

CASTOR SELECTION

Nearly every theatrical production is going to involve castors. Directors will want castors that are invisible to the audience and move silently, engineers will want castors that will be reliable and will bear the loads placed on them. The crew will want castors that move with the minimum of effort, avoid the "shopping trolley" effect and maybe even without brake pedals that disappear under the truck. Selecting the right castor is all important.

To make the Director happy, Flints stock small castors that are all black with polyurethane covered wheels for quiet operation. To make the stage engineer happy, despite their size, they are capable of bearing significant loads.

To make the crew happy, many of our castors have wheels with a curved profile to reduce friction on the floor, making them easier to push.

As well as the load, think of the floor. Burghard Busch of Rader Busch has a golden rule: Soft floor - hard wheel, hard floor - soft wheel. For example, nylon wheels are cheap but will be very noisy on a hardboard-topped stage. Rubber wheels on a PVC dancefloor will be very quiet, but very hard to push.

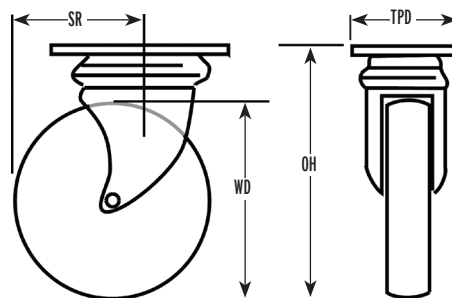
Wheel size is also important. Always choose the largest wheel diameter that you can. Large wheels help reduce rolling resistance and can cope with rougher surfaces including tracks.

Think too of the poor touring technician. Rader Busch have two "families" of top plate. Nearly all of our Rader Busch range of castors and scenshifters have top plates from one of those families meaning that if a castor needs replacing, the existing bolt holes can be re-used.

The dimensions on this illustration are used throughout this section of the catalogue and we are working to have AutoCad drawings available on our website for all Rader Busch castors. Happy rolling!

WD = Wheel Diameter
OH = Overall Height
SR = Swivel Radius
TW = Tread Width
TPD=Top Plate Dims

All measurements are in millimetres



BLACK THEATRE CASTORS

Low Level 35 mm Black Castors

Neat, well-designed theatre castors, attractive enough for other uses like furniture making. Black sheet steel frames with a double ball race in the swivel head for smooth movement. Wheels are black polyurethane on a solid aluminium core with ball bearings. They are a hard-wearing 92A on the Shore scale.

✓ Discreet - only 52 mm high ✓ Non-marking ✓ Hard-wearing
✓ German quality



35mm Swivel



35mm Swivel Braked



35mm Fixed



code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS35KUPL	Swivel	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£26.95
CAS35KUPLB	Swivel Braked	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£33.50
CAS35KUPLF	Fixed	35	100kg	52	27	60 x 60	38 x 38 / 47 x 47	15	£23.60

50 mm Black Castors

We've had so many requests for this size of castors in an all black finish, we thought it was about time we added them into the catalogue to complete our Black Theatre Castors range. Wheels are black polyurethane on a solid aluminium core with ball bearings. They are a hard-wearing 92A on the Shore scale. The housing is made of black sheet steel.

✓ Discreet ✓ Non-marking ✓ Hard-wearing ✓ German quality



50mm Unbraked



50mm Braked



50mm Fixed

code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS50KUPL	Unbraked	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£29.98
CAS50KUPLB	Braked	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£33.80
CAS50KUPLF	Fixed	50	150kg	72	40	60 x 60	38 x 38 / 47 x 47	31	£27.75

Super Quiet Light-Duty Black Castors

The frames are black sheet steel with double ball races in the swivel head. They are fitted with polyurethane tyres on a tough nylon hub with ball bearings giving super smooth running. The wheels are exceptionally quiet and non-marking, even on dance floors. Soft 80A on the Shore scale. The braked version locks both the wheel and the swivel. Available in a single or double wheel version.

✓ Non-marking - even on dance floors
✓ Great choice for all light loads ✓ German manufacturing quality



75mm Single Wheel Swivel



75mm Single Wheel Swivel Braked



75mm Single Wheel Fixed



75mm Double Wheel Swivel Braked

code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price
CAS7523N	Single Wheel Swivel	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£17.05
CAS7523NB	Single Wheel Swivel Braked	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£19.55
CAS7523ND	Double Wheel Swivel	75	80kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£33.45
CAS7523NDB	Double Wheel Swivel Braked	75	80kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£36.00
CAS7523NF	Single Wheel Fixed	75	60kg	100	23	60 x 60	38 x 38 / 46 x 46	28	£19.95

Heavy-Duty Black Euro Castors

These tough castors represent fantastic value and would be the perfect choice for the majority of stage uses. The extra tough steel frame is finished in black. The swivel head has double ball races. The wide wheel has black polyurethane tyres on a black cast iron hub with twin ball races. The castor has been developed to be a main workhorse of European theatre stages. Available as a swivel castor or a swivel castor with wheel and swivel brake. They are a hard-wearing 92A on the Shore scale.

- ✓ Real value for a very tough castor – 350 kg loading for well under half the price of lower rated castors
- ✓ All-black frame, wheel and tyre
- ✓ Definitive choice for most theatre trucks
- ✓ Assembled in Germany



100mm Swivel



100mm Swivel Braked



code	Type	WD	max load	OH	TW	TPD	hole centres	offset	price	20+
CAS80BEC	Swivel	75	350kg	125	40	140 x 110	105 x 80	48	£24.30	£19.89
CAS80BECB	Swivel Braked	75	350kg	125	40	140 x 110	105 x 80	48	£36.95	£33.25
CAS80BECF NEW	Fixed	75	350kg	125	40	140 x 110	105 x 80	48	£23.50	£21.15

LIGHT-DUTY CASTORS

Light-Duty Castors

This range of industrial castors all have pressed steel top plates with plain bearings. Wheels are polypropylene, or a quiet non-marking rubber tyre on plastic with a steel core. The Swivel Bolt-hole and Swivel Braked Bolt-hole castors have either a 10 mm or 12 mm bolt-hole. Use the Expanders below to fit them to all types of trolley.



