

# USER'S MANUAL

Carefully read these instructions before starting and using your log splitter!

- Set-up & installation
- Use
- Maintenance
- Accessories



## UNIVERSAL LOG SPLITTER SP 30 HZH/S - HEH/S - HZEH/S



We manufacture  
in Germany



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# 1. INTRODUCTION

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Dear customer,  
thank you very much for your trust and preference in buying this fire-wood processor! You have now joined the BGU worldwide family. We are confident that our equipment will be up to all your expectations and assure you a long lasting quality and performance.

This machine is available in the following versions:

SP 30 HZH/ S PTO powered  
SP 30 HEH/ S electrical motor  
SP 30 HZEH/ S PTO and electric motor

## 1.1 About this manual



Please take time to read this manual and learn to how operate and maintain the splitter safely. For your easier reading this manual is laid out in several sections. The sections are progressively numbered 1 through 16 and listed on the "content" page. The information, pictures and technical data in this document reflect current or planned product features, functions, and characteristics as of the publication date. Because of on-going product improvements and feature additions, information in this document is subject to change without notice. If you are experiencing a problem or functional trouble on your machine, please read the "trouble-shooting" section to identify possible causes and remedies. If the problem or functional trouble is not listed in the troubleshooting chart contained in this manual, ask your Authorized Service Centre for service. When you have checked all the possible causes listed and you are still experiencing the problem, ask your Authorized Service Centre for help. When you order parts maintenance or repair services, your Authorized Service Centre, your dealer or eventually the manufacturer need your machine serial number and engine serial number. These are the numbers that you have recorded on the product identification label of the manufacturer on the machine.

## 1.2 Delivery and transport claims

Upon receiving the splitter at your place, please check for visual machine damages such as damaged packing or scratched buckled parts. If so, make a remark on all copies of the delivery bill before signing for acceptance.

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**Also have the truck driver sign al copies of the delivery bill.**

Should your shipper or the truck driver refuse to accept your claim, fully reject delivery of the machine and make sure to inform us (the manufacturer) immediately. No claims will be taken into account by the shipper or by the insurance company, if a reservation note is not made on the delivery bill.

All transport damages must be notified within latest 2 days from delivery. Therefore delivery must be collected and inspected within this term. Later claims shall be disregarded. In case of assumed but not visually clear transport damages make sure to mark the following sentence on the delivery bill: **„Reserved delivery due to assumed transportation damages.“**

Insurance and shipping companies act with extreme caution in case of transport damages and sometimes refuse to accept responsibility. Please make sure to provide clear and exhaustive evidence (photos) of the claimed damages.

Thank you in advance for your help and attention to this matter.

## 2. PRODUCT OVERVIEW



### 3. SAFETY PICTOGRAMS AND WARNING LABELS



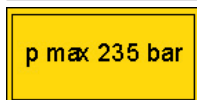
**1. Machine safety label**  
„before setting-up, servicing, maintaining and cleaning the machine, disengage power and stop the engine. Lock the tool and secure it against accidental start.“

This label reminds users of pinched hands danger!



**2. Machine safety label**  
„Read, understand, and follow all instructions in this manual and on the splitter before starting!“

This label reminds the user to always stand at safe distance from machine moving parts!



**3. Machine safety label „p max 220 bar“**  
Maximum operating pressure is 200 bars.



**4. Machine safety label**  
„Pinched hands danger“  
Wear suitable protective gloves! Pinched hands danger in the wedge hazard area.



**5. Manufacturer logo „BGU-Maschinen“**



**6. Production label „Product identification“**  
This label shows the company details of the manufacturer and the main machine technical data.



**7. Personal protection pictogram**  
“Wear suitable protective gloves!”



**8. Personal protection pictogram**  
“Wear suitable protective boots!”



**9. Personal protection pictogram**  
**„Wear ear plugs and goggles“**



**10. Personal protection sign:**  
**„Mind these instructions!“**



**11. Machine safety label**  
**„CAUTION: mind for driveshaft revolutions!“**

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## 4. SAFETY RULES



**Strictly perform installation, set-up, maintenance, cleaning and transportation with the motor switched off and all moving parts firmly secured against accidental operation.**



The user shall strictly comply with these operation, set-up, maintenance, repair and trouble-shooting instructions in order to assure safe operation and no damages to the equipment. The owner must understand these instructions and must allow only persons who understand these instructions to operate the splitter. Moreover we recommend to let the machine be run only and strictly by trained and skilled staff who must be familiar with the applicable occupational safety and health administration rules as well as applicable transportation rules. Incorrect use of the splitter can cause serious injury or death.

