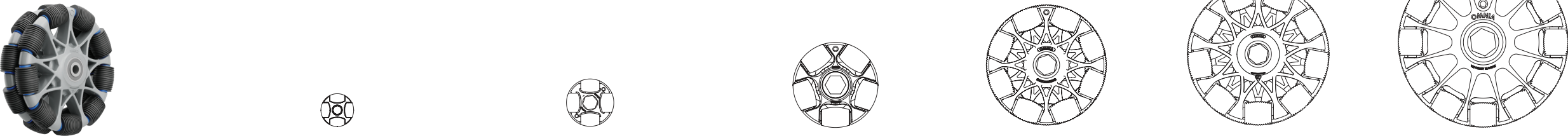


OMNIA[®]

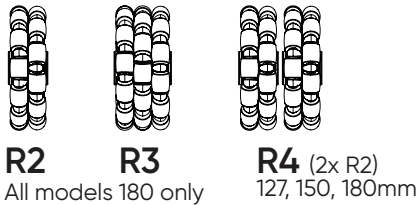


The Omni Wheel Range 2026

Our Range

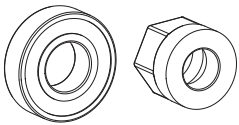


Rim Count

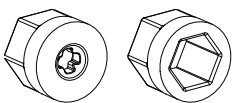


Diameter	35mm		50mm		90mm		127mm			150mm			180mm		
Core part number	R2-0354		R2-0504		R2-0905		R2-1278			R2-1509			R2-1801	R3-1801	
Roller Hardness	57 99		74 74 95		74 74 95		74 85 95			74 85 95			74 85 95		
Shore A Hardness, Colour															
Roller Material	TPE NY		TPU		TPU		TPU			TPU			TPU		
Load Capacity (Kg)**	2	5	15	25	50	90	60	100	110	70	105	125	R2 75 R3 100	120 145	135 160
Net Wheel Weight (g)	12	13.5	40	40	195	195	335	355	360	490	510	515	R2 760 R3 1190	790 1240	795 1250
Excludes bearing weight															
Bearing Seat/Bore	8 8		14		19		19			19		19		25.4	
Bearing Seat			16x5mm		28x8mm		28x8mm			28x8mm		35x11mm		35x11mm	
Inner Bore/Hub	8.2mm keyed 8mm plain		14mm Hex		19mm Hex		19mm Hex			19mm Hex		19mm Hex		25.4mm Hex	
Hub Width (mm)	18.5		27.5		43		51/53*			51/53*		51/53*		55.5/57.5* (R2)	
with Raised Inner Race Bearing	85/87 (R3)														

Bearings/Bushings



Drive Inserts



Mounted Options



Legend:

Part Number				
R2-1278-9528-010/S10				
Rim Count	Roller Count	Bearing Seat	Bearing Material	Bearing ID
Wheel Size	Roller Hardness	Colour ID		

Colour ID (000 - body bush roller)				
0 Grey	1 Blue	2 Black	3 Orange	
4 White	5 Green	6 Red	9 Custom	

Bearing/Bush Materials	
A Acetal/ABS	S Sealed Steel bearing

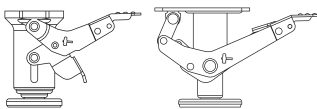
Bearing ID		Drive ID	
Imperial	Metric	Profile	
ID Measure	ID Measure	ID Shape	
05 3/16"	06 6mm	H05 Hex 3/16"	
09 3/8"	08 8mm	H09 Hex 3/8"	
11 7/16"	10 10mm	H11 Hex 7/16"	
13 1/2"	12 12mm	H13 Hex 1/2"	
13+ 1/2"+	15 15mm	D D-Shape	
16 5/8"		HR Rotating	
19 3/4"		LX LEGO®	
		VX Vex 1/4"	

Note

* Omnia Raised Inner Race (RIR) bearing. RIR not available for 35-90mm wheels.

