

The original: made in Germany since 1951

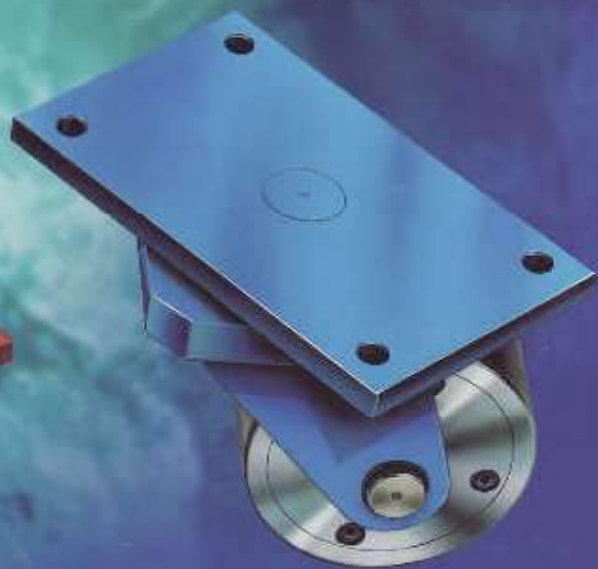
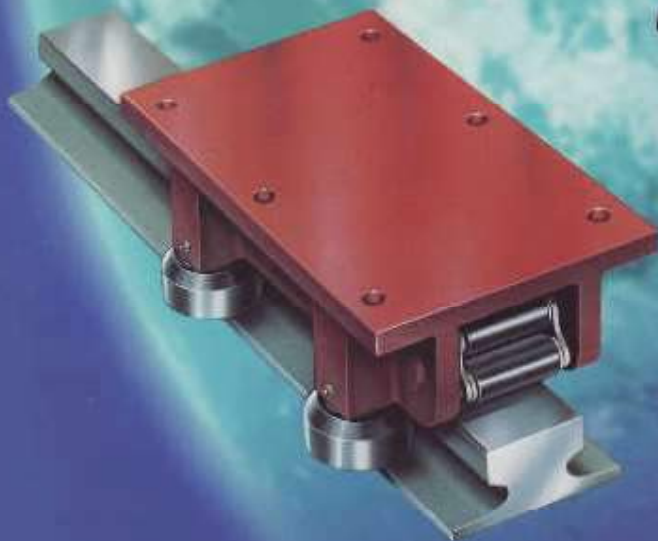
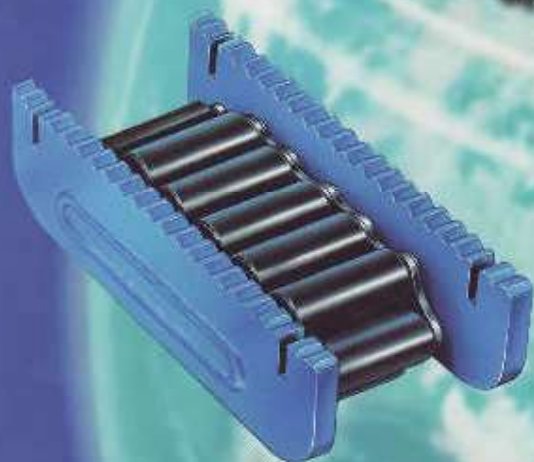


Inventor of
Roller Skates

Moving heavy loads

on Roller Skates Express
and Heavy Duty Wheels

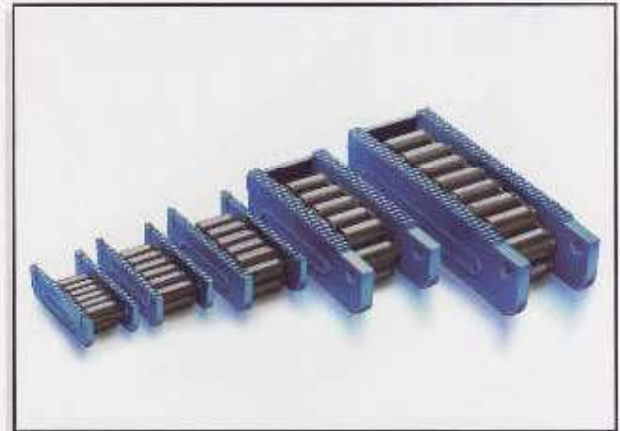
easily and safely
worldwide



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.



