

Universal But Special High-Performance Joints&Shafts







Recipes



About us PAG.3



New PAG.5



Traditional PAG.25



Special PAG.33

About us

At Rotar's we have standardised customisation!



Rotar was founded in 1960 and since then, the targets of its products have been quality, reliability, and customisation. With more than 50 years of experience, ROTAR a worldwide known production leader of

Universal Joints and Shafts, exporting to 85 countries and producing more than 400.000 joints and shafts per year. Through the years, Rotar's has become a trademark of quality and innovation. "Easy, it's ROTAR" is a well-known and patented brand.

Today Rotar is led by the third Aramini's generation, which is particularly committed to develop and innovate. Rotar, since its foundation, has invested resources and believed in the key role of research and development. Rotar has always distinguished itself for the ability to evolve according to the market, and for its flexibility. Thanks to an everyday work on new technologies and solutions, Rotar is in continuous development.

At Rotar's we deem innovation, development, and flexibility characteristics of utmost importance!

Rotar's strengths: quality, certified materials, customisation, fast delivery, and traceability. Industry application: automotive and transportations, food, pharmaceutical, military, aerospace, automation, machinery, heavy industry, mining.

At Rotar's we have standardised customisation! Do not hesitate to ask, what is customisation for you, is standardisation for us!

New recipes

Give it a test!



Rotar's new menu consists of several recipes studied and created after several years of research and development, in cooperation with chemists. Rotar's revolution is based on innovative termoplastic materials that are all patented. The "culinary" revolution was designed to meet the needs of several sectors, particularly the food and pharmaceutical industry. The new recipes launched by Rotar consist of combination between termoplastic compounds, and alloyes steel, like steel and stainless steel (AISI 304, AISI 316). The main difference between recipes depends whether the ingredients are mainly based on plastic compounds, or a combination of plastic and steel. The recipes can be categorised as follows: Rotar Evolution High Tech series (ER HT), mainly based on plastic compounds, the Rotar Evolution Hybrid Steel & Plastic series (ER HY SP), where the main ingredient is steel, and the Rotar Evolution Hybrid Plastic & Steel (ER HY PS), mostly made in plastics compounds with steel components.

The innovation of the ER High Tech series and the ER Hybrid series is ascribable to the innovative materials and the design. The materials and design make those series so to overcome the limits of the alloyes steel. The main innovative characteristics of the ER HT series and the ER HY are the following: certified matrials for the food and pharmaceutical industries, usability under very low to very high temperatures, self-lubricating (maintenance-free), dust-free, very high chemical corrosion resistance, all combined with great lightness, granting superior performance. Thanks to those "ingredients", joints and shafts are usable even in direct contact with food and pharmaceutical components.

At Rotar's, we suggest to try the new recipes enriching Rotar's product portfolio. They are fresh, light, smooth, a perfect remedy for those having difficulty to "digest" steel, and especially, a tempting alternative for those particularly curious to experience new solutions.





The patented material R4FI is a compound based on Polyether Ether Ketone that allows the direct handling and contact with food and pharmaceutical materials. The R4FI complies with the Federal Institute for Risk Assessment (BfR), the Food and Drug Administration (FDA), and the European Food Safety Authority (EFSA). Characteristics: Dust free, self-lubrication, high chemical corrosion resistance, temperature range up to 250°, lightness.



The patented material R4TI is a composite material based on thermoplastic polymers reinforced with carbon fiber. The carbon fiber provides strenght and rigidity. The R4TI can be utilised in any industry but the food and pharmaceutical. Characteristics: Dust free, self-lubrication, high chemical corrosion resistance, temperature range up to 150°, lightness.



The patented material R4FI-LT is a compound based on Polyethylene Terephthalate. R4FI-LT can be utilised in the food and pharmaceutical industry. Characteristics: Dust free, self-lubrication, high chemical corrosion resistance, temperature range up to 150°, lightness.