** The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

Floor Brake/Lock

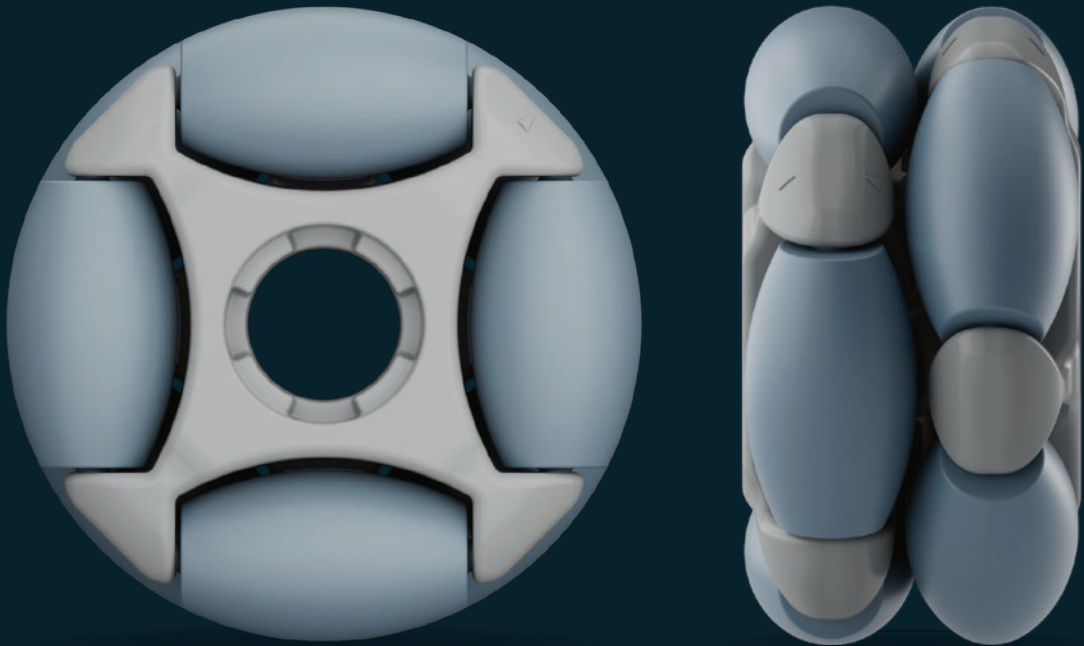


The 35mm Omni Wheel

Designed for optimal traction, versatility and maximum durability.

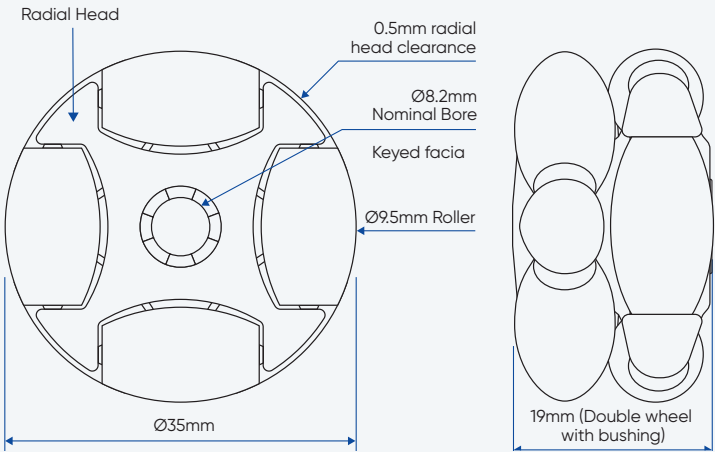
The 35mm R2-0354 is the smallest wheel in the Omnia family, designed for light-duty applications such as conveyor transfer systems, inspection tables, and ball transfer stations, including robotic wheels. Its versatility, with various bushing and drive insert options, makes it an excellent choice for STEM and educational settings.

The softer 57 Roller delivers superior traction, ensuring optimal roll-ability and longevity. This makes them ideal for a wide range of applications and arrangements that use item profiles and components. The 99 Roller is a perfect choice for conveyor transfer systems.



Roller Hardness (Shore A)	57	99
	Maximum traction, ideal for Driven robotic & transfer use	Excellent durability, ideal for manual floor & transfer use
Wheel Weight (excl. Bearing/inserts)	12g	13.5g
Load Capacity	2kg	5kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.



