Manner castors and wheels

127













Smart Moves on Manner Castors



### Explanation of symbols used



Wheel diameter



Wheel width



Hub or axle length mm



Bore diameter mm



Overall height



Swept radius



Swept radius with brake mm



Bolt hole diameter



Plate length x width mm



Hole centres length x width mm



Fastening hole diameter mm



Stem diameter and length mm



Threaded stem diameter x length mm



Tube fitting inner diameter



Plain bearing



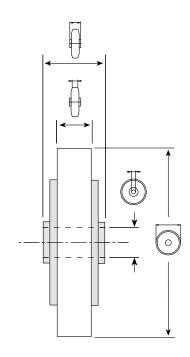
Ball bearing

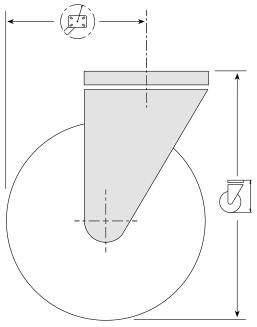


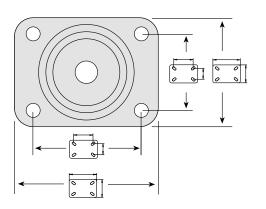
Load capacity kg (~10 Newton)

Sh A

Hardness of tread material (shore A)







### Smooth-running Manner castors!



Dear reader,

In this catalogue you will find information on our standard product range and guidelines for choosing the best castor for your specific application.

#### The right castor for the right place

A correct, appropriate castor is always a worthwhile investment.

The impact of the castor on the functionality, reliability and cost of an equipment or a transport chain is much more crucial that its impact on the price of the said equipment. Here, poor quality is not worth the bargain.

We hope that with this catalogue, you will find the best possible castor to suit your needs.

#### **Selecting a castor**

Before choosing a product, please read the guidelines on pages 10–15. The tips provided will make the task that much easier.

#### Products and technical data

For the purpose of this catalogue, the products have been grouped in sets from the lightest to the most robust. Those with special features are presented separately.

#### Orders and customer service

Orders and inquiries can be made by contacting the distributor in your area. When placing your order, please use the 6-digit product numbers to ensure flawless delivery. You can also contact Manner's sales or product development directly:

By e-mail: manner@manner.fi

By phone: +358 19 222 001 / exchange By post: P.O. BOX 3, FI-10901 Hanko

This catalogue and the latest product innovations are also available at www.manner.fi

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### Over 125 years of quality

1890

Mannerin Konepaja was founded in Hanko, Finland, in 1890 by tinsmith Juho Manner. The first products were household utensils and tin roofs. Later projects included iron structures for the Bengtskär lighthouse, water and sewer networks, ship repairs and fortifications. The first industrial products, tin cookie containers, were made with self-invented tools.



1930

In the late 1930s, when the signs of the upcoming WWII had become apparent, Manner focused on manufacturing war materials. During the Interim Peace in 1940, the operations were moved to the cities of Lohja and Lahti. The Hanko factory was re-opened in August 1942, and in 1943, Manner became a limited liability company



1910

Yrjö Manner, who was appointed the Managing Director in 1917, expanded operations in Hanko. The new foundry was completed in 1926, making it possible to introduce tall and long iron constructions, such as radio masts and bridges, to the product range. Increasingly industrialised Finland was also in dire need of mass-produced items from industrial and household appliances to various cast products such as water piping fittings, pit cover plates, bearing blocks and wheel trains



### 1950

The third generation took over the company in 1949 under Aarne Manner. He recog-



nised the importance of specialisation, and decided to shift the focus from various metal and wood working machinery, foundry products and hydraulic accumulators solely to wheels and castors. The manufacturing of pressed sheet wheels began in 1951.

By 1954, wheels and castors had become the largest product group, accounting for 27 percent of the turnover.

Plastic wheels were introduced to the range in the

1950s. The first own injection moulding machines used in plastic wheel manufacturing were acquired in 1966. In 1974, the company decided to discontinue all other products and focus exclusively on castors and wheels with all Nordic countries as its market area.

2000

Product development and customer orientation have taken an even more central role — castors are designed to meet the needs of the customers. The importance of design has been recognised. Manner's long history, experience in working with both metal and plastic, active product development and excellence have made it an internationally renowned brand of high repute.

### 1980

In 1984, Tapio Manner became the fourth generation of the Manner family at the helm. As the Managing Director, Tapio has continued on the path set by his father, and developed the company further by introducing new machines and tools, and increasing automation. Production facilities were renewed in 1997–98 and all operations moved under one roof. This has not only increased efficiency, but also made it possible to expand to new, larger markets. Exporting outside the Nordic countries, one of the key objectives, is now a reality: Manner wheels and castors are available in almost 30 countries.

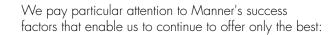


### Manner success factors

Founded in 1890, Oy Mannerin Konepaja Ab is a Finnish family-owned company that has produced castors since the 1930s. The company's

road to success has been paved by decades of

experience in metal and plastic works. Active product development and excellence have made Manner one of the leading castor manufacturers in the Nordic countries and earned it international acclaim.



- Customer: customer needs must be clarified and identified on a continuous basis.
- Continuity: sensible decision-making and efficient operations will safeguard the company's profitability and its future.
- Reliability: by honouring contracts and keeping our promises we also help our customers to succeed.
- Know-how and job satisfaction: our goals can only be achieved through continuous training and occupational well-being.
- **Environment**: environmental protection and compliance with community responsibilities guide our decisions.



#### **Business idea**

Our business idea is to provide value-adding castor solutions that are tailored to customer needs. Manner's strength and success come together in two areas: quality and innovativeness.

#### **Reliable quality**

To us, quality means the reliability of operations and products. Customers can be sure that the products they have ordered are delivered as promised, when promised, and with the features promised.

All Manner products are tested and ISO-certified, and compliant with the RoHS and REACH requirements.

Manner's operations comply with the ISO 9001 quality standard and the ISO 14001 environmental standard, and have been awarded both certificates.

#### **Innovative castor solutions**

The experience acquired over the years in the various stages of castor design and manufacturing has enabled Manner to attain a high level of know-how and innovation. Developing and offering solutions that provide added value is important to us.

Manner's quality and innovativeness contribute to the competitiveness and success of our customers. This is evidenced by a number of innovative technical solutions and new products, which have brought added value to equipment manufacturers and end users alike.









### Products that made Manner famous

We have launched many innovative and technical castor solutions that have brought added value to our customers. Here are a few of them.

# Injection moulding manufacturing of plastic castors

Manner's plastic castors were launched in the 1960s.





### First design product

First Manner product for which the fork and the brake were designed in collaboration with industrial designers.

### Roll container castor

Pioneer in roll container castors: industrial castors with ball bearing and polyurethane tread.



# Sensitive, adjustable brake for industrial use



User's choice: ergonomic, easily manoeuvrable and quiet elastic solid rubber wheel.





### **Wheel 2000**

Award-winning, patented polyamide wheel. Unique twin wheel structure makes the castor extra quiet and smooth to operate.



### Tango

Internationally renowned and popular: design, manoeuvrability, special features.

### Manner® e-SMART -

The world's first equipment castor with electric central locking.







# The Intelligent Orange RFID wheel

RFID wheel combined with the RFID reader and data system enable reliable and effective management of equipment, trolleys and products.

### Special solutions -

Manner is known for its many customer-oriented solutions, of which the hand brake feature in the Tango series is just one example.



### How to choose the right castor for the right place



Before choosing a product, please read the guidelines below.
The tips provided will make the task that much easier and ensure that you find the most suitable castor for your needs.

# 1

### Continuous or occasional use

If the furniture is only occasionally moved, the choice of castor mainly depends on the maximum load. The environment in which the castor is used may also pose its own restrictions.

In continuous use the situation is different. Here, selection should be made with care as the castors will greatly impact not only the working life of the furniture or equipment, but also work efficiency and safety.

### **Bearings**

2





The quality of the bearings is of utmost importance, especially if the equipment or furniture is to be continuously moved. The better the bearing, the easier and more efficient the work.

For example, to move a load of 150 kg, wheels fitted with plain bearings require about 50% more force than those with ball bearings.

The impelling force, or starting power required to put a stationary wheel into motion, can be significantly reduced by selecting castors with ball bearings.





### Manner wheels and castors are fitted with plain or ball bearings

Plain bearings are the simplest and most economic type of bearing. The wheel rotates directly on the axle or the axle bush.

Most of our wheels and castors are fitted with sealed 2RS ball bearings, which are easy to manoeuvre, maintenance-free and durable. The bearings are located either at the centre of the hub or on both sides of it.

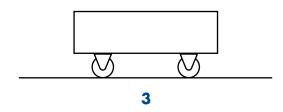
If you need more information or tips regarding our products, our importers and factory staff are happy to help.

# — 3 — Maximum load

The actual load on a castor can be calculated by dividing the total weight of a 4-wheel trolley by three. This is because the device or equipment may move only on three wheels.

All load values in this catalogue apply to non-mechanical use in normal temperatures. The speeds are 3–4 km/h depending on the castor set.

If conditions are exceptionally demanding, contact our distributors or factory for advice.



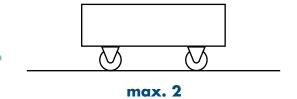


Shock loads can occur, for example, when crossing thresholds or other obstacles.

If such shocks cannot be avoided, it pays to be prepared. Opt for

- elastic tread
- greater diameter
- sufficient load reserve
- shock-absorbing wheel structure

(Divide total load by max. 2



# Surface and surroundings



The more uneven the surface, the larger the wheel and the softer the tread should be.

For a hard surface we recommend using a soft wheel, and for a soft surface a hard wheel.

In case of a level, smooth floor and good conditions, the tread can be chosen more freely.

If there are likely to be pieces of thread or string on the floor, choose a castor with threadguards.

Also consider temperature (section 7), humidity and chemicals (section 8).

#### Hardness of various tread materials:

Furniture castors  Solid rubber wheel Thermoplastic rubber  Light equipment castors  Thermoplastic rubber Soft polyurethane Soft polyurethane Equipment castors  Thermoplastic rubber Solid rubber Soft polyurethane Soft polyurethane Soft polyurethane Soft polyurethane Solid rubber Soft polyurethane Solid rubber Soft polyurethane Solid rubber Soft polyurethane Solid rubber Soft polyurethane Soft polyurethane Solid rubber Soft polyurethane Solid rubber (black) Solid rubber (bla		
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Elastic solid rubber Soft polyurethane Solid rubber Solid rubber Solid rubber Solid rubber Conductive thermoplastic rubber Conductive soft polyurethane Solid rubber Solid rubber Solid rubber Solid rubber Soft polyurethane Solid rubber Soft polyurethane Solid rubber	Equipment castors	
Elastic solid rubber 60 Shore A 75-80 Shore A Soft polyurethane 80 Shore A Solid rubber (black) 85 Shore A Solid rubber (black) 85 Shore A Conductive soft polyurethane 80 Shore A Conductive polyurethane 98 Shore A Heavy-duty castors  Soft cast urethane 87 Shore A	Elastic solid rubber Soft polyurethane Solid rubber Conductive thermoplastic rubber	60 Shore A 80 Shore A 85 Shore A 86 Shore A
Heat-resistant rubber Soft polyurethane Solid rubber (black) Polyurethane Conductive soft polyurethane Conductive polyurethane Weather than the soft polyurethane Conductive polyurethane Soft cast urethane Soft cast urethane Soft cast urethane Soft cast weather than the soft polyurethane Soft cast urethane Soft cast weather than the soft polyurethane Soft cast urethane Soft cast weather than the soft polyurethane Soft cast urethane Soft cast weather than the soft polyurethane Soft cast urethane	Industrial castors	
Soft cast urethane 87 Shore A	Heat-resistant rubber Soft polyurethane Solid rubber (black) Polyurethane Conductive soft polyurethane	75-80 Shore A 80 Shore A 85 Shore A 98 Shore A 80 Shore A
	Heavy-duty castors	

The information referred to above and in the catalogue should be considered as approximate values.

For more information, please visit www.manner.fi

# 6 Tread material

Tread material is the third decisive factor – along with wheel diameter and bearings – in controlling rolling resistance.

#### Comparison of tread materials:

Features	Polyamide	Soft polyurethane	Polyurethane	Solid rubber	Soft thermo- plastic rubber	Thermoplastic rubber	Elastic rubber
Suitability indoors	3	4	4	2	3	3	5
and outdoors	4	2	4	2	2	4	3
Thermal resistance	4	5	5	2	2	3	3
Wear resistance	3	4	4	4	4	3	5
Shock load	5	3	3	4	4	4	4
Rolling and starting resistance	е						
– smooth and hard surface	5	3	4	2	3	4	4
– uneven surface	2	4	3	3	4	2	5
Load capacity	5	4	4	2	2	3	4
Surface compatibility	2	4	3	3	4	3	5
Traction on surface	1	4	3	4	4	3	5
Scale 1–5 (5 = very good	. 1 = poor)						

The load capacities given in the catalogue are for normal temperatures (+15-+25 °C). Please note that the capacity may be considerably different if the castor is used in temperatures outside this range. If the circumstances fall outside the normal temperature range, we recommend contacting the retailer or the factory to check the suitability of the castor.

The temperature ranges for the different tread materials are shown in the table below. Minimum temperatures are not applicable to shock loads. At temperatures below zero, the shock load resistance decreases. If the castors are used in temperatures below -25 °C, even occasionally, the use of special lubricants is recommended.

#### NOTE!

If the wheel contains different materials (hub/tread), heat resistance is determined by the lowest temperature.

In the case of heat-resistant rubber, resistance varies depending on the type of rubber; see "Heat-resistant wheels" for more information.

### **Temperature**



#### Heat resistance of materials

	Continuous use	Momentary use	Minimum
Polyamide	+ 80 °C	+ 130 °C	- 40 °C
Polyurethane	+ 80 °C	+ 100 °C	- 30 °C
Aluminium	+ 280 °C	+ 300 °C	- 40 °C
Heat-resistant rubber	+ 150 °C	+ 300 °C	- 40 °C
Rubber	+ 50 °C	+ 70 °C	- 30 °C
Thermoplastic rubber	+ 130 °C	+ 150 °C	- 40 °C
Swivel bearing seals	+ 80 °C	+ 100 °C	- 30 °C
Polypropylene	+ 50 °C	+ 70 °C	- 10 °C

#### All Manner castors are ISO-certified!



### Chemical resistance

When choosing the tread material, any chemical components present in the working environment should also be considered. The table below shows the resistance of the different tread materials against specific chemical components.

If a chemical is present in the working environment and is not listed here, please contact the Manner factory. This table is not legally binding.

#### Tread material resistance to chemicals

	%	Poly- amide	Poly- urethane	Rubber	Thermo- plastic rubber
Ammonia	10	+	+ -	+	+
Aniline		+ -	-	+	
Acetone		+	+ -	+	+
Petrol		+	+ _	_	
Diesel fuel		+	+	-	_
Acetic acid	5/10	+ -	+ -	+	+
Ethylene acetate		+	_	+ -	
Ethyl alcohol		+	+ -	+	+
Phenol		_		-	+ _
Formaldehyde	30	+		+	+
Phosphoric acid	10	_	_	+	+
Glycol		+	+	+	+
Glycerine		+		+	
Potassium hydroxide	10	+	+ _	+	
Calcium chloride	10	+	+	+	+
Chlorine		_		_	+ -
Chloroform		_	_	_	_
Milk		+	+	+	+
Lactic acid	10	+	_	+	
Mineral oil		+	+	_	+ _
Formic acid	10	_	_	+	+
Naphthalene		+		_	+ -
Sodium hydroxide	50	+	+ -	+	+
Sodium chloride	10	+	+	+	+
Ozone		+ -	+	_	
Linseed oil		+	+ -	_	+ -
Light petroleum		+	+	_	_
Edible fats		+	+	_	
Fuel oil		+		_	
Sulphuric acid	2	_	+ _	+	+
Soap solution		+	+	+	+
Saltpetre acid	2	_	+ -	+	+
Citric acid	10	+ -	+ -	+	
Hydrochloric acid		_	+ -	+	+
Trichloroethylene		+ -	-	_	-
Water		+	+	+	+
Water 80 °C		+ -	+ -	+	+
Lubricating greases		+	+	_	
good limited	+ + -				
poor	-				
not known					

**Fixing** 

Choose the most suitable fixing method for the furniture or equipment in question. Manner castors can be fixed e.g. as follows:

Threaded stem
Can be mounted
above or from
underneath.



Top plate



Stem fitting



Expander Round or square.



Tightening torques
Fixings should follow the recommended tightening torques.
If necessary, ask us for instructions.



### With or without brakes

In Manner castors, the brake is usually fitted on the swivel fork trailing the direction of movement. In some models, the brake is on the front of the fork.

Single action brake locks the wheel from revolving.

Total-stop brake prevents the wheel from revolving and the fork from turning.



Brake at the back.



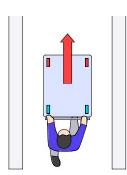
Brake at the front.

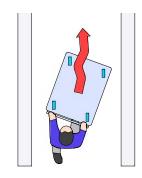
# Direction locking

The directional lock locks the fork in the direction of travel.

Directional lock facilitates the handling of furniture or equipment, and is often the simplest and most economical way to optimise its manoeuvrability.

Even one castor with directional locking improves the control of the equipment when travelling down long corridors, for example. Once the lock is released, all castors can again be turned for easy manoeuvring in confined spaces.





### Combinations

12

The characteristics of the equipment can be tailored to suit different conditions and uses by selecting different combinations of swivel and fixed castors and axles.

#### Light load, confined spaces

Four swivel castors make light loads easy to manoeuvre even in tight places (Fig. 1).

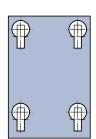


Fig. 1

#### Heavy load, open spaces

Two swivel and two fixed castors for manoeuvring heavy loads in open spaces (Fig. 2).

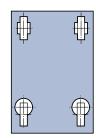


Fig. 2

#### Heavy load, confined spaces

Here, two swivel castors and an axle is the most suitable solution. Wheels in the centre are somewhat bigger and carry most of the load (Fig. 3).

For even heavier loads, a combination of four swivel castors and an axle is recommended (Fig. 4)

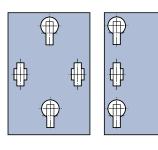


Fig. 3

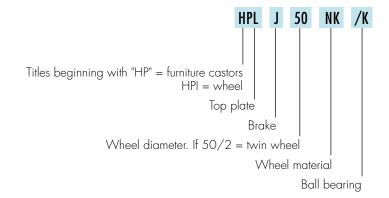
Fig. 4

### Product title system

Below you will find examples of the product title system used at Manner. More detailed descriptions of fixings and wheel materials, for example, are provided later under each product group.

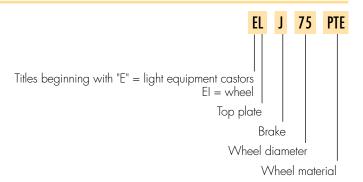
#### Furniture castors (p. 18-21)





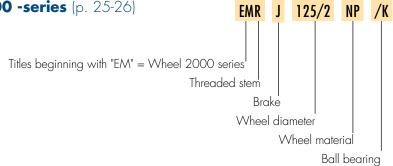
#### **Light equipment castors — E-series** (p. 22-24)





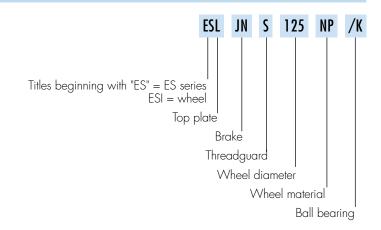
#### **Light equipment castors — Wheel 2000 -series** (p. 25-26)



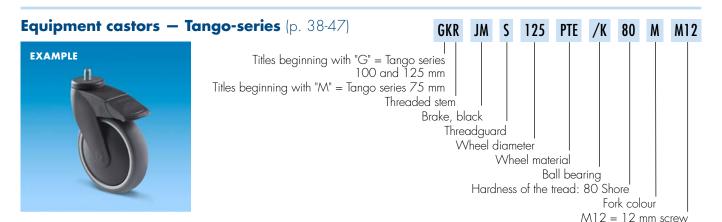


#### **Equipment castors — ES-series** (p. 27-37)

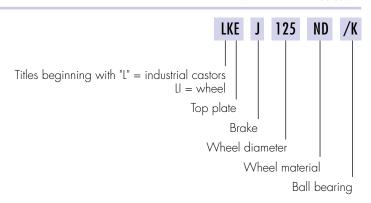


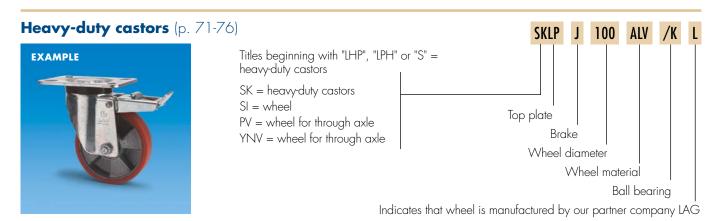


### Product title system

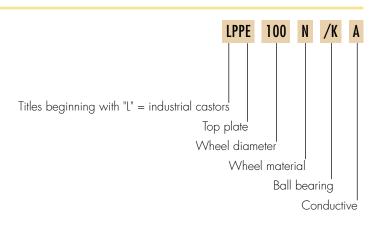


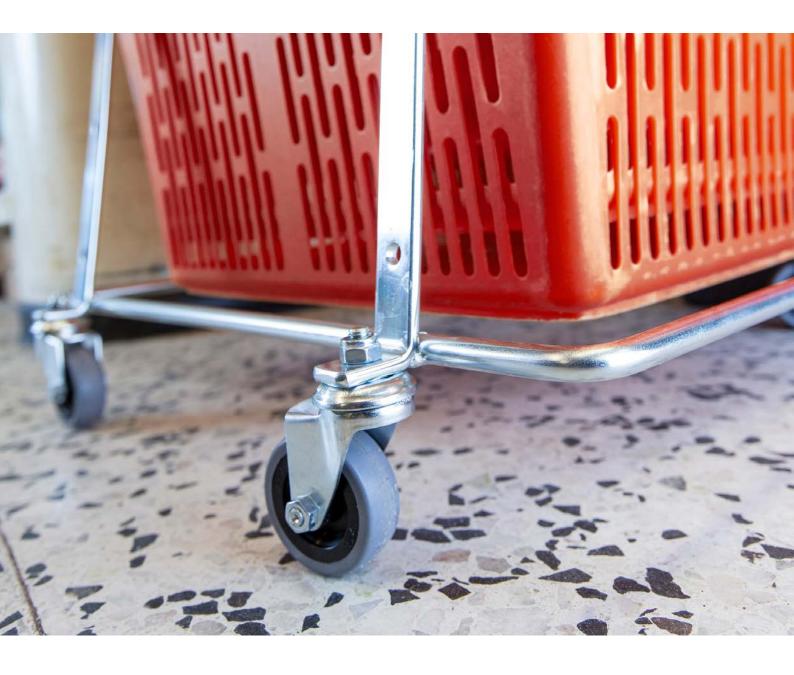
# Industrial castors (p. 53-67) EXAMPLE











Manner's furniture castors are ideal for all lightweight furniture where small, easily manoeuvrable wheels are a must.

The castor can be fitted with either a polyamide tread or a rubber tyre. Our product range includes both single and twin wheel castors with steel or plastic frame. Available with a single action or total-stop brake depending on the model.

- Office furniture
- Furniture
- Shop furnishings
- Dollies
- Drawers



Top N. Bottom left NK, right NK/K.

# Top it. 2010 in 101 in, right my it.

2



3



•



#### HPI WHEEL

N polyamide, plain bearing. NK polyamide centre + thermoplastic rubber tyre, plain bearing. NK (50 mm) polyamide centre + solid rubber tyre, plain bearing. NK/K (50 mm) polyamide centre + solid rubber tyre, ball bearing (sealed).

Code	Title	0	$\overline{\emptyset}$	0	₫			1	Sh A	
100061	HPI-30 N	30	15	21	6,2	•	-	50	-	
100023	HPI-30 NK	30	15	21	6,2	•	-	30	90	
100065	HPI-40 N	40	18	22	8,2	•	-	40	-	
100025	HPI-40 NK	40	18	21	8,2	•	-	30	90	
100069	HPI-50 N	50	18	22	8,2	•	-	60	-	
100077	HPI-50 NK	50	18	21	8,2	•	-	30	76	
100086	HPI-50 NK/K	50	18	22	6,2	-	•	45	76	

#### HP SWIVEL CASTOR, BOLT HOLE

N polyamide. NK polyamide centre + thermoplastic rubber tyre. NK, NK/K (50 mm) polyamide centre + solid rubber tyre.

Code	Title	$\odot$	Ð			Ī			I	Sh A	
100062	HP-30 N	30	15	48	30	8,2	•	-	20	-	
100012	HP-30 NK	30	15	48	30	8,2	•	-	20	90	
100066	HP-40 N	40	18	61	45	8,2	•	-	30	-	
100014	HP-40 NK	40	18	61	45	8,2	•	-	30	90	
100070	HP-50 N	50	18	66	46	8,2	•	-	30	-	
100078	HP-50 NK	50	18	66	46	8,2	•	-	40	76	
100087	HP-50 NK/K	50	18	66	46	8,2	-	•	40	76	

Products also available with 10 mm bolt hole.

### HP-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide. NK polyamide centre + thermoplastic rubber tyre. NK, NK/K (50 mm) polyamide centre + solid rubber tyre.

Code	Title	$\odot$	Ð			$\overline{\mathbb{Z}}$			1	Sh A	
100071	HP-J-50 N	50	18	66	75	8,2	•	-	30	-	
100079	HP-J-50 NK	50	18	66	75	8,2	•	-	40	76	
100088	HP-J-50 NK/K	50	18	66	75	8,2	-	•	40	76	

Products also available with 10 mm bolt hole.

#### HPL SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide. NK polyamide centre + thermoplastic rubber tyre. NK, NK/K (50 mm) polyamide centre + solid rubber wheel.

Code	Title	0	Ð			0 0					ı	Sh A
100063	HPL-30 N	30	15	48	30	42x42	30x30	5,2	•	-	20	90
100036	HPL-30 NK	30	15	48	30	42x42	30x30	5,2	•	-	25	90
100067	HPL-40 N	40	18	61	45	42x42	30x30	5,2	•	-	30	90
100038	HPL-40 NK	40	18	60	44	42x42	30x30	5,2	•	-	30	90
100074	HPL-50 N	50	18	66	46	55x55	38,5/44x38,5/44	6,2	•	-	30	90
100082	HPL-50 NK	50	18	66	46	55x55	38,5/44x38,5/44	6,2	•	-	40	76
100089	HPL-50 NK/K	50	18	66	46	55x55	38,5/44x38,5/44	6,2	-	•	40	76

### HPL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide. NK polyamide centre + thermoplastic rubber tyre. NK, NK/K (50 mm) polyamide centre + solid rubber tyre.

Code	Title	0	₹								1	Sh A
100075	HPL-J-50 N	50	18	66	75	55x55	38,5/44x38,5/44	6,2	•	-	30	90
100083	HPL-J-50 NK	50	18	66	75	55x55	38,5/44x38,5x44	6,2	•	-	40	76
100090	HPL-J-50 NK/K	50	18	66	75	55x55	38,5/44x38,5/44	6,2	-	•	40	76



#### **FIXED CASTOR, RECTANGULAR TOP PLATE**

N polyamide. NK polyamide centre + thermoplastic rubber tyre. NK, NK/K (50 mm) polyamide centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$	0 0					1	Sh A	
100064	HPP-30 N	30	15	47	55x25	43-41	6	•	-	40	90	
100047	HPP-30 N LOW	30	15	33	48x20	39-8	4	•	-	40	90	
100050	HPP-30 NK	30	15	47	55x25	43-41	6	•	-	30	90	
100049	HPP-30 NK LOW	30	15	33	48x20	39-8	4	•	-	30	90	
100068	HPP-40 N	40	18	61	55x25	43-41	6	•	-	40	90	
100052	HPP-40 NK	40	18	61	55x25	43-41	6	•	-	30	90	
100076	HPP-50 N	50	18	66	55x25	43-41	5,5	•	-	60	90	
100084	HPP-50 NK	50	18	66	55x25	43-41	5,5	•	-	30	76	
100091	HPP-50 NK/K	50	18	66	55x25	43-41	5,5	-	•	40	76	



#### TWIN WHEEL SWIVEL CASTOR, BOLT HOLE

NK/K polyamide centre + solid rubber tyre.

100092	HP-50/2 NK/K	50/2	2v18	72	55	10.2	60	76	
Code	Title	(a)	Ā			₹7	I	Sh A	





#### HP-J/2 TWIN WHEEL SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NK/K polyamide centre + solid rubber tyre.

Code	Title	$\odot$	0	W.		Q		T	Sh A	
100093	HP-J-50/2 NK/K	50/2	2x18	72	84	10,2	•	60	76	



#### TWIN WHEEL SWIVEL CASTOR, RECTANGULAR TOP PLATE

NK/K polyamide centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				_	Sh A	
100094	HPL-50/2 NK/K	50/2	2x18	72	55	60x60	48x38/48x38	6,2	•	60	76	



#### HPL-J/2 TWIN WHEEL SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NK/K polyamide centre + solid rubber tyre.

mny n	poryu	iiiliuo coiliio 1 30iiu ioi	JUGI IYI	<b>u.</b>									
Code	9	Title	$\odot$	$\blacksquare$			0 0				1	Sh A	
100	095	HPL-J-50/2 NK/K	50/2	2x18	72	84	60x60	48x38/48x38	6,2	•	60	76	



#### TWIN WHEEL SWIVEL CASTOR WITHOUT FITTINGS

EMI body and wheels black polyamide. -J- brake.