The patented material R4P1 is developped for all industry, but the pharmaceutical and the food industry. The R4P1 is a composite material of Polytetrafluoroethylene, granting flexibility and strenght. Characteristics: Dust free, self-lubrication, high chemical corrosion resistance, temperature range up to 60°, lightness.

The recipes created by Rotar, based on the revolutionary patented compound R4FI, allows the direct handling and contact with food and pharmaceutical cosmetics materials. Rotar created recipes combining two main "ingredients": the R4FI and the stainless steel (AISI 304, AISI 316). Such a marvellous combination enables the end-consumers to utilise the products in direct or indirect contact with food and pharmaceutical cosmetics components. The recipe is available in three versions: ALR4FI, AR4FI, VR4FI.

Not to forget the extremely tempting and highly performing hybrid recipes: R4FI-SP, R4FI-PS, both available in versions: AL, A, V. The characteristics of the R4FI and the stainless steel components provides enormous possibilities: from self-lubrication, to dust-free products; from high chemical corrosion to resistance under a temperature range up to 250°; from great lightness to high speed. The series based on the R4FI grant a superior performance, and it is very digestible to everyone.

The R4FI is the perfect solution for the most exigent!







ALR4FI: Semi-joints, sphere, and pins in R4FI. Characteristics: moderate applicable torque, low speed, very high temperature resistance. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

AR4FI: Semi-joints, pins, and sphere in R4FI, bushes in stainless steel. Characteristics: high applicable torque, high speed, very high temperature resistance. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

VR4FI: Semi-joints, and sphere in R4FI, bushes and pins in stainless steel. Characteristics: high applicable torque, high speed, very high temperature. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

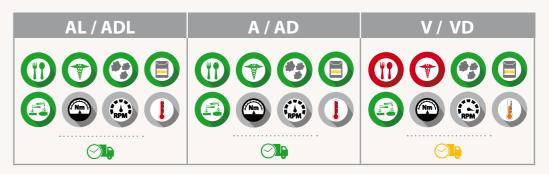


TABLE LEGEND



























VR4FI-SP

ALR4FI-SP: Semi-joints, bushes, and pins in stainless steel, sphere in R4FI. Characteristics: high applicable torque, high temperature resistance, high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components

AR4FI-SP: Semi-joints, bushes, and pins in stainless steel, sphere in R4FI. Characteristics: high applicable torque, moderate temperature resistance, and high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

VR4FI-SP: Semi-joints, bushes, and pins in stainless steel, needle bearings in steel, sphere in R4FI. Characteristics: high applicable torque, high temperature, and very high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

AL / ADL	A / AD	V / VD
⊘110		◯ ,

TABLE LEGEND



TORQUE

TEMPERATURE



LOW MEDIUM HIGH







AVAILABILITY (













ALR4FI-PS: Semi-joints in R4FI, and sphere in stainless steel. Characteristics: moderate applicable torque, very high temperature, and low speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

AR4FI-PS: Semi-joints and pins in R4FI; bushes and sphere in stainless steel. Characteristics: moderate applicable torque, very high temperature resistance, and high speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

VR4FI-PS: Semi-joints and pins in R4FI; bushes and sphere in stainless steel; needle bearings in steel. Characteristics: moderate applicable torque, very high temperature resistance, and very high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

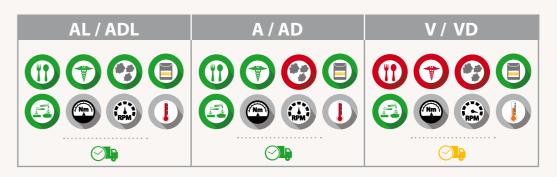


TABLE LEGEND





TEMPERATURE



LOW MEDIUM HIGH



AVAILABILITY











RECEPIE



The recipes created by Rotar, based on the patented and certified compound R4FILT, are the revolutionary lighter versions of the R4FI. The R4FILT maintains the main wonderful characteristics of the R4FI, enabling the usability in the food and pharmaceutical cosmetics industry. The lighter version of the R4FI was created to meet especially the needs of a superior performance, and costs-reduction. In fact, the R4FILT combined with stainless steel components (AISI 304, AISI 316) grants the direct or indirect contact with

