3000-110</th>
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<td>Hansestr. 18</td>
<td>Maintenance record for IFEX 3012 Backpack Fire Extinguishing Equipment</td>
<td>Page: 18</td>
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<td>27419 Sittensen</td>
<td></td>
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### Maintenance record

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<th>Extinguisher test date</th>
<th>Expert</th>
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### Maintenance record

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<th>Expert</th>
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### Maintenance record

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<th>Extinguisher test date</th>
<th>Expert</th>
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<tbody>
<tr>
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</table>
1. Testing the extinguishing agent container (by an expert):

The extinguishing agent container needs to be checked by an expert as per directive 2009/104/EC:

- external check – every 2 years
- internal check – every 5 years
- pressure test – every 10 years

Reduce the pressure in the container and empty the container completely. Disconnect all fittings except the air pressure fitting and close the connections. Remove the safety valve from the filling unit and close the connections. Fill the container with water through the filling opening and close the filling unit. Fill the container with 7,8 bar through the air pressure connector. Check the pressure by a test manometer. The pressure must be held for 10 minutes. Empty the container and remount the fittings after testing.

Enter results of test in maintenance record Appendix A page 2.

2. Testing the air pressure container of the Impulse Gun (by an expert):

The air pressure container needs to be checked by an expert as per directive 2009/104/EC:

- external check – every 2 years
- pressure test – every 10 years

Remove the bursting disc or safety valve and close the opening with a cylinder screw. Connect the air pressure hose from the pressure source via a pressure regulator. The pressure regulator must supply a secondary pressure of 60 bar to the air pressure coupling of the gun. Put the Gun in a water basin, slowly open the valve at the pressure source, observe the manometer and close the valve as soon as the pressure is 60 bar. This pressure must be held for 30 seconds. After testing re-install the bursting disc or safety valve.

\((\text{TÜV-bursting test at 03.02.96, Pall=45 bar, V= 0,8L, } P_{\text{Test}} = 58,5\text{bar}),\text{TÜV agreed rounded } P_{\text{Test Wert}} = 60,0\text{ bar})\)

(TÜV= German Technical inspection authority)

Enter results of test in maintenance record Appendix A page 3.
### 3. Tests according to national regulations for Extinguishing Agent Container 12,5 Liter

<table>
<thead>
<tr>
<th>User</th>
<th>Invoice address</th>
<th>Place of use</th>
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<table>
<thead>
<tr>
<th>Test certification as per directive 2009/104/EC</th>
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</tr>
<tr>
<td></td>
<td>Constr. date:</td>
</tr>
</tbody>
</table>

- Out of order
- Inside test
- Pressure test with water
- other test

<table>
<thead>
<tr>
<th>Cert. pressure:</th>
<th>Test pressure:</th>
<th>Use: Fire exting. agent container</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0 bar</td>
<td>12 bar</td>
<td></td>
</tr>
</tbody>
</table>

- Reg. every 10 years
- other test

Test result
- no
- minor
- major
- dangerous deficiencies

Deficiencies:

Notes:

Further use is:
- No problem
- No problem, if faults are adjusted

Not advisable. We will notify the appropriate authority.

(Place), date

- Next regular inside test _____________
- Next regular pressure test _____________

---

IFEX 3000 Impulse Fire Ext. Technology

Directive 2009/104/EC

Extinguishing Agent Container 12,5 Liter

Nr.: IF3000-110

Appendix A
Page: 2
Total pages: 3
Date: 22.11.12

IFEX Technologies GmbH
Hansestr. 18
D-27419 Sittensen
4. Tests according to national regulations for Air Pressure Chamber of Impulse Gun

<table>
<thead>
<tr>
<th>User</th>
<th>Invoice address</th>
<th>Place of use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test certification as per directive 2009/104/EC
Impulse Fire Extinguishing Gun IFEX 3001
- Out of order

Cert. pressure: 45,0 bar  Test pressure: 60,0 bar

- Inside test
- Reg. every 10 years
- Pressure test with water
- other test

Test result
- no
- minor
- major
- dangerous deficiencies

Deficiencies:

Notes:

Further use is:
- No problem
- No problem, if faults are adjusted
- Not advisable. We will notify the appropriate authority.

(Place) date

Expert

Next regular pressure test

---

IFEX 3000 Impulse Fire Extinguishing Technology

Direktive 2009/104/EC

Gun Air Power Chamber

Nr.: IF3000-110
Appendix: A
Page: 2
Total pages: 3
Date: 22.11.12
ZERTIFIKAT
CERTIFICATE

(Konformitätsbescheinigung) / (of conformity)

EG-Baumusterprüfung
EC type-examination

nach Richtlinie 97/23/EG / according to directive 97/23/EC
Zertifikat-Nr. / Certificate No.: 07 202 1321 Z 0053/0/005

Name und Anschrift des Herstellers:
Name and address of bearer/
manufacturer:

IFEX Technologies GmbH
Hansestraße 18
27419 Sittensen

Hiermit wird bescheinigt, dass das unten genannte EG-Baumuster die Anforderungen der
Richtlinie 97/23/EG erfüllt. We hereby certify that the type examination mentioned below fulfills the requirements
of directive 97/23/EC.

