



GEBR. REINFURT GMBH & CO. KG  
HOCHPRÄZISIONSKUGELLAGER

**EXTREME**



*The GRW company group with its corporate headquarters in Rimpar near Würzburg (Germany), an assembly site in Prachatice (Czech Republic) as well as a direct sales office in the USA, ranks among the global technology leaders for the development and production of extreme precision miniature ball bearings.*

*The GRW company group has about 500 employees and is globally represented.*

# MINIATURE



© Size 1:1

*Small, smaller, smallest.*

*The production of extreme precision miniature ball bearings is GRW's core competence. Ball bearings with a bore diameter of 1 millimeter find applications in blood pumps, miniature motors, turbines and robotics.*

## HIGH HEAT



*Extreme operating temperatures?  
Ball bearings from GRW survive!*

*Even at blistering temperatures up to +450°C our  
ball bearings operate reliably. Equipped with  
special lubricants and coatings our ball bearings  
can even be used in high temperature furnaces,  
welding systems and turbojets.*

## FRIGID TEMPERATURES



*Our ball bearings also withstand the lowest temperatures.*

*For frigid temperatures down to  $-270^{\circ}\text{C}$  special lubricants, coatings as well as unique bearing materials allow our bearings to operate in these extreme environments. Our bearings also exhibit trouble-free running in liquid helium.*

# CHEMICALS



*Our ball bearings withstand extreme corrosive environments.*

*Destructive forces of acid and alkaline baths are no match for our special materials. Applications in the chemical industry are as numerous as our unique solutions to solve them.*

## SALT



*Resistant to salt water? Absolutely!*

*Whether surfing or game-fishing, on deep-sea vessels or for offshore applications – our ball bearings are suited for the challenge.*

*We also have solutions for fresh and chlorine water applications!*

# BLOOD



*Blood is an extremely corrosive medium.*

*Even our smallest and highest precision bearings survive this medium. Whether it be Blood Pumps, Surgical or dental Handpieces; our bearings meet and exceed the highest medical industry requirements.*