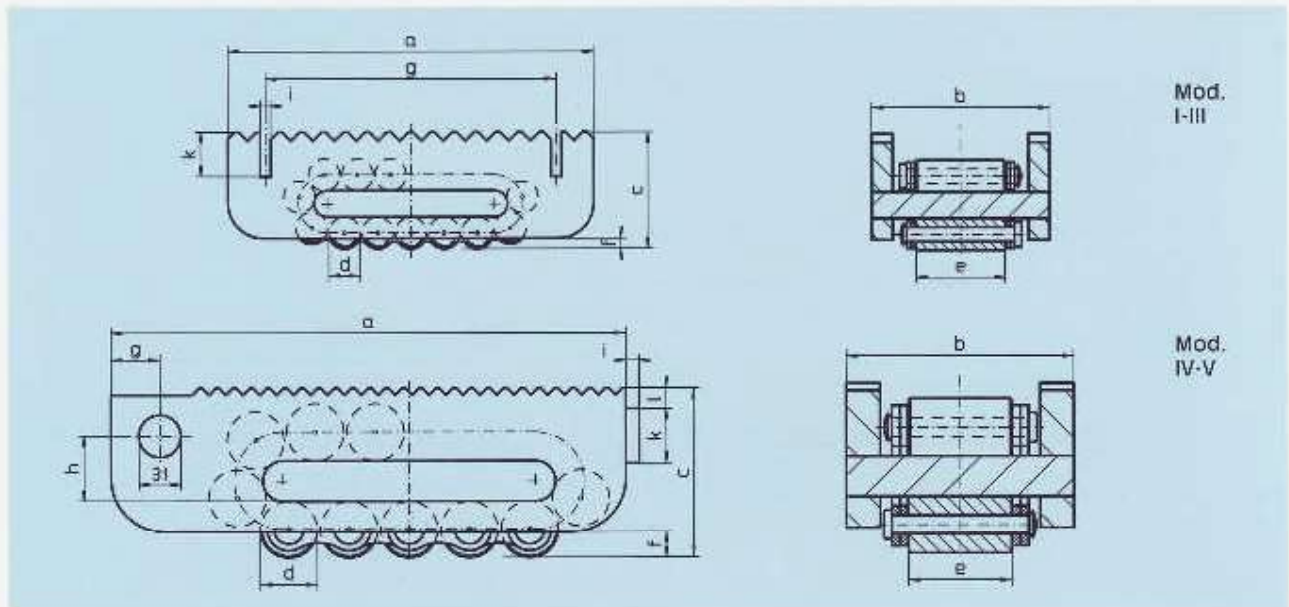
Characteristics of the most sold series Express model... N:

- 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

For simple transportation

Roller Skate Express – The Solids



Hints on use:

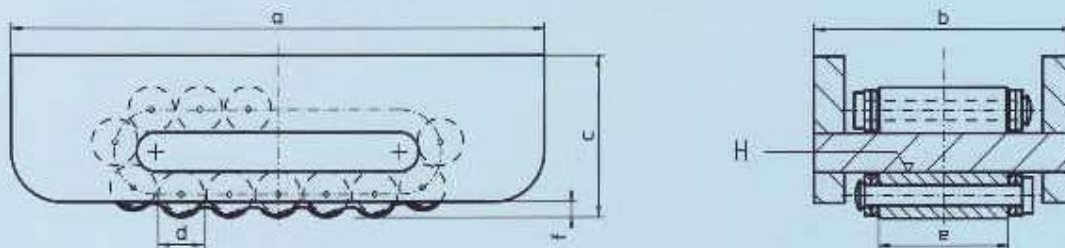
- If the Rollers are being used to their maximum carrying capacity or with lengthy intervals between use choose models with a hardened centre plate (= model C-H).
- In case of possible overload, choose chain roller material 50CrV4 (B.S. 735 A 50; SAE 6150) (= models C-H-50CrV4).
- Maximum speed: 5 m/min.
- The rolling resistance depends on the track.
For smaller models I-III 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).

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.

