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**THE PERFECT BOND BETWEEN METAL AND PLASTIC**

**Jesa.**  
bearing solutions



## why choose us?

Benefits for you:

- ✓ Tailored solutions adapted to your application
- ✓ Innovative products with Swiss quality
- ✓ Professional project management
- ✓ A flexible and modern logistics service
- ✓ Simplification of your procurement system thanks to single supplier

## our values

JESA wishes to be the preferred partner for the development and production of high-precision bearings and mechatronic drive units composed of metal and plastic.

### **Tough challenges require customised solutions.**

JESA offers you a complete solution. You benefit from a one-stop solution which saves you time, capital and fixed costs.

### **Quality, Innovation and precision define what JESA is all about.**

JESA is successful the world over. With traditional Swiss values. Our products and services are rooted in quality and precision. We are constantly innovative, leaving no stone unturned in our response to customers' wishes and requirements.

### **At home in Switzerland and China. Worldwide market presence.**

Swiss quality for the Chinese market too. With our own production facilities in China, we can also deliver top quality and precision there too. Due to longstanding experience with the market, JESA can also quickly and accurately react to changing market expectations.

# about JESA

JESA, founded in 1969 by Mr. Joseph Egger in Villars-sur-Glâne in the Swiss Canton of Fribourg, is currently a limited company of the POLYGENA group and employs a workforce of approximately 200 people. A specialist in bespoke precision ball bearing solutions and innovative units containing engineering polymers, JESA has been a leading player in this market for over 40 years. With a worldwide presence, its turnover is around 50 million Swiss francs. JESA regularly invests in cutting-edge technology production equipment in order to pursue its journey towards operational excellence.



## PRODUCTION IN SWITZERLAND



TURNING



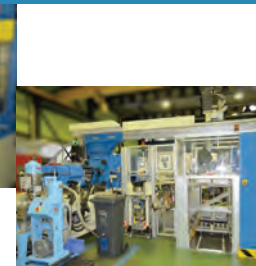
GRINDING



HARD TURNING



SUPER FINISHING



PLASTIC INJECTION WITH AUTOMATION



FLEXIBLE ASSEMBLY LINE

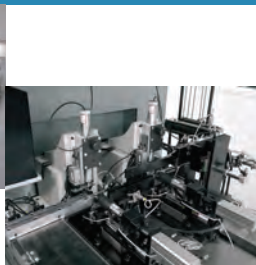
## PRODUCTION IN CHINA



GRINDING



AUTOMATED ASSEMBLY LINE



AUTOMATIC NOISE CONTROL



AUTOMATIC CLEARANCE CONTROL



PLASTIC INJECTION



METROLOGY

# our products

JESA's core business is the manufacture and design of ball bearings. JESA responds to the most challenging and specialised demands from the market by offering tailor-made products which have a basic requirement for ball bearings. The most varied ancillary parts made of metal, ceramics, magnesium or plastic are perfectly integrated, to offer the following range of solutions :

## CAPABILITIES FOR BEARINGS

FEATURE	RANGE / DESCRIPTION
Bearing type	Ball, roller and needle bearing, single and double row, hybrid bearing, design with integrated shaft, special designs.
Size range of inner bore diameters	3 mm to 60 mm
Size range of outer diameters	6 mm to 90 mm
Bearing materials	Bearing steel 100Cr6, stainless steel, steenox, amagnetic steel
Precision class	Up to ABEC 9
Cage materials	Steel, Nylon, PEEK
Seal materials	Rubber (NBR, Viton, ACM), steel shields, stainless steel shields, combinations
Grease	Standard and special grease to suit application needs
Special profiles	Many special profiles available for inner and outer diameters and widths
Performance targets	Long life, high speed, high load, low vibration, low noise

## CAPABILITIES FOR POLYMER OVER-MOLDING

FEATURE	RANGE / DESCRIPTION
Polymer materials	ABS, PA, PBT, PC, PEEK, PEI, PET, PK, POM, PI, PP, PPA, PPS, TPE/TPU, (unreinforced or reinforced for all materials)
Size range	< 2 mm to 200 mm
Profiles	Concave, convex, U channels, and many special shapes to suit applications
Performance targets	Lower mass, vibration damping, integrated functions