35mm Wheel Product Map

Select your 35mm OMNIA® wheel to suit your application based on the following options:

Diameter
Core Part Number

35mm
R2-0354

Roller hardness
(Shore A) Colour
Wheel Part Number

57

99

Load Capacity (Kg)**
Net Wheel Weight (g)

2
12

5
13.5

Bearing Seat/Bore
Bearing Seat
Inner Bore
Hub Width

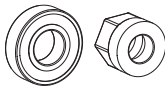
8

8

8mm
keyed
18.5

8mm
plain
18.5

Bearings/Bushings



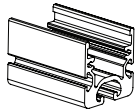
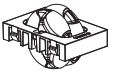
A05

A06

Drive inserts



Mounted Options



T Slot Insert
R2-0354-__/TS

T Slot Channel
30-5005
(Channel only)

Legend:
Bearing ID Sizing

05	3/16"	06	6mm
09	3/8"	08	8mm
11	7/16"	12	12mm
13	1/2"		

35mm Mount Options

T-Slot Mount: Fast, Adjustable, Compatible

The T-Slot housing kit clips easily into 40x40mm ITEM rail extrusion (#8 profile), allowing fast, tool-free installation. Wheels can be positioned adjacent or spaced apart to control pitch and flow.

Designed to integrate seamlessly with glide strips, the T-Slot Insert delivers smooth, low-friction performance for high-density, compact manual transfer setups.

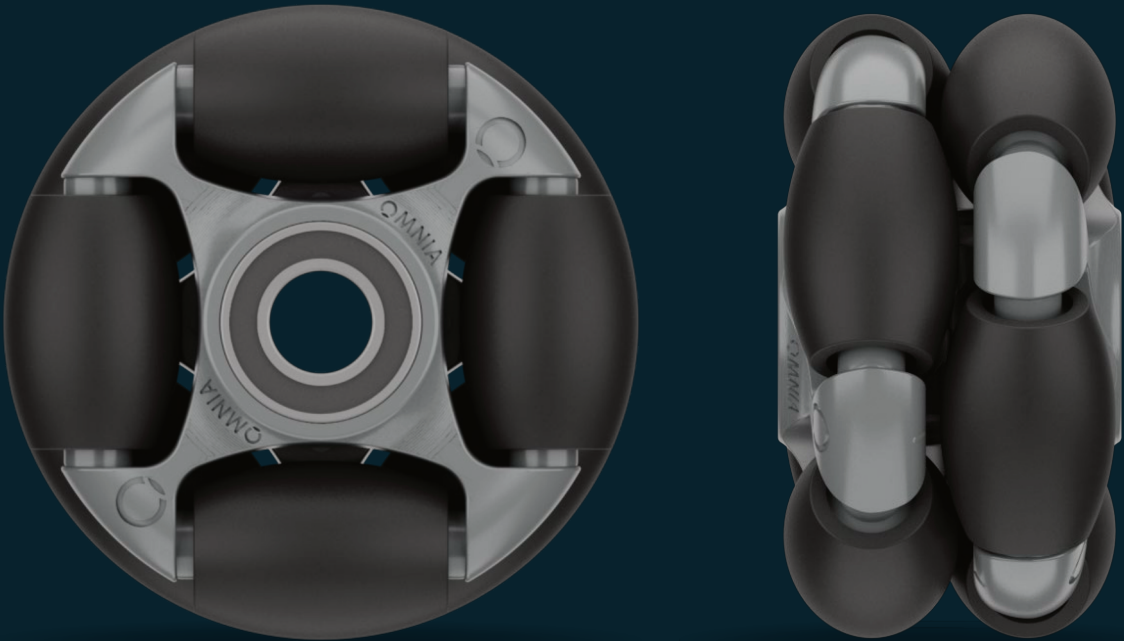
Dimensions

PATENTED: OMNIA® and Rotacaster™ Wheels are patented and/or patent pending. ©2024 Rotacaster Pty Ltd. Version V1 2024-07-10

