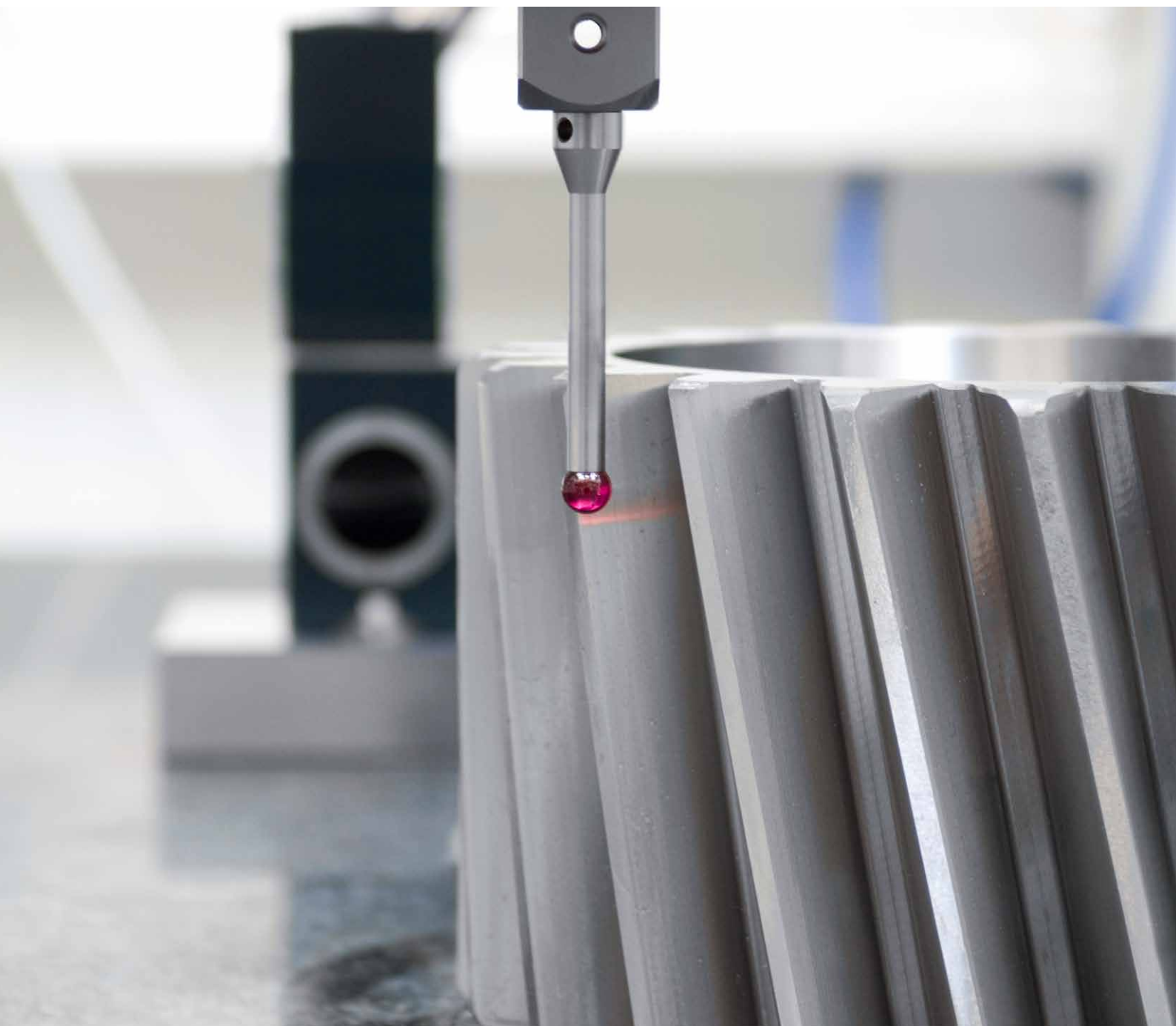


## Your specialist for

Custom gearboxes  
Control gears  
Extruder gearboxes  
Flat gearboxes  
Flywheel masses  
Gearing parts & drive elements  
Heavy-duty gearboxes  
Low-backlash planetary gearboxes  
Spindle drives & drives for machine tools  
Test bench gearboxes  
Transfer cases  
Turbo gearboxes