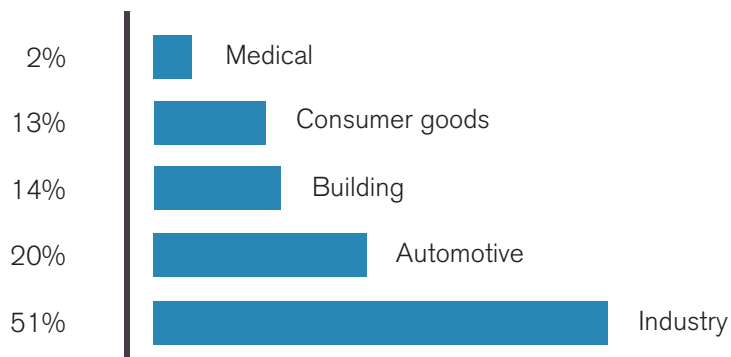
## CAPABILITIES FOR ASSEMBLY

FEATURE	RANGE / DESCRIPTION
Materials	Pressings, plates, shafts, nuts
Sub-Assemblies	Can be supplied or sourced for integration



# our markets

Its unique, specialised expertise in matters of production technology and its know-how make JESA the ideal partner where ball bearings need to be integrated into a variety of applications. This means that JESA products can be found in various sectors such as:





# our solutions

## Description

We adapt our products to your needs, after precisely defining various criteria such as shape, load, material, lubrication or even water tightness. Our solutions based on bearings and plastic injection are developed in partnership with our customers.

## Process

With rigorous and professional project management, JESA is able to successfully implement your tailored designs. At JESA, we offer you personalized service and technical support in accordance with certifications ISO 9001 IQNet and ISO-TS16949.

## Technologies

In order to meet completely the needs of our customers and partners, we have a full set of technological tools adapted to every situation. A special seal, a particular exterior profile, an augmented longevity? You'll find it.

## JESA as partner



idea



development



production



delivery

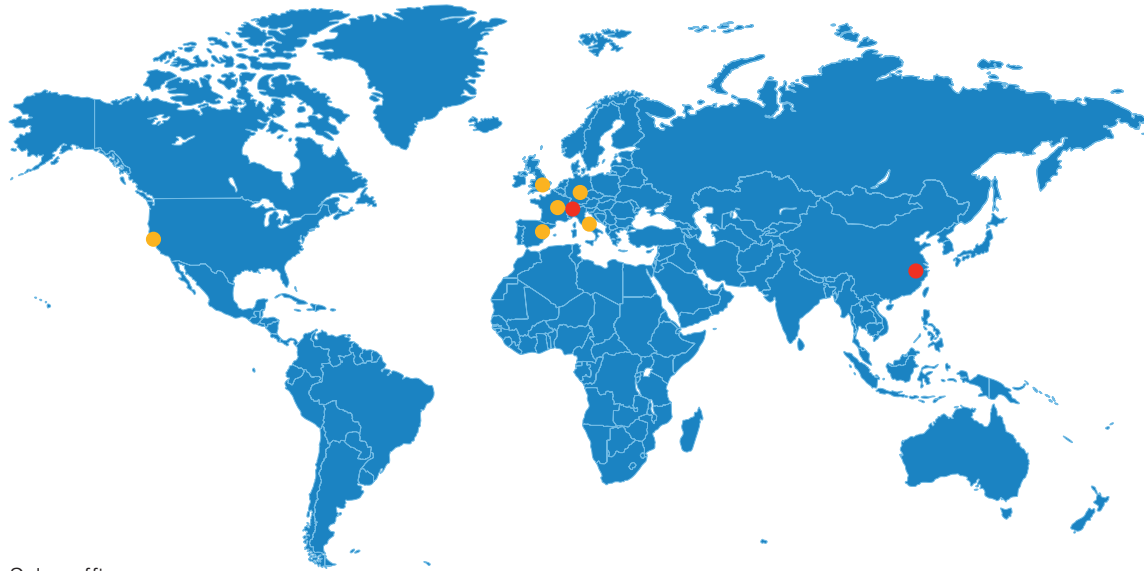


## OVERMOLDED BEARINGS



## STANDARD BEARINGS





- Sales offices
- Production sites and sales offices

Follow us on social medias



LinkedIn



YouTube

## our certifications



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info@jesa.com  
www.jesa.com