The 50mm Omni Wheel

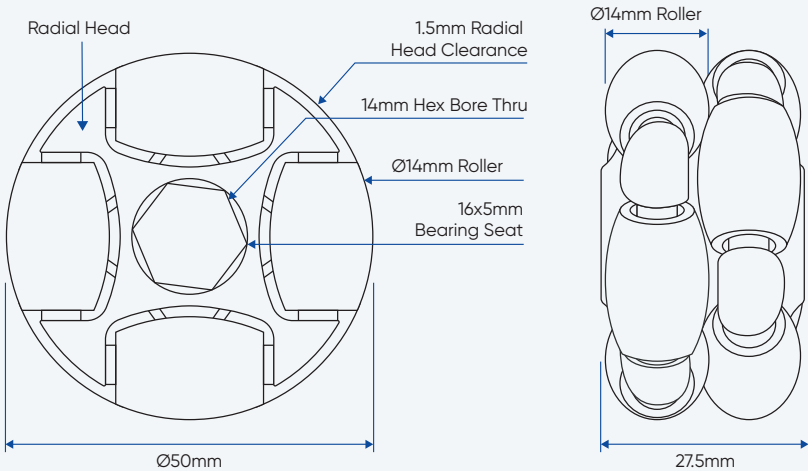
The 50mm wheel is a versatile solution for both manual and powered conveyors, offering a reliable alternative to swivel casters and ball transfers.

Its compact size and durability makes it perfect for lifestyle products and various conveying applications. This wheel is ideal for conveyor transfers, feed tables, flow rails, turntables, furniture casters, and robotic wheels. It can also be used in conjunction with larger wheels for high-density conveying.



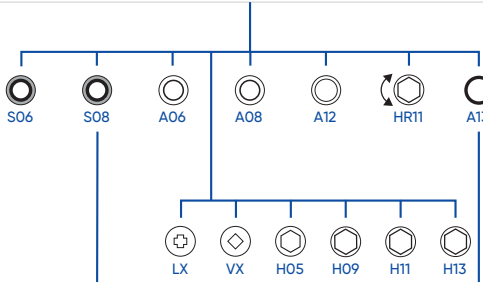
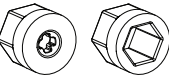
Roller Hardness (Shore A)	74	74	95
	Maximum traction, ideal for robotic applications		Outstanding durability, ideal for floor applications
Wheel Weight (excl. Bearing/inserts)	40g	40g	40g
Load Capacity	15kg	15kg	25kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.



50mm Wheel Product Map

Select your 50mm OMNIA® wheel to suit your application based on the following options:

Diameter	50mm	
Core Part Number	R2-0504	
Roller hardness (Shore A) Colour	74 74	95
Wheel Part Number	R2-0504-74	R2-0504-95
Load Capacity (Kg)**	15	25
Net Wheel Weight (g)	40	40
Bearing Seat/Bore	 16x5mm 14mm Hex 27.5	
Bearings/Bushings		
Drive inserts		
Mounted Options	 Mounted R2-0504-___/MF	 Cup R2-0504-___/MC06 R2-0504-___/MC12

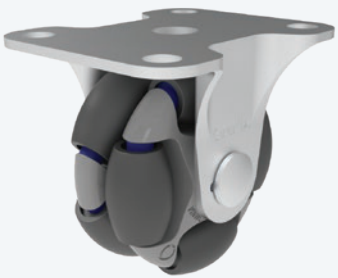
Legend:		
Bearing ID Sizing		
05 3/16"	06 6mm	
09 3/8"	08 8mm	
11 7/16"	12 12mm	
13 1/2"		
Drive Insert Profiles		
H Hex	HR Rotating hex	
D D-Shape	VX Vex 1/8" square	
LX LEGO		
Bearing/Bush Material		
A Acetal/ABS		
S Sealed (steel) bearing		

