

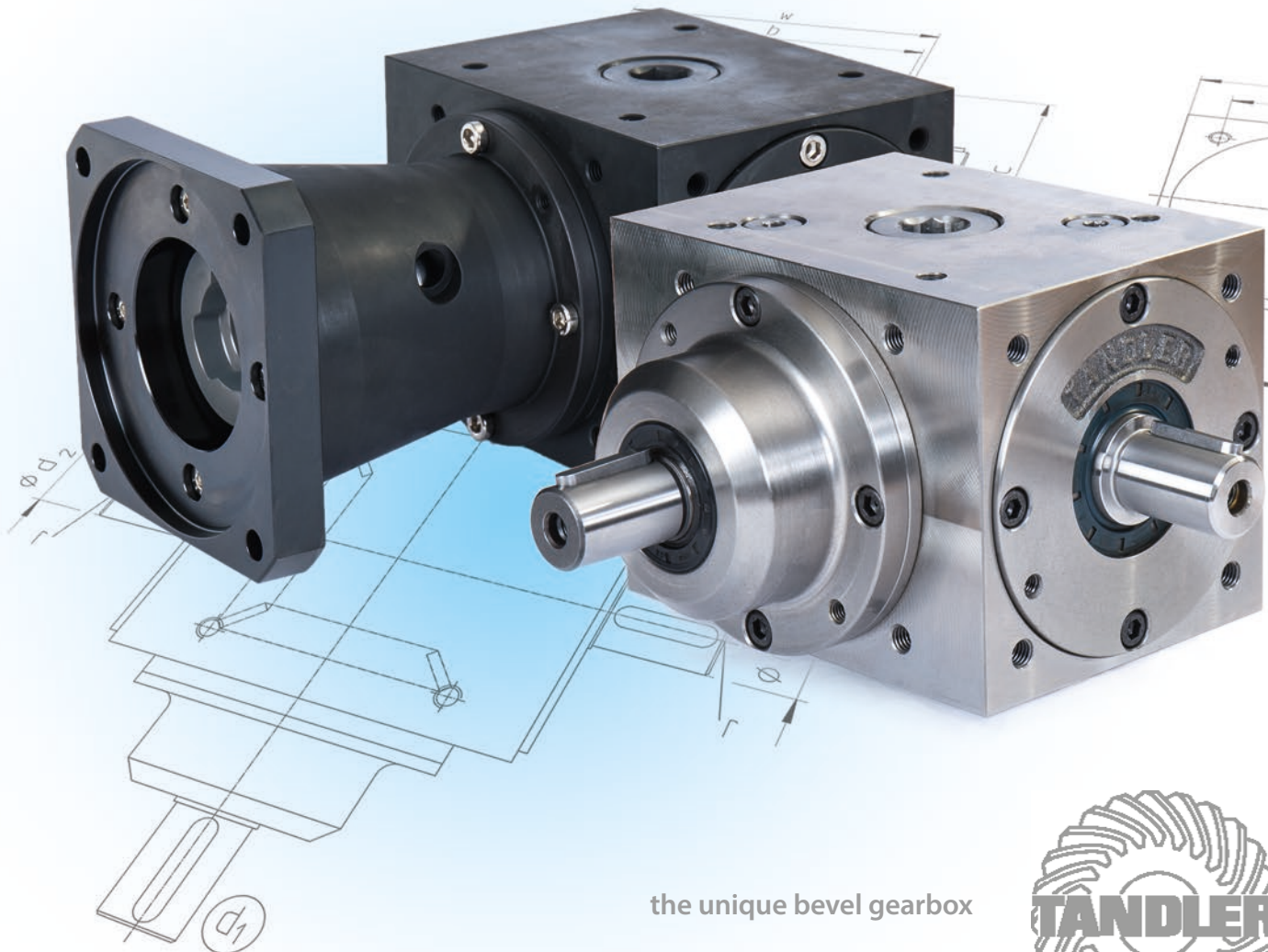
# ATEX spiral bevel gearboxes and ServoFoxx® spiral bevel gearboxes FS2

Standard  
HW  
HWS  
HWK  
HWZ  
WV  
HRZ  
FS2  
F



manual instruction

**New! ServoFoxx®  
spiral bevel gearboxes FS2  
Now ATEX compliant!**



the unique bevel gearbox



ZAHNRAD | GETRIEBE | HÄRTEREI

**Made in Germany**

# Manual instruction for ATEX spiral bevel gearboxes and ServoFoxy® FS2

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**For explosion endangered areas according to  
regulation 2014/34/EU following the Tandler data sheet S 599.**

**Machine category II 2 G Ex h IIC T4 Gb bzw. II 2 D Ex h IIC T135 °C Db**

TANDLER GmbH & Co.KG D-28201 Bremen			
Spiral bevel gearbox	Mounting position:	.....	
Type: .....	No.: .....	YOM.: .....	
CE II 2 G Ex h IIC T4 Gb or CE II 2 D Ex h IIC T135 °C Db			
Performance data S 599 i: .....		Oil type: .....	

identification of gearbox

### 1) general information

The instruction manual is used to determine the correct operation of the gearbox in accordance with applicable rules and safety regulations.