## SERIE LRG GALETS DE ROULEMENT HAUTE PERFORMANCE

**JESA.**  
bearing solutions

### AVANTAGES DE LA SOLUTION

- Faible bruit, très faible couple de friction et très haute durée de vie
- Etanchéité optimisée (pas de fuite de graisse, faible friction, protection contre la poussière)
- Faible bruit acoustique
- Haute vitesse, haute précision
- Utilisé dans de nombreuses applications (Bague en 100Cr6 ou 1.4125, graissage et joint spécifiques)
- Contact direct avec les designers et producteur JESA
- Court délai de livraison (variante 100Cr6)

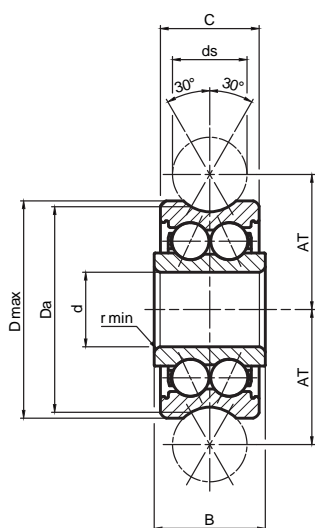
### SPECIFICATIONS TECHNIQUES

Gamme de produits LRG  
 Zone de températures de -35°C à +120°C  
 Etanchéité Joint labyrinthe en NBR/Z, protégé efficacement contre la poussière  
 Vitesse maximale 10 m/s



 LRG  
SWISS MADE

### DIMENSIONS DISPONIBLES (en mm)



Désignations JESA	Dimensions en mm								Capacité de charge en N			
	d	D max	B	AT	C	Da	Ds	r min	Crw	Corw	Fr	Fro
LRG 5-16-4 2RZ	5	16	8	9	7	14.54	4	0.2	1'600	880	1'750	1'750
LRG 5-17-6 2RZ	5	17	8	10.5	7	15.8	6	0.2	1'700	940	2'300	1'850
LRG 8-24-6 2RZ	8	24	11	14	11	22.8	6	0.3	4'300	2'350	2'750	4'800
LRG 12-35-10 2RZ	12	35	15.9	20.65	15.9	32.64	10	0.6	8'550	5'200	4'900	10'200
LRG 12-35-12 2RZ	12	35	15.9	21.75	15.9	33.11	12	0.6	8'600	5'200	5'300	10'300
LRG 12-42-10 2RZ	12	42	19	24	19	38.95	10	0.6	13'600	8'000	6'500	15'800
LRG 15-47-10 2RZ	15	47	19	26.65	19	44.64	10	1	15'500	9'300	12'000	18'500
LRG 20-52-16 2RZ	20	52	22.6	31.5	20.6	49.14	16	1	16'200	9'870	11'000	17'600
LRG 25-72-20 2RZ	25	72	25.8	41	23.8	64.68	20	1	24'100	16'700	21'200	38'600
LRG 25-72-25 2RZ	25	72	25.8	43.5	23.8	65.35	25	1	23'200	16'400	19'300	35'000

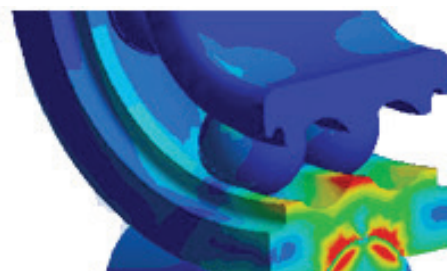
Variante INOX (1.4125) sur demande. Pour les variantes INOX, ajouter un préfixe «S» à la désignation JESA et remplacer «RZ» par «RS». Ex. SLRG 5-16-4 2RS

### APPLICATION

Le succès, le savoir-faire et l'expérience acquise depuis de nombreuses années dans le développement et la fabrication de galets font de JESA l'un des leaders mondiaux en matière de galets standardisés LRG.

La gamme de produits LRG offre une précision de guidage optimale, un très faible bruit et de faibles vibrations, mais également une incroyable étanchéité.

Les galets sont fabriqués en acier 100Cr6 ou en inox 1.4125 de haute qualité et sont résistants de -35 °C à +120 °C.



