



THE SPECIALIST
FOR MOTION
TECHNOLOGY

PRODUCT PROGRAM





NADELLA / nadella.com
 DURBAL / durbal.de
 CHIAVETTE UNIFICATE / chiavette.com
 IPIRANGA / ipirangahusillos.com
 SHUTON / shuton.com

THE SPECIALIST FOR MOTION TECHNOLOGY

Nadella Group is an expert system partner for all areas of motion technology, with specialized manufacturing companies and a worldwide sales network.

Wherever innovative ideas, customized solutions, precision and reliability are required, developers and design engineers rely on products and solutions from the Nadella Group.



LINEAR GUIDE SYSTEMS



LINEAR MODULES



COMPLETE SYSTEMS



BEARING AND CAM FOLLOWERS



ADJUSTING NUTS & RINGS



TELESCOPIC RAILS



ROD ENDS AND SPHERICAL PLAIN BEARINGS



CLEVISES AND BALL/AXIAL JOINTS



PRECISION BALL SCREWS



ROLLED BALL SCREWS

MILESTONES

- 1930**
NADELLA foundation in France
- 1958**
Founding of NADELLA GMBH in Germany
- 1963**
Founding of NADELLA S.P.A. in Italy
- 1984**
Start of development and sale of Nadella Linear
- 2012**
New Nadella subsidiaries in China and USA
- 2014**
Acquisition of DURBAL
- 2018**
Acquisition of CHIAVETTE UNIFICATE
- 2020**
New Nadella subsidiaries in France and Spain
Founding of Nadella Motion Technology
Changxing Co. Ltd.
Acquisition of SHUTON and IPIRANGA

KEY NUMBERS

1 Group

8 manufacturing plants

14 main locations
Italy, Germany, France, United Kingdom, Spain, United States, China

leading the way
in the international markets

in over **60** countries

for **90** years

APPLICATION SECTORS



COMPLETE SOLUTIONS, SYSTEMS AND APPLICATIONS

Nadella AXNR is an innovative solution helping machine manufacturers to achieve higher performances, reducing workspace areas compared to traditional lines, increasing efficiency and reliability, providing a tailored made circuit ready-to-use, reducing time and cost of engineering.



CIRCULAR SYSTEM AXNR

Nadella AXNR circular module is a further development of Nadella FSR circular rails. AXNR module is a reliable and cost competitive solution. The product is based on the combination of components to allow product definition and availability in short time. Modifications or special versions to meet specific requirements are possible.

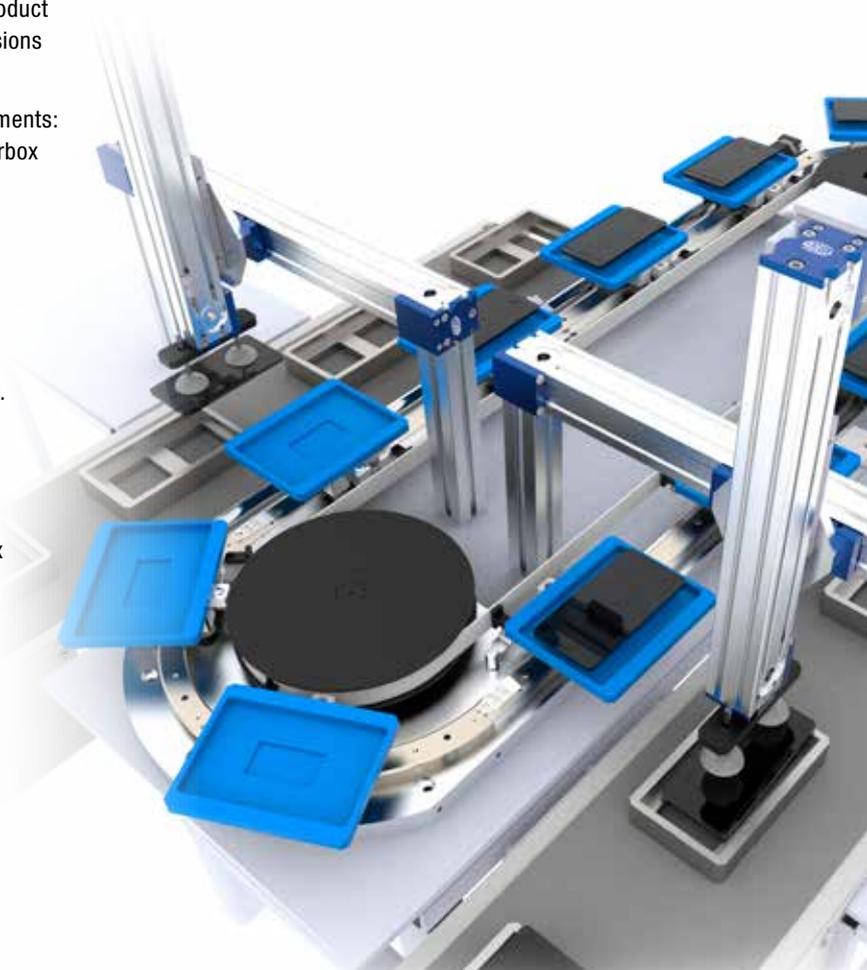
The Nadella AXNR circular system is composed by the following elements: aluminum basement, guide rails and carriages, transmission by gearbox and toothed belt, lubrication units and carriage indexing for precise carriage location.

