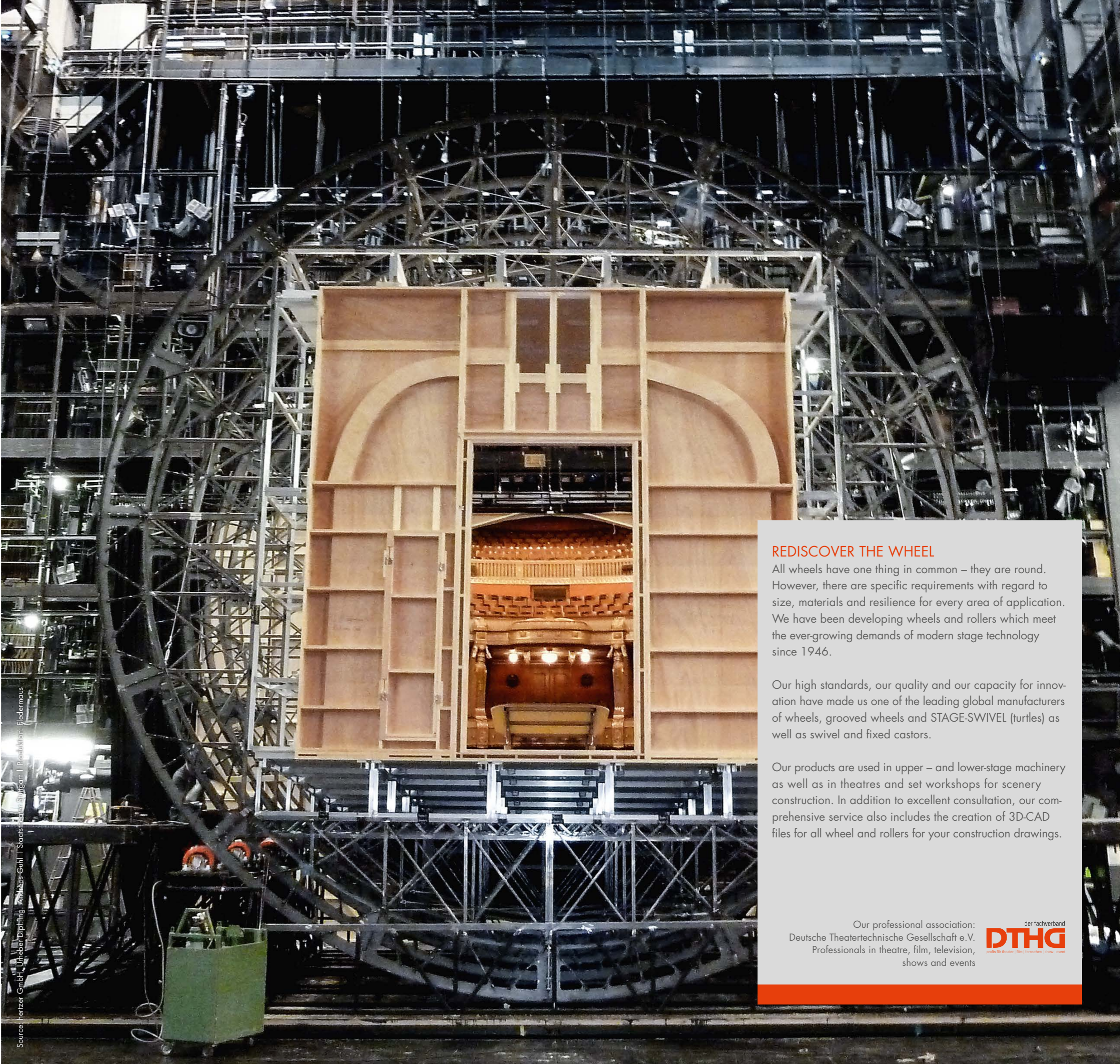


RÄDER-VOGEL®
FOR BETTER WHEELS AND BETTER SERVICE



STAGE TECHNOLOGY



REDISCOVER THE WHEEL

All wheels have one thing in common – they are round. However, there are specific requirements with regard to size, materials and resilience for every area of application. We have been developing wheels and rollers which meet the ever-growing demands of modern stage technology since 1946.

Our high standards, our quality and our capacity for innovation have made us one of the leading global manufacturers of wheels, grooved wheels and STAGE-SWIVEL (turtles) as well as swivel and fixed castors.

Our products are used in upper – and lower-stage machinery as well as in theatres and set workshops for scenery construction. In addition to excellent consultation, our comprehensive service also includes the creation of 3D-CAD files for all wheel and rollers for your construction drawings.