Custom-made drive solutions:  
Gearboxes for machine tools  
and production systems



Certified to  
ISO 9001:2008

- 02 | RSGetriebe
- 03 | Fields of application
- 04 | Planetary gearboxes
- 07 | Rotary table drives
- 08 | Spur gearboxes
- 09 | Zero-backlash gearboxes
- 10 | Further drive solutions
- 11 | HerkulesGroup

## Individual concepts for highest precision

Machine tools have to meet ever-increasing requirements regarding precision, performance and flexibility. RSGetriebe supplies machine tool manufacturers with innovative drive solutions and integrated systems that help them meet these requirements and allow them to meet their customers' wishes. Advantages that characterize the gearboxes made

in Sonthofen are high flexibility, energy efficiency and power density. RSGetriebe offers excellent, customer-friendly service and maintenance along with readily available spare parts.

RSGetriebe develops and manufactures products certified to ISO 9001:2008 that are produced efficiently and with very high quality standards.

The product portfolio of RSGetriebe includes complete drive systems for the machine tool industry, like engine-transmission units with SPS machine controls, that can be integrated in the machine circuit. Complex modular systems of gearboxes and engines cover a wide range of turning, boring and milling operations.



Horizontal lathe ProfiTurn H by WaldrichSiegen – leading machine tool manufacturers rely on drive solutions by RSGetriebe.

## Fields of application – partner of the machine tool industry

RSGetriebe is your ideal partner for single projects, prototypes and series – from development to production and commissioning at the customer's facility:

- Planetary gearboxes
- Main spindle drives
- Rotary table drives
- Adjustment drives
- Positioning gearboxes
- Special applications

Our gearboxes are used in:

- Portal milling machines
- Small and large turning lathes
- Roll grinders
- Machining centers
- Boring mills
- Sheet straightening plants
- Rolling mills
- Straightening machines

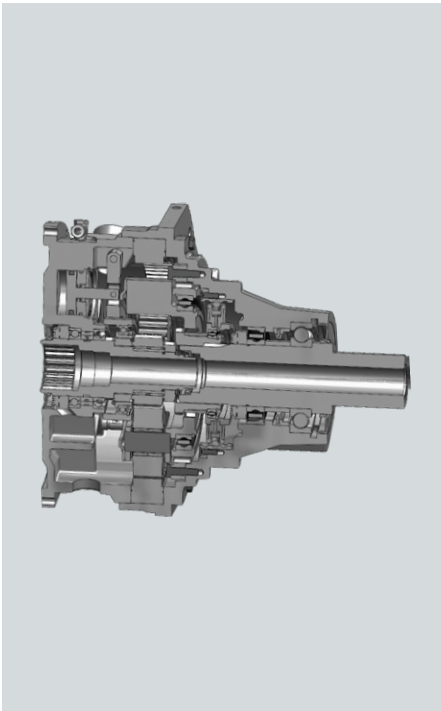


WaldrichSiegen portal milling machine ProfiMill with drives by RSGetriebe

## Planetary gearbox series PSD/ES – High-performance drives for portal mills, lathes and boring mills

Developed especially for large machine tools, the planetary gearbox series PSD/ES features a power range of 30-200 kW and a number of further advantages:

- Compact and modular design
- Flexible machine connection
- High power density
- Complex configuration
- High efficiency
- Low noise level
- Low temperature level
- Disengagement of the planetary gears (switchable)