Code	Title	0	Ð				1	
100006	EMI-42/440	42	40	50	41	•	30	
100008	EMI-50/440	50	55	58	50	•	30	
100096	EMI-J-50/440	50	55	58	60	•	30	

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#### **FITTINGS**

EMI rectangular top plate, threaded stem.

Code	Title	0 0			<u>F</u>	
100005	EMI-3535	35x35	26x26	4,5	-	
100007	EMI-4242	42x42	32x32	4,5	-	
100010	EMI-M8		-	-	M8x14	
100009	EMI-M10	-	-	-	M10x14	

Note: These fittings are suitable for products on page 11.

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### Light equipment castors – E series



E series castors are designed for trolleys, stands and light, movable tables and worktops.

The structure is durable yet stylish. The fork is made of pressed galvanised steel and the axle is riveted. Thermoplastic rubber tread ensures stable, easy manoeuvring. The range also includes 75 mm polyamide wheel. Where necessary, the single action brake can also be fitted afterwards. Light equipment castors are also available with conductivity.

- Cleaning trolleys
- Clothing racks and stands
- Light assembly and tool tables
- Hospital trolleys and equipment
- Other light trolleys

### Light equipment castors – E series



#### 13

Top N
Bottom PTE

1) Riveted once assembled.



#### \_

#### II WILL

N polyamide, plain bearing. PTE polypropylene centre + thermoplastic rubber tyre.

Code	Title	$\odot$	arraycolorginal	0	₫		_	Sh A	
200016	EI-75 N <sup>1)</sup>	75	23	32	8	•	50	-	
200321	EI-75 PTE1)	75	23	30	8	•	50	80	
200317	EI-100 PTE1)	100	23	30	8	•	50	80	
200319	EI-125 PTE1)	125	23	30	8	•	50	80	

#### E SWIVEL CASTOR, BOLT HOLE

N polyamide. PTE polypropylene centre + thermoplastic rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		2	Sh A	
200009	E-75 N	75	23	100	75	10	•	50	-	
200307	E-75 PTE	75	23	100	75	10	•	50	80	
200303	E-100 PTE	100	23	125	88	10	•	50	80	
200305	E-125 PTE	125	23	150	100	10	•	50	80	

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### E-J SWIVEL CASTOR, BOLT HOLE, SINGLE ACTION BRAKE LOCKS THE WHEEL

PTE polypropylene centre + thermoplastic rubber tyre.

Code T	Title	0	∄			<u>Z</u>		1	Sh A
200313 E	E-J-75 PTE	75	23	100	95	10	•	50	80
200309 E	E-J-100 PTE	100	23	125	95	10	•	50	80
200311 E	E-J-125 PTE	125	23	150	100	10	•	50	80

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Also available with a threaded stem (ER-).

### Light equipment castors – E series



#### EL SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide. PTE polypropylene centre + thermoplastic rubber tyre.

Code	Title	$\odot$	$\emptyset$	$\overline{\mathbb{U}}$		0 0				I	Sh A	
200043	EL-75 N	75	23	105	75	60x60	45x45	6,5	•	50	-	
200325	EL-75 PTE	75	23	105	75	60x60	45x45	6,5	•	50	80	
200300	EL-100 PTE	100	23	130	88	60x60	45x45	6,5	•	50	80	
200323	EL-125 PTE	125	23	155	100	60x60	45x45	6,5	•	50	80	

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### EL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, SINGLE ACTION BRAKE LOCKS THE WHEEL

PTE polypropylene centre + thermoplastic rubber tyre.

Code Ti	itle	$\odot$	Ð	$\overline{\mathbb{Z}}$		0 0				1	Sh A	
200330 E	L-J-75 PTE	75	23	105	95	60x60	45x45	6,5	•	50	80	
200301 E	L-J-100 PTE	100	23	130	95	60x60	45x45	6,5	•	50	80	
200328 E	L-J-125 PTE	125	23	155	100	60x60	45x45	6.5	•	50	80	

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#### ET EXPANDER

Code	Title	round, inside ø	square, inside 🗹	expander length
200095	ET-18,19	18 - 19	-	59 + - 2
200096	ET-22	22	-	60 + - 2
200098	ET-25	25	•	57 + - 2
200100	ET-28	28	-	58 + - 2
200165	ET-37	37	-	58 + - 2
200094	ET-17X17	-	17	60 + - 2
200097	ET-22X22	-	22	59 + - 2
200099	ET-27X27	-	27	58 + - 2
200101	ET-37X371)		37	58 + - 2

Expander increases structural height by approx. 4 mm. Tube's inner dimensions must match those given in the table.

<sup>1)</sup> ET-37X37 expander cannot be retrofitted to 100 and 125 mm wheels.

### Light equipment castors - Wheel 2000



When silent and vibration-free operation, low starting and rolling resistance, and striking design are a must, Wheel 2000 is the castor of your choice.

Thanks to the twin wheel structure and high-quality materials, the castor's run is silent and almost vibration-free even on rough surfaces. Equipment with Wheel 2000 castors produce up to 90% less noise than those fitted with conventional wheels. Low rolling resistance makes the castors easy to manoeuvre. Wheel 2000 is maintenance-free

Glass fibre reinforced polyamide frame and a coated stem guarantee a good corrosion resistance and smooth operation even in demanding circumstances. The castor is easy to clean and pressure washable. Both wheels are equipped with a ball bearing. Wheel 2000 can be colour coordinated to match customer needs. Castors are available with a single action brake that can also be retrofitted if necessary.

- Serving trolleys
- Industrial kitchen equipment
- Office equipment
- Hospital equipment
- Design furniture



### Light equipment castors - Wheel 2000



#### INI

#### TWIN WHEEL SWIVEL CASTOR WITH THREADED STEM

NP/K glass fibre reinforced polyamide centre + polyurethane tyre, ball bearing (sealed).

Code 1	Title Title	0	Ð			$\frac{\triangledown}{\mathbf{I}}$		1	Sh A
200199 E	EMR-125/2 NP/K	125	52	141	115	10x16	•	70	85

### EMR-J TWIN WHEEL SWIVEL CASTOR WITH THREADED STEM SINGLE ACTION BRAKE LOCKS THE WHEEL

NP/K glass fibre reinforced polyamide centre + polyurethane tyre, ball bearing (sealed).

Code	Title	$\odot$	Ð			$\bigcirc$		ı	Sh A	
200200	EMR-J-125/2 NP/K	125	52	141	115	10x16	•	70	85	



#### EMT TWIN WHEEL SWIVEL CASTOR WITH STEM FOR EXPANDER

NP/K glass fibre reinforced polyamide centre + polyurethane tyre, ball bearing (sealed).

Code	Title	$\odot$	$\{$			<u></u>		1	Sh A	
200201	EMT-125/2 NP/K	125	52	141	115	10x67	•	70	85	

### EMT-J TWIN WHEEL SWIVEL CASTOR WITH STEM FOR EXPANDER SINGLE ACTION BRAKE LOCKS THE WHEEL

NP/K glass fibre reinforced polyamide centre + polyurethane tyre, ball bearing (sealed).

Code	Title	(O)	<del>     </del>	<u> </u>	(11)	<u></u>		<b>I</b>	Sh A	
200202	EMT-J-125/2 NP/K	125	52	141	115	10x67	•	70	85	

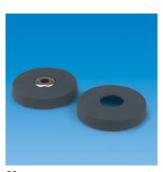
Use the table below to select the appropriate expander.



#### EMT EXPANDER

Code	Title	round, inside ø	square, inside 🗷	expander length
200066	EMT-18,19	18 - 19	-	67 + - 1
200067	EMT-22	22	-	67 + - 1
200069	EMT-25	25	-	67 + - 1
200071	EMT-28	28	-	67 + - 1
200166	EMT-37	37	•	67 + - 1
200065	EMT-17X17	-	17	67 + - 1
200068	EMT-22X22	-	22	67 + - 1
200070	EMT-27X27	-	27	67 + - 1
200072	EMT-37X37		37	67 + - 1

Expander increases structural height by approx. 7 mm. Tube's inner dimensions must match those given in the table.



#### TSE BUMPER

N polyamide. N IX polyamide + 2 stainless bedding discs

Code	Title	$\odot$	$\overline{\mathbb{Z}}$	
200109	TSE-75/25 N	75	25	
200108	TSE-75 N-10 IX	75	10	

Bumper increases structural height of the castor with a threaded stem by approx. 4 mm (2 stainless bedding discs). If the castor is fitted with an expander, the structural height remains constant regardless of the bumper.

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With this castor, its silence and ease of manoeuvring never cease to amaze.

### Equipment castors – ES series



The ES series covers a range of heavy-duty, high-quality steel frame castors for many different purposes. Carefully selected raw materials and an excellent bearings ensure reliable, long-lasting operation even in continuous, intense use.

The pressed, galvanised steel fork and the swivel bearing with two ball rings make the castor extremely durable even in rough environments. The range includes a variety of plain bearing and ball bearing options to suit your needs.

Castors are available with total-stop brake or direction locking, which locks the fork in the direction of travel.

Brake pedals are supplied in a number of standard colours. We also deliver customised pedals. Conductive ES series castors are also available.

- Shop equipment
- Factory equipment
- Hospital furniture and equipment
- Rehabilitation equipment
- Industrial kitchen equipment
- Serving trolleys
- Food transport trolleys
- Shopping carts



23
Top NP
Bottom left NP/K, right NEK/K

#### ESI WHEEL

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing .-S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

SX-GEK/K glass fibre reinforced polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	$\emptyset$	9	₫			1	Sh A	
300057	ESI-75 NP <sup>1)</sup>	75	32	36	8,2	•	-	90	80	
300059	ESI-S-75 NP/K	75	32	36	8,2	-	•	90	80	
300046	ESI-100 NP <sup>1)</sup>	100	32	36	8,2	•	-	95	80	
300065	ESI-S-100 NEK/K	100	32	36	8,2	-	•	80	60	
300047	ESI-S-100 NP/K	100	32	36	8,2	-	•	95	80	
300050	ESI-125 NP <sup>1)</sup>	125	32	36	8,2	•	-	100	80	
300069	ESI-S-125 NEK/K	125	32	36	8,2	-	•	100	60	
300051	ESI-S-125 NP/K	125	32	36	8,2	-	•	100	80	
300054	ESI-150 NP <sup>1)</sup>	150	32	36	8,2	•	-	105	80	
301469	ESI-SX-150 GEK/K 3202	150	32	36	8,2	-	•	105	80	
300075	ESI-S-150 NEK/K	150	32	36	8,2	-	•	105	60	
300055	ESI-S-150 NP/K	150	32	36	8,2	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESI-S-100 NP.



**24** Plain bearing



Ball bearing

#### ES SWIVEL CASTOR, BOLT HOLE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	7			$\overline{\mathbb{Z}}$			_	Sh A	
300034	ES-75 NP1)	75	32	115	80	10	•	-	90	80	
301510	ES-75 NP-12	75	32	115	80	12	•	-	90	80	
300038	ES-S-75 NP/K	75	32	115	80	10	-	•	90	80	
301538	ES-S-75 NP/K-12	75	32	115	80	12	-	•	90	80	
300009	ES-100 NP <sup>1)</sup>	100	32	142	90	10	•	-	95	80	
301511	ES-100 NP-12	100	32	142	90	12	•	-	95	80	
300341	ES-S-100 NEK/K	100	32	142	90	10	-	•	80	60	
	ES-S-100 NEK/K-12	100	32	142	90	12	-	•	80	60	
300012	ES-S-100 NP/K	100	32	142	90	10	-	•	95	80	
	ES-S-100 NP/K-12	100	32	142	90	12	-	•	95	80	
300020	ES-125 NP <sup>1)</sup>	125	32	167	106	10	•	-	100	80	
	ES-125 NP-12	125	32	167	106	12	•	-	100	80	
	ES-S-125 NEK/K	125	32	167	106	10	-	•	100	60	
	ES-S-125 NEK/K-12	125	32	167	106	12	-	•	100	60	
300022	ES-S-125 NP/K	125	32	167	106	10	-	•	100	80	
	ES-S-125 NP/K-12	125	32	167	106	12	-	•	100	80	
	ES-150 NP <sup>1)</sup>	150	32	190	115	10	•	-	105	80	
	ES-150 NP-12	150	32	190	115	12	•	-	105	80	
	ES-S-150 NEK/K	150	32	190	115	10	-	•	105	60	
	ES-S-150 NEK/K-12	150	32	190	115	12	-	•	105	60	
	ES-S-150 NP/K	150	32	190	115	10	-	•	105	80	
301542	ES-S-150 NP/K-12	150	32	190	115	12	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ES-S-75 NP.

NEK is Manner's extra soft, elastic rubber wheel:



Plain bearing, metal threadguard.

- travels steadily and softly even on uneven surfaces
- flexible and quiet
- does not leave marks even on sensitive floors, e.g. in sport halls
- quiet and easy to manoeuvre; ideal for theatre props and hospital equipment, for example



**26** Plain bearing



**27** Ball bearing



Ball bearing

### ES-JN SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NP polyamide centre + soft polyurethane wheel, plain bearing. - S-NP/K polyamide centre + soft polyurethane wheel, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber wheel, threadguard, ball bearing (unsealed).

Code	Title	$\odot$	$\blacksquare$			$\overline{\mathbb{Z}}$			1	Sh A	
300833	ES-JN-75 NP <sup>1)</sup>	75	32	115	107	10	•	-	90	80	
301514	ES-JN-75 NP-121)	75	32	115	107	12	•	-	90	80	
300834	ES-JN-S-75 NP/K	75	32	115	107	10	-	•	90	80	
301543	ES-JN-S-75 NP/K-12	75	32	115	107	12	-	•	90	80	
300824	ES-JN-100 NP <sup>1)</sup>	100	32	142	107	10	•	-	95	80	
301515	ES-JN-100 NP-121)	100	32	142	107	12	•	-	95	80	
300879	ES-JN-S-100 NEK/K	100	32	142	107	10	-	•	80	60	
301583	ES-JN-S-100 NEK/K-12	100	32	142	107	12	-	•	80	60	
300825	ES-JN-S-100 NP/K	100	32	142	107	10	-	•	95	80	
301545	ES-JN-S-100 NP/K-12	100	32	142	107	12	-	•	95	80	
300828	ES-JN-125 NP <sup>1)</sup>	125	32	167	110	10	•	-	100	80	
301516	ES-JN-125 NP-12 <sup>1)</sup>	125	32	167	110	12	•	-	100	80	
300882	ES-JN-S-125 NEK/K	125	32	167	110	10	-	•	100	60	
301587	ES-JN-S-125 NEK/K-12	125	32	167	110	12	-	•	100	60	
300817	ES-JN-S-125 NP/K	125	32	167	110	10	-	•	100	80	
301546	ES-JN-S-125 NP/K-12	125	32	167	110	12	-	•	100	80	
300847	ES-JN-150 NP <sup>1)</sup>	150	32	190	115	10	•	-	105	80	
301517	ES-JN-150 NP-12 <sup>1)</sup>	150	32	190	115	12	•	-	105	80	
300894	ES-JN-S-150 NEK/K	150	32	190	115	10	-	•	105	60	
301589	ES-JN-S-150 NEK/K -12	150	32	190	115	12	-	•	105	60	
300845	ES-JN-S-150 NP/K	150	32	190	115	10	-	•	105	80	
301547	ES-JN-S-150 NP/K-12	150	32	190	115	12	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Applies only to plain bearing models. Letter "S" added to title, e.g. ES-JN-S-75 NP.

### ES-RN SWIVEL CASTOR, BOLT HOLE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	$\odot$	Ð			$\overline{\mathbb{Z}}$			_	Sh A	
301062	ES-RN-75 NP <sup>1)</sup>	75	32	115	107	10	•	-	90	80	
301526	ES-RN-75 NP-121)	75	32	115	107	12	•	-	90	80	
301066	ES-RN-S-75 NP/K	75	32	115	107	10	-	•	90	80	
301548	ES-RN-S-75 NP/K-12	75	32	115	107	12	-	•	90	80	
301063	ES-RN-100 NP <sup>1)</sup>	100	32	142	107	10	•	-	95	80	
301528	ES-RN-100 NP-121)	100	32	142	107	12	•	-	95	80	
301073	ES-RN-S-100 NEK/K	100	32	142	107	10	-	•	80	60	
301593	ES-RN-S-100 NEK/K-12	100	32	142	107	12	-	•	80	60	
301067	ES-RN-S-100 NP/K	100	32	142	120	10	-	•	95	80	
301549	ES-RN-S-100 NP/K-12	100	32	142	120	12	-	•	95	80	
301064	ES-RN-125 NP <sup>1)</sup>	125	32	167	110	12	•	-	100	80	
301929	ES-RN-125 NP-121)	125	32	167	110	12	•	-	100	80	
301074	ES-RN-S-125 NEK/K	125	32	167	110	10	-	•	100	60	
301597	ES-RN-S-125 NEK/K-12	125	32	167	110	12	-	•	100	60	
301068	ES-RN-S-125 NP/K	125	32	167	110	10	-	•	100	80	
301550	ES-RN-S-125 NP/K-12	125	32	167	110	12	-	•	100	80	
301065	ES-RN-150 NP <sup>1)</sup>	150	32	190	115	12	•	-	105	80	
301529	ES-RN-150 NP-121)	150	32	190	115	12	•	-	105	80	
301075	ES-RN-S-150 NEK/K	150	32	190	115	10	-	•	105	60	
301599	ES-RN-S-150 NEK/K-12	150	32	190	115	12	-	•	105	60	
301069	ES-RN-S-150 NP/K	150	32	190	115	10	-	•	105	80	
301551	ES-RN-S-150 NP/K-12	150	32	190	115	12	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ES-RN-S-75 NP.













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#### **ESP FIXED CASTOR, BOLT HOLE**

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	$\odot$	$\overline{\emptyset}$		$\overline{\mathbb{Z}}$			1	Sh A	
300232	ESP-75 NP <sup>1)</sup>	75	32	115	10	•	-	90	80	
301530	ESP-75 NP-121)	75	32	115	12	•	-	90	80	
300234	ESP-S-75 NP/K	75	32	115	10	-	•	90	80	
301552	ESP-S-75 NP/K-12	75	32	115	12	•	-	90	80	
300214	ESP-100 NP <sup>1)</sup>	100	32	142	10	•	-	95	80	
301532	ESP-100 NP-12 <sup>1)</sup>	100	32	142	12	•	-	95	80	
300266	ESP-S-100 NEK/K	100	32	142	10	-	•	80	60	
301604	ESP-S-100 NEK/K-12	100	32	142	12	-	•	80	60	
300216	ESP-S-100 NP/K	100	32	142	10	-	•	95	80	
301553	ESP-S-100 NP/K-12	100	32	142	12	-	•	95	80	
300220	ESP-125 NP <sup>1)</sup>	125	32	167	10	•	•	100	80	
301534	ESP-125 NP-121)	125	32	167	12	•	•	100	80	
300274	ESP-S-125 NEK/K	125	32	167	10	-	•	100	60	
301608	ESP-S-125 NEK/K-12	125	32	167	12	-	•	100	60	
300222	ESP-S-125 NP/K	125	32	167	10	-	•	100	80	
301554	ESP-S-125 NP/K-12	125	32	167	12	-	•	100	80	
300226	ESP-150 NP <sup>1)</sup>	150	32	190	10	•	-	105	80	
301536	ESP-150 NP-121)	150	32	190	12	•	-	105	80	
300280	ESP-S-150 NEK/K	150	32	190	10	-	•	105	60	
	ESP-S-150 NEK/K-12	150	32	190	12	-	•	105	60	
300228	ESP-S-150 NP/K	150	32	190	10	-	•	105	80	
301555	ESP-S-150 NP/K-12	150	32	190	12	-	•	105	80	

1) Also available with a metal threadguard. Letter "S" added to title, e.g. ESP-S-75 NP.



### SUITABLE FOR ALL ES SERIES CASTOR OPTIONS

#### EST ESR EXPANDER

Code Title	le	round, inside ø	square, inside $ ot \square$	expander length
300372 ES1	T-18,19	18 - 19	-	59 + - 2
300373 EST	T-22	22	•	60 + - 2
300377 EST	T-25	25	-	57 + - 2
300381 EST	T-28	28	-	57 + - 2
300788 EST	T-37	37	-	58 + - 2
300370 EST	T-17X17	-	17	60 + - 2
300375 EST	T-22X22	-	22	59 + - 2
300379 EST	T-27X27	-	27	57 + - 2
300382 EST	T-37X37	-	37	57 + - 2
304113 ESF	R-M10X40 <sup>2)</sup>	-	-	-
300293 ESF	R-M12X40 <sup>2)</sup>	-	-	-

Tube's inner dimensions must match those given in the table. When ordering a castor with an expander, order it without the adapter.



2) Also available with a threaded stem (ESR-).



#### ESL SWIVEL CASTOR, RECTANGULAR TOP PLATE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code 1	Title	0	$\overline{\emptyset}$								1	Sh A	
300162	ESL-75 NP <sup>1)</sup>	75	32	115	80	95x70	75x45	8,5	•	-	90	80	
300165 I	ESL-S-75 NP/K	75	32	115	80	95x70	75x45	8,5	-	•	90	80	
300151 I	ESL-100 NP <sup>1)</sup>	100	32	142	90	95x70	75x45	8,5	•	-	95	80	
300203 I	ESL-S-100 NEK/K	100	32	142	90	95x70	75x45	8,5	-	•	80	60	
300152 I	ESL-S-100 NP/K	100	32	142	90	95x70	75x45	8,5	-	•	95	80	
300155 I	ESL-125 NP <sup>1)</sup>	125	32	167	106	95x70	75x45	8,5	•	-	100	80	
300207 I	ESL-S-125 NEK/K	125	32	167	106	95x70	75x45	8,5	-	•	100	60	
300156 I	ESL-S-125 NP/K	125	32	167	106	95x70	75x45	8,5	-	•	100	80	
300158 I	ESL-150 NP <sup>1)</sup>	150	32	190	115	95x70	75x45	8,5	•	-	105	80	
300210	ESL-S-150 NEK/K	150	32	190	115	95x70	75x45	8,5	-	•	105	60	
300159 I	ESL-S-150 NP/K	150	32	190	115	95x70	75x45	8,5	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESL-S-75 NP.



### ESL-JN SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	$\odot$	Ð			0 0					I	Sh A	
300864	ESL-JN-75 NP <sup>1)</sup>	75	32	115	107	95x70	75x45	8,5	•	-	90	80	
300865	ESL-JN-S-75 NP/K	75	32	115	107	95x70	75x45	8,5	-	•	90	80	
300855	ESL-JN-100 NP <sup>1)</sup>	100	32	142	107	95x70	75x45	8,5	•	-	95	80	
300898	ESL-JN-S-100 NEK/K	100	32	142	107	95x70	75x45	8,5	-	•	80	60	
300856	ESL-JN-S-100 NP/K	100	32	142	107	95x70	75x45	8,5	-	•	95	80	
300857	ESL-JN-125 NP <sup>1)</sup>	125	32	167	110	95x70	75x45	8,5	•	-	100	80	
300899	ESL-JN-S-125 NEK/K	125	32	167	110	95x70	75x45	8,5	-	•	100	60	
300859	ESL-JN-S-125 NP/K	125	32	167	110	95x70	75x45	8,5	-	•	100	80	
300861	ESL-JN-150 NP <sup>1)</sup>	150	32	190	115	95x70	75x45	8,5	•	-	105	80	
300905	ESL-JN-S-150 NEK/K	150	32	190	115	95x70	75x45	8,5	-	•	105	60	
300862	ESL-JN-S-150 NP/K	150	32	190	115	95x70	75x45	8,5	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESL-JN-S-75 NP.



#### ESPL FIXED CASTOR, RECTANGULAR TOP PLATE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	Ð	$\overline{\bigcup}$						1	Sh A	
300246	ESPL-75 NP <sup>1)</sup>	75	32	115	95x70	75x45	8,5	•	-	90	80	
300247	ESPL-S-75 NP/K	75	32	115	95x70	75x45	8,5	-	•	90	80	
300237	ESPL-100 NP <sup>1)</sup>	100	32	142	95x70	75x45	8,5	•	-	95	80	
300251	ESPL-S-100 NEK/K	100	32	142	95x70	75x45	8,5	-	•	80	60	
300238	ESPL-S-100 NP/K	100	32	142	95x70	75x45	8,5	-	•	95	80	
300240	ESPL-125 NP <sup>1)</sup>	125	32	167	95x70	75x45	8,5	•	-	100	80	
300254	ESPL-S-125 NEK/K	125	32	167	95x70	75x45	8,5	-	•	100	60	
300241	ESPL-S-125 NP/K	125	32	167	95x70	75x45	8,5	-	•	100	80	
300243	ESPL-150 NP <sup>1)</sup>	150	32	190	95x70	75x45	8,5	•	-	105	80	
300257	ESPL-S-150 NEK/K	150	32	190	95x70	75x45	8,5	-	•	105	60	
300244	ESPL-S-150 NP/K	150	32	190	95x70	75x45	8,5	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESPL-S-75 NP.

If the equipment is going to be moved a lot, opt for ball bearing.

# Equipment castors – ES series PTE castors



**34**Top PTE with plain bearing
Bottom left PTE/K 55, right PTE/K 80

#### FSI WHFFI

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\blacksquare$	0	₫			I	Sh A	
301098	ESI-75 PTE 801)	75	32	36	8,2	•	-	70	80	
302983	ESI-S-75 PTE/K 80	75	32	36	8,2	-	•	90	80	
301099	ESI-100 PTE 551)	100	32	36	8,2	•	-	70	55	
300594	ESI-S-100 PTE/K 55	100	32	36	8,2	-	•	70	55	
300595	ESI-S-100 PTE/K 80	100	32	36	8,2	-	•	100	80	
	ESI-125 PTE 551)	125	32	36	8,2	•	-	70	55	
	ESI-S-125 PTE/K 55	125	32	36	8,2	-	•	70	55	
300071	ESI-S-125 PTE/K 80	125	32	36	8,2	-	•	100	80	
301100	ESI-S-150 PTE/K 55	150	32	36	8,2	-	•	70	55	
300798	ESI-S-150 PTE/K 80	150	32	36	8,2	-	•	100	80	

 $<sup>^{1)}</sup>$  Also available with a metal threadguard. Letter "S" added to title, e.g. ESI-S-75 PTE 80.



#### ES SWIVEL CASTOR, BOLT HOLE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	0	Ð			$\overline{\mathbb{Z}}$			1	Sh A	
301101	ES-75 PTE 801)	75	32	115	80	10	•	-	70	80	
301568	ES-75 PTE 80-12 <sup>1)</sup>	75	32	115	80	12	•	-	70	80	
304094	ES-S-75 PTE/K 80	75	32	115	80	10	-	•	90	80	
304095	ES-S-75 PTE/K 80-12	75	32	115	80	12	-	•	90	80	
301103	ES-100 PTE 55 <sup>1)</sup>	100	32	142	90	10	•	-	70	55	
301569	ES-100 PTE 55-121)	100	32	142	90	12	•	-	70	55	
300597	ES-S-100 PTE/K 55	100	32	142	90	10	-	•	70	55	
301571	ES-S-100 PTE/K 55-12	100	32	142	90	12	-	•	70	55	
300962	ES-S-100 PTE/K 80	100	32	142	90	10	-	•	100	80	
301570	ES-S-100 PTE/K 80-12	100	32	142	90	12	-	•	100	80	
300500	ES-125 PTE 55 <sup>1)</sup>	125	32	167	106	10	•	-	70	55	
301573	ES-125 PTE 55-121)	125	32	167	106	12	•	-	70	55	
300511	ES-S-125 PTE/K 55	125	32	167	106	10	-	•	70	55	
301575	ES-S-125 PTE/K 55-12	125	32	167	106	12	-	•	70	55	
300510	ES-S-125 PTE/K 80	125	32	167	106	10	-	•	100	80	
301574	ES-S-125 PTE/K 80-12	125	32	167	106	12	-	•	100	80	
301212	ES-S-150 PTE/K 55	150	32	190	115	10	-	•	70	55	
301577	ES-S-150 PTE/K 55-12	150	32	190	115	12	-	•	70	55	
300963	ES-S-150 PTE/K 80	150	32	190	115	10	-	•	100	80	
301624	ES-S-150 PTE/K 80-12	150	32	190	115	12	-	•	100	80	

 $<sup>^{\</sup>rm 1)}$  Also available with a metal threadguard. Letter "S" added to title, e.g. ES-S-75 PTE 80.