Finite Element Analysis (FEA)

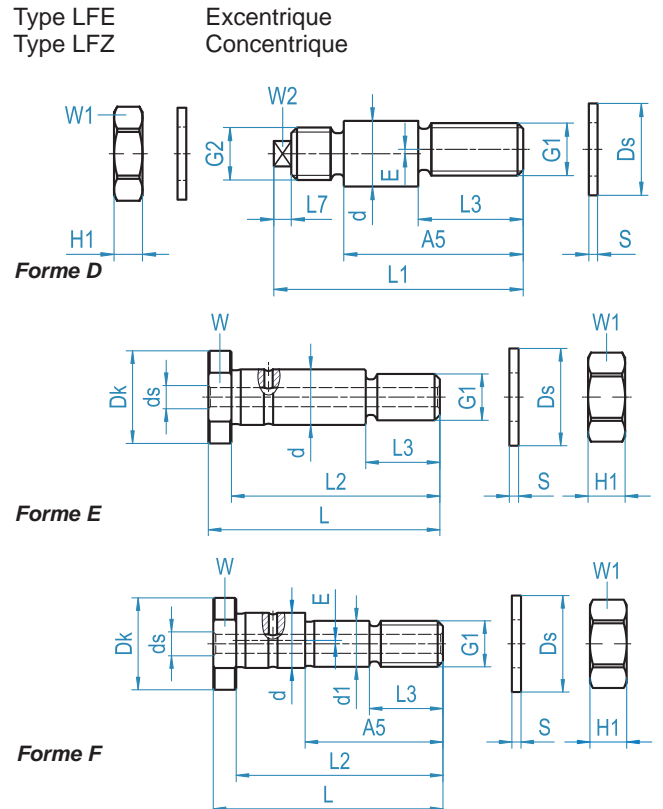
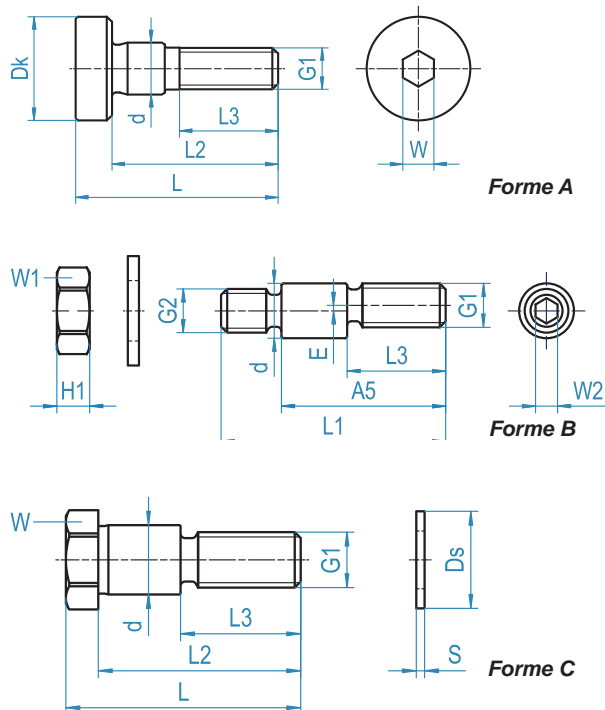