No person under school leaving age should operate this log splitter. Those who have reached school leaving age but are below the age of 16 may operate a log splitter if supervised by a competent person of 18 years or over. The machine shall be installed and kept in a suitable location selected by the customer for safest operation.

Make sure that the equipment stands on a safe stable foundation.

The working area around the machine must be kept as clear as possible from surrounding obstacles and slippery foundation floors should be duly treated (do not use saw dust or wood ash for this purpose). Also make sure to comply with the following provisions:

- Due and proper illumination of the working site must be provided at all times.
- Ensure that a wide but confined area is available around the machine and assure maximum working freedom.
- A skilled licensed electrician must be asked for any repair of the electric system.
- Operators must wear steel toe safety shoes and snug-fitting tear-resistant work cloths.
- No additional customised protections or tools should be provided on board of the machine, other than the ones designed and supplied by the manufacturer.
- NEVER leave the machine unattended without prior power disconnection.

Operator's hearing protection, safety glasses, safety shoes and gloves, close fitting cloths and other adequate protection means are strongly recommended.

Make sure that all access ways are properly maintained so that wood can be safely delivered, loaded and shipped.



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#### 4.1 Mandatory application field

The machine is strictly designed to split firewood along the wood fibres. No second operator or bystanders are allowed on the machine while working.

When splitting your logs, be sure that the log is safely laid down in the special wood carriage by means of the special log lift.

The manufacturer will consider any other use or application as "misuse", in which case the manufacturer will not be responsible for customers' claims or resulting damages.

Customers are to operate the machine in strict accordance with these installation, operation, maintenance and repair instructions. Lack of compliance with these instructions may lead to dangerous risks and situations. This manual contains useful information about machine safety, installation, transportation, maintenance and service.

**Lack of compliance with these instructions may lead to dangerous risks and situations and will void all warranty claims, in which case the manufacturer will not be responsible for customers' claims or resulting damages and/or injuries.**

## 5. OPERATING INSTRUCTIONS

### 5.1 Electric specifications (for SP 30HEH/S and SP 30HZEH/S only)

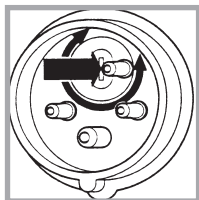


Fig. 1 - Phase inverter

Connect the 400V motor using a 25 m long power cable in a minimum section of 1.5 mm<sup>2</sup>.

Make sure to connect the neutral return wire of the conductor cord or the machine won't start!

A switch-plug combination outlet provides power supply to the machine.

Before first use, check that the motor rotates in the direction shown by the arrow on the housing. To do this, quickly switch the motor on and off. Should rotation be performed in the opposite direction than shown by the arrow-label on the motor fan, immediately stop the motor and use a phase inverter (Fig. 1) to change the plugging polarity of the conductor cable.



**Operating the splitter while the motor turns in the wrong direction may cause major, even permanent damages of the hydraulic pump!**

### 5.2 Hydraulic specifications

This professional horizontal log splitter has own inbuilt hydraulic system with pump and oil reservoir purposely located at the base of the main frame. The machine comes from the factory with a first oil fill. (see page 14 for oil change instructions).



**Hydraulic oil in the lines may become quite viscous at very low ambient temperature. In this case, sudden start-up may damage the hydraulic system of your machine. In order to protect the system, rather let the splitter run idle (with no load and no operation) for a while (approx. 15 min) till the oil in the lines warms up.**

The splitter is hydraulically controlled by means a control valve whose fine default-settings are performed by the manufacturer before delivery. Do not alter these settings.

