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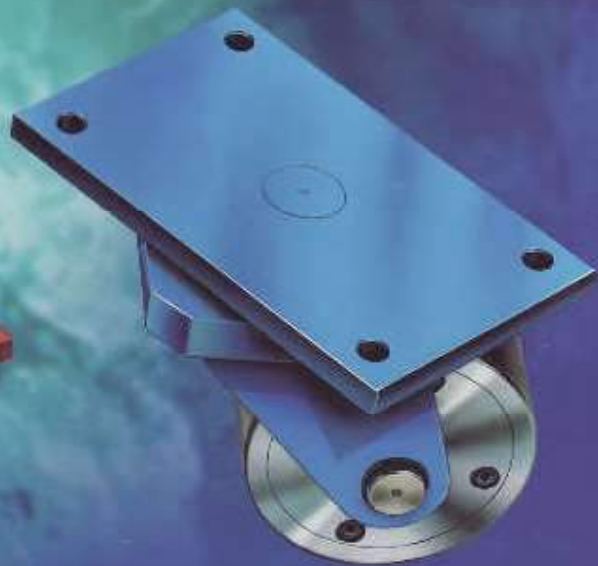
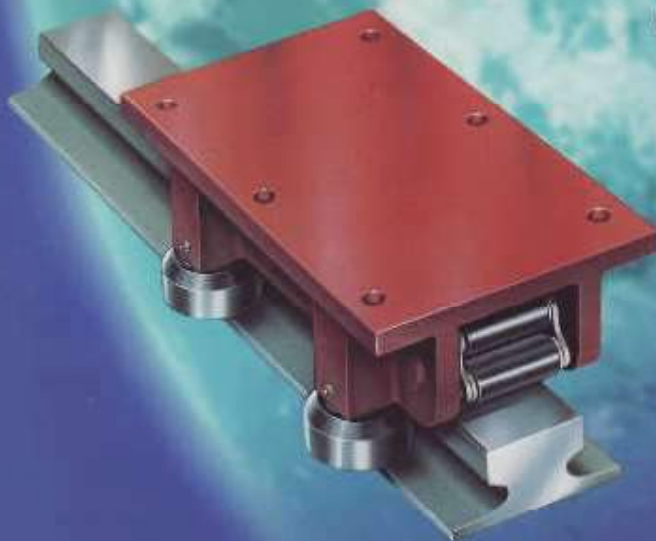


Inventor of  
Roller Skates

# Moving heavy loads

on Roller Skates Express  
and Heavy Duty Wheels

easily and safely  
worldwide



# Heavy Duty Wheels

## ■ Wheels (without castors) – Drawing No. R1

### Range of application:

- For robust use eg on construction sites.
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- When higher carrying capacity and greater sturdiness is required.
- Impervious to shavings and dust.

### Characteristics of the model ...S with the greatest demand:

- Solid basic construction with ball bearings.
- Delivered with various castors.
- Made in stainless-steel on request.
- Special construction to suit customer requirements.
- Passed the DIN 4422 test at the material research laboratory for steel wheel 150 S.

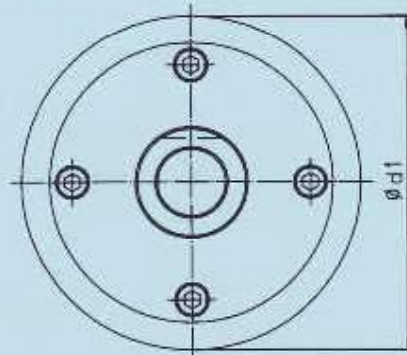
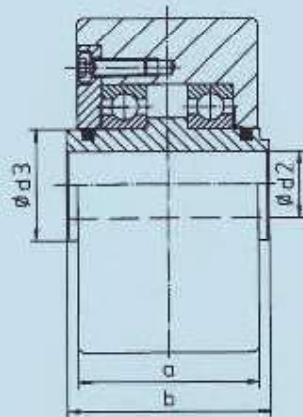
### Hints on use:

- Maintenance-free construction, used particularly in machine factories, on construction sites and for the handling of heavy goods.
- Can be combined with fixed castors and swivel castors (SF, SL, SD).

## Model S



- Material with a high carrying capacity, which is not very susceptible to rough handling.
- When a higher carrying capacity is required, they can be fitted with self-aligning roller bearings (see model ... S/P).
- Can also be delivered as a flange wheel construction (see model S-A, S-B).
- If there are problems with friction it can also be delivered with convex crowned wheel running surface (without additional charge).
- The chosen bearing dictates the maximum carrying capacity of these wheels.



## Model S

Mod.	a	b	$\varnothing d1$	$\varnothing d2$	$\varnothing d3$	Suitable castors			Carrying capacity (kN)	Weight (kg)
acclato										
150 S	80	90	150	30	50	SF	SL	SD	30	9.7
175 S	80	90	175	30	50	SF	SL	SD	30	13.6
200 S	80	90	200	30	50	SF	SL	SD	30	18.1
225 S	80	90	225	30	50	SF		SD	30	23.3
250 S	80	90	250	30	50	SF		SD	35	29.3
275 S	80	90	275	30	50	SF		SD	35	36.3
300 S	80	90	300	30	50	SF			35	44.4

# Heavy Duty Wheels

## Model K, G



### Range of application:

- Used in areas threatened by corrosion.
- For a particularly quiet running, which doesn't damage the ground.
- When lower carrying capacity and sturdiness lower than steel is required.
- In cases of minimal electric conductivity (plastic).
- For transporting loads at a maximum speed of 100 m/min.

