The original: made in Germany since 1951

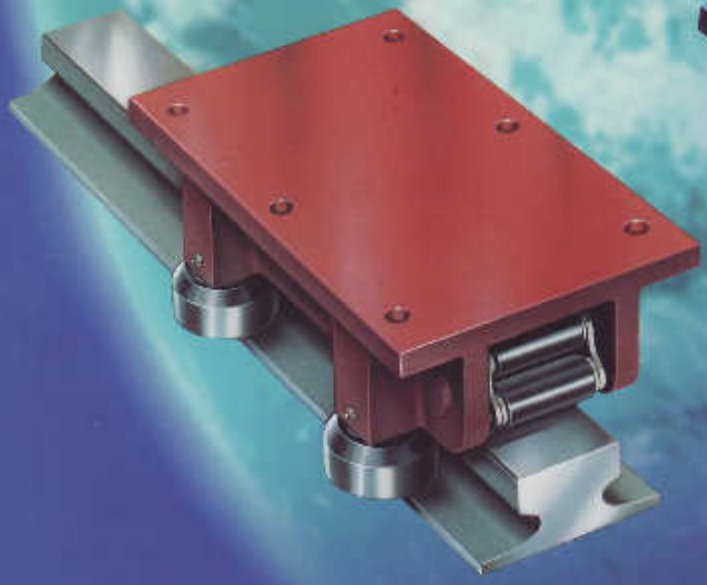
BÖRKEY

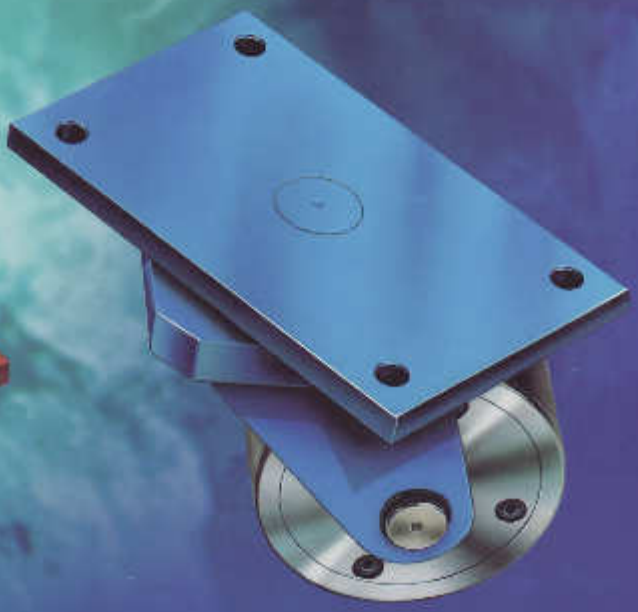
Inventor of
Roller Skates

Moving heavy loads

on Roller Skates Express and Heavy Duty Wheels

easily and safely worldwide





**Moving heavy loads easily and safely with ROLLER SKATE EXPRESS –
one of the smallest transport devices with the highest carrying capacity available.**

The idea

We started with the idea of placing the rear roller automatically in front whilst using 3 rollers or bars to advance the load. This reduces the danger of accidents and ensures easier, continuous transportation. From this idea we developed our industrial skate for moving heavy loads:

Roller Skate Express

Advantages

The advantages of using Roller Skate Express are self-evident:

- solid construction
  guarantees long product life with minimum maintenance.
- low level construction of Roller Skate (between 7 and 20 cm)
  reduces the danger of tilting and requires minimum raising of the load whilst placing the Roller Skate underneath.
- little effort required to overcome rolling resistance within the chain assembly (approximately 3 % of total load under ideal conditions and using a larger diameter of roller).
- a variety of applications for very different conditions.
  Several decades (more than 50 years) of experience in numerous applications.
  - at sea, (on, under and in the sea, and offshore)
  - on land (bridge-building and relocation of bridges or bridge-parts, moving of complete spectators' stand, of complete blast furnace, of big machinery, parts of nuclear reactors, as a machine-part in tube production machines, in tunnelling (Métro of Paris, Montblanc tunnel, channel Eurotunnel)
- versatile universal transportation device.
- very economic basic unit.

Products

Increased demands and the requests for specialised Roller Skates for new application, called for the development of a wide variety of different models:

- different versions for different applications:
  - the Solids for the variable short-term use
  - the Robusts for projects involving short moves
  - the Super-Robusts for permanent loads, short or long distances
- different models for different carrying capacities:
  - the Solids: 5 standard-models with single capacities from 10 to 80 metric tons
  - the Robusts: 6 standard-models with single capacities from 15 to 85 metric tons
  - the Super-Robusts: 18 standard-models with single capacities from 15 to 400 metric tons

Special designs are part of our normal business: with over 2500 different applications to date.

Conditions for safe and successful Applications

The following principles help to ensure the successful use of Roller Skates:

- Only a good strong surface will ensure the smooth running of this transportation process; additional strengthening may be required e.g. by using steel plates of at least 10 mm thickness. All our capacities are based on a steel surface, which withstands the high floor pressure of the Roller Skate Express.
- The larger the diameter of the roller in the chain, the easier it is to move the load, and less stress is placed on the steel track surface.
- Select fewer Roller Skates with larger diameter rollers, rather than more Roller Skates with smaller diameter rollers.
- Roller Skate Express is to be placed exactly parallel to the direction of movement.
- The load must be spread evenly over the carrying rollers and have equal contact with the track surface.

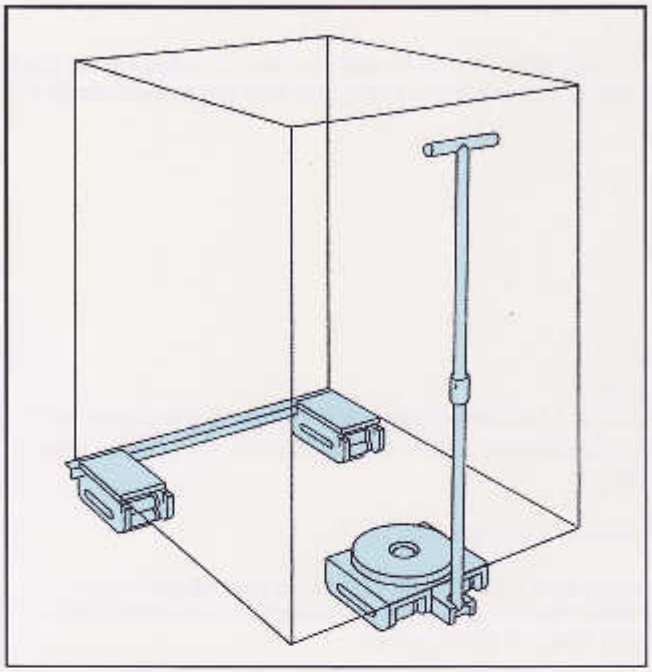
Maintenance

- If the Roller Skate is treated as a normal tool, no particular maintenance is necessary. The Roller Skate has a very long life.
- To prolong this long life cycle, we recommend cleaning the Roller Skate with a thin machine cleaner.
- In exceptional cases, please contact us for advice.
- If the Roller Skate Express does not serve its purpose in transporting heavy loads because:
  - the speed is insufficient
  - the floor pressure is too high
  - the rolling resistance is too high

find out more about

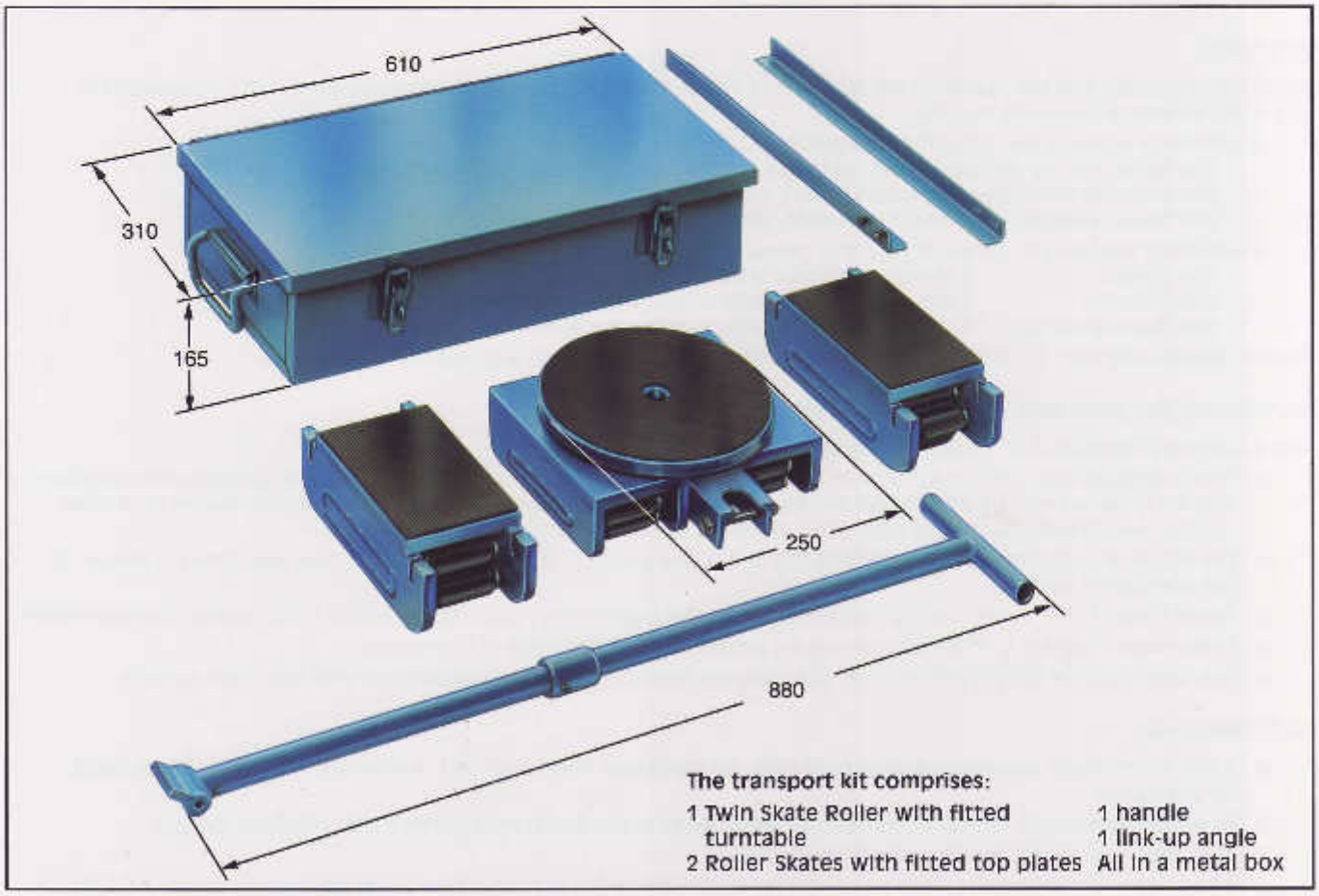
Heavy Duty Wheels in part 2 of the catalogue.

Roller Skate – The Robusts – Complete Transport Kit



Range of application:

- With the Hercules you do not have to waste time in assembling the unit, and the low level contributes to safer working conditions.
- The Hercules makes it easier and safer to move heavy loads. 24 and 30 mm diameter rollers in the chain are available. This turntable is larger than the one in the Transport Kit N.
- For larger loads we recommend the use of a second twin Skate Roller with turntable in the front, and two normal skates as stabilisers at the back.



The transport kit comprises:

1 Twin Skate Roller with fitted turntable
2 Roller Skates with fitted top plates
1 handle
1 link-up angle
All in a metal box

Mod. Hercules

Mod.	Rollers Ø Twin	Rollers Ø Single	Length support	Width support	Total height	Swivel-pl. Ø	Max. load kN	Weight of set			
Hercules	30	24	200	130	110	250	350	68			

All dimensions in mm

Roller Skate – The Solids – Complete Transport Kit

Range of application:

- For short, variable transportation distances.
- Movement of moderately heavy loads, e.g. machines, parts of machines and for installation works.
- A speed of 5 m/min should not be exceeded.
- It is possible to turn corners by placing turntables on top of the Roller Skates. Handles have to be attached but only guide the load while the Roller Skates are moving.
- Minimum turning circle is 3 m.

Hints on use:

- All maximum carrying capacities are based for use on a steel surface, which withstands the pressure of the chain-roller. For safety, the carrying capacities in complete sets are calculated so that 2 Roller Skates could support the full load on uneven surfaces.
- The track surface is important for the safe transportation of the load, not the carrying capacity of the Roller Skate.
  Tiles are unsuitable. Movement on tarmac and concrete is restricted. In these cases it is recommended to put a steel plate of a minimum of 10 mm thickness underneath.
- **Possible problems can be avoided by choosing Roller Skate models with larger diameter rollers in the chain.**
- Visual control for the alignment and direction of the load is made easier by inserting the angle iron into the slots provided on the Roller Skate.
- The difference in height of Skates with turntables is compensated by the use of packing plates.

The complete set consists of:

4 Roller Skates Mod. N	2 Handles
2 Turntables	2 link-up bars
2 packing plates	1 metal box

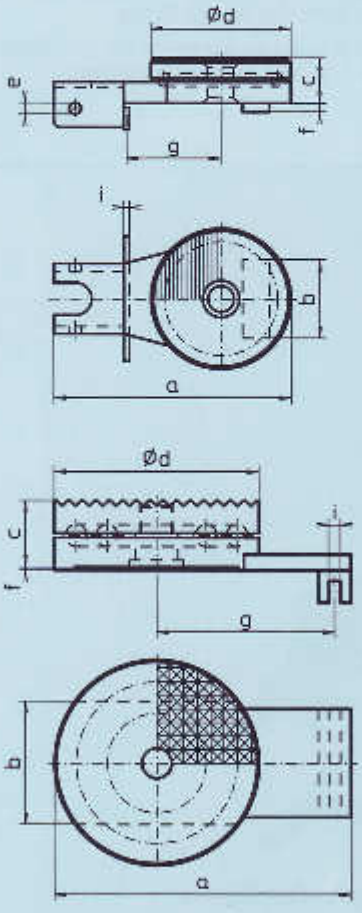
Complete transport kit Mod. N

Mod.	Rollers Ø	Length support	Width support	Total height	Swivel-pl. Ø	Max. load kN	Weight of set			
I	18	120	120	108	130	200	48			
II	24	120	120	117	130	300	56			
III	30	130	130	140	150	600	90			

All dimensions in mm

Roller Skate Express – The Solids

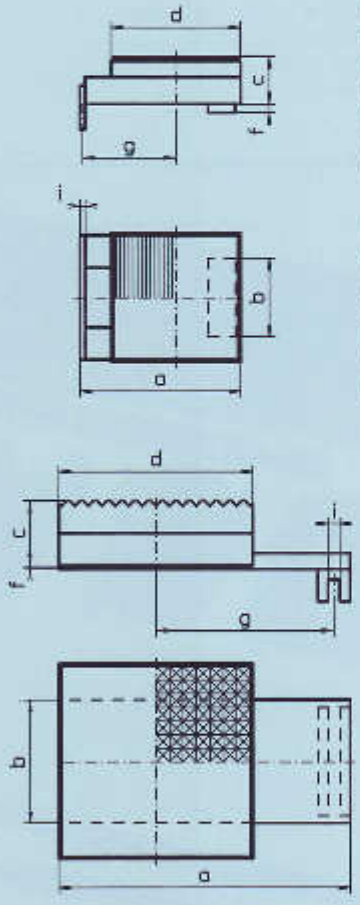
Swivel / Turntable



Mod. I-III

Mod. IV-V

Packing plate / Levelling plate



Necessary for turning corners: Turntables are to be placed on top, handle has to be attached; only guide while Roller Skate is moving. Minimum turning circle is 3 m.