Our professional association:
 Deutsche Theater-technische Gesellschaft e.V.
 Professionals in theatre, film, television, shows and events

DTHG
 der fachverband
 profis für theater | film | fernsehen | show | event

References



SBS BÜHNENTECHNIK GMBH

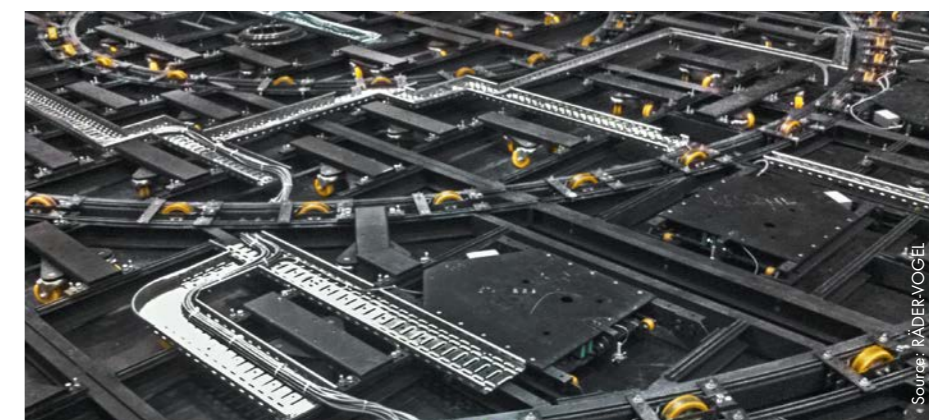
The new stage trolleys for the Mariinski Theatre in St. Petersburg, Russia, were fitted with PEVOPUR® heavy-duty STAGE-SWIVEL, enabling practically swivel-free changes of direction as well as high and secure load capacity.



Source: SBS Bühnentechnik GmbH

Stage trolleys with turntables

High demands are made of wheels and rollers in stage trolleys and turntables. A high load capacity, minimal noise generation and precise operation are essential. For this reason, VULKOLLAN® and PEVODYN® Soft wheels, in particular, are ideally suited for these applications.



Source: RÄDER-VOGEL



DEUTSCHE OPER AM RHEIN
DÜSSELDORF DUISBURG

The use of PEVOPUR® STAGE-SWIVEL in various mobile and rotary walls and elements enables the rapid conversion of stage designs, even those of a large and elaborate nature.



Source: Deutsche Oper am Rhein Düsseldorf Duisburg
RONJA RAUBERTOCHTER © Foto: Hans Jörg Michel

Flightcases

Flightcases are the universal form of transportation in stage and events technology. Our rollers from the 27 Stage series (BlueWheels) perfectly meet all the requirements thanks to their low starting and rolling resistance, high level of robustness and optimal cushioning qualities.



Source: RÄDER-VOGEL



Single-groove and multi-groove C45 wheels in RAL 1021 were installed in the new upper-stage machinery of the Esch Theatre in Luxembourg, fitted with high-precision ball bearings. This enabled the steel cables to be rerouted and securely guided even in the case of high loads.



Source: Otto Vogel Bühnentechnik GmbH

Lower machinery for revolving stage

Elaborate stage designs, rapid alterations and special scenic effects are very difficult to carry out without a revolving stage. Our load wheels and drive wheels are therefore suitable both for new systems and for the conversion of older systems. Through the use of modern wheel materials, we make sure these are up-to-date with modern requirements.



Source: RÄDER-VOGEL

High-quality wheel materials for your applications

Our range of wheel tread materials is just as diverse and sophisticated as our wheels and rollers. Our polyurethane elastomers, which are all processed in a hot casting process, are a particular focus here. In contrast to cold-processed systems, these are of a higher quality, are non-marking, have low starting and rolling resistance, and good chemical resistance to mineral oils and greases as well as to various solvents. Wheel materials such as VULKOLLAN®*, PEVOPUR® and PEVODYN® Soft are particularly well suited for use in stage trolleys and revolving stages in lower machinery as well as for swivel castors, fixed castors and STAGE-SWIVEL (turtles). We also offer you a wide

range of wheel treads made of thermoplastic polyurethane, polyamide and rubber, which are particularly suited for transportation devices.

Specially designed for moving at speeds of up to 4 km/h, with a load capacity of up to 1,100 kg, and thanks to their resistance to a wide range of environmental influences, our industrial castors are used in machinery and devices of all kinds, stage trolleys, flightcases as well as work platforms, mounting trolleys, magazine trolleys and container trolleys.



PEVOPUR®

PEVOPUR® is a high-quality polyurethane elastomer which offers good dynamic load capacity, high elasticity, good mechanical wear resistance and good compressive set quality. PEVOPUR® is also significantly more resilient than rubber. The material is therefore particularly well suited for applications with more demanding requirements, such as set construction for backdrop cars and STAGE-SWIVEL (turtles).

Areas of application:

- Medium load capacities
- Medium speeds



PEVODYN® Soft

PEVODYN® Soft 78° Shore A is a new high-quality polyurethane elastomer that we have developed with high dynamic load capacity and significantly reduced starting and rolling resistance. The excellent mechanical properties of the material include high cutting, tearing and abrasion resistance. Thanks to its good noise reduction and vibration damping, PEVODYN® Soft is particularly well suited for virtually silent usage on stage.

Areas of application:

- Medium load capacities
- High speeds
- High energy efficiency
- Good noise reduction and vibration damping
- Floor preserving
- Non-marking



VULKOLLAN®

VULKOLLAN® is a highly elastic, cross-linked polyurethane elastomer based on DESMODUR® 15* with excellent mechanical properties. This includes high dynamic load capacity, high abrasion resistance and tear growth resistance, the highest modulus of elasticity of all elastomers, high mechanical wear resistance as well as high impact resilience and low compression set. Accordingly, VULKOLLAN® is generally used for drive wheels and load wheels in revolving stages and stage

trolleys as well as in materials handling and machine construction.