### Characteristics of the models ...K and ...G:

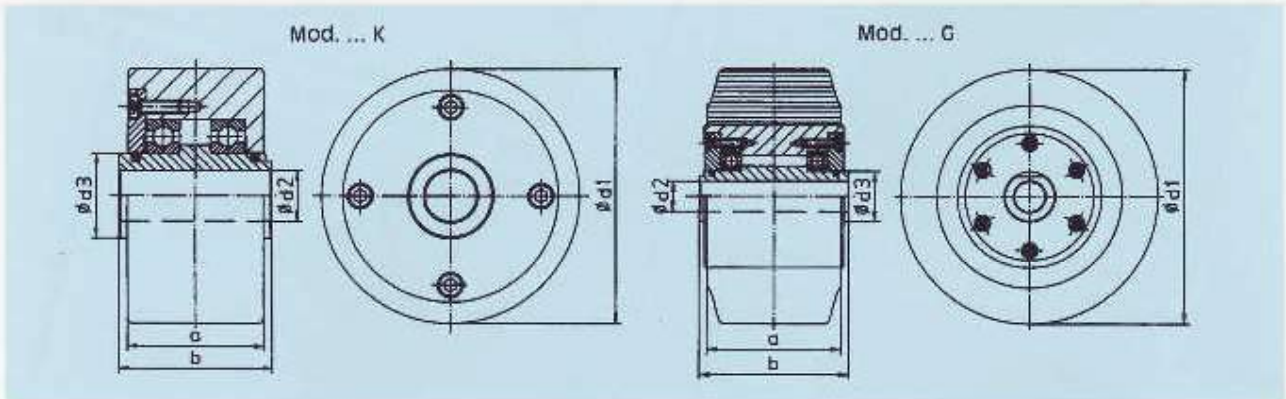
- Solid basic construction with ball bearings.
- Delivered with various mountings.
- Special construction to suit customer requirements.
- Passed the DIN 4422 test at the material research laboratory for plastic wheel 150 K.

## ■ Wheels (without castors) – Drawing No. R2



### Hints on use:

- Construction free of maintenance with advantages over the steel wheel particularly in maritime environments or where is danger of corrosion.
- Can be combined with fixed castors and swivel castors.
- Material doesn't damage the ground, but is more susceptible than steel when handled roughly.



## Model K, G

Mod.	a	b	Ø d1	Ø d2	Ø d3			Suitable castors			Carrying capacity (kN)		Weight (kg)	
								SF	SL	SD	K	G	K	G
Plastic	Rubber													
150 K		80	90	150	30	50		SF	SL	SD	20			3.7
175 K		80	90	175	30	50		SF	SL	SD	20			4.3
200 K		80	90	200	30	50		SF	SL	SD	30			5.0
225 K		80	90	225	30	50		SF		SD	30			5.8
250 K		80	90	250	30	50		SF		SD	35			6.7
	250 G	130	145	250	30	50		SF		SD		10		9.0
	265 G	160	175	265	30	50		SF		SD		15		10.0
275 K		80	90	275	30	50		SF		SD	35			7.6
300 K		80	90	300	30	50		SF		SD	35			8.7

# Heavy Duty Wheels

## Model S/P



### Characteristics of the model ... S/P:

- Solid steel construction with self-aligning roller bearings.
- Body hardened to 35-38 HRC with crowned wheel running surface.
- Delivered with various mountings as fixed castors and swivel castors (SF, SL, SD).

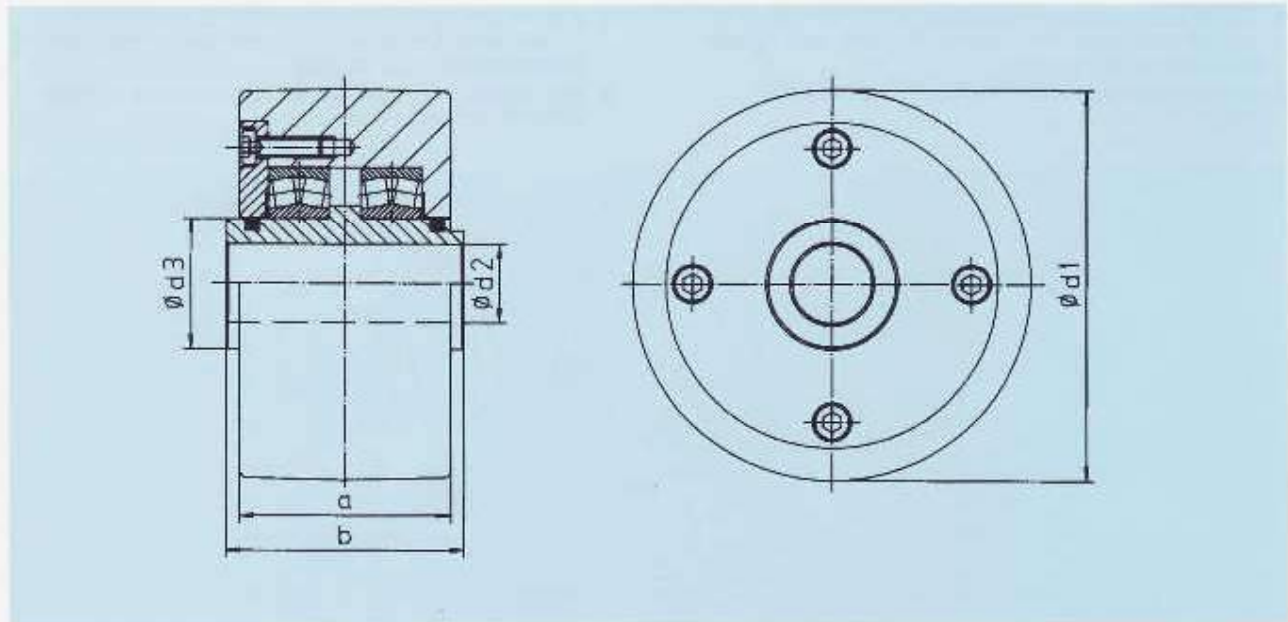
## Wheels (without castors) - Drawing No. R3