50mm Swivel



50mm Swivel Braked



50mm Fixed



50mm Swivel Bolt-Hole



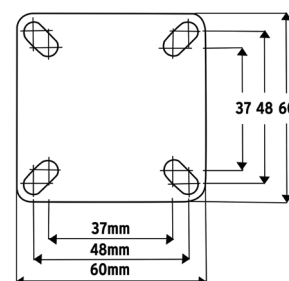
50mm Swivel Braked Bolt-Hole



75mm Polypropylene Wheel



75mm Rubber Wheel



Top Plate 75mm Swivel

Type	load [kg]				tread width			centres				PP	price	rubber	price
	WD	PP	rubber	OH	SR	PP	rubber	TPD	median	bolt ø	offset				
Swivel	50	40	50	73	50	20	17	50 x 50	35 x 35	10	25	CASLD50NS	£3.97	CASLD50RS	£3.97
Swivel Braked	50	40	50	73	73	20	17	50 x 50	35 x 35	10	25	CASLD50NB	£4.83	CASLD50RB	£4.83
Fixed	50	40	50	73	-	20	17	50 x 50	35 x 35	10	-	CASLD50NF	£3.84	CASLD50RF	£3.84
Swivel Bolt-Hole	50	-	40	71	50	-	17	-	-	10	25	-	-	CASLD50RSBT	£4.33
Swivel Braked Bolt-Hole	50	-	40	71	73	-	17	-	-	10	25	-	-	CASLD50RBBT	£6.18
Swivel	75	50	50	100	69.5	21	21	60 x 60	43 x 43	10	32	CASLD75NS	£5.14	CASLD75RS	£5.14
Swivel Braked	75	50	50	100	90	21	21	60 x 60	43 x 43	10	32	CASLD75NB	£6.18	CASLD75RB	£6.18
Fixed	75	50	50	100	-	21	21	60 x 60	43 x 43	10	-	CASLD75NF	£4.94	CASLD75RF	£4.94
Swivel Bolt-Hole	75	-	50	95	69.5	-	21	-	-	10	32	-	-	CASLD75RSBT	£5.15
Swivel Braked Bolt-Hole	75	-	50	95	90	-	21	-	-	10	32	-	-	CASLD75RBBT	£6.18
Swivel Bolt-Hole	100	-	80	128	88	-	27	-	-	12	38	-	-	CASLD100RSBT	£10.06
Swivel Braked Bolt-Hole	100	-	80	128	105	-	27	-	-	12	-	-	-	CASLD100RBBT	£11.13

Inserts for Bolt-Hole Castors

These expanders can be fitted to any single bolt-hole castor. Use for round or square tubing on all types of trolley. All the expanders have a 10 mm bolt. The 50 mm and 75 mm Ø bolt-hole castors above have a 10 mm threaded hole and will fit perfectly. Meanwhile, the 100 mm Ø bolt-hole castors above have a 12 mm threaded hole and the 12 mm extender will come as a kit with a reducer washer to ensure a snug fit.



Round Bolt



Square Bolt



Expanders for 12mm Bolt-Hole castors come with a reducer washer

fits internal tubes	height	round - fits 10mm thread	price	square - fits 10mm thread	price	round - fits 12mm thread	price	square - fits 12mm thread	price
21.5-24mm	90mm	CASER24	£4.33	CASES24	£4.33	CASER24K	£3.50	CASES24K	£3.50
24-27mm	90mm	CASER27	£4.33	CASES27	£4.33	CASER27K	£3.50	CASES27K	£3.50
27-30mm	90mm	CASER30	£4.33	CASES30	£4.33	CASER30K	£3.50	CASES30K	£3.50

Wheel Type	For	Against	Typical Use
Polypropylene [PP]	Economical and non-marking	Too noisy for use during performance	Small items of furniture, small boxes, light trucks
Grey Rubber	Cheap, quiet, non-marking, floor protecting	Light duty use only	Light trucks and furniture used during performance

CASTORS

SPRING MOUNTED CASTORS

Spring Mounted Castors

Side mounting rubber castors that are also spring mounted so great for handling uneven surfaces. The side mounting plate also means you have easy access for installing & de-installing your castors, why not treat yourself to a pair of Viking Arms [page 328] a powerful, yet easy to use, squeeze trigger jack to make your life even easier?

code	weight	load	top plate length x width	median hole centres length x width	price
CASF50F	0.26kg	40kg	60 x 48mm	22.5 x 40mm	£18.28
CASF50S	0.35kg	40kg	60 x 48mm	22.5 x 40mm	£17.42



MEDIUM TO HEAVY-DUTY CASTORS

Wheel Type	For	Against	Typical Use
Nylon	Cheap, very strong, clean, non-marking, light	Too noisy for use during performance	Slave trucks, scaffolding castors, heavy-duty storage trolleys not used during performance
Polyurethane [Revvothane] on cast iron	Quiet, high tear strength, 10 times the working life and 3 times the load carrying of rubber, low rolling resistance, excellent recovery from static periods	More expensive	All uses but especially heavy scenery used during performance
Blue elastic rubber	Soft, very quiet, non-marking, floor protecting	Limited range from stock	Typically used as flight case castors
Black rubber on plastic	Cheap, quiet, floor protecting, medium-duty	May leave marks	Medium weight trucks where the budget is tight
Black polyurethane [PU]	Soft, very quiet, non-marking, floor protecting	The softer wheels adds a little rolling resistance	All performance stage use especially when the wheels may be seen and silence is required



100mm Swivel



100mm Swivel Fixed



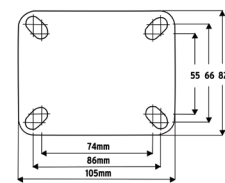
100mm Fixed



80mm Nylon Wheel



80mm Polyurethane Wheel



Top Plate 80mm, 100mm Swivel

Medium to Heavy-Duty Castors

This range of industrial castors all have pressed steel top plates. The wheels are either nylon with plain bearings, or a tough polyurethane [PU] tyre on cast iron with ball bearings. To decide which one to choose have a look at the table above.