### 2) transport

On delivery the goods should be immediately checked for damage to packaging and possible damage to the goods. In the case of damage, this should be reported immediately to the carrier.

### 3) storage

The gearboxes have to be stored in a dry environment with temperatures not exceeding 40° C and not allowing temperature fluctuations. After transport or application, the corrosion protection has to be renewed.

### 4) initial operation

Gearbox must not be assembled in an explosive atmosphere. All drive elements to be mounted at the gearbox have to meet the 2014/34/EU regulation.

Oil gauges or analogous sensors have to be freely accessible. Oil levels must be checked. The motor of gearbox combination should be correctly specified in order to exclude the possibility of exceeding the gearbox capacity. Gearbox shafts must be slightly greased before the assembly of attached parts. Assembly with hammer blows is not allowed. In the case of gearboxes with shrink disk, the instructions manual of the manufacturer has to be followed.

During commissioning, ensure that all components attached to the gearbox – including couplings mounted on the input and output shafts, pulleys, cooling systems, pumps, sensors and drive motors – are suitable for use in potentially explosive atmospheres. Particularly when using coupling, it is vital to observe the manufacturer's specified values regarding permissible torque, other operating parameters and the required assembly parameters. This ensures that the gearbox works properly and protects it against being exposed to impermissible loads.

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An optional breather must be installed on top of the gearbox before commissioning.

During initial operation, surface temperature has to be measured at the highest speed and load scheduled.

After 4 hours, surface temperature must not exceed 100° C. In the case of higher temperatures, machines must be stopped and Tandler Zahnrad- u. Getriebefabrik GmbH & Co. KG must be consulted.

We always provide you with the latest respective declarations of conformity and operating instructions for components purchased from third-party manufacturers. These documents serve as an important source of information and help you to use the products properly. However, every user is responsible for following the instructions and safety guidelines contained in these documents.

## 5) operating conditions

The permissible gearbox capacities (speed and associated torque) are given in the corresponding torquespeed diagram S 599. These are dependent upon the gearbox ratios. For safety reasons, torques and speeds are reduced compared to standard gearboxes. The values shown must not be exceeded! The permissible mounting position of the gear unit is indicated on the nameplate. Permissible ambient temperature is between -20° C and +40° C. The gearbox must not be exposed to incident solar radiation or other radiation sources. Unhindered air flow is essential in the direct gearbox environment (not covering!). Measurements and other technical details may be found in the catalogue "Tandler Spiral Bevel Gearboxes".

## 6) maintenance

Oil level (middle of oil gauge) has to be checked weekly. The oil level must not deviate (to the top or the bottom) more than 4 mm from the middle of the oil gauge. The lubricant has to be exchanged every 4,500 service hours (latest after 2 years). The type of lubrication is mentioned on the type label. Old oil must be disposed off according to legal regulations. All sealing elements (e.g. O-rings, radial shaft seals) must be exchanged every 4,500 operating hours (latest after 2 years). Rolling bearings must be exchanged every 9,000 operating hours. The other parts (such as gears, keys, shafts) must be visually checked for damages. Damaged parts have to be exchanged.

During reassembly of the gearbox, all screws must be secured with liquid adherence (screw locking device) against dismantling.

After every disassembly of gearbox housing parts, the concerning O-rings must be renewed.

Only original spare parts delivered by Tandler may be used. For those spare parts not delivered by Tandler, neither warranty nor the commitment for the resulting damage is assumed. We recommend the change of spare parts by Tandler service personnel.

Regular cleaning has to prevent a dust layer greater than 2 mm on all gearbox parts. Pay attention to unusual noises during service.

If this is detected, machines must be stopped and Tandler service staff should also be consulted.

## 7) safety precautions

Rotating parts have to be protected against unintended contact by the operator according to legal regulations. The gearbox housing must not be touched with the hands at service temperature (danger of burning!).

Mounting and initial operation must be carried out by trained personnel. In order to avoid electrostatic charge, the gearbox housing has to be earthed.

## 8) declaration of conformity

Assuming correct interpretation and adherence to this instructions manual, Tandler gearboxes correspond to the regulation 2014/34/EU. The declaration of conformity is included in the delivery.

This instruction manual is valid provided that the product has been correctly selected for your application. Design and choice of the gearbox are not subject to this instruction manual.

In case this instruction manual is not adhered to, any kind of product commitment or warranties assumed by Tandler Zahnrad- u. Getriebefabrik GmbH & Co. KG are invalidated. The same is true in the case of disassembly or modification of the product.

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technical data is subject to changes



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## manual instruction

ATEX spiral bevel gearboxes



## manual instruction

ATEX ServoFoxx® spiral bevel gearboxes FS2

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