Areas of application:

- Long lifespan
- High load capacities
- High speed
- High impact resilience



PEVOTHAN®

PEVOTHAN® is a high-quality processed thermoplastic polyurethane elastomer with excellent properties such as non-marking characteristics, high abrasion resistance, good damping power and loading capacities of up to 500 kg. Accordingly, PEVOTHAN® is superior to all standard rubber wheels and is particularly recommended in the case of delicate surfaces (laminated or painted).

Areas of application:

- Floor preserving
- Good noise and vibration damping
- Low rolling resistance
- Non-marking



ELASTIC SOLID RUBBER WHEELS

ELASTIC solid rubber produces very little noise and moves smoothly with a low rolling resistance and load capacities of up to 400 kg. Accordingly, ELASTIC solid rubber is used in a quite traditional manner in the construction of flightcases and other simple trolleys.

Areas of application:

- Floor saving
- Good noise and vibration damping
- Non-marking

* VULKOLLAN® and DESMODUR® are registered trademarks of the Covestro Group.

PE·VO·PUR® theatre castors



Series 42 PUR
Series 41 PUR

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|--------------------|-----|----|-----|-----------|----------|----|----|-----|
| 41 PUR/050/40/5 | 50 | 40 | 82 | 60 x 60 | 80 x 80 | 9 | 37 | 150 |
| 41 PUR/080/32/5 B* | 80 | 32 | 100 | 105 x 80 | 80 x 60 | 9 | 40 | 200 |
| 41 PUR/100/40/5 | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | 45 | 350 |
| 41 PUR/100/40/5 B* | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | 45 | 350 |
| 41 PUR/125/50/5 | 125 | 50 | 164 | 135 x 110 | 105 x 80 | 11 | 55 | 350 |
| 41 PUR/125/50/5 B* | 125 | 50 | 164 | 135 x 110 | 105 x 80 | 11 | 55 | 350 |
| 41 PUR/150/50/5 | 150 | 50 | 194 | 135 x 110 | 105 x 80 | 11 | 55 | 350 |
| 41 PUR/200/50/5 | 200 | 50 | 239 | 135 x 110 | 105 x 80 | 11 | 55 | 400 |

Industrial swivel castors with PEVOPUR® wheels

93° Shore A, crowned and cylindrical

| Article code | mm | mm | mm | mm | mm | mm | kg |
|--------------------|-----|----|-----|-----------|----------|----|-----|
| 42 PUR/050/40/5 | 50 | 40 | 82 | 80 x 80 | 60 x 60 | 9 | 150 |
| 42 PUR/080/32/5 B* | 80 | 32 | 100 | 105 x 87 | 80 x 60 | 9 | 200 |
| 42 PUR/100/40/5 | 100 | 40 | 126 | 135 x 110 | 105 x 80 | 11 | 350 |
| 42 PUR/100/40/5 B* | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | 350 |
| 42 PUR/125/50/5 | 125 | 50 | 164 | 135 x 110 | 105 x 80 | 11 | 350 |
| 42 PUR/125/50/5 B* | 125 | 50 | 164 | 135 x 110 | 105 x 80 | 11 | 350 |
| 42 PUR/150/50/5 | 150 | 50 | 194 | 135 x 110 | 105 x 80 | 11 | 350 |
| 42 PUR/200/50/5 | 200 | 50 | 239 | 135 x 110 | 105 x 80 | 11 | 400 |

* with crowned tread
1-way directional lock available for 135 x 110 mm plate only
4-way directional lock for Ø 100 mm only

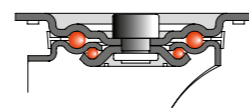
ALLSTOP total locking device
Code: 41 F PUR/...

directional lock
Code: 41 PUR/...TRIF

4-way directional lock
Code: 41 PUR/...4RIF



Industrial fixed castors



Industrial swivel castor brackets with a load capacity of up to 400 kg

Housings made of pressed steel, zinc and chromated. Swivel head with double ball bearings, dust and splash proof, with riveted kingpin. ALLSTOP total locking device on the trailing side of the housing, blocks rolling and swivel motion simultaneously.

PE·VO·DYN® Soft / PE·VO·THAN® theatre castors



Series 41 STAGE
Series 41 STAGE PD-S

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|---------------------------|-----|----|-----|-----------|----------|----|----|-----|
| Swivel castor | | | | | | | | |
| 41 STAGE PD-S/100/40/5 B* | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | 45 | 300 |
| Fixed castor | | | | | | | | |
| 42 STAGE PD-S/100/40/5 B* | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | - | 300 |

Theatre castors with PEVODYN® Soft wheels

78° Shore A, crowned

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|-------------------|-----|----|-----|-----------|----------|----|----|-----|
| Swivel castor | | | | | | | | |
| 41 STAGE/100/40/5 | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | 45 | 350 |
| Fixed castor | | | | | | | | |
| 42 STAGE/100/40/5 | 100 | 40 | 125 | 135 x 110 | 105 x 80 | 11 | - | 350 |

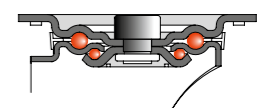
* with crowned tread

Theatre castors with PEVOCHAN® wheels

95° Shore A, crowned

ALLSTOP total locking device
Code: 41 F / ...

4-way directional lock
Code: 41 / ...4RIF



Industrial swivel castor brackets with a load capacity of up to 350 kg

Housings made of pressed steel, zinc and chromated. Swivel head with double ball bearings, dust and splash proof, with riveted kingpin. ALLSTOP total locking device on the trailing side of the housing, blocks rolling and swivel motion simultaneously.