### Range of application:

- For robust use e.g. on construction sites.
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- When higher carrying capacity and greater sturdiness is required.
- When higher safety standards and heavy duty are required.

### Hints on use:

- Maintenance-free construction, used particularly in machine factories, on construction sites and for the handling of heavy goods.
- Can be combined with fixed castors and swivel castors.
- Material with a high carrying capacity, which is not very susceptible to rough handling.
- Can also be delivered as a flange wheel construction (see model S-A/P; S-B/P).



## Model S/P

Mod.	a	b	$\varnothing d1$	$\varnothing d2$	$\varnothing d3$			Suitable castors	Carrying capacity (kN)	Weight (kg)
Steel										
150 S/P	80	90	150	30	50			SF SL SD	50	9.9
175 S/P	80	90	175	30	50			SF SL SD	50	13.8
200 S/P	80	90	200	30	50			SF SL SD	60	18.3
225 S/P	80	90	225	30	50			SF	60	23.5
250 S/P	80	90	250	30	50			SF	80	29.5
275 S/P	80	90	275	30	50			SF	80	36.5
300 S/P	80	90	300	30	50			SF	80	44.6

# Heavy Duty Wheels

## Wheels (without castors) – Drawing No. R4

### Range of application:

- For use on profiles (girders/rails).
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- With a flange wheel (= A) or with 2 flange wheels (= B).
- The maximum distance between 2 flange wheels  $x = 55$  mm for the serial wheel.
- When choosing 2 flange wheels, please state the dimension  $x$ .

### Characteristics of the model ... S and ... S/P:

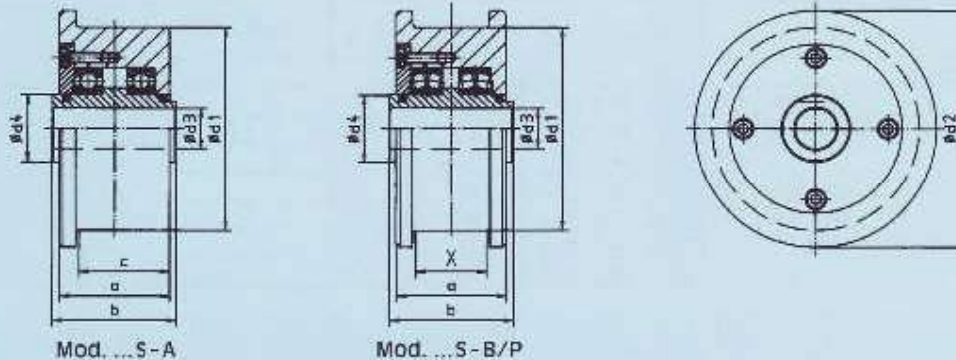
- Solid steel construction with ball bearings (S) or self-aligning roller bearings (S/P).
- Delivered also as a fixed castor.
- Special construction to suit customer requirements.

## Model S-A (B), S-A (B)/P



### Hints on use:

- Maintenance-free construction, used particularly in machine factories.
- Narrower distance between flange wheels if required, distances  $> 55$  mm on request.
- Can be combined with fixed castors.
- Body of the wheel can be hardened (extra charge) but is standard with model ... S/P (without additional charge).