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)

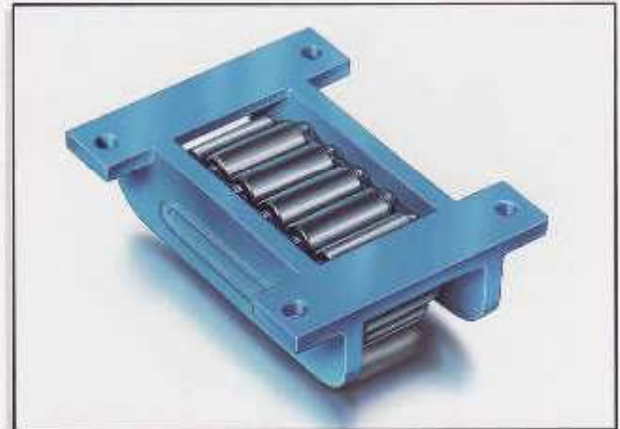
Mod.	a	b	c	Ø d	e	f					Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	63	18	51	6					5	15	100	5.0
II	220	113	73	24	60	10					4	13	150	7.0
III	270	130	90	30	68	10					4	13	300	12.5
IV	380	168	126	42	76	19					4	13	600	32.0
V	530	182	146	50	86	19					6	17	800	61.0

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.

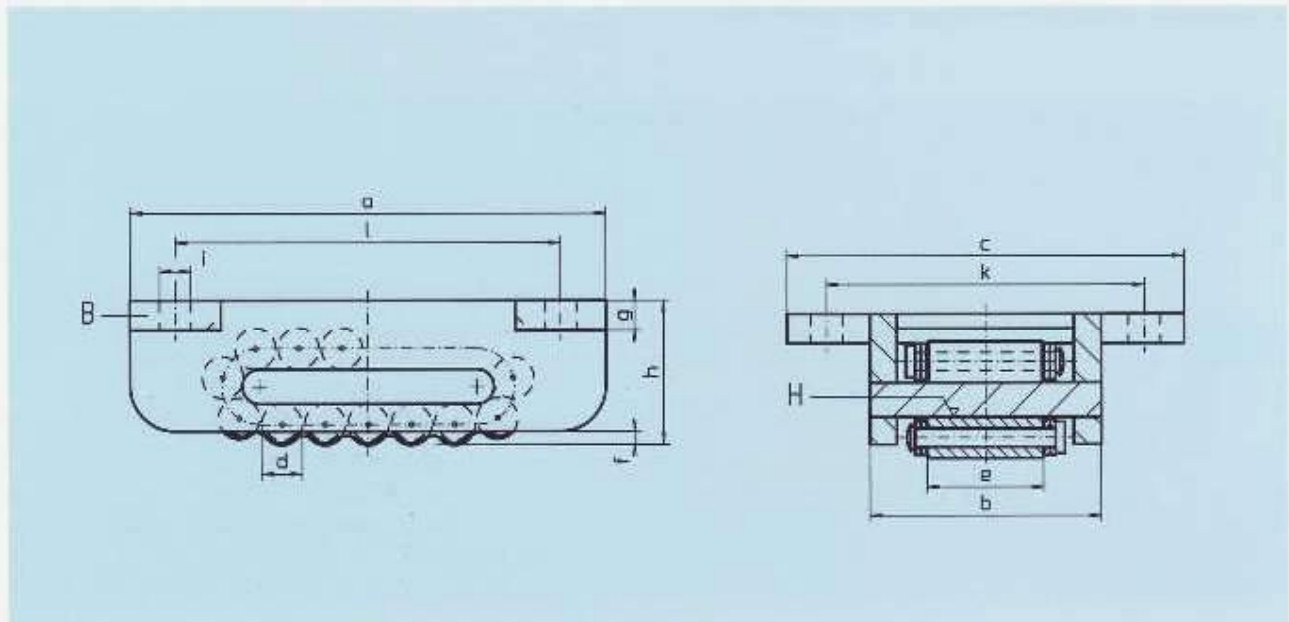


Characteristics of the series of model...B:

- 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

For bad working conditions / short distance

Roller Skate Express – The Robusts



Hints on use:

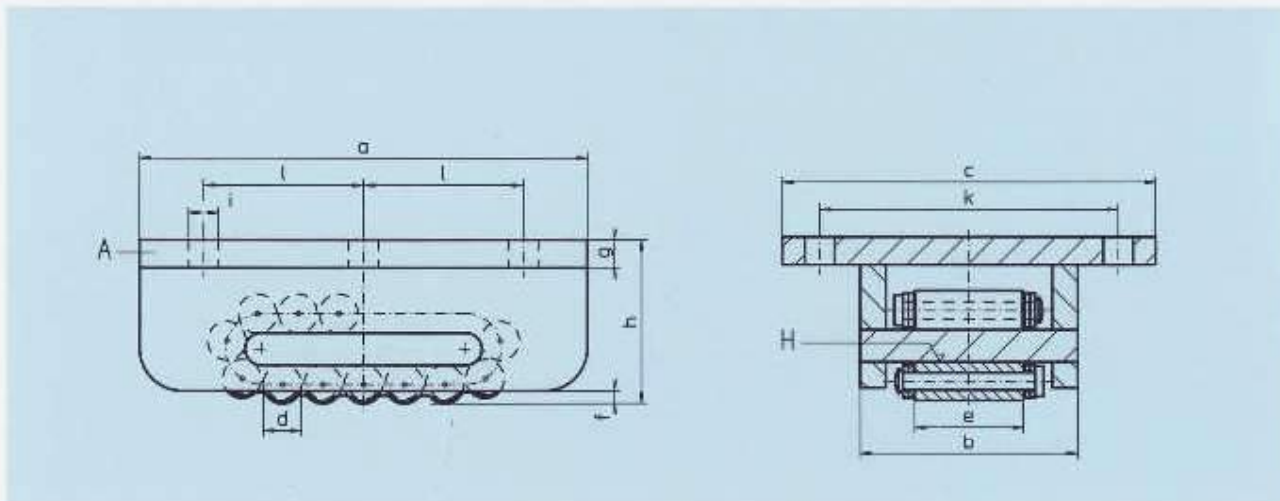
- Models I-IIIv have 4 bolt holes as standard.
- If the Rollers are being used to their maximum carrying capacity or with lengthy intervals between use choose models with a hardened centre plate (= model A-H).
- In case of possible overload, choose chain roller material 50CrV4 (B.S. 735 A 50; SAE 6150) (= 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.

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.

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.

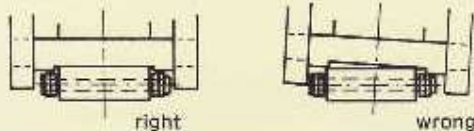


Characteristics of the series of model...AS:

- 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).

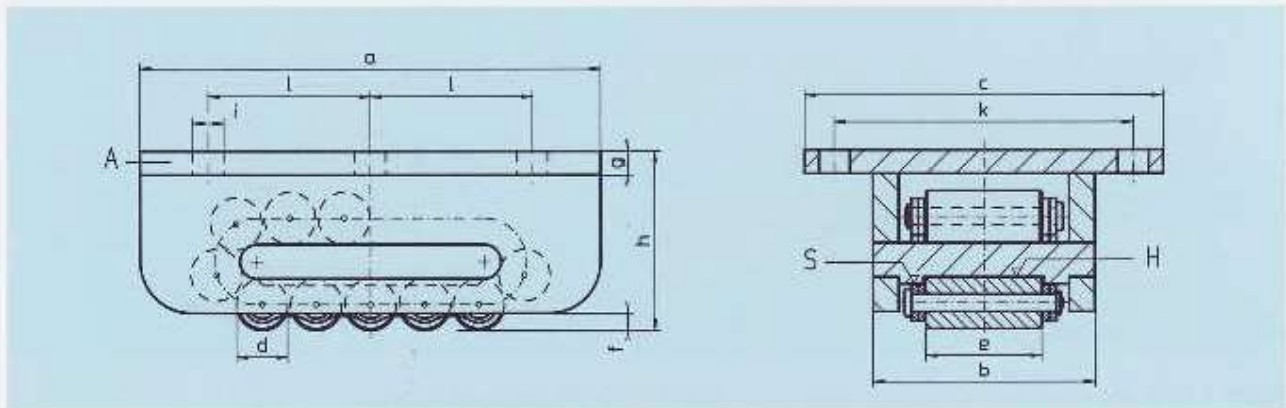
* Sticker on every Roller Skate with 5-guide:

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

For permanent loads / longer distances

Roller Skate Express – The Super-Robusts



Hints on use:

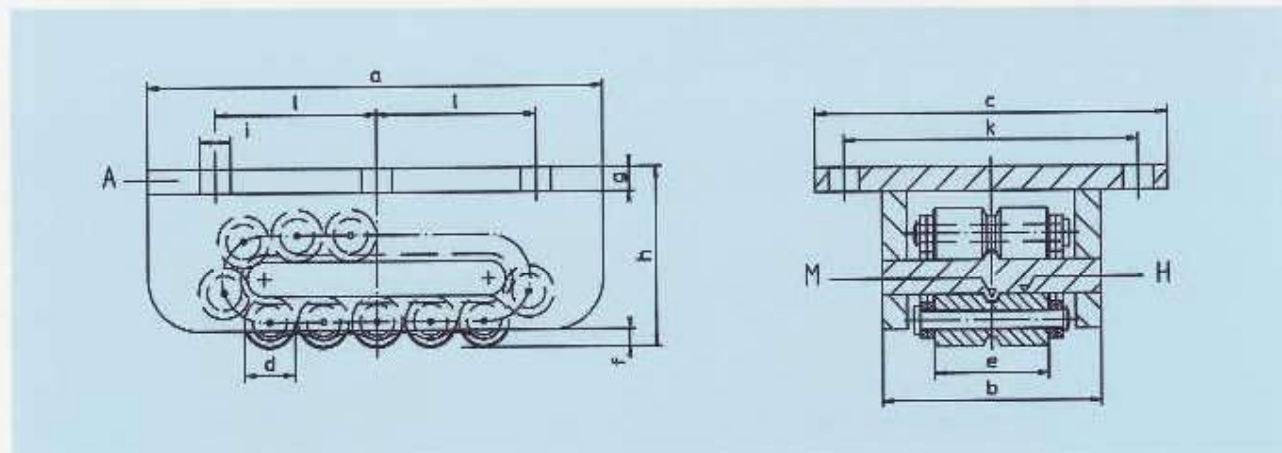
- Check with the manufacturer before selection of Skates for use in a vertical position.
- Models I-IIIv have 4 bolt holes as standard.
- If problems of load distribution occur e.g. by wind forces, it is necessary to select model AM-H-50CrV4.
- Maximum speed: 5 m/min.
- The rolling resistance depends 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.

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.

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)

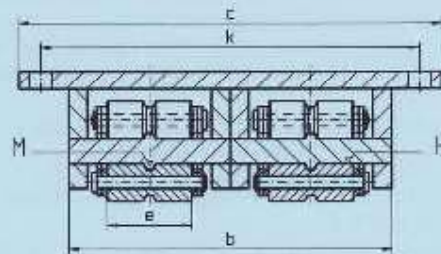
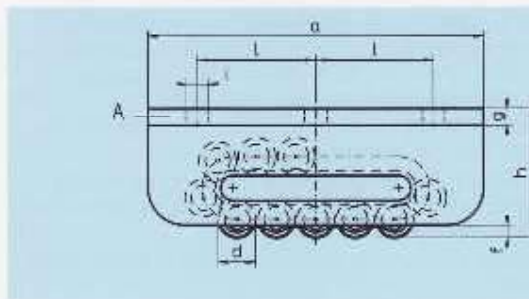
Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
I	210	100	175	18	51	6	13	76	14	140	75	5	15	125	8.8
II	220	113	190	24	60	10	14	87	14	155	75	4	13	170	11.5
III	270	130	210	30	68	10	14	104	18	175	95	4	13	330	19.0
IIIv	320	140	220	30	68	10	18	115	18	180	120	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

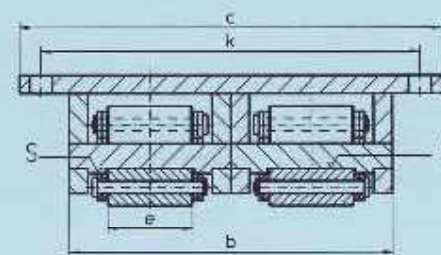
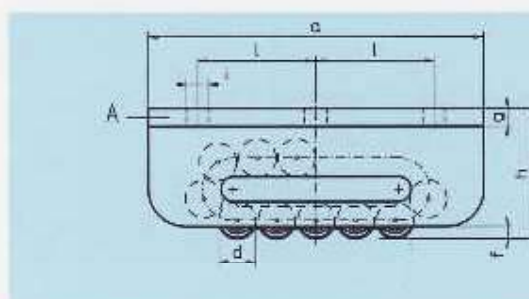
Range of application:

- 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)

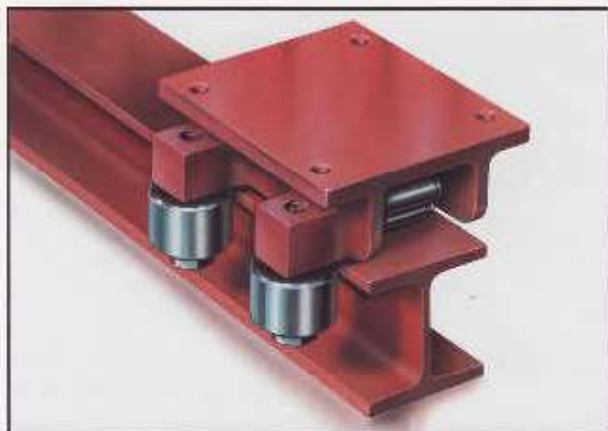
Mod.	a	b	c	Ø d	e	f	g	h	Ø i	k	l	Rollers under stress	Number of Rollers	Maximum load kN	Weight kg
III	270	260	340	30	68	10	14	104	18	305	95	2 x 4	2 x 13	800	36,2
IIIv	320	280	360	30	68	10	18	115	18	325	120	2 x 6	2 x 17	1000	57,5
IV	380	336	440	42	76	19	19	145	22	390	150	2 x 4	2 x 13	1300	96,0
V	530	364	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

Accessory: lateral guide roller

For permanent loads / longer distances

Roller Skate – The Robusts and The Super-Robusts



Hints on use:

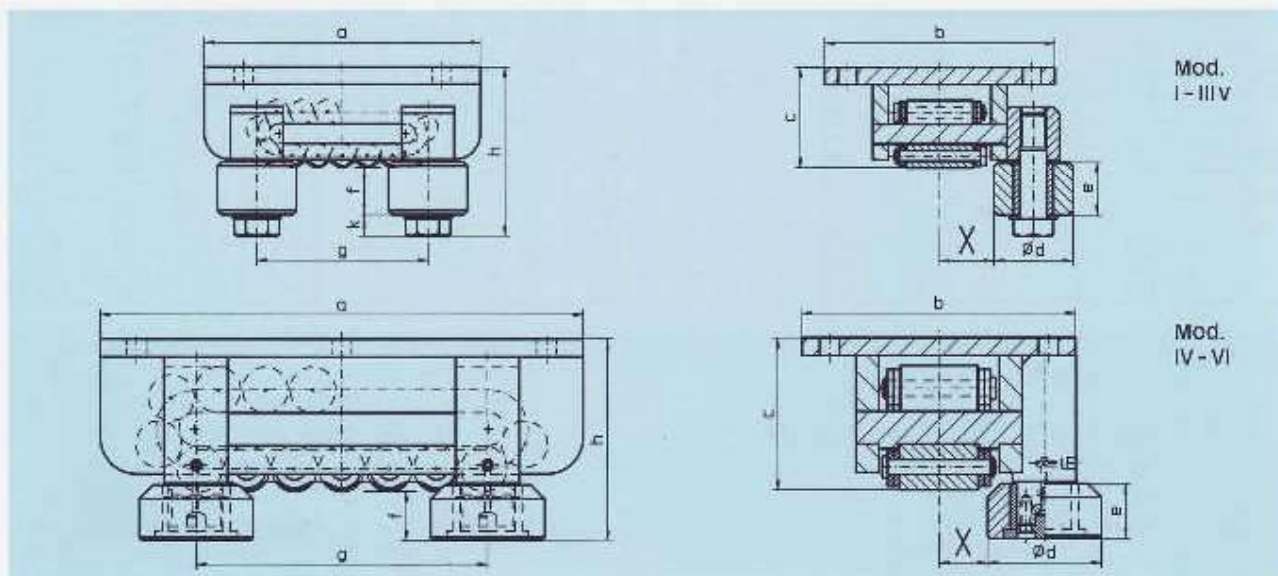
- To select suitable Skate – determine details of the rail track or determine dimension 'X', where dimension 'X' is the distance between the inner edge of guide rollers and the centre of the Roller Skate.
- To select suitable arrangement of guide roller(s):
 - If parallelism of beams or rails is uncertain, 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.