## Equipment castors – ES series PTE castors



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### ES-JN SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$			1	Sh A	
301110	ES-JN-75 PTE 801)	75	32	115	107	10	•	-	70	80	
301579	ES-JN-75 PTE 80-121)	75	32	115	107	12	•	-	70	80	
304096	ES-JN-S-75 PTE/K 80	75	32	115	107	10	-	•	90	80	
304097	ES-JN-S-75 PTE/K 80-12	75	32	115	107	12	-	•	90	80	
301112	ES-JN-100 PTE 551)	100	32	142	107	10	•	-	70	55	
301580	ES-JN-100 PTE 55-121)	100	32	142	107	12	•	-	70	55	
300881	ES-JN-S-100 PTE/K 55	100	32	142	107	10	-	•	70	55	
301582	ES-JN-S-100 PTE/K 55-12	100	32	142	107	12	-	•	70	55	
301114	ES-JN-S-100 PTE/K 80	100	32	142	107	10	-	•	100	80	
301581	ES-JN-S-100 PTE/K 80-12	100	32	142	107	12	-	•	100	80	
300876	ES-JN-125 PTE 551)	125	32	167	110	10	•	-	70	55	
301584	ES-JN-125 PTE 55-121)	125	32	167	110	12	•	-	70	55	
300887	ES-JN-S-125 PTE/K 55	125	32	167	110	10	-	•	70	55	
301586	ES-JN-S-125 PTE/K 55-12	125	32	167	110	12	-	•	70	55	
300884	ES-JN-S-125 PTE/K 80	125	32	167	110	10	-	•	100	80	
301585	ES-JN-S-125 PTE/K 80-12	125	32	167	110	12	-	•	100	80	
301118	ES-JN-S-150 PTE/K 55	150	32	190	115	10	-	•	70	55	
301588	ES-JN-S-150 PTE/K 55-12	150	32	190	115	12	-	•	70	55	
300968	ES-JN-S-150 PTE/K 80	150	32	190	115	10	-	•	100	80	
301625	ES-JN-S-150 PTE/K 80-12	150	32	190	115	12	-	•	100	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ES-JN-S-75 PTE 80.



#### **37**

### ES-RN SWIVEL CASTOR, BOLT HOLE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$			Ī			1	Sh A	
301629	ES-RN-75 PTE 801)	75	32	115	107	10	•	-	70	80	
301630	ES-RN-75 PTE 80-121)	75	32	115	107	12	•	-	70	80	
303013	ES-RN-S-75 PTE/K 80	75	32	115	107	10	-	•	90	80	
304098	ES-RN-S-75 PTE/K 80-12	75	32	115	107	12	-	•	90	80	
301082	ES-RN-100 PTE 551)	100	32	142	107	10	•	-	70	55	
301590	ES-RN-100 PTE 55-12 <sup>1)</sup>	100	32	142	107	12	•	-	70	55	
301079	ES-RN-S-100 PTE/K 55	100	32	142	107	12	-	•	70	55	
301592	ES-RN-S-100 PTE/K 55-12	100	32	142	107	12	-	•	70	55	
301076	ES-RN-S-100 PTE/K 80	100	32	142	107	10	-	•	100	80	
301591	ES-RN-S-100 PTE/K 80-12	100	32	142	107	12	-	•	100	80	
301083	ES-RN-125 PTE 55 <sup>1)</sup>	125	32	167	110	10	•	-	70	55	
301594	ES-RN-125 PTE 55-12 <sup>1)</sup>	125	32	167	110	12	•	-	70	55	
301080	ES-RN-S-125 PTE/K 55	125	32	167	110	10	-	•	70	55	
301596	ES-RN-S-125 PTE/K 55-12	125	32	167	110	12	-	•	70	55	
301077	ES-RN-S-125 PTE/K 80	125	32	167	110	10	-	•	100	80	
301595	ES-RN-S-125 PTE/K 80-12	125	32	167	110	12	-	•	100	80	
301081	ES-RN-S-150 PTE/K 55	150	32	190	115	10	-	•	70	55	
301598	ES-RN-S-150 PTE/K 55-12	150	32	190	115	12	-	•	70	55	
	ES-RN-S-150 PTE/K 80	150	32	190	115	12	-	•	100	80	
301626	ES-RN-S-150 PTE/K 80-12	150	32	190	115	12	-	•	100	80	

<sup>&</sup>lt;sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ES-RN-S-75 PTE 80. Also available with top plate.

# Equipment castors – ES series PTE castors



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#### ESP FIXED CASTOR, BOLT HOLE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$		$\overline{\mathbb{Z}}$			1	Sh A	
301121	ESP-75 PTE 801)	75	32	115	10	•	-	70	80	
301600	ESP-75 PTE 80-121)	75	32	115	12	•	-	70	80	
304099	ESP-S-75 PTE/K 80	75	32	115	10	-	•	90	80	
304100	ESP-S-75 PTE/K 80-12	75	32	115	12	-	•	90	80	
301123	ESP-100 PTE 55 <sup>1)</sup>	100	32	142	10	•	-	70	55	
301601	ESP-100 PTE 55-121)	100	32	142	12	•	-	70	55	
301126	ESP-S-100 PTE/K 55	100	32	142	10	-	•	70	55	
301603	ESP-S-100 PTE/K 55-12	100	32	142	12	-	•	70	55	
300966	ESP-S-100 PTE/K 80	100	32	142	10	-	•	100	80	
301602	ESP-S-100 PTE/K 80-12	100	32	142	12	-	•	100	80	
300505	ESP-125 PTE 55 <sup>1)</sup>	125	32	167	10	•	-	70	55	
301605	ESP-125 PTE 55-12 <sup>1)</sup>	125	32	167	12	•	-	70	55	
300516		125	32	167	10	-	•	70	55	
301607	ESP-S-125 PTE/K 55-12	125	32	167	12	-	•	70	55	
300483	ESP-S-125 PTE/K 80	125	32	167	10	-	•	100	80	
301606	ESP-S-125 PTE/K 80-12	125	32	167	12	-	•	100	80	
301129	ESP-S-150 PTE/K 55	150	32	190	10	-	•	70	55	
301628		150	32	190	12	-	•	70	55	
300967	ESP-S-150 PTE/K 80	150	32	190	10	-	•	100	80	
301627	ESP-S-150 PTE/K 80-12	150	32	190	12	-	•	100	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESP-S-75 PTE 80.



#### ESL SWIVEL CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	H	<u></u>							•	Sh A	
301131	ESL-75 PTE 801)	75	32	115	80	95x70	75x45	8,5	•	-	70	80	
304101	ESL-S-75 PTE/K 80	75	32	115	80	95x70	75x45	8,5		•	90	80	
301132	ESL-100 PTE 551)	100	32	142	90	95x70	75x45	8,5	•	-	70	55	
301133	ESL-S-100 PTE/K 55	100	32	142	90	95x70	75x45	8,5	-	•	70	55	
300800	ESL-S-100 PTE/K 80	100	32	142	90	95x70	75x45	8,5	-	•	80	80	
300507	ESL-125 PTE 551)	125	32	167	106	95x70	75x45	8,5	•	-	70	55	
300518	ESL-S-125 PTE/K 55	125	32	167	106	95x70	75x45	8,5	-	•	70	55	
300485	ESL-S-125 PTE/K 80	125	32	167	106	95x70	75x45	8,5	-	•	100	80	
301134	ESL-S-150 PTE/K 55	150	32	190	115	95x70	75x45	8,5	-	•	70	55	
301397	ESL-S-150 PTE/K 80	150	32	190	115	95x70	75x45	8,5	-	•	100	80	

 $<sup>^{1)}</sup>$  Also available with a metal threadguard. Letter "S" added to title, e.g. ESL-S-75 PTE 80.

# Equipment castors – ES series PTE castors



#### 40

### ESL-JN SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{0}$								I	Sh A	
301135	ESL-JN-75 PTE 801)	75	32	115	107	95x70	75x45	8,5	•	-	70	80	
304102	ESL-JN-S-75 PTE/K 80	75	32	115	107	95x70	75x45	8,5	-	•	70	80	
301136	ESL-JN-100 PTE 551)	100	32	142	107	95x70	75x45	8,5	•	-	70	55	
301137	ESL-JN-S-100 PTE/K 55	100	32	142	107	95x70	75x45	8,5	-	•	70	55	
300970	ESL-JN-S-100 PTE/K 80	100	32	142	107	95x70	75x45	8,5	-	•	100	80	
300896	ESL-JN-125 PTE 551)	125	32	167	110	95x70	75x45	8,5	•	-	70	55	
300902	ESL-JN-S-125 PTE/K 55	125	32	167	110	95x70	75x45	8,5	•	•	70	55	
	ESL-JN-S-125 PTE/K 80		32	167	110	95x70	75x45	8,5	-	•	100	80	
301138	ESL-JN-S-150 PTE/K 55	150	32	190	115	95x70	75x45	8,5	-	•	70	55	
301398	ESL-JN-S-150 PTE/K 80	150	32	190	115	95x70	75x45	8,5	-	•	105	80	

<sup>1)</sup> Also available with a metal threadguard. Letter "S" added to title, e.g. ESL-JN-S-75 PTE 80.



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#### ESPL FIXED CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	9		0 0					1	Sh A	
301139	ESPL-75 PTE 801)	75	32	115	95x70	75x45	8,5	•	-	70	80	
304103	ESPL-S-75 PTE/K 80	75	32	115	95x70	75x45	8,5	-	•	90	80	
301140	ESPL-100 PTE 551)	100	32	142	95x70	75x45	8,5	•	-	70	55	
301141	ESPL-S-100 PTE/K 55	100	32	142	95x70	75x45	8,5	-	•	70	55	
300922	ESPL-S-100 PTE/K 80	100	32	142	95x70	75x45	8,5	-	•	100	80	
300509	ESPL-125 PTE 551)	125	32	167	95x70	75x45	8,5	•	-	70	55	
300520	ESPL-S-125 PTE/K 55	125	32	167	95x70	75x45	8,5	-	•	70	55	
300487	ESPL-S-125 PTE/K 80	125	32	167	95x70	75x45	8,5	-	•	100	80	
301142	ESPL-S-150 PTE/K 55	150	32	190	95x70	75x45	8,5	-	•	70	55	
301399	ESPL-S-150 PTE/K 80	150	32	190	95x70	75x45	8,5	-	•	100	80	

 $<sup>^{</sup>m 1)}$  Also available with a metal threadguard. Letter "S" added to title, e.g. ESPL-S-75 PTE 80.

# Equipment castors – ES series



#### ESI WHEEL

-S-K steel plate centre + solid rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð	0	♨		1	Sh A	
300062	ESI-S-100 K	100	32	37	8,2	•	80	85	
300066	ESI-S-125 K	125	32	37	8,2	•	100	85	
300072	ESI-S-150 K	150	32	37	8,2	•	105	85	

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#### ES SWIVEL CASTOR, BOLT HOLE

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	0	Ð			$\overline{\mathbb{Z}}$		I	Sh A	
300334	ES-S-100 K	100	32	142	90	10	•	80	85	
301556	ES-S-100 K -12	100	32	142	90	12	•	80	85	
300345	ES-S-125 K	125	32	167	106	10	•	100	85	
301557	ES-S-125 K -12	125	32	167	106	12	•	100	85	
300359	ES-S-150 K	150	32	190	115	10	•	105	85	
301558	ES-S-150 K -12	150	32	190	115	12	•	105	85	

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# ES-JN SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		1	Sh A	
300849	ES-JN-S-100 K	100	32	142	107	10	•	80	85	
301559	ES-JN-S-100 K -12	100	32	142	107	12	•	80	85	
300838	ES-JN-S-125 K	125	32	167	110	10	•	100	85	
301560	ES-JN-S-125 K -12	125	32	167	110	12	•	100	85	
300891	ES-JN-S-150 K	150	32	190	115	10	•	105	85	
301561	FS-IN-S-150 K -12	150	32	190	115	12	•	105	85	

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# ES-RN SWIVEL CASTOR, BOLT HOLE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\{\!$			$\overline{\mathbb{Z}}$		•	Sh A	
301070	ES-RN-S-100 K	100	32	142	107	10	•	80	85	
301562	ES-RN-S-100 K -12	100	32	142	107	12	•	80	85	
301071	ES-RN-S-125 K	125	32	167	110	10	•	100	85	
301563	ES-RN-S-125 K -12	125	32	167	110	12	•	100	85	
301072	ES-RN-S-150 K	150	32	190	115	10	•	105	85	
301564	ES-RN-S-150 K -12	150	32	190	115	12	•	105	85	

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# Equipment castors – ES series



#### ESP FIXED CASTOR, BOLT HOLE

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\theta$	$\square$			I	Sh A	
300261	ESP-S-100 K	100	32	142	10	•	80	85	
301565	ESP-S-100 K -12	100	32	142	12	•	80	85	
300268	ESP-S-125 K	125	32	167	10	•	100	85	
301566	ESP-S-125 K -12	125	32	167	12	•	100	85	
300276	ESP-S-150 K	150	32	190	10	•	105	85	
301567	ESP-S-150 K -12	150	32	190	12	•	105	85	

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#### ESL SWIVEL CASTOR, RECTANGULAR TOP PLATE

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				I	Sh A	
300200	ESL-S-100 K	100	32	142	90	95x70	75x45	8,5	•	80	85	
300204	ESL-S-125 K	125	32	167	106	95x70	75x45	8,5	•	100	85	
300208	ESL-S-150 K	150	32	190	115	95x70	75x45	8,5	•	105	85	

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# ESL-JN SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$							I	Sh A	
300866	ESL-JN-S-100 K	100	32	142	107	95x70	75x45	8,5	•	80	85	
300868	ESL-JN-S-125 K	125	32	167	110	95x70	75x45	8,5	•	100	85	
300903	ESL-JN-S-150 K	150	32	190	115	95x70	75x45	8,5	•	105	85	

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#### ESPL FIXED CASTOR, RECTANGULAR TOP PLATE

-S-K steel plate centre + solid rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$					1	Sh A	
300248	ESPL-S-100 K	100	32	142	95x70	75x45	8,5	•	80	85	
300252	ESPL-S-125 K	125	32	167	95x70	75x45	8,5	•	100	85	
300255	ESPL-S-150 K	150	32	190	95x70	75x45	8,5	•	105	85	

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Tango is about perfect design, practicality and reliability. The versatile Tango equipment castor is available with a variety of wheel options and features — such as an anti-reverse wheel, two-stage brake and a hand brake.

Easily manoeuvrable, maintenance-free Tango is made of glass fibre reinforced polyamide. Thanks to its materials and design, Tango is corrosion-resistant and easy to clean. In addition to the three standard colours, Tango can be personalised with the customer's own colours and logos.

Tango is ideally suited for environments where stainless materials, conductivity, non-magnetism, anti-reverse wheels or remote sensing based on RFID technology are prerequisites.

- Shower chairs
- Assistive devices
- Rehabilitation equipment
- Hospital furniture and equipment
- Industrial kitchen equipment
- Serving trolleys
- Shop equipment
- Shopping carts

# Equipment castors – Tango series NP and NEK wheels



**50** Plain bearing



**51** Ball bearing



**52** Plain bearing. Also available with a larger pedal, see below.



**53**Ball bearing.
Also available with a larger pedal, see below.

#### GK SWIVEL CASTOR, BOLT HOLE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	Ð			$\overline{\overline{\mathcal{G}}}$			1	Sh A	
304389	GK-75 NP	75	32	110	73	10	•	-	70	80	
304390	GK-75 NP-12	75	32	110	73	12	•	-	70	80	
304391	GK-S-75 NP/K	75	32	110	73	10	-	•	70	80	
304392	GK-S-75 NP/K-12	75	32	110	73	12	-	•	70	80	
303971	GK-100 NP	100	32	141	95	10	•	-	70	80	
303972	GK-100 NP-12	100	32	141	95	10	•	-	70	80	
301723	GK-S-100 NEK/K	100	32	141	95	10	-	•	80	60	
301724	GK-S-100 NEK/K-12	100	32	141	95	12	-	•	80	60	
303973	GK-S-100 NP/K	100	32	141	95	10	-	•	100	80	
303974	GK-S-100 NP/K-12	100	32	141	95	12	-	•	100	80	
303975	GK-125 NP	125	32	161	110	10	•	-	70	80	
303976	GK-125 NP-12	125	32	161	110	12	•	-	70	80	
301668	GK-S-125 NEK/K	125	32	161	110	10	-	•	100	60	
301669	GK-S-125 NEK/K-12	125	32	161	110	12	-	•	100	60	
303977	GK-S-125 NP/K	125	32	161	110	10	-	•	100	80	
301919	GK-S-125 NP/K-12	125	32	161	110	12	-	•	100	80	

## GK-J SWIVEL CASTOR, BOLT HOLE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

Code	Title	$\odot$	Ð			$\overline{\overline{\mathcal{J}}}$			2	Sh A	
304393	GK-J-75 NP	75	32	110	94	10	•	-	70	80	
304394	GK-J-75 NP-12	75	32	110	94	12	•	-	70	80	
304395	GK-J-S-75 NP/K	75	32	110	94	10	-	•	70	80	
304396	GK-J-S-75 NP/K-12	75	32	110	94	12	-	•	70	80	
303982	GK-J-100 NP	100	32	141	95	10	•	-	70	80	
303983	GK-J-100 NP-12	100	32	141	95	12	•	-	70	80	
301735	GK-J-S-100 NEK/K	100	32	141	95	10	-	•	80	60	
301736	GK-J-S-100 NEK/K-12	100	32	141	95	12	-	•	80	60	
303984	GK-J-S-100 NP/K	100	32	141	95	10	-	•	100	80	
303985	GK-J-S-100 NP/K-12	100	32	141	95	12	-	•	100	80	
303986	GK-J-125 NP	125	32	161	110	10	•	-	70	80	
303987	GK-J-125 NP-12	125	32	161	110	12	•	-	70	80	
301672	GK-J-S-125 NEK/K	125	32	161	110	10	-	•	100	60	
301673	GK-J-S-125 NEK/K-12	125	32	161	110	12	-	•	100	60	
303988	GK-J-S-125 NP/K	125	32	161	110	10	-	•	100	80	
303989	GK-J-S-125 NP/K-12	125	32	161	110	12	-	•	100	80	



Left: 75 mm Tango with plain bearing; right: with ball bearing.



A larger brake pedal also available. Indicated with -JE- or -RE- in the title (100 and 125 mm).

# Equipment castors – Tango series NP and NEK wheels



#### GKR SWIVEL CASTOR, THREADED STEM

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	- 7			₫			I	Sh A	
304397	GKR-75 NP	75	32	110	73	10x16	•	-	70	80	
304398	GKR-75 NP M12	75	32	110	73	12x16	•	-	70	80	
304399	GKR-S-75 NP/K	75	32	110	73	10x16	-	•	70	80	
304400	GKR-S-75 NP/K M12	75	32	110	73	12x16	-	•	70	80	
303998	GKR-100 NP	100	32	141	95	10x16	•	-	70	80	
303999	GKR-100 NP M12	100	32	141	95	12x16	•	-	70	80	
301747	GKR-S-100 NEK/K	100	32	141	95	10x16	-	•	80	60	
301748	GKR-S-100 NEK/K M12	100	32	141	95	12x16	-	•	80	60	
304000	GKR-S-100 NP/K	100	32	141	95	10x16	-	•	100	80	
304001	GKR-S-100 NP/K M12	100	32	141	95	12x16	-	•	100	80	
304002	GKR-125 NP	125	32	161	110	10x16	•	-	70	80	
304003	GKR-125 NP M12	125	32	161	110	12x16	•	-	70	80	
301676	GKR-S-125 NEK/K	125	32	161	110	10x16	-	•	100	60	
301677	GKR-S-125 NEK/K M12	125	32	161	110	12x16	-	•	100	60	
304004	GKR-S-125 NP/K	125	32	161	110	10x16	-	•	100	80	
304005	GKR-S-125 NP/K M12	125	32	161	110	12x16	-	•	100	80	



### **55** Also available with a larger pedal, see

page 39.

# GKR-J SWIVEL CASTOR, THREADED STEM TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

Code	Title	$\odot$	arraycolorginal			$\frac{\mathbf{I}}{\mathbb{Q}}$			2	Sh A	
304401	GKR-J-75 NP	75	32	110	94	10x16	•	-	70	80	
304402	GKR-J-75 NP M12	75	32	110	94	12x16	•	-	70	80	
304403	GKR-J-S-75 NP/K	75	32	110	94	10x16	-	•	70	80	
304404	GKR-J-S-75 NP/K M12	75	32	110	94	12x16	-	•	70	80	
304010	GKR-J-100 NP	100	32	141	95	10x16	•	-	70	80	
304011	GKR-J-100 NP M12	100	32	141	95	12x16	-	•	70	80	
301759	GKR-J-S-100 NEK/K	100	32	141	95	10x16	-	•	80	60	
301760	GKR-J-S-100 NEK/K M12	100	32	141	95	12x16	-	•	80	60	
304012	GKR-J-S-100 NP/K	100	32	141	95	10x16	-	•	100	80	
304013	GKR-J-S-100 NP/K M12	100	32	141	95	12x16	-	•	100	80	
304014	GKR-J-125 NP	125	32	161	110	10x16	•	-	70	80	
304015	GKR-J-125 NP M12	125	32	161	110	12x16	•	-	70	80	
301680	GKR-J-S-125 NEK/K	125	32	161	110	10x16	-	•	100	60	
301681	GKR-J-S-125 NEK/K M12	125	32	161	110	12x16	-	•	100	60	
304016	GKR-J-S-125 NP/K	125	32	161	110	10x16	-	•	100	80	
304017	GKR-J-S-125 NP/K M12	125	32	161	110	12x16	-	•	100	80	



Available with a two-stage brake -JR (125 mm).



Also available in 90 Sh A hardness, load capacity 110 kg (100 and 125 mm).

# Equipment castors — Tango series NP and NEK wheels



**56** Also available with a larger pedal, see page 39.

# GKR-R SWIVEL CASTOR, THREADED STEM DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	Ð			$\overset{\bigcirc}{\square}$			1	Sh A	
304405	GKR-R-75 NP	75	32	110	94	10x16	•	-	70	80	
304406	GKR-R-75 NP M12	75	32	110	94	12x16	•	-	70	80	
304407	GKR-R-S-75 NP/K	75	32	110	94	10x16	-	•	70	80	
304408	GKR-R-S-75 NP/K M12	75	32	110	94	12x16	-	•	70	80	
304022	GKR-R-100 NP	100	32	141	95	10x16	•	-	70	80	
304023	GKR-R-100 NP M12	100	32	141	95	12x16	•	-	70	80	
301771	GKR-R-S-100 NEK/K	100	32	141	95	10x16	-	•	80	60	
301772	GKR-R-S-100 NEK/K M12	100	32	141	95	12x16	-	•	80	60	
304024	GKR-R-S-100 NP/K	100	32	141	95	10x16	-	•	100	80	
304025	GKR-R-S-100 NP/K M12	100	32	141	95	12x16	-	•	100	80	
304026	GKR-R-125 NP	125	32	161	110	10x16	•	-	70	80	
304027	GKR-R-125 NP M12	125	32	161	110	10x16	•	-	70	80	
301703	GKR-R-S-125 NEK/K	125	32	161	110	10x16	-	•	100	60	
301704	GKR-R-S-125 NEK/K M12	125	32	161	110	12x16	-	•	100	60	
304028	GKR-R-S-125 NP/K	125	32	161	110	10x16	-	•	100	80	
304029	GKR-R-S-125 NP/K M12	125	32	161	110	12x16	-	•	100	80	



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#### GKL SWIVEL CASTOR, RECTANGULAR TOP PLATE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	0	Ð			0 0					1	Sh A	
304409	GKL-75 NP	75	32	117	73	77x67	61/51x50/42	8	•	-	70	80	
304410	GKL-S-75 NP/K	75	32	117	73	77x67	61/51x50/42	8	-	•	70	80	
304032	GKL-100 NP	100	32	148	95	77x67	61/51x50/42	8	•	-	70	80	
301783	GKL-S-100 NEK/K	100	32	148	95	77x67	61/51x50/42	8	-	•	80	60	
304033	GKL-S-100 NP/K	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80	
304034	GKL-125 NP	125	32	168	110	77x67	61/51x50/42	8	•	-	70	80	
301684	GKL-S-125 NEK/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	60	
304035	GKL-S-125 NP/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80	



Also available with a larger pedal, see page 39.

### GKL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

Code	Title	$\odot$	Ð	$\mathbb{Q}$		0 0					T	Sh A
304411	GKL-J-75 NP	75	32	117	94	77x67	61/51x50/42	8	•	-	70	80
304412	GKL-J-S-75 NP/K	75	32	117	94	77x67	61/51x50/42	8	-	•	70	80
304038	GKL-J-100 NP	100	32	148	95	77x67	61/51x50/42	8	•	-	70	80
301795	GKL-J-S-100 NEK/K	100	32	148	95	77x67	61/51x50/42	8	-	•	80	60
304039	GKL-J-S-100 NP/K	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
304040	GKL-J-125 NP	125	32	168	110	77x67	61/51x50/42	8	•	-	70	80
301693	GKL-J-S-125 NEK/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	60
304041	GKL-J-S-125 NP/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80



Also available with a larger plate  $(95 \times 70)$ .



Also available with a metal plate.

# Equipment castors – Tango series NP and NEK wheels



**59** Also available with a larger pedal, see page 39.

### GKL-R SWIVEL CASTOR, RECTANGULAR TOP PLATE DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code Title	$\odot$	$\emptyset$	$\overline{\mathbb{Q}}$		0 0					-	Sh A
304413 GKL-R-75 NP	75	32	117	94	77x67	61/51x50/42	8	•	-	70	80
304414 GKL-R-S-75 NP/K	75	32	117	94	77x67	61/51x50/42	8	-	•	70	80
304044 GKL-R-100 NP	100	32	148	95	77x67	61/51x50/42	8	•	-	70	80
301807 GKL-R-S-100 NEK/K	100	32	148	95	77x67	61/51x50/42	8	-	•	80	60
304045 GKL-R-S-100 NP/K	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
304046 GKL-R-125 NP	125	32	168	110	77x67	61/51x50/42	8	•	-	70	80
301711 GKL-R-S-125 NEK/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	60
304047 GKL-R-S-125 NP/K	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80



#### GPR FIXED CASTOR, THREADED STEM

NP polyamide centre + soft polyurethane tyre, plain bearing. -S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing (sealed). -S-NEK/K polyamide centre + elastic solid rubber tyre, threadguard, ball bearing (unsealed).

Code	Title	$\odot$	$\emptyset$	$\overline{\mathbb{Q}}$	$\overline{\underline{\mathbf{J}}}$			•	Sh A	
304048	GPR-100 NP	100	32	141	10x16	•	-	70	80	
301035	GPR-S-100 NEK/K	100	32	141	10x16	-	•	80	60	
304049	GPR-S-100 NP/K	100	32	141	10x16	-	•	100	80	
304050	GPR-125 NP	125	32	161	10x16	•	-	70	80	
301039	GPR-S-125 NEK/K	125	32	161	10x16	-	•	100	60	
304051	GPR-S-125 NP/K	125	32	161	10x16		•	100	80	



#### GPL FIXED CASTOR, RECTANGULAR TOP PLATE

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$						=	Sh A	
304052	GPL-100 NP	100	32	148	77x67	61/51x50/42	8	•	-	70	80	
301043	GPL-S-100 NEK/K	100	32	148	77x67	61/51x50/42	8	-	•	80	60	
304053	GPL-S-100 NP/K	100	32	148	77x67	61/51x50/42	8	-	•	100	80	
304054	GPL-125 NP	125	32	168	77x67	61/51x50/42	8	•	-	70	80	
301047	GPL-S-125 NEK/K	125	32	168	77x67	61/51x50/42	8	-	•	100	60	
304055	GPI-S-125 NP/K	125	32	168	77x67	61/51x50/42	8		•	100	80	



Unique finger and dirt guard (100 and 125 mm).



Protective film for PTE tread: PTEF.