food and pharmaceutical materials. The recipe is available in three versions: ALR4FILT, AR4FILT, VR4FILT. Not to forget the extremely tempting hybrid recipes: R4FILT-SP, R4FILT-PS, both available in the following versions: AL, A, V. The combination of the R4FILT and the stainless steel components provides interesting possibilities: self-lubrication, dust-free, from high chemical corrosion resistance, temperature range up to 150°, great lightness and speed.

The recipe R4FILT is the perfect solution for those have specific needs, but cost-constrains.



ALR4FILT: Semi-joints, sphere, and pins in R4FILT. Characteristics: moderate applicable torque, high temperature resistance, and low speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

AR4FILT: Semi-joints, and sphere in R4FILT, bushes and pins in stainless steel. Characteristics: moderate applicable torque, high temperature resistance, and moderate speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

VR4FILT: Semi-joints, and sphere in R4FILT, bushes and pins in stainless steel, needle bearing in steel. Characteristics: moderate applicable torque, high temperature resistance, and high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

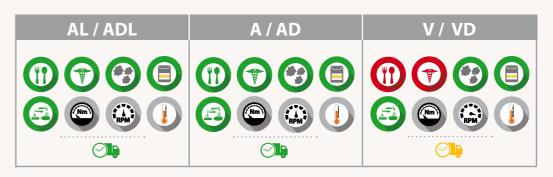


TABLE LEGEND

























VR4FILT-SP

ALR4FILT-SP: Semi-joints and pins in stainless steel; sphere in R4FILT. Characteristics: moderate applicable torque, high temperature resistance, and moderate speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

AR4FILT. Semi-joints, bushes and pins in stainless steel; sphere in R4FILT. Characteristics: moderate applicable torque, high temperature resistance, and high speed. Applicability: in all industries, and in direct or indirect contact with food and pharmaceutical components.

VR4FILT-SP: Semi-joints, and sphere in R4FILT, bushes and pins in stainless steel, needle bearing in steel. Characteristics: moderate applicable torque, high temperature resistance, very high speed. Applicability: all industries, and in indirect contact with food and pharmaceutical components.

AL / ADL	A / AD	V / VD
	⊘ l p	

TABLE LEGEND



TORQUE

TEMPERATURE



LOW MEDIUM HIGH









AVAILABILITY (















ALR4FILT-PS: Semi-joints and pins in R4FILT; sphere in stainless steel. Characteristics: low applicable torque, high temperature resistance, and low speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

AR4FILT-PS: Semi-joints, and pins in R4FILT; bushes and sphere in stainless steel. Characteristics: low applicable torque, high temperature resistance, and high speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.

VR4FILT-PS: Semi-joints, and pins in R4FILT; bushes, needle bearings and sphere in stainless steel. Characteristics: high applicable torque, high temperature resistance, and very high speed. Applicability: all industries, and in direct or indirect contact with food and pharmaceutical components.



TABLE LEGEND





TEMPERATURE



LOW MEDIUM HIGH











OMPOUNI



Rotar's recipes based on the patented "ingredient" R4TI, were created especially to meet the needs of a robust taste. In fact, the "secret ingredient" of the R4TI is the Carbon Fibre, which adds robustness and solidity to the products. The R4TI is suitable for any industry except the food and pharmaceutical. The R4TI is mixed with components in steel, granting a solid performance. The recipe R4TI is available in three versions: ALR4TI, AR4TI, VR4FITI. Our

clients should be aware of the tempting hybrid recipes available in R4TI:

R4TI-SP, R4TI-PS, both available in versions: AL, A, V. The main characteristics of the R4TI are the following: self-lubrication, dust-free, high chemical corrosion resistance, resistance to temperature up to 150°, great lightness, speed, and additionally high torque resistance.