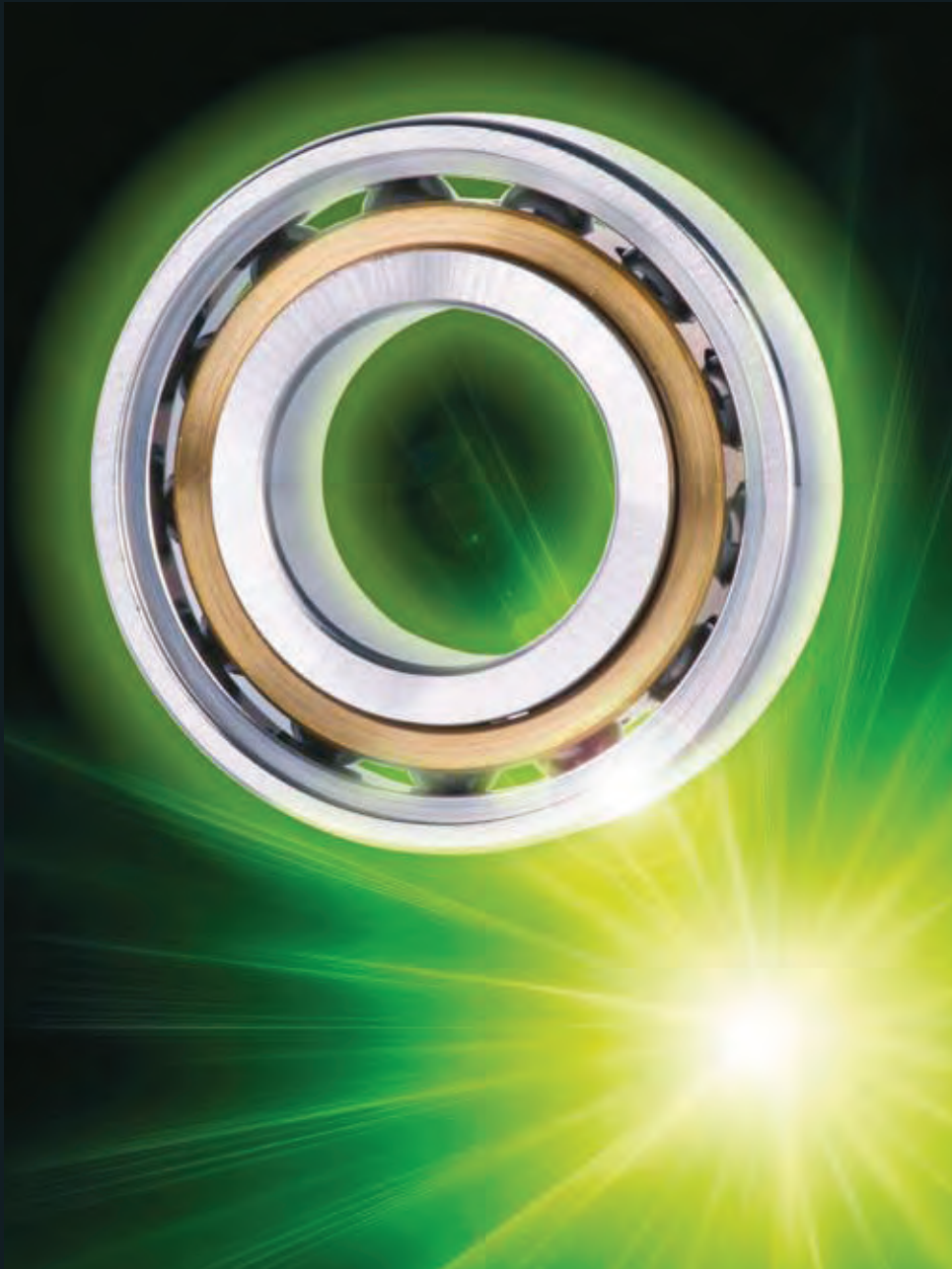
## STERILIZATION



*The Challenge of sterilization? Mastered!*

*During sterilization of medical and dental instruments ball bearings are subjected to several extreme conditions like cleaning media and heat. With the proper material and our experience we have solved this problem.*

# RADIATION



*Resistant against radiation? Positively!*

*Whether cosmic radiation or X-ray's, whether in aeronautics or in the field of medical engineering – by processing special materials and lubricants we guarantee functionality and reliability for these applications.*