## SERIE LRG AXES LFZ/LFE POUR GALETS LRG

**JESA.**  
bearing solutions

### SPECIFICATIONS TECHNIQUES



### DIMENSIONS DISPONIBLES (en mm)

Dimensions en mm																				
Désignation	Forme	d	G1	G2	L	L2	L3	L1	A5	L7	Ds	E	H1	S	Dk	ds	d1	W	W1	W2
LFZ 5	A	5	M4	-	19.5	16	9.5	-	-	-	10	-	3	1	10	-	-	3	-	-
LFE 5	B	5	M4	M4	-	-	9	20.5	16	-	-	0.5	3	1	-	-	-	-	7	2
LFZ 8	C	8	M8	-	28.3	24.3	15	-	-	-	14	-	-	1	-	-	-	12	-	-
LFE 8	D	8	M8	M8 x 0.75	-	-	13.7	33.2	22	3.5	14	1	4	1	-	-	-	-	13	5
LFZ 12	C	12	M10	-	43	36	22	-	-	-	20	-	-	1.8	-	-	-	17	-	-
LFE 12	D	12	M10	M10	-	-	19.5	50	33.5	5	21	1	8	1.8	-	-	-	-	17	6
LFZ 12 / M 12	C	12	M12	-	50.8	43.8	24	-	-	-	19	-	-	1.8	-	-	-	17	-	-
LFE 12 / M 12	D	12	M12	M12	-	-	24	57	41	5	19	1	6	1.5	-	-	-	-	17	6
LFZ 15	C	15	M12	-	50.8	43.8	26	-	-	-	21	-	-	2	-	-	-	19	-	-
LFE 15	D	15	M12	M12	-	-	24	57	41	4	21	1	6	2	-	-	-	-	19	6
LFZ12X45-A1	E	12	M10 x 1.5	-	50	45	16	-	-	-	19	-	8	2	20	-	-	17	17	-
LFE12X45-A1	F	12	M10 x 1.5	-	50	45	16	-	30	-	20	0.75	8	2	20	-	10	17	17	-
LFZ20X67-A1	E	20	M16 x 1.5	-	75	67	23	-	-	-	30	-	13	3	30	M8	-	27	24	-
LFE20X67-A1	F	20	M16 x 1.5	-	75	67	23	-	45	-	30	1	13	3	30	M8	17	27	24	-
LFZ25X82-A1	E	25	M20 x 1.5	-	92	82	30	-	-	-	37	-	15	3	40	M8	-	36	30	-
LFE25X82-A1	F	25	M20 x 1.5	-	92	82	30	-	57	-	37	1	16	2.8	40	M8	22	36	30	-



## AXES POUR SERIE LRg TABLE DE CORRESPONDANCE AxES - gALETS



100Cr6	LRg	LFR	Axes concentriques	Axes excentriques
	LRg 5-16-4 2RZ	LFR 50/5-4-2Z	LFZ 5	LFE 5
	LRg 5-17-6 2RZ	LFR 50/5-6-2Z	LFZ 5	LFE 5
	LRg 8-24-6 2RZ	LFR 50/8-6-2Z	LFZ 8	LFE 8
	LRg 12-35-10 2RZ	LFR 5201-10-2Z	LFZ 12	LFE 12
	LRg 12-35-12 2RZ	LFR 5201-12-2Z	LFZ 12x45-A1	LFE 12x45-A1
	LRg 12-42-10 2RZ	LFR 5301-10-2Z	LFZ 12/M12	LFE 12/M12
	LRg 15-47-10 2RZ	LFR 5302-10-2Z	LFZ 15	LFE 15
	LRg 20-52-16 2RZ	LFR 5204-16-2Z	LFZ 20x67-A1	LFE 20x67-A1
	LRg 25-72-20 2RZ	LFR 5206-20-2Z	LFZ 25x82-A1	LFE 25x82-A1
	LRg 25-72-25 2RZ	LFR 5206-25-2Z	LFZ 25x82-A1	LFE 25x82-A1

INOX	LRg	LFR	Axes concentriques	Axes excentriques
	SLRg 5-16-4 2RS	LFR 50/5-4-2RS-RB	LFZ 5-RB	LFE 5-RB
	SLRg 5-17-6 2RS	LFR 50/5-6-2RS-RB	LFZ 5-RB	LFE 5-RB
	SLRg 8-24-6 2RS	LFR 50/8-6-2RS-RB	LFZ 8-RB	LFE 8-RB
	SLRg 12-35-10 2RS	LFR 5201-10-2RS-RB	LFZ 12-RB	LFE 12-RB
	SLRg 12-35-12 2RS	LFR 5201-12-2RS-RB	LFZ 12x45-A1-RB	LFE 12x45-A1-RB
	SLRg 12-42-10 2RS	LFR 5301-10-2RS-RB	LFZ 12/M12-RB	LFE 12/M12-RB
	SLRg 15-47-10 2RS	LFR 5302-10-2RS-RB	LFZ 15-RB	LFE 15-RB
	SLRg 20-52-16 2RS	LFR 5204-16-2RS-RB	LFZ 20x67-A1-RB	LFE 20x67-A1-RB
	SLRg 25-72-20 2RS	LFR 5206-20-2RS-RB	LFZ 25x82-A1-RB	LFE 25x82-A1-RB
	SLRg 25-72-25 2RS	LFR 5206-25-2RS-RB	LFZ 25x82-A1-RB	LFE 25x82-A1-RB