Solid rubber industrial castors



Series 28 Stage

Series 27 Stage

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|---------------------|-----|----|-----|-----------|----------|----|----|-----|
| 27 STAGE/080/36/3 L | 80 | 36 | 101 | 105 x 80 | 80 x 60 | 9 | 40 | 150 |
| 27 STAGE/100/36/3 L | 100 | 36 | 125 | 105 x 80 | 80 x 60 | 9 | 40 | 200 |
| 27 STAGE/125/36/3 L | 125 | 36 | 155 | 105 x 80 | 80 x 60 | 9 | 36 | 250 |
| 27 STAGE/160/50/3 | 160 | 50 | 199 | 135 x 110 | 105 x 80 | 11 | 55 | 300 |

| Article code | mm | mm | mm | mm | mm | mm | kg |
|---------------------|-----|----|-----|-----------|----------|----|-----|
| 28 STAGE/080/36/3 L | 80 | 36 | 101 | 102 x 87 | 80 x 60 | 9 | 150 |
| 28 STAGE/100/36/3 L | 100 | 36 | 125 | 102 x 87 | 80 x 60 | 9 | 200 |
| 28 STAGE/125/36/3 L | 125 | 36 | 155 | 102 x 87 | 80 x 60 | 9 | 250 |
| 28 STAGE/160/50/3 | 160 | 50 | 199 | 135 x 110 | 105 x 80 | 11 | 300 |

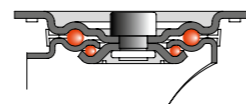
Industrial swivel castors with ELASTIC solid rubber wheels (Blue Wheel)

65° Shore A

Industrial fixed castors

Industrial swivel castor brackets with a load capacity of up to 300 kg

Housings made of pressed steel, zinc plated and chromated. Swivel head with double ball bearings, dust and splash proof, with riveted kingpin. ALLSTOP total locking device on the trailing side of the housing, blocks rolling and swivel motion simultaneously.



ALLSTOP total locking device
Code: 27 F STAGE/...

single bolt hole
Code: 27 STAGE/...R

single bolt hole/total lock
Code: 27 F STAGE/...R



Polyurethane industrial rollers



Series 37 PUR/5

Series 37 PUR/R

| Article code | mm | mm | mm | mm | mm | mm | mm | mm | kg |
|-----------------|----|----|----|---------|-------------------|----|----|----|-----|
| 37 PUR/035/27/5 | 35 | 27 | 52 | 60 x 60 | 48 x 38 / 48 x 38 | 6 | - | 15 | 100 |
| 37 PUR/045/27/5 | 45 | 27 | 62 | 60 x 60 | 48 x 38 / 48 x 38 | 6 | - | 15 | 100 |
| 37 PUR/055/27/5 | 55 | 27 | 72 | 60 x 60 | 48 x 38 / 48 x 38 | 6 | - | 15 | 100 |

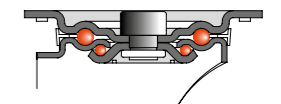
| Article code | mm | mm | mm | mm | mm | mm | mm | mm | kg |
|-----------------|----|----|----|----|----|----|----|----|-----|
| 37 PUR/035/27/R | 35 | 27 | 50 | - | - | - | 11 | 15 | 100 |
| 37 PUR/045/27/R | 45 | 27 | 60 | - | - | - | 11 | 15 | 100 |
| 37 PUR/055/27/R | 55 | 27 | 70 | - | - | - | 11 | 15 | 100 |

Industrial swivel castors with polyurethane wheels

with top plate, 93° Shore A

Industrial swivel castors with polyurethane wheels

with single bolt hole, 93° Shore A



Industrial swivel castor brackets with a load capacity of up to 100 kg

Housings made of pressed steel, zinc plated and chromated. Swivel head with double ball bearings, dust and splash proof, kingpin riveted.

Lifting rollers for use in Theaters

The lifting rollers are perfect for lifting and moving stage scenery and decorations. The lifting rollers have to be mounted via screw connection to the material to be transported. Lifting can be carried out by foot lever or by a lever extension. Welded steel construction with a lifting height of 35 mm.

| Article code | mm | mm | mm | mm | kg |
|--------------------------------------|----|-----|-----------|----------|-----|
| Lifting jack with locking device 193 | 11 | 200 | 160 x 110 | 105 x 85 | 350 |

(Fitting swivel Castors see page 9)



Institutional castors



Series 67 D/5/P FAD
Series 67/5/P FAD

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|-------------------|-----|----|-----|---------|-----------------|----|----|-----|
| 67/050/18/5/P FAD | 50 | 18 | 69 | 60 x 60 | 46 x 46/40 x 40 | 6 | 25 | 40 |
| 67/075/25/5/P FAD | 75 | 25 | 100 | 60 x 60 | 48 x 48/38 x 38 | 6 | 30 | 60 |
| 67/100/32/5/P FAD | 100 | 32 | 135 | 95 x 70 | 76 x 52/72 x 45 | 9 | 43 | 90 |
| 67/125/32/5/P FAD | 125 | 32 | 160 | 95 x 70 | 76 x 52/72 x 45 | 9 | 41 | 110 |
| 67/150/32/5/P FAD | 150 | 32 | 185 | 95 x 70 | 76 x 52/72 x 45 | 9 | 36 | 110 |