The recipes R4RTI are suggestible to those needing to transmit high torques!



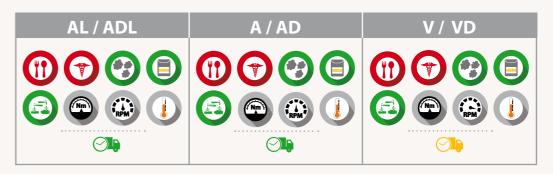




ALR4TI: Semi-joints, sphere, and pins in R4TI. Characteristics: robustness, low torque, low speed, high temperatures. Application: all industries but the food and pharmaceutical.

AR4TI: Semi-joints, sphere in R4TI, bushes and pins in steel. Characteristics: robustness, high torque, high speed, high temperatures. Application: all industries but the food and pharmaceutical.

VR4TI: Semi-joints, sphere in R4TI; bushes, pins, and needle bearings in steel. Characteristics: robustness, high torque, high speed, high temperatures. Application: all industries but the food and pharmaceutical.









TEMPERATURE





















VR4TI-SP

ALR4TI-SP: Semi-joints, and pins in steel; sphere in R4P1. Characteristics: robustness, high applicable torque, moderate speed, moderate temperatures. Application: all industries but the food and pharmaceutical.

AR4TI-SP: Semi-joints, bushes, and pins in steel; sphere in R4P1. Characteristics: robustness, high applicable torque, high speed, moderate temperatures. Application: all industries but the food and pharmaceutical.

VR4TI-SP: Semi-joints, bushes, pins and needle bearings in steel; sphere in R4P1. Characteristics: robustness, good applicable torque, very high speed, moderate temperatures. Application: all industries but the food and pharmaceutical.

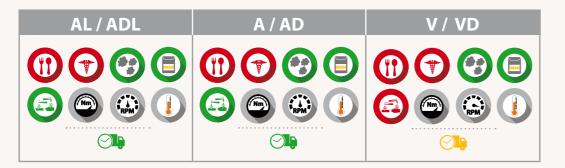


TABLE LEGEND



TORQUE

TEMPERATURE



LOW MEDIUM HIGH



















ALR4TI-PS

AR4TI-PS

VR4TI-PS

ALR4TI-SP: Semi-joints in R4TI; pins and sphere in steel. Characteristics: moderate robustness, low applicable torque, low speed, and high temperatures. Application: all industries but the food and pharmaceutical.

AR4TI-SP: Semi-joints and pins in R4TI; bushes and sphere in steel. Characteristics: moderate robustness, low applicable torque, low speed, and high temperatures. Application: all industries but the food and pharmaceutical.

VR4TI-SP: Semi-joints and pins in R4TI; bushes, sphere and needle bearings in steel. Characteristics: moderate robustness, low applicable torque, very high speed, and high temperatures. Application: all industries but the food and pharmaceutical.

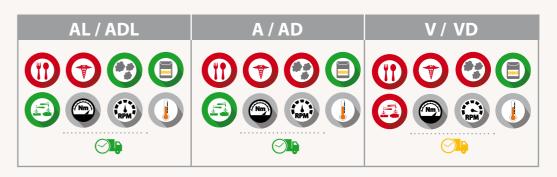


TABLE LEGEND





TEMPERATURE







AVAILABILITY









RECEPIE

The R4P1 recipe was developed for those looking for the best compromise between high performance and costs saving. The versatility of Rotar's recipe R4P1 is suitable for all the industries except the food and pharmaceutical. The R4P1 in combination with steel alloyes components, grant a solid performance. The recipe R4P1 is available in three versions: ALR4P1, AR4P1, VR4P1. Our clients should be aware that tempting hybrid recipes are available for the R4P1 too: R4TI-SP, R4TI-PS, both available in versions: AL, A, V. The main characteristics of the R4P1 are the following: self-lubrication, dust-free, high chemical corrosion resistance,

The recipes R4P1 are suggestible to those needing versatility and quality at reasonable costs!