# Equipment castors – Tango series PTE castors



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#### GK SWIVEL CASTOR, BOLT HOLE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð			Ī			I	Sh A	
301717	GK-75 PTE 80	75	32	110	73	10	•	-	70	80	
301718	GK-75 PTE 80-12	75	32	110	73	12	•	-	70	80	
301719	GK-S-75 PTE/K 80	75	32	110	73	10	-	•	70	80	
301720	GK-S-75 PTE/K 80-12	75	32	110	73	12	-	•	70	80	
301721	GK-100 PTE 55	100	32	141	95	10	•	-	70	55	
301722	GK-100 PTE 55-12	100	32	141	95	12	•	-	70	55	
301725	GK-S-100 PTE/K 55	100	32	141	95	10	-	•	70	55	
301726	GK-S-100 PTE/K 55-12	100	32	141	95	12	-	•	70	55	
301727	GK-S-100 PTE/K 80	100	32	141	95	10	-	•	100	80	
301728	GK-S-100 PTE/K 80-12	100	32	141	95	12	-	•	100	80	
301666	GK-125 PTE 55	125	32	161	110	10	•	-	70	55	
301667	GK-125 PTE 55-12	125	32	161	110	12	•	-	70	55	
301636	GK-S-125 PTE/K 55	125	32	161	110	10	-	•	70	55	
301642	GK-S-125 PTE/K 55-12	125	32	161	110	12	-	•	70	55	
301637	GK-S-125 PTE/K 80	125	32	161	110	10	-	•	100	80	
301643	GK-S-125 PTE/K 80-12	125	32	161	110	12	-	•	100	80	



**63** Also available with a larger pedal, see page 39.

## GK-J SWIVEL CASTOR, BOLT HOLE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð			$\overline{\mathbb{Q}}$			I	Sh A	
301729	GK-J-75 PTE 80	75	32	110	94	10	•	-	70	80	
	GK-J-75 PTE 80-12	75	32	110	94	12	•	-	70	80	
301731	GK-J-S-75 PTE/K 80	75	32	110	94	10	-	•	70	80	
301732	GK-J-S-75 PTE/K 80-12	75	32	110	94	12	-	•	70	80	
301733	GK-J-100 PTE 55	100	32	141	95	10	•	-	70	55	
301734	GK-J-100 PTE 55-12	100	32	141	95	12	•	-	70	55	
	GK-J-S-100 PTE/K 55	100	32	141	95	10	-	•	70	55	
301738	GK-J-S-100 PTE/K 55-12	100	32	141	95	12	-	•	70	55	
301739	GK-J-S-100 PTE/K 80	100	32	141	95	10	-	•	100	80	
301740	GK-J-S-100 PTE/K 80-12	100	32	141	95	12	-	•	100	80	
301670	GK-J-125 PTE 55	125	32	161	110	10	•	-	70	55	
301671	GK-J-125 PTE 55-12	125	32	161	110	12	•	-	70	55	
301638	GK-J-S-125 PTE/K 55	125	32	161	110	10	-	•	70	55	
301644	GK-J-S-125 PTE/K 55-12	125	32	161	110	12	-	•	70	55	
301639	GK-J-S-125 PTE/K 80	125	32	161	110	10	-	•	100	80	
301645	GK-J-S-125 PTE/K 80-12	125	32	161	110	12	-	•	100	80	







Light grey (RAL 7035)

Black

# Equipment castors – Tango series PTE castors



#### GKR SWIVEL CASTOR, THREADED STEM

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð			$\frac{\mathbb{Q}}{\mathbf{T}}$			1	Sh A	
301741	GKR-75 PTE 80	75	32	110	73	10x16	•	-	70	80	
301742	GKR-75 PTE 80 M12	75	32	110	73	12x16	•	-	70	80	
301743	GKR-S-75 PTE/K 80	75	32	110	73	10x16	-	•	70	80	
301744	GKR-S-75 PTE/K 80 M12	75	32	110	73	12x16	-	•	70	80	
301745	GKR-100 PTE 55	100	32	141	95	10x16	•	-	70	55	
301746	GKR-100 PTE 55 M12	100	32	141	95	12x16	•	-	70	55	
301749	GKR-S-100 PTE/K 55	100	32	141	95	10x16	-	•	70	55	
301750	GKR-S-100 PTE/K 55 M12	100	32	141	95	12x16	-	•	70	55	
301751	GKR-S-100 PTE/K 80	100	32	141	95	10x16	-	•	100	80	
301752	GKR-S-100 PTE/K 80 M12	100	32	141	95	12x16	-	•	100	80	
301674	GKR-125 PTE 55	125	32	161	110	10x16	•	-	70	55	
301675	GKR-125 PTE 55 M12	125	32	161	110	12x16	•	-	70	55	
301648	GKR-S-125 PTE/K 55	125	32	161	110	10x16	-	•	70	55	
301654	GKR-S-125 PTE/K 55 M12	125	32	161	110	12x16	-	•	70	55	
301649	GKR-S-125 PTE/K 80	125	32	161	110	10x16	-	•	100	80	
301655	GKR-S-125 PTE/K 80 M12	125	32	161	110	12x16	-	•	100	80	



Also available with a larger pedal, see page 39.

### GKR-J SWIVEL CASTOR, THREADED STEM TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\blacksquare$			$\overline{\underline{\mathbf{Y}}}$			_	Sh A	
301753	GKR-J-75 PTE 80	75	32	110	94	10x16	•	-	70	80	
301754	GKR-J-75 PTE 80 M12	75	32	110	94	12x16	•	-	70	80	
301755	GKR-J-S-75 PTE/K 80	75	32	110	94	10x16	-	•	70	80	
301756	GKR-J-S-75 PTE/K 80 M12	75	32	110	94	12x16	-	•	70	80	
301757	GKR-J-100 PTE 55	100	32	141	95	10x16	•	-	70	55	
301758	GKR-J-100 PTE 55 M12	100	32	141	95	12x16	-	•	70	55	
301761	GKR-J-S-100 PTE/K 55	100	32	141	95	10x16	-	•	70	55	
301762	GKR-J-S-100 PTE/K 55 M12	100	32	141	95	12x16	-	•	70	55	
301763	GKR-J-S-100 PTE/K 80	100	32	141	95	10x16	-	•	100	80	
301764	GKR-J-S-100 PTE/K 80 M12	100	32	141	95	12x16	-	•	100	80	
301678	GKR-J-125 PTE 55	125	32	161	110	10x16	•	-	70	55	
301679	GKR-J-125 PTE 55 M12	125	32	161	110	12x16	•	-	70	55	
301650	GKR-J-S-125 PTE/K 55	125	32	161	110	10x16	-	•	70	55	
301656	GKR-J-S-125 PTE/K 55 M12	125	32	161	110	12x16	-	•	70	55	
301651	GKR-J-S-125 PTE/K 80	125	32	161	110	10x16	-	•	100	80	
301657	GKR-J-S-125 PTE/K 80 M12	125	32	161	110	12x16	-	•	100	80	















Standard colours for the brake pedal: green, red, black (two-stage), yellow (conductive), grey, dark grey (directional lock) and orange (RFID).



**66** Also available with a larger pedal, see page 39.

### GKR-R SWIVEL CASTOR, THREADED STEM DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	0	$\overline{\emptyset}$			$\overline{\underline{\mathbf{I}}}$			1	Sh A	
301765	GKR-R-75 PTE 80	75	32	110	94	10x16	•	-	70	80	
304415	GKR-R-75 PTE 80 M12	75	32	110	94	12x16	•	-	70	80	
301767	GKR-R-S-75 PTE/K 80	75	32	110	94	10x16	-	•	70	80	
301768	GKR-R-S-75 PTE/K 80 M12	75	32	110	94	12x16	-	•	70	80	
301769	GKR-R-100 PTE 55	100	32	141	95	10x16	•	-	70	55	
301770	GKR-R-100 PTE 55 M12	100	32	141	95	12x16	•	-	70	55	
301773	GKR-R-S-100 PTE/K 55	100	32	141	95	10x16	-	•	70	55	
301774	GKR-R-S-100 PTE/K 55 M12	100	32	141	95	12x16	-	•	70	55	
301775	GKR-R-S-100 PTE/K 80	100	32	141	95	10x16	-	•	100	80	
301776	GKR-R-S-100 PTE/K 80 M12	100	32	141	95	12x16	-	•	100	80	
301701	GKR-R-125 PTE 55	125	32	161	110	10x16	•	-	70	55	
301702	GKR-R-125 PTE 55 M12	125	32	161	110	10x16	•	-	70	55	
301705	GKR-R-S-125 PTE/K 55	125	32	161	110	10x16	-	•	70	55	
301706	GKR-R-S-125 PTE/K 55 M12	125	32	161	110	12x16	-	•	70	55	
301707	GKR-R-S-125 PTE/K 80	125	32	161	110	10x16	-	•	100	80	
301708	GKR-R-S-125 PTE/K 80 M12	125	32	161	110	12x16	-	•	100	80	



#### GKL SWIVEL CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð								I	Sh A	
301777	GKL-75 PTE 80	75	32	117	73	77x67	61/51x50/42	8	•	-	70	80	
301779	GKL-S-75 PTE/K 80	75	32	117	73	77x67	61/51x50/42	8	-	•	70	80	
301781	GKL-100 PTE 55	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55	
301785	GKL-S-100 PTE/K 55	100	32	148	95	77x67	61/51x50/42	8	-	•	70	55	
301787	GKL-S-100 PTE/K 80	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80	
301682	GKL-125 PTE 55	125	32	168	110	77x67	61/51x50/42	8	•	-	70	55	
301686	GKL-S-125 PTE/K 55	125	32	168	110	77x67	61/51x50/42	8	-	•	70	55	
301688	GKL-S-125 PTE/K 80	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80	



**68**Also available with a larger pedal, see page 39.

### GKL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$			0 0					1	Sh A
301789	GKL-J-75 PTE 80	75	32	117	94	77x67	61/51x50/42	8	•	-	70	80
301791	GKL-J-S-75 PTE/K 80	75	32	117	94	77x67	61/51x50/42	8	-	•	70	80
301793	GKL-J-100 PTE 55	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
301797	GKL-J-S-100 PTE/K 55	100	32	148	95	77x67	61/51x50/42	8	-	•	70	55
301799	GKL-J-S-100 PTE/K 80	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
301691	GKL-J-125 PTE 55	125	32	168	110	77x67	61/51x50/42	8	•	-	70	55
301695	GKL-J-S-125 PTE/K 55	125	32	168	110	77x67	61/51x50/42	8	-	•	70	55
301697	GKL-J-S-125 PTE/K 80	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80



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Also available with a larger pedal. Indicated with -RE- in the title (100 and 125 mm), see page 39.

### GKL-R SWIVEL CASTOR, RECTANGULAR TOP PLATE DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$			0 0					I	Sh A
301801	GKL-R-75 PTE 80	75	32	117	94	77x67	61/51x50/42	8	•		70	80
301803	GKL-R-S-75 PTE/K 80	75	32	117	94	77x67	61/51x50/42	8	-	•	70	80
301805	GKL-R-100 PTE 55	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
301809	GKL-R-S-100 PTE/K 55	100	32	148	95	77x67	61/51x50/42	8	-	•	70	55
301811	GKL-R-S-100 PTE/K 80	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
301709	GKL-R-125 PTE 55	125	32	168	110	77x67	61/51x50/42	8	•	-	70	55
301713	GKL-R-S-125 PTE/K 55	125	32	168	110	77x67	61/51x50/42	8	-	•	70	55
301715	GKL-R-S-125 PTE/K 80	125	32	168	110	77x67	61/51x50/42	8	-	•	100	80



#### GPR FIXED CASTOR, THREADED STEM

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$		$\overset{\boxtimes}{\mathbf{T}}$			_	Sh A	
301032	GPR-100 PTE 55	100	32	141	10x16	•	-	70	55	
301034	GPR-S-100 PTE/K 55	100	32	141	10x16	-	•	70	55	
301033	GPR-S-100 PTE/K 80	100	32	141	10x16	-	•	100	80	
301036	GPR-125 PTE 55	125	32	161	10x16	•	-	70	55	
301038	GPR-S-125 PTE/K 55	125	32	161	10x16	-	•	70	55	
301037	GPR-S-125 PTE/K 80	125	32	161	10x16	-	•	100	80	



#### GPL FIXED CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing. PTE 80 polypropylene centre + thermoplastic rubber tyre, plain bearing. -S-PTE/K 55 polypropylene centre + soft, thermoplastic rubber tyre, threadguard, ball bearing (sealed). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$	0 0					_	Sh A	
301040	GPL-100 PTE 55	100	32	148	77x67	61/51x50/42	8	•	-	70	55	
301042	GPL-S-100 PTE/K 55	100	32	148	77x67	61/51x50/42	8	-	•	70	55	
301041	GPL-S-100 PTE/K 80	100	32	148	77x67	61/51x50/42	8	-	•	100	80	
301044	GPL-125 PTE 55	125	32	168	77x67	61/51x50/42	8	•	-	70	55	
301046	GPL-S-125 PTE/K 55	125	32	168	77x67	61/51x50/42	8	-	•	70	55	
301045	GPL-S-125 PTE/K 80	125	32	168	77x67	61/51x50/42	8	-	•	100	80	

Anti-reverse Tango castor





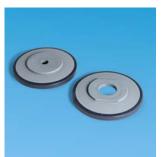


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#### GKT EXPANDER

Code	Title	round, inside ø	square, inside 🗷	expander length
300418	GKT-18,19	18–19	-	61 + - 2
300419	GKT-22	22	•	61 + - 2
300421	GKT-25	25	•	61 + - 2
300423	GKT-28	28	-	59 + - 2
300783	GKT-37	37	•	59 + - 2
300417	GKT-17X17	-	17	62 + - 2
300420	GKT-22X22	-	22	61 + - 2
300422	GKT-27X27	-	27	60 + - 2
300424	GKT-37X37	-	37	60 + - 2

Tube's inner dimensions must match those given in the table. When ordering a castor with an expander, order it without the adapter.



**73**Bumper TSGK-90 PTE + TSGK-90



Bumper with expander GKTB-90-22X22

#### TSGK BUMPER

PTE polypropylene centre + thermoplastic rubber. Polyamide support plate.

Code Title	$\odot$	$\overline{\mathbb{Z}}$	round, inside ø	square, inside 🗷	Sh A
303956 TSGK-90 PTE	90	10	-	-	70
303957 TSGK-90 PTE-12	90	12	-	-	70
303958 TSGK-90 PTE/17-22	90	-	18-22	17x17, 22x22	70
303959 TSGK-90 PTE/25-37	90	-	25-37	27x27, 37x37	70

Bumper increases structural height by 5 mm.



Tango castor with bumper GKTB-90-J-S-125 PTE/K 80 22

# Hand brake Tango

The Tango castor with handbrake has been designed to meet the requests of users of mobility aid devices and other equipment, who must to be able to brake and lock the castors by hand. Wheel braking can be controlled manually using the brake handle.

The castor is fitted into a horizontal tube and includes a tube adapter. The castor is available with a standard oval tube adapter which can be fitted either into an oval or square tube. The hand brake feature is available for Tango castors with total stop brake and directional lock. The feature can also be combined with the Tango castor incorporating a two-stage brake: total-stop brake and directional lock in the same castor. The castor has been tested and approved in accordance with standard ISO 11199 for mobility aid devices.





Hand brake Tango (HB)

# Equipment castors – SMART series



SMART castors are fitted with a patented, unique and simple locking system. Ease of use, reliability and safety make it the perfect choice for hospital and rehabilitation equipment and other such applications.

Since the locking and release pedals do not turn with the wheel, they are always visible and easily available.

The frame of the SMART castor is made of glass fibre reinforced polyamide and the tread of soft, hydrolysis-resistant polyurethane. Ball bearings in the frame and the centre of the wheel ensure that even heavier loads move lightly. SMART equipment castors are

also available as conductive version, and can be customised using the customer's colour scheme.

Designed for trouble-free use

- ease of use
- reliability
- ergonomics
- design
- Hospital and care beds
- Hospital and rehabilitation equipment
- Shower chairs
- Patient lifts

# Equipment castors – SMART series





#### FKT-S SWIVEL CASTOR WITHOUT LOCKING

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code Title	0	$\overline{\emptyset}$			Tr <sup>1)</sup>			=	Sh A	
302206 FKT-S-125 GPF/K	125	32	167	105	24x10	-	•	150	80	
1) C: b-l										

<sup>)</sup> See pictures below.

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### FKT-J SWIVEL CASTOR WITH DOUBLE ACTION LOCK TOTAL-STOP LOCK LOCKS THE WHEEL AND SWIVEL

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code Title	0	Ð						2	Sh A	
302992 FKT-J-S-125 GPF/K	125	32	167	105	24x10	-	•	150	80	

<sup>1)</sup> See pictures below.

**75** 



# FKT-R SWIVEL CASTOR WITH DIRECTIONAL LOCK DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code Title	<u></u>	₩						_	Sh A	
302993 FKT-R-S-125 GPF/K	125	32	167	105	24x10	-	•	150	80	

<sup>1)</sup> See pictures below.

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SMART castor mounted to plate.

Directionally locked wheel runs along a 5 mm track.
Release pedal is set at a 90° angle in relation to the M5 screw holes.

SMART castor mounting dimensions.

# Equipment wheels – e-SMART series



The Manner e-SMART castor is equipped with a central locking system. The superior ergonomics and safety of the patented castor locking system improve and facilitate work. e-SMART is designed to provide tangible benefits:

- safety
- ease of use
- ergonomics
- economy
- flexibility and design.

Ideal for hospitals, care institutions and other places where easy and reliable central locking castors are a must.

The castor can be locked and released easily and ergonomically at the push of a button. The locking/unlocking actuator is embedded in the wheel and

connected to the control system. The wheel is placed directly on the round or square tube, making it quick to install. Motion sensor allows automatic locking.

e-SMART castor is made of the same materials as the SMART castor. e-SMART castors are also available as conductive versions, and can be customised using the customer's colour scheme.

- Hospital beds
- Care beds
- Shower chairs
- Treatment chairs
- Other hospital and rehabilitation equipment
- Other equipment where you need castors with remote locking

# Equipment wheels – e-SMART series





### FK50X50-EJ SWIVEL CASTOR WITH ELECTRIC CENTRAL LOCKING ELECTRIC CENTRAL LOCKING LOCKS WHEEL AND SWIVEL

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Square mounting tube 50 x 50 mm.

Code	Title	$\odot$	$\blacksquare$			TT			I	Sh A	
302962	FK50X50-EJ-S-125 GPF/K	125	32	172	105	46x46	-	•	150	80	

**77** 



### FK50X50-ER FK50X50-ER90 SWIVEL CASTOR WITH ELECTRIC CENTRAL DIRECTIONAL LOCK ELECTRIC CENTRAL DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Square mounting tube 50 x 50 mm.

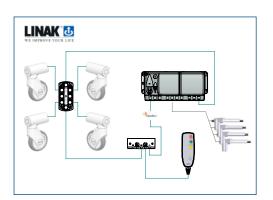
Code	Title	$\odot$	$\overline{\emptyset}$			TT			1	Sh A	
302974	FK50X50-ER-S-125 GPF/K	125	32	172	105	46x46	-	•	150	80	
302977	FK50X50-ER90-S-125 GPF/K	125	32	172	105	46x46	-	•	150	80	

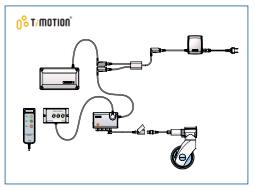
O°/180° model ER

Mounting tube can be positioned at O°/180° or 90°/270° in relation to the direction of travel

O°/180° or 90°/270° in relation

O°/180°





#### **ELECTRIC CENTRAL LOCKING SYSTEM FOR E-SMART CASTORS**

Control system can be provided by Manner and its partners, or designed by the device manufacturer itself.

#### Please ask us for more information.

# Equipment wheels – e-SMART series





### FK60-EJ SWIVEL CASTOR WITH ELECTRIC CENTRAL LOCKING ELECTRIC CENTRAL LOCKING LOCKS THE WHEEL AND SWIVEL

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Round mounting tube  $\varnothing$  60 mm.

Code	Title	$\odot$	$\overline{\emptyset}$			TT			_	Sh A	
302975	FK60-EJ-S-125 GPF/K	125	32	167	105	54,5	-	•	150	80	

**79** 



## FK60-ER FK60-ER90 SWIVEL CASTOR WITH ELECTRIC CENTRAL DIRECTIONAL LOCK ELECTRIC CENTRAL DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

GPF/K glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Round mounting tube  $\varnothing$  60 mm.

Code	Title	0	Ð			TT			I	Sh A	
302976	FK60-ER-S-125 GPF/K	125	32	167	105	54,5	-	•	150	80	
302978	FK60-ER90-S-125 GPF/K	125	32	167	105	54,4	-	•	150	80	

80



### Auto-locking for added security.



With their extra-strong structure, these impeccably reliable and long-lasting industrial castors are ideal for continuous heavy-duty use. Users have been impressed by Manner castors' durability and functionality. Our castors are ideal on sites such as breweries, dairies, shops and warehouses.

The fork is made of pressed galvanised steel. The double ball race in the swivel bearing is fitted with hardened steel balls. Maintenance-free castors and ball bearings make even the heaviest loads easy to handle. Several wheel and plain bearing options. Colours can be customised in accordance with the wishes of the customer.

Industrial castors can also be delivered with conductive and other special wheels, such as RFID.

- Milk roll containers
- Roller cages
- Laundry wagons
- Dollies
- Food trolleys
- Waste containers
- Industrial machines
- Scaffolding



81 Top N Bottom ND

#### WHEEL

N polyamide, plain bearing. ND polyamide centre + polyurethane tyre, plain bearing.

Code Title	0	$\theta$	θ	♨		T	Sh A	
400751 YKI-70 N	70	24	32	8	•	90	-	
400752 YKI-75 ND	75	28	32	8	•	90	98	



#### SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide. ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	Ð			0 0				2	Sh A	
400753	YKL-70 N	70	24	90	54	95x75	75x45	9	•	90	-	
400754	YKL-75 ND	75	28	93	57	95x75	75x45	9	•	90	98	

82



#### SWIVEL CASTOR, TRIANGLE TOP PLATE

N polyamide. ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	$\blacksquare$			0 0				1	Sh A	
400748	YKA-70 N	70	24	90	54	145x145	100/90x100/90	11	•	90	-	
400750	YKA-75 ND	75	28	93	57	145x145	100/90x100/90	11	•	90	98	

83



#### FIXED CASTOR, RECTANGULAR TOP PLATE

N polyamide. ND polyamide centre + polyurethane tyre.

Code	Title	0	Ð	$\square$					1	Sh A	
400755	YP-70 N	70	24	90	95x75	74x45	8	•	90	-	
400756	YP-75 ND	75	28	93	95x75	74x45	8	•	90	98	

84

Polyurethane tread for extra durability.



**85**Top N
Bottom N/K

#### LI WHEEL

N polyamide, plain bearing. N/K polyamide, ball bearing, (sealed).

Code	Title	$\odot$	arraycolorginal	0	$\bigoplus$			1	
400064	LI-100 N	100	36	46	10	•	-	180	
400067	LI-100 N/K	100	36	46	10	-	•	200	
401505	LI-100/52 N/K	100	36	52	10	-	•	200	
400095	LI-125 N	125	36	46	10	•	-	200	
400096	LI-125 N/K	125	36	46	10	-	•	240	
401406	LI-125/52 N/K	125	36	52	10	-	•	240	
400118	LI-160 N	160	40	51,5	11	•	-	400	
400137	LI-200 N	200	50	61,5	13	•	-	450	
400138	LI-200 N/K	200	50	61,5	13	-	•	750	



#### LK SWIVEL CASTOR, BOLT HOLE

N polyamide.

Code	Title	0	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$			1	
400188	LK-100 N	100	36	132	90	12,5	•	-	140	
400191	LK-100 N/K	100	36	132	90	12,5	-	•	140	
400221	LK-125 N	125	36	157	106	12,5	•	-	145	
400222	LK-125 N/K	125	36	157	106	12,5	-	•	145	

86



#### LK SWIVEL CASTOR, BOLT HOLE

N polyamide.

Code	Title	$\odot$	$\blacksquare$			$\overline{\mathbb{Z}}$			I	
401138	LK-160 N L	160	40	191	131	12	•	-	200	
401143	LK-200 N L	200	50	240	159	12	•	-	300	
401144	IK-200 N/K I	200	50	240	159	12	-	•	300	

87



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide.

Code	Title	$\odot$	$\blacksquare$			$\overline{\mathbb{Z}}$			2	
400523	LK-J-100 N	100	36	132	110	12,5	•	-	140	
400524	LK-J-100 N/K	100	36	132	110	12,5	-	•	140	
400543	LK-J-125 N	125	36	157	110	12,5	•	-	145	
400544	LK-J-125 N/K	125	36	157	110	12,5	-	•	145	

88



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide.

L . 1 .									
Code	Title	$\odot$	Ð			$\overline{\mathbb{Z}}$			I
401139	LK-J-160 N L	160	40	191	138	12	•	-	200
401145	LK-J-200 N L	200	50	240	161	12	•	-	300
401146	LK-J-200 N/K L	200	50	240	161	12	-	•	300

89



#### LKE LSE (STRONG FORK)

#### SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	Ð								I	
400298	LKE-100 N	100	36	132	90	105x85	80x60	9	•	-	140	
400302	LKE-100 N/K	100	36	132	90	105x85	80x60	9	-	•	140	
401508	LSE-100/52 N/K L	100	36	137	91	105x85	80/76x60/55	8	-	•	200	
400328	LKE-125 N	125	36	157	106	105x85	80x60	9	•	-	145	
400330	LKE-125 N/K	125	36	157	106	105x85	80x60	9	-	•	145	
401511	LSE-125/52 N/K L	125	36	163	104	105x85	80/76x60/55	8	-	•	240	

Top LKE-100 N/K Bottom LSE-100/52 N/K L



#### LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	$\emptyset$	$\overline{\mathbb{Z}}$							1	
401140	LKE-160 N L	160	40	191	131	135x110	105x80/75	10	•	-	200	
401147	LKE-200 N L	200	50	240	159	135x110	105x80/75	10	•	-	300	
401148	LKE-200 N/K L	200	50	240	159	135x110	105x80/75	10	-	•	300	

91



#### **92** Top LKE-J-100 N/K Bottom LSE-J-100/52 N/K L

# LKE-J LSE-J (STRONG FORK) SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide.

Code	Title	$\odot$	Ð			0 0					1	
400383	LKE-J-100 N	100	36	132	110	105x85	80x60	9	•	-	140	
400385	LKE-J-100 N/K	100	36	132	110	105x85	80x60	9	-	•	140	
401515	LSE-J-100/52 N/K L	100	36	137	91	105x85	80/76x60/55	8	-	•	200	
400404	LKE-J-125 N	125	36	157	110	105x85	80x60	9	•	-	145	
400406	LKE-J-125 N/K	125	36	157	110	105x85	80x60	9	-	•	145	
401518	ISF-I-125/52 N/K I	125	36	163	104	105v85	80/76x60/55	8	-	•	240	

# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide.

Code	Title	0	Ð	<u></u>		0 0					I	
401141	LKE-J-160 N L	160	40	191	138	135x110	105x80/75	10	•	-	200	
401149	LKE-J-200 N L	200	50	240	161	135x110	105x80/75	10	•	-	300	
401150	LKE-J-200 N/K L	200	50	240	161	135x110	105x80/75	10	-	•	300	

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## LKE-R SWIVEL CASTOR, RECTANGULAR TOP PLATE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

N polyamide.

Code	Title	0	$\overline{\emptyset}$								I	
400461	LKE-R-100 N	100	36	132	110	105x85	80x60	9	•	-	140	
400462	LKE-R-100 N/K	100	36	132	110	105x85	80x60	9	-	•	140	
400473	LKE-R-125 N	125	36	157	110	105x85	80x60	9	•	-	145	
400474	LKE-R-125 N/K	125	36	157	110	105x85	80x60	9	-	•	145	

94



Top LPPE-100 N/K Bottom LPSE-100/52 N/K L

#### LPPE LPSE (STRONG FORK) FIXED CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	Ð	$\overline{\mathbb{Q}}$	0 0					1	
400636	LPPE-100 N	100	36	132	105x85	80x60	9	•	-	140	
400639	LPPE-100 N/K	100	36	132	105x85	80x60	9	-	•	140	
401522	LPSE-100/52 N/K L	100	36	137	105x85	80/76x60/55	8	-	•	200	
400659	LPPE-125 N	125	36	157	105x85	80x60	9	•	-	145	
400661	LPPE-125 N/K	125	36	157	105x85	80x60	9	-	•	145	
401525	LPSE-125/52 N/K L	125	36	163	105x85	80/76x60/55	8	-	•	240	

Directional lock makes the equipment extremely easy to handle, see page 15.

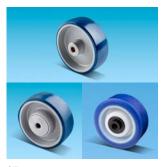


#### LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	Ð	$\Box$						1	
401142	LPPE-160 N L	160	40	191	135x110	105x80/75	10	•	-	200	
401151	LPPE-200 N L	200	50	240	135x110	105x80/75	10	•	-	300	
401152	LPPE-200 N/K L	200	50	240	135x110	105x80/75	10	-	•	300	

96



# 97 Top ND Bottom left ND/K, right AS/K

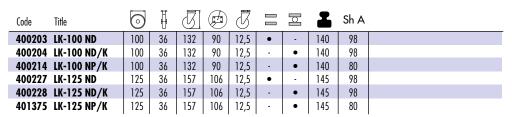
#### LI WHEE

ND polyamide centre + polyurethane tyre, plain bearing. ND/K polyamide centre + polyurethane tyre, ball bearing (sealed). NP/K polyamide centre + soft polyurethane tyre, ball bearing (sealed). AS/K polyamide centre + soft cast polyurethane tread, ball bearing (sealed).

Code	Title	$\odot$	Ð	$\overline{\theta}$	₫			_	Sh A	
400078	LI-100 ND	100	36	46	10	•	-	160	98	
400079	LI-100 ND/K	100	36	46	10	-	•	160	98	
401345	LI-100/52 ND/K	100	36	52	10	-	•	160	98	
400089	LI-100 NP/K	100	36	46	10	-	•	160	80	
401506	LI-100/52 AS/K L	100	40	52	10	-	•	250	87	
400102	LI-125 ND	125	36	46	10	•	-	160	98	
400103	LI-125 ND/K	125	36	46	10	-	•	160	98	
401280	LI-125/52 ND/K	125	36	52	10	-	•	160	98	
401370	LI-125 NP/K	125	36	46	10	-	•	160	80	
401507	LI-125/52 AS/K L	125	40	52	10	-	•	300	87	
400120	LI-160 ND	160	40	51,5	11	•	-	350	98	
400121	LI-160 ND/K	160	40	51,5	11	-	•	350	98	
400139	LI-200 ND	200	50	61,5	13	•	-	450	98	
400140	LI-200 ND/K	200	50	61,5	13	-	•	750	98	
600242	! LI-250 ND/K	250	60	61,5	13	-	•	1000	98	

#### LK SWIVEL CASTOR, BOLT HOLE

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre.





98

160–200 mm castors also available with directional locking.

Please ask for details!



#### LK SWIVEL CASTOR, BOLT HOLE

ND polyamide centre + polyurethane tyre.

Code 1	Title	0	#			$\overline{\mathbb{Z}}$			1	Sh A	
401153 L	LK-160 ND L	160	40	191	131	12	•	-	200	98	
401154 L	LK-160 ND/K L	160	40	191	131	12	-	•	200	98	
401163 L	LK-200 ND L	200	50	240	159	12	•	-	300	98	
401164 L	LK-200 ND/K L	200	50	240	159	12	-	•	300	98	

99



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre.