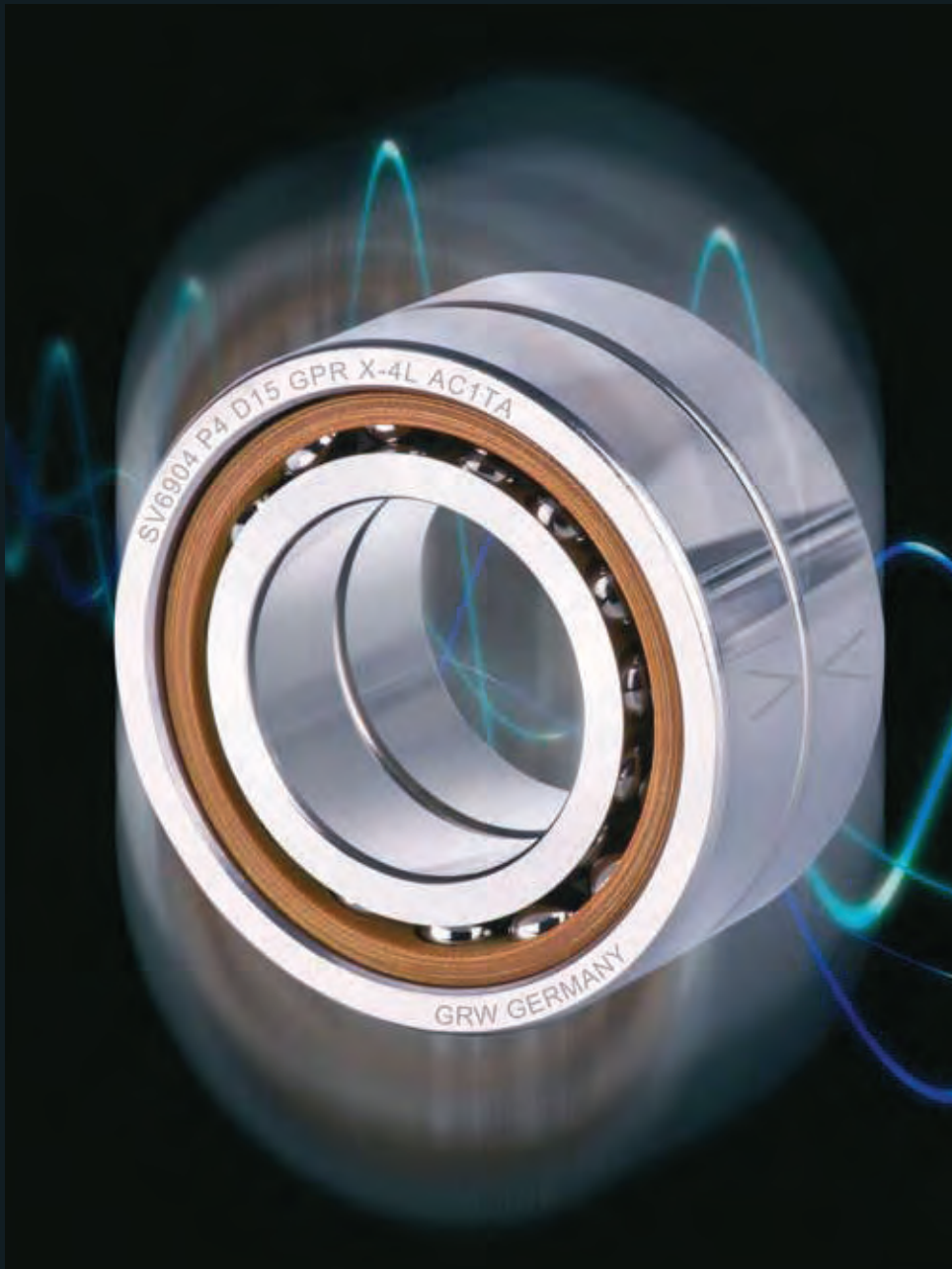
## HIGH SPEED



*Our ball bearings run at the highest speeds!*

*Extreme speeds demand highest precision as well as the tightest tolerances. Applications with speeds up to 500,000  $rpm$  is a standard for GRW.*

## VIBRATION



*Our ball bearings compensate for vibrations.*

*High frequent oscillations, vibrations or rocket launch – our ball bearings also withstand these difficult conditions. Customized bearing solutions guarantee optimized performance and loading capacities.*

## VACUUM



### *GRW in Outer Space*

*In aerospace as well as terrestrial applications, the vacuum environment places particularly high demands on GRW bearings. Intelligent solutions with respect to materials and proprietary innovations are elements of GRW's cutting edge technology.*

# DEPENDABILITY



*Experience + Responsibility + Reliability =  
Customer Satisfaction*

*Extended Life, Precision, Reliability,  
Stability and Quality ...*



*High heat and vacuum?  
Frigid temperatures and radiation?*

*Even in the most extreme environmental conditions, whether special solutions or standard applications – GRW provides customized solutions and quality.*

*Our standard program includes ball bearings with bore diameters from 1 up to 17 mm and outer diameters from 3 up to 40 mm both in metric and inch sizes.*

**ROTATED BY**





**GEBR. REINFURT GMBH & CO. KG**

Niederhoferstraße 105  
D-97222 Rimpfing  
Deutschland

Telefon: +49 (0) 93 65/819 - 0  
Telefax: +49 (0) 93 65/819 - 100  
e-mail: [info@grw.de](mailto:info@grw.de)  
web: [www.grw.de](http://www.grw.de)

*Warranty and Liability Disclaimer:*

*Performance recommendations and warranties are subject to the accuracy of customer supplied operating conditions. GRW is not liable for performance issues related to customer handling and or shipping damage.*