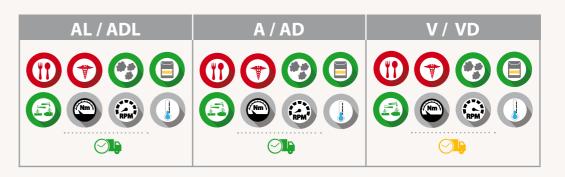
resistance to temperature up to 60°, great lightness, speed, applicable moderate torque.



ALR4P1: Semi-joints, pins, and sphere in R4P1. Characteristics: moderate robustness, low applicable torque, low speed, and low temperatures. Application: all industries but the food and pharmaceutical.

AR4P1: Semi-joints, and sphere in R4P1; bushes and pins in steel. Characteristics: moderate robustness, moderate applicable torque, high speed, and low temperatures. Application: all industries but the food and pharmaceutical.

VR4P1: Semi-joints, and sphere in R4P1; bushes, pins and needle bearings in steel. Characteristics: moderate robustness, moderate applicable torque, high speed, and low temperatures. Application: all industries but the food and pharmaceutical.







TEMPERATURE





















VR4PI-SP

ALR4P1-SP: Semi-joints, and pins in steel; sphere in R4P1. Characteristics: robustness, high applicable torque, moderate speed, and low temperatures. Application: all industries but the food and pharmaceutical.

AR4P1-SP: Semi-joints, bushes, and pins in steel; sphere in R4P1. Characteristics: robustness, high applicable torque, high speed, and low temperatures. Application: all industries but the food and pharmaceutical.

VR4P1-SP: Semi-joints, bushes, pins and needle bearings in steel; sphere in R4P1. Characteristics: robustness, high applicable torque, high speed, and low temperatures. Application: all industries but the food and pharmaceutical.

AL / ADL	A / AD	V / VD

TABLE LEGEND



TORQUE

TEMPERATURE



LOW MEDIUM HIGH







AVAILABILITY (













ALR4P1-PS: Semi-joints and pins in R4P1; sphere in steel. Characteristics: robustness, low applicable torque, low speed, and low temperatures. Application: all industries but the food and pharmaceutical.

AR4P1-PS: Semi-joints and pins in R4P1; bushes and sphere in steel. Characteristics: moderate robustness, high applicable torque, high speed, and moderate temperatures. Application: all industries but the food and pharmaceutical.

VR4P1-PS: Semi-joints, and pins in R4P1; bushes, needle bearings and sphere in steel. Characteristics: robustness, high applicable torque, high speed, and moderate temperatures. Application: all industries but the food and pharmaceutical.

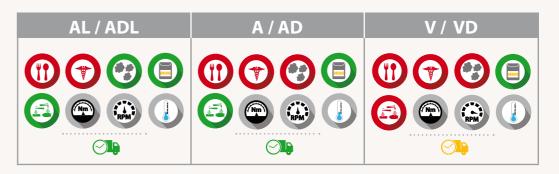


TABLE LEGEND





TEMPERATURE



LOW MEDIUM HIGH



AVAILABILITY







RECEPIE

Traditional recipes

Rotar's culinary masterpieces





Rotar possesses 50 years of tradition in producing Universal joints and shafts of alloyes steel. The traditional series are: AL, universal cardan joints and shafts designed to satisfy the needs of an economic product, combined with a reasonably high quality. The A series consists of high precision cardan joints with hardened bushes. The V series is the very best masterpiece of the traditional Rotar's recipes. Furthermore, Rotar's menu includes the X series, where the main ingredient is stainless steel (AISI 304, AISI 316) produced according to the AL design; the VC series, high precision cardan joints with cross.

It is important to underline that Rotar produces not just joints, but fabulous slip shafts as well. All Rotar's shafts are produced in-house with certified "ingredients", and they are available in according to AL design, A, and V. A more "exotic" version proposes the slip shaft with a rolling ball spline, called slip shafts VSF.