## SERIE LR GALETS POUR LIGNE D'ETIRAGE DE FILM PLASTIQUE

**JESA.**  
bearing solutions

### AVANTAGES DE LA SOLUTION

- Développés et produits en Suisse depuis plus de 15 ans
- Testés et approuvés par l'industrie européenne
- Acier 100 Cr6 haute qualité contrôlé en Suisse
- Traitement thermique et stabilisation pour des températures allant jusqu'à 250°C
- Cage en acier résistante aux accélérations, à la vitesse et aux contraintes de température
- Lubrification optimisée par graissage des deux côtés du roulement avec des graisses PFPE haute température
- Etanchéité par joints labyrinthes à faibles frottements en FPM ou en tôle d'acier
- Chemins de billes superfinis pour une durée de vie et un rendement optimisés
- Gamme de galets compatible avec la plupart des machines du marché
- Durée de vie augmentée pour une diminution de la maintenance et une productivité accrue

### SPECIFICATIONS TECHNIQUES

#### ROULEMENTS A SIMPLE RANGEE DE BILLES

La gamme JESA s'étend du diamètre extérieur 16 mm jusqu'à 52 mm.

Les capacités de charge dynamique CwT de nos galets couvrent une plage allant de 1'100 N à 10'500 N.

#### ROULEMENTS DOUBLE RANGEE DE BILLES

Pour une application particulière, JESA a développé une version à double chemins de billes permettant d'atteindre une capacité dynamique CwT de 6'000 N.

#### ETANCHEITE

Simple rangée	Série LR	Labyrinthe FPM
Double rangées	Série LRD	Labyrinthe Acier

### DIMENSIONS DISPONIBLES (en mm)

#### Simple rangée

JESA designation	Alésage	Ø ext.	Largeur
LR605	5	16	5
LR608 / LRB608	8	24	7
LR201-34	12	34	10
LR202	15	40	11
LR202-42	15	42	11
LR6203-42	17	42	12
LR203	17	47	12
LR204	20	52	14

#### Double rangée

JESA designation	Alésage	Ø ext.	Largeur
LRD 17/40-18	17	40	18



100% MADE IN SWITZERLAND

### APPLICATION

Les galets JESA sont utilisés sur les lignes d'étirage de film plastique. Ils assurent la fonction guidage de la chaîne d'étirage. Graissés à vie, les galets JESA sont sans entretien.

En fonction des produits fabriqués, de l'épaisseur des films plastiques et de la technique d'étirage, les galets peuvent supporter de fortes charges radiales à des températures pouvant atteindre 250°C et des vitesses comprises entre 100 et 500 m/min.

A white humanoid robot with a human-like face and torso, but with a mechanical right arm. The robot is holding two keys in its right hand. The background is a plain, light grey color.

**SPECIAL TEXTILE BEARINGS**

**Jesa.**  
bearing solutions





## why choose us?

- ✓ Tailored solutions adapted to your application
- ✓ Innovative products with Swiss quality
- ✓ High Performance and reliability
- ✓ Long lasting collaboration with key players
- ✓ Production facilities in Switzerland and in Asia

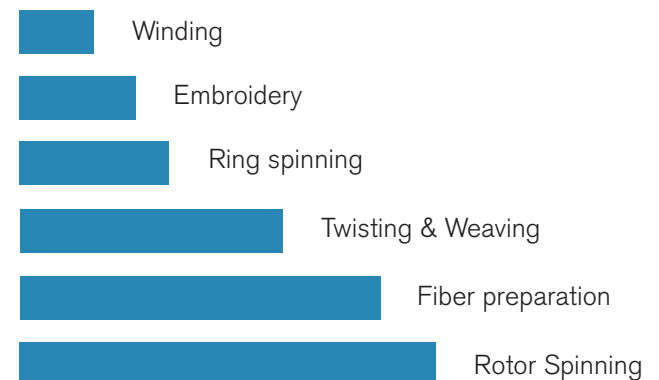


After its success with solutions for the spinning area, JESA is now ready to open his know-how and experience of more than 45 years to others sectors of the textile industry.

This domain is increasing more and more. JESA's goal is to offer its tailored solutions to all sectors of the textile industry.