Type	WD	load [kg]		OH	SR	tread width		TPD	centres			nylon	price		price
		nylon	PU			nylon	PU		median	bolt ø	offset		PU		
Swivel	80	200	200	106	77.5	35	30	105 x 85	80 x 60	10	37.5	CASMD80NS	£9.75	CASMD80PS	£27.82
Swivel Braked	80	200	200	106	125	35	30	105 x 85	80 x 60	10	37.5	CASMD80NB	£12.99	CASMD80PB	£30.27
Fixed	80	200	200	106	-	35	30	105 x 85	80 x 60	10	-	CASMD80NF	£8.98	CASMD80PF	£25.70
Swivel	100	200	220	128	90	35	38	105 x 85	80 x 60	10	40	CASMD100NS	£10.20	CASMD100PS	£28.27
Swivel Braked	100	200	220	128	125	35	38	105 x 85	80 x 60	10	40	CASMD100NB	£13.46	CASMD100PB	£31.16
Fixed	100	200	220	128	-	35	38	105 x 85	80 x 60	10	-	CASMD100NF	£9.59	CASMD100PF	£26.48

REVVO SERIES 4 MEDIUM TO HEAVY-DUTY CASTORS



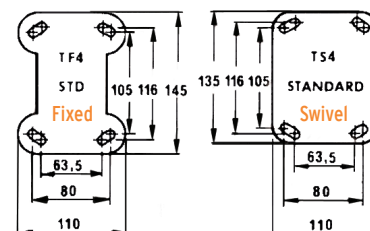
75mm Swivel Revvothane



75mm Fixed Revvothane



125mm Swivel Braked Nylon



Revvo Series 4

Pressed steel top plate castors that reliably cope with all but the heaviest of stage loads. Swivel heads have a single ball bearing. Wheels have plain bearings and are either nylon, or a Revvothane tyre on cast iron. The brake locks both wheel and swivel with an easy-to-use foot lever which trails the direction of the travel. Fabricated castors for very heavy duties can be quickly supplied – please phone for a quotation. If you require the wheel and swivel lock to remain in a fixed position please see the Fixed Position Brake Castors [page 265] N.B. The revvothane versions come ungreased but have an oil hole for lubrication which is recommended to ensure the quietest performance.

Type	WD	load [kg]				tread width		centres			nylon	price	revvo	price
		nylon	revvo	OH	SR	nylon	revvo	TPD	median	bolt ø				
Swivel	75	160	175	114	73	35	25	135 x 110	105 x 80	10	CAS132	£12.43	CAS131	£23.20
Fixed	75	160	175	114	-	35	25	145 x 110	105 x 80	10	CAS032	£7.74	CAS031	£19.03
Swivel	100	225	250	139	91	35	29	135 x 110	105 x 80	10	CAS140	£14.11	CAS141	£27.20
Swivel Braked	100	225	250	139	91	35	29	135 x 110	105 x 80	10	CAS140L	£28.62	CAS141L	£41.99
Fixed	100	225	250	139	-	35	29	145 x 110	105 x 80	10	CAS040	£11.36	CAS041	£22.83
Swivel	125	250	265	164	105	35	32	135 x 110	105 x 80	10	CAS157	£20.68	CAS154	£33.56
Swivel Braked	125	250	265	164	105	35	32	135 x 110	105 x 80	10	CAS157L	£27.91	CAS154L	£44.87
Fixed	125	250	265	164	-	35	32	135 x 110	105 x 80	10	CAS057	£13.85	CAS054	£29.18

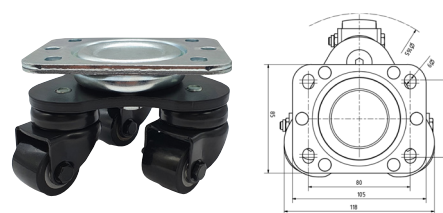
SCENE SHIFTERS [TURTLES]

These castors solve the various problems that can be encountered when using traditional swivel castors. They permit heavy trucks to change rolling direction, even from stationary, without having to exert the extra effort normally needed to change wheel direction, the so called "shopping trolley" effect. They allow trucks to enter from the wings, stop centre stage, and leave upstage. The triple wheels also spread the load over a larger stage area reducing the problems caused by high point loads on soft floors. They can really help when trying to align trucks ready for bolting-up when the height inaccuracies, caused by high point loading on spongy stages, often cause delays to scene changes as staff are required to fetch crow bars to level up the trucks. Finally, they make good track jumpers. Flints stocks many types of turtles and sell them at prices well below list. We also stock the pneumatic Hebewunder lifting castors [see next page] which allow the scenery trucks to sit firmly on the stage and lift to move.

Micro Scene Shifter [up to 300 kg]

This Micro Sceneshifter has the same plate size (105 x 80 mm) as a standard Flight Case Castor but has twice the load capacity (300 kg) and much greater manoeuvrability. Its small form factor means you can get the all the benefits of a scene shifting turtle without sacrificing added height or protruding wheels.

code	WD	max load	OH	TW	TPD	price
CASM33SS	33mm	300kg	76mm	27mm	105 x 80mm	£87.20



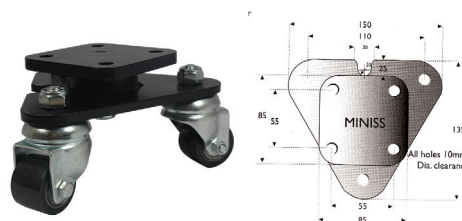
NEW

Mini Scene Shifter [up to 300 kg]

Very popular units which are ideal for smaller sized trucks. The smaller swivel radius helps to keep the wheels nearer to the edge of the truck and thus improve the stability. Although reduced in size, these Scene Shifters will take very high loads. Mini 35 mm wheels with polyurethane tyres on plastic hub with ball bearings.

✓ Help to improve stability ✓ Very low overall height ✓ Lightweight

code	WD	max load	OH	SR	TW	price
CASMINISS	35mm	300kg	85mm	95	28mm	£86.59

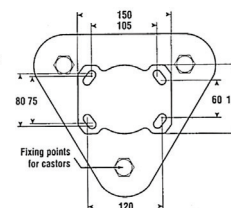


CASTORS

Low Level Scene Shifter [up to 360 kg]

Choose this for heavy trucks which require a low overall height for sightline and access purposes. Top plate with twin wheels with polyurethane tyres on a cast iron hub with plain bearings. This is the same basic unit as the Heavy Duty Standard Scene Shifter below but fitted with low level twin wheeled castors.

code	WD	max load	OH	SR	TW	price
CAS601	50mm	360kg	96mm	154	2 x 14mm	£149.08

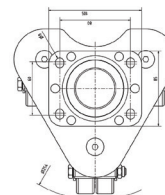


All Black Scene Shifter [up to 360 kg]

A similar version to the popular 75 mm Super Quiet Scene shifters below, and only slightly taller than the low-level scene shifter above, with the added advantage of an all-black wheel construction. Frame of black sheet steel with double black polyurethane wheels, with a polyamide hub with ball bearings to give super smooth running. The softer Shore rating of 80A helps to also keep the noise down, and prevent marking on dance floors. A really great choice!