Geprüft nach Richtlinie 97/23/EG
Tested according to 97/23/EC

EG-Baumusterprüfung (Modul B)
EC type-examination (module B)

Prüfbericht-Nr.: / Test report No.:
1321 P 0053/0/001 und / and 1321 P 0050/13/D/001

Beschreibung des Baumusters
(Druckgerät):
Description of type (pressure equipment):

IFEX 3012 Backpack with IFEX 3001 Impulse fire
extinguishing gun

Fertigungsstätte/Place of manufacture:
IFEX Technologies GmbH
Hansestraße 18
27419 Sittensen

Gültig bis/valid until:
31.12.2020

Hamburg, 12.06.2013

Zertifizierungsstelle für Druckgeräte
der TÜV NORD Systems
GmbH & Co. KG

S. Korn
Benannte Stelle/Notified Body, 0045

TÜV Nord Systems GmbH & Co. KG
Große Bahnstraße 31
D-22525 Hamburg
Tel. +49-(0) 40 8557 1427
Fax +49-(0) 40 8557 2187
e-mail sluckmann@tuev-nord.de

Mitglied der
member of
CEOC

CONFEDEERATION EUROPEENNE D'ORGANISMES DE CONTROLE
ZERTIFIKAT
CERTIFICATE

Überwachung der Bauart
Monitoring of type
nach Richtlinie 97/23/EG / according to directive 97/23/EC

Zertifikat-Nr. / Certificate No.: 07 202 1321 Z 0053/0/008

Name und Anschrift des Herstellers
Name and address of manufacturer:
IFEX Technologies GmbH
Hansestraße 18
27419 Sittensen

Der Hersteller ist nach Prüfung der Voraussetzungen berechtigt, die von ihm im Rahmen des Geltungsbereichs des Moduls hergestellten Druckgeräte mit dem abgebildeten Zeichen zu kennzeichnen: After having examined the preconditions, the manufacturer is entitled to mark the pressure equipment produced within the range of the ambit of the module with the following mark:

CE 0045

Geprüft nach Richtlinie 97/23/EG:
Tested according to directive 97/23/EC:
Prüfbericht-Nr.:
Test report No.:
Konformität mit der Bauart (Modul C1)
Conformity to type (module C1):
Beschreibung des Druckgerätes:
Description of pressure equipment:
Zertifikat-Nr. des EG-Baumusters:
Certificate-No. of EC type-examination:
Fertigungsstätte:
Place of manufacture:

Hamburg, 12.00.2010

TUv NORD
0045

TUv NORD Systems
GmbH & Co. KG
Große Bahnstr. 31
D-22525 Hamburg, Germany
Tel. +49-(0) 40 8557 1427
Fax +49-(0) 40 8557 2187
e-mail sluckmann@tuev-nord.de

Zertifizierungsstelle für Druckgeräte
der TUv NORD Systems
GmbH & Co. KG

Benannte Stelle / Notified Body, 0045

Mitglied der
Member of
CEOC

Konformität mit der Bauart (Modul C1)
Conformity to type (module C1):

IFEX 3012 Backpack,
IFEX 3035 (35 Liter) and IFEX 3050 (50 Liter) Trolley,
IFEX 3072 (72liter) Skid
every with IFEX 3001 Impuls fire extinguishing gun
07 202 1321 Z 0053/0/005; 07 202 1321 Z 0063/0/006;
07 202 1321 Z 0053/0/007
IFEX Technologies GmbH
Hansestraße 18 27419 Sittensen

S. Korn

TUv NORD Systems
GmbH & Co. KG
Große Bahnstr. 31
D-22525 Hamburg, Germany
Tel. +49-(0) 40 8557 1427
Fax +49-(0) 40 8557 2187
e-mail sluckmann@tuev-nord.de

Zertifizierungsstelle für Druckgeräte
der TUv NORD Systems
GmbH & Co. KG

Benannte Stelle / Notified Body, 0045

Mitglied der
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CEOC

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07 202 1321 Z 0053/0/005; 07 202 1321 Z 0063/0/006;
07 202 1321 Z 0053/0/007
IFEX Technologies GmbH
Hansestraße 18 27419 Sittensen

S. Korn

TUv NORD Systems
GmbH & Co. KG
Große Bahnstr. 31
D-22525 Hamburg, Germany
Tel. +49-(0) 40 8557 1427
Fax +49-(0) 40 8557 2187
e-mail sluckmann@tuev-nord.de
Declaration of conformity

according to directive 97/ 23/ EC
for pressure equipment

The manufacturer
IFEX Technologies
Hansestraße 18
27419 Sittensen
Tel.: 04282/ 9306-0
Fax: 04282/ 9306-16

herewith declares that the pressure equipment

Description: Impulse gun IFEX 3001/
Backpack IFEX 3012

Max. allowable pressure PS
Impulse gun/ Water cylinder: 45,00 bar/ 6 bar
Allowable max./ min. temperature TS: -10°C - +50°C
Volume V Impulse gun/ water container: 0,8 L/ 12 L
Year of manufacturing: From 2004
Test pressure PT/ Impulse gun: 64,4 bar
Test medium: Water

corresponds with the directive 97/ 23/ EC.