Code	Title	$\odot$	$\emptyset$			$\overline{\mathbb{Z}}$			I	Sh A	
400529	LK-J-100 ND	100	36	132	110	12,5	•	-	140	98	
400530	LK-J-100 ND/K	100	36	132	110	12,5	-	•	140	98	
400535	LK-J-100 NP/K	100	36	132	110	12,5	-	•	140	80	
400547	LK-J-125 ND	125	36	157	110	12,5	•	-	145	98	
400548	LK-J-125 ND/K	125	36	157	110	12,5	-	•	145	98	
401377	LK-J-125 NP/K	125	36	157	110	12,5	-	•	145	80	

100



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ND polyamide centre + polyurethane tyre.

Code	Title	0	Ð			Ţ			1	Sh A	
401155	LK-J-160 ND L	160	40	191	138	12	•	-	200	98	
401156	LK-J-160 ND/K L	160	40	191	138	12	-	•	200	98	
401165	LK-J-200 ND L	200	50	240	161	12	•	-	300	98	
401166	LK-J-200 ND/K L	200	50	240	161	12	-	•	300	98	

101



**102**Top LKE-100 ND/K
Botton left LSE-100/52 ND/K L, right LSE-100/52 AS/K L

#### LKE LSE (STRONG FORK) SWIVEL CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre. AS polyamide centre + soft cast polyurethane tread.

			Ħ				_	λ		_	•	
Code	Title	$\odot$	<del>U</del>	$\mathbb{Q}$		0 0		0 0			Ŧ	Sh A
400311	LKE-100 ND	100	36	132	90	105x85	80x60	9	•	-	140	98
400313	LKE-100 ND/K	100	36	132	90	105x85	80x60	9	-	•	140	98
401509	LSE-100/52 ND/K L	100	36	137	91	105x85	80/76x60/55	8	-	•	160	98
400321	LKE-100 NP/K	100	36	132	90	105x85	80x60	9	-	•	140	80
401510	LSE-100/52 AS/K L	100	40	137	91	105x85	80/76x60/55	8	-	•	250	87
400332	LKE-125 ND	125	36	157	106	105x85	80x60	9	•	-	145	98
400334	LKE-125 ND/K	125	36	157	106	105x85	80x60	9	-	•	145	98
401512	LSE-125/52 ND/K L	125	36	163	104	105x85	80/76x60/55	8	-	•	160	98
401376	LKE-125 NP/K	125	36	157	106	105x85	80x60	9	-	•	145	80
401514	LSE-125/52 AS/K L	125	40	163	104	105x85	80/76x60/55	8	-	•	300	87



#### LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	H			0 0					1	Sh A	
401157	LKE-160 ND L	160	40	191	131	135x110	105x80/75	10	•	-	200	98	
401158	LKE-160 ND/K L	160	40	191	131	135x110	105x80/75	10	-	•	200	98	
401167	LKE-200 ND L	200	50	240	159	135x110	105x80/75	10	•	-	300	98	
401168	LKE-200 ND/K L	200	50	240	159	135x110	105x80/75	10	-	•	300	98	

103



# **104**Top LKE-J-100 ND/K Bottom left LSE-J-100/52 ND/K L, right LSE-J-100/52 AS/K L

# LKE-J LSE-J (STRONG FORK) SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre. AS polyamide centre + soft cast polyurethane tread.

Code	Title	0	Ð			0 0				0	2	Sh A
400389	LKE-J-100 ND	100	36	132	110	105x85	80x60	9	•	-	140	98
400391	LKE-J-100 ND/K	100	36	132	110	105x85	80x60	9	-	•	140	98
401516	LSE-J-100/52 ND/K L	100	36	137	91	105x85	80/76x60/55	8	-	•	160	98
400396	LKE-J-100 NP/K	100	36	132	110	105x85	80x60	9	-	•	140	80
401517	LSE-J-100/52 AS/K L	100	40	137	91	105x85	80/76x60/55	8	-	•	250	87
400408	LKE-J-125 ND	125	36	157	110	105x85	80x60	9	•	-	145	98
400410	LKE-J-125 ND/K	125	36	157	110	105x85	80x60	9	-	•	145	98
401519	LSE-J-125/52 ND/K L	125	36	163	104	105x85	80/76x60/55	8	-	•	160	98
401378	LKE-J-125 NP/K	125	36	157	110	105x85	80x60	9	-	•	145	80
401521	LSE-J-125/52 AS/K L	125	40	163	104	105x85	80/76x60/55	8	-	•	300	87

#### 105

# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	$\frac{\pi}{2}$								1	Sh A	
401159	LKE-J-160 ND L	160	40	191	138	135x110	105x80/75	10	•	-	200	98	
401160	LKE-J-160 ND/K L	160	40	191	138	135x110	105x80/75	10	-	•	200	98	
401169	LKE-J-200 ND L	200	50	240	161	135x110	105x80/75	10	•	-	300	98	
401170	LKE-J-200 ND/K L	200	50	240	161	135x110	105x80/75	10	-	•	300	98	



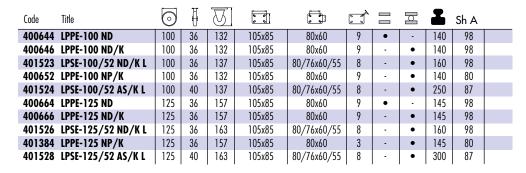
# LKE-R SWIVEL CASTOR, RECTANGULAR TOP PLATE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre.

Code	Title	$\odot$	Ð			0 0					I	Sh A	
400464	LKE-R-100 ND	100	36	132	110	105x85	80x60	9	•		140	98	
401317	LKE-R-100 ND/K	100	36	132	110	105x85	80x60	9	-	•	140	98	
400469	LKE-R-100 NP/K	100	36	132	110	105x85	80x60	9	-	•	140	80	
400476	LKE-R-125 ND	125	36	157	110	105x85	80x60	9	•	-	145	98	
400477	LKE-R-125 ND/K	125	36	157	110	105x85	80x60	9	-	•	145	98	
401531	LKE-R-125 NP/K	125	36	157	110	105x85	80x60	9	-	•	145	80	



Top LPPE-J-100 ND/K Bottom left LPSE-100/52 ND/K L, right LPSE-100/52 AS/K L



FIXED CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre. NP polyamide centre + soft polyurethane tyre.

FIXED CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre.

LPPE LPSE (STRONG FORK)

AS/K polyamide centre + soft cast polyurethane tread.

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\bigcup}$						1	Sh A	
4011	61 LPPE-160 ND L	160	40	191	135x110	105x80/75	10	•	-	200	98	
4011	62 LPPE-160 ND/K L	160	40	191	135x110	105x80/75	10	-	•	200	98	
4011	71 LPPE-200 ND L	200	50	240	135x110	105x80/75	10	•	-	300	98	
4011	72 LPPE-200 ND/K L	200	50	240	135x110	105x80/75	10	-	•	300	98	

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109 Top LI-200 PK Bottom LI-200 KK L

#### WHEEL

PK polypropylene centre + solid rubber tyre, plain bearing. MK/K polyamide centre + solid rubber tyre, ball bearing (sealed). KK L steel plate centre + solid rubber tyre, ball bearing (unsealed).

Code	Title	$\odot$	$\overline{\emptyset}$	0	₫			_	Sh A
400090	LI-100 PK	100	32	46	10	•	-	70	85
400111	LI-125 PK	125	40	46	10	•	-	100	85
400129	LI-160 PK	160	40	51,5	11	•	-	135	85
400113	LI-160 MK/K	160	40	51,5	11	-	•	135	85
400145	LI-200 PK	200	50	61,5	13	•	-	205	85
401264	LI-200 KK L	200	50	61	12	-	•	230	85
400135	LI-200 MK/K	200	50	61.5	13	-	•	205	85



#### **SWIVEL CASTOR, BOLT HOLE**

PK polypropylene centre + solid rubber tyre.

Code Title	$\odot$	Ð			$\overline{\mathbb{Z}}$		I	Sh A	
400215 LK-100 PK	100	32	132	90	12,5	•	70	85	
400233 LK-125 PK	125	40	157	106	12,5	•	100	85	

110



#### LK SWIVEL CASTOR, BOLT HOLE

PK polypropylene centre + solid rubber tyre. MK polyamide centre + solid rubber tyre. KK steel plate centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\overline{\mathcal{J}}}$			1	Sh A	
401193	LK-160 PK L	160	40	191	131	12	•	-	135	85	
401194	LK-160 MK/K L	160	40	191	131	12	-	•	135	85	
401206	LK-200 PK L	200	50	240	159	12	•	-	205	85	
401208	LK-200 KK L	200	50	240	159	12	-	•	230	85	
401207	LK-200 MK/K L	200	50	240	159	12	-	•	205	85	

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# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PK polypropylene centre + solid rubber tyre. MK polyamide centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		I	Sh A	
400536	LK-J-100 PK	100	32	132	110	12,5	•	70	85	
400553	3 LK-J-125 PK	125	40	157	110	12,5	•	100	85	

112



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PK polypropylene centre + solid rubber tyre. MK polyamide centre + solid rubber tyre.

KK steel plate centre + solid rubber tyre.

Code	Title	$\odot$	₫	$\overline{\mathbb{Q}}$		$\overline{\mathbb{Z}}$			1	Sh A	
401195	LK-J-160 PK L	160	40	191	138	12	•	-	135	85	
401196	LK-J-160 MK/K L	160	40	191	138	12	-	•	135	85	
401209	LK-J-200 PK L	200	50	240	161	12	•	-	205	85	
401211	LK-J-200 KK L	200	50	240	161	12	-	•	230	85	
401210	LK-J-200 MK/K L	200	50	240	161	12	-	•	205	85	

113



#### LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

PK polypropylene centre + solid rubber tyre.

Code	Title	$\odot$	$\emptyset$			0 0					1	Sh A	
400322	LKE-100 PK	100	32	132	90	105x85	80x60	9	•	-	70	85	
400339	LKE-125 PK	125	40	157	106	105x85	80x60	9	•	-	100	85	

114



#### LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

PK polypropylene centre + solid rubber tyre. MK polyamide centre + solid rubber tyre. KK steel plate centre + solid rubber tyre.

Code	Title	0	$\emptyset$	<u> </u>		0 0					1	Sh A	
401197	LKE-160 PK L	160	40	191	131	135x110	105x80/75	10	•	-	135	85	
401198	LKE-160 MK/K L	160	40	191	131	135x110	105x80/75	10	-	•	135	85	
401212	LKE-200 PK L	200	50	240	159	135x110	105x80/75	10	•	-	205	85	
401214	LKE-200 KK L	200	50	240	159	135x110	105x80/75	10	-	•	230	85	
401213	LKE-200 MK/K L	200	50	240	159	135x110	105x80/75	10	-	•	205	85	



# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PK polypropylene centre + solid rubber tyre.

Code	Title	$\odot$	$\emptyset$	$\overline{\mathbb{Z}}$		0 0					1	Sh A	
400397	LKE-J-100 PK	100	32	132	110	105x85	80x60	9	•	-	70	85	
400416	LKE-J-125 PK	125	40	157	110	105x85	80x60	9	•	-	100	85	

116



# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

 $PK\ polypropylene\ centre + solid\ rubber\ tyre.\ MK\ polyamide\ centre + solid\ rubber\ tyre.$ 

KK steel plate centre + solid rubber tyre.

Code	Title	0	Ð								_	Sh A	
401200	LKE-J-160 PK L	160	40	191	138	135x110	105x80/75	10	•	-	135	85	
401201	LKE-J-160 MK/K L	160	40	191	138	135x110	105x80/75	10	-	•	135	85	
401215	LKE-J-200 PK L	200	50	240	161	135x110	105x80/75	10	•	-	205	85	
401217	LKE-J-200 KK L	200	50	240	161	135x110	105x80/75	10	-	•	230	85	
401216	LKE-J-200 MK/K L	200	50	240	161	135x110	105x80/75	10	-	•	205	85	

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# LKE-R SWIVEL CASTOR, RECTANGULAR TOP PLATE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

PK polypropylene centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\bigcup}$		0 0				I	Sh A	
400470	LKE-R-100 PK	100	32	132	110	105x85	80x60	9	•	70	85	
400482	LKE-R-125 PK	125	40	157	110	105x85	80x60	9	•	100	85	

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#### LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

PK polypropylene centre + solid rubber tyre.

Code	Title	$\odot$	Ð	$\overline{\mathbb{Q}}$						_	Sh A	
400653	LPPE-100 PK	100	32	132	105x85	80x60	9	•	-	70	85	
400671	LPPE-125 PK	125	40	157	105x85	80x60	9	•	-	100	85	

119

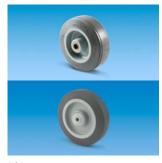


#### LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

PK polypropylene centre + solid rubber tyre. MK polyamide centre + solid rubber tyre.

KK steel plate centre + solid rubber tyre.

Code	Title	$\odot$	1	$\sqrt{\mathcal{N}}$						I	Sh A	
401203	LPPE-160 PK L	160	40	191	135x110	105x80/75	10	•	-	135	85	
401204	LPPE-160 MK/K L	160	40	191	135x110	105x80/75	10	-	•	135	85	
401218	LPPE-200 PK L	200	50	240	135x110	105x80/75	10	•	-	205	85	
401220	LPPE-200 KK L	200	50	240	135x110	105x80/75	10	-	•	230	85	
401219	LPPE-200 MK/K L	200	50	240	135x110	105x80/75	10	-	•	205	85	



121 Top NEK Bottom NEK/K

#### LI WHEEL

NEK polyamide centre + elastic solid rubber tyre, plain bearing.

NEK/K polyamide centre + elastic solid rubber tyre, ball bearing (unsealed).

Code	Title	$\odot$	Ð	9	•			1	Sh A	
400085	LI-100 NEK	100	38	46	10	•	-	150	60	
400086	LI-100 NEK/K	100	38	46	10	-	•	150	60	
400108	LI-125 NEK	125	40	46	10	•	-	200	60	
400109	LI-125 NEK/K	125	40	46	10	-	•	200	60	
401289	LI-125/52 NEK/K	125	40	52	10	-	•	200	60	
400125	LI-160 NEK	160	40	51	11	•	-	280	60	
400126	LI-160 NEK/K	160	40	51	11	-	•	280	60	
400141	LI-200 NEK	200	50	61	13	•	-	400	60	
400143	LI-200 NEK/K <sup>1)</sup>	200	50	61	13	-	•	400	60	

<sup>1)</sup> Sealed ball bearings.



#### LK SWIVEL CASTOR, BOLT HOLE

NEK polyamide centre + elastic solid rubber tyre.

Code Title	e	0	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$			_	Sh A	
400211 LK-	-100 NEK	100	38	132	90	12,5	•	-	140	60	
400212 LK-	-100 NEK/K	100	38	132	90	12,5	-	•	140	60	
400230 LK-	-125 NEK	125	40	157	106	12,5	•	-	145	60	
400231 LK-	-125 NEK/K	125	40	157	106	12,5	-	•	145	60	

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#### LK SWIVEL CASTOR, BOLT HOLE

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$			1	Sh A	
401173	LK-160 NEK L	160	40	191	131	12	•	-	200	60	
401174	LK-160 NEK/K L	160	40	191	131	12	-	•	200	60	
401183	LK-200 NEK L	200	50	240	159	12	•	-	300	60	
401184	LK-200 NEK/K L	200	50	240	159	12	-	•	300	60	

123

NEK is Manner's extra soft, elastic solid rubber wheel:

- travels steadily and softly even on uneven surfaces
- flexible and quiet
- does not leave marks even on sensitive floors, e.g. in sport halls
- quiet and easy to manoeuvre; ideal for theatre props and hospital equipment, for example





LI-100 NEK/K



#### SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NEK polyamide centre + elastic solid rubber tyre.

Code Title	)	$\odot$	$\emptyset$			$\overline{\mathbb{Z}}$			2	Sh A	
400532 LK-J	J-100 NEK	100	38	132	110	12,5	•	-	140	60	
400533 LK-J	J-100 NEK/K	100	38	132	110	12,5	-	•	140	60	
400550 LK-J	J-125 NEK	125	40	157	110	12,5	•	-	145	60	
400551 LK-J	J-125 NEK/K	125	40	157	110	12,5	-	•	145	60	

124



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	$\odot$	$\overline{\mathbb{Q}}$			$\overline{\mathbb{Z}}$			1	Sh A	
401175	LK-J-160 NEK L	160	40	191	138	12	•	-	200	60	
401176	LK-J-160 NEK/K L	160	40	191	138	12	-	•	200	60	
401185	LK-J-200 NEK L	200	50	240	161	12	•	-	300	60	
401186	LK-J-200 NEK/K L	200	50	240	161	12	-	•	300	60	

125



#### LKE LSE (STRONG FORK)

#### SWIVEL CASTOR, RECTANGULAR TOP PLATE

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	0	Ð								I	Sh A
400317	LKE-100 NEK	100	38	132	90	105x85	80x60	9	•	-	140	60
400318	LKE-100 NEK/K	100	38	132	90	105x85	80x60	9	-	•	140	60
400336	LKE-125 NEK	125	40	157	106	105x85	80x60	9	•	-	145	60
400337	LKE-125 NEK/K	125	40	157	106	105x85	80x60	9	-	•	145	60
401513	LSE-125/52 NEK/K L	125	40	163	104	105x85	80/76x60/55	8	-	•	200	60

126 Top LKE-100 NEK/K Bottom LSE-100/52 NEK/K L



#### SWIVEL CASTOR, RECTANGULAR TOP PLATE

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0					1	Sh A	
401177	LKE-160 NEK L	160	40	191	131	135x110	105x80/75	10	•	-	200	60	
401178	LKE-160 NEK/K L	160	40	191	131	135x110	105x80/75	10	-	•	200	60	
401187	LKE-200 NEK L	200	50	240	159	135x110	105x80/75	10	•	-	300	60	
401188	LKE-200 NEK/K L	200	50	240	159	135x110	105x80/75	10	-	•	300	60	

127



**128**Top LKE-J-100 NEK/K
Bottom LSE-J-100/52 NEK/K L

### LKE-J LSE-J (STRONG FORK) SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	$\odot$	Ð	$\overline{\mathbb{Z}}$		0 0					I	Sh A	
400393	3 LKE-J-100 NEK	100	38	132	110	105x85	80x60	9	•	-	140	60	
400394	1 LKE-J-100 NEK/K	100	38	132	110	105x85	80x60	9	-	•	140	60	
400413	B LKE-J-125 NEK	125	40	157	110	105x85	80x60	9	•	-	145	60	
400414	I LKE-J-125 NEK/K	125	40	157	110	105x85	80x60	9	-	•	145	60	
401520	) LSE-J-125/52 NEK/K L	125	40	163	104	105x85	80/76x60/55	8	-	•	200	60	



# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NEK polyamide centre + elastic solid rubber tyre.

Code Title	0	arraycolorginal	$\overline{\mathbb{Z}}$		0 0					1	Sh A	
401179 LKE-J-160 NE	<b>KL</b> 160	40	191	138	135x110	105x80/75	10	•	-	200	60	
401180 LKE-J-160 NE	<b>K/KL</b> 160	40	191	138	135x110	105x80/75	10	-	•	200	60	
401189 LKE-J-200 NE	K L 200	50	240	161	135x110	105x80/75	10	•	-	300	60	
401190 LKE-J-200 NE	K/K L 200	50	240	161	135x110	105x80/75	10	-	•	300	60	



# LKE-R SWIVEL CASTOR, RECTANGULAR TOP PLATE, DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

NEK polyamide centre + elastic solid rubber tyre.

Code Title	$\odot$	$\overline{\emptyset}$			0 0		7			<b>L</b> :	Sh A	
400466 LKE-R-100 NEK	100	38	132	110	105x85	80x60	9	•	-	140	60	
400467 LKE-R-100 NEK/	<b>K</b> 100	38	132	110	105x85	80x60	9	-	•	140	60	
400479 LKE-R-125 NEK	125	40	157	110	105x85	80x60	9	•	-	145	60	
400480 LKE-R-125 NEK/	K 125	40	157	110	105x85	80x60	9	-	•	145	60	

130



131 Top LPPE-100 NEK/K Bottom LPSE-100/52 NEK/K L

#### LPPE LPSE (STRONG FORK) FIXED CASTOR, RECTANGULAR TOP PLATE

NEK polyamide centre + elastic solid rubber tyre.

Code	Title	<u></u>	arraycolorginal	$\overline{\bigcup}$	0 0					•	Sh A	
400649	LPPE-100 NEK	100	38	132	105x85	80x60	9	•	-	140	60	
400650	LPPE-100 NEK/K	100	38	132	105x85	80x60	9	-	•	140	60	
400668	LPPE-125 NEK	125	40	157	105x85	80x60	9	•	-	145	60	
400669	LPPE-125 NEK/K	125	40	157	105x85	80x60	9	-	•	145	60	
401527	LPSE-125/52 NEK/K L	125	40	163	105x85	80/76x60/55	8	-	•	200	60	



#### LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

NEK polyamide centre + elastic solid rubber tyre.

Code T	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$						2	Sh A	
401181 L	LPPE-160 NEK L	160	40	191	135x110	105x80/75	10	•	-	200	60	
401182 L	LPPE-160 NEK/K L	160	40	191	135x110	105x80/75	10	-	•	200	60	
401191 L	LPPE-200 NEK L	200	50	240	135x110	105x80/75	10	•	-	300	60	
401192 L	LPPE-200 NEK/K L	200	50	240	135x110	105x80/75	10	-	-	300	60	

132

# Pneumatic wheels



Manner pneumatic wheels are designed mainly for outdoor applications where a flexible, soft rolling wheel is a must. The highest rated speed is 4 km/h.

Thanks to split rims, maintenance is hassle-free. Wheels are available either for through or single ended axle. The rim is made of pressed, galvanised steel. Rim halves are attached to each other with bolts and nuts. Both halves are fitted with a ball bearing.

- Wheelbarrows
- Hand trucks
- Sanding gear
- Boat trailers
- Garden machinery and equipment
- Lightweight trailers for outdoor use

# Pneumatic wheels



#### LF RIM FOR THROUGH AXLE

Code	Title	bottom Ø/ inner width	suitable tyre size	0	$\bigoplus$		1	
500003	LF-101/54	101/54	3.00-4/4.00-4	70	20	•	230	
500005	LF-151/62	151/62	4.00-6	70	25	•	360	
500006	LF-201/64	201/64	4.00-8	80	25	•	550	

Delivered in parts.

133



#### LFU RIM FOR SINGLE ENDED AXLE

Code	Title	bottom Ø/ inner width	suitable tyre size	0	₫		1	
500011	LFU-101/54	101/54	3.00-4/4.00-4	70	25	•	230	
500012	LFU-151/62	151/62	4.00-6	70	25	•	360	
500013	LFU-201/64	201/64	4.00-8	80	25	•	550	

Delivered in parts.

134



#### LTI WHEEL FOR THROUGH AXLE

IM steel plate centre + pneumatic rubber tyre, ball bearing (unsealed).

Code	Title	$\odot$	$\overline{\emptyset}$	9	₫		1	
500020	LTI-260 IM/4	260	85	70	20	•	200	
500025	LTI-310 IM/4	300	100	70	20	•	230	
500028	LTI-360 IM/4	350	115	70	25	•	300	
500039	LTI-420 IM/4	405	115	80	25	•	305	

Those with no axle are delivered in parts.

135



#### LTK WHEEL WITH THROUGH AXLE

Code	Title	0	$\theta$	Ð	₫		1	
500043	LTK-260 IM/4	260	85	70	20	•	200	
500045	LTK-310 IM/4	300	100	70	20	•	230	
500048	LTK-360 IM/4	350	115	70	25	•	300	
500050	LTK-420 IM/4	405	115	80	25	•	305	

136

NOTE! Pattering may differ from the one shown in the picture!

# Pneumatic wheels



#### 137

#### LTU WHEEL FOR SINGLE ENDED AXLE

IM steel plate centre + pneumatic rubber tyre, ball bearing (unsealed).

	Code	Title	$\odot$	Ð	0	♨		I	
ı	500074	LTU-260 IM/4	260	85	70	25	•	200	
	500076	LTU-310 IM/4	300	100	70	25	•	230	
	500079	LTU-360 IM/4	350	115	70	25	•	300	
	500081	LTU-420 IM/4	405	115	80	25	•	305	

Those with no axle are delivered in parts.



#### LTKU WHEEL WITH SINGLE ENDED AXLE

IM steel plate centre + pneumatic rubber tyre, ball bearing (unsealed).

Code	Title	$\odot$	$\emptyset$	0	₫		I	
500058	LTKU-260 IM/4	260	85	250	25	•	200	
500060	LTKU-310 IM/4	300	100	250	25	•	230	
500062	LTKU-360 IM/4	350	115	250	25	•	300	
500065	LTKU-420 IM/4	405	115	250	25	•	305	

138

#### TYRE CASINGS + INNER TUBES

Code	Title	$\odot$	$\overline{\emptyset}$	1	
500085	TYRE+TUBE 3.00-4 4PR	260	85	200	
500086	TYRE+TUBE 4.00-4 4PR	300	100	230	
500087	TYRE+TUBE 4.00-6 4PR	350	115	300	
500088	TYRE+TUBE 4.00-8 4PR	405	115	305	

Remember to check the maximum air pressure on the tyre!



Heavy-duty castors are intended for equipment which must withstand heavy loads and excessive use. Our range includes castors with a load capacity up to 6200 kg.

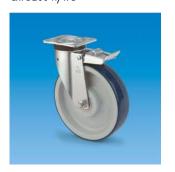
Forks are made of pressed, galvanised steel, or welded and painted steel. SKL and SKLP fork models are fitted with a strong and durable swivel bearing, which is supported by a kingpin and a lock nut. The double ball race in the SKLP housing is fitted with hardened steel balls, while the SKL series is made with tapered roller bearing.

The tread is made of polyamide, polyurethane or cast urethane, which is vulcanised onto the aluminium or steel centre. The castor is fitted with ball bearings that ensure easy manoeuvrability even under heavy loads.

- Pump carts
- Heavy-duty hoists
- Heavy industry wagons and equipment
- Lift trucks



139 LHPL-200 N/K L



**140** LHPL-J-200 ND/K L



**141** LPH-200 NEK/K L

# LHPL SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide. ND polyamide centre + polyurethane tyre. NEK polyamide centre, elastic solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Z}}$		0 0					I	Sh A	
600207	LHPL-200 N L	200	50	249	165	135x110	105x80/75	12	•	-	450	-	
600208	LHPL-200 N/K L	200	50	249	165	135x110	105x80/75	12	-	•	450	-	
600209	LHPL-200 ND L	200	50	249	165	135x110	105x80/75	12	•	-	450	98	
600210	LHPL-200 ND/K L	200	50	249	165	135x110	105x80/75	12	-	•	450	98	
600211	LHPL-200 NEK L	200	50	249	165	135x110	105x80/75	12	•	-	400	60	
600212	LHPL-200 NEK/K L	200	50	249	165	135x110	105x80/75	12	-	•	400	60	
600214	LHPL-250 ND/K L	250	60	305	196	135x110	105x80/75	12	-	•	800	98	

# LHPL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide. ND polyamide centre + polyurethane tyre. NEK polyamide centre, elastic solid rubber tyre.

Code	Title	$\odot$	$\emptyset$	$\overline{\mathbb{Z}}$							=	Sh A	
600215	LHPL-J-200 N L	200	50	249	165	135x110	105x80/75	12	•	-	450		
600216	LHPL-J-200 N/K L	200	50	249	165	135x110	105x80/75	12	-	•	450	-	
600217	LHPL-J-200 ND L	200	50	249	165	135x110	105x80/75	12	•	-	450	98	
600218	LHPL-J-200 ND/K L	200	50	249	165	135x110	105x80/75	12	-	•	450	98	
600219	LHPL-J-200 NEK L	200	50	249	165	135x110	105x80/75	12	•	-	400	60	
600220	LHPL-J-200 NEK/K L	200	50	249	165	135x110	105x80/75	12	-	•	400	60	
600222	LHPL-J-250 ND/K L	250	60	305	196	135x110	105x80/75	12	-	•	800	98	

# LPH FIXED CASTOR, RECTANGULAR TOP PLATE

N polyamide. ND polyamide centre + polyurethane tyre. NEK polyamide centre, elastic solid rubber tyre.

Code Title	$\odot$	$\overline{\emptyset}$	$\Box$						I	Sh A	
600223 LPH-200 N	L 200	50	249	135x110	105x80/75	12	•	-	450	-	
600224 LPH-200 N	/K L 200	50	249	135x110	105x80/75	12	-	•	450	-	
600225 LPH-200 NI	<b>DL</b> 200	50	249	135x110	105x80/75	12	•	-	450	98	
600226 LPH-200 NI	<b>D/K L</b> 200	50	249	135x100	105x80/75	12	-	•	450	98	
600227 LPH-200 NI	K L 200	50	249	135x110	105x80/75	12	•	-	400	60	
600228 LPH-200 NI	K/K L 200	50	249	135x110	105x80/75	12	•	•	400	60	
600230 LPH-250 NI	O/K L 250	60	305	135x110	105x80/75	12	-	•	800	98	



# WHEEL

N/K polyamide, ball bearing (sealed).

Code	Title	$\odot$	Ŧ	0	₫		I	
600068	SI-100 N/K L	100	37	51,5	11	•	450	
600069	SI-125 N/K L	125	45	51,5	11	•	700	
600070	SI-150 N/K L	150	48	61,5	15	•	900	
600071	SI-200 N/K L	200	50	61,5	15	•	1200	
600072	SI-250 N/K L	250	60	61,5	15	•	1400	

Note: The measures of the hub length and the bore diameter include the axle bushing.