### Model (Steel)

Mod.		a	b	c	Ø d1	Ø d2	Ø d3	Ø d4	X max.	Suitable castors	Carrying capacity (kN)		Weight (kg)	
1 Flange	2 Flanges											A	B	
125 S-A	125 S-B	80	90	67.5	125	150	30	50	55	SF ... S-A(B)	20		7.5	7.9
150 S-A	150 S-B	80	90	67.5	150	175	30	50	55	SF ... S-A(B)	25		10.2	10.7
175 S-A	175 S-B	80	90	67.5	175	200	30	50	55	SF ... S-A(B)	30		14.1	14.7
200 S-A	200 S-B	80	90	67.5	200	225	30	50	55	SF ... S-A(B)	30		18.7	19.4

### Model (Steel) .../P

Mod.		a	b	c	Ø d1	Ø d2	Ø d3	Ø d4	X max.	Suitable castors	Carrying capacity (kN)		Weight (kg)	
1 Flange	2 Flanges											A	B	
150 S-A/P	150 S-B/P	80	90	67.5	150	175	30	50	55	SF ... S-A(B)/P	40		10.4	10.9
175 S-A/P	175 S-B/P	80	90	67.5	175	200	30	50	55	SF ... S-A(B)/P	40		14.3	14.9
200 S-A/P	200 S-B/P	80	90	67.5	200	225	30	50	55	SF ... S-A(B)/P	50		18.9	19.6
225 S-A/P	225 S-B/P	80	90	67.5	225	275	30	50	55	SF ... S-A(B)/P	50		24.3	25.1
250 S-A/P	250 S-B/P	80	90	67.5	250	300	30	50	55	SF ... S-A(B)/P	65		30.3	31.1

# Heavy Duty Wheels

## Model SF ...S, K, S/P



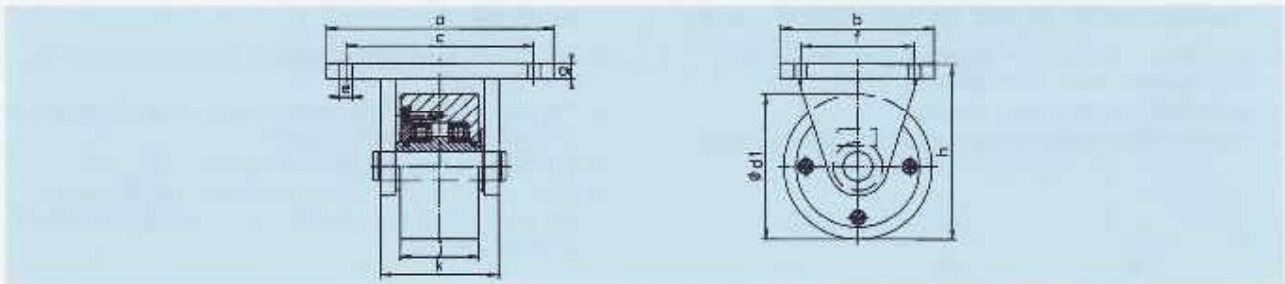
## ■ Fixed castors – Drawing No. R5

### Range of application:

- For transporting loads at a maximum speed of 100 m/min.
- Flange wheels for use on profiles (see drawing No. R8).

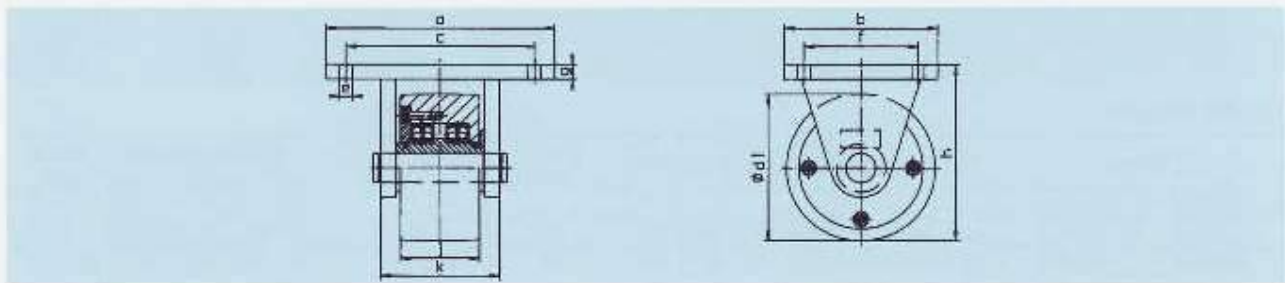
### Characteristics of the model ...SF ...S, K, S/P:

- Solid steel construction of the fixed castor.
- Position of fixing holes in top plate can be arranged to suit customers' requirement.
- Can be combined with other castors.
- Passed the DIN 4422 test at the material research laboratory for SF 150 S + SF 150 K.



## Model SF ...S, SF ...K

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors		Carrying capacity (kN)		Weight (kg)	
Steel	Plastic											SL	SD	S	K	S	K
SF 150 S	SF 150 K	220	150	190	150	14	115	15	180	80	120	SL	SD	30	20	16.7	10.7
SF 175 S	SF 175 K	220	150	190	175	14	115	15	210	80	120	SL	SD	30	20	21.4	12.1
SF 200 S	SF 200 K	220	150	190	200	14	115	15	235	80	120	SL	SD	30	30	26.7	13.6
SF 225 S	SF 225 K	220	150	190	225	14	115	15	260	80	120			30	30	32.7	15.2
SF 250 S	SF 250 K	270	210	210	250	18	150	15	285	80	120			35	35	41.9	19.3
SF 275 S	SF 275 K	270	210	210	275	18	150	15	310	80	120			35	35	49.7	21.0
SF 300 S	SF 300 K	270	210	210	300	18	150	15	335	80	120			35	35	58.6	22.9