| Article code | mm | mm | mm | mm | mm | mm | kg |
|-------------------|-----|----|-----|---------|-----------------|----|-----|
| 68/050/18/5/P FAD | 50 | 18 | 70 | 60 x 60 | 48 x 48/38 x 38 | 6 | 40 |
| 68/075/25/5/P FAD | 75 | 25 | 100 | 60 x 60 | 48 x 48/38 x 38 | 6 | 60 |
| 68/100/32/5/P FAD | 100 | 32 | 135 | 95 x 77 | 76 x 52/72 x 45 | 9 | 90 |
| 68/125/32/5/P FAD | 125 | 32 | 160 | 95 x 77 | 76 x 52/72 x 45 | 9 | 110 |
| 68/150/32/5/P FAD | 150 | 32 | 185 | 95 x 77 | 76 x 52/72 x 45 | 9 | 110 |

All swivel castors also available with single bolt hole and expanded fitting.

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|---------------------|----|----|-----|---------|-----------------|----|----|----|
| 67 D/050/18/5/P FAD | 50 | 18 | 72 | 60 x 60 | 48 x 48/38 x 38 | 6 | 30 | 60 |
| 67 D/075/24/5/P FAD | 75 | 24 | 103 | 77 x 67 | 61 x 51/56 x 46 | 8 | 30 | 80 |

Institutional swivel castors with thermoplastic rubber wheels

87° Shore A

Institutional fixed castors

Institutional double swivel castors with thermoplastic rubber wheels



Institutional swivel castor brackets with a load capacity of up to 110 kg

Housings made of pressed steel, zinc and chromated. Swivel head with double ball bearing and riveted kingpin. ALLSTOP total locking device on the trailing side of the housing, blocks rolling and swivel motion simultaneously.

ALLSTOP total locking device
Code: 67 F/...P

ALLSTOP total locking device
Code: 67 DF/...



PE·VO·PUR® industrial castors



Series 224 PUR
Series 223 PUR

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|---------------------|-----|----|-----|-----------|----------|----|----|-------|
| 223 PUR/080/57/5 | 80 | 57 | 138 | 135 x 110 | 105 x 80 | 11 | 55 | 400 |
| 223 PUR/100/50/5 | 100 | 50 | 148 | 135 x 110 | 105 x 80 | 11 | 55 | 450 |
| 223 PUR/125/50/5 | 125 | 50 | 175 | 135 x 110 | 105 x 80 | 11 | 55 | 550 |
| 223 PUR/150/50/5 | 150 | 50 | 202 | 135 x 110 | 105 x 80 | 11 | 55 | 700 |
| 223 PUR/150/50/5 B* | 150 | 50 | 202 | 135 x 110 | 105 x 80 | 11 | 55 | 700 |
| 223 PUR/200/50/5 | 200 | 50 | 252 | 135 x 110 | 105 x 80 | 11 | 60 | 1.000 |
| 223 PUR/250/60/5 | 250 | 60 | 300 | 135 x 110 | 105 x 80 | 11 | 65 | 1.100 |

| Article code | mm | mm | mm | mm | mm | mm | kg |
|---------------------|-----|----|-----|-----------|----------|----|-------|
| 224 PUR/080/57/5 | 80 | 57 | 138 | 135 x 110 | 105 x 80 | 11 | 400 |
| 224 PUR/100/50/5 | 100 | 50 | 148 | 135 x 110 | 105 x 80 | 11 | 450 |
| 224 PUR/125/50/5 | 125 | 50 | 175 | 135 x 110 | 105 x 80 | 11 | 550 |
| 224 PUR/150/50/5 | 150 | 50 | 202 | 135 x 110 | 105 x 80 | 11 | 700 |
| 224 PUR/150/50/5 B* | 150 | 50 | 202 | 135 x 110 | 105 x 80 | 11 | 700 |
| 224 PUR/200/50/5 | 200 | 50 | 252 | 135 x 110 | 105 x 80 | 11 | 1.000 |
| 224 PUR/250/60/5 | 250 | 60 | 300 | 135 x 110 | 105 x 80 | 11 | 1.100 |

* with crowned tread
ALLSTOP brake not available for wheel- Ø 80 mm.

ALLSTOP total locking device
Code: 223 F PUR/...

directional lock
Code: 223 PUR/...TRIF

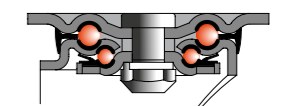
foot protection
Code: ...PRO



Heavy-duty industrial swivel castors with PEVOPUR® wheels

93° Shore A

Heavy-duty industrial fixed castors



Industrial swivel castor brackets with a load capacity of up to 1,100 kg

Housings made of extra strong pressed steel, zinc and chromated. Swivel head with double ball bearing. Bearing shells made of hardened steel. Kingpin bolted and secured. ALLSTOP total locking device on the trailing side of the housing, blocks rolling and swivel motion simultaneously.