Planetary gearbox PSD



UnionChemnitz table-type boring mill with planetary gearbox PSD

**Technical data:**

Performance	P	kW	30-200
Gear ratio	i	depending on customer specification and technical feasibility	
Output speed, max.	$n_2$	$\text{min}^{-1}$	12,500
Output torque max.	$T_2$	Nm	16,000
Efficiency	$\eta_{\text{ges}}$		96 %



## Planetary gearbox PSD30 – efficiency and high power density

The highly efficient and compact gearbox PSD30 is a milestone in the development of planetary gearbox technology by RSGetriebe. It features speeds of up to  $12,500 \text{ min}^{-1}$  and torques of up to  $2,000 \text{ Nm}$ . Thus, it is the ideal gearbox for driving lathes, milling machines, boring mills and other machine

tools. As it combines high speeds and high torques, the PSD30 can be used in a wide range of applications.

The coaxial design with minimum space requirements is extremely stiff

and allows for the transmission of high torques. The PSD30 is individually adapted to the customer's machine. Despite fixed elements, the customer can still freely choose the machine connections.



WaldrichSieggen portal milling machine ProfiMill with planetary gearbox PSD30



Planetary gearbox PSD30

### Technical data:

Performance	P	kW	47
Gear ratio	i		1 / 3.15-5.5
Input speed	$n_1 \text{ max}$	$\text{min}^{-1}$	12,500
Nominal torque	$T_1$	Nm	300
Input torque, max.	$T_{1 \text{ max}}$	Nm	400

## Planetary gearbox PSD50 – high-performance gearbox for every machine tool

The two-gear planetary gearbox transmits the speed directly to the spindle and reduces the required torque. The unit can be integrated in the headstock and can be connected to the spindle via flange, belt pulley or gear. The gearbox can be placed vertically and horizontally.

Highlights of PSD50 are the low loss of energy and the high power density of the gearbox, which is achieved despite the small and compact design (Ø 320 mm, length 300 mm). The switchable sun gear, which is disengaged at high speeds, guarantees

the high efficiency of the gearbox. The planetary gears are therefore not engaged. That significantly reduces energy losses.



Planetary gearbox PSD50



WaldrichSiegen horizontal lathe ProfiTurn H with PSD50

**Technical data:**

Performance	P	kW	45-100
Gear ratio	i		3.5-5.0
Output speed	$n_2$	min <sup>-1</sup>	8,000
Output torque, max.	$T_2$	Nm	3,500
KA			1.5
$\eta_{ges}$			≥ 97 %

Temperature, max.		45°-50°
Noise level	db	72-74
Backlash	'	10-20
$F_{axial}$	kN	30
Radial runout	1/100	10-20

## Rotary table drive ES – efficient solution for exact positioning

Machine tool manufacturers ensure the exact and reliable positioning of rotary tables with the rotary table drives of the ES series. They are designed for a performance range of 60-140 kW and cover a faceplate of 3-12 m.

The rotary table drives consist of a bevel planetary gearbox. Double drives in master/slave design can be selected for zero-backlash positioning or milling. Alternatively, single drives can be used for steady turning operations.



Vertical lathe ProfiTurn V made by WaldrichSiegen with rotary table drive ES



Rotary table drive ES

### Technical data:

Performance	P	kW	60-140
Gear ratio	i	Bevel gear stage, planetary stage and faceplate according to customer specifications	
Output speed, max.	$n_2$	$\text{min}^{-1}$	3,250
Output torque, max.	$T_2$	Nm	14,000

## Spur gear drive FEX/FEL – powerful headstock drives

The spur gear series FEX/FEL is used in headstock drives of grinding machines and turning lathes. The modular design of the housing allows for diverse possibilities of reduction and different center distances.

The gearboxes feature a high power density and a compact design. Due to the flexibility of the design, the transmission ratio can be selected by the customer. Thus, the gearbox can be applied to existing machines without extensive effort.