Necessary for use with turntable:
packing plate for compensating the difference in height between skates with turntables and the ones without.

Turntable

Mod.	a	b	c	Ø d	e	f	g	i	Weight kg
I	220	73	42	130	11	8	87	5	4.5
II	220	86	42	130	11	8	87	5	4.5
III	250	96	48	150	11	8	108	5	6.7
IV	275	114	61	190		3	165	11	13.7
V	360	128	61	220		3	235	11	18.9

Packing plate / Levelling plate

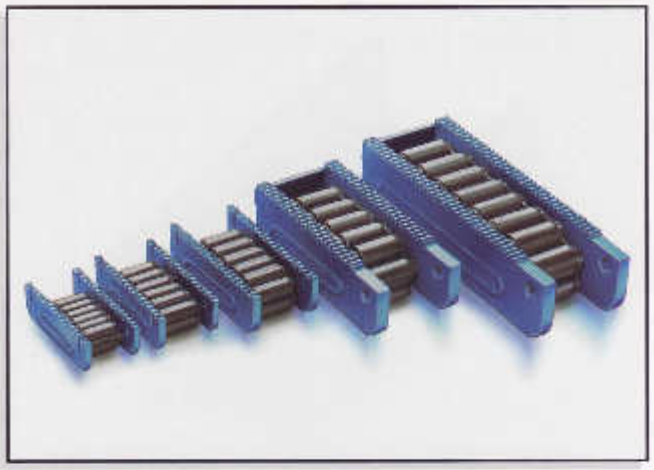
Mod.	a	b	c	d	f	g	i	Weight kg
I	149	73	42	120	8	87	5	3.7
II	149	86	42	120	8	87	5	3.7
III	178	96	48	130	8	108	5	5.3
IV	270	114	61	180	3	165	11	13.8
V	350	128	61	200	3	235	11	18.8

All dimensions in mm

Roller Skate Express – The Solids

Range of application:

- For short variable ways of transportation.
- Movement of moderately heavy loads, e.g. machines, parts of machines and for installation works.
- A speed of 5 m/min should not be exceeded.
- Allows to turn corners by swivelling. Turntables are placed on top of the skate, handles are to be attached. Only guide with the handle, while the Roller Skate is moving. Minimum turning circle is 3 m.
- The difference in height of skates with the turntables is compensated for by the use of packing plates.
- Easy visual control for the alignment and direction of the load is made by inserting the angle iron into the slots provided on the Roller Skate.

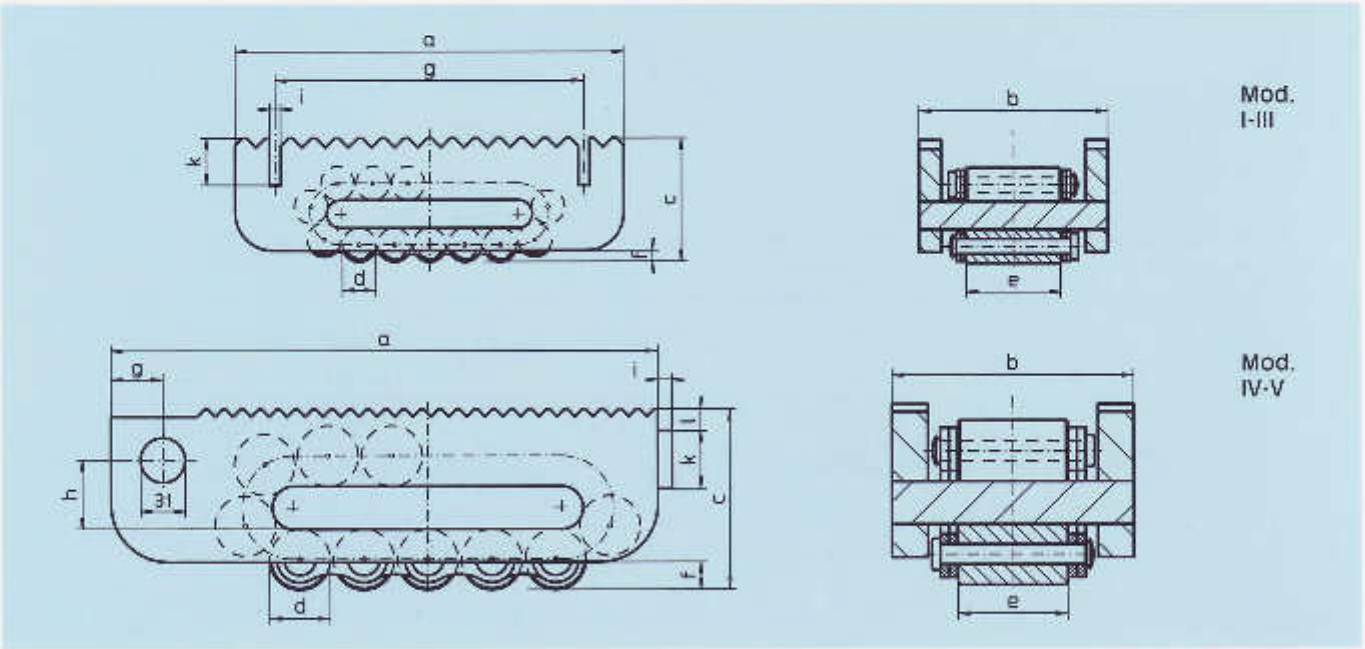


Characteristics of the most sold series Express model... N:

- stable, solid, basic construction
- low level construction
- Accessories for turning corners

Hints on use:

- The track surface is important for the safe transportation of the load, not the carrying capacity of the Roller Skate. Tiles are insufficient. The movement on tarmac and concrete is restricted. In these cases a steel plate of a minimum of 10 mm thickness is recommended.
- **Possible problems can be avoided by choosing Roller Skate models with a larger roller diameter within the chain.**
- All maximum carrying capacities are based for use on a steel surface, which withstands the high pressure of the chain-rollers. For safety, the carrying capacities on complete sets are calculated so that on uneven surfaces 2 Roller Skates could support the full load.
- Due to the little effort required to overcome the rolling resistance (4–7 % of the total load) precautionary measures must be taken for use on inclined surfaces.

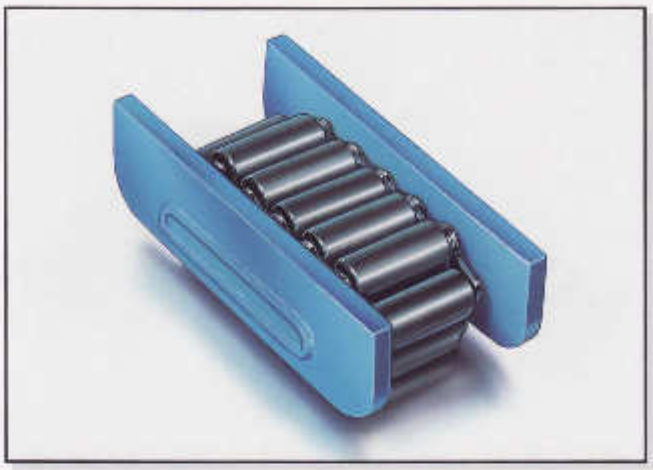


Mod. N

Mod.	a	b	c	Ø d	e	f	g	h	i	k	l	Rollers under stress	Number of rollers	Max. load kN	Weight kg
I	210	100	66	18	51	6	167		6	25		5	15	100	5.2
II	220	113	75	24	60	10	180		6	25		4	13	150	7.3
III	270	130	92	30	68	10	217		6	25		4	13	300	13.0
IV	380	168	127	42	76	16	36	48	10	40	15	4	13	600	32.0
V	530	182	147	50	86	19	36	60	10	40	15	6	17	800	61.0

All dimensions in mm

Roller Skate Express – The Solids



Range of application:

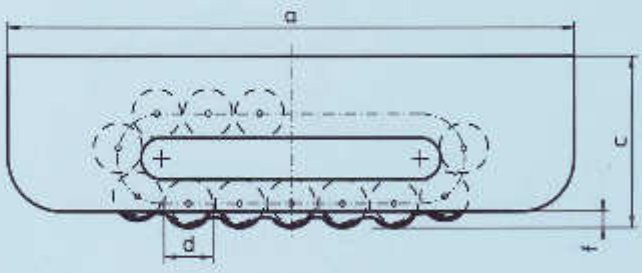
- For short distances.
- If possible on suitable tracks, e.g. crane rails or steel beams.
- Movement of moderately heavy loads e.g. to transport materials in ovens, for shuttering, concreting or stocking techniques.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed.
- Ideal model for confined spaces.

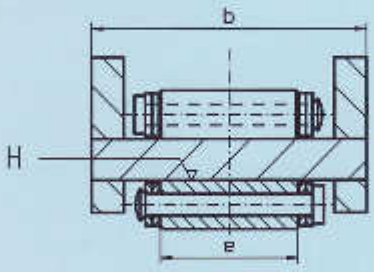
Hints on use:

- If the Rollers are being used to their maximum carrying capacity or with lengthy intervals between use choose models with a hardened centre plate (= model C–H).
- In case of possible overload, choose chain roller material 50CrV4 (B.S. 735 A 50; SAE 6150) (= models C-H-50CrV4).
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track. For smaller models I-IIIv 7 - 5 %, for larger models 5 - 3 % of the total load.
- If necessary this model can be reduced in height for special applications.
- For scaffolding application the chain alone can be used. (length according to customers' specification).

Characteristics of the Series of model... C:

- Stable, solid basic construction.
- Low level construction and smooth top achieved after welding, models C and B are of the same height.
- Can be welded to the load to ensure Roller Skates and load are firmly connected.
- Available with hardened centre plate (= models C-H) or additionally with higher tensile roller material 50CrV4 (= SAE 6150) (= models C-H-50CrV4).





Mod. C, C-H (H = hardened and machined centre plate), **C-H-50CrV4** (roller material 50CrV4)

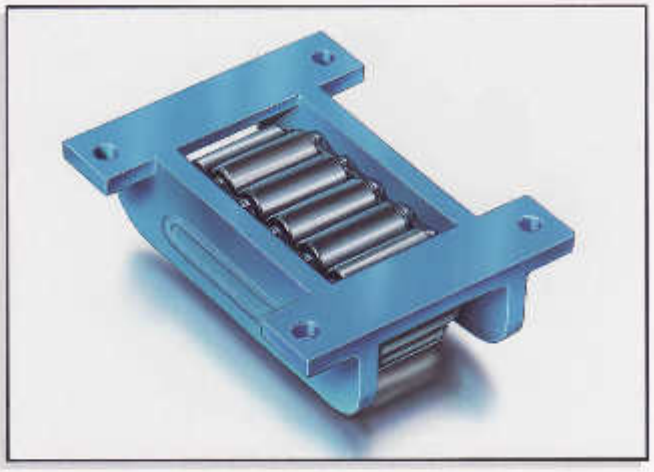
Mod.	a	b	c	Ø d	e	f						Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	63	18	51	6						5	15	100	5.0
II	220	113	73	24	60	10						4	13	150	7.0
III	270	130	90	30	68	10						4	13	300	12.5
IV	380	168	126	42	76	19						4	13	600	32.0
V	530	182	146	50	86	19						6	17	800	61.0

All dimensions in mm

Roller Skate Express – The Robusts

Range of application:

- **For short distances.**
- If possible on suitable tracks, e.g. crane rails or steel beams.
- Movement of heavy loads in mining, steel industry, machine construction, bridge construction and other heavy industrial plants.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed.
- **Low level construction overcomes problems in confined space.**

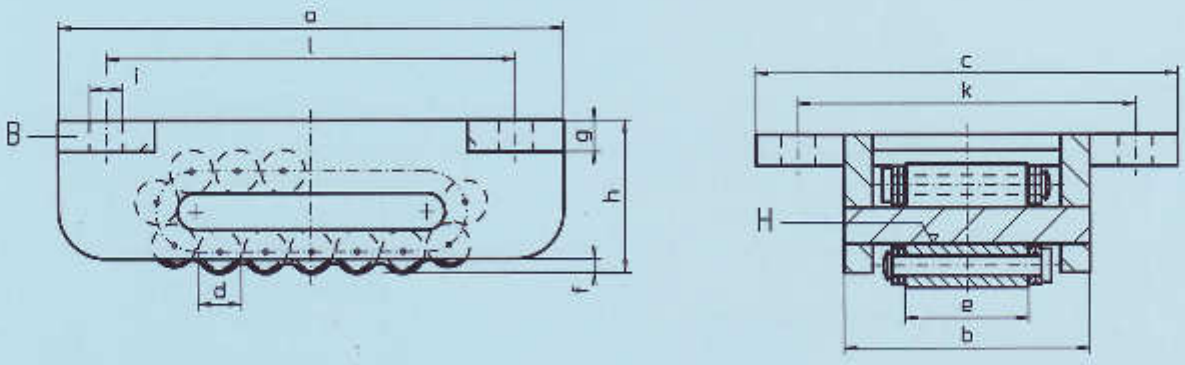


Characteristics of the series of model... B:

- Stable, solid basic construction.
- Low level is achieved by recessing the mounting plates into side walls. Model... B and ... C are the same height.
- More stability by firmly bolting the Skates to the load.
- Available with hardened centre plate (= models B-H) or additionally with higher tensile roller material 50CrV4 (= SAE 6150) (= models B-H-50CrV4).

Hints on use:

- If the Rollers are being used to their maximum carrying capacity or with lengthy intervals between use choose models with a hardened centre plate (= model B-H).
- In case of possible overload, choose chain roller material 50CrV4 (B.S. 735 A 50; SAE 6150) (= models B-H-50CrV4).
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track. For smaller models I-IIIv 7-5 %, for larger models 5-3 % of the total load.
- Can be arranged with guide rollers (see drawing 11+12).



Mod. B, B-H (H = hardened and machined centre plate), **B-H-50CrV4** (roller material 50CrV4)

Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	175	18	51	6	13	63	14	140	170	5	15	100	6.2
II	220	113	190	24	60	10	14	73	14	155	180	4	13	150	8.4
III	270	130	210	30	68	10	14	90	18	175	220	4	13	300	14.1
IV	380	168	270	42	76	19	19	126	22	220	320	4	13	600	36.5
V	530	182	300	50	86	19	19	146	22	240	470	6	17	800	66.4

All Dimensions in mm

Roller Skate Express – The Robusts

Range of application:

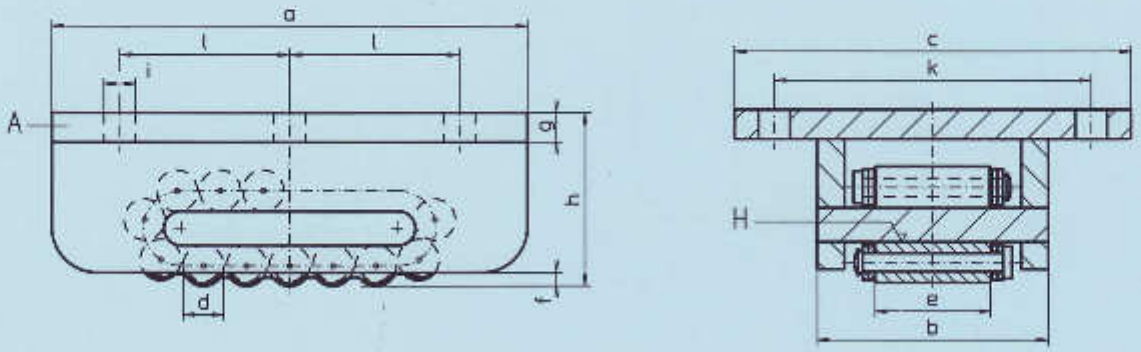
- For short distances.
- If possible on suitable tracks, e.g. crane rails or steel beams.
- Movement of heavy loads in mining, steel industry, machine construction, bridge construction and the ship building industry.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed.
- Often used on construction sites.