### 5.3 Attaching the splitter to a tractor (SP 30 HZH/S and SP 30 HZEH/S)

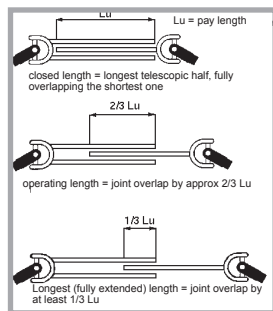


Fig. 2

### 5.4 Getting started

Before starting, inspect the machine for evident, visible damages and unusual conditions. Check the state of all hydraulic hoses, fittings and connectors and seal eventual leaks, if required. Do not check for leaks with your hand. Leaks can be located by passing a piece of cardboard or wood around the suspected leak and looking for discoloration. High-pressure fluid escaping from a very small hole can be almost invisible. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious injury or even death.

Altering the equipment, or using the equipment in such a way as to circumvent its safeties, could result in serious or fatal injury. NEVER operate your processor when it's in need of repair or in poor mechanical conditions.

### 5.5 Safety

Machine instability can result in injury or severe damages. To ensure stability during operation make sure to choose a flat, dry floor free from any tall grass, brush or other interferences.

To avoid tripping, do not leave tools, logs, or other components laying around in the work area. Avoid slippery floor conditions but do not scatter saw dust or wood ash to improve the foundation floor. Never reach with your hands inside the wedge operation area on the machine while working!

## 5.6 Operating instructions

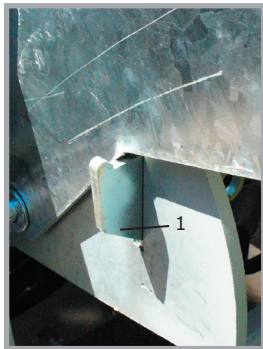


Fig. 3

Connect your log splitter to the tractor using a PTO shaft (see paragraph 5.3) or plug the motor to your house network. Before starting to work with your log splitter, release the locking bolt (1) used to secure the log lift in its transport asset. (see Figure 3).

Let the log roll over till it settles on the log lift. Operate the left hand-lever to let the log lift up and then roll the log down into splitting position on the log carriage.

Operate the right hand-lever to adjust the height of the 4-ways wedge depending on your log diameter.

Concurrently pull (towards you) both control levers to start the splitting cycle. If required, release one lever only to stop the ram at once (emergency stop).

Clear wood chips or logs rests from the working area and unload wood from outlet collection table (if full) before setting the log lift down and starting a new cycle.

## 5.7 Adjusting the ram stroke to a different log length

The ram crosswise stroke can be adjusted at wish by changing the position of the stop plate on the splitter left hand side.

The location of the stop plate will set the ram stop.

It is possible to set the ram stop at 65 and 125 cm.

For shorter stroke than 95 cm please use the extension stop provided with your machine.

## 5.8 Two-hands control and auto-cycle control valve for fast speed operation mode

The log splitter is equipped with a standard two-stage control valve for two operating modes: fast speed (nearly twice the normal one) at regular ram force and slow speed at greater ram force.

The system works automatically so that the splitter can perform self-switching on increased pressure and slower speed every time when a tougher log required maximum pressure to split. This function of your log splitter can be of special help when you need splitting very tough logs that can't-be handled at the regular fast-speed mode.

Pull both control levers towards you, to let the ram slide to the wedge. Push both levers down, to let the ram return to the start position.



**WARNING: for no reason you should reach inside the splitting area on the machine when the ram is sliding! Should an emergency situation occur, release both control levers so that the wedge is driven back to the start position before trying**

## 6. HANDLING AND TRANSPORTATION



**Before handling, moving or transporting the splitter make sure to disconnect the machine from the power network.**

The machine can be transported over long distance by means of a tractor. In this case, hang the machine to the three-point attachment and lift it at least 20cm above ground. When travelling on roads, make sure to comply with the national rules of your country. In compliance with the German rules for road travel (STVO), rear lights are required. Make sure to remove the driveshaft joint and drive the tractor with caution so to avoid transport damages to the machine.

### 6.1 Transport asset

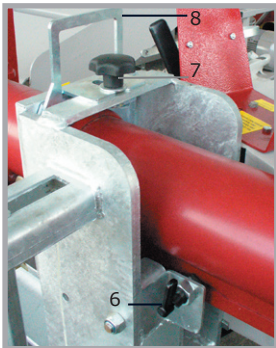


Fig. 4

To prepare the machine for road transportation the following steps should be followed:

Manually push the ram back to retract it within applicable road profile.