✓ Super quiet ✓ Non-marking ✓ Low friction ✓ German quality ✓ Lower profile

code	WD	max load	OH	TW	TPD	hole centre	price
CAS7524	50mm	360kg	101mm	2 x 20mm	105 x 80mm	80 x 60mm	£123.10

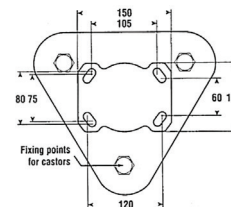


Super Quiet Black Scene Shifter [up to 240 kg]

Choose these units for very quiet and easy moving trucks which will glide silently across the stage. Frame of black sheet steel with double ball races at the swivel head. They are fitted with three sets of twin wheels with polyurethane tyres on a tough nylon hub with ball bearings giving super smooth running. The black wheels have a slightly softer Shore rating than most castors at 80A which not only keeps the noise right down but helps to prevent any marking on dance floors.

✓ Super quiet ✓ Non-marking ✓ Low friction ✓ German quality

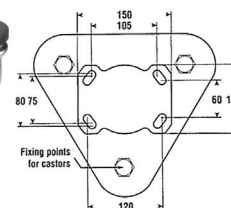
code	WD	max load	OH	TW	SR	TPD	hole centre	price
CAS7523T	75mm	240kg	125mm	2 x 23mm	381	105 x 85mm	80 x 60mm	£159.00



Standard Scene Shifter [up to 460 kg]

This is the main workhorse of the Scene Shifter series. Fitted with tough but quiet 100 mm wheels with polyurethane tyres on a cast iron hub with plain bearings. Choose this for all general and heavy-duty uses.

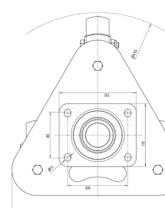
code	WD	max load	OH	TW	SR	price
CAS602	100mm	460kg	168mm	29mm	218	£143.08



Economy Black Scene Shifter

Competitively priced all black sceneshifter with a whopping 1000 kg load capacity. Mounted on to a large triangular plate to spread the load with high quality black polyurethane wheels ensure a smooth and quiet operation.

code	WD	max load	OH	TW	TPD	price
CASE100SS	100mm	1000kg	166mm	40mm	105 x 80mm	£109.00

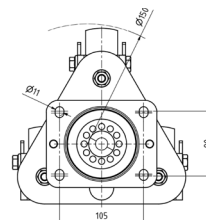


NEW

Berlin Opera Scene Shifter [up to 1000kg]

This Sceneshifter, engineered for the Berlin Opera, has shrunk down the large triangular plate commonly fitted to high load sceneshifters, meaning that it can be fitted much closer to the edge of your piece of scenery, thereby increasing stability. The smaller form factor means you don't have to sacrifice manoeuvrability for space. Features Vulkollan tyres for unrivalled abrasion resistance, quiet operation, resistance to oil/grease and non marking on floors.

code	WD	max load	OH	TW	TPD	price
CASB100SS	100mm	1000kg	165mm	40mm	105 x 40mm	£356.18



NEW

Need a drawing? AutoCad files can be downloaded from our website for our most popular castors and sceneshifters

LIFTING CASTORS

Hebewunder [up to 400 kg]

The Hebewunder is the perfect choice of castor to move heavy scenic trucks around the stage. Probably the biggest advantage of using the Hebewunder over braking castors is the fact that the truck will sit firmly on the floor when it is lowered into place. This ensures a well spread load and therefore great stability with no chance of accidental movement. Leaving built scenic pieces on braked castors during performance can result in the floor flexing due to the high point loading. This could translate into "wobbly scenery" from the audience's point of view or delayed scene changes because of the difficulty to marry up bolt holes or fixings. Each 50 mm Hebewunder can lift 400 kg by means of compressed air [300 kg for 33 mm version]. The triple swivel castors have the advantages of ensuring a minimal offset for easy initial rolling, good load spreading and excellent track jumping capabilities. The 50 mm castors employed on these units have solid aluminium wheels fitted with bearings and 92° Shore Vulkollan tyres. This allows great load bearing while maintaining a useful low overall height. The 33 mm version has super quiet black polyurethane tyres that have a reduced load limit but are still non marking and hard wearing.

Flints can supply all the accessories necessary to connect the units, a few are listed below, the rest and more info can be found in the Castors Appendix in the Our Catalogue section of our website.



This gizmo uses compressed air to lift scenery over 40mm

code	description	WD	max load	OH min	OH max	TW	width	TPD length [inc. air supply]	holes centres	holes Ø	price
CASHW50		50mm	400kg	147mm	188mm	40mm	220mm	330mm	180 x 150mm	11.5mm	£423.52
CASHW50K	Kit of 4 Hebewunder castors and all necessary components to create a 4-Hebewunder setup										£2,039.97
CASHW50K2	Kit of 6 Hebewunder castors and all necessary components to create a 6-Hebewunder setup										£2,895.22
CASHW33 NEW		33mm	300kg	91mm	126mm	27mm	220mm	330mm	180 x 150mm	11.5mm	£336.88
CASHW33K NEW	Kit of 4 x 33 mm Hebewunder castors and all necessary components to create 4 - Hebewunder setup										£1,563.20
CASHW33K2 NEW	Kit of 6 x 33 mm Hebewunder castors and all necessary components to create 6- Hebewunder setup										£2,200.72

Hebewunder Brake

This new addition to the Hebewunder range is in effect the opposite of the castors (you inflate to stop rather than go). Mounted under the stage truck, once in the correct position the pneumatic brake can be activated to lift the whole structure so it stays in place.

code	max load	top plate width	lifting height	hole centres Ø 1	hole centres Ø 2	price
CASPNB400	400kg	220mm	40mm	180mm	150mm	£340.60



Hebewunder Brake

NEW



Fill with air to lift your piece of scenery so it will not move



Deflate brake to move scenery freely. The plates on either side of the pneumatic pillow are held in place with a lateral spring to keep the plates together so that they don't come into contact with the floor when deflated.