Hints on use:

- Models I-IIIv have 4 bolt holes as standard.
- If the Rollers are being used to their maximum carrying capacity or with lengthy intervals between use choose models with a hardened centre plate (= model A-H).
- In case of possible overload, choose chain roller material 50CrV4 (B.S. 735 A 50; SAE 6150) (= models A-H-50CrV4).
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track. For smaller models I-IIIv 7–5 %, for larger models 5–3 % of the total load.
- Can be arranged with guide rollers (see drawing 11+12).
- Location of the fixing holes can be arranged to suit customers' requirements.
- Optional in galvanised or stainless steel construction.

Characteristics of the series of model...A:

- Robust construction.
- Low level construction with higher carrying capacity, exchangeable in outer dimensions with models ...AS+ ...AM.
- More stability achieved if load is firmly bolted to Roller Skate.
- Available with hardened centre plate (= models A-H) or additionally with higher tensile roller material 50CrV4 (= SAE 6150) (= models A-H-50CrV4).



Mod. A, A-H (H = hardened and machined centre plate), **A-H-50CrV4** (roller material 50CrV4)

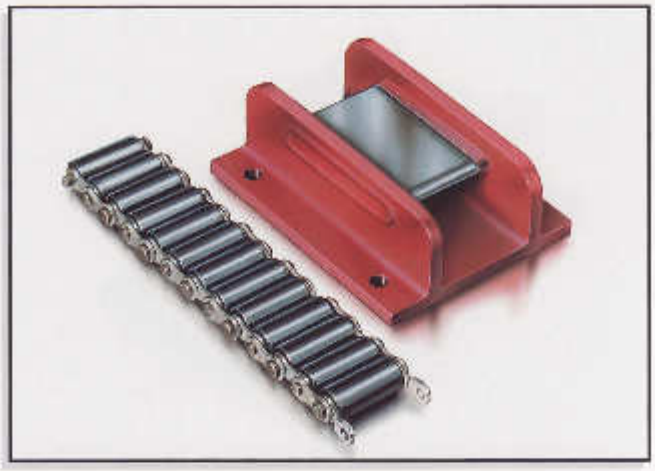
Mod.	a	b	c	Ø d	e	f	g	h	Ø l	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	175	18	51	6	13	76	14	140	75	5	15	150	8.9
II	220	113	190	24	60	10	14	87	14	155	75	4	13	200	11.7
III	270	130	210	30	68	10	14	104	18	175	95	4	13	400	19.3
IIIv	320	140	220	30	68	10	18	115	18	180	120	6	17	500	29.0
IV	380	168	270	42	76	19	19	145	22	220	140	4	13	650	51.0
V	530	182	300	50	86	19	19	165	22	240	205	6	17	850	92.0

All dimensions in mm

Roller Skate Express – The Super-Robusts

Range of application:

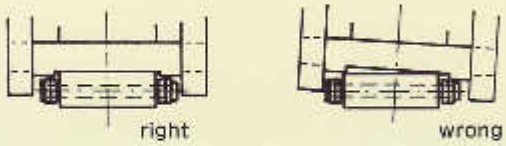
- **For longer distances and/or permanent loads.**
- On suitable tracks, crane rails or steel beams.
- Movement of heavy loads for longer distances or for progressive shifting of scaffolding and shuttering in bridge construction. Also used for hangar doors (hardened shelters), as crawler tracks, in nuclear power stations, in institutes for nuclear research, on oil rigs, in the ship building industry and for tunnel construction.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed.



Characteristics of the series of model... AS:

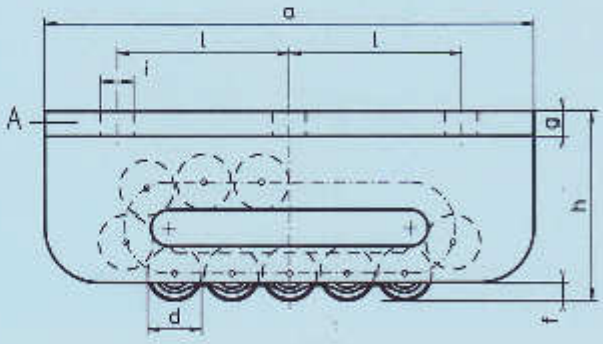
- Extra robust construction.
- Low level construction, exchangeable in outer dimensions with model ...AM and ...A.
- More stability achieved, if load is firmly bolted to Roller Skates.
- More stable operation and distribution of load.
- **Reduced wear by centre plate chain guide** (no contact between chain and side walls, no wear on rivet heads).

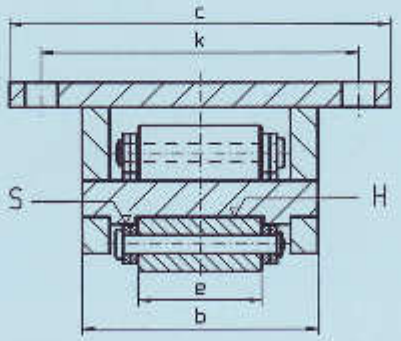
* Sticker on every Roller Skate with S-guide:
Attention! This model has a chain guide in the central bridge for the roller chain. Ensure that all rollers run exactly inside the chain guide before setting down.



Hints on use:

- Models I-IIIv have 4 bolt holes as standard.
- If problems of load distribution occur e.g. by wind forces, it is necessary to choose model AS-H-50CrV4
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track. For smaller models I-IIIv 7-5 %, for larger models 5-3 % of the total load.
- Available with guide rollers (see drawing 11+12).
- Location of the fixing holes can be arranged to suit customers' requirements.
- Optional in galvanised or stainless steel construction.
- Several models for off-shore purposes approved by LRS, ABS and DnV.





Mod. AS-H (H = hardened and machined centre plate), **AS-H-50CrV4** (roller material 50CrV4)

Mod.	a	b	c	Ø d	e	f	g	h	Ø l	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
III	270	130	210	30	68	10	14	104	18	175	95	4	13	400	19.6
IIIv	320	140	220	30	68	10	18	115	18	180	120	6	17	500	29.5
IV	380	168	270	42	76	19	19	145	22	220	140	4	13	650	51.7
V	530	182	300	50	86	19	19	165	22	240	205	6	17	850	93.0
VL	580	182	300	50	86	19	23	170	26	250	250	8	21	1000	109.0
Vv	650	205	350	50	100	20	28	190	26	280	240	9	23	1500	162.0
VI	900	205	380	50	100	20	38	200	33	300	360	13	31	2000	266.0

All Dimensions in mm

Roller Skate Express – The Super-Robusts

Range of application:

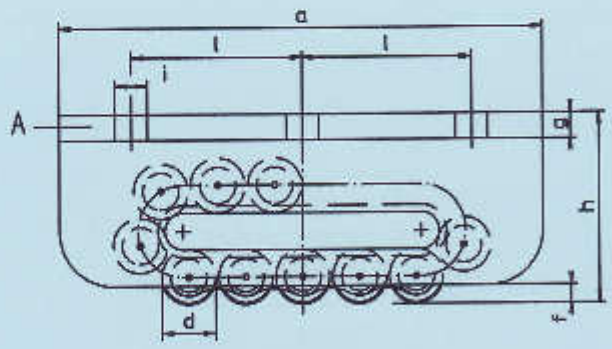
- **For longer distances and/or permanent loads.**
- On suitable tracks, crane rails or steel beams.
- Movement of heavy loads for longer distances or for a long time e.g. for movements as a machine component, heavy duty telescope, guidance on component for very high radial force e.g. in ship building, in the machine engineering industry.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed e.g. rolling table for heavy pallets of tube producer.
- **Origin of concept: application in machine construction.**

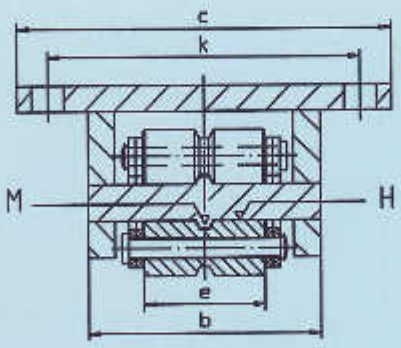
Hints on use:

- **Check with the manufacturer before selection of Skates for use in a vertical position.**
- Models I-IIIv have 4 bolt holes as standard.
- If problems of load distribution occur e.g. by wind forces, it is necessary to select model AM-H-50CrV4.
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track. For smaller models I-IIIv 7-5 %, for larger models 5-3 % of the total load.
- Available with guide rollers (see drawing 11+12).
- Location of the fixing holes can be arranged to suit customers' requirements.
- Optional in galvanised or stainless steel construction.

Characteristics of the series of model...AM:

- Extra robust construction.
- Low profile, exchangeable in outer dimensions with model...AS and ...A.
- More stability achieved, if load is firmly bolted to Roller Skates.
- More stable operation and distribution of load.
- **Reduced wear by centre plate chain guide** (no contact between chain and side walls, no wear to rivet heads).





Mod. AM-H (H = hardened and machined centre plate), **AM-H-50CrV4** (roller material 50CrV4)

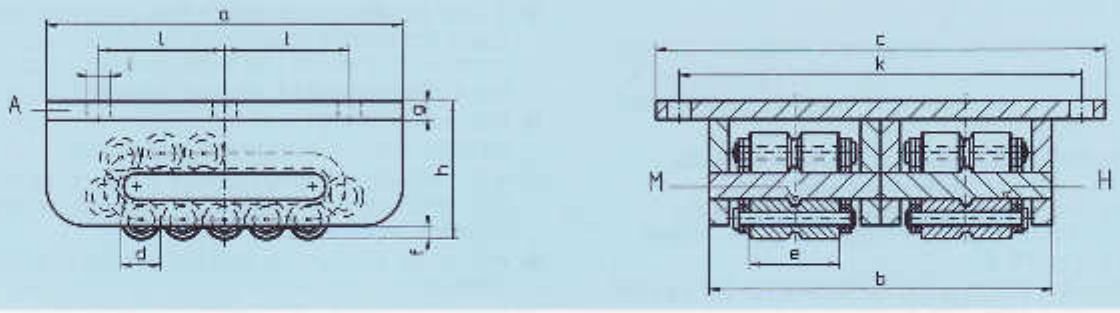
Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	175	18	51	6	13	76	14	140	75	5	15	125	8.8
II	220	113	190	24	60	10	14	87	14	155	75	4	13	170	11.5
III	270	130	210	30	68	10	14	104	18	175	95	4	13	330	19.0
IIIv	320	140	220	30	68	10	18	115	18	180	120	6	17	420	28.5
IV	380	168	270	42	76	19	19	145	22	220	140	4	13	530	50.0
V	530	182	300	50	86	19	19	165	22	240	205	6	17	690	89.5
VL	580	182	300	50	86	19	23	170	26	250	250	8	21	880	104.0
Vv	650	205	350	50	100	20	28	190	26	280	240	9	23	1250	156.0
VI	900	205	380	50	100	20	38	200	33	300	360	13	31	1650	237.0

All dimensions in mm

Roller Skate Express – The Super-Robusts

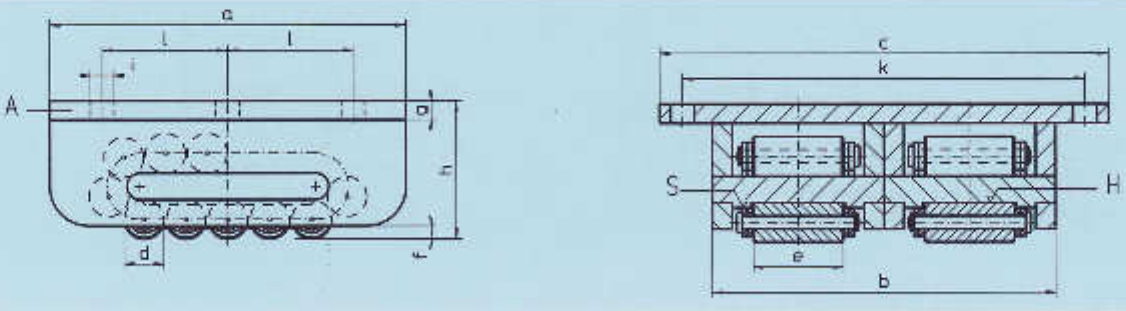
Range of application:

- **For longer distances and repeat journeys with permanent loads.**
- On suitable tracks like crane rails or steel beams.
- For extreme load bearing points.
- Suitable for limited space.
- Often used for bridge construction or for mobile equipment to support hydraulic valves.
- Use as a conveyor, when the load is moving and the Roller Skates are fixed.
- Triple Roller Skates or Multiple Roller Skates on request.
- For further information please see pages 8-10.



Mod. ZAM-H (H = hardened and machined centre plate), **ZAM-H-50CrV4** (roller material 50CrV4)

Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	200	280	18	51	6	13	76	14	245	75	2 x 5	2 x 15	250	16,0
II	220	226	305	24	60	10	14	87	14	270	80	2 x 4	2 x 13	340	22,0
III	270	260	340	30	68	10	14	104	18	305	95	2 x 4	2 x 13	660	35,0
IIIv	320	280	360	30	68	10	18	115	18	325	120	2 x 6	2 x 17	840	55,5
IV	380	336	440	42	76	19	19	145	22	390	150	2 x 4	2 x 13	1060	92,5
V	530	364	480	50	86	19	19	165	22	430	210	2 x 6	2 x 17	1380	168,0
VL	580	364	480	50	86	19	23	170	26	430	250	2 x 8	2 x 21	1760	197,0
Vv	650	410	560	50	100	20	28	190	26	490	240	2 x 9	2 x 23	2500	294,0
VI	900	410	590	50	100	20	38	200	33	500	360	2 x 13	2 x 31	3300	432,0

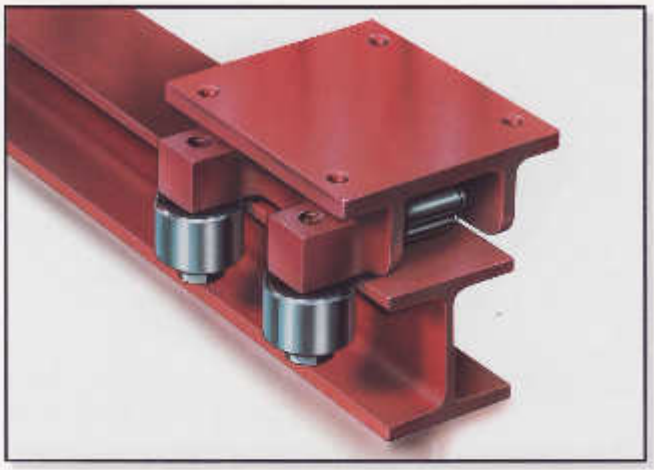


Mod. ZAS-H (H = hardened and machined centre plate), **ZAS-H-50CrV4** (roller material 50CrV4)

Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
III	270	260	340	30	68	10	14	104	18	305	95	2 x 4	2 x 13	800	36.2
IIIv	320	280	360	30	68	10	18	115	18	325	120	2 x 6	2 x 17	1000	57.5
IV	380	336	440	42	76	19	19	145	22	390	150	2 x 4	2 x 13	1300	96.0
V	530	364	480	50	86	19	19	165	22	430	210	2 x 6	2 x 17	1700	175.0
VL	580	364	480	50	86	19	23	170	26	430	250	2 x 8	2 x 21	2000	207,0
Vv	650	410	560	50	100	20	28	190	26	490	240	2 x 9	2 x 23	3000	305.0
VI	900	410	590	50	100	20	38	200	33	500	360	2 x 13	2 x 31	4000	485.0