## our presence

JESA textile products can be found in various sectors of the textile industry such as:





# our products

JESA's core business is the design and the manufacture of ball bearings and ball bearing based solutions. JESA responds to the most challenging and specialised demands from the market by offering tailor-made products. The most varied ancillary parts made of metal, ceramics or plastic are perfectly integrated, to offer the following range of solutions :

## CAPABILITIES FOR BEARINGS

FEATURE	RANGE / DESCRIPTION
Bearing type	Ball, roller and needle bearing, single and double row, hybrid bearing, design with integrated shaft, special designs
Size range of inner bore diameters	3 mm to 60 mm
Size range of outer diameters	6 mm to 90 mm
Bearing materials	Bearing steel 100Cr6, stainless steel, steenox, amagnetic steel
Precision class	Up to ABEC 9
Cage materials	Steel, Nylon, PEEK
Seal materials	Rubber (NBR, Viton, ACM, other), steel shields, stainless steel shields, combinations
Grease	Standard and special grease to suit application needs
Performance targets	Long life, high speed, high load, low vibration, low noise

## CAPABILITIES FOR POLYMER OVER-MOLDING

FEATURE	RANGE / DESCRIPTION
Polymer materials	ABS, PA, PBT, PC, PEEK, PEI, PET, PK, POM, PI, PP, PPA, PPS, TPE/TPU (unreinforced or reinforced for all materials)
Size range	< 2 mm to 200 mm
Performance targets	Lower mass, vibration damping, integrated functions

## CAPABILITIES FOR ASSEMBLY

FEATURE	RANGE / DESCRIPTION
Materials	Pressings, plates, shafts, nuts



## our references

Some of the leaders of the textile industry trust us for a long time:



## our certifications



# our solutions

## High Precision

High accuracy, high rotational speed, quiet running, special dimensions, specific heat treatment, various ring and ball materials, custom ball retainers, specific greases.



## Metal - Plastic

The marriage of Metal - Plastic solutions allow more design freedom and mass reduction. A further step towards higher rotating speed and improved reliability. One solid unit of metallic and plastic elements, less stakeholders in the supply chain.



## Customised Design

We support our customers in their quests for differentiation and optimisation, Long-lasting grease, Form-Fit-Function elements that reduce noise and friction, engineered polymers, designs multi-usage.