## Model SF ...S/P

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors		Carrying capacity (kN)		Weight (kg)	
Steel												SL	SD				
SF 150 S/P		220	170	180	150	18	130	20	195	80	130	SL	SD	50			16.9
SF 175 S/P		220	170	180	175	18	130	20	220	80	130	SL	SD	50			21.6
SF 200 S/P		220	170	180	200	18	130	20	245	80	130	SL	SD	60			26.9
SF 225 S/P		220	170	180	225	18	130	20	285	80	130			60			32.9
SF 250 S/P		270	210	210	250	18	160	20	310	80	130			80			42.1
SF 275 S/P		270	210	210	275	18	160	20	320	80	130			80			49.9
SF 300 S/P		270	210	210	300	18	160	20	345	80	130			80			58.8

# Heavy Duty Wheels

## Swivel castors - Drawing No. R6

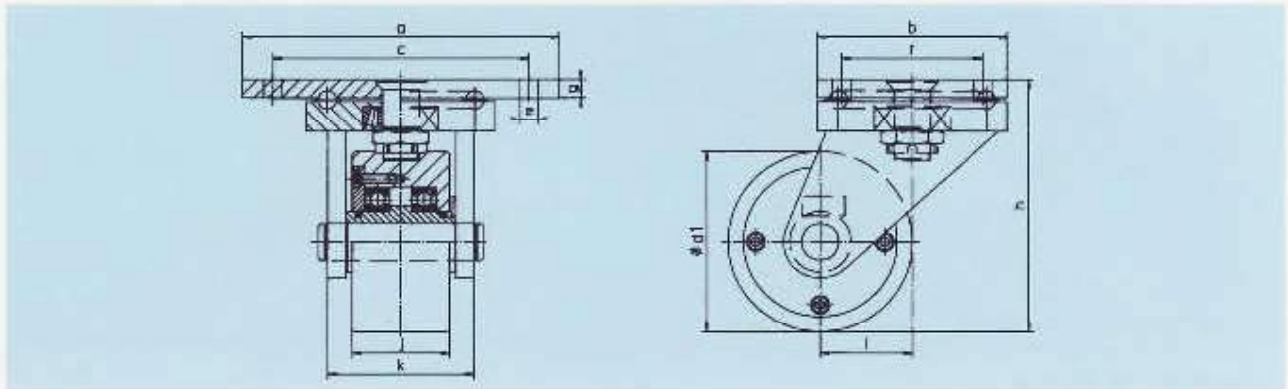
### Range of application:

- For transporting loads at a maximum speed of 100 m/min.
- For turning corners.

### Characteristics of the model ... SL:

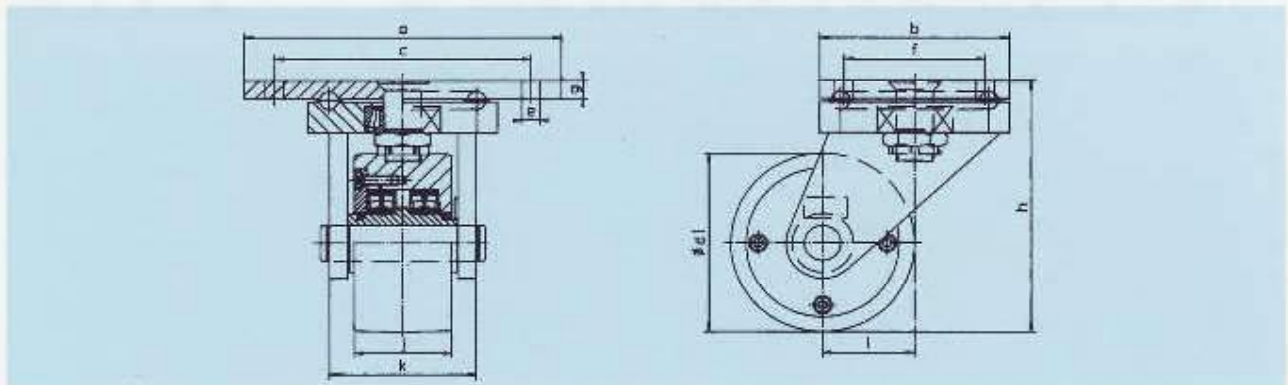
- Solid steel construction of the self-guided castor.
- Can be combined with other mountings.
- Passed the DIN 4422 test at the material research laboratory for SL 150 S + SL 150 K.

## Model SL ... S, K, S/P



### Model SL ... S, SL ... K

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)		Weight (kg)	
Steel	Plastic												S	K	S	K
SL 150 S	SL 150 K	270	150	210	150	18	115	15	210	80	120	SF	30	20	22.7	16.7
SL 175 S	SL 175 K	270	150	210	175	18	115	15	235	80	120	SF	30	20	27.5	18.2
SL 200 S	SL 200 K	270	150	210	200	18	115	15	260	80	120	SF	30	30	32.9	19.8



### Model SL ... S/P

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)		Weight (kg)	
Steel																
SL 150 S/P		270	170	220	150	18	130	20	220	80	130	SF	50			22.9
SL 175 S/P		270	170	220	175	18	130	20	245	80	130	SF	50			27.7
SL 200 S/P		270	170	220	200	18	130	20	285	80	130	SF	60			33.1