All dimensions in mm

Roller Skate – The Robusts and The Super-Robusts



Range of application:

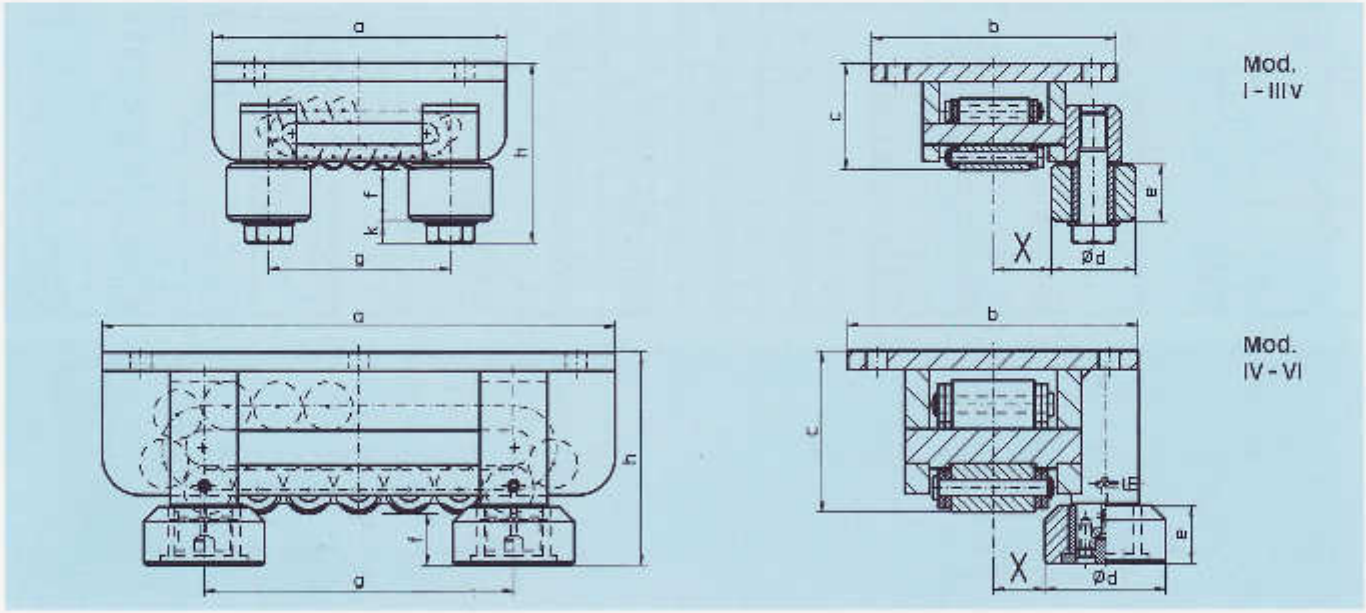
- **For longer distances and repeat journeys with permanent loads.**
- On suitable tracks such as crane rails or steel beams.
- Numbers and arrangement of the guide rollers according to drawing 11+12.

Characteristics of the guide rollers ... FR:

- Robust, almost maintenance free; welded construction able to maintain a defined direction.
- Made to measure according to customers' requirements and/or the specific track.
- Minimum specification for Skates: hardened centre plate.

Hints on use:

- To select suitable Skate – determine details of the rail track or determine dimension 'X', where dimension 'X' is the distance between the inner edge of guide rollers and the centre of the Roller Skate.
- **To select suitable arrangement of guide roller(s):**
  - If parallelism of beams or rails is uncertain, it is advisable to locate the guide roller on one profile edge only and then employ 4 guide rollers on each Skate (FR-E);
  - If parallelism is assured it is sufficient to use 2 guide rollers on each Skate (FR-C), bearing on both tracks.
- If lateral guide rollers cannot be mounted due to space limitations, the use of lead rollers, mounted in front of (or behind) the Skate to suit the particular rail is recommended (see photo page 22).
- Position of fixing holes in top plate of Skate can be arranged to suit customers' requirement.
- If the hexagonal head of small guide roller spindle for model I-IIIv creates space problems, construction can be modified.
- For model IIIv there is also the option of large guide roller(s).
- Maximum speed: 5 m/min.



Mod. A-H-FR-, AS-H-FR-, AM-H-FR-

Mod.	a	b	c	Ød	e	f	g	h	k			X min.	X max.	Admissable Radial Force per Guide Roller
I	210	175	76	60	40	36	130	128	16			35	80	10
II	220	190	87	60	40	32	140	135	16			42	90	10
III	270	210	104	60	40	32	180	152	16			50	110	10
IIIv	320	220	115	60	40	32	230	163	16			55	115	10
IV	380	270	145	125	60	50	160	195	–			45	150	100
V	530	300	165	125	60	50	280	215	–			50	160	100
VL	580	300	170	125	60	50	340	220	–			50	160	100
Vv	650	350	190	170	60	50	340	240	–			50	170	150
VI	900	380	200	170	60	50	550	250	–			50	170	150

All dimensions in mm

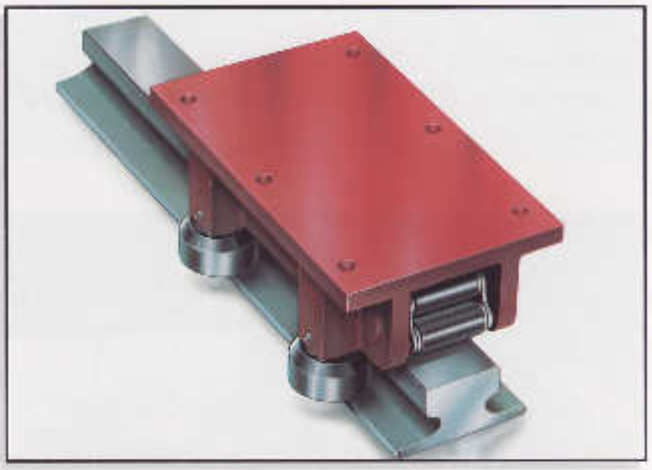
Roller Skate – The Robusts and The Super-Robusts

Range of application:

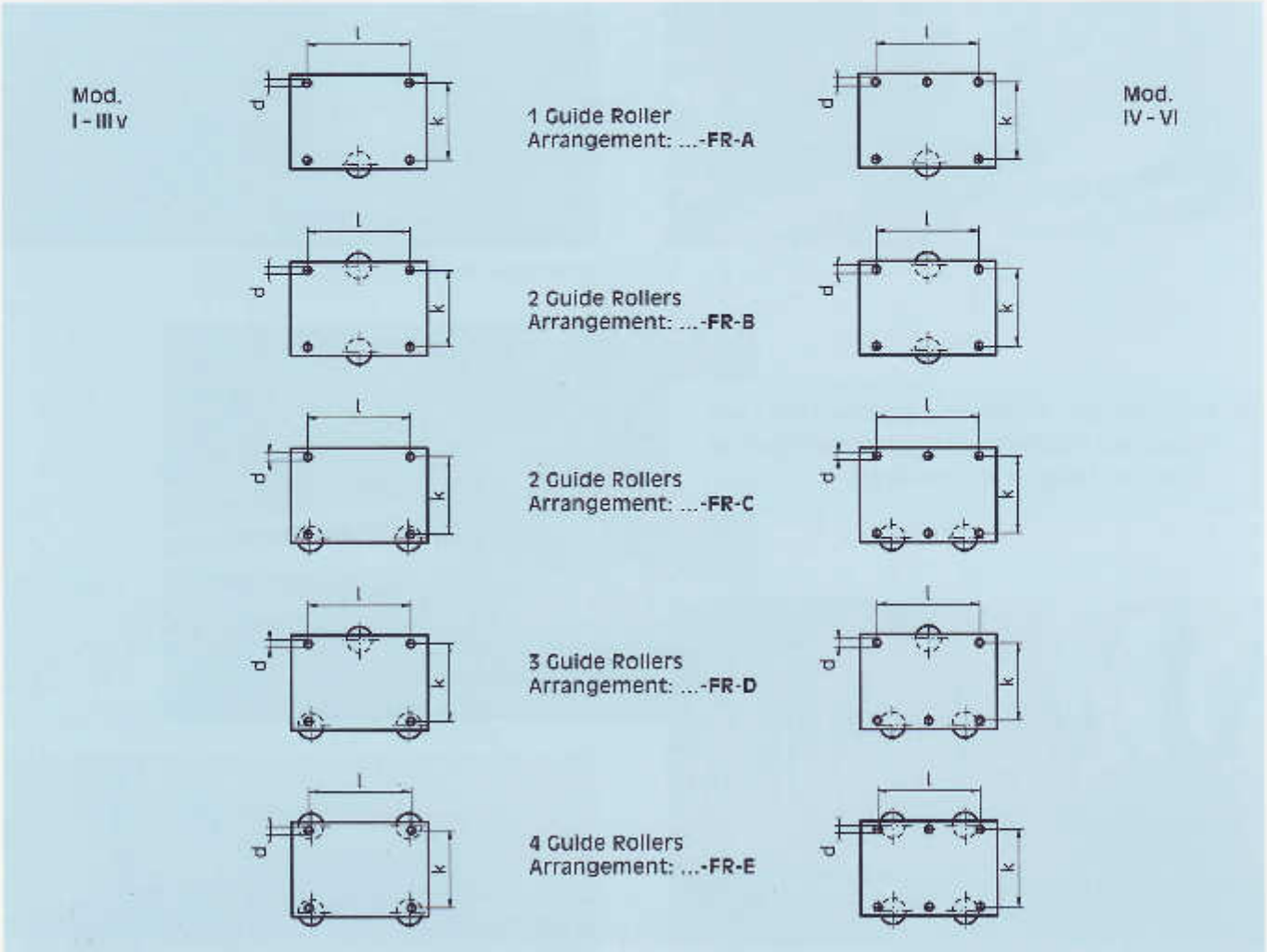
- **For longer distances and repeat journeys with permanent loads.**
- On suitable tracks such as crane rails or steel beams.
- Numbers and arrangement of the guide rollers according to drawing 11+12.

Hints on use:

- **To select suitable arrangement of guide roller(s):**
  - if parallelism of beams or rails is uncertain, it is advisable to locate the guide roller on one profile edge only and then employ 4 guide rollers on each Skate (FR-E);
  - If parallelism is assured it is sufficient to use 2 guide rollers on each Skate (FR-C), bearing on both tracks.
- If lateral guide rollers cannot be mounted due to space limitations, the use of lead rollers, mounted in front of (or behind) the Skate to suit the particular rail profile is recommended (see photo page 22).



- Position of fixing holes in top plate of Skate can be arranged to suit customers' requirement.



Mod. A-H-FR-, AS-H-FR-, AM-H-FR-

Mod.	I	II	III	IIIv	IV	V	VL	Vv	VI	Mod.
Ø d	14	14	18	18	22	22	26	26	33	Ø d
k	140	155	175	180	220	240	250	280	300	k
l	150	150	190	240	280	410	500	480	720	l

All dimensions in mm

Universal application of Roller Skate Express

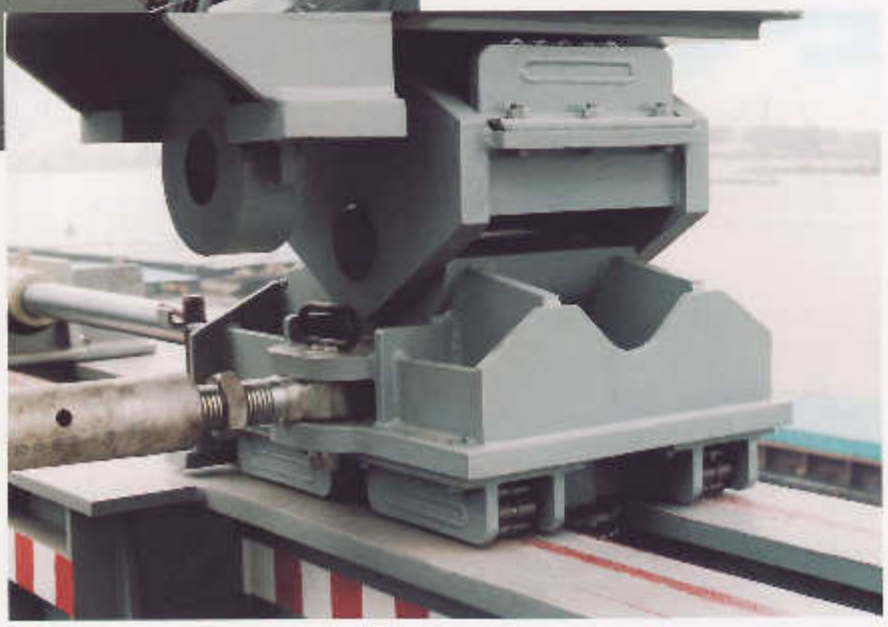
■ Movement of a winding tower in China weighing 520 tonnes using Roller Skates.

Reference: Siemag Transplan

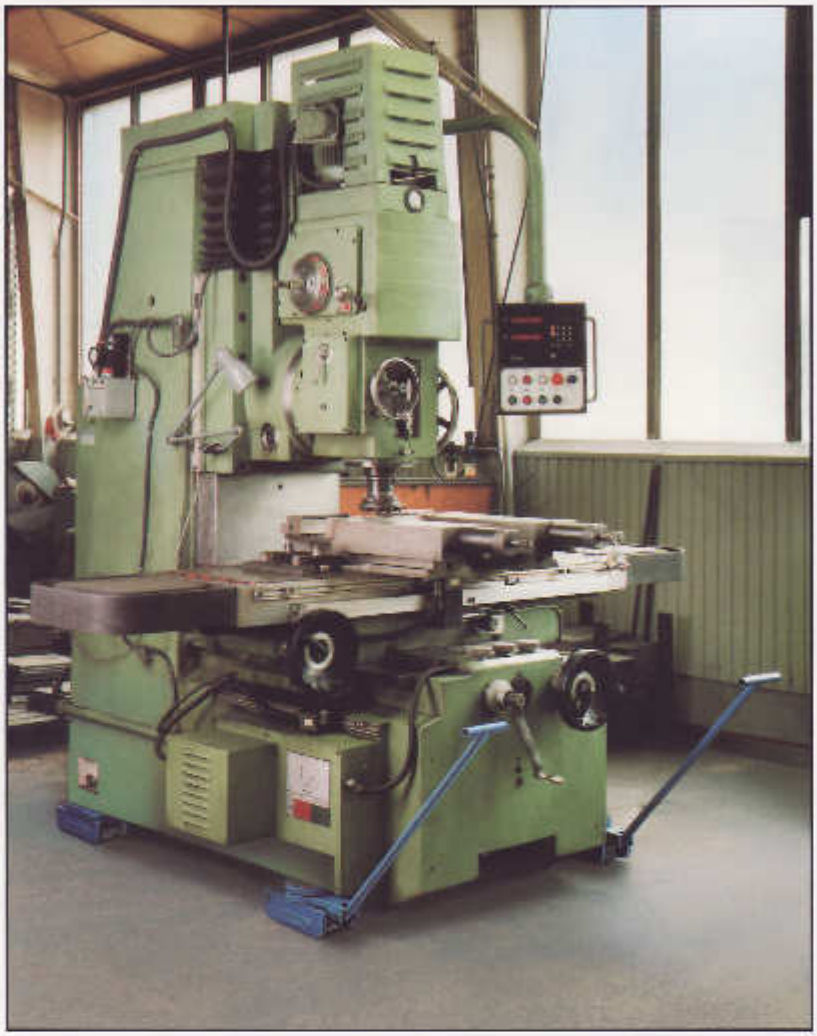
■ Loading an off-shore construction part weighing 110 tonnes into an aeroplane with the help of Roller Skates.