Inflate and deflate to your heart's content or until you run out of air.

Hebewunder Accessories

code	description	price
CASHW3W	3-way Valve 1/8"	£68.73
CASHWHO	Air Hose 6x4 - 25 m	£19.30
CASHWCO	Connector 1/8"	£2.63
CASHWSI	Silencer	£2.89
CASHWTC	T-Connector	£5.37
CASNW5BA NEW	Quick Adapter	£56.39



3-way Valve 1/8"



Air Hose 6x4 - 25 m



T-Connector

CASTORS

Lifting Wheel with 80 mm swivel castor [up to 130 kg]

These lifting wheels are so useful, you'll be amazed you ever got by without them. The wheel can be levered down to engage with the floor, or up to remove the rolling effect. When the wheel is lowered it will raise up the attached structure by 27 mm. Made from sturdy zinc plated metal, with a 65° shore elastic rubber wheel on a polyamide core and single ball bearing. There are 3 proposed applications:

As a truss mover: by using the truss attachment, truss frames can be lifted and rolled from the stage

As a stage leg riser: instead of using a traditional scaffold castor inserted into the bottom of the stage leg, this system allows the user to lower the stage legs to the ground providing greater stability. NB 2-4 half couplers will be required for round stage legs.

As a box riser: the mounting plate allows the user to fix the lifting wheel to the side of any wooden box, and easily raise it up to roll into the desired position.

Full technical specifications can be found on our website



Shown above with mounting plate to be used as a box riser



Shown above with truss attachment for moving truss



Shown above with half couplers for connecting to a stage legs

code	description	top plate length	top plate width	tread width	overall height min	price
CAS658	Main Unit	80mm	60mm	36mm	303mm	£195.75
CAS633	Truss Attachment					£18.29
CAS645	Mounting Plate					£24.97
CAS590	Half Coupler					£19.03

SCAFFOLD CASTORS

Scaffold Castors

Flints stocks the versatile plug type scaffold castors which are suitable for converting steel rostra into slave trucks [with the addition of a short scaffold sleeve if going directly into the rostra corner post]. Fitted with strong nylon wheels [N.B. These may be supplied red]. Has a safe working load (SWL) of 535 kg.

NB: Due to manufacturing tolerances on the plug and the tube, the castor can sometimes be a slack fit.

Conversion Sleeve

A 127 mm length of scaffold tube to convert the plug to fit the corner posts of Steeldeck/Megadek rostra systems. Not needed when the castors are mounted on scaffolding legs.



the 125 mm braked castor



the 150 mm braked castor



code	Type	plug sizes	size	tread width	overall height [ex plug]	wheel ø	price
CAS316	125 mm nylon castor with brake	38.35 x 58	125mm	38mm	157mm	125mm	£44.74
CAS317	150 mm nylon castor with brake	38.35 x 58	150mm	40mm	180mm	150mm	£56.36

code	Type	price
SCF092	Conversion sleeve	£1.10

FLIGHT CASE CASTORS

Flight Case Castors

These rugged top quality castors have blue elastic rubber tyres which are quiet and non-marking. Ideal for flight cases but also useful whenever noise is a concern. Fitted with roller bearings.

Top plate: 105 x 80, Bolt centres: 80 x 60 mm, Bolt holes Ø: 8 mm NB: The fixed version has a 3 mm height difference.



Black Flight Case Castors

Robust all black flight case castors with elastic rubber wheels. These hardy castors are durable enough to stand up to the day-to-day use of a touring flight case or as an economical scenery castor.

Top plate: 105 x 80, Bolt centres: 80 x 60 mm, Bolt holes Ø: 8 mm



TRADELINE		Buy set of 4 - two swivel & two braked	
		CAS347K	£33.98

code	description	WD	max load	OH	SR	price
CAS3470	Swivel	100mm	150kg	125mm	85mm	£10.45
CAS3477	Braked	100mm	150kg	125mm	85mm	£12.05
CAS3478	Fixed	100mm	150kg	128mm	85mm	£10.30

code	description	WD	max load	OH	SR	price
CASBFCS	Swivel	100mm	150kg	125mm	80mm	£15.50
CASBFCS	Braked	100mm	150kg	125mm	80mm	£18.50

TRADELINE		Buy set of 4 - two swivel & two braked	
		CASBLKFLIGHTK	£65.45

Sprung Flight Case Castors

This Flight Case Castor has been engineered to keep your flight case rolling in the right direction. These castors swivel as they need to but are sprung so they return to the same position. This stops your castors spinning uncontrollably (aka the shopping trolley effect) and helps you guide the direction of travel with ease.

What an innovation!

Top plate: 105 x 80, Bolt centres: 80 x 60 mm,

Bolt holes Ø: 8 mm



NEW

code	description	max load	TPD	WD	TW	OH	price
CAS3479	Swivel	150kg	105 x 80mm	100mm	35mm	125mm	£33.08
CAS3479B	Braked	150kg	105 x 80mm	100mm	35mm	125mm	£33.08

SOFT BRAKE BALLET CASTOR

Soft Brake Ballet Castor

Heavy duty braked castors with a brake that is so soft it can be activated by a bare footed or ballet shoe donned performer (hence the name). It's also so quiet that you can use the brake mid performance without making a sound.

Have you every tried to pirouette in steel toe cap boots? Difficult but not impossible...

Bolt holes Ø: 8 mm



NEW

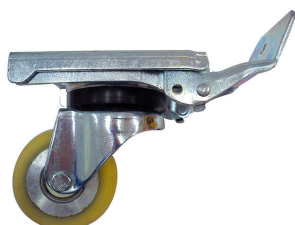
code	max load	TPD	TW	WD	OH	price
CASHBC80B	100kg	95 x 70mm	30mm	80mm	117mm	£22.88

FIXED POSITION BRAKES

Fixed Position Brake Castor

Generally, the foot-operated brakes on swivel castors swivel with the wheel so they trail the direction of travel. If the wheels are easily accessible this is not generally too much of a problem, especially if only two brakes are needed. However, stage trucks are generally designed to hide the castors from the audience making access to the brakes very difficult. If the truck needs positioning in view of the audience it can get messy! These castors are designed to avoid this familiar problem. The foot operated lever brake will lock off both the wheel and swivel but it remains fixed to the top plate. Your carpenters or metal fabricators will be able to position the castor so the lever neatly protrudes from the rear of the truck. A little bit of luminous tape on the lever and your trucks can be swiftly locked off even in a quick blackout. Top quality German manufacture. We can now also offer an additional directional lock for the all black fixed position castor, when engaged, it locks the direction of the wheel to 4 different positions. The lock is fixed in place via the bolt holes on the fixing plate so no additional bolts are needed.