Applied conformity assessment procedures:
Modules B + C1

Applied standards and Techn specifications:
PED 97/23/EC

Engaged notified bodies:
TÜV Nord Systems GmbH & Co. KG,
Große Bahnstraße 37, 22525 Hamburg

Certificates which are included:
EC-Design examination certificate N°:
EG-Baumusterprüfbescheinigung Nr.:
EG-Konformitätsbescheinigung Modul C1 Nr.:
1321 P 0053 TÜV Nord of 16.12.2010
07 202 1321 Z 0053/0/001
07 202 1321 Z 0053/0/004

IFEX GmbH
Hansestraße 18
D-27419 Sittensen
Tel. 49.4282.93060
Fax 49.4282.930626

Stempel/ Unterschrift

Ort, Datum:
Sittensen, 03.01.2011
Warranty

IFEX Technologies GmbH grants a warranty for the product purchased by the customer for a period of 24 months after purchasing.

The following information details the terms of the warranty offered by IFEX Technologies GmbH. You are entitled to make a claim under this warranty in the event of any manufacturing or material defects on the product you have purchased. The warranty provided is based on a voluntary obligation of IFEX Technologies GmbH as the manufacturer. It only applies to end customers. No warranty rights other than those expressed herein, whether given by IFEX Technologies sales partners or third parties, can be asserted against IFEX Technologies GmbH.

The warranty begins on the day of purchase stated in the invoice. Please note that warranty claims can only be processed if accompanied by the original invoice in combination with the approval certificate of the product. Therefore, always keep the invoice and the approval certificate together with the warranty documents.

The invoice must show the type of the product and the serial number.

Warranty claims must be submitted immediately following discovery of the fault to the sales partner or to IFEX Technologies GmbH.

Please check the availability of the sales partner in the documents given to you by the sales partner. IFEX Technologies GmbH is available by phone: +49 (0) 4282/ 9306-0, by fax: +49 (0) 4282/ 9306-26 or by e-mail at info@ifextechnologies.com.

After consulting IFEX Technologies GmbH the customer should return the defective product to IFEX Technologies GmbH.

In the event of a warranty claim IFEX Technologies GmbH will pay the costs for the resulting labour and any required materials or replacement parts.

The costs of the transport to and from IFEX Technologies GmbH will be accounted separately, without the common additional charges net/ net.

The warranty is limited to restoring the performance features and condition of the original product prior to the warranty claim. In this respect it is always sufficient for the affected product to fulfill the test requirements in accordance with the IFEX Technologies specifications for the original product. The warranty is fulfilled at the discretion of IFEX Technologies GmbH either by repairing or replacing the defective device. In cases of material and/or processing defects, defective parts shall be replaced with new or as-new reconditioned parts. If necessary, the complete product should be exchanged for an identical product or an alternative product offering the same level of functionality. The value of the warranty service is always limited to the value of the defective product.

The defective parts removed or replaced from a product during the course of warranty action shall become the property of IFEX Technologies GmbH.

Genuine IFEX Technologies parts installed under warranty in an IFEX Technologies product are only covered by the remaining duration of the warranty of the overall device.
Warranty exclusions

Defects caused by improper use are excluded from the warranty. Improper use of the equipment is taken to be any operation of the product under conditions which do not meet the terms of proper use described in the operating manual or documentation of the product.

The warranty also does not cover the following points:

- Wearing parts and consumable materials
- Diagnosis and rectification of defects caused by improper use or improper maintenance of the device by the customer or third parties. Improper actions include operations that are not compatible with the instructions contained in the product manual.
- Force majeure (lightning strike, floods, war etc.)
- Dirt, seals or stickers
- Any other circumstances for which IFEX Technologies cannot be held responsible.

The warranty is rendered null and void if:

- IFEX Technologies products are operated or fitted with parts, components or peripherals which have not been approved for that purpose by IFEX Technologies GmbH.
- The device is covered with irremovable seals, stickers or similar.
- The original warranty sticker at IFEX Technologies products is damaged or removed respectively if manipulations at those stickers are apparently.
- Services/ repairs or other changes to the product are carried out by persons who have not been authorized by IFEX Technologies GmbH to carry out such work.

This clause is not valid if the customer can prove that any defects were neither caused by nor arose as a consequence of such events.

Limitation of liability

Any claims of the party entitled to the warranty which exceed the scope of terms expressly mentioned in these warranty conditions are excluded. This also applies in particular with regard to claims to compensation for subsequent damages, loss of profits, data losses or information losses or damages following of the inoperability or missing of the product due to maintenance or repair.

Applicable law

The warranty is subject to the applicable laws in the country of purchase and is to be interpreted in agreement with the said laws.
ATTENTION!
ANY UNAUTHORIZED ALTERATION TO
THE EQUIPMENT WOULD RESULT IN
LOSS OF APPROVAL AS WELL IN
LOSS OF GUARANTEE!

IFEX Technologies GmbH