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### SKLP SWIVEL CASTOR, RECTANGULAR TOP PLATE

N/K polyamide.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				I	
600133	SKLP-100 N/K L	100	37	138	92	105x85	80/76x60/55	8	•	450	
600134	SKLP-125 N/K L	125	45	164	104	135x110	105/96x80/56	10	•	450	
600087	SKLP-150 N/K L	150	48	203	138	135x110	105x80/75	12	•	850	
600088	SKLP-200 N/K L	200	50	250	165	135x110	105x80/75	12	•	850	
600089	SKLP-250 N/K L	250	60	305	195	135x110	105x80/75	12	•	800	

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# SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N/K polyamide.

Code	Title	$\odot$	Ð	$\overline{\mathbb{Z}}$		0 0				I	
600135	SKLP-J-100 N/K L	100	37	138	140	105x85	80/76x60/55	8	•	450	
600136	SKLP-J-125 N/K L	125	45	164	140	135x110	105/96x80/56	10	•	450	
600137	SKLP-J-150 N/K L	150	48	203	165	135x110	105x80/75	12	•	850	
600138	SKLP-J-200 N/K L	200	50	250	180	135x110	105x80/75	12	•	850	
600139	SKLP-J-250 N/K L	250	60	305	210	135x110	105x80/75	12	•	800	

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# FIXED CASTOR, RECTANGULAR TOP PLATE

N/K polyamide.

, , ,										
Code	Title	$\odot$	Ð	$\overline{\mathbb{Q}}$	0 0				I	
600140	SPLP-100 N/K L	100	37	138	105x85	80/76x60/55	8	•	450	
600141	SPLP-125 N/K L	125	45	164	135x110	105/96x80/56	10	•	450	
600097	SPLP-150 N/K L	150	48	203	135x110	105x80/75	12	•	850	
600098	SPLP-200 N/K L	200	50	250	135x110	105x80/75	12	•	850	
600099	SPLP-250 N/K L	250	60	305	135x110	105x80/75	12	•	800	

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# 146

### SI WHEEL

ALV/K aluminium centre + cast polyurethane tread, ball bearing (sealed).

Code	Title	0	0	0	(4)		T	Sh A	
600073	S SI-80 ALV/K L	80	40	51,5	11	•	250	95	
600074	SI-100 ALV/K L	100	40	51,5	11	•	280	95	
600075	SI-125 ALV/K L	125	30	51,5	11	•	250	95	
600076	SI-150 ALV/K L	150	40	51,5	11	•	400	95	
600077	SI-200 ALV/K L	200	50	61,5	15	•	800	95	
600078	S SI-250 ALV/K L	250	60	61,5	15	•	1100	95	

Note: The measures of the hub length and the bore diameter include the axle bushing.

# SKLM, SKLP SWIVEL CASTOR, RECTANGULAR TOP PLATE

ALV/K aluminium centre + cast polyurethane tread.

,												
Code	Title	$\odot$	Ð			0 0				I	Sh A	
600100	SKLM-80 ALV/K L	80	40	127	82	105x85	80/76x60/55	8	•	250	95	
600142	SKLP-100 ALV/K L	100	40	138	92	105x85	80/76x60/55	8	•	280	95	
600143	SKLP-125 ALV/K L	125	30	164	104	135x110	105/96x80/56	10	•	250	95	
600144	SKLP-150 ALV/K L	150	40	195	125	135x110	105/96x80/56	10	•	400	95	
600104	SKLP-200 ALV/K L	200	50	250	165	135x110	105x80/75	12	•	800	95	
600105	SKLP-250 ALV/K L	250	60	305	195	135x110	105x80/75	12	•	800	95	

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# SKLP-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ALV/K aluminium centre + cast polyurethane tread.

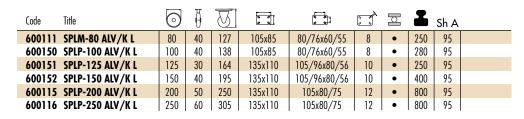
,												
Code	Title	$\odot$	$\overline{\emptyset}$			0 0				I	Sh A	
600145	SKLP-J-100 ALV/K L	100	40	138	140	105x85	80/76x60/55	8	•	280	95	
600146	SKLP-J-125 ALV/K L	125	30	164	140	135x110	105/96x80/56	10	•	250	95	
600147	SKLP-J-150 ALV/K L	150	40	195	180	135x110	105/96x80/56	10	•	400	95	
600148	SKLP-J-200 ALV/K L	200	50	250	180	135x110	105x80/75	12	•	800	95	
600149	SKLP-J-250 ALV/K L	250	60	305	210	135x110	105x80/75	12	•	800	95	



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### SPLM, SPLP FIXED CASTOR, RECTANGULAR TOP PLATE

ALV/K aluminium centre + cast polyurethane tread.



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Should you need more information, please contact us for advice (contact details on page 2).



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### WHEEL

VV/K aluminium centre + cast polyurethane tread, ball bearing (sealed).

' '				0 .				
Title	$\odot$	Ð	0	♨		1	Sh A	
SI-82 VV/K L	82	28	41,5	9	•	220	95	
SI-82/70 VV/K L	82	70	73	1111)	•	700	95	
SI-100 VV/K L	100	50	51,5	11	•	450	95	
SI-100/30 VV/K L	100	30	41,5	1111)	•	300	95	
SI-125 VV/K L	125	50	51,5	11	•	480	95	
SI-125/40 VV/K L	125	40	51,5	1111)	•	400	95	
SI-150 VV/K L	150	50	61,5	15	•	700	95	
SI-150/40 VV/K L	150	40	51,5	111)	•	500	95	
SI-200 VV/K L	200	50	61,5	15	•	1000	95	
SI-250 VV/K L	250	60	75	19	•	1400	95	
SI-300 VV/K L	300	70	75	18,5	•	2200	95	
SI-400 VV/K L	400	100	150,5	25	•	3200	95	
SI-500 VV/K L *	500	100	120	401)	•	3700	95	
	SI-82 VV/K L SI-82/70 VV/K L SI-100 VV/K L SI-100/30 VV/K L SI-125 VV/K L SI-125/40 VV/K L SI-150 VV/K L SI-150/40 VV/K L SI-250 VV/K L SI-250 VV/K L SI-300 VV/K L SI-400 VV/K L	SI-82 VV/K L 82 SI-82/70 VV/K L 82 SI-100 VV/K L 100 SI-100/30 VV/K L 125 SI-125 VV/K L 125 SI-125/40 VV/K L 150 SI-150/40 VV/K L 150 SI-200 VV/K L 200 SI-250 VV/K L 250 SI-300 VV/K L 300 SI-400 VV/K L 400	SI-82 VV/K L 82 28 SI-82/70 VV/K L 82 70 SI-100 VV/K L 100 50 SI-100/30 VV/K L 125 50 SI-125 VV/K L 125 40 SI-150 VV/K L 150 50 SI-150/40 VV/K L 150 40 SI-200 VV/K L 200 50 SI-250 VV/K L 250 60 SI-300 VV/K L 300 70 SI-400 VV/K L 400 100	SI-82 VV/K L SI-82/70 VV/K L SI-82/70 VV/K L SI-100 VV/K L SI-100/30 VV/K L SI-125 VV/K L SI-125 VV/K L SI-125/40 VV/K L SI-150	SI-82 VV/K L   82   28   41,5   9	SI-82 VV/KL   82   28   41,5   9   •	SI-82 VV/K L   82   28   41,5   9   •   220	SI-82 VV/K L   82   28   41,5   9   •   220   95

Note: The measures of the hub length and the bore diameter include the axle bushing.



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# SWIVEL CASTOR, RECTANGULAR TOP PLATE

VV/K cast iron centre + cast polyurethane tread.

Code Title	)	0	H	<u>V</u>		0 0				1	Sh A	
600035 SKL	L-82 VV/K L	82	70	131	96	135x110	105x80/75	12	•	700	95	
600117 SKL	L-100 VV/K L	100	50	160	100	135x110	105/96x80/56	10	•	450	95	
600118 SKL	L-125 VV/K L	125	50	172	112,5	135x110	105/96x80/56	10	•	480	95	
600026 SKL	L-150 VV/K L	150	50	202	140	135x110	105x80/75	12	•	700	95	
600029 SKL	L-200 VV/K L	200	50	251	170	135x110	105x80/75	12	•	1000	95	
600032 SKL	L-250 VV/K L	250	60	307	210	200x160	160x120	14	•	1400	95	
600033 SKL	L-300 VV/K L *	300	70	350	243	200x160	160x120	14	•	1800	95	
600119 SKL	L-400 VV/K L *	400	100	505	290	255x205	210x160	18	•	3200	95	

<sup>\*</sup> = available to order (not in stock)

### SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

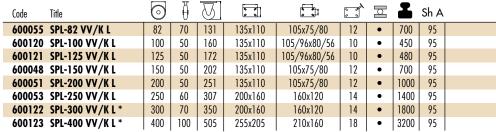
W/K cast iron centre + cast polyurethane tread.

Cod	e Title	$\odot$	$\emptyset$	$\overline{\mathbb{U}}$						_	Sh A	
600	0279 SKL-FJ-150 VV/K L*	150	50	202	140	135x110	105x80/75	12	•	700	95	
600	0280 SKI-FI-200 VV/K I *	200	50	251	170	135x110	105x80/75	12	•	1000	95	

<sup>\* =</sup> available to order (not in stock)

### FIXED CASTOR, RECTANGULAR TOP PLATE SPL

VV/K cast iron centre + cast polyurethane tread.



 $<sup>\</sup>star$  = available to order (not in stock)



<sup>\* =</sup> available to order (not in stock)

1) Bushing not included



# TWIN WHEEL SWIVEL CASTOR, RECTANGULAR TOP PLATE

VV/K cast iron centre + cast polyurethane tread.

Code	Title	$\odot$	Ð							I	Sh A	
600019	SKL-100/2 VV/K L	100	30+30	140	105	135x110	105x75/80	12	•	600	95	
600124	SKL-125/2 VV/K L	125	40+40	197	122	200x160	160x120	14	•	800	95	
600024	SKL-150/2 VV/K L	150	40+40	210	135	200x160	160x120	14	•	1000	95	
600028	SKL-200/2 VV/K L	200	50+50	270	170	255x205	210x160	16	•	2000	95	
600031	SKL-250/2 VV/K L	250	60+60	323	207	255x205	210x160	16	•	2800	95	
600164	SKL-300/2 VV/K L *	300	70+70	380	240	255x205	210x160	16	•	3500	95	
600165	SKL-400/2 VV/K L*	400	100+100	564	290	255x205	210x160	20	•	6200	95	

<sup>\* =</sup> available to order (not in stock)



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### TWIN WHEEL FIXED CASTOR, RECTANGULAR TOP PLATE

VV/K cast iron centre + cast polyurethane tread.

,	. ,	_	7.7						_		
Code	Title	$\odot$	$\theta$	M	0 0				T	Sh A	
600041	SPL-100/2 VV/K L	100	30+30	140	135x110	105x75/80	12	•	600	95	
600125	SPL-125/2 VV/K L	125	40+40	197	200x160	160x120	14	•	800	95	
600046	SPL-150/2 VV/K L	150	40+40	210	200x160	160x120	14	•	1000	95	
600050	SPL-200/2 VV/K L	200	50+50	270	255x205	210x160	16	•	2000	95	
600052	SPL-250/2 VV/K L	250	60+60	323	255x205	210x160	16	•	2800	95	
600166	SPL-300/2 VV/K L*	300	70+70	380	255x205	210x160	16	•	3500	95	
600167	SPL-400/2 VV/K L *	400	100+100	564	255x205	210x160	20	•	6200	95	



\* = available to order (not in stock)



# WHEEL FOR THROUGH AXLE

TV steel centre+cast polyurethane tread. TV/K steel centre + cast polyurethane tread, ball bearing (sealed).

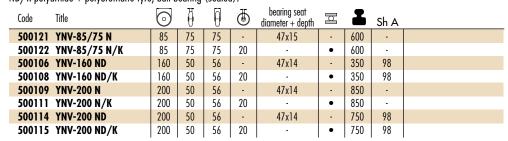
N polyamide.	N/K	polyamide,	ball	bearing.

Code	Title	$\odot$	0	Ð	♨	diameter + depth		T	Sh A	
60008	1 PV-82/70 TV L	82	70	66	-	47x16	-	700	95	
60008	2 PV-82/70 TV/K L	82	70	66	20	-	•	700	95	
60008	3 PV-82/70 N L	82	70	66	-	47x16	-	700	-	
60008	4 PV-82/70 N/K L	82	70	66	20	-	•	700	-	
60000	1 PV-85/75 TV L	85	75	75	-	47x14	-	750	95	
60000	2 PV-85/75 TV/K L	85	75	75	20	-	•	750	95	
60000	3 PV-85/90 N L	85	90	90	-	47x14	-	900	-	
60000	4 PV-85/90 N/K L	85	90	90	20	-	•	900	-	
60000	5 PV-85/90 TV L	85	90	90	-	47x14	-	900	95	
60000	6 PV-85/90 TV/K L	85	90	90	20	-	•	900	95	



# WHEEL FOR THROUGH AXLE

N polyamide. N/K polyamide, ball bearing (sealed). ND polyamide centre + polyurethane tyre. ND/K polyamide + polyurethane tyre, ball bearing (sealed).





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# Heat-resistant castors



Heat-resistant castors and wheels are intended for applications in which the instantaneous temperature can reach up to +300 °C. The temporary and constant heat resistance of the castors varies between +150 and +300 °C depending on the materials used. Forks are made of pressed steel. The double ball race in the fork swivel bearing is fitted with hardened steel balls. The material of the wheel is aluminium, heat resistant polyamide with solid rubber tyre, and aluminium with rubber tyre. The polyamide and cast aluminium centre and the solid rubber tyre make the castor run quietly and steadily.

Plain or ball bearings are lubricated with high-temperature grease approved for use in the food industry. Also available with a seal designed to protect the swivel bearing.

Rubber tyre ensures that the castor runs quietly and smoothly. Castors also available with non-marking blue rubber tyre (GB-wheels).

- Bakery carts and oven trolleys
- Paint shop carts
- Other devices requiring heat resistance

# Heat-resistant castors

# **EQUIPMENT CASTORS**



**158**Top ESI-80 LMK
Bottom ESI-80 AL

# ESI WHEEL

AL aluminium, plain bearing. LMK heat-resistant polyamide centre + solid rubber tyre, plain bearing.

Code	Title	$\odot$	Ð	0	$\bigoplus$		I	Sh A	Heat resistance
300706	ESI-80 LMK	80	30	37	8	•	80	80	-35 °C − +190 °C / +260 °C
300061	ESI-80 AL	80	30	35,5	8,2	•	90	-	-40 °C − +280 °C / +300 °C

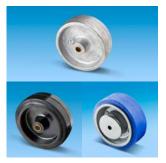
159

### ESL SWIVEL CASTOR, RECTANGULAR TOP PLATE

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre.

Code	Title	0	$\overline{\emptyset}$			0 0				I	Heat resistance
300166	ESL-75/80 AL	80	30	117	80	95x70	75x45	8,5	•	90	-40 °C - +280 °C / +300 °C
300712	ESL-75/80 LMK	80	30	117	80	95x70	75x45	8,5	•	80	-35 °C − +190 °C / +260 °C

# INDUSTRIAL CASTORS



**160**Top LI-100 AL
Bottom left LI-100 LMK, right LI-100 GB/K L

### LI WHEEL

AL aluminium, plain bearing. LMK heat-resistant polyamide centre + solid rubber tyre, plain bearing. GB/K aluminium centre + elastic non-marking rubber tyre, ball bearing.

Code	Title	0	Ð	9	₫			1	Sh A	Heat resistance
400061	LI-100 AL	100	36	46	10	•	-	140	-	-40 °C - +280 °C / +300 °C
401494	LI-100 GB/K L <sup>1)</sup>	100	40	42	8	-	•	100	75	-40 °C - +250 °C / +300 °C
400875	LI-100 LMK	100	38	46	10	•	-	80	80	-35 °C − +190 °C / +260 °C
400092	LI-125 AL	125	36	46	10	•	-	145	-	-40 °C - +280 °C / +300 °C

<sup>1)</sup> Floor surface must be in good condition.

### LK SWIVEL CASTOR, BOLT HOLE

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre. GB aluminium centre + elastic non-marking rubber tyre.

Code	Title	$\odot$	$\Phi$			$\overline{\mathbb{Z}}$			_	Sh A	Heat resistance
400185	LK-100 AL	100	36	132	90	12,5	•	-	140	-	-40 °C - +280 °C / +300 °C
401495	LK-100 GB/K L <sup>1)</sup>	100	40	128	87	8	-	•	100	75	-40 °C − +250 °C / +300 °C
400895	LK-100 LMK	100	38	132	90	12,5	•	-	80	80	-35 °C − +190 °C / +260 °C
400218	LK-125 AL	125	36	157	106	12,5	•	-	145	-	-40 °C - +280 °C / +300 °C

<sup>1)</sup> Floor surface must be in good condition.

When calculating heat resistance, the impact of both constant and momentary use on the functioning of the products – especially greases – must be considered.



**161** Top LK-100 LMK Bottom LK-100 GB/K L

# Heat-resistant castors



# LK-J SWIVEL CASTOR, BOLT HOLE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre.

Code	Title	0	Ð			Ţ		1	Sh A	Heat resistance
400520	LK-J-100 AL	100	36	132	110	12,5	•	140	-	-40 °C − +280 °C / +300 °C
400897	LK-J-100 LMK	100	38	132	110	12,5	•	80	80	-35 °C − +190 °C / +260 °C
400540	LK-J-125 AL	125	36	157	110	12,5	•	145	-	-40 °C − +280 °C / +300 °C

### 162



# LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre. GB aluminium centre + elastic non-marking rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0					I	Sh A	Heat resistance
400293	LKE-100 AL	100	36	132	90	105x85	80x60	9	•	-	140	-	-40 °C - +280 °C / +300 °C
401356	LKE-100 GB/K L <sup>1)</sup>	100	40	128	87	102x83	80x60	8	-	•	100	75	-40 °C - +250 °C / +300 °C
400885	LKE-100 LMK	100	38	132	90	105x85	80x60	9	•	-	80	80	-35 °C - +190 °C / +260 °C
400325	LKE-125 AL	125	36	157	106	105x85	80x60	9	•	-	145	-	-40 °C − +280 °C / +300 °C

<sup>1)</sup> Floor surface must be in good condition.

163 Top LK-100 LMK Bottom LK-100 GB/K L

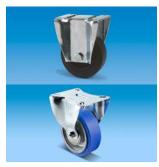


# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				2	Sh A	Heat resistance
400	380 LKE-J-10	<b>O AL</b> 100	36	132	110	105x85	80x60	9	•	140	-	-40 °C - +280 °C / +300 °C
400	891 LKE-J-10	<b>O LMK</b> 100	38	132	110	105x85	80x60	9	•	80	80	-35 °C - +190 °C / +260 °C
400	401 LKE-J-12	<b>5 AL</b> 125	36	157	110	105x85	80x60	9	•	145	-	-40 °C - +280 °C / +300 °C

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**165**Top LPPE-100 LMK
Bottom LPPE-100 GB/K L

### LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

AL aluminium. LMK heat-resistant polyamide centre + solid rubber tyre. GB aluminium centre + elastic non-marking rubber tyre.

Code	Title	$\odot$	Ð	$\overline{\mathbb{Q}}$	0 0					L	Sh A	Heat resistance
400632	LPPE-100 AL	100	36	132	105x85	80x60	9	•	-	140	-	-40 °C - +280 °C / +300 °C
401357	LPPE-100 GB/K L <sup>1)</sup>	100	40	128	102x83	80x60	8	-	•	100	75	-40 °C - +250 °C / +300 °C
400893	LPPE-100 LMK	100	38	132	105x85	80x60	9	•	-	80	80	-35 °C -+190 °C / +260 °C
400656	LPPE-125 AL	125	36	157	105x85	80x60	9	•	-	145	-	-40 °C - +280 °C / +300 °C

<sup>1)</sup> Floor surface must be in good condition.

Maintenance: heat-resistant castors require regular maintenance to ensure a long service life. In addition to cleaning, castors need regular lubrication with grease appropriate to the application.



Conductive Manner castors are made of high-quality raw materials that ensure excellent conductivity. Conductive castors are used in places where static discharge must be directed away from a device or a trolley, or static discharge must be prevented. Typical applications include, for example, the electronics industry and hospitals, in which the equipment or products are exposed to static electricity.

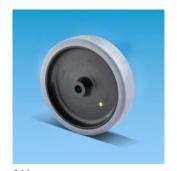
Castor frames are made of pressed steel or conductive glass fibre reinforced polyamide. The tread is electrically conductive polyamide, polyurethane or thermoplastic rubber. The castors are fitted with plain or ball bearings depending on the model.

All Manner conductive castors are ISO-compliant, meaning that their surface resistivity is less than  $10^4$  (10,000) ohms.

Thanks to the materials used, tyres do not leave marks on the surface or the floor.

- Hospital equipment
- Electronics industry equipment

# Light equipment castors – E series



### EI WHEEL

PTE A conductive polypropylene centre + thermoplastic rubber tyre, plain bearing.

Code	Title	$\odot$	$\frac{\pi}{4}$	9	$\bigoplus$		1	Sh A	
200322	EI-75 PTE A	75	23	32	8	•	50	90	
200318	EI-100 PTE A	100	23	32	8	•	50	90	
200320	EI-125 PTE A	125	23	32	8	•	50	90	

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### E SWIVEL CASTOR, BOLT HOLE

PTE A conductive polypropylene centre + thermoplastic rubber tyre, plain bearing.

Code	Title	$\odot$	$\overline{\emptyset}$			Ţ		1	Sh A	
200308	E-75 PTE A	75	23	100	75	10	•	50	90	
200304	E-100 PTE A	100	23	125	88	10	•	50	90	
200306	E-125 PTE A	125	23	150	100	10	•	50	90	

Also available with an expander (ET, see p. 24.)

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# -J SWIVEL CASTOR, BOLT HOLE, SINGLE ACTION BRAKE LOCKS THE WHEEL

PTE A conductive polypropylene centre + thermoplastic rubber tyre, plain bearing.

Code Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		_	Sh A	
200314 E-J-75 PTE A	75	23	100	95	10	•	50	90	
200310 E-J-100 PTE A	100	23	125	95	10	•	50	90	
200312 E-J-125 PTE A	125	23	150	100	10	•	50	90	

Also available with an expander (ET, see p. 24.)

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# EL SWIVEL CASTOR, RECTANGULAR TOP PLATE

PTE A conductive polypropylene centre + thermoplastic rubber tyre, plain bearing.

Code	Title	0	Ð			0 0				1	Sh A	
200326	EL-75 PTE A	75	23	105	75	60x60	45x45	6,5	•	50	90	
200302	EL-100 PTE A	100	23	130	88	60x60	45x45	6,5	•	50	90	
200324	EL-125 PTE A	125	23	155	100	60x60	45x45	6,5	•	50	90	

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# EL-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, SINGLE ACTION BRAKE LOCKS THE WHEEL

PTE A conductive polypropylene centre + thermoplastic rubber tyre, plain bearing.

Code Title	0	$\overline{0}$			0 0				1	Sh A	
200331 EL-J-75 PTE	A 75	23	105	95	60x60	45x45	6,5	•	50	90	
200327 EL-J-100 PT	TE A 100	23	130	95	60x60	45x45	6,5	•	50	90	
200329 EL-J-125 PT	TE A 125	23	155	100	60x60	45x45	6,5	•	50	90	

# Equipment castors – ES series



-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	0	. ₩	Ð	•		ı	Sh A	
300752	ESI-S-100 PTE/K A	100	32	37	8,2	•	100	86	
300724	ESI-S-125 PTE/K A	125	32	37	8,2	•	100	86	
300925	ESI-S-150 PTE/K A	150	32	37	8,2	•	100	86	

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# **SWIVEL CASTOR, BOLT HOLE**

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\theta}$			$\overline{\overline{\mathcal{G}}}$		1	Sh A	
300942	ES-S-100 PTE/K A	100	32	142	95	10	•	100	86	
301610	ES-S-100 PTE/K A -12	100	32	142	95	12	•	100	86	
300814	ES-S-125 PTE/K A	125	32	167	110	10	•	100	86	
301611	ES-S-125 PTE/K A -12	125	32	167	110	12	•	100	86	
300944	ES-S-150 PTE/K A	150	32	190	115	10	•	100	86	
301612	ES-S-150 PTE/K A -12	150	32	190	115	12	•	100	86	

Also available with an expander (EST, see p. 30.)

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### **ES-JNY** SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		1	Sh A	
300851	ES-JNY-S-100 PTE/K A	100	32	142	107	10	•	100	86	
301613	ES-JNY-S-100 PTE/K A -12	100	32	142	107	12	•	100	86	
300886	ES-JNY-S-125 PTE/K A	125	32	167	110	10	•	100	86	
301614	ES-JNY-S-125 PTE/K A -12	125	32	167	110	12	•	100	86	
300854	ES-JNY-S-150 PTE/K A	150	32	190	115	10	•	100	86	
301615	ES-JNY-S-150 PTE/K A -12	150	32	190	115	12	•	100	86	

Also available with an expander (EST, see p. 30.)

# FIXED CASTOR, BOLT HOLE

 $\hbox{-S-PTE/K A conductive polypropylene centre} + \hbox{thermoplastic rubber tyre, threadguard}.$ 

Code	Title	0	Ð	$\overline{\mathbb{Q}}$	$\overline{\mathbb{Z}}$		_	Sh A	
300947	ESP-S-100 PTE/K A	100	32	142	10	•	100	86	
301616	ESP-S-100 PTE/K A -12	100	32	142	12	•	100	86	
300948	ESP-S-125 PTE/K A	125	32	167	10	•	100	86	
301617	ESP-S-125 PTE/K A -12	125	32	167	12	•	100	86	
300949	ESP-S-150 PTE/K A	150	32	190	10	•	100	86	
301618	ESP-S-150 PTE/K A -12	150	32	190	12	•	100	86	

Also available with an expander (EST, see p. 30.)

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# SWIVEL CASTOR, RECTANGULAR TOP PLATE

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard.

Code Title	<b></b>	$\frac{1}{2}$	$\overline{\mathbb{Z}}$		0 0				I	Sh A	
300950 ESL-S-100 PT	<b>E/K A</b> 100	32	142	95	95x70	75x45	8,5	•	100	86	
300951 ESL-S-125 PT	E/K A 125	32	167	110	95x70	75x45	8,5	•	100	86	
300952 ESL-S-150 PT	<b>E/K A</b> 150	32	190	115	95x70	75x45	8,5	•	100	86	

# Equipment castors – ES series



# ESL-JNY SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard.

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# ESPL FIXED CASTOR, RECTANGULAR TOP PLATE

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard.

Code Title	$\odot$	$\overline{\emptyset}$	$\overline{\mathbb{Q}}$	0 0				1	Sh A	
300956 ESPL-S-100 PTE/K A	100	32	142	95x70	75x45	8,5	•	100	86	
300803 ESPL-S-125 PTE/K A	125	32	167	95x70	75x45	8,5	•	100	86	
300958 ESPL-S-150 PTE/K A	150	32	190	95x70	75x45	8,5	•	100	86	

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# Conductive castors

# Equipment castors – Tango series



# GK SWIVEL CASTOR, BOLT HOLE

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code T	Title	$\odot$	Ŧ			Ī		1	Sh A	
301831 (	GK-S-75 PTE/K A	75	32	110	73	10	•	70	86	
301857 (	GK-S-75 PTE/K A-12	75	32	110	73	12	•	70	86	
301832 (	GK-S-100 PTE/K A	100	32	141	95	10	•	100	86	
301858 (	GK-S-100 PTE/K A-12	100	32	141	95	12	•	100	86	
301833 (	GK-S-125 PTE/K A	125	32	161	107	10	•	100	86	
301859 (	GK-S-125 PTE/K A-12	125	32	161	107	12	•	100	86	

Also available with an expander (GKT, see p. 47.)



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Also available with a larger pedal, see page 39.

# GK-JY SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	0	Ð			Ī		I	Sh A	
301834	GK-JY-S-75 PTE/K A	75	32	110	94	10	•	70	86	
301860	GK-JY-S-75 PTE/K A-12	75	32	110	94	12	•	70	86	
301835	GK-JY-S-100 PTE/K A	100	32	141	95	10	•	100	86	
301861	GK-JY-S-100 PTE/K A-12	100	32	141	95	12	•	100	86	
301836	GK-JY-S-125 PTE/K A	125	32	161	107	10	•	100	86	
301862	GK-JY-S-125 PTE/K A-12	125	32	161	107	12	•	100	86	

Also available with an expander (GKT, see p. 47.)