AXNR circular system has the following outstanding advantages:

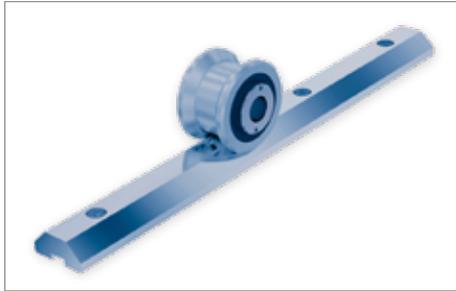
- | Nadella as leader in the V guides market provides guide rollers characterized by high load capacity, stiffness and precision, necessary to obtain regular movements and accurate positioning.
- | A special Durbal rod end design of connection between toothed belt and carriages provides a steady and smooth movement of entire system.
- | Aluminum alloy machined base directly connected to the gearbox lead to a space-saving system, meanwhile a steady and easy-mounting solution.
- | Customized solution and complete system are available thanks to flexible configuration.

APPLICATION EXAMPLE TEST LINE

This high efficiency space-saving test line is possible due to the combination of the AXNR Circular System and AXN actuators, which provides an automatic unmanned solution on every process.



LINEAR MOTION, THE RIGHT SOLUTION FOR ANY REQUIREMENT



> HEAVY-LINE GU GUIDES

- | For medium to heavy load applications
- | Tapered roller bearings
- | Harden steel or stainless steel rails
- | Cold drawn profiles
- | Speed up to 10 m/s (32 ft/s)
- | Linear accuracy 0.5 mm/m (0.019" / 3 ft)
- | Rail length up to 6000 mm / 20 ft length
- | Optional lubricators and wipers
- | 3 Sizes available & joinable rails



> ROLBLOC BL AND BL..DS

- | Medium to heavy load applications
- | 3 Sizes available
- | Linear speed 4 m/s (13 ft/s)
- | RS seals type and lubricated for life bearings
- | Rails up to 6000 mm / 20 ft length
- | Machined or ground rails
- | Complete kit assemblies



> V-LINE FS AND FSH GUIDES

- | Induction-hardened steel or stainless steel rails
- | Low noise and vibration
- | Speed up to 4 m/s (13 ft/s)
- | Rails up to 6000 mm / 20 ft length
- | Double or single sided rails
- | 9 Sizes available
- | Cold drawn or ground surfaces
- | 3 Different bearing types available