VULKOLLAN® load wheels



Series 178

| Article code | mm | mm | mm | mm | mm | mm | kg |
|---------------------|-----|----|----|----|-----|----|-------|
| 178/100/025/5/15 | 100 | 25 | 25 | 26 | 43 | 15 | 200 |
| 178/100/035/5/12 | 100 | 35 | 40 | 40 | 42 | 12 | 300 |
| 178/100/040/5/15 B* | 100 | 40 | 45 | 42 | 45 | 15 | 350 |
| 178/100/040/5/15 | 100 | 40 | 45 | 42 | 45 | 15 | 350 |
| 178/100/040/5/25 | 100 | 40 | 45 | 45 | 54 | 25 | 350 |
| 178/100/050/5/20 B* | 100 | 50 | 50 | 54 | - | 20 | 450 |
| 178/100/050/5/25-1 | 100 | 50 | 50 | 54 | - | 25 | 450 |
| 178/100/050/5/25-2 | 100 | 50 | 50 | 48 | - | 25 | 450 |
| 178/125/040/5/15 | 125 | 40 | 45 | 45 | 42 | 15 | 450 |
| 178/125/040/5/20 | 125 | 40 | 45 | 43 | 60 | 20 | 450 |
| 178/125/050/5/20 | 125 | 50 | 50 | 54 | 59 | 20 | 560 |
| 178/125/050/5/25-1 | 125 | 50 | 50 | 54 | 59 | 25 | 560 |
| 178/125/050/5/25-2 | 125 | 50 | 50 | 48 | 59 | 25 | 560 |
| 178/125/070/5/25 | 125 | 70 | 70 | 74 | 65 | 25 | 660 |
| 178/150/035/5/25 | 150 | 35 | 35 | 39 | 62 | 25 | 450 |
| 178/150/050/5/20 | 150 | 50 | 50 | 54 | 61 | 20 | 660 |
| 178/150/050/5/25-1 | 150 | 50 | 50 | 54 | 61 | 25 | 660 |
| 178/150/050/5/25-2 | 150 | 50 | 50 | 48 | 61 | 25 | 660 |
| 178/150/080/5/25 | 150 | 80 | 72 | 78 | 65 | 25 | 900 |
| 178/160/040/5/20 | 160 | 40 | 45 | 49 | 61 | 20 | 550 |
| 178/160/050/5/20 | 160 | 50 | 60 | 60 | 65 | 20 | 700 |
| 178/160/050/5/25 | 160 | 50 | 50 | 48 | 70 | 25 | 600 |
| 178/180/050/5/25 | 180 | 50 | 50 | 48 | 66 | 25 | 800 |
| 178/200/050/5/20 | 200 | 50 | 60 | 64 | 65 | 20 | 1.000 |
| 178/200/050/5/25 | 200 | 50 | 60 | 64 | 65 | 25 | 1.000 |
| 178/200/050/5/30 | 200 | 50 | 50 | 48 | 86 | 30 | 840 |
| 178/200/060/5/25 | 200 | 60 | 60 | 60 | 65 | 25 | 760 |
| 178/200/080/5/25-1 | 200 | 80 | 80 | 84 | 70 | 25 | 1.400 |
| 178/200/080/5/25-2 | 200 | 80 | 78 | 78 | 95 | 25 | 1.400 |
| 178/200/080/5/30 | 200 | 80 | 78 | 78 | 85 | 30 | 1.400 |
| 178/200/080/5/35 | 200 | 80 | 80 | 78 | 82 | 35 | 1.460 |
| 178/250/050/5/25 | 250 | 50 | 60 | 64 | 67 | 25 | 1.100 |
| 178/250/050/5/30 | 250 | 50 | 50 | 48 | 83 | 30 | 1.100 |
| 178/250/060/5/25 | 250 | 60 | 60 | 60 | 77 | 25 | 1.350 |
| 178/250/080/5/30-1 | 250 | 80 | 80 | 80 | 75 | 30 | 1.700 |
| 178/250/080/5/30-2 | 250 | 80 | 78 | 78 | 91 | 30 | 1.800 |
| 178/250/080/5/40 | 250 | 80 | 80 | 78 | 101 | 40 | 1.800 |
| 178/300/060/5/30 | 300 | 60 | 65 | 65 | 82 | 30 | 1.600 |
| 178/300/080/5/40 | 300 | 80 | 85 | 85 | 106 | 40 | 2.100 |

* with crowned tread

VULKOLLAN® load wheels

Grey cast iron wheel centres with deep groove ball bearings (/5) and VULKOLLAN® wheel tread 93° Shore A.

VULKOLLAN®/PE·VO·PUR® guiding rollers



Series 173

Series 173 PUR

| Article code | mm | mm | mm | mm | kg |
|------------------|-----|----|----|----|-------|
| 173/040/015/5/10 | 40 | 15 | 8 | 10 | 55 |
| 173/040/020/5/10 | 40 | 20 | 8 | 10 | 70 |
| 173/040/025/5/10 | 40 | 25 | 8 | 10 | 90 |
| 173/050/015/5/10 | 50 | 15 | 9 | 10 | 70 |
| 173/050/018/5/17 | 50 | 18 | 10 | 17 | 80 |
| 173/050/020/5/12 | 50 | 20 | 10 | 12 | 90 |
| 173/055/020/5/12 | 55 | 20 | 10 | 12 | 100 |
| 173/055/020/5/15 | 55 | 20 | 10 | 15 | 100 |
| 173/060/020/5/17 | 60 | 20 | 12 | 17 | 110 |
| 173/060/020/5/20 | 60 | 20 | 12 | 20 | 110 |
| 173/070/020/5/17 | 70 | 20 | 12 | 17 | 125 |
| 173/070/020/5/20 | 70 | 20 | 12 | 20 | 120 |
| 173/070/025/5/20 | 70 | 25 | 14 | 20 | 160 |
| 173/070/025/5/25 | 70 | 25 | 15 | 25 | 160 |
| 173/080/025/5/20 | 80 | 25 | 15 | 20 | 180 |
| 173/080/025/5/25 | 80 | 25 | 15 | 25 | 180 |
| 173/090/025/5/25 | 90 | 25 | 15 | 25 | 200 |
| 173/100/025/5/25 | 100 | 25 | 15 | 25 | 220 |
| 173/120/025/5/20 | 120 | 25 | 15 | 20 | 270 |
| 173/120/025/5/25 | 120 | 25 | 15 | 25 | 270 |
| 173/120/030/5/30 | 120 | 30 | 13 | 30 | 320 |
| 173/125/030/5/20 | 125 | 30 | 30 | 20 | 335 |
| 173/125/030/5/25 | 125 | 30 | 35 | 25 | 335 |
| 173/150/050/5/35 | 150 | 50 | 42 | 35 | 680 |
| 173/150/080/5/35 | 150 | 80 | 80 | 35 | 1.030 |