# Equipment castors - Tango series



# GKR SWIVEL CASTOR, THREADED STEM

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	0	(A)		♡		7	Sh A	
301837	GKR-S-75 PTE/K A	75	32	110	73	10x16	•	70	86	
301863	GKR-S-75 PTE/K A M12	75	32	110	73	12x16	•	70	86	
301838	GKR-S-100 PTE/K A	100	32	141	95	10x16	•	100	86	
301864	GKR-S-100 PTE/K A M12	100	32	141	95	12x16	•	100	86	
301839	GKR-S-125 PTE/K A	125	32	161	107	10x16	•	100	86	
301865	GKR-S-125 PTE/K A M12	125	32	161	107	12x16	•	100	86	

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# GKR-JY SWIVEL CASTOR, THREADED STEM, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð			$\overline{\underline{\square}}$		1	Sh A	
301840	GKR-JY-S-75 PTE/K A	75	32	110	94	10x16	•	70	86	
301866	GKR-JY-S-75 PTE/K A M12	75	32	110	94	12x16	•	70	86	
301841	GKR-JY-S-100 PTE/K A	100	32	141	95	10x16	•	100	86	
301867	GKR-JY-S-100 PTE/K A M12	100	32	141	95	12x16	•	100	86	
301842	GKR-JY-S-125 PTE/K A	125	32	161	107	10x16	•	100	86	
301868	GKR-JY-S-125 PTE/K A M12	125	32	161	107	12x16	•	100	86	

**181** Also available with a larger pedal, see page 39.



GKL SWIVEL CASTOR, RECTANGULAR TOP PLATE

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	Ð			0 0				I	Sh A	
301843	GKL-S-75 PTE/K A	75	32	117	73	77x67	61/51x50/42	8	•	70	86	
301844	GKL-S-75 PTE/K A 95X70	75	32	117	73	95x70	75x50	11	•	70	86	
301845	GKL-S-100 PTE/K A	100	32	148	95	77x67	61/51x50/42	8	•	100	86	
301846	GKL-S-100 PTE/K A 95X70	100	32	148	95	95x70	75x50	11	•	100	86	
301847	GKL-S-125 PTE/K A	125	32	168	107	77x67	61/51x50/42	8	•	100	86	
301848	GKL-S-125 PTE/K A 95X70	125	32	168	107	95x70	75x50	11	•	100	86	
301846 301847	GKL-S-100 PTE/K A 95X70 GKL-S-125 PTE/K A	100 125	32 32	148 168	95 107	95x70 77x67	75x50 61/51x50/42	11	•	100	86 86	

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# GKL-JY SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-PTE/K A conductive polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				1	Sh A	
301849	GKL-JY-S-75 PTE/K A	75	32	117	94	77x67	61/51x50/42	8	•	70	86	
301850	GKL-JY-S-75 PTE/K A 95X70	75	32	117	94	95x70	75x50	11	•	70	86	
301851	GKL-JY-S-100 PTE/K A	100	32	148	95	77x67	61/51x50/42	8	•	100	86	
301852	GKL-JY-S-100 PTE/K A 95X70	100	32	148	95	95x70	75x50	11	•	100	86	
301853	GKL-JY-S-125 PTE/K A	125	32	168	107	77x67	61/51x50/42	8	•	100	86	
301854	GKL-JY-S-125 PTE/K A 95X70	125	32	168	107	95x70	75x50	11	•	100	86	

Also available with a larger pedal, see page 39.





Left: conductive 75 mm Tango with brake; right: conductive 75 mm Tango without brake.

# Equipment castors - SMART



# FKT SWIVEL CASTOR

GPF/K A conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code	Title	$\odot$	$\blacksquare$			Ţ,			_	Sh A	
304114	FKT-S-125 GPF/K A	125	32	167	105	24x10	-	•	150	90	

<sup>1)</sup> See page 49.

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# FKT-JY SWIVEL CASTOR WITH TOTAL-STOP LOCK TOTAL-STOP LOCK LOCKS WHEEL AND SWIVEL

GPF/K A conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code	Title	0	<b>#</b>						2	Sh A	
302997	FKT-JY-S-125 GPF/K A	125	32	167	105	24x10	-	•	150	90	

1) See page 49.





# FKT-R SWIVEL CASTOR WITH DIRECTIONAL LOCK DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

GPF/K A conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film.

Code Title	$\odot$	$\blacksquare$			<b>₽</b> "			I	Sh A	
304115 FKT-R-S-125 GPF/K A	125	32	167	105	24x10	-	•	150	90	

1) See page 49.

186

# Equipment castors – e-SMART



# FK60-EJ SWIVEL CASTOR WITH ELECTRIC CENTRAL LOCKING ELECTRIC CENTRAL LOCKING LOCKS WHEEL AND SWIVEL

GPF/K conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Round mounting tube  $\varnothing$  60 mm.

Code Title	$\odot$	Ð			TT			1	Sh A	
303022 FK60-EJ-S-125 GPF/K A	125	32	167	105	54,5	-	•	150	90	

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# FK60-ER FK60-ER90 SWIVEL CASTOR WITH ELECTRIC CENTRAL DIRECTIONAL LOCK ELECTRIC CENTRAL DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL OR OPPOSITE

GPF/K conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Round mounting tube  $\varnothing$  60 mm.

Code	Title	0	Ð			TT			1	Sh A	
304116	FK60-ER-S-125 GPF/K A	125	32	167	105	54,5	-	•	150	90	
303064	FK60-ER90-S-125 GPF/K A	125	32	167	105	54,5	-	•	150	90	

188



# FK50X50 SWIVEL CASTOR WITH ELECTRIC CENTRAL LOCKING ELECTRIC CENTRAL LOCKING LOCKS WHEEL AND SWIVEL

 $\mathsf{GPF}/\mathsf{K}$  A conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Square mounting tube 50 x 50 mm.

Code	Title	$\odot$	$\overline{\emptyset}$			TT			•	Sh A	
302963	FK50X50-EJ-S-125 GPF/K A	125	32	172	105	46x46	-	•	150	90	

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# FK50X50-ER FK50X50-ER90 SWIVEL CASTOR WITH ELECTRIC CENTRAL DIRECTIONAL LOCK ELECTRIC CENTRAL DIRECTIONAL LOCK LOCKS THE CASTOR IN THE DIRECTION OF TRAVEL

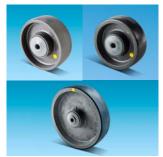
GPF/K A conductive glass fibre reinforced polyamide centre + soft polyurethane tyre, ball bearing, protective film. Square mounting tube 50 x 50 mm.

Code Title	0	Ð			TT T			I	Sh A	
304117 FK50X50-ER-S-125 GPF/K A	125	32	172	105	46x46	-	•	150	90	
304142 FK50X50-ER90-S-125 GPF/K A	125	32	172	105	46x46	-	•	150	90	

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Locking of the conductive e-SMART castors is controlled with an electronic actuator and a control system. For more information, see page 51.

# Industrial castors



**191**Top left LI-100 N/K A, right LI-100 NP/K 6202 GA Bottom LI-160 ND/K A

# LI WHEEL

N/K A conductive polyamide, ball bearing (sealed).

ND/A conductive polyamide centre + polyurethane tyre, ball bearing (sealed).

Code	Title	$\odot$	$\overline{\emptyset}$	9	₫		1	Sh A	
400074	LI-100 N/K A	100	36	46	10	•	200		
401391	LI-100 NP/K 6202 G A	100	36	46	10	•	160	80	
401231	LI-125 N/K A	125	36	46	10	•	200		
401334	LI-160 ND/K A	160	40	50	10	•	350	98	



# .K SWIVEL CASTOR, BOLT HOLE

N/K A conductive polyamide.

Code	Title	0	Ð			$\overline{\mathbb{Z}}$		1	Sh A	
400200	LK-100 N/K A	100	36	132	90	12,5	•	140		
401313	LK-125 N/K A	125	36	157	106	12,5	•	145		
401529	LK-160 ND/K A L	160	40	191	131	12	•	200	98	



# LK-J SWIVEL CASTOR, BOLT HOLE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N/K A conductive polyamide.

Code	Title	0	$\overline{\emptyset}$			$\overline{\mathbb{Z}}$		_	Sh A	
400527	LK-J-100 N/K A	100	36	132	110	12,5	•	140		
401314	LK-J-125 N/K A	125	36	157	110	12,5	•	145		
401530	LK-J-160 ND/K A L	160	40	191	138	12	•	200	98	

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# LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

N/K A conductive polyamide.

Code	Title	$\odot$	arraycolorginal	$\overline{\mathbb{Z}}$						I	Sh A	
400308	LKE-100 N/K A	100	36	132	90	105x85	80x60	9	•	140		
401315	LKE-125 N/K A	125	36	157	106	105x85	80x60	9	•	145		
401390	LKE-160 ND/K A L	160	40	191	131	135x110	105x80/75	10	•	200	98	

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Ask about special castors as well.

# Industrial castors



# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE, TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N/K A conductive polyamide.

Code	Title	0	Ð			0 0				1	Sh A	
400387	LKE-J-100 N/K A	100	36	132	110	105x85	80x60	9	•	140		
401278	LKE-J-125 N/K A	125	36	157	110	105x85	80x60	9	•	145		
401433	LKE-J-160 ND/K A L	160	40	191	138	135x110	105x80/75	10	•	200	98	

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# LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

N/K A conductive polyamide.

Code	Title	0	Ð	$\overline{\mathbb{Q}}$	0 0				I	Sh A	
400642	LPPE-100 N/K A	100	36	132	105x85	80x60	9	•	140		
401316	LPPE-125 N/K A	125	36	157	105x85	80x60	9	•	145		
401336	LPPE-160 ND/K A L	160	40	191	135x110	105x80/75	10	•	200	98	

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- Maintenance: the conductive castors need regular maintenance. Regular cleaning ensures that the conductivity is maintained.
- Ensure the conductivity of the device: once the castors have been installed, measure the conductivity of the whole device as per requirements. All connection points and materials affect conductivity.
- When changing a castor: make sure that the conductivity of the new castor matches that of the old one.
- Non-recommended environments: the conductive castors are not suitable for fire-sensitive and explosive environments, such as in the arms, explosives, oil and gas industries.
- Product liability: According to the Finnish Product Liability Act, liability for damages will be exempted if the instructions and restrictions mentioned above and in our product liability terms are not adhered to.



Stainless castors are the right choice for wet and damp conditions that have a corrosive effect. Our range includes a number of castor options in which the fork is made of either pressed stainless steel or fibreglass-reinforced polyamide. The fork swivel bearing and the centre of the castor are fitted with stainless bearings. Stainless castors are available with a total-stop brake and directional locking depending on the model.

The castors are easy to clean and can be washed. When using detergents, please make sure that they do not damage the materials.

- Food industry equipment and trolleys
- Fish processing equipment
- Industrial kitchen equipment and trolleys
- Hospital furniture, hospital equipment and trolleys

# Equipment castors – ES series



### ESI WHEEL

NP polyamide centre + soft polyurethane tyre. -S-NP polyamide centre + soft polyurethane tyre, plain bearing, stainless steel threadguard.

Code	Title	$\odot$	$\emptyset$	0	♨		I	Sh A	
300046	ESI-100 NP	100	32	36	8,2	•	95	80	
304129	ESI-S-100 NP IX	100	32	36	8,2	•	95	80	
300050	ESI-125 NP	125	32	36	8,2	•	100	80	
300589	ESI-S-125 NP IX	125	32	36	8,2	•	100	80	

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### S SWIVEL CASTOR, BOLT HOLE

NP polyamide centre + soft polyurethane tyre. -S-NP polyamide centre + soft polyurethane tyre, polyurethane tyre, stainless steel threadguard.

Code	Title	$\odot$	$\overline{\emptyset}$			\bar{\bar{\bar{\bar{\bar{\bar{\bar{		1	Sh A	
304104	ES-100 NP IX	100	32	142	90	10	•	95	80	
300011	ES-100 NP IX-12	100	32	142	90	12	•	95	80	
300340	ES-S-100 NP IX	100	32	142	90	10	•	95	80	
300458	ES-S-100 NP IX-12	100	32	142	90	12	•	95	80	
304105	ES-125 NP IX	125	32	167	106	10	•	100	80	
304106	ES-125 NP IX-12	125	32	167	106	12	•	100	80	
300352	ES-S-125 NP IX	125	32	167	106	10	•	100	80	
304107	ES-S-125 NP IX-12	125	32	167	106	12	•	100	80	

198



# ES-J SWIVEL CASTOR, BOLT HOLE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

NP polyamide centre + soft polyurethane tyre. -S-NP polyamide centre + soft polyurethane tyre, stainless steel threadguard.

Code	Title	0	Ð			$\overline{\mathbb{Z}}$		•	Sh A	
304108	ES-J-100 NP IX	100	32	143	120	10	•	95	80	
300084	ES-J-100 NP IX-12	100	32	143	120	12	•	95	80	
300125	ES-J-S-100 NP IX	100	32	143	120	10	•	95	80	
304109	ES-J-S-100 NP IX-12	100	32	143	120	12	•	95	80	
304110	ES-J-125 NP IX	125	32	167	120	10	•	100	80	
304111	ES-J-125 NP IX-12	125	32	167	120	12	•	100	80	
300135	ES-J-S-125 NP IX	125	32	167	120	10	•	100	80	
304112	ES-J-S-125 NP IX-12	125	32	167	120	12	•	100	80	

199



Also available with a threaded stem.



Swivel castor without threadguard.

# Equipment castors – Tango series



200

# GK SWIVEL CASTOR, BOLT HOLE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (stainless). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (stainless).

Code	Title	$\odot$	$\blacksquare$			$\overline{\mathbb{Z}}$			I	Sh A	
302229	GK-100 PTE 55 IX	100	32	141	95	10	•	-	70	55	
304080	GK-100 PTE 55 IX-12	100	32	141	95	12	•	-	70	55	
302227	GK-S-100 PTE/K 80 IX	100	32	141	95	10	-	•	100	80	
304081	GK-S-100 PTE/K 80 IX-12	100	32	141	95	12	-	•	100	80	
302225	GK-125 PTE 55 IX	125	32	161	107	10	•	-	70	55	
304082	GK-125 PTE 55 IX-12	125	32	161	107	12	•	-	70	55	
302223	GK-S-125 PTE/K 80 IX	125	32	161	107	10	-	•	100	80	
304083	GK-S-125 PTE/K 80 IX-12	125	32	161	107	12	-	•	100	80	



201

# GK-JG SWIVEL CASTOR, BOLT HOLE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (stainless). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (stainless).

Code	Title	$\odot$	$\blacksquare$			$\overline{\mathbb{Z}}$			1	Sh A	
302230	GK-JG-100 PTE 55 IX	100	32	141	95	10	•	-	70	55	
304084	GK-JG-100 PTE 55 IX-12	100	32	141	95	12	•	-	70	55	
302228	GK-JG-S-100 PTE/K 80 IX	100	32	141	95	10	-	•	100	80	
302903	GK-JG-S-100 PTE/K 80 IX-12	100	32	141	95	12	-	•	100	80	
302226	GK-JG-125 PTE 55 IX	125	32	161	107	10	•	-	70	55	
302805	GK-JG-125 PTE 55 IX-12	125	32	161	107	12	•	-	70	55	
302224	GK-JG-S-125 PTE/K 80 IX	125	32	161	107	10	-	•	100	80	
304085	GK-JG-S-125 PTE/K 80 IX-12	125	32	161	107	12	-	•	100	80	



# 202

### SKL SWIVEL CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (stainless). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (stainless).

Code	Title	$\odot$	$\emptyset$			0 0					3	Sh A
304086	GKL-100 PTE 55 IX	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
302231	GKL-S-100 PTE/K 80 IX	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
304087	GKL-125 PTE 55 IX	125	32	168	107	77x67	61/51x50/42	8	•	-	70	55
302620	GKL-S-125 PTE/K 80 IX	125	32	168	107	77x67	61/51x50/42	8	-	•	100	80



# GKL-JG SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (stainless). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadquard, ball bearing (stainless).

Code	Title	$\odot$	$\blacksquare$			0 0					I	Sh A
304088	GKL-JG-100 PTE 55 IX	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
302921	GKL-JG-S-100 PTE/K 80 IX	100	32	148	95	77x67	61/51x50/42	8	-	•	100	80
304089	GKL-JG-125 PTE 55 IX	125	32	168	107	77x67	61/51x50/42	8	•	-	70	55
303038	GKL-JG-S-125 PTE/K 80 IX	125	32	168	107	77x67	61/51x50/42	8	-	•	100	80

203



Also available with a threaded stem.

# Industrial castors



# **LI WHEEL**N polyamide, plain bearing, stainless bushings.

Code	Title	$\odot$	$\overline{\emptyset}$	0	₫		I	
401484	LI-80 N IX L	80	30	41,5	8,5	•	150	
401485	LI-100 N IX L	100	30	41,5	8,5	•	175	
401486	LI-125 N IX L	125	40	51,5	10,5	•	300	
401487	LI-150 N IX L	150	40	51,5	10,5	•	400	
401488	LI-200 N IX L	200	50	61,5	12,5	•	600	

204



# LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	$\overline{\emptyset}$			0 0				_	
400961	LKE-80 N IX L	80	30	106	73	102x83	80/76x60/55	8	•	150	
400299	LKE-100 N IX L	100	30	128	87	102x83	76/80x55/60	8	•	150	
400329	LKE-125 N IX L	125	40	160	111	102x83	80x60	8	•	250	
400342	LKE-150 N IX L	150	40	181	126	135x110	105/96x80/56	10	•	250	
400779	LKE-200 N IX L	200	50	240	159	135x110	105x80/75	10	•	370	

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# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

N polyamide.

Code	Title	$\odot$	T			0 0				1	
400962	LKE-J-80 N IX L	80	30	106	108	102x83	80/76x60/55	8	•	150	
400384	LKE-J-100 N IX L	100	30	128	108	102x83	80/76x60/55	8	•	150	
400405	LKE-J-125 N IX L	125	40	160	140	102x83	80x60	8	•	250	
400419	LKE-J-150 N IX L	150	40	181	140	135x110	105/96x80/56	10	•	250	
400780	LKE-J-200 N IX L	200	50	240	178	135x110	105x80/75	10	•	370	

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# LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

N polyamide.

Code	Title	$\odot$	$\blacksquare$	$\overline{\mathbb{Q}}$	0 0				I	
400963	LPPE-80 N IX L	80	30	106	102x83	80/76x60/55	8	•	150	
400637	LPPE-100 N IX L	100	30	128	102x83	80/76x60/55	8	•	150	
400660	LPPE-125 N IX L	125	40	160	102x83	80x60	8	•	250	
400674	LPPE-150 N IX L	150	40	181	135x110	105/96x80/56	10	•	250	
400781	LPPE-200 N IX L	200	50	240	135x110	105x80/75	10	•	370	

207

Also available with a heavy-duty stainless steel fork (load capacity 370–600 kg/castor).

# Industrial castors



### LI WHEE

ND polyamide centre + polyurethane tyre, plain bearing, stainless bushings.

Code Title	le	$\odot$	Ð	0	♨		I	Sh A	
401489 LI-8	-80 ND IX L	80	25	41,5	9	•	100	98	
401490 LI-1	-100 ND IX L	100	30	41,5	8,5	•	160	98	
401491 LI-1	-125 ND IX L	125	30	51,5	11	•	230	98	
401492 LI-1	-150 ND IX L	150	40	51,5	10,5	•	350	98	
401493 LI-2	-200 ND IX L	200	50	61,5	12,5	•	550	98	

208



# LKE SWIVEL CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	Ð			0 0				_	Sh A	
400964	LKE-80 ND IX L	80	25	106	73	102x83	80/76x60/55	8	•	100	98	
400312	LKE-100 ND IX L	100	30	128	87	102x83	80/76x60/55	8	•	150	98	
400333	LKE-125 ND IX L	125	30	160	111	102x83	80x60	8	•	230	98	
400343	LKE-150 ND IX L	150	40	181	126	135x110	105/96x80/56	10	•	250	98	
400783	LKE-200 ND IX L	200	50	240	159	135x110	105x80/75	10	•	370	98	

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# LKE-J SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

ND polyamide centre + polyurethane tyre.

Code	Title	0	$\overline{\emptyset}$			0 0				I.	Sh A	
400965	LKE-J-80 ND IX L	80	25	106	108	102x83	80/76x60/55	8	•	100	98	
400390	LKE-J-100 ND IX L	100	30	128	108	102x83	80/76x60/55	8	•	150	98	
400409	LKE-J-125 ND IX L	125	30	160	140	102x83	80x60	8	•	230	98	
400420	LKE-J-150 ND IX L	150	40	181	140	135x110	105/96x80/56	10	•	250	98	
400784	LKE-J-200 ND IX L	200	50	240	178	135x110	105x80/75	10	•	370	98	

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# LPPE FIXED CASTOR, RECTANGULAR TOP PLATE

ND polyamide centre + polyurethane tyre.

Code	Title	$\odot$	$\blacksquare$	$\overline{\mathbb{Q}}$					_	Sh A	
400966	LPPE-80 ND IX L	80	25	106	102x83	80/76 x 60/55	8	•	100	98	
400645	LPPE-100 ND IX L	100	30	128	102x83	80/76x60/55	8	•	150	98	
400665	LPPE-125 ND IX L	125	30	160	102x83	80x60	8	•	230	98	
400675	LPPE-150 ND IX L	150	40	181	135x110	105/96x80/56	10	•	250	98	
400785	LPPE-200 ND IX L	200	50	240	135x110	105x80/75	10	•	370	98	

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Other options also available, please ask for more info.

# RFID castors – Smart orange



The Manner RFID castor is an innovative solution combining a standard castor with radio frequency identification (RFID) technology.

Here, castors are fitted with a special RFID tag, which makes it possible to keep track of the location of equipment at any given time. The reliable tracking and control system improves traceability and results in better equipment utilisation.

RFID castors are durable, easily manoeuvrable plastic castors with ball bearings. Available as polyamide wheel or polyamide wheel with polyurethane tread. The fork is made of steel or glass fibre reinforced polyamide, depending on the model.

- Roll containers in logistics centres or haulage companies
- Dairy or brewing industry trolleys and dollies
- Laundry wagons
- Hospital equipment and trolleys
- Shopping carts

# **RFID** castors



# **Manner RFID castors offer many benefits:**

- cost savings
- short repayment period
- reliable and flexible solution
- accuracy
- secured RFID tag
- easy to install
- wide range of applications

The RFID-enabled wheels can be fitted into both plastic and metal trolleys, carts, and medical equipment, and still provide equally good readability for all of them.

The tag can also be fitted into existing equipment by simply replacing one of the wheels. Thanks to encapsulation into the wheels, the solution functions perfectly in a damp environment and is protected from any mechanical impact.

The RFID wheel combined with the RFID reader and data system allows for more cost-effective and reliable management of equipment, trolleys and products. The RFID tag can be read at a distance of over 5 metres.

# **Designed for versatility**

By utilising a tracking system to monitor movements, RFID-enabled wheels can be used in a multitude of applications, such as in logistic centres, the food and beverage industry, retail businesses, hospitals and airports.

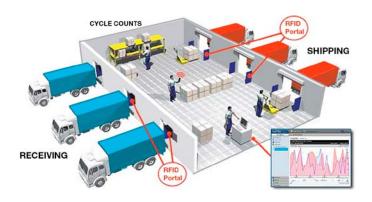
# What is RFID?

RFID (Radio Frequency Identification) is a wireless communication system based on radio frequency detection technology, in which tags are identified by mobile or stationary readers. In Manner castors, the passive RFID UHF (Ultra High Frequency) tag is placed inside a standard wheel.

The reader and antenna system creates a weak electromagnetic field and sends a message waiting for a reply. RFID wheel responds to the signal and the tag data is transmitted through the reader to the control system.

# **RFID** tag technical specifications

- RFID-UHF technology
- Latest version with UID (Unique Identification Number) support
- Reading distance over 5 m
- EPC class 1 Gen2 ISO 18000-6C compatible
- Global operation from 840–960 MHz



# RFID-pyörät Equipment castors – Tango series



# **SWIVEL CASTOR, BOLT HOLE**

 $\hbox{-S-NP/K polyamide centre} + \hbox{soft polyure thane tyre, threadguard, ball bearing. RFID tag embedded.}\\$ 

Code	Title	0	₩			<u>7</u>		I	Sh A	
304090	GK-S-100 NP/K RF	100	32	141	95	10	•	100	80	
304091	GK-S-125 NP/K RF	125	32	161	110	10	•	100	80	

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### **SWIVEL CASTOR, BOLT HOLE** TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

-S-NP/K polyamide centre + soft polyurethane tyre, threadguard, ball bearing. RFID tag embedded.

Code	Title	0	Ð			$\overline{\mathbb{Z}}$		_	Sh A	
304092	GK-JO-S-100 NP/K RF	100	32	141	95	10	•	100	80	
304093	GK-JO-S-125 NP/K RF	125	32	161	110	10	•	100	80	

# Industrial castors



### WHEEL

N/K polyamide, ball bearing. NP/K polyamide centre + soft polyurethane tyre. RFID tag embedded.

Code	Title	$\odot$	$\overline{\emptyset}$	0	$\bigoplus$		I	Sh A	
401429	LI-100 N/K RF	100	36	46	10	•	140		
401462	LI-100 NP/K RF	100	36	46	10	•	140	80	
401496	LI-125 N/K RF	125	36	46	10	•	150		
401463	LI-125 NP/K RF	125	36	46	10	•	150	80	

214 Top N/K, bottom NP/K



### **SWIVEL CASTOR, BOLT HOLE**

N/K polyamide, ball bearing. NP/K polyamide centre + soft polyurethane tyre. RFID tag embedded.

Code	Title	$\odot$	$\emptyset$			₫,		1	Sh A	
401497	LK-100 N/K RF	100	36	132	90	12,5	•	140	80	
401498	LK-100 NP/K RF	100	36	132	90	12,5	•	140	80	
401499	LK-125 N/K RF	125	36	157	106	12,5	•	145	80	
401500	LK-125 NP/K RF	125	36	157	106	12,5	•	145	80	

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### SWIVEL CASTOR, RECTANGULAR TOP PLATE LKE

N/K polyamide, ball bearing. NP/K polyamide centre + soft polyurethane tyre. RFID tag embedded.

Code	Title	$\odot$	Ð			$\overline{\mathbb{Z}}$	0 0				1	Sh A
401501	LKE-100 N/K RF	100	36	132	90	12,5	105x85	80x60	9	•	140	
401502	LKE-100 NP/K RF	100	36	132	90	12,5	105x85	80x60	9	•	140	80
401503	LKE-125 N/K RF	125	36	157	106	12,5	105x85	80x60	9	•	145	
401504	LKE-125 NP/K RF	125	36	157	106	12,5	105x85	80x60	9	•	145	80

Ask also for other RFID castors.

# Non-magnetic castors



Non-magnetic Tango is designed for environments where mobility equipment needs to be non-magnetic to prevent it from interfering with nearby magnetic fields or other sensitive electrical fields. Such environments include, for example, medical imaging systems.

The fork is made of glass fibre reinforced polyamide. The special ball bearings in the swivel fork and the centre of the wheel are completely non-magnetic. The castor is also available with plain bearings. Axle and mounting screw are made of brass.