# Heavy Duty Wheels

**Model SD ... S. K. S/P**

**Swivel castors – Drawing No. R7**

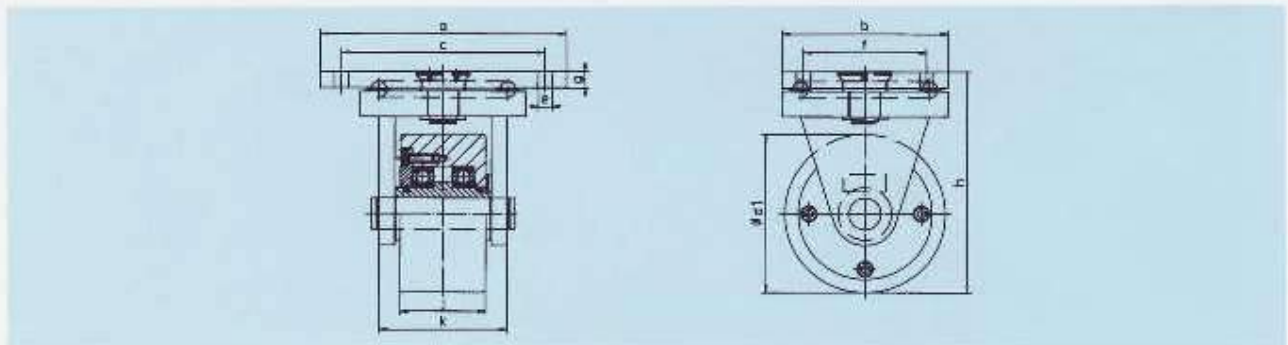


### Range of application:

- For transporting loads at a maximum speed of 100 m/min.
- For turning corners.
- Frequently used on construction sites.

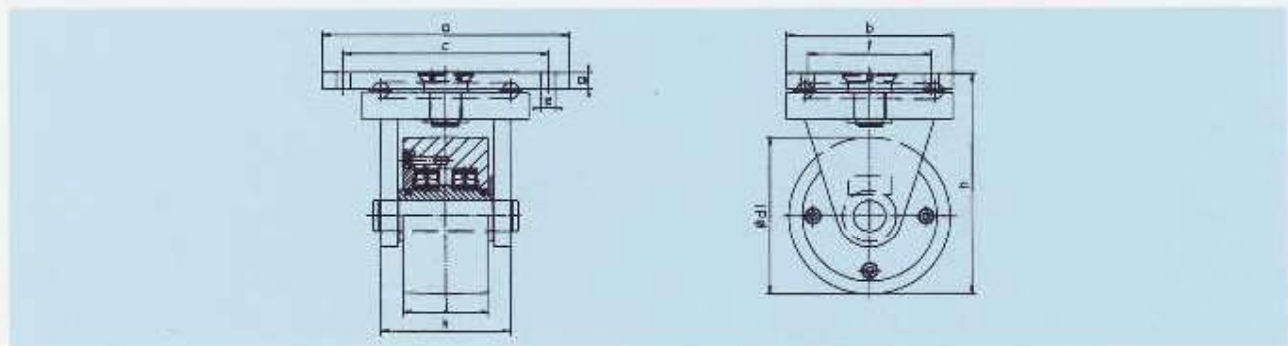
### Characteristics of the model ... SD:

- Solid steel construction of the rotating mountings.
- Can be combined with other castors.



### Model SD ... S, SD ... K

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)		Weight (kg)	
Steel	Plastic												S	K	S	K
SD 150 S	SD 150 K	220	150	190	150	14	115	15	210	80	120	SF	30	20	21.4	15.4
SD 175 S	SD 175 K	220	150	190	175	14	115	15	235	80	120	SF	30	20	26.2	16.9
SD 200 S	SD 200 K	220	150	190	200	14	115	15	260	80	120	SF	30	30	31.6	18.5
SD 225 S	SD 225 K	270	210	210	225	18	150	15	285	80	120	SF	30	30	40.4	22.9
SD 250 S	SD 250 K	270	210	210	250	18	150	15	310	80	120	SF	35	35	47.3	24.7
SD 275 S	SD 275 K	270	210	210	275	18	150	15	335	80	120	SF	35	35	55.2	26.5



### Model SD ... S/P

Mod.		a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)		Weight (kg)	
Steel																
SD 150 S/P		270	170	220	150	18	130	20	220	80	130	SF	50			21.6
SD 175 S/P		270	170	220	175	18	130	20	245	80	130	SF	50			26.4
SD 200 S/P		270	170	220	200	18	130	20	285	80	130	SF	60			31.8