To do so, follow the procedure below:

- Release the locking bolt (6), release the star-knob (7) and remove the stop plate (8). (see Fig. 4)
- Manually muscle the ram into transport position (see Fig. 5)
- Secure the ram using the lock bolt (6) and install the stop plate (8)

PTO powered versions must be attached to the driveline of your tractor by means of a cardan shaft.

A properly coupled cardan shaft shall feature a minimum gap of 10 cm.

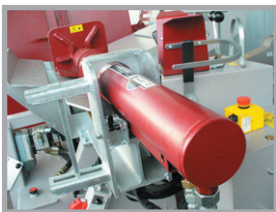


Fig. 5

## 7. REPAIRS AND MAINTENANCE



**Make sure that the machine is fully disconnected and all moving parts are secured before performing any maintenance/repair work on the machine. In the event of any malfunctioning, switch the machine off before trouble-shooting.**

### 7.1 Ordinary maintenance

Make maintenance a regular part of daily operation. The daily maintenance routine needs to include:

- Cleaning of the machine and clearing of all parts from residual wood debris, chips, dust, bark pieces and eventual other waste.
- Greasing of the sliding pads.
- Hydraulic oil check and (in case of leakage) hydraulic hose and fittings check-up to detect eventual oil leaks.
- Lubrication of all moving parts.

### 7.2 Hydraulic oil specifications

Periodically check the oil level inside the hydraulic oil tank. When doing so, accurately avoid contaminating the tank with dirt, wood chips, saw dust etc... Make sure that the splitter never runs without oil or with a low oil level. When this happens, air is likely to reach inside the hydraulic loop. Failure to maintain due oil level may cause poor running and irregular splitter operation (very rough, jerky motions) as well as major pump damages. Please schedule your first oil change after approximately 50 operation hours and later ones after each 250 operation hours or once a year.

#### **Recommended oil types:**

DEA HD B 46, Shell Tellus 10-46, Esso Nuto H 46

When changing the oil, never let used oil drop down on the ground, rather collect whole of it in a sealed container for due disposal. Oil disposal containers should be of at least 80 l capacity. If you are using smaller containers, make sure to drain the tank in more than one round to avoid spilling old oil out on the ground.

Used oil is very polluting and should be disposed in accordance with local!

After refilling the tank with new oil, let the splitter cycle three or four times and let the air blow out of the hydraulic loop before closing the cap.

All hose connections must be always tight and sealed.



**To perform an oil change the following steps should be followed:**

**Make sure that the splitter is fully disconnected from its power source!**

- Remove the drain plug located on the bottom tank side and place a sealed oil collection container underneath it (oil disposal containers should be of at least 80 l capacity)
- After draining the oil out, fit the plug back on and clean the suction filter
- Remove the filler cap on the tank and fill approximately 65 l oil in while you keep checking the oil level through the oil sight glass
- After refilling the tank with new oil, let the splitter cycle three or four times and let the air blow out of the hydraulic loop before closing the cap.  
Your log splitter is now ready to start again.



**All hose connections must be always tight and sealed.**



**Used oil is very polluting and should be disposed in accordance with the local rules!**

### 7.3 Consumables

- Copper pads (Code No. 21486)
- Hydraulic hoses (please replace them every 4-5 years)
- Hydraulic oil (Code No.21486) and Return filter cartridge (Code No.56110) (replace approx. every 3000-5000 operation hours)

### 7.4 Splitting wedge



Fig. 6

Our log splitters are standard with a 4 way .

Additional a 6 way splitting wedge is available.(Fig.6)  
(No. 94747)

The splitting wedge is hydraulically adjustable. Move the splitting wedge into the slideway for the splitting wedge wing a lifting device.

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## 8. DISPOSING OF AN OBSOLETE MACHINE

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When the splitter is fully obsolete and cannot be of any longer use, it should be duly dismantled ahead of discarding. Certain components need deactivation and dismantling in order to assure that no further use is made by other parties and that no worn out parts are recycled for other applications.