Universal application of Roller Skate Express

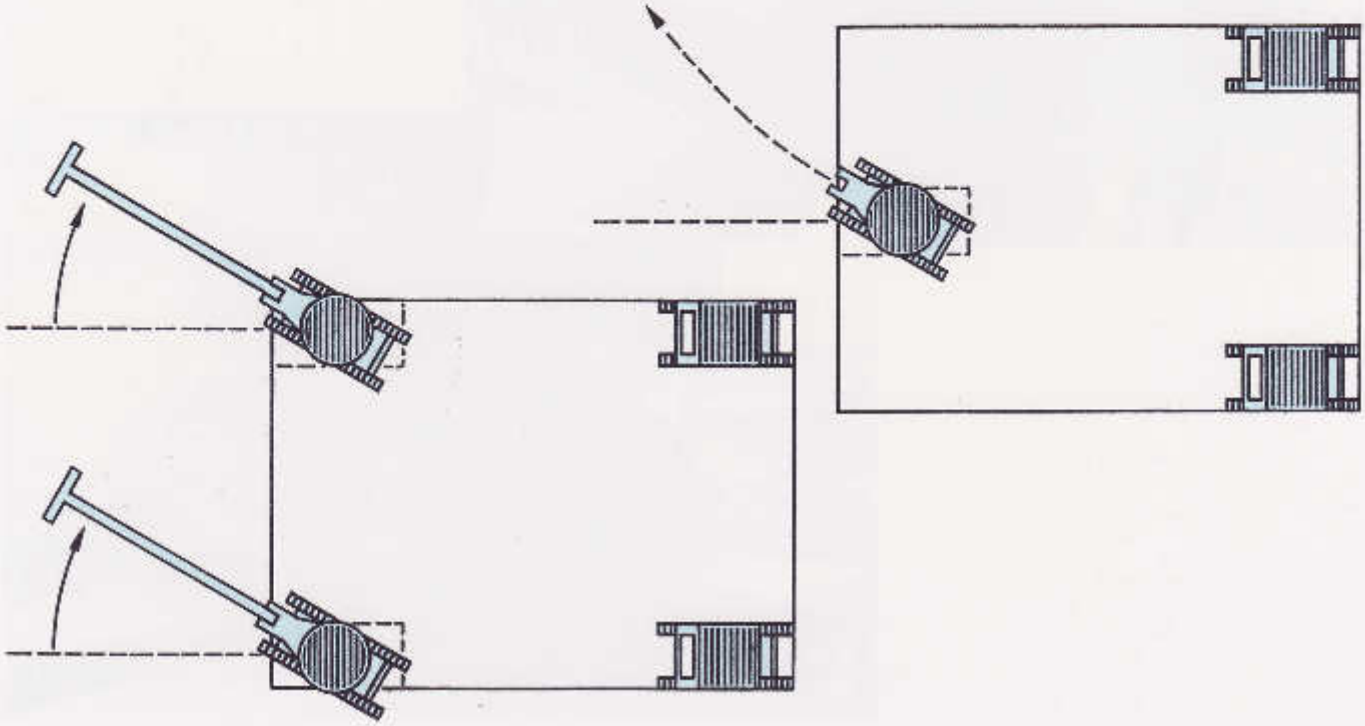
■ The positions of 80 tonnes partitions on a container ship are adjustable when Roller Skates are employed.



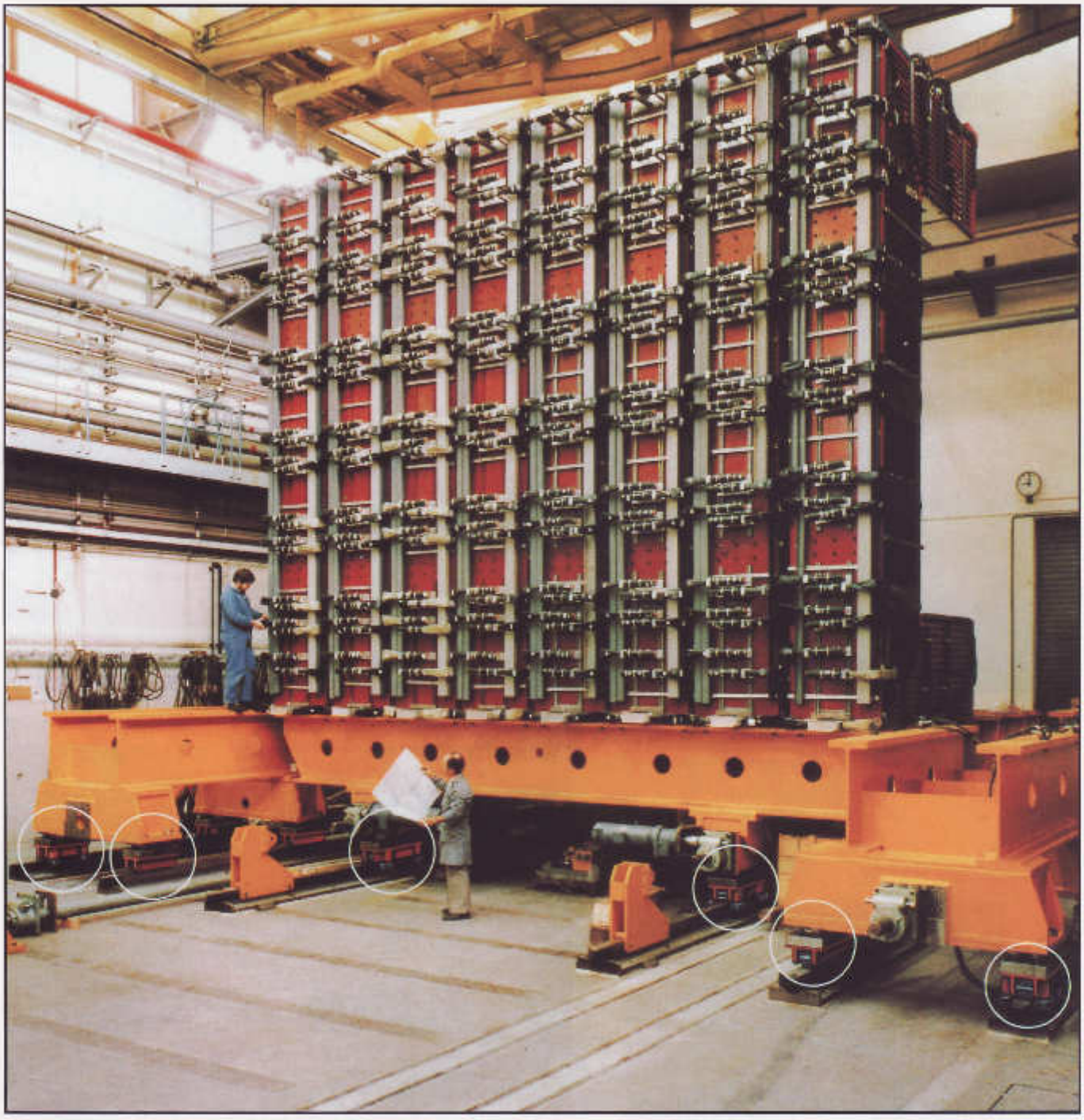
Universal application of Roller Skate Express



■ Positioning of a tooling machine



Universal application of Roller Skate Express

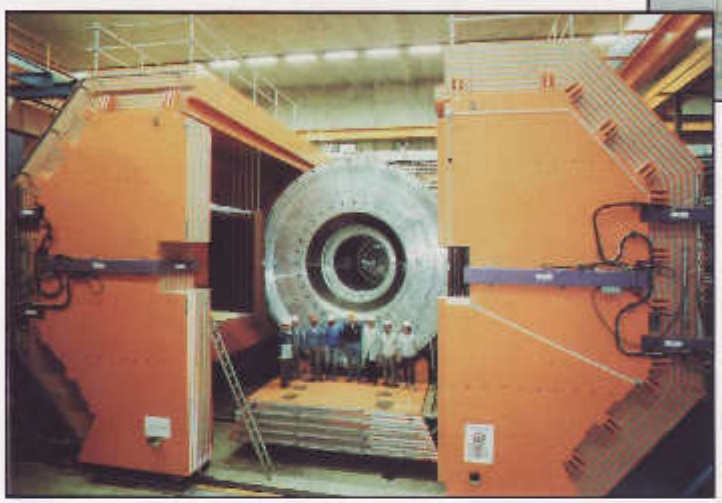


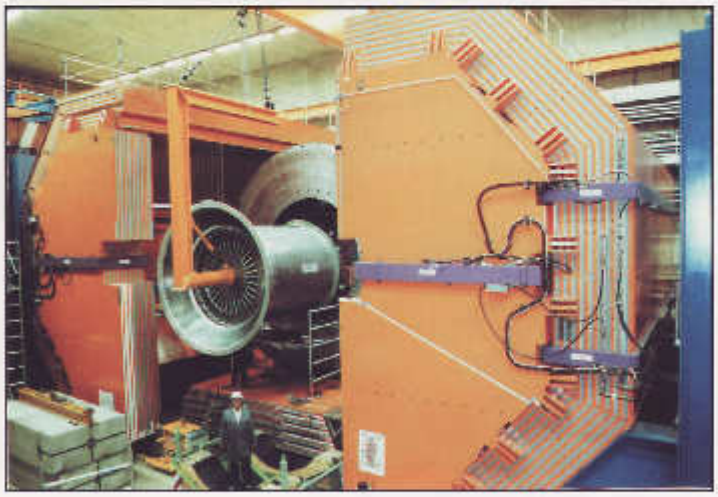
Reference: Photo CERN/Geneva

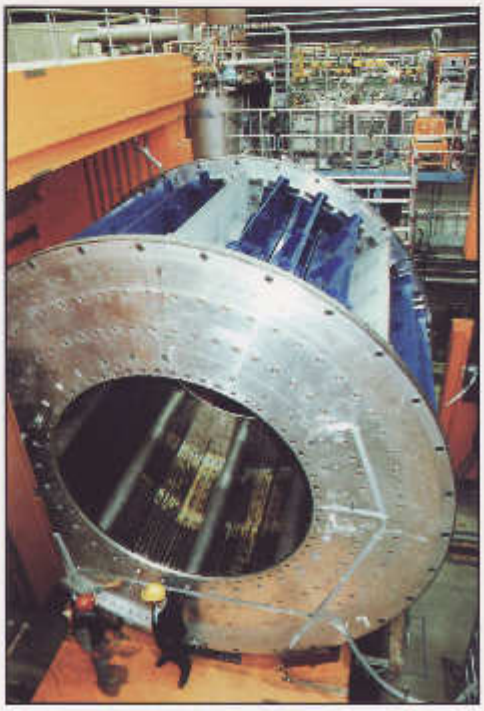
■ Roller Skates Model V AS-H-50CrV4 in the Nuclear Research Centre (CERN) in Geneva

Universal application of Roller Skate Express

- Used in the construction of the ZEUS-Experiment at DESY, Hamburg (nuclear research).



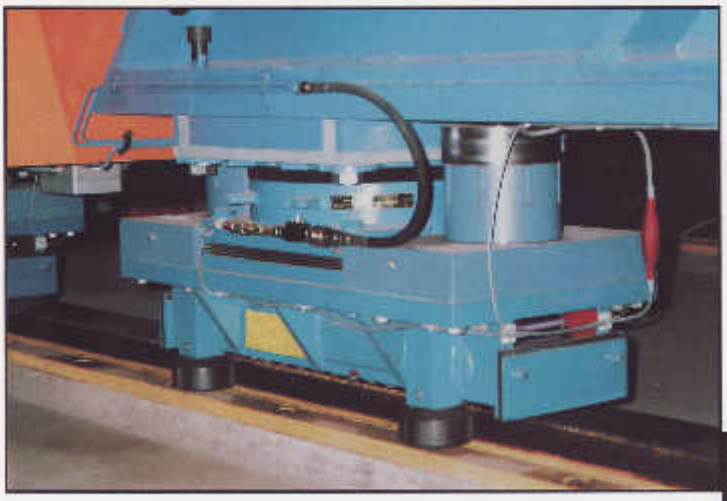




Reference: Photo DESY/Hamburg

Universal application of Roller Skate Express

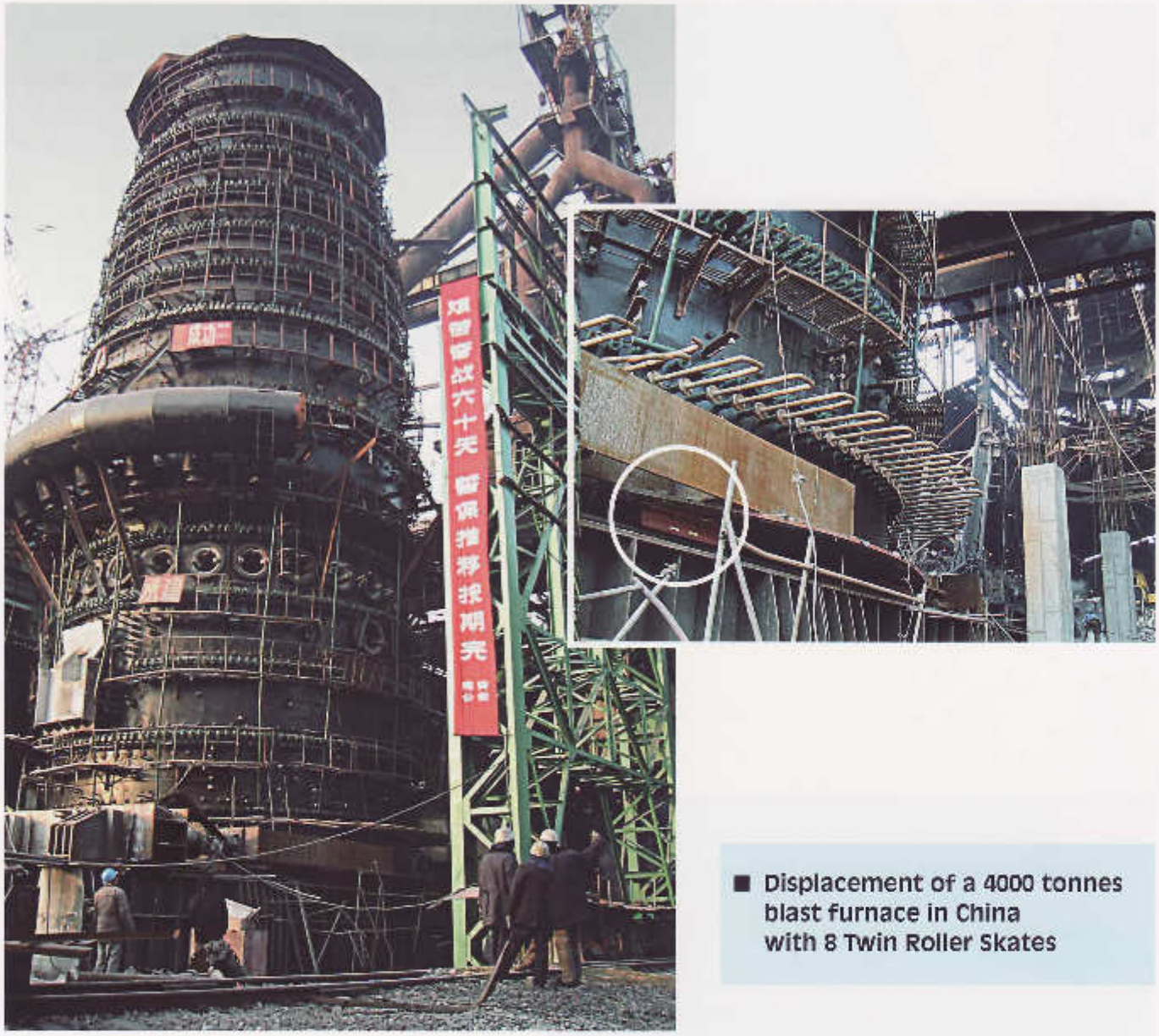
■ Roller Skates to solve the stocking and moving problems for the 3600 tonne experiments ZEUS and HERA.