- Trolleys and equipment in imaging systems
- Equipment in other research facilities

# Non-magnetic castors Equipment castors – Tango series



217 Plain bearing



218 Ball bearing



219 Plain bearing Also available with a larger pedal, see page 39.



220 Ball bearing Also available with a larger pedal, see page 39.



221 Ball bearing

### **SWIVEL CASTOR, BOLT HOLE** GK-S

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	0	Ð			\(\bar{\bar{G}}\)			2	Sh A	
304383	GK-75 PTE 80 NM H	75	32	110	73	10	•	-	70	80	
304571	GK-75 PTE 80 NM-12 H	75	32	110	73	12	•	-	70	80	
304330	GK-S-75 PTE/K 80 NM H	75	32	110	73	10	-	•	70	80	
304572	GK-S-75 PTE/K 80 NM-12 H	75	32	110	73	12	-	•	70	80	
304056	GK-100 PTE 55 NM H	100	32	141	95	10	•	-	70	55	
304057	GK-100 PTE 55 NM-12 H	100	32	141	95	12	•	-	70	55	
302971	GK-S-100 PTE/K 80 NM H	100	32	141	95	10	-	•	70	80	
304058	GK-S-100 PTE/K 80 NM-12 H	100	32	141	95	12	-	•	70	80	
304059	GK-125 PTE 55 NM H	125	32	161	110	10	•	-	70	55	
304060	GK-125 PTE 55 NM-12 H	125	32	161	110	12	•	-	70	55	
302972	GK-S-125 PTE/K 80 NM H	125	32	161	110	10	-	•	70	80	
304061	GK-S-125 PTE/K 80 NM-12 H	125	32	161	110	12	-	•	70	80	

### **SWIVEL CASTOR, BOLT HOLE GK-JBX** TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	0	$\overline{\emptyset}$			Ī			2	Sh A	
304384	GK-JBX-75 PTE 80 NM H	75	32	110	94	10	•	-	70	80	
304573	GK-JBX-75 PTE 80 NM-12 H	75	32	110	94	12	•	-	70	80	
304331	GK-JBX-S-75 PTE/K 80 NM H	75	32	110	94	10	-	•	70	80	
304574	GK-JBX-S-75 PTE/K 80 NM-12 H	75	32	110	94	12	-	•	70	80	
304062	GK-JBX-100 PTE 55 NM H	100	32	141	95	10	•	-	70	55	
304063	GK-JBX-100 PTE 55 NM-12 H	100	32	141	95	12	•	-	70	55	
302970	GK-JBX-S-100 PTE/K 80 NM H	100	32	141	95	10	-	•	70	80	
304064	GK-JBX-S-100 PTE/K 80 NM-12 H	100	32	141	95	12	-	•	70	80	
304065	GK-JBX-125 PTE 55 NM H	125	32	161	110	10	•	-	70	55	
304066	GK-JBX-125 PTE 55 NM-12 H	125	32	161	110	12	•	-	70	55	
302981	GK-JBX-S-125 PTE/K 80 NM H	125	32	161	110	10	-	•	70	80	
303010	GK-JBX-S-125 PTE/K 80 NM-12 H	125	32	161	110	12	-	•	70	80	

### **SWIVEL CASTOR, THREADED STEM**

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	0	Ð			$\overline{\underline{Q}}$			1	Sh A	
304382	GKR-75 PTE 80 NM H	75	32	110	73	10x16	•	-	70	80	
304575	GKR-75 PTE 80 NM M12 H	75	32	110	73	12x16	•	-	70	80	
304275	GKR-S-75 PTE/K 80 NM H	75	32	110	73	10x16	-	•	70	80	
304576	GKR-S-75 PTE/K 80 NM M12 H	75	32	110	73	12x16	-	•	70	80	
303016	GKR-100 PTE 55 NM H	100	32	141	95	10x16	•	-	70	55	
304067	GKR-100 PTE 55 NM M12 H	100	32	141	95	12x16	•	-	70	55	
302895	GKR-S-100 PTE/K 80 NM H	100	32	141	95	10x16	-	•	70	80	
304068	GKR-S-100 PTE/K 80 NM M12 H	100	32	141	95	12x16	-	•	70	80	
303018	GKR-125 PTE 55 NM H	125	32	161	110	10x16	•	-	70	55	
304069	GKR-125 PTE 55 NM M12 H	125	32	161	110	12x16	•	-	70	55	
302896	GKR-S-125 PTE/K 80 NM H	125	32	161	110	10x16	-	•	70	80	
304070	GKR-S-125 PTE/K 80 NM M12 H	125	32	161	110	12x16	-	•	70	80	

# Non-magnetic castors Equipment castors – Tango series



222 Ball bearing Also available with a larger pedal, see page 39.

### GKR-JBX SWIVEL CASTOR, THREADED STEM TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	0	H			$\frac{\mathbb{Q}}{\mathbf{I}}$			1	Sh A	
304387	GKR-JBX-75 PTE 80 NM H	75	32	110	94	10x16	•	-	70	80	
304577	GKR-JBX-75 PTE 80 NM M12 H	75	32	110	94	12x16	•	-	70	80	
304340	GKR-JBX-S-75 PTE/K 80 NM H	75	32	110	94	10x16	-	•	70	80	
304578	GKR-JBX-S-75 PTE/K 80 NM M12 H	75	32	110	94	12x16	-	•	70	80	
303015	GKR-JBX-100 PTE 55 NM H	100	32	141	95	10x16	•	-	70	55	
304071	GKR-JBX-100 PTE 55 NM M12 H	100	32	141	95	12x16	•	-	70	55	
302816	GKR-JBX-S-100 PTE/K 80 NM H	100	32	141	95	10x16	-	•	70	80	
304072	GKR-JBX-S-100 PTE/K 80 NM M12 H	100	32	141	95	12x16	-	•	70	80	
303017	GKR-JBX-125 PTE 55 NM H	125	32	161	110	10x16	•	-	70	55	
304073	GKR-JBX-125 PTE 55 NM M12 H	125	32	161	110	12x16	•	-	70	55	
302820	GKR-JBX-S-125 PTE/K 80 NM H	125	32	161	110	10x16	-	•	70	80	
304074	GKR-JBX-S-125 PTE/K 80 NM M12 H	125	32	161	110	12x16	-	•	70	80	



223 Ball bearing

# SWIVEL CASTOR, RECTANGULAR TOP PLATE

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	$\odot$	Ţ			0 0					2	Sh A
304385	GKL-75 PTE 80 NM H	75	32	117	73	77X67	61/51X50/42	8	•	-	70	80
304332	GKL-S-75 PTE/K 80 NM H	75	32	117	73	77X67	61/51X50/42	8	-	•	70	80
304075	GKL-100 PTE 55 NM H	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
302985	GKL-S-100 PTE/K 80 NM H	100	32	148	95	77x67	61/51x50/42	8	-	•	70	80
304076	GKL-125 PTE 55 NM H	125	32	168	110	77x67	61/51x50/42	8	•	-	70	55
304077	GKL-S-125 PTE/K 80 NM H	125	32	168	110	77x67	61/51x50/42	8	-	•	70	80



224 Ball bearing Also available with a larger pedal, see page 39.

## GKL-JBX SWIVEL CASTOR, RECTANGULAR TOP PLATE TOTAL-STOP BRAKE LOCKS WHEEL AND SWIVEL

PTE 55 polypropylene centre + soft, thermoplastic rubber tyre, plain bearing (non-magnetic). -S-PTE/K 80 polypropylene centre + thermoplastic rubber tyre, threadguard, ball bearing (non-magnetic).

Code	Title	$\odot$	$\overline{\emptyset}$								Z	Sh A
304386	GKL-JBX-75 PTE 80 NM H	75	32	117	94	77X67	61/51X50/42	8	•	-	70	80
304333	GKL-JBX-S-75 PTE/K 80 NM H	75	32	117	94	77X67	61/51X50/42	8	-	•	70	80
304078	GKL-JBX-100 PTE 55 NM H	100	32	148	95	77x67	61/51x50/42	8	•	-	70	55
302984	GKL-JBX-S-100 PTE/K 80 NM H	100	32	148	95	77x67	61/51x50/42	8	-	•	70	80
304079	GKL-JBX-125 PTE 55 NM H	125	32	168	110	77x67	61/51x50/42	8	•	-	70	55
302994	GKL-JBX-S-125 PTE/K 80 NM H	125	32	168	110	77x67	61/51x50/42	8	-	•	70	80

# Special castors



Thanks to decades of experience in castor manufacturing, Manner is an expert in designing and manufacturing special or customised solutions.

Reliable and dimensionally accurate castors are founded on professional, careful design and rigorous testing. Here, continuous research, testing of new raw materials and components, and close cooperation with our customers are of utmost importance. The objective is to create new, high-quality products that bring added value to their users.

Over the years, R&D by us or together with our customers has led to the development of many innovative products.

Special castors and R&D projects realised in cooperation with our customers form an important part of our operations. If you are looking for an innovative solution to a particular castor challenge, do get in touch. The answer to the problem may lie in designing a brand new product, improving a single feature — such as mounting — or replacing a component with a cost-efficient special castor solution.

# Special castors



# WT-wheel -

Easily rotating, simple mounting, cost-effective.



# Samba-wheel

Shock load absorbing structure.

# Panther-wheel \_\_\_\_



Sound-absorbing urethane bushing.



Different colour options available depending on the quantity.



Anti-reverse wheel rotates only in one direction.



# → Profile castor

Durable and quiet rail wheel.

# Exclusive, customised products



Support castor El-100 PTE



Small crane dolly wheel.



Tango castor in special colours and a mounting stem.

# International general terms for sales and delivery

These international General Terms and Conditions ('Terms') shall apply to all sales and deliveries made by Manner Castors (Oy Mannerin Konepaja Ab) ('Seller') to an entity purchasing goods or services from the Seller or whose order for goods or services has been accepted by the Buyer ('Buyer'), unless expressly agreed otherwise in writing.

### 1. CONDITIONS OF SALE

The Seller shall sell and supply the goods or services ('Products') to the Buyer subject only to these terms and conditions and to the exclusion of any other terms and conditions. No variation to these conditions shall apply unless agreed in writing by an authorised representative of the Seller; any agreed special terms and conditions shall prevail.

### 2. OFFER AND CONTRACT

An offer made by the Seller shall remain valid for the time specified in the offer. If not otherwise specified, the validity period for the offer shall be 30 days from the date of the offer. An order by the Buyer in accordance with the Seller's offer, ordered during the period of validity, forms the binding order (or 'Contract') between the Seller and the Buyer. In other cases the binding order shall be formed when the Seller has confirmed the order made by the Buyer or has commenced performance. These International General Terms for Sales and Delivery shall apply in each case and to the exclusion of any other terms and conditions which may have been included in the Buyer's order or otherwise.

### 3. QUANTITIES AND SPECIFICATIONS

Any specification for the Products and quantity, quality or other descriptions of the Products ('Product Specification') shall be as set out either in the Seller's offer or the Buyer's order (to the extent accepted by the Seller). Notwithstanding the foregoing, the Seller shall have the right to make changes to the Product Specification in order to conform with any statutory requirements or if such changes do not materially affect Product quality or performance.

Products from stock shall be delivered in the quantities specified in the order. The quantities of Products manufactured upon the Buyer's specific order may not exceed more than 10%. Invoicing shall be based on the actual quantity delivered

Unless otherwise agreed in writing, the Seller reserves all rights and titles to any and all drawings, designs, specifications and other information ('Information') provided by the Seller, whether in writing or otherwise. All Information and all intellectual property rights in respect thereof shall be vested in the Seller and shall not transfer to the Buyer.

### 4. PARTS DELIVERED BY THE BUYER

Parts, if any, to be supplied by the Buyer, for the purposes of manufacturing the Products ('Parts') shall be delivered within the agreed delivery period to the Seller's manufacturing facility, as separately notified to Buyer. The Parts shall be properly packed, secured, marked (and in accordance with Seller's instructions if these are issued) and despatched by Buyer at its expense in a manner designed to withstand handling during transport so that the Parts arrive in good condition and undamaged. The packing and packaging materials shall be included at no cost to Seller. Unless otherwise agreed in the order, the Seller shall have no obligation to return packing or packaging materials. The Buyer shall provide the Seller, at or before delivery, with accurate and complete instructions for the use and storage of the Parts.

Each delivery of Parts by the Buyer must be marked in an identifiable manner allowing each delivery to be easily allocated for the purposes of fulfilling an individual order. The quantity of the parts delivered for the manufacturing of Products must exceed the quantity of the order by 10 %. The Buyer warrants and represents that the parts delivered are suitable for Seller's manufacturing process and fit for the intended purpose of use. The Buyer is liable for any damages to Seller or any third party arising out of the Parts delivered by Buyer and shall bear all expenses caused by defective parts and any deviation from the agreed delivery schedule.

Unless otherwise agreed in writing, the Seller shall have the right, but no obligation, to inspect the Parts delivered by Buyer in reliance of Buyer's quality control system. The signing of delivery documentation shall not serve as proof of inspection or acceptance of the delivered Parts, but merely as proof of delivery of the Parts by the Buyer In the event that defects are found either upon the receipt of the Parts or during manufacture, the Seller shall notify the Buyer, in writing specifying such defects and deficiencies found without delay. The Seller and Buyer will subsequently agree on the most expedient and cost effective remedy for the defective Parts.

### 5. DELIVERY TIME

If not otherwise agreed in writing, the shipment for standard Products shall take place no later than two (2) weeks from the order date, calculated from the latest date hereunder:

- a) the date of the binding order;
- the date permission is granted, in transactions requiring the permission of governmental authorities;

- the date when the Seller confirms the order or down payment is paid to the Seller.
- d) the date when the Buyer has delivered to the Seller the necessary data to enable the delivery of the Products.

In case the Seller is unable to deliver the Products in accordance with the agreed time period as provided in the Contract the Seller shall inform the Buyer immediately of the anticipated delay. If the cause of the delay, other than a cause classified as Force Majeure, accrues substantial expenses or detriment to the Buyer, the Buyer is entitled to cancel the part of the contract affected by the delayed delivery. If the delivery is not cancelled it will be postponed to a reasonable new delivery date. Unless otherwise agreed in writing, no penalty or other compensation will be paid for late delivery.

For the purposes of the contract, Force Majeure shall mean the following unforeseeable events listed exhaustively below, provided that each such event is beyond the control of the affected party and it either temporarily or permanently results in impossibility by a party to perform its contractual obligations under this Agreement: Fire, flood, strike, war (declared or undeclared), embargoes, blockades, riots, insurrections, legal restrictions and third party industrial actions.

### 6. TERMS OF DELIVERY, RISK AND PROPERTY

The products shall be delivered free of freight charges wherever the value of the delivery exceeds the minimum value specified in the Seller's offer. In such case the Seller shall choose the delivery method. In the event that the value of an individual delivery is below the minimum value specified in the Seller's offer, an additional small deliver surcharge will be invoiced for such delivery.

The Products are customarily packed in cardboard boxes. The Buyer acknowledges that it is essential to keep the boxes dry during transport and stocking. When kept in a cardboard box, a humid environment or wet box may damage the plating of the Products. If no other requirements regarding packing markings are agreed, the contents, destination and the initials of the person who has packed the goods shall be marked on each box. The Seller shall not bear any liability for damage to the Products caused by rain and moisture passing through the packaging material.

Special packing material must be agreed on mutually at the Buyer's request; such special packaging shall be invoiced separately. If a part of the order is marked for a specific customer it will be packed in separate package(s) from the other Products.

The risk to the Products shall pass to the Buyer in accordance with the agreed delivery term (Incoterms 2010). If the Buyer, or the Buyer's freight carrier, does not accept the delivery of the Product at the agreed time, for a reason unrelated to the Seller, the Seller is relieved of responsibility and the risk shall pass to the Buyer, in so far as the Seller has executed its duties according to the contract. The Seller shall be entitled to charge the Buyer for the costs incurred due to such failure of the Buyer (or its designated carrier) to take delivery, including without limitation storage and administration costs. The Seller, in the name of the Buyer and at the Buyer's expense, shall insure the delivery, if it has been so requested, in writing, by the Buyer.

The delivery term is FCA Hanko, Incoterms 2010, if not otherwise agreed.

### 7. DELIVERY AND ACCEPTANCE TESTS

The Buyer is obligated to inspect the Products and test the Products upon receipt in accordance with the agreed procedure, or if no procedure is established, according to good industry practices. Upon testing the Products, the Buyer shall confirm that the Products are in accordance with such specifications as provided in the binding order. Any non-conformity with regard to the specification shall be notified to the Seller within 10 days of receipt of the Products, or where the non-conformity was not apparent, within 10 days of discovering the non-conformity, but in any event within the warranty period.

The Buyer agrees to maintain authenticated inspection and test reports, records and certifications relating to the manufacture and sale of the Products. The Buyer, within the available tools of its information systems, shall document all actions in order to assure the quality of its products (where the Seller's Products are included) as well as the traceability of their components for the purpose of being able to conduct a product recall or other field operation in relation to a detect. The documentation must also be traceable to the Seller's specific purchase orders and made available without delay to the Seller upon request.

If the Seller delivers to the Buyer a sample of a Product and the Buyer accepts it without written notice, the Buyer is not entitled to make any claim concerning the Products delivered provided that the Products are in conformity with the

### 8. WARRANTY

The Seller warrants that the Products are, for a period of 12 months after delivery, free from Defects in materials and workmanship ('Warranty'). The Warranty shall be the exclusive warranty for the Products and is given only under the condition that the Products are in all respects used, stored, handled, serviced and maintained properly and in strict accordance with the Seller's instructions, if such are provided, and under normal operating conditions.

This warranty does not cover, and the Seller is not liable for any defect or damage arising from or relating to Products:

 manufactured by the Seller that are combined with products produced by a third party;

- b) where the repair or replacement of the Products or any part thereof becomes necessary due to normal wear and tear, tampering, accident, vandalism, negligence or misuse or otherwise without any fault of the Seller:
- where repairs, alterations or adjustments to the Products or any other work has been performed by the Buyer or a third party that is against Seller's instructions or has not been engaged to do so by the Seller;
- that are designed or specified by Buyer or a third party engaged by the Buyer;
- e) that are manufactured with materials provided by Buyer or a third party engaged by the Buyer.

Any Warranty claims made or repairs or replacement shall not extend the overall warranty period.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INLCUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Notwithstanding the foregoing, In the event that a separate country-specific warranty is provided by the Seller with the delivery or such document is agreed between Seller and Buyer, such warranty shall prevail.

### 9. WARRANTY CLAIMS

If, during the Warranty period, any Product, whether resold and shipped by the Buyer, fails to meet or satisfy the Warranty as specified herein, and Buyer determines that the Product does not conform to the Product Specification, either as a result of the Product deteriorating or any characteristics of it changing after delivery to Buyer, for reasons other than those set forth above in Section 8 (a-e) or the Buyer's failure to comply with storage or use instructions issued by Seller to Buyer prior to delivery, or the Product is otherwise defective, ('Defect' or 'Defective'), Buyer shall give written notice of such Defect to the Seller within ten (10) days of the date the Buyer becomes aware of such Defect.

The Seller shall be given an opportunity to inspect an alleged Defect. If there is a Defect in the Products that falls under the Warranty, the exclusive remedy available to the Buyer hereunder shall be, at the option of the Seller, repair or replacement of the Defective Product. If the Seller requests the return of the Defective Product, the Buyer shall pay the freight and other costs incurred by returning the Product from the Buyer to the Seller. The Seller shall cover such costs incurred by the Buyer to a reasonable extent, provided that the alleged Defect is confirmed and falls under the Warranty.

In case of a Defective Product, the Buyer shall be responsible for recalling, replacing, repairing or upgrading its products sold to its end users (where Seller's Products are included). If the case so requires and the Seller approves such measure, the Buyer shall, at its cost, do the same to all Products sold by Buyer (and that are still in use) as a preventive measure even if the defect or damage has not yet materialized. In the event Buyer decides not observe the obligation set forth herein, all further incidents involving the Product thereafter shall be at the sole risk and responsibility of the Buyer and shall be subject to the Buyer's indemnification obligations under clause 12.1.

# 10. DRAWINGS, SAMPLES, TOOLS, PATENTS

All drawings, designs, specifications and other information provided by the Seller are confidential and all intellectual property rights in respect thereof remain vested in the Seller and shall not transfer to the Buyer. The Buyer is not permitted, without the Seller's written consent, to use, copy, reproduce, assign or communicate these to a third party. The Buyer shall bear the responsibility for any costs, damages or losses incurred by the Seller, due to infringement of any of the Seller's patent, model rights or any other intellectual property right or limitation of use by the Buyer or as a result of using designs and samples supplied by the Seller to the Buyer. At the termination of the Contract or upon separate request, each party shall either return to the other party or destroy all drawings, samples and other material possibly received from the other party.

In the event that a special tool is produced by the Seller on the basis of drawings or instructions given by the Buyer, the realized costs for production thereof shall be borne by the Buyer in full or in part as agreed separately prior to producing the tool. The agreed costs shall be payable even if there may not be a subsequent need for the tool. Respectively when the tool has worn out from use, the Buyer shall be invoiced similarly for the costs of a new tool on the same basis. Unless otherwise agreed, the Seller has a perpetual and exclusive right of use and retention right to the tool and commits not to transfer or assign from its possession such tools produced for the purposes of the Buyer by the Seller, and it commits to store and maintain these tools on behalf of the Buyer, for a reasonable period at no cost. Upon request by the Buyer, or as deemed necessary by the Seller, the Seller shall provide a status report regarding the tool. After two (2) years from the last delivery to the Buyer, the Seller has the right to scrap the tools subject to one (1) month notice to the Buyer. Upon receiving the Buyer's written request, storage of the tool shall continue at the Buyer's expense (service, insurance and storage costs). The insurance for the tool shall be based on its utility value. However, if the Buyer has not made any order for the Product within five (5) years of the last delivery, the Seller shall be entitled to scrap the tool.

### 11. PRICING AND TERMS OF PAYMENT

The term of payment is 30 days net from the date of the invoice, unless agreed otherwise. The invoice shall be issued at the date of shipment. In case of a delay in payment by the Buyer, the Seller shall have the right to charge interest for delayed payments in accordance with the applicable legislation and to withhold further deliveries until payment is made. The Products are the Seller's property until the invoice (including any late payment interest) is totally paid. The Buyer shall have no right whatsoever to set off payments.

Invoicing shall be based on Seller's prices that are valid as of the date of the order. The Seller retains the right to change the prices with prior notice. The Seller retains the right to change the prices in the event of change in exchange rates, import costs, taxes or other such costs over which the Seller has no control.

The Buyer's share of the tools shall be invoiced in instalments:

- -1/3 on confirmation of the order;
- -1/3 on acceptance of a sample;
- -1/3 on first delivery.

### **12. RETURN OF PRODUCTS**

Possible returns and terms of returns are to be agreed separately.

### 13. INDEMNIFICATION

13.1 The Buyer agrees to indemnify, defend and hold the Seller and its and their respective shareholders, officers and employees harmless from and against all claims, suits, actions, proceedings, damages, loss or liability, costs or expenses (including reasonable attorney's fees) arising out of or relating to (I) the reckless, wilful or criminal wrongdoing, or negligent act or omission or breach of this Contract by the Buyer, the end-user or any party acting on behalf of the Buyer, or (II) the handling, storage, importation, promotion, marketing, sale, use, installation and/or distribution of the Product.

13.2. The Seller agrees to indemnify and hold the Buyer harmless against all consequences of any and all claims, suits, actions, proceedings, damages, losses, liabilities, costs (including reasonable attorney's fees), and expenses asserted against the Buyer directly through any product liability claim made by third parties in connection with the Products for any reasons that are attributable to the Seller.

### 14. LIMITATION OF LIABILITY

The Seller's indemnity and other obligations related to the Products or under this Contract shall not apply to the extent that a claim arises out of or results from: (i) specifications by the Buyer; (ii) unauthorised modification of the Products; (iii) combining the Products with any other components or part not supplied or authorized by the Seller; or (iv) using the Products for any use other than for which they were designed or against Seller's written instructions, unless otherwise authorized in writing by the Seller.

The Seller's aggregate total liability inclusive of any liquidated damages arising from or in connection with the contract (whether the liability arises due to negligence, breach of contract, misrepresentation or for any other reason whatsoever) shall be limited to an amount equal to the amounts paid or payable in relation to the binding order of Products to which the claim relates.

Insofar as product liability is concerned, as stipulated in Section 13.2, the previous aggregate liability amount shall be applied, and such liability is covered by the Seller's valid product liability insurance, as applicable. At the request of the Buyer, the Seller shall present copies of product liability insurance certificates to the Buyer to verify said coverage to the above amount. In no event or circumstance shall Seller have, whether in contract, tort or under any other theory of law, any liability for, or obligation to compensate or indemnify the Buyer or any third party for any special, punitive, indirect or consequential damage, including but not limited to loss of sale, loss of profit, loss of business or depletion of goodwill.

### **15. TOLERANCES**

If not otherwise agreed, the tolerance generally applied by the Seller in the manufacturing and instructions of the Product shall be applied.

### **16. DISPUTES AND APPLICABLE LAW**

If not agreed otherwise between the parties, the Contract shall be governed by and construed in accordance with the laws of Finland, excluding its choice of law provisions and the UN Convention on Contracts for the International Sale of Goods (CISG).

Any dispute arising between the parties, out of or in connection with the Contract that the parties are unable to resolve mutually shall be submitted for arbitration conducted in accordance with the Rules for Expedited Arbitration of the Finland Chamber of Commerce. Any such arbitration shall take place in Helsinki, Finland and shall be conducted in English.

The Seller shall, however, have the right to commence legal proceedings to collect its receivables or to seek injunctive relief in the court of justice in the domicile of the Seller or in the domicile of the Buyer.

### 17. MISCELLANEOUS

Any provision hereof that may be in whole or in part unenforceable under the mandatory laws governing this Contract shall be void without affecting the validity of the rest of the said provision or a part thereof.

If not otherwise stated in Seller's offer, agreement or in these General Terms and Conditions, the currently valid ORGALIME General Conditions for the supply of mechanical, electrical and electronic products, shall be applicable.

These General Terms and Conditions of Manner Castors are valid as of 1 November 2015. The Seller retains the right to modify these General Terms and Conditions from time to time.

# Product liability terms

The following issues pertaining to wheels and castors must be taken into account when determining the manufacturer's liability for his products. It is laid down in the Product Liability Act that the manufacturer shall be released from his liability if the factors mentioned below are not taken into consideration.

### 1. Product information and intended use

The products referred to here denote exchangeable components that can be mounted on appliances, furniture, means of transport and other comparable products so as to move them from one place to another. The terms laid down here shall concern products used in manually movable appliances the speed of which does not exceed 4 km/h and which are not in continuous motion. The products can be divided into the following categories according to their use:

- Interior decoration: chairs and other furniture
- Shops, offices, nursing: shopping carts, office furniture, hospital furniture and equipment, e.g. hospital beds
- Industry: means of transport for light, medium and heavy loads

### The proper use of the product shall also include the right attachment:

- 1.1 The product shall be attached to the appliance permanently through all of its fixing points.
- 1.2 The fixing points of the appliance shall be sufficiently robust for this purpose.
- 1.3 Mounting must not detract from the operation of the product or change its form.
- 1.4 Idler transport castors must be mounted in such a way that the turning axle is in the vertical position.
- 1.5 All fixed castors must be mounted in such a way that their axles are aligned straight.
- 1.6 The idler wheels employed in the appliance must be a given type. If fixed castors are also mounted to the appliance, only the castor type recommended by the manufacturer must be used.
- If the products are to be used in corrosive conditions, humid places, outdoors or close to sea, products specifically designed for such use must be employed.
- Please note that the capacity may be considerably weaker if the castor is used in temperatures outside the normal range (+15-+25 °C). We recommend that special products are used in special circumstances.
- The wheel, fork, brake unit, attachments and other parts together make up a functioning whole. The manufacturer's responsibility is solely limited to original parts and the wholes formed by these.
- Selecting the products requires a sufficient knowledge of load types and their scope. In addition, a sufficiently large safety coefficient must be employed.

### 2. Misuse

Misuse shall here refer to situations where the products are used for purposes other than those specifically indicated. Cases of this kind include:

- 2.1 The products are used in applications that subject them to excessively high loads.
- 2.2 The products are used on unsuitable or uneven bases.
- 2.3 The products are used at too high or low temperatures.
- 2.4 An appliance with locked-up wheels is moved by force.
- 2.5 Brakes are used to stop a moving load.
- 2.6 The products are subjected to particularly aggressive agents.
- 2.7 The products are subjected to unsuitable loads in the form of vibration or shocks.
- 2.8 Foreign substances enter the running surface.
- 2.9 Wheeled appliances are moved at too high a speed.
- 2.10 Changes have been made to the product, of a kind not approved by the manufacturer.

### 3. Product information

In cases where our material does not provide any detailed product specifications, product and component requirements must be agreed with the manufacturer. ISO and CEN standards provide the necessary guidelines in this.

### 4. Servicing and maintenance

Products must be serviced at regular intervals by greasing their bearings and tightening all loose components, for example. Detergents that do not contain any adverse particles or that prevent corrosion must be employed. In the case of malfunction, the products or their components must be serviced or changed without delay.

### 5. Duty to inform and advice

To comply with the duty of information and advice laid down in the Product Liability Act, the following materials are available: catalogues and product leaflets containing product information and user instructions, Internet pages, and the support available from our sales staff. To ensure the correct operation of the products, all retailers must follow the details given in this product release (points 1-6) and the information that they have obtained from users. They shall consult the manufacturer, where necessary, and provide the user with the information that they may have obtained from the manufacturer.

### 6. Product dimensions and drawings

We reserve the right for changes.

# Notes

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# Notes

# International sales network

# **Distributors**

### **Denmark**

### Soco Hjul A/S

Helgeshoj alle 16 D, DK-2630 Tåstrup, tel. +45-525 566 info@socohjul.dk www.socohjul.dk

### Estonia

### Etra Balti As

Peterburi Tee 101a, EE-13812 Tallinn, tel. +372-601 2836 tallinn@etra.ee www.etra.ee

# Hungary

### Wicke KfT

Almakerék Street 3, HU-1044 Budapest, tel. +36-1-339 9598 wicke@wickekft.hu www.wicke.com/hu

# Italy

### **LAG SpA**

Via del Lavoro 17, IT-41018 San Cesario s/P (MO), tel. +39-59-585 425 sales@lagspa.it www.lagspa.it

# Japan

## Sugatsune Kogyo Co.Ltd

2-17-9 Iwamotocho, Chiyoda-ku, JP-101-8683 Tokyo, tel. +81-3 3866 2267 import@sugatsune.co.jp www.sugatsune.co.jp

# **Netherlands**

### **VE-Systems**

Ambachtsstraat 16, NL-3861 RH Nijkerk, tel. +31-33-245 8334 info@ve-systems.nl www.ve-systems.nl

# **Norway**

### Otto Olsen A/S

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### **Poland**

# Manner Poland Sp.z.o.o.

ul.Przecławska 5, PL- 03-879 Warszawa, tel. +48-22-678 4316 info@manner.com.pl www.manner.pl

# **Republic of Korea**

### **High Klasse Technic**

310 Ho, 6-Dong, KR-2211 Jeongwang-dong, Siheung-si, Gyeonggi-do, tel. +82-31-430-1520 highklasse@highklasse.co.kr www.highklasse.co.kr

### Russia

### **JSC Technopolis**

Dobrolyubova pr., 25, RU-197198 Saint-Petersburg, tel. +7-812-703 1010 tpolis@bk.ru www.tps.su

### LBK prom

Esenina street 19/2, RU-194295 Saint-Petersburg, tel. +7-812-292-3700 office@tt-parts.ru www.lbk-prom.ru

# Switzerland, Liechtenstein

### FTA Fahrzeugtechnik AG

Suhrenmattstrasse 18, CH-5035 Unterentfelden, tel. +41-62-737 0404 verkauf@fta.ch www.fta.ch

# United Kingdom, Ireland

### **H Varley Ltd**

Unit 5 Century Park, WA14 5BJ UK-Cheshire, tel. +44-161 928 9617 nthsales@varley.co.uk www.varley-castors.co.uk

# Finland, Hanko

### **Factory: Manner Castors**

Tel +358 19 222 001 manner@manner.fi www.manner.fi For up-to-date contact information, please visit www.manner.fi





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Distributo