During dismantle be alert for possible recyclable materials and components that belong to differentiated waste collection procedures applicable in your country.

The manufacturer is not liable and undertakes no responsibility for personal injuries or damages that may result from the recycling of worn outmachine parts and eventual re-use in other applications different than originally stated in this manual.

### **Dismantling procedure:**

Take good note please: each and every dismantling task must be performed by authorized service centres or trained skilled staff only!

- Pull the machine down into single components
- Lock and clamp all moving machine parts
- Deliver each single component only to authorized waste management facilities
- Drain oil and fuel out of respective tanks and lines before disposal of the machine
- Remove rubber and plastic parts from the machine that must be separately disposed of.

Deactivated, clamped moving/driving parts and components are of no further risk and danger.

Electric components must be separately disposed to avoid substantial environmental threat. In the event of fire on the electric deployment system of the machine, use of an explosion-proof extinguish system is required (for example powder fire extinguishers).



## 9. TECHNICAL SPECIFICATIONS

Technical data	Unit of Measure-ment	HZH/S	HEH/S	HZEH/S
Splitter force*	t	30	30	30
Min. splitting capacity	mm	200	200	200
Max. splitting capacity	mm	1250	1250	1250
Splitting speed 1				
• Forwards	cm/s	9	9	9
• Backwards	cm/s	14	14	14
Splitting speed 2				
• Forwards	cm/s	21	21	21
• Backwards	cm/s	14	14	14
Max operating pressure	bar	235/160	235/160	235/160
Tractor power requirement	KW	35		35
Tank capacity	l	80	80	80
Max number of driveshaft rev.	RPM	420		420
Domestic overload safety (Elec.ver-sions)	A		1 x 32 fuses	1 x 32 fuses
Motor power	kW		7,5	7,5
Motor speed	RPM		1450	1450
Splitter height (Transport asset)	mm	1750	1750	1750
Splitter width (Transport asset)	mm	3100	3100	3100
Width	mm	4050	4050	4050

\* please account for  $\pm 10\%$  splitting power rates.

### 9.1 Noise emissions

Noise emissions were measured in accordance with the European directives for the measurement of noise emissions on the workplace. The measurement was performed by external authorized certification bodies in compliance with the applicable standards based on applicable rules for agricultural and forestry equipment. The detected noise level was:

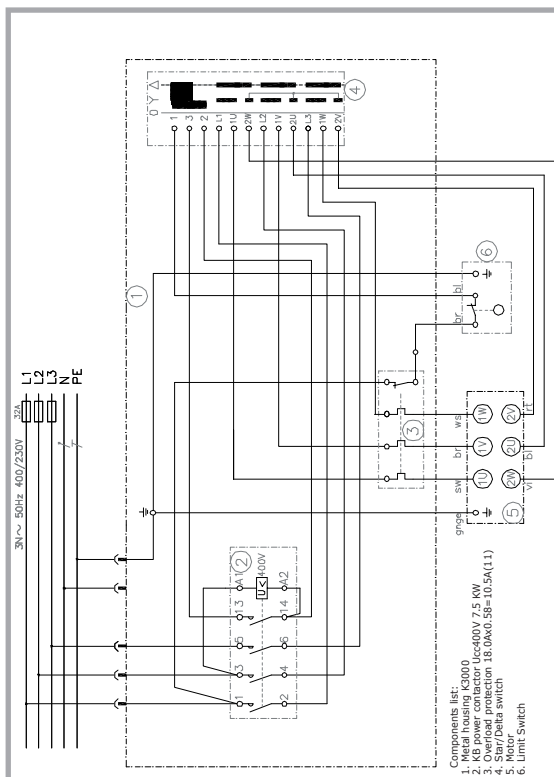
**LpA = 80 dB(A) and 90 dba at max loading conditions**

## 10. WIRING DIAGRAM



**BEWARE: only let expert skilled staff do electric repair/maintenance works!**

As for all electric tools and equipment we strongly recommend use a portable residual current device (PRCD), unless you already have a residual current device (RCD) in your house assuring safety and protection up to max 0.03A nominal fault current..