Rotar's guaranties the quality of the raw materials, the components, and the production methods; consequentially of the products themselves, both standard and "special".

Traditional recipes are suggested to those needing especially very high speed, very high toques to be transmitted, very high precision, and to bear heavy loads.

All our series are also available as double joints, with quick release, or special materials and various customisations. Special requests are our core business!





The AL Series is the basic Rotar series. Perfect for medium-low speed and limited transmitted torque. The AL version is suitable for medium to low applications, and small torsion moments. With a long term reliability, it is the perfect choice for general purpose applications.

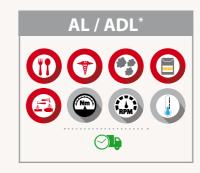


TABLE LEGEND





































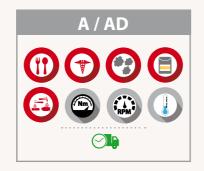








The A Series is the optimum result of decades of experience in the joints manufacturing. The peculiarity of the A series is that the components are hardened, grounded and lapped. Additionally, the A series is produced with particular precision, providing precise tolerances. These technical solutions grant a life reliability and zero jokes persistence. These joints are the result of a careful construction, with small tolerances, so they can offer great performances. All the parts in touch are hardened, grounded and lapped.



The V Series is the high precision cardan joints with needle bearings. V Series has needle bearing and hardened bushes. This type of joints grants a very high speed and an absolutely constant accuracy. The "secret ingredients" of the V series are the needle bearings, and the hardened bushes, which grant high precision, high speed, and high level of accuracy.

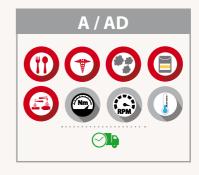


TABLE LEGEND



GREASE













TEMPERATURE























TABLE LEGEND





TEMPERATURE









LOW MEDIUM HIGH















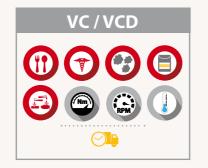








The VC series consist of a high precision cardan joints with cross. The cross features needle bearing granting high speed and robustness. The X series is Rotar's stainless steel series. They joints and shafts of the X series are built in stainless steel X5CrNi1810 and stainless steel 304, 316; they are normally used for food, pharmaceutical and cosmetics industries. The X series is available as single, double joint, and also with quick-release.





X/XD

TABLE LEGEND





TEMPERATURE





LOW MEDIUM HIGH





































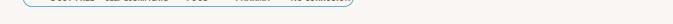












Special recipes

Specialties have never been so tempting!









As Rotar never stops innovating, our menu is in continuous development. Depending on customers' requests and needs, Rotar studies and researches new "ingredients" and recipes to please them. As requests for special executions are increasing, Rotar's research and development staff is daily committed to find solutions for our clients. We enjoy challenging us. In fact, customisations and special executions are the core of our business! At Rotar's customisation is a standardisation. The special recipes are addressed above all to those needing very special products, due to particular applications or requirements, and needing a truly close support.

The combination of termoplastic compounds and alloyes steel has enabled Rotar to enhance its menu as never before!

Let Rotar's tempt you!

ER-HT Shafts series are some of the latest creations. It consists of slip shafts made of termoplastic compounds and alloyes steel; or additionally with rolling balls spline. The ER-HT Shafts series can be tailored-made according to the requirements of the industry. The ER HT shafts are available in every termoplastic compound, and available as AL, A, V, X version. The characteristics of the shafts varies and depends on the material and the design. Rotar is continously testing several prototype of shafts.





DS Series. New. Impossibly long. We made it with the double the stroke.

ROTAR introduces the newest solution for long and even longer strokes. We got an extra stroke making a double spline for certain diameter. Telescopic shafts have never been so long! When you need an extra long stroke with a very small minimal length, the DS series is the solution. The characteristics of the double stroke shafts depends on the material and the design.