SPECIFICATION: Original: Top plate size: 135 x 105 mm. Bolt centres: 105 x 80 mm. 88° Shore. 40 mm Vulkollen wheel. All Black Version: Top plate size: 135 x 110 mm. Bolt centres: 105 x 80 mm. 92° Shore. 50 mm wide polyurethane wheel.



code	descr.	WD	max load	WT	TW	OH	price
CASFPB		80mm	250kg	2.25kg	40mm	125mm	£119.55
CASFPBN	All Black	75mm	350kg	2.3kg	50mm	125mm	£125.00
CASFPDIRB	NEW Directional lock for CASFPBN						£21.35

LOW LEVEL CASTORS

Lo-Line® Very Low Level Heavy-Duty Castor

Every now and again you come across some products of such brilliance that you wonder how you ever managed without them. These castors designed by the legendary Mike Barnett solve the age-old problem of theatre trucks having to be 150 mm high just to accommodate decent castors. Now, with a bit of ingenuity, you can build a truck just 40 mm high with a weight loading on each swivel Lo-Line® unit of up to 350 kg! These ingenious units use 130 mm diameter steel wheels canted over so that the overall height is just 34 mm. Fitted with special deep grooved ball bearings which are sealed for life. The 16 mm thick top plate can be welded or drilled and tapped to secure the units to your trucks. Available in four types. Copyright: M.Barnett.

- ✓ Solves sightline problems from front row seats
- ✓ Just 34 mm overall height!
- ✓ Great track jumpers
- ✓ Use the fixed version along revolve rims
- ✓ Useful for low level slave pallets
- ✓ Takes up to 350 kg [175 kg for fixed units]
- ✓ Both wheels together provide a tread width of 70 mm



Front view of swivel version

Fixed Version

These units can be used on any truck running in a straight line or on pivot trucks with the units aligned in line with the pivot point. In particular they are perfect for use around the rims of revolves, allowing heavy-duty revolves, and their surrounds, to be very low profile sometimes enabling the front row to actually see the floor! Also available in a quieter version with replaceable nylon inserts.



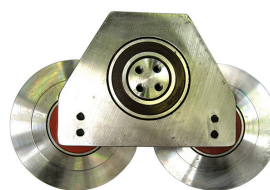
Top view of fixed version

code	description	WD	max load	WT	TW	OH	price
CASMBLLCF		130	175kg	1.25kg	35	34	£198.00
CASMBLLCNF	Nylon insert version	130	175kg	1.25kg	35	34	£198.00

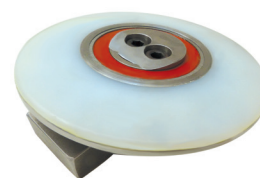
Swivel Version

For all stage use. Also available in a quieter version with replaceable nylon inserts in the wheels.

See also Flying Saucers, and Lazy Susans on the next page.



Top view of swivel version



Upside down view of nylon version

code	description	WT	TW	OH	WD	SR	price
CASMBLLC	Steel version	4.25kg	70	34	130	140	£498.00
CASMBLLCN	Nylon insert version	4.25kg	70	34	130	140	£335.00

CASTORS

Low Level Single Wheel Swivel Castor

A popular and very useful single bolt-fixing castor with a quiet polyurethane tyre and an overall height of just 59 mm. These are the same wheels used on the Mini Scene Shifter. They are supplied complete with an M10 Allen bolt leaving 20 mm of protruding thread.



code	WD	max load	TW	OH	SR	price
CAS295S	35mm	100kg	28mm	59mm	33mm	£9.99

Low Level Twin Wheel Swivel Castors

If you need to move heavy weights but have restricted height these tough units with polyurethane tyres on cast iron wheels are ideal. We have now introduced a more economical version with nylon wheels for use when noise is not an issue.

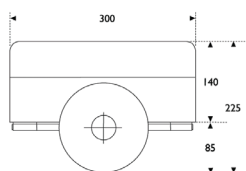
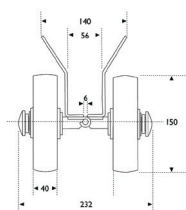


code	description	WD	max load	TW	OH	SR	price
CAS295	Poly tyre on cast iron	50mm	160kg	14mm	64mm	50mm	£29.00
CAS295N	Nylon	50mm	160kg	14mm	64mm	50mm	£15.89

PLATE SKATES

Plate Skates

These useful devices will grip panels up to 56 mm thick and take loads of 250 kg on their strong 150 mm Ø wheels. Ideal for moving heavy flattage or sheets of ply from lorries or around stage. Just use one in the centre of the panel and the crew can manoeuvre heavy items with ease.

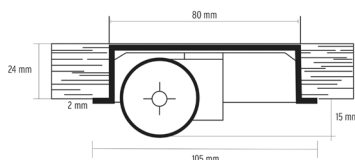


code	capacity	OH	WD	max load	price
CASPS15056	250kg	225mm	150mm	250kg	£60.90

ROLLER INSERT CASTOR

Roller Insert Castor

This castor can be inserted into a 24mm deep x 80 mm diameter recess providing you with a discreet double wheel swivel castor with just a 15 mm ground clearance. Effectively gliding! A common problem with Flying Saucers (on this page) is the extreme point loading. Here, the double wheel increases the surface contact minimising marking on soft surfaces. Three holes for securing into place, will take up No. 5 Wood Screws or M4 Machines Screws/Bolts.



code	WD	max load	OH	price
CAS2900080	30mm	50kg	39mm	£14.90

ROLLERS

Nylon Rollers

A useful range of small but heavy-duty nylon rollers. For convenience each size has the same hub width and diameter bore. The rollers are fitted with two ball races with side shields making them very free-running and quiet. The special feature is that they can be ordered with either a plain face, a V groove, or a round groove. Ideal for constructing heavy-duty travellers, small lifts, understage tracking, etc. The V-grooved rollers will run smoothly on inverted angle iron tracks. Trucks will self-centre if there is any width discrepancy between the tracks whereas flanged wheels running on square tracks may bind and screech.



code	description	wt	hub width	WD	bore Ø	price
FHSN050P	Plain	80g	25mm	50mm	10mm	£13.95
FHSN050R	Round Groove	60g	25mm	50mm	10mm	£13.95
FHSN050V	V Groove	60g	25mm	50mm	10mm	£13.95

FLYING SAUCERS

Flying Saucer [Ball Transfer Unit]

If you can't even fit in a low level swivel then these may help, but be careful on soft floors as they exert a very high point pressure which can cause damage. The units are really designed to be mounted facing upwards as transfer units for crates and boxes.