■ Roller Skate with a centre-plate, which is adapted to the diametre of the super-conducting coil.

Reference: Photo DESY/Hamburg

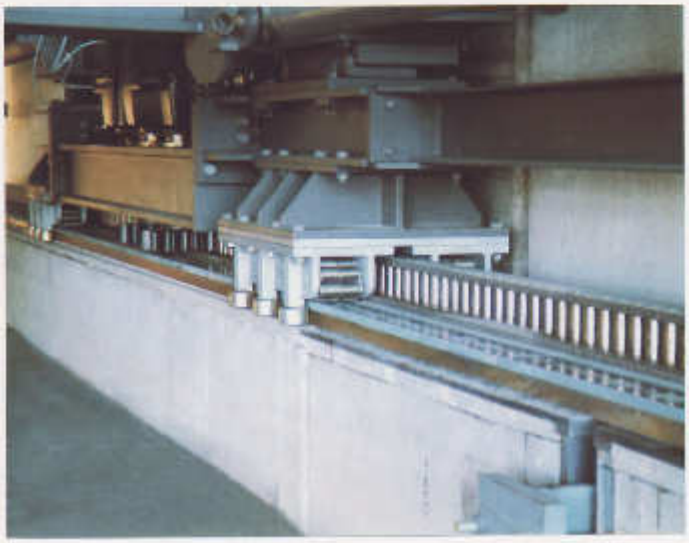
Universal application of Roller Skate Express



■ Displacement of a 4000 tonnes blast furnace in China with 8 Twin Roller Skates

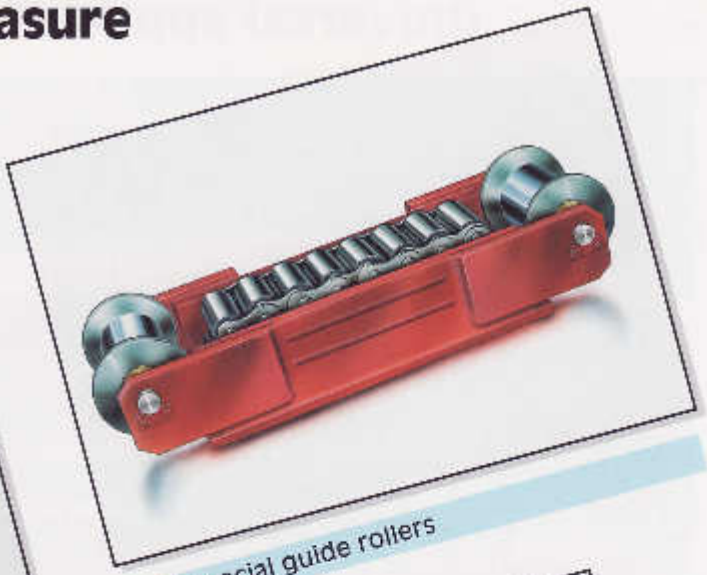
Universal application of Roller Skate Express

■ Movable 800 tonnes spectators' stand at Schalke (Arena) in Germany

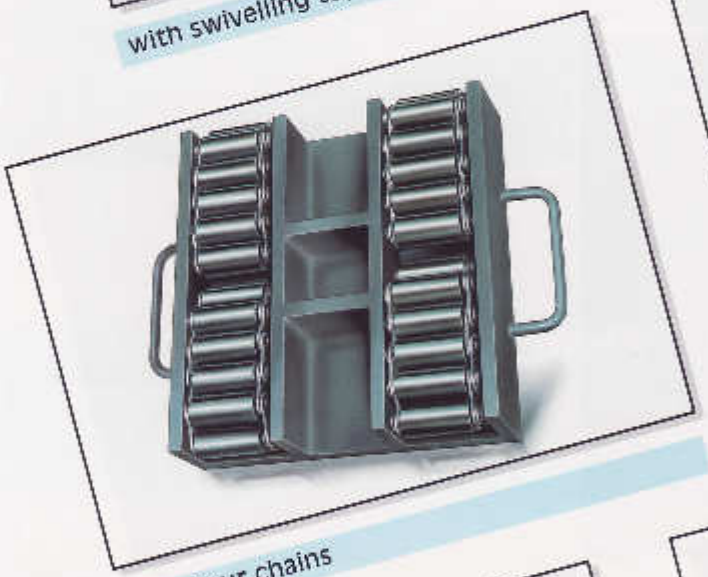


Roller Skates made to measure

with swivelling top-plate

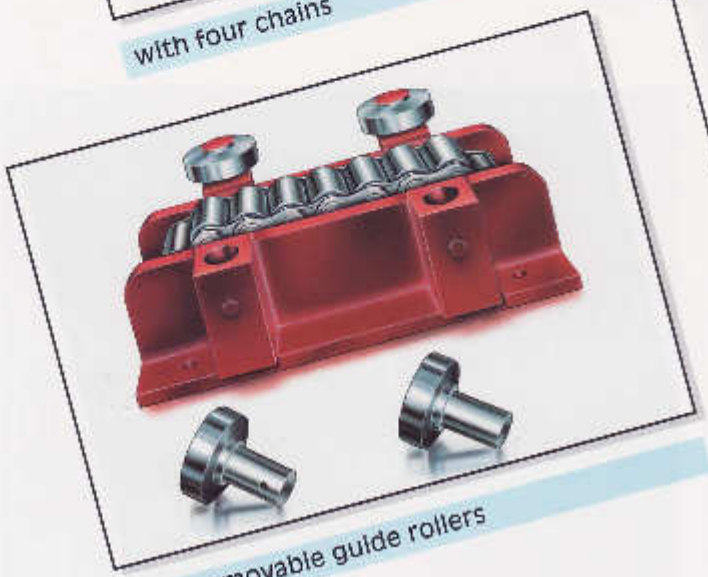


with special guide rollers



with four chains

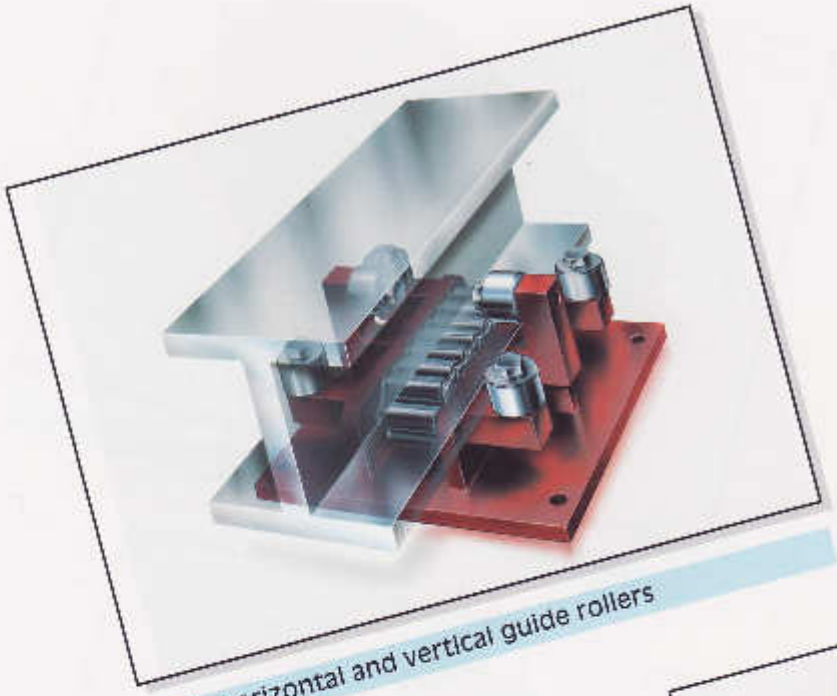
with curved centre-plate



with removable guide rollers

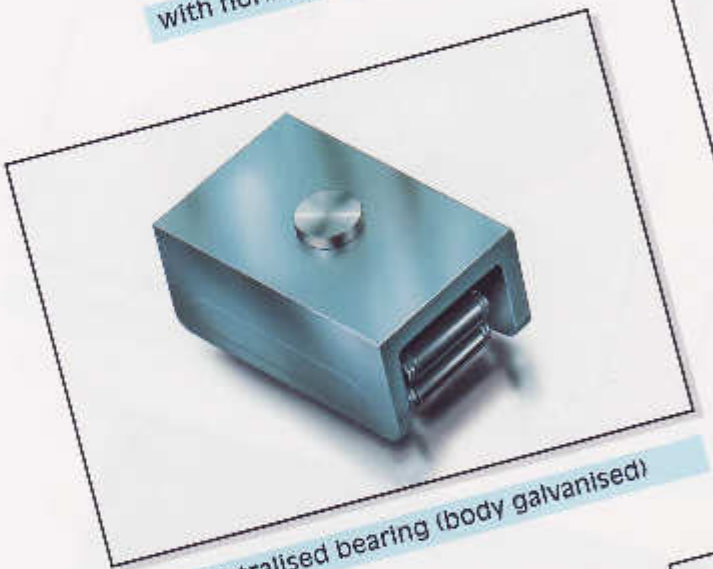
with guide rollers to run in channels

Roller Skates made to measure



with horizontal and vertical guide rollers

according to drawing Sk 68 A



with centralised bearing (body galvanised)

special construction acc. to drawing 51-3-1109

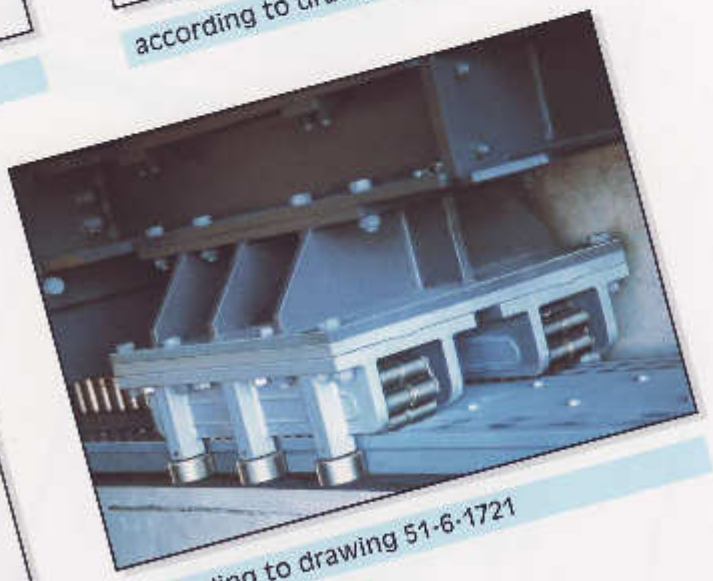
(galvanised) according to drawing 51-3-960

Roller Skates made to measure

according to drawing 51-5-1612

according to drawing 51-3-1407

according to drawing 51-3-1663



according to drawing 51-6-1721

according to drawing 51-5-846

Since 1951 our Rollers have been used in the following projects around the world (excerpts)

Germany

since 1951 Uncounted moving of machine tools in the whole world
1955 Moved a complete house on 25 rollers to make way for a new canal between the North and Baltic Seas
since 1955 Moving of large scaffold towers and shuttering for specialist companies e. bridge construction for motorway between Cologne and Hagen A 1 and Cologne – Frankfort
1957 Roller skates used to position bridge near Hamburg
1958 Moving a complete house to make room for a new road
since 1958 100 tonnes hydraulic cylinders fitted with Roller Skates
1958 Bridge of Lultzhausen over the valley of Dirbach
1962 Used to build Listertal bridge near Lüdenscheid
1962 Removal and replacement of ship engines for repair purposes
1964 Used to assemble 30000 tonnes capacity hydraulic press
since 1965 Used under high temperature conditions in the filling of furnaces
since 1965 Use in bridge construction on the motorway between Dortmund and Frankfort (Lennetalbrücke near Hagen, Kattenbusch near Lüdenscheid, bridge at Eisern, bridge over Siegtal, bridge over Landskroner Weiher
since 1966 Several bridges near Bonn and in the southern part of motorway BAB 45
since 1966 Transportation of containers on land and on ships
since 1968 Underground railway in Cologne
since 1970 Positioning of the Olympic Stadium roof in Munich
1972 Used in the construction of (nuclear) power stations
since 1972 Support and guidance of test equipment in the mining industry
1973 / 1977 Used in the nuclear research project PETRA by DESY in Hamburg
since 1975 Many Roller Skates used on NATO hardened aircraft shelter doors
since 1975 Used in the repair of printing rollers in the printing industry
1975 Positioning of railway bridges at Meppen and Ratingen
1977 Used for bridge over Kochertal near Geislingen
since 1978 Used in coil and large tube production
1978 / 1979 Bridge construction over moor near Plön/Holstein
1979 For crane tower in German iron and steel works
1981 Bridge construction over the Löwental near Friedrichshafen
1981 For loading equipment for melting furnace
1982 Repositioning of complete furnace (> 1000 tonnes)
1983 Set of heavy duty wheels used for construction of underground railway near Nuremberg
1983 Bridge on B 61 near Bielefeld
1984 Used for transportation of slag wagon in coke production
1984 Used for positioning counterbalance of cranes
since 1986 Used on the construction of several tunnels for the German High Speed Railway
1986 Construction of bridge over the Danube near Regensburg
since 1986 Bearing for heat expansion for paint spraying installations
1986 / 1987 Railway bridge at Oelde (Warendorfer Str.)
1987 Used on big machine tools in the car industry
1988 Bridge over the motorway BAB 1 at Hagen
1988 Used in the nuclear research project ZEUS by DESY in Hamburg (3600 tonnes)
1989 Used in the nuclear research project HERA by DESY in Hamburg (3600 tonnes)
1991 Renovation of Weser Stadium in Bremen
1992 Positioning of scaffolds for railway overpass near Bad Kreuznach
1995 Used for extension of suburban railway of Stuttgart
1996 Used for bridge over the Saale at Schkortleben
1996 Used at Potsdamer Platz/Berlin
1997 For tunnels and bridges of the motorway BAB A 100

Germany

1997 Used in the transfer of road B 311 at Ertingen
1997 Used for extension of suburban railway at Braunschweig
1997 Road bridge B 69 at Bad Essen
1998 Used for tunnel constructions in Berlin
1999 Extension of suspension railway at Wuppertal
1999 Extension of Northern ramp of Elbtunnel near Hamburg
1999 For new construction of Grünbrücke B 464 (bridge)
1999 For renovation of bridges on motorway A 45 Dortmund – Frankfort
2000 Tunnel near Ingolstadt
2000 Bridge over the Spree
2000 Tunnel on the banks of the river Weser near Porta Westfalica
since 2000 Making movable a spectators' stand at the Arena at Schalke
2000 Railway bridge near Duisburg
2000 Tunnel under the Rhine for motorway A 44 near Iverich
2002 Bridge over valley near Kaiserslautern
2002 Bridge over the Recknitz
2002 Twin roller skates for elimination of the movement of heeling over of a ship, which leaves the dock
2004 Multi function arena at Dusseldorf
2004 Tunnel Löwentor near Stuttgart

Austria

since 1965 Used in bridge construction Europabrücke near Innsbruck and as well as bridges on the Brenner Motorway
1967 Viaducts and bridges on the motorway between Villach and Klagenfurt
1978 Railway bridge at Braunau/Inn
1995 Tunnel construction near Semmering
2005 / 2006 Renovation of bridges/tunnels on the Tauern motorway