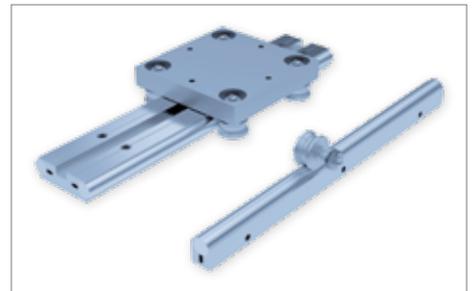
> MULTI MOTION LINE CIRCULAR GUIDES

- | Circular rails based on V-Line profiles
- | Standard and custom radius
- | Steel or stainless steel systems
- | Fixed or pivoting carriages
- | Nickel plating available
- | Seven rail radius available on stock
- | Easy joining & mounting hardware
- | Ground surfaces



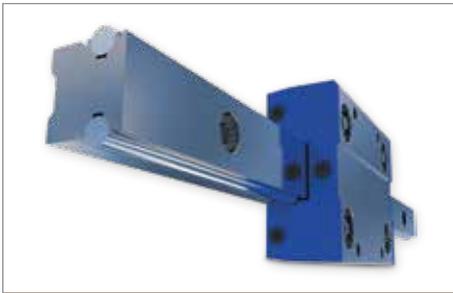
> C-LINE LS GUIDES

- | For moderate load applications
- | Self-aligning system
- | High speed up to 8 m/s (26 ft/s)
- | Acceleration up to 20 m/s² (65 ft/s²)
- | Self-lubrication & wipers
- | 3 Sizes available
- | Rails up to 6000 mm / 20ft length
- | In zinc or nickel plating
- | Short & long slider



> BASE-LINE C AND DC GUIDES

- | For light and medium load applications
- | Low profile design & easy mounting
- | Corrosion resistant materials
- | Lightweight aluminum body
- | Harden steel or stainless steel shafts
- | Rails up to 6000 mm / 20ft length
- | Up to 10 m/s (32 ft/s) speed
- | Self-lubrication and wipers available



> FLEXI-LINE 645

- | Dimensions according to DIN 645 with flexible configuration
- | Ready-to-install
- | For light and medium load applications
- | Low profile design & easy mounting
- | Corrosion resistant materials
- | Lightweight aluminum body
- | Harden steel or stainless steel shafts



> U-LINE LM GUIDES

- | For light and medium load applications
- | Compact U-profile with inside carriage
- | Corrosion resistant materials
- | Self-alignment system
- | Rails up to 6000 mm / 20ft length
- | 6 sizes available
- | Up to 10m/s (32 ft/s) speed
- | Joinable rails



> TELESCOPIC LINE

- | Moderate to heavy load applications
- | Partial and full extension strokes
- | Loads from 10 up to 1000 kg (22 to 2200 lbs)
- | Steel or stainless steel available
- | Soft stops, locking devices and wipers
- | Up to 2500 mm / 8ft strokes
- | Standard and custom made products



> LINEAR MODULES

- | Drive with toothed belt or ball screw
- | Light to medium load applications
- | Robust roller bearing and ball rail version
- | Speed up to 10 m/s (33 ft/s)
- | Strokes of up to 12000 mm / 40ft
- | Gearbox configurations available
- | Steel reinforced AT belt
- | Belt covers
- | Steel pulleys for longer life



> ADJUSTING NUTS AND THREADED RINGS

- | A precise and powerful locking of bearings in axial positioning after assembly
- | Time-saving through a more simple technical design and construction of shaft-bodies and assemblies
- | No use of locking washers, thus preventing seal damage
- | Clamping and locking the adjusting nut without any loss of axial precision
- | Easy mount and release re-usable many times without loss of precision
- | Recommended use under severe conditions (ex. High-temperature, vibrations)

ROTATIONAL MOVEMENT, HIGH PRECISION



> NEEDLE BEARINGS

- | Light to heavy load applications
- | Sizes up to 300 mm / 12"
- | Smallest sizes in industry
- | Needle bearing full complement or caged
- | Highest precision on market
- | Patented thrust bearing with retainer plate for kit assembly
- | Combined bearing in 2-piece version
- | Complete kit assemblies or just bushings and needles