VULKOLLAN® guiding rollers with deep groove ball bearings

Steel wheel centres with deep groove ball bearings (/5) and VULKOLLAN® wheel tread 93° Shore A.

| Article code | mm | mm | mm | mm | kg |
|-------------------------|----|----|------|-----|-----|
| 173 PUR/050/040/5/10 | 50 | 40 | 40 | 10 | 180 |
| 173 PUR/050/040/5/10 B* | 50 | 40 | 40 | 10 | 180 |
| 173 PUR/065/038/5/8,1 | 65 | 38 | 41,4 | 8,1 | 220 |
| 173 PUR/065/040/5/12 | 65 | 40 | 40 | 12 | 230 |

* with crowned tread

PEVOPUR® guiding rollers with deep groove ball bearings

Steel wheel centres with deep groove ball bearings (/5) and PEVOPUR® wheel tread 93° Shore A.

STAGE-SWIVEL (turtles)












Source: RÄDER-VOGEL

OPTIMUM RELIABILITY FOR STAGE AND EVENT TECHNOLOGY










STAGE-SWIVEL are an essential part of stage and event technology. They are used in stage trolleys for lower machinery as well as in set and scenery construction, as they are ideally suited to transporting heavy loads in a tight space, without swivelling, with very little noise and minimal effort. The use of high-quality wheel materials with a long lifespan and low starting and rolling resistance consistently meets all ergonomic and reliability requirements.

STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/035/27/5 | 35 | 27 | 78 | 115 x 85 | 80 x 55 | 259 | 9 | 250 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/050/040/5 | 50 | 40 | 111,5 | 115 x 85 | 80 x 55 | 306 | 9 | 250 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/065/38/5 | 65 | 38 | 125,5 | 138 x 109 | 105 x 80 | 329 | 11 | 450 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/080/32/5 | 80 | 32 | 139 | 138 x 109 | 105 x 80 | 347 | 11 | 360 |












STAGE-SWIVEL (turtles)

STAGE-SWIVEL with solid rubber wheels

|  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI STAGE/080/35/3 | 80 | 34 | 132 | 138 x 109 | 105 x 80 | 348 | 11 | 450 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/100/40/5 | 100 | 40 | 160 | 138 x 109 | 105 x 80 | 432 | 11 | 600 |












STAGE-SWIVEL with PEVODYN® Soft wheels

|  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PD-S/100/40/5 B | 100 | 40 | 160 | 138 x 109 | 105 x 80 | 432 | 11 | 600 |












STAGE-SWIVEL with PEVOTHAN® wheels

|  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PU/100/40/5 BLACK | 100 | 40 | 160 | 138 x 109 | 105 x 80 | 432 | 11 | 600 |












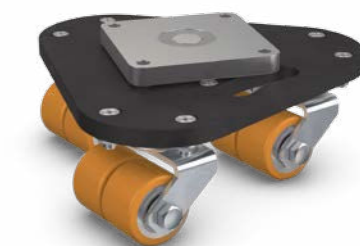
STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/125/40/5 B | 125 | 40 | 186,5 | 138 x 109 | 105 x 80 | 504 | 11 | 600 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/060/040/5 | 60 | 40 | 125 | 130 x 130 | 105 x 105 | 334 | 11 | 1.000 |












STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/125/40/5 | 125 | 40 | 200 | 130 x 130 | 105 x 105 | 494 | 11 | 2.000 |



STAGE-SWIVEL with PEVOPUR® wheels

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
| 37 TRI PUR/125/50/5 | 125 | 50 | 229 | 250 x 210 | 210 x 160 | 519 | 18 | 3.000 |