## JESA as partner



idea



development

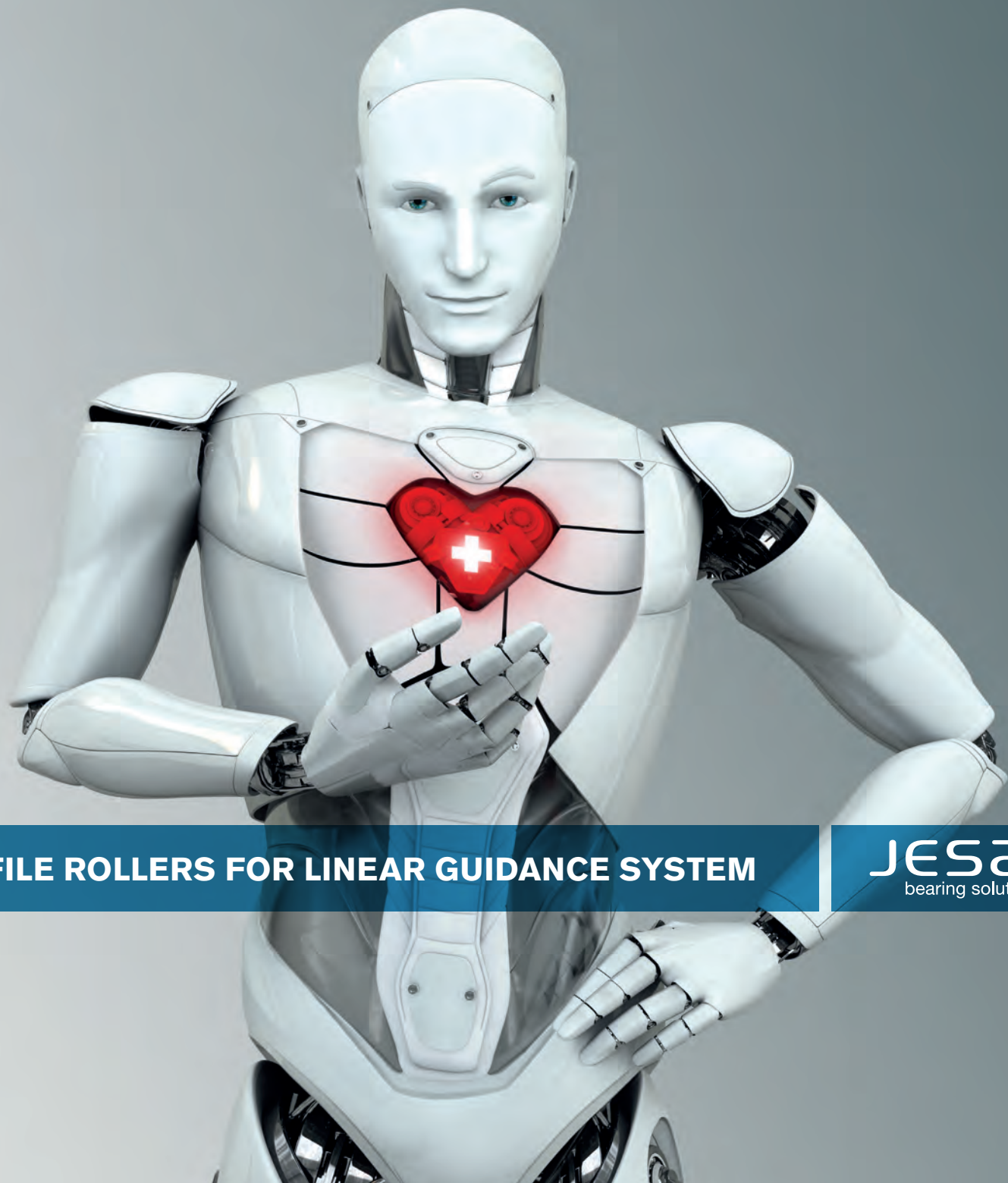


production



delivery





**PROFILE ROLLERS FOR LINEAR GUIDANCE SYSTEM**

**JESA.**  
bearing solutions



# why choose us?

Benefits for you:

- ✓ Swiss Made
- ✓ Value for money
- ✓ Access to a complete product range of track rollers
- ✓ Low acoustic noise, low friction torque and extended lifetime
- ✓ Short delivery time

## our offerings

We are constantly innovative and are in tune with the request of our customers to offer customised offerings.

### Choice of materials

- Steel
- Stainless steel
- Steenox

### Grease

- food and beverage
- high and low temperature

### Design

Unique designs developed with customers

### Tailored logistics solutions

Custom stocking & delivery solutions available

### Choice of packaging to suit your requirements

Individual wrapping - plastic bags, cartons, combinaisons, various solutions for multiple packaging

### Complementary products

Supply of complementary products and parts (eg. shafts)

 SWISS MADE

STEEL



# our solutions

## Steel version

We offer a complete and high performing range to address the most demanding applications within linear guidance.

More accurate, less noisy - the JESA bearings push the boundaries of your applications.

## Stainless steel version

The range of LRG stainless steel rollers supports applications in the food, medical and nuclear sectors and also lends itself to highly corrosive environments.

## Bespoke profiles

For bespoke applications, we can adapt, enhance or create new designs at your request.

We would love to add value to your future projects.

## JESA as partner



idea



development



production



delivery

SHAFTS



BESPOKE PROFILES



STAINLESS STEEL





# our products

JESA offers direct contact between its customer and the producer/designer. Moreover, all the rollers are *Swiss Made*.

## CAPABILITIES FOR TRACK ROLLERS

FEATURE	RANGE / DESCRIPTION
Bearing type	Ball, double row track roller
Size range of inner bore diameters	5 mm to 25 mm
Size range of outer diameters	16 mm to 72 mm
Ring materials	Steel 100Cr6, stainless steel 1.4125
Precision class	ABEC3 tolerance class (For comparison, the current industry standard is ABEC1)
Cage materials	Steel, Stainless steel, Polyamid, PEEK, other
Seal materials	Rubber (NBR, FPM, ACM), steel shields, stainless steel shields, combinations
Grease	Standard and special grease for food industry, other on request
Operating temperature	From -35°C to +120°C
Max speed	10 m/s
Special profiles	Many special profiles available for inner and outer diameters and widths Hybrid bearings with Si3N4 ceramic balls can be used up to 270°C
Performance targets	Low acoustic noise, low vibration, highest lifetime, precision, used in many applications
Applications	Automation, industry, special machines, printing, packaging, food industry, medical, robotics



## our references



and many other reputable manufacturers

## our certifications