Spur gear drive FEX/FEL



Roll grinder WS 450 Monolith™ by Herkules with spur gear drive by RSGetriebe

### Technical data:

Name			FEX200	FEX250	FEL280	FEL335	FEX360	FEL400	FEX480
Performance	P	kW	16,5	29	50	87	92	135	226
Gear ratio	i		6.706	7.64	5.72	10	10.08	10	10.14
Input speed	$n_2$	min <sup>-1</sup>	2,700	1,000	2,100	1,000	4,000	1,350	2,100
Output torque, max.	$T_2$	Nm	1,360	2,750	2,734	8,310	8,800	12,500	22,050



## Zero-backlash gearbox – for highest precision

The zero-backlash gearboxes by RSGetriebe are used in high-precision production systems and machine tools. They are characterized by high accuracy and reliability.

The gearboxes feature a modular design. It allows for easy adaptation to different engines available on the market.



Gearbox ES-1247 serving as a spindle drive of a notch milling machine NNF made by Herkules



Low-backlash gearbox ES-1247

### Technical data: ES-1247

Performance	P	kW	43
Gear ratio	i		4
Input speed	$n_1$	$\text{min}^{-1}$	3,000
Input torque	$T_1 \text{ max}$	Nm	275
Output speed	$n_2 \text{ max}$	$\text{min}^{-1}$	875
Output torque	$T_2 \text{ max}$	Nm	1,100
Max. backlash	Standard <5'	Reduced <3'	

## Further drive solutions for machine tools

As a manufacturer of special gearboxes, RSGetriebe offers further convincing drive solutions for machine tool manufacturers that can be individually adapted to the machine:

### ES-1246: Two-speed spur gearbox – spindle drive for boring machines

Performance	P	kW	111
Gear ratio	i		1/5.5
Input speed	$n_1$	$\text{min}^{-1}$	7,000
Output torque, max.	$T_2$	Nm	3,833
Weight	m	kg	220



### ES-1265: Two-speed spur gearbox – spindle drive for milling machines

Performance	P	kW	275
Gear ratio	i		1/6.6
Input speed	$n_1$	$\text{min}^{-1}$	1,920
Output torque, max.	$T_2$	Nm	32,000
Weight	m	kg	900



### ES-1269: Two-speed spur gearbox – spindle drive for milling machines

Performance	P	kW	50
Gear ratio	i		5/30
Input speed	$n_1$	$\text{min}^{-1}$	3,300
Output torque, max.	$T_2$	Nm	12,500
Weight	m	kg	565