Steel grooved wheels



Series 111

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|-------------------|-----|-----|----|----|----|------|-----|-------|
| 111/078/020/5/12 | 78 | 61 | 20 | 20 | 20 | 5 | 12 | 250 |
| 111/090/018/5/8,5 | 90 | 70 | 18 | 18 | 20 | 6 | 8,5 | 250 |
| 111/090/022/5/10 | 90 | 70 | 22 | 22 | 20 | 6 | 10 | 200 |
| 111/100/020/5/15 | 100 | 80 | 20 | 24 | 24 | 10 | 15 | 300 |
| 111/102/030/5/15 | 102 | 62 | 30 | 30 | 30 | 10 | 15 | 550 |
| 111/115/040/5/17 | 115 | 87 | 40 | 40 | 32 | 29 | 17 | 500 |
| 111/120/028/5/10 | 120 | 98 | 28 | 30 | 30 | 11 | 10 | 200 |
| 111/150/020/5/15 | 150 | 125 | 20 | 20 | 20 | 6,4 | 15 | 300 |
| 111/150/032/5/10 | 150 | 120 | 32 | 35 | 35 | 15 | 10 | 200 |
| 111/160/030/5/25 | 160 | 134 | 30 | 30 | 30 | 13 | 25 | 700 |
| 111/160/050/5/25 | 160 | 110 | 50 | 50 | 50 | 30,5 | 25 | 700 |
| 111/165/014/5/20 | 165 | 139 | 24 | 29 | 29 | 14 | 20 | 500 |
| 111/165/029/5/15 | 165 | 139 | 24 | 29 | 29 | 7 | 15 | 400 |
| 111/190/016/5/40 | 190 | 160 | 28 | 31 | 18 | 16 | 40 | 2.000 |
| 111/245/036/5/35 | 245 | 207 | 36 | 40 | 40 | 23 | 35 | 1.600 |
| 111/260/036/5/40 | 260 | 230 | 36 | 36 | 39 | 12 | 40 | 2.000 |
| 111/263/043/5/50 | 263 | 225 | 43 | 43 | 43 | 12,9 | 50 | 1.650 |

Available in RAL 1021 (yellow) on request.



Source: RÄDERVOGEL

PE·VO·LON® grooved wheels



Series E/5

Series 132 PA

| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|-------------------------|----|----|----|----|----|----|----|-----|
| 132 PA/040/030/013/5/8 | 40 | 30 | 13 | 13 | 7 | 4 | 8 | 30 |
| 132 PA/050/041/015/5/6 | 50 | 41 | 15 | 15 | 6 | 6 | 6 | 50 |
| 132 PA/050/041/015/5/8 | 50 | 41 | 15 | 15 | 7 | 6 | 8 | 50 |
| 132 PA/065/055/018/5/17 | 65 | 55 | 18 | 18 | 12 | 8 | 17 | 75 |
| 132 PA/085/075/020/5/10 | 85 | 75 | 20 | 20 | 9 | 16 | 10 | 200 |
| 132 PA/085/075/020/5/12 | 85 | 75 | 20 | 20 | 10 | 16 | 12 | 200 |
| 132 PA/085/075/020/5/20 | 85 | 75 | 20 | 20 | 14 | 16 | 20 | 200 |

PEVOLON® grooved wheels with deep groove ball bearings

Roller bodies made of high-quality thermoplastic polyamide with extrusion-coat deep groove ball bearing (/5).
























| Article code | mm | mm | mm | mm | mm | mm | mm | kg |
|------------------|-----|-----|------|----|----|------|------|-----|
| E 046/018/5R/08 | 46 | 34 | 18 | 18 | 18 | 12 | 8 | 80 |
| E 050/013/5/10 | 50 | 38 | 13 | 8 | 8 | 4 | 10 | 50 |
| E 050/025/5/10 | 50 | 40 | 25 | 25 | 25 | 12 | 10 | 100 |
| E 060/032/5/10 | 60 | 33 | 32 | 32 | 32 | 20,5 | 10 | 130 |
| E 100/012/5/8 | 100 | 84 | 12 | 17 | 7 | 3,5 | 8 | 85 |
| E 100/042/5/12 | 100 | 68 | 42 | 27 | 27 | 30 | 12 | 300 |
| E 120/020/5/10,2 | 120 | 98 | 20 | 27 | 30 | 10 | 10 | 200 |
| E 120/022/5/17 | 120 | 90 | 22 | 28 | 28 | 12 | 17 | 240 |
| E 120/022/5/20 | 120 | 90 | 22 | 28 | 14 | 12 | 20 | 240 |
| E 120/062/5/12,2 | 120 | 68 | 62 | 62 | 67 | 48 | 12,2 | 650 |
| E 124/021,5/5/12 | 124 | 98 | 21,5 | 25 | 25 | 8 | 12 | 300 |
| E 130/018/5/15 | 130 | 110 | 18 | 30 | 30 | 11 | 15 | 250 |
| E 150/033/5/20 | 150 | 120 | 33 | 42 | 42 | 15 | 20 | 450 |
| E 165/040/5/25 | 165 | 141 | 40 | 43 | 43 | 20 | 25 | 600 |
| E 300/038/5/25 | 300 | 258 | 38 | 50 | 44 | 13 | 25 | 700 |

Available in yellow on request.

PEVOLON® grooved wheels

High-quality thermoplastic polyamide, with deep groove ball bearings (/5).

Pictographs

|  | Article code | Castors | | Grooved wheels | |
|---|--------------------|---|------------------------------|--|-----------------|
|  | Load capacity (kg) |  | Overall height |  | Flange diameter |
| Wheels | |  | Top plate size |  | Tread diameter |
|  | Wheel diameter |  | Bolt hole spacing |  | Tread width |
|  | Wheel width |  | Bolt hole diameter |  | Hub length |
|  | Fixing length |  | Offset |  | Hub diameter |
|  | Hub length |  | Minimum circumscribed circle |  | Fixing length |
|  | Hub diameter |  | Single bolt hole diameter |  | Grooved width |
|  | Bore hole diameter | | |  | Bore diameter |

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