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.
- 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.	Admissible 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
VI	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:

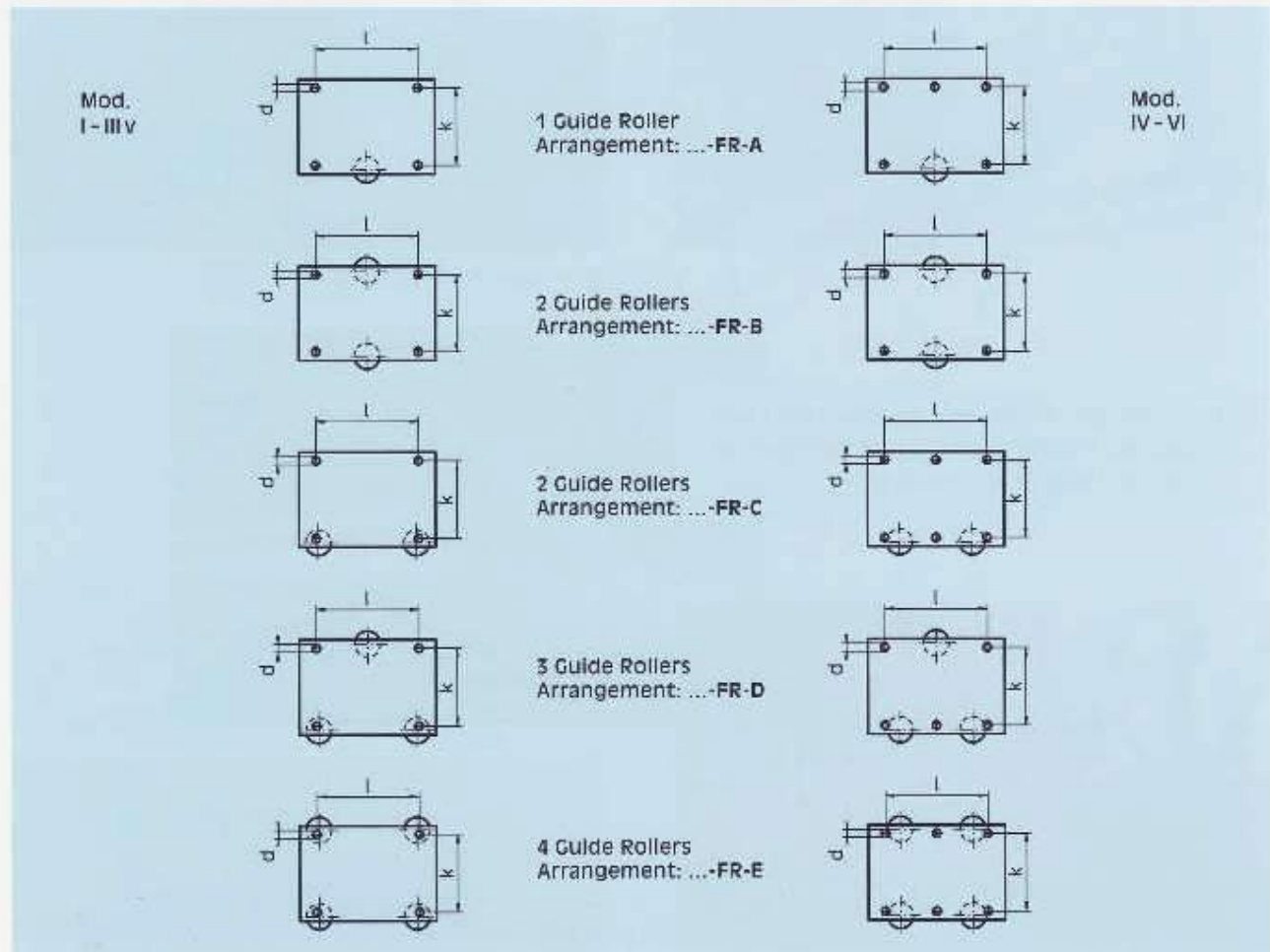
- For longer distances and repeat journeys with permanent loads.
- On suitable tracks such as crane rails or steel beams.
- Numbers and arrangement of the guide rollers according to drawing 11+12.

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