# Heavy Duty Wheels

## Flange wheels with fixed castors - Drawing No. R8

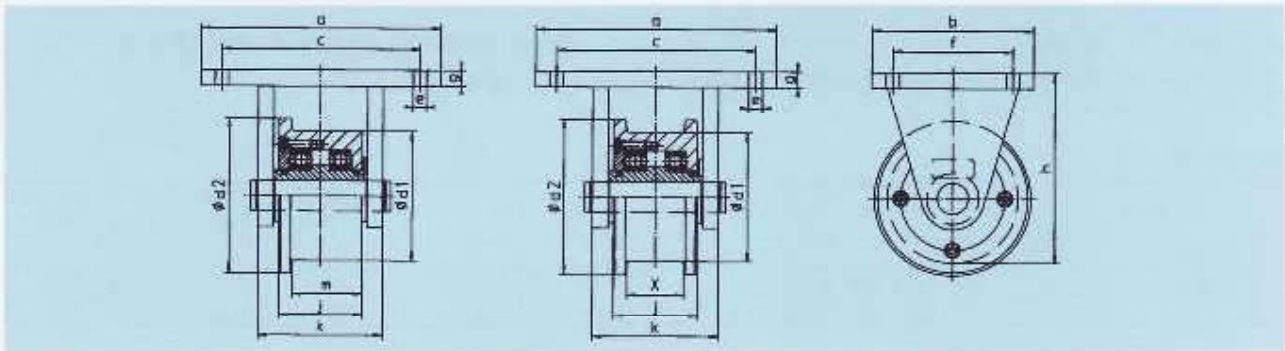
Model SF ... S-A (B), S-A (B)/P

### Range of application:

- For transporting loads at a maximum speed of 100 m/min.
- Flange wheels for use on profiles.
- Frequently used on construction sites.
- Frequent use in machine factories.

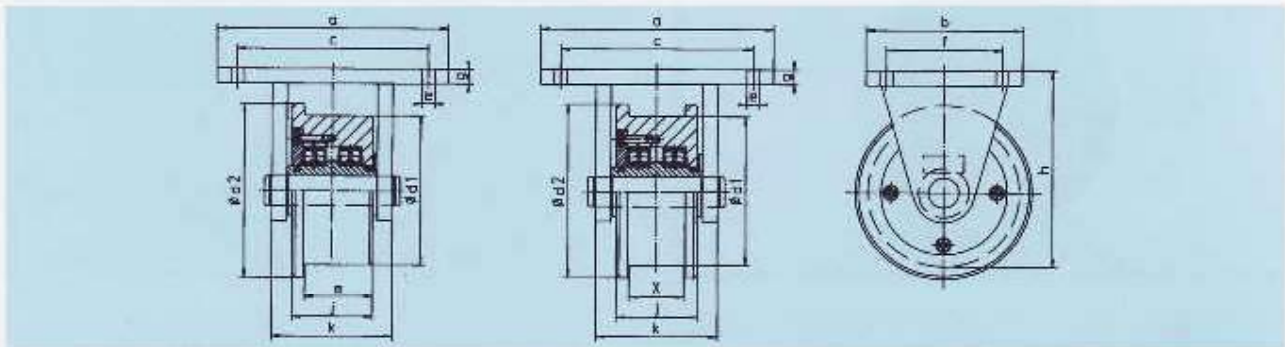
### Characteristics of the model ...SF ... S-A, SF ... S-A/P:

- Solid steel construction for fixed castors.
- Position of fixing holes in top plate can be arranged to suit customers' requirements.



### Model SF ... S-A(B)

Mod.		a	b	c	Ø d1	Ø d2	Ø e	f	g	h	j	k	m	x max	Suitable castors	Carrying capacity (kN)	Weight (kg)	
1 Flange	2 Flanges																A	B
SF 125 S-A	SF 125 S-B	220	150	190	125	150	14	115	15	180	80	120	67.5	55	SF	20	14.5	14.9
SF 150 S-A	SF 150 S-B	220	150	190	150	175	14	115	15	210	80	120	67.5	55	SF	25	17.2	17.7
SF 175 S-A	SF 175 S-B	220	150	190	175	200	14	115	15	235	80	120	67.5	55	SF	30	21.9	22.5
SF 200 S-A	SF 200 S-B	220	150	190	200	225	14	115	15	260	80	120	67.5	55	SF	30	27.3	28.0