France

1958 Construction of suspension bridge at Roche-Bernard/Bretagne
since 1963 Renovation and expansion of Metro at Paris
since 1964 Used on tunnelling machines during the construction of the R.E.R. network at Paris and suburbs
1965 To position a complete spectators' stand at the Longchamps racecourse (18000 tonnes)
since 1965 Movement of heavy nuclear parts in nuclear power stations
1966 Construction of bridge to Isle of Oleron
1967 Positioning of complete bridge between Ile de la Cité and Ile St Louis in Paris
since 1967 Bridge construction on the motorway Nice – Mentone
since 1969 Used on slipways to launch ships at Saint Nazaire
since 1970 Used in the construction of the Mont Blanc tunnels
1971 Flyover bridge to the Isle of Noirmoutier
1971 For loading reactor parts (575 tonnes) on board of ships for a refinery
1972 Used in the foundation work for the Palace of Congress in Paris (Porte Maillot)
1974 Participation in suspension bridge near Saint Nazaire
1984 Roller skates equipped with hydraulics for off-shore platform
1985 Construction of the Eurotunnel
since 1989 Construction of tunnels/bridges for the high speed railway (TGV) in France
1991 For construction of suspension bridge Pont de Normandie
1991 Construction of tunnel at Marseille
1991 Funicular railway at Tignes
1992 / 1993 Transportation of statues during renovation of Louvre in Paris
1998 Wheel sets for heavy press for plastics
1999 First equipment of glass ovens
2004 / 2006 First equipment of glass ovens

Projects around the world (excerpts)

Switzerland

since 1955 Used on the first ring at CERN/Geneva nuclear research project
since 1958 CERN has placed its electromagnets permanently on our roller skates
1960 Twin roller skates for transporting transformers
since 1978 Transportation of 240 tonnes stator for power station
since 1981 Used in nuclear research project L3 at CERN/Geneva
1982 Used on slipways in shipyard at Brienzersee
1983/1984 Restoration of Quaibridge at Zurich
1988 Moving of large transformers for repair in power stations
1998 For Wittitunnel
1998 For tunnel Lüsslingen
since 2004 New tunnel Alpentransversale in Tessin
2004 Experiment LHCB at CERN/Geneva

Belgium/Luxemburg

1971 Part of a ship elevator near Waterloo
since 1976 Specially designed roller skates used in the construction of a nuclear power station
1980 Used during construction and installation of a new blast-furnace

Netherlands

1968 Repositioning of canal bridge near Vianen
since 1971 Incorporated in the tooling for a large tube bending machine
since 1973 To overcome problems during transportation of heavy loads in shipyards
since 1976 Roller skates used for manoeuvering suction pipes on dredgers
1993 Loading of an aeroplane with a 110 ton off-shore part
1993 Positioning of 80 tonnes partitions on a container ship

Africa/Asia

1954/1955 Used during the construction of the Aswan Dam, Egypt
since 1965 Construction of the Lower Volta bridge at Tema/Ghana
since 1982 Bridge construction in Nigeria
1983 Used by German construction company for positioning a heavy roof in Abu Dhabi
1991 Thika-Dam in Kenya
1993 Movement of winding tower (520 t) in China
1993 Bridge construction in Nepal
1995 For bridge construction in Thailand
1996 For subway in China
1997 For the Three Gorges Dam of the Yangtze River
1998 For plant of spiral tube in Algeria
1999 For My Thuan Bridge in Vietnam
1999 For steel works at Bhilai/India
2000 For a shipyard in Thailand
2000 For demolition of Adam Road Flyover in Singapore
2002 Displacement of a 4000 tonnes furnace in China
2005 Launching complete railway bridges in Sri Lanka

Also distributed through the following:

All European countries – The Middle and Far East – Most African Countries – Asia and Australia – North America and most countries in Middle and South America

Scandinavia/Great Britain

since 1982 Used in the off-shore industry with admission from Det-Norske-Veritas
1996 For Oeresundtunnel
1996 For retaining wall in Denmark
1997 Bridge over and tunnel under the Great Belt
1999 Tunnel Södra Länken in Sweden
2003 For military airport in Great Britain

Eastern Europe

1978 Moscow airport
1979/1980 Olympic games, Moscow
2000 Bridge over the Weichsel
2004 Steel mill car equipment for rotation purposes in Kasachstan
2005 Refinery in Belarus
2005 Bridge D8 Tmice
2005 Motorway construction near Köröshegy/Hungary

Southern Europe: Italy/Spain/Portugal

since 1967 In the construction of bridges and viaducts on the Brenner Motorway
1969 Specially designed rollers for a steel plant at Bilbao Construction of bridges in the Palermo area
1970/1971 Bridge construction near Palermo
1973 Bridge construction in Portugal
1982 Twin roller skates for transporting transformers
1987 Railway bridge over the Douro, Portugal
1997 Vasco-da-Gama-bridge over the Tejo at Lisbon

America

1966 Roller skates used in ships construction in Peru
since 1973 Specially designed roller skates for steel plant in Brazil
since 1988 Movement of the space launching pad for the ARIANE
1998 For Milwaukee Art Museum
1998 For bridge building in Costa Rica
2000 For 1000 tonnes Goliath crane
2002 For bloom melting equipment at Cosipa in Brasil

Australia

1975 Used in a vertical position on a tower crane built in Germany for Australian customers

History of Börkey GmbH

Foundation: 1945 GmbH since 1980
Beginning of production of Roller Skates Express: 1951
Beginning of production of Heavy Duty Wheels: 1955
New plant on 4500 square metres ground since 1973
New further production area: 1997

■ Wheels (without castors) – Drawing No. R1

Model S

Range of application:

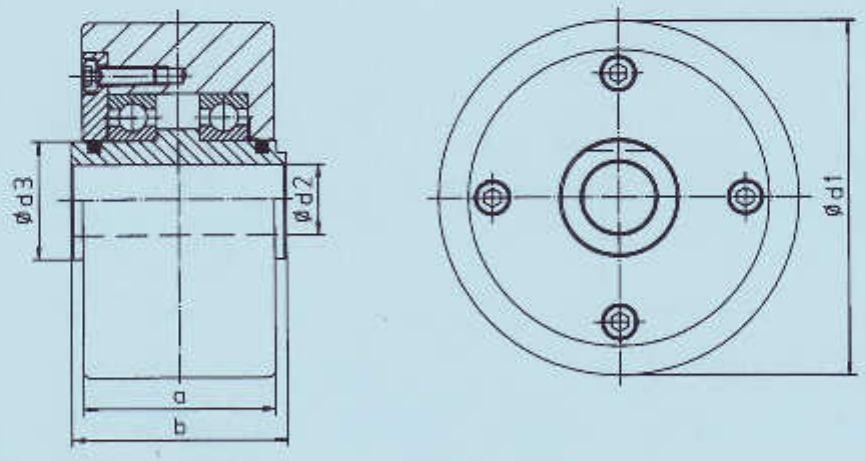
- For robust use eg on construction sites.
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- When higher carrying capacity and greater sturdinessis required.
- Impervious to shavings and dust.

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).
- 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	ø d1	ø d2	ø d3	Suitable castors			Carrying capacity (kN)		Weight (kg)
acciaio											
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

■ Wheels (without castors) – Drawing No. R2

Range of application:

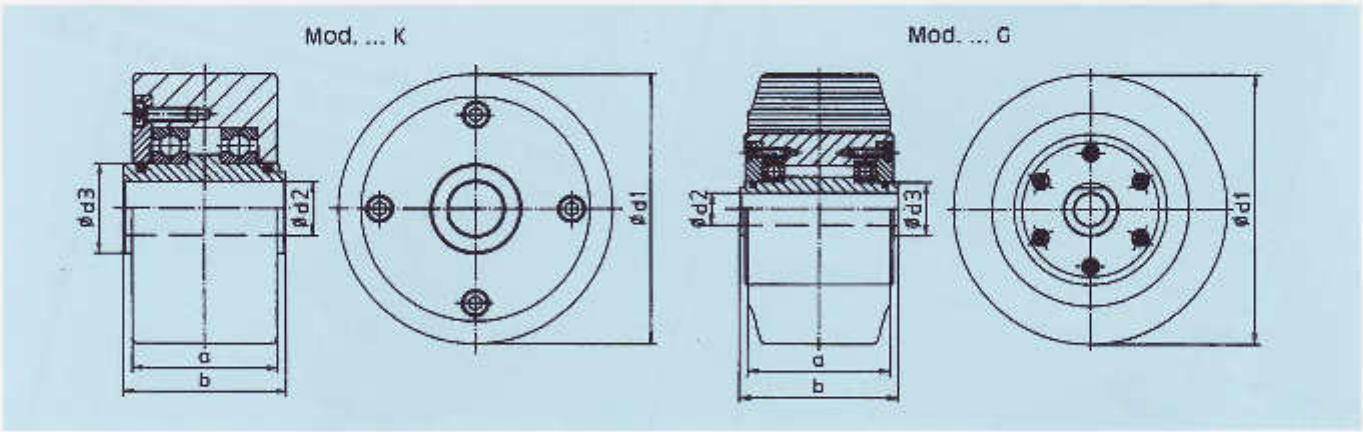
- Used in areas threatened by corrosion.
- For a particularly quiet running, which doesn't damage the ground.
- When lower carrying capacity and sturdiness lower than steel is required.
- In cases of minimal electric conductivity (plastic).
- For transporting loads at a maximum speed of 100 m/min.

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.

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.



Model K, G

Mod.		a	b	ø d1	ø d2	ø d3	Suitable castors			Carrying capacity (kN)		Weight (kg)	
Plastic	Rubber									K	G	K	G
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			35		8.7	

Heavy Duty Wheels

Model S/P

■ **Wheels (without castors) – Drawing No. R3**

Range of application:

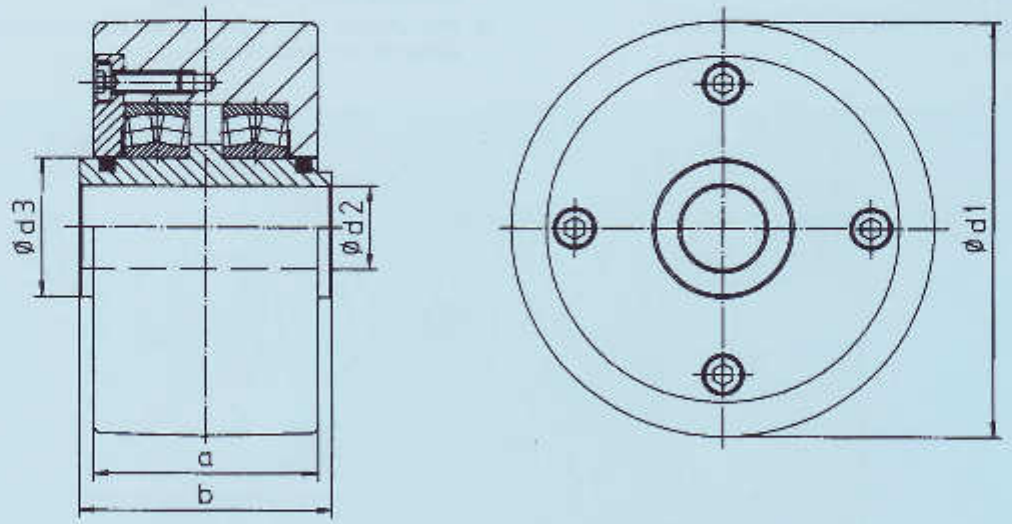
- For robust use e.g. on construction sites.
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- When higher carrying capacity and greater sturdiness is required.
- When higher safety standards and heavy duty are required.

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).

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	Ø d1	Ø d2	Ø 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

■ Wheels (without castors) – Drawing No. R4

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

Range of application:

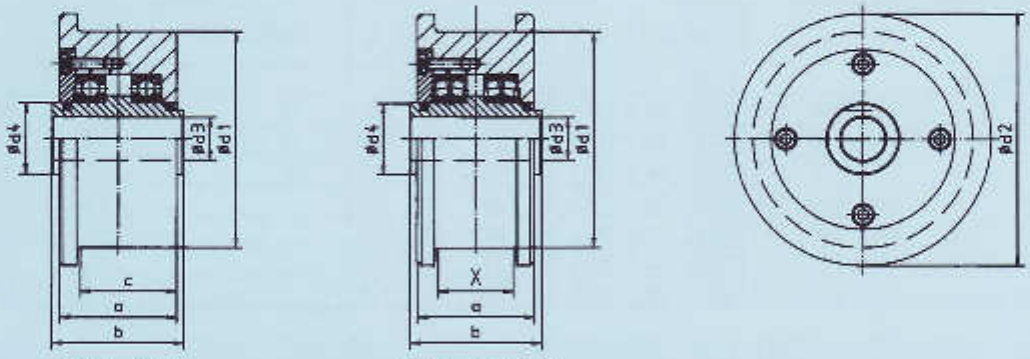
- For use on profiles (girders/rails).
- Can be inserted as a machine part.
- For transporting loads at a maximum speed of 100 m/min.
- With a flange wheel (= A) or with 2 flange wheels (= B).
- The maximum distance between 2 flange wheels x = 55 mm for the serial wheel.
- When choosing 2 flange wheels,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

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).



Mod. ...S-A Mod. ...S-B/P

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

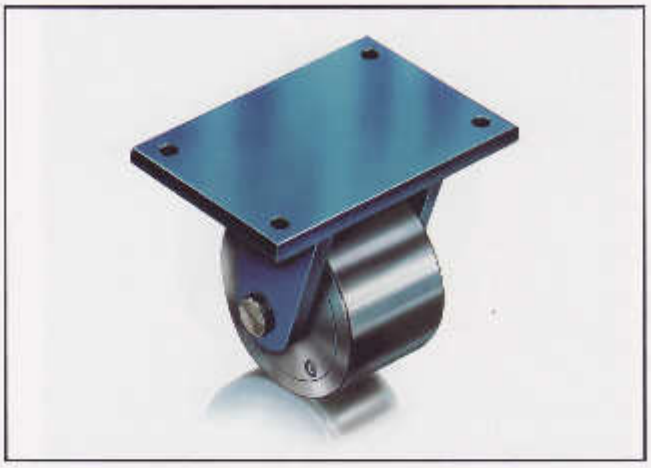
Model (Steel) .../P

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

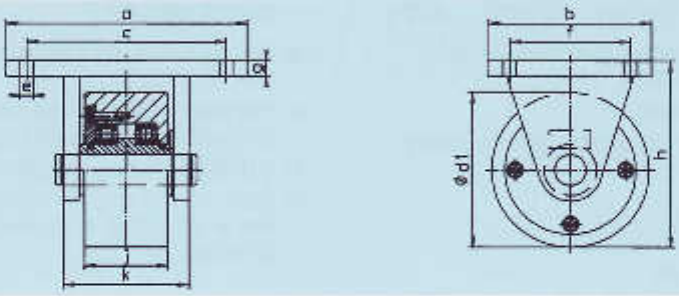


Range of application:

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

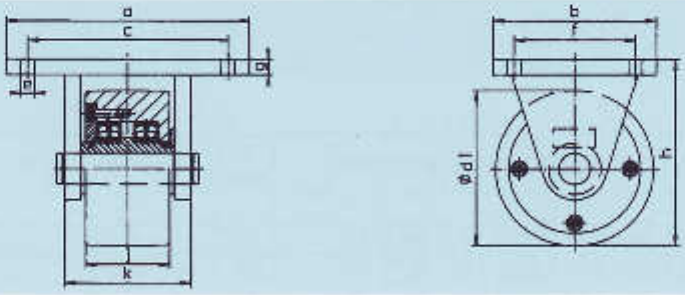
Characteristics of the model ...SF ...S, K, S/P:

- 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													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																
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