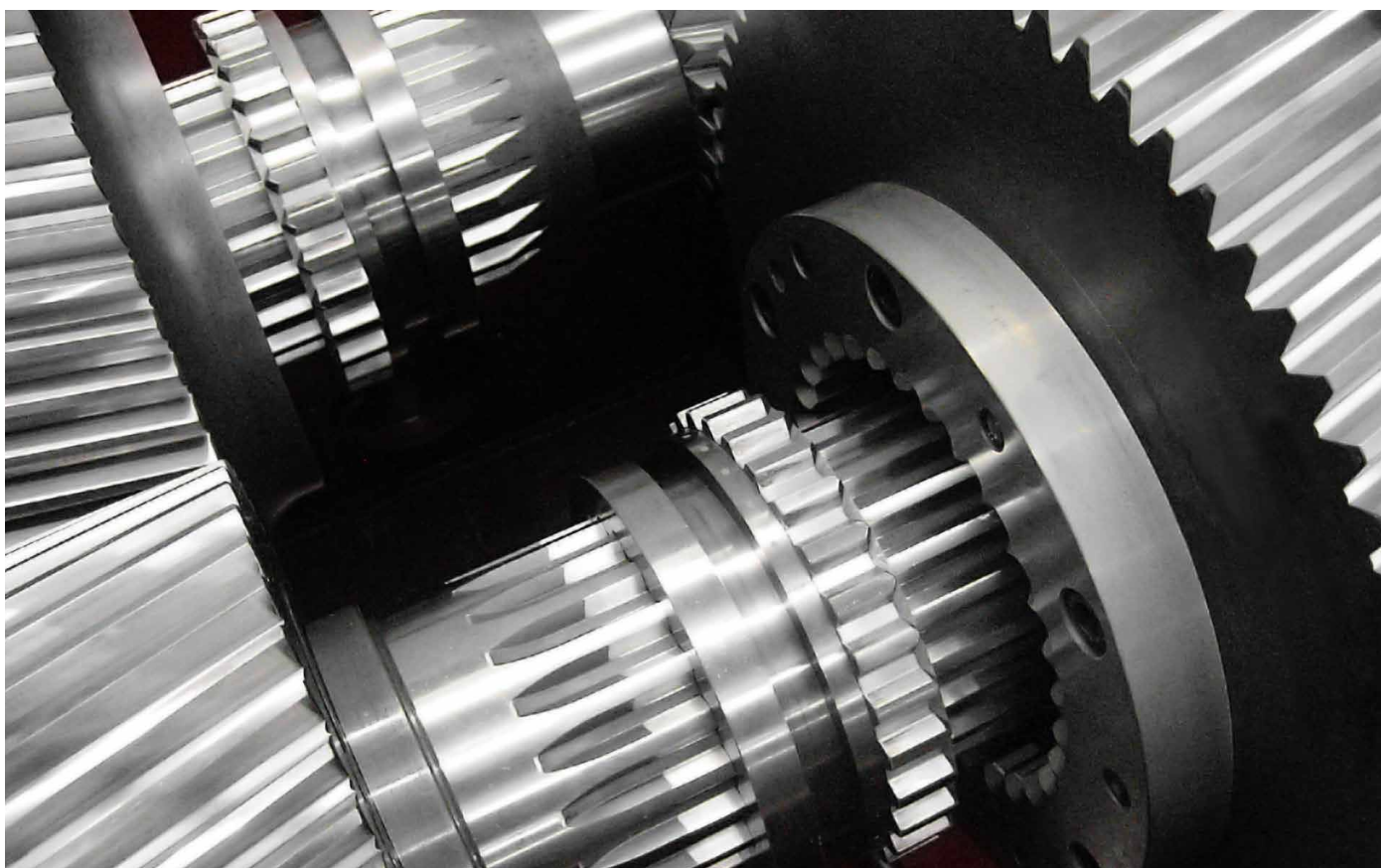
## RSGetriebe – a company of the HerkulesGroup

Since 2012, RSGetriebe has been a part of the family-owned HerkulesGroup. The companies in the HerkulesGroup are the leading specialists for large machine tools worldwide. 1,500 employees in Germany, Austria, the USA, China and India develop and manufacture state-of-the-art products:

- Roll grinding machines
- Texturing machines
- Horizontal lathes
- Vertical lathes
- Portal milling machines
- Horizontal boring mills

As an important part of the group of companies, RSGetriebe not only supplies many customers from different industries with gearboxes – it also produces drive solutions for all machine tools in the HerkulesGroup.

RSGetriebe has gathered great knowledge in the field of machine tools through its involvement in their design and manufacture, and implements that knowledge to the advantage of its customers.



Quality and precision – certified to ISO 9001:2008, RSGetriebe offers precise, high-quality special gearboxes and drive elements.

RSGetriebe develops and produces gearbox solutions for many different industries in Sonthofen/Germany.

Customers of RSGetriebe are manufacturers of machine tools, plastic and rolling machines as well as developers of food and packaging machines, test benches and textile machines. The

high-quality drive solutions are also suitable for use in building, printing and paper machinery as well as in the chemical industry.

A high-quality, state-of-the-art machine inventory and absolute care in assembly are the foundation of your success.

**RSGetriebe GmbH**  
Oberstdorfer Str. 24  
87527 Sonthofen · Germany

T: +49 (0) 8321 60771 – 0  
F: +49 (0) 8321 60771 – 99

[info@rsgetriebe.com](mailto:info@rsgetriebe.com)

[rsgetriebe.com](http://rsgetriebe.com)