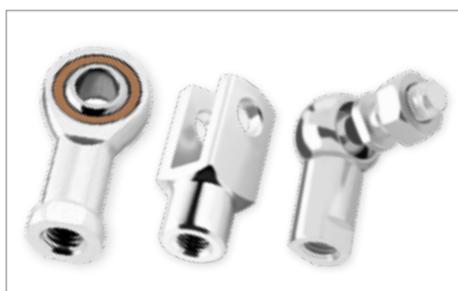
> CAM FOLLOWER AND TRACK ROLLERS

- | Light to heavy load applications
- | Sizes from 5 to 320 mm / 0.19" to 12.6"
- | Concentric and eccentric versions
- | Double CAM and custom designs
- | Metal seals for harsh environments
- | Steel and stainless Steel systems
- | Complete kit assemblies
- | Two different bearing configurations
 - Needle Bearing
 - Taper Roller Bearing



> ROD ENDS AND SPHERICAL PLAIN BEARINGS

- | With roller or ball bearing version in metric sizes from 6 to 40 mm and inch sizes from 0.25 to 1"
- | With sliding bearings, maintenance free (DURBAL Glide) or maintenance required from sizes 5 to 1000 mm and inch sizes from 0,5 to 6"
- | For custom made linkages solutions as a modular combined system and, on request, special products according to drawing
- | In aluminum or stainless steel version or with special coating (DURBAL Coat)
- | For hydraulic cylinders with female thread or for welding



> ROD ENDS AND LINKAGES

- | TESCUBAL and TESNO self-lubricating rod ends and spherical bearings according to DIN - ISO 12240
- | Clevises DIN 71752 and accessories (plated, stainless steel, aluminum)
- | Angular joints DIN 71802 and axial joint
- | Rod assemblies according to customer specifications
- | Ball stud DIN 71803
- | Ball socket DIN 71805
- | Self-aligning joint for pneumatic cylinders



PRECISION BALL SCREWS, OPTIMIZED FOR EVERY APPLICATION



> HIGH PERFORMANCE BALL SCREWS

- | Applications: High demand machine tool
- | High dynamics & efficient rigidity
- | DN up to 210.000
- | Speed up to 100m/min
- | Acceleration up to 15m/s²
- | Diameter 16-200mm
- | Length up to 15m in single piece
- | Single and double nut types
- | Different type of nut preloading is available
- | Multiple start thread option
- | Quality classes IT1, IT3 and IT5



> HIGH LOAD & HIGH DYNAMIC BALL SCREWS

- | Applications: Injection machines, presses, buildings shock absorbers, boarding bridges and other heavy duty applications
- | DN up to 210.000
- | Diameter 40-200mm
- | Nut length up to 600mm
- | Multiple start thread option
- | Quality classes IT1, IT3 and IT5



> POSITIONING BALL SCREWS

- | Applications: pick and place applications, factory automation, actuators, Machine tool, Grinding Machine, EDM machines
- | DN up to 210.000
- | Diameter 16-160mm
- | Double and Single nut types
- | Multiple start thread option
- | Quality classes IT1, IT3 and IT5



> ROTARY NUT SYSTEMS

- | Applications: High demand machine tool
- | High dynamics & efficient rigidity
- | DN up to 210.000
- | Speed up to 100m/min
- | Acceleration up to 15m/s²
- | Diameter 40-125mm
- | DN up to 210.000
- | Length up to 15m in single piece
- | Different type of nut preloading is available
- | Multiple start thread option
- | Quality classes IT1, IT3 and IT5



> ROLLED BALL SCREWS

- | Applications: pick and place applications, factory automation, actuators and other transport solutions
- | Diameters from 16mm to 63mm
- | Leads from 5mm to 50mm
- | Lengths up to 6 meters
- | DIN shape nuts
- | Multiple start thread option
- | Quality classes IT5 and IT7