■ Swivel castors – Drawing No. R6

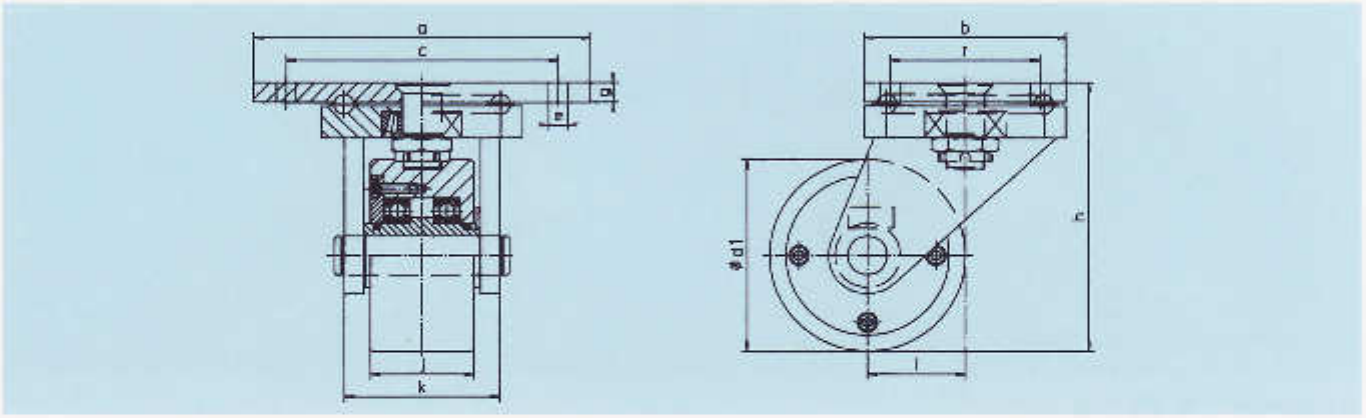
Model SL ... S, K, S/P

Range of application:

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

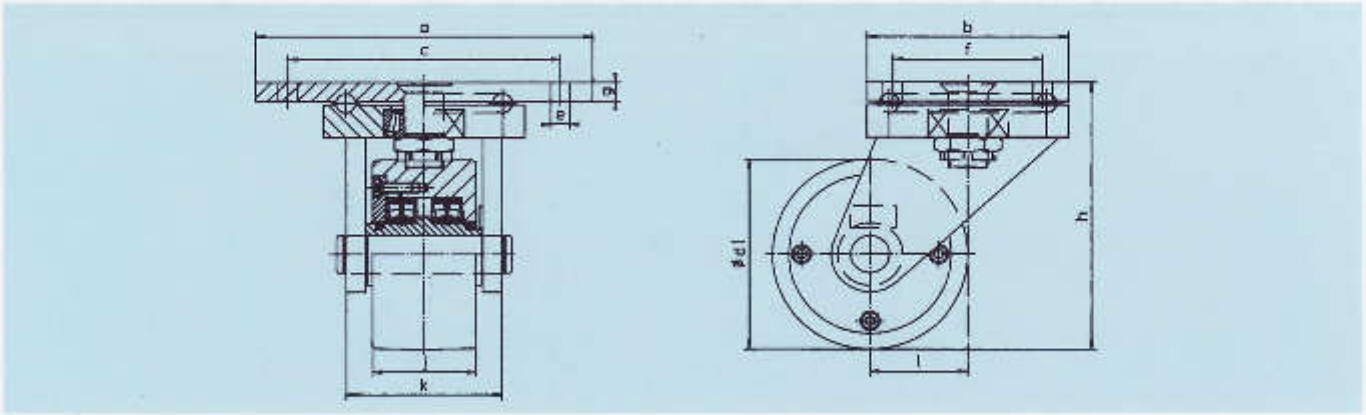
Characteristics of the model ... SL:

- 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, 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	75	SF	30	20	22.7	16.7
SL 175 S	SL 175 K	270	150	210	175	18	115	15	235	80	120	75	SF	30	20	27.5	18.2
SL 200 S	SL 200 K	270	150	210	200	18	115	15	260	80	120	75	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	80	SF	50			22.9
SL 175 S/P		270	170	220	175	18	130	20	245	80	130	80	SF	50			27.7
SL 200 S/P		270	170	220	200	18	130	20	285	80	130	80	SF	60			33.1

Heavy Duty Wheels

Model SD ...S, K, S/P

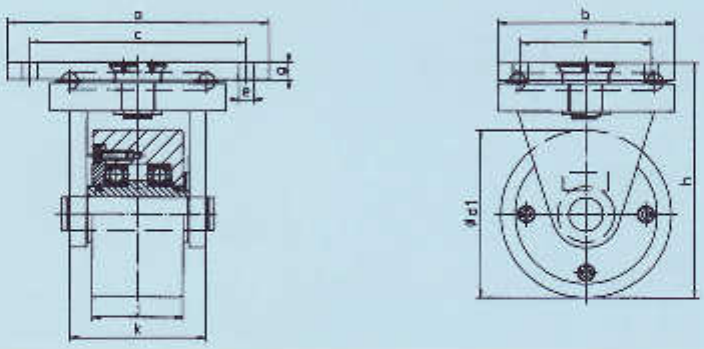
■ **Swivel castors – Drawing No. R7**

Range of application:

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

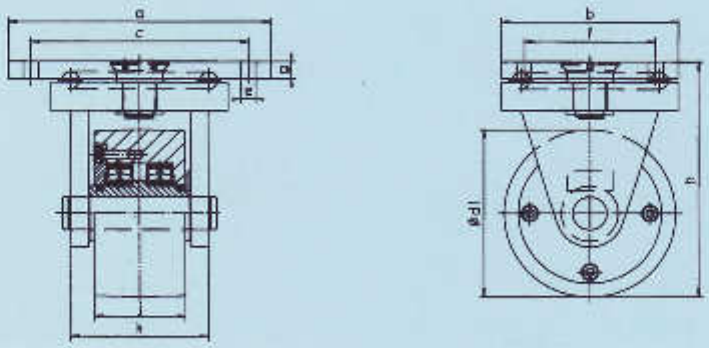
Characteristics of the model ... SD:

- 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

■ Flange wheels with fixed castors – Drawing No. R8

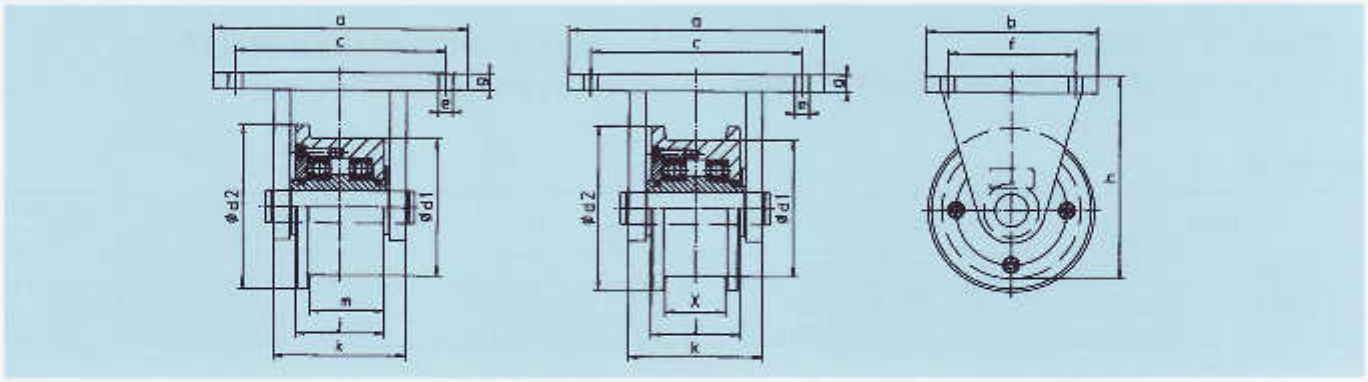
Model SF ...S-A (B), S-A (B)/P

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.

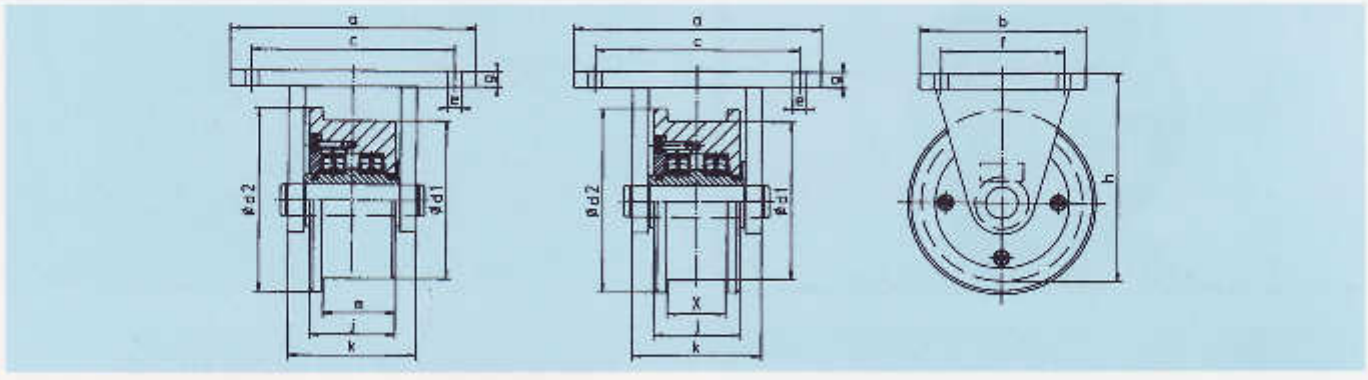
Characteristics of the model ...SF ...S-A, SF ...S-A/P:

- 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



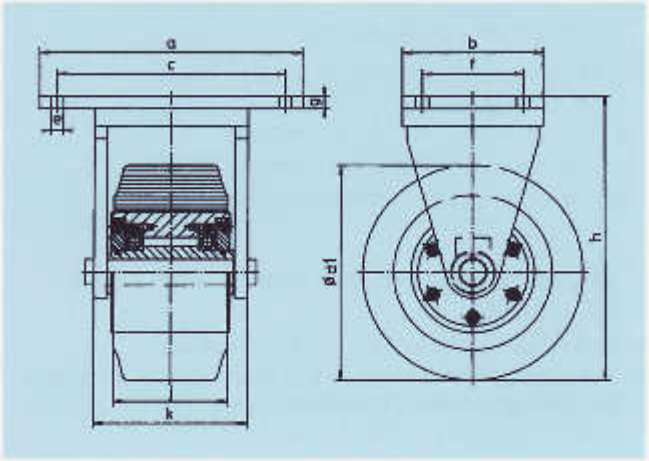
Model. SF ...S-A(B)/P

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:

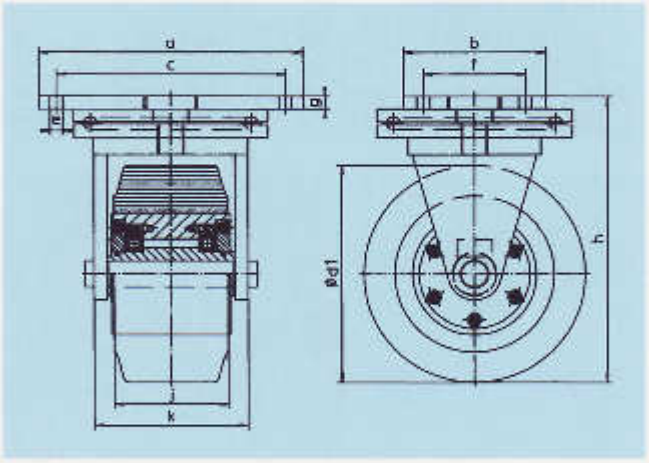
■ Fixed castor with rubber tyre.

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.

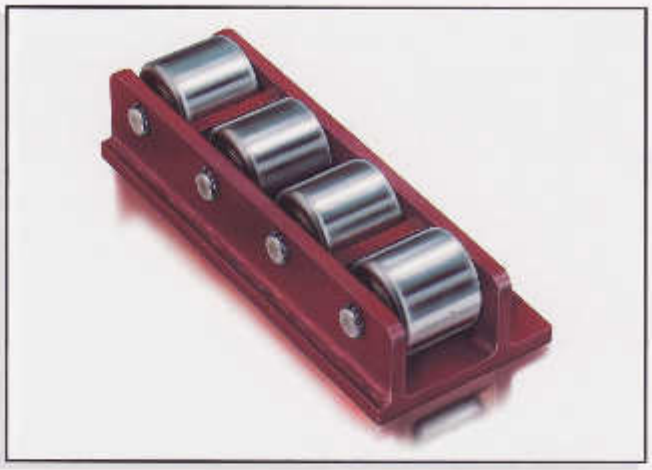
Model SD ... G

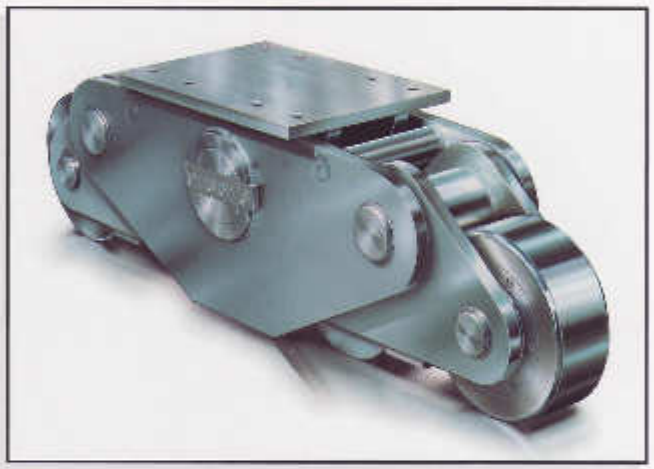
Mod.	a	b	c	Ø d1	Ø e	f	g	h	j	k	Suitable castors	Carrying capacity (kN)	Weight (kg)
Rubber													
SD 250 G	300	150	260	250	14	115	15	330	130	175	SF	10	29.0
SD 265 G	300	150	260	265	14	115	15	345	160	205	SF	15	31.0

Heavy Duty Wheels

■ **Sets of wheels – Drawing No. R11**

Model WRS





Range of application:

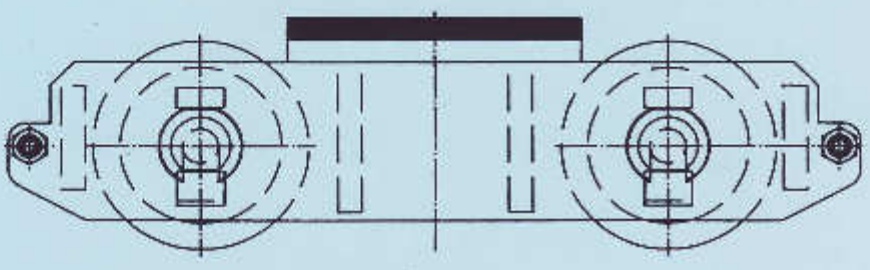
- Less integral floor pressure than with the Roller Skate Express.
- If the running surface is very uneven.
- Delivered according to individual customer's requirements and according to the assigned requirements of the product.

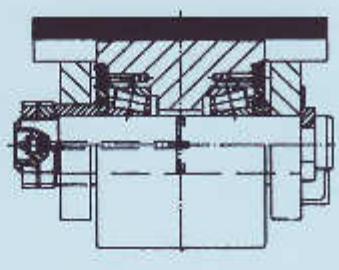
Characteristics of the model ... WRS:

- Solid steel construction with
  - Grooved bearings (single or double row) (WRS ...-RK), or
  - Self-aligning roller bearing (WRS ...-PR), or
  - Tapered-roller bearing (dearance 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 hight carrying capacity: individual carrying capacity up to 1.000 kN.
- Small single units are also produced.
- Maximum speed: 100 m/min.





The original: made in Germany since 1951

BÖRKEY

Inventor of
Roller Skates

Projects (selection)

Further details on page 25 and 26