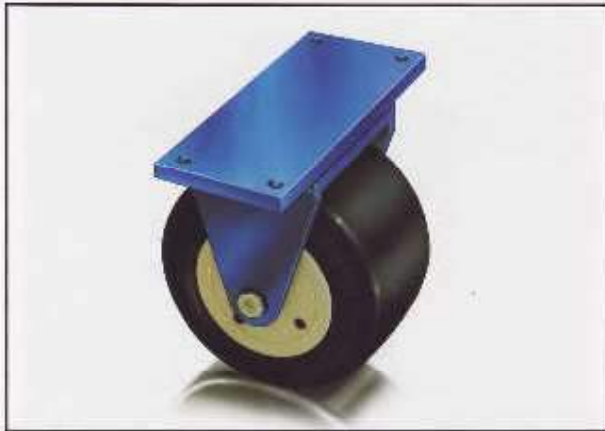


### Model SF ... S-A(B)/P

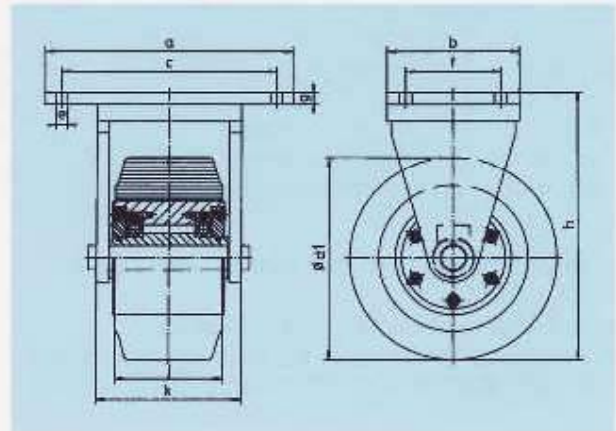
Mod.		a	b	c	Ø d1	Ø d2	Ø e	f	g	h	j	k	m	x max	Suitable castors	Carrying capacity (kN)	Weight (kg)	
1 Flange	2 Flanges																A	B
SF 150 S-A/P	SF 150 S-B/P	220	170	180	150	175	18	130	20	195	80	130	67.5	55	SF	40	17.4	17.9
SF 175 S-A/P	SF 175 S-B/P	220	170	180	175	200	18	130	20	220	80	130	67.5	55	SF	40	22.1	22.7
SF 200 S-A/P	SF 200 S-B/P	220	170	180	200	225	18	130	20	245	80	130	67.5	55	SF	50	27.5	28.2
SF 225 S-A/P	SF 225 S-B/P	220	170	180	225	275	18	130	20	285	80	130	67.5	55	SF	50	33.7	34.5
SF 250 S-A/P	SF 250 S-B/P	270	210	210	250	300	18	160	20	310	80	130	67.5	55	SF	65	42.9	43.7

# Heavy Duty Wheels

## Model SF ... G



## ■ Fixed castors – Drawing No. R9



### Range of application:

- For quiet running, which doesn't damage the ground.

### Characteristics of the model SF ... G:

- Fixed castor with rubber tyre.

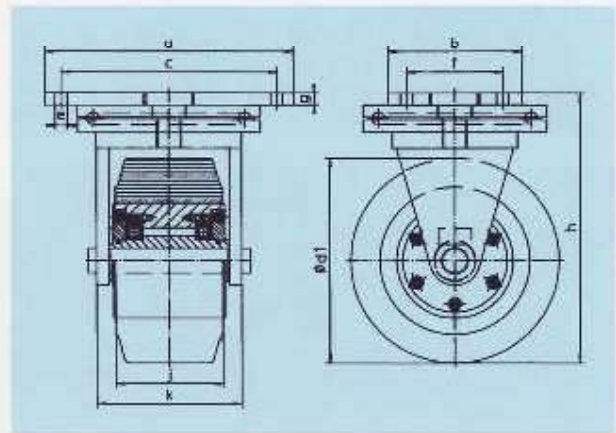
## Model SF ... G

Mod.	a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)	Weight (kg)
Rubber													
SF 250 G	300	150	260	250	14	115	15	330	130	175	SD	10	23.0
SF 265 G	300	150	260	265	14	115	15	345	160	205	SD	15	25.0

## Model SD ... G



## ■ Guidable swivel rollers – Drawing No. R10



### Range of application:

- For quiet running, which doesn't damage the ground.

### Characteristics of the model SD ... G:

- Swivel castor with rubber tyre.

## Model SD ... G

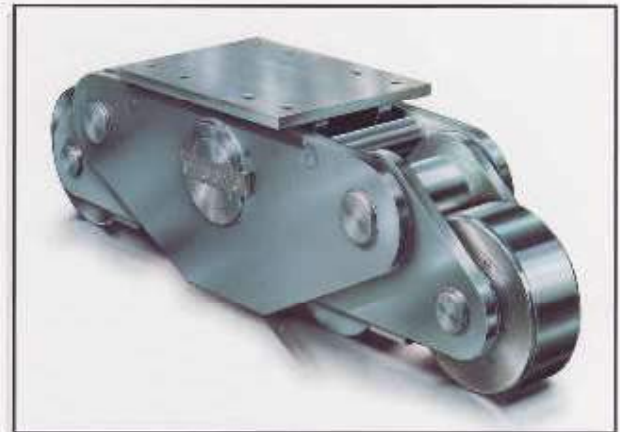
Mod.	a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)	Weight (kg)
Rubber													
SD 250 G	300	150	260	250	14	115	15	330	130	175	SF	10	29.0
SD 265 G	300	150	260	265	14	115	15	345	160	205	SF	15	31.0

# Heavy Duty Wheels

## ■ Sets of wheels – Drawing No. R11



## Model WRS



### Range of application:

- Less integral floor pressure than with the Roller Skate Express.
- If the running surface is very uneven.
- Delivered according to individual customer's requirements and according to the assigned requirements of the product.

### Characteristics of the model ... WRS:

- Solid steel construction with
  - Grooved bearings (single or double row) (WRS ... -RK), or
  - Self-aligning roller bearing (WRS ... -PR), or
  - Tapered-roller bearing (clearance adjustable) (WRS ... -KP)
- Hardened wheel bodies, various types of steel (C45, CrNi, CrMo) depending on customers requirements

### Hints on use:

- Maintenance-free construction, used particularly on wharfs and at airports.
- Problems solved for individual customers.
- Material with a high carrying capacity: individual carrying capacity up to 1.000 kN.
- Small single units are also produced.
- Maximum speed: 100 m/min.