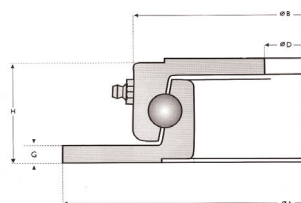


code	overall height	max load	price
CAS710	30mm	25kg	£4.50

TURNTABLES

Turntables

A range of ball-bearing turntables ideally suited for securing revolve centres to the stage but also handy for constructing stage trucks and for revolving platforms for heavy sculptures. The flanges are undrilled. Measurements in mm.



code	weight	ØA	ØB	H	G	price
CAS400L	11kg	400mm	342mm	45mm	8mm	£296.45
CAS500L	15kg	500mm	442mm	45mm	8mm	£329.35

Grease Gun & Cartridge

Lithium Grease Cartridge for use with Side Lever Grease Gun. Ideal for the maintenance of heavy duty turntables and truck winches and many other mechanical 'metal on metal' applications.

And as that old song goes:

Grease is the word,
It's got a groove, it's got a meaning
Grease is important for reducing friction, preventing rust
and keeping moving parts quiet,
Grease is the time, is the place, is the motion
Grease is the way we are feeling

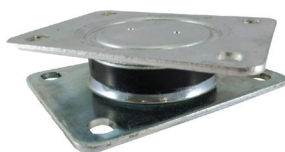


code	description	price
SAFEP2GREASE	Lithium EP2 Grease Cartridge 400 g	£5.46
SAFGREASEGUN	Side Lever Grease Gun	£12.94

Turntables with Fixing Plates

These discrete ball-bearing turntables are well suited for smaller revolving set pieces, furniture and sculptures. It's worth considering the intended order of assembly or you might find yourself on a sticky wicket!

SPECIFICATIONS: Bolt hole Ø: 11 mm, Material: Steel, Hole centres: A- 105 x 75 mm, B - 105 x 75 / 80 mm. Other sizes available to order.



CASI35105HD with 2 plates



CASI38109S with 1 plate

code	description	TPD	OH	max load	price
CASI35105HD	Two plate turntable	135 x 105mm	34.5mm	1000kg	£48.95
CASI38109S	One plate turntable	138 x 109mm	28.5mm	1000kg	£28.35

Lazy Susans

These lightweight ball race rings are designed for maximum stability and smooth running. They are suitable for props and special effects. Zinc-plate finish. For heavy scenery applications choose the turntables listed above.

No one really knows why they are called Lazy Susans but the first written reference was in an advert in Vanity Fair in December 1917.



code	description	OH	ø/width	max load	price
CAS300LS	Round	10mm	300mm	450kg	£10.80
CAS150LS	Square	10mm	150mm	225kg	£5.27
CAS100LS	Square	10mm	100mm	130kg	£3.85



TRIPLE E UNIJACKS

The Unijack™ system was the major building block in the Triple E range when the company started. Now several thousand Unijack™s, later it is still doing the work it was designed for on stages throughout the world. The system comprises the basic lifting unit with a range of accessories that allow easy handling of heavy scenery. Designed originally for scenic trucks on theatre stages, they can also be used for all types of industrial equipment, machinery, workbenches, display cabinets and counters. All can be moved or braked with confidence. **Please Note: This range was updated recently to unify the body across all the Unijack™s and brakes.**

Registered Design No. 1032215 Registered Trademark No. 1302\376.

Unijack™ fitted with 2" (50mm) twin wheel castor

It is recommended that this Unijack™ be installed with a 10mm clearance between the floor and castor to ensure that the foot pedal is at its most efficient travel and lift position. This also creates a ground clearance of 24mm for the moving item. If lightweight pieces are to be moved, then clearance may be reduced to give more lift. This unit may be fitted with the UJA5 stud set and locking catch to create a lift off UJA1/5. All Unijack™s can be fitted with a keyplate for quick removal.



code	description	SWL	price
UJA4101	50 mm twin-wheeled castor	160kg	£197.00

Unijack™ Rubber Foot Brake

Unijack™ fitted with Brake Foot is designed to hold a stage truck in position by lifting a fixed castor from the floor. The unit should be fitted so that it only lifts the fixed castor with a minimum clearance. The design recommendation is that the rubber brake foot should be installed with 3 mm more clearance than that of the truck to the floor. All Unijack™s can be fitted with a keyplate for quick removal. Please note Unijack™ has been updated in 2022. Working Load Limit: 275kg



code	description	SWL	price
UJA4301	Rubber Foot Brake	275kg	£198.00
UJA4301P01	Spare Rubber Foot		£20.00

Unijack™ fitted with 80mm wheel castor

It is recommended that this Unijack™ be installed with a 10mm clearance between the floor and castor to ensure that the foot pedal is at its most efficient travel and lift position. This also creates a ground clearance of 24mm for the moving item. If lightweight pieces are to be moved, then clearance may be reduced to give more lift. This unit may be fitted with the UJA5 stud set and locking catch to create a lift off UJA1/5. All Unijack™s can be fitted with a keyplate for quick removal.



code	description	SWL	price
UJA4201	80 mm castor	200kg	£215.00

Stud Set for Unijack™ Keyplate

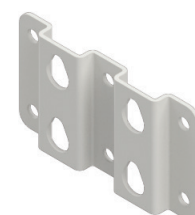
All the Unijack™s can simply be bolted to your scenery but the big advantage of fitting this UJA4501 Stud Set to your Unijack™s is that one set of Unijack™s can be used on many pieces of scenery. The scenery will need to be fitted with a UJA4601 receiving keyplate. The steel studs are stepped from 19 mm x 6 mm to 12 mm x 4 mm to a further 10 mm x 5mm allowing them to be conveniently located into the UJA4601 keyplate. The face of the stud is also drilled and countersunk to accept an M8 countersunk cap bolt. A simple safety catch is also supplied and fastened to the top corner of the Unijack™ backplate. Once in a down position the catch will lock the Unijack™ to the UJA4601 keyplate.