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## 11. OTHER AREAS OF POSSIBLE DANGER

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### 11.1 Mechanical dangers

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Possible dangers related to machine moving parts (wedge) are minimized by means of suitable safeties and protections that cannot be dismantled unless special tools and equipment is used.

DO NOT EVER ATTEMPT to remove or by-pass the two-hands control!

Danger: operating the splitter without the safety two-hands control will increase your risk of having your hands pinched during the splitting cycle. Do not remove any other safety and protection device from the machine.

**WARNING:** splitting without due safety devices might result into serious injuries to the operator or the other person around the workplace.

### 11.2 Electric dangers

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All machine parts staying under voltage are duly insulated or sealed inside a fixed casing to avoid accidental contact. For safety reasons all fixed casings can be only removed using special tools and equipment.

**WARNING:** removing a fixed protection casing when the machine is running or without having priority cut the power off, may result into major danger of electrical shock!.

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## 12. LEGAL WARRANTY

All BGU machines are covered with warranty terms in accordance with the law. Customers should promptly notify the manufacturer eventual material or production claims on their detection. While asking for warranty service, customer should show copy of their purchase invoice or receipt.

The warranty does not cover for faults due to natural wear, temperature or weather agents as well as misuse, faulty installation or set-up, improper operations and lubrication or act of vandalism. No warranty will be given on parts damaged by improper handling, use and application. The manufacturer is further not responsible for warranty service on machines used for other applications as mentioned in this manual, altered or modified by the customer or other thirds, or overloaded.

No warranty applies to consumable parts (for instance: V-belts, blades, tools, and other implements) and to adjustment/calibration works.

## 13. EXTENDED WARRANTY

All SÚMA consumer products are covered with 24 or 12 months total warranty from the date of purchase for private/industrial users and rentals. This warranty extension does not substitute nor void the legal warranty. Customers should promptly notify eventual material, production or workmanship claims on their detection. While asking for warranty service, customers should show copy of their purchase invoice or receipt. Buyer's address and type/model of equipment must be clearly stated in the case of industrial users/contractors/dealers. All claims related to material or production failures during the total warranty time, shall be repaired notwithstanding eventual user's faulty/wrong operation or maintenance.

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## 14. EC STATEMENT OF COMPLIANCE

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to EC Machines Directive No. 98/37, Annexure IIA and EMV (Low Voltage) Directive EC/2004/108

We hereby declare that the equipment described in this manual responds in full to the actual version brought on the market. We, the manufacturer further declare that this equipment was duly designed and manufactured in accordance with the actual European Safety and Health Standards settled by the relevant EEC directives as well as the latest electromagnetic standards issued by the European Council by all member states. This statement of compliance does not apply to customer modifications of the equipment without manufacturer's written approval.

Machine type:	<b>Spaltprofi</b>
Models:	<b>SP 30 HZH/S</b> <b>SP 30 HEH/S</b> <b>SP 30 HZEH/S</b>
Production Nr.:	see product identification label
Applicable European Standards:	EC Machine Directive 42/2006/EG and following additions and amendments. EC Low Voltage Directive LVD 2006/95/EG EMC Directive 2004/108/EEC
Other applicable Standards and technical specifications:	EC Standard Draft prEN 609 - Log splitters DIN EN 55014 T1 DIN EN 55014 T2 DIN EN 50104 DIN EN 61000-3-2 DIN EN 61000-3-3

Type-certification tests have been carried out by the following Official Certification Body, number 2157, in accordance with Annex IX of the EC Directive no. 42/2006. The product specimens were found fully conformant to the applicable technical Standards and to the related control type which is described in the technical documents and for which a type-approval certificated was already released.

	Prüf- und Zertifizierungsstelle des Spitzenverbandes der landwirtschaftlichen Sozialversicherung Weissensteinstrasse 70-72 34131 Kassel 2157
Registrier.-No.	

Person responsible for the technical documents:	René Pareis (Geschäftsführer)
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11.11.2016

Date

Official user language:

  
René Pareis (Director)

English (User's release)







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Subject to changes without notice

<p><b>Form: 2029.11.11.2016 - Rev. D</b> <b>Form: 2030.11.11.2016 - Rev. D</b> <b>Form: 2031.11.11.2016 - Rev. D</b></p>
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