> TURNKEY PROJECTS

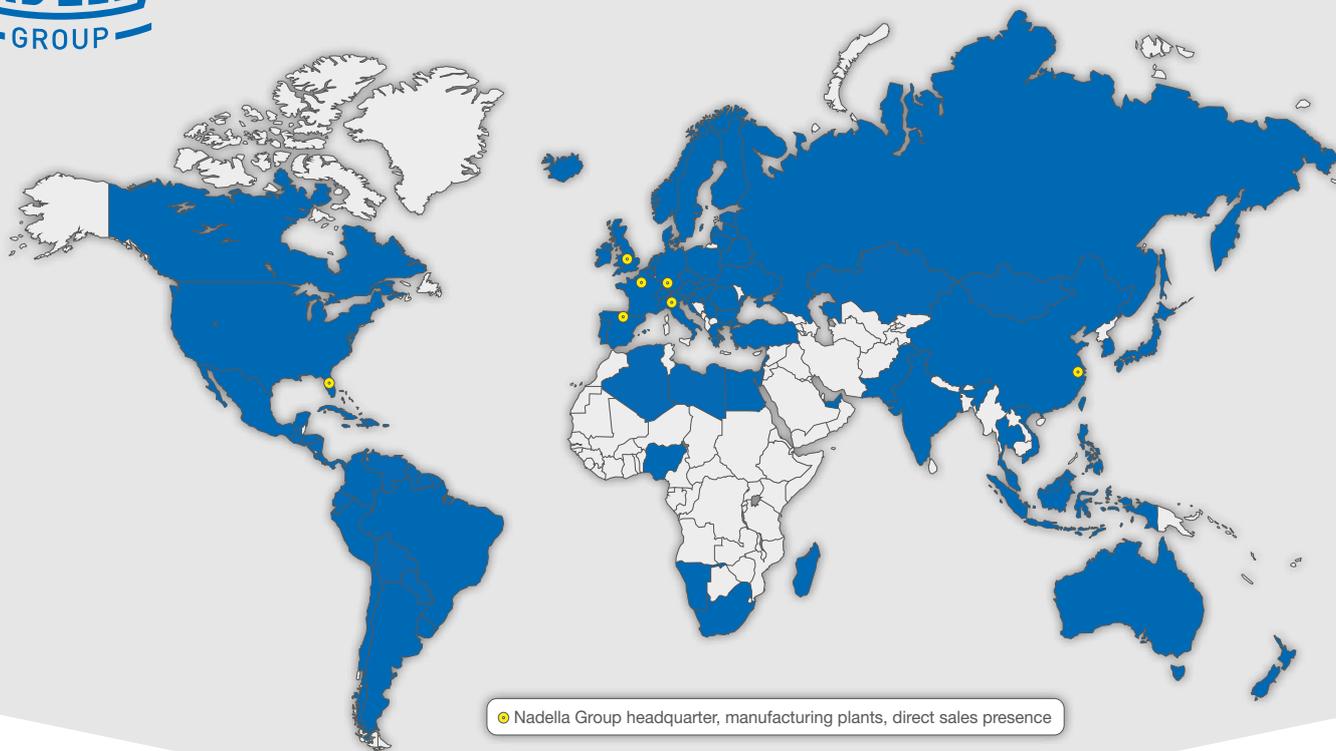
- | Coatings (Phosphatation, Chromium, Bluing ...)
- | Out of standard material manufacturing
- | Special shape nuts, asymmetric, square
- | Customised sealing solutions
- | Embedded or integrated safety nut
- | Customised end machining
- | Sensorized nuts
- | Ceramic balls

WORLDWIDE NETWORK FOR IDEAL SERVICE



Our customers' satisfaction is the basis for our success and growth. That is why we are at your service around the world and always keep your requirements as a priority.

We have a worldwide network of sales engineers and distributors in Europe, Asia and the USA. This allows us to ensure customer-orientated consultation, delivery and service at all times.



● Nadella Group headquarter, manufacturing plants, direct sales presence

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