code	description	price
UJA4501	Stud set for use with Unijack™s	£46.50

Keyplate for Unijack™

These need to be fitted to your scenery to accept Unijack™s fitted with the UJA4501 Stud Sets Six 10 mm diameter holes in the plate provide sufficient fixing points and two vertical corrugations ensure there is enough clearance for the stud set.



code	description	price
UJA4601	Keyplate	£33.25

Choice of Brakes

When braked castors are not feasible due to poor access we have a selection of separate brake units. For light trucks, a door stop with a rubber foot or even a rubber door wedge will often suffice. If positioning is crucial [and you can drill into the stage floor] then drop bolts work well. Sometimes it is worth considering not using castors and brakes but gluing carpet to the base of the truck with the pile facing downwards. This will slide easily across painted stage floors but will not need brakes. It is ideal for quietly moving furniture on carpeted ply panels. The problem is that we don't sell plywood or carpet so we wouldn't really recommend this method at all. Heavier trucks can be quickly braked by using one of the lever brakes that we stock. The action of the lever will raise the truck slightly which can cause some visible movement. Using "Wind Down" brakes will be less jerky with the added advantage that they can gently raise heavy trucks so that bolt holes align. A more positive braking action can be achieved by raising all the castors using Unijacks [page 267]. The truck frame will then sit firmly on the stage thus spreading the load. In the scene dock, heavy chain placed around castors will effectively stop any movement. Onstage the quieter Sausage Weight Bags [page 174] can be used.

SIMPLE DOOR STOPS

Rubber Door Wedge

Free up all those stage weights by investing in some rubber door wedges. Drilled to take a lanyard.

code	price
DOR050	£2.45



1 m Lengths of Black Chain

A length of chain wrapped around the wheel will effectively prevent even heavy trucks from moving. Only suitable when access to wheels is good and the noise of chains is acceptable. These chains are black japanned. See also Sausage Weight Bags [page 174].

code	Type	wire gauge	link int. length	MRL	price	15m+
WIR833	Black	6mm	33mm	140kg	£5.77	£5.20

Tower Bolts [Barrel or Drop Bolts]

Black epoxy finish.



code	length	price
DOR110	4"	£1.76
DOR111	6"	£2.18
DOR112	8"	£3.14

Adjustable Door Stops

Fixes to the bottom of doors. Can be used as brakes on lightweight scenery trucks.

SMALL TYPE SPECIFICATION: Backing plate: 119 x 25 mm. Raised foot remains 11 mm below plate, lowered 39 mm below max.

Fixings: 3 off No.8 [4 mm] csk screws included.

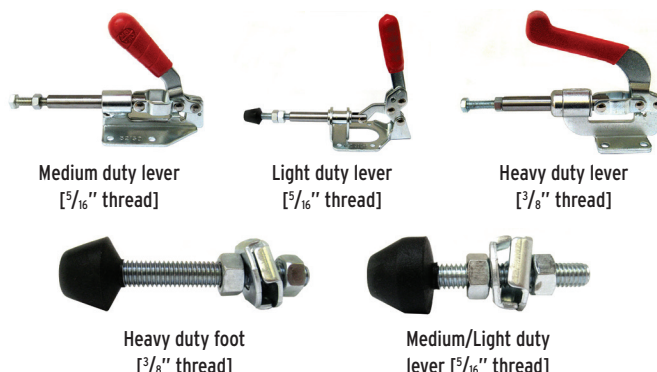
LARGE TYPE SPECIFICATION: Backing plate: 179 x 38 mm. Foot raised remains 6 mm below backing plate, lowered 40 mm below max. Fixings: 3 off No.8 [4 mm] csk screws included.

code	Type	price
DOR030	Small Type	£10.82
DOR031	Large Type	£16.48



Lever Truck Brakes

These popular brakes have a powerful smooth action to push down the plunger and raise the truck. The threaded foot fitting allows the final height to be adjusted and then locked off. You can buy the lever action without the extension feet so that you can have the option of fitting your own plate, disc, or castor. They also make excellent levers for production assembly jigs.



code	description	movement	max load	price	10+
CAS74550	Heavy-duty lever	40mm	362kg	£29.95	£22.95
CAS74555	Heavy-duty foot		362kg	£4.70	£4.23
CAS74510	Medium-duty lever	30mm	135kg	£21.89	£16.42
CAS74515	Medium-duty foot [also fits light]		135kg	£3.95	£3.55
CAS745302	Light-duty lever includes foot		45kg	£16.25	£14.62

Floor Lock

Excellent smooth powerful action. The unit bolts under the truck with its lever protruding through the back. The foot will cant to take up uneven floor surfaces.

SPECIFICATION: Mounting height: 150 mm. Retracted height: 125 mm.

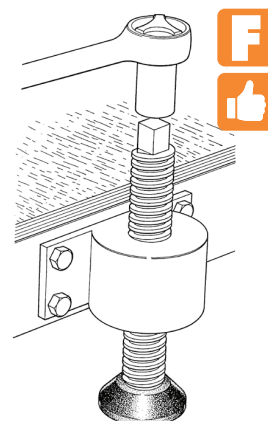


code	load capacity	price
CAS701	2000kg	£58.89

WIND DOWN BRAKES

Wind Down Brake

A superb industrial-quality brake for heavy trucks. Rapid descent with just four turns to drop 25 mm. These brake units will not jerk the scenery when it is positioned in view of the audience. They can be used to anti-rake touring scenery to fit a variety of stages. Useful to level-up large trucks on uneven stage floors and to raise heavy units from the floor to access pallet handling equipment. Fitted with a square head to fit a 19 mm socket and a black nylon foot with a bronze bush. All parts replaceable. Design right applies. SPECIFICATION: Overall height: 240 mm. Movement range: 135 mm. Fixing Plate: 60 x 150 x 8 mm thick. Drilled for 4 off M10 bolts.



code	description	price
FHS080		£185.00
FHS080F	Spare foot	£33.37