**The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

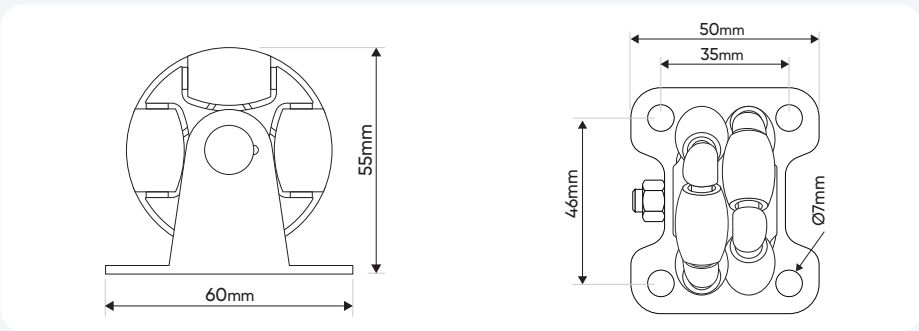
50mm Mount Options

Fork Mount: Precise Movement Without Swivel

The 50mm fork-mounted omni wheel is an excellent alternative to traditional swivel casters when precise directional control is required. Unlike swivel casters, it enables smooth turning in place without rotating the mount itself. Ideal for floor-mounted applications where intuitive mobility, simple installation, and versatile positioning matter.



Dimensions



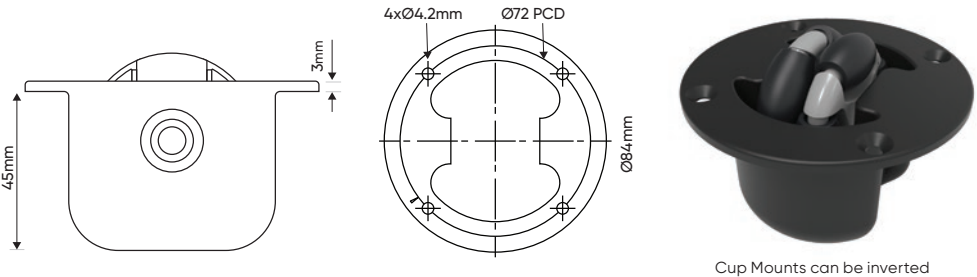
Cup Mount

Low-Profile, Maintenance-Free Multidirectional Support

Designed as a compact, full-polymer alternative to ball transfer mounts, the 50mm Cup Mount provides smooth, non-marking, omnidirectional movement across a wide range of surfaces. Requiring no lubrication or maintenance, it's ideal

for continuous flow tables, inspection stations, and other applications with non-parallel wheel setups. It can be adapted into a debris vacuum system, or work in wet environments, making it suitable for joineries, stone works and other debris-laden environments. Installation is easy, just machine the appropriate cutout and secure the unit flush to the surface.

Dimensions



Cup Mounts can be inverted

The 90mm Omni Wheel

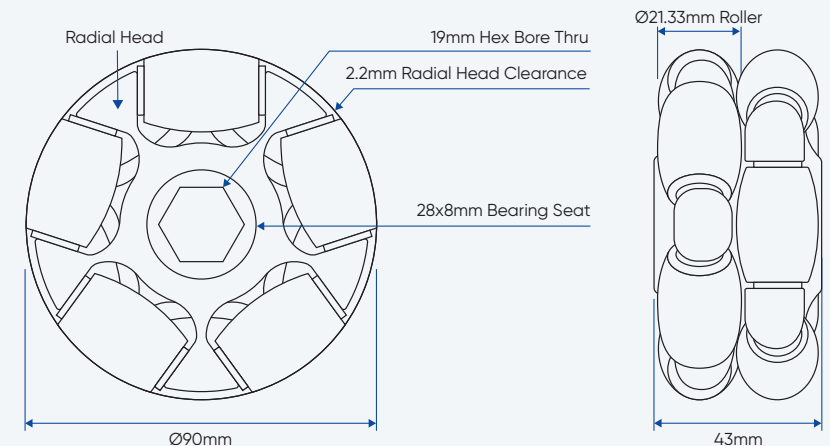
Advanced wheel technology that revolutionises fork-mounted applications and conveyor systems.

The 90mm Omni Wheel is designed for fork-mounted applications and conveyor systems, providing smooth and efficient movement. It can be combined with smaller wheels in driven setups for high-density, omni-directional transfers. To ensure maximum traction across different surfaces, it comes with a choice of two roller hardness options. A mount option is available to support a range of handling needs.



Roller Hardness (Shore A)	74	74	95
	Maximum traction, ideal for robotic applications		Outstanding durability, ideal for floor applications
Wheel Weight	195g	195g	195g
Load Capacity	50kg	50kg	90kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.



90mm Wheel Product Map

Select your 90mm OMNIA® wheel to suit your application based on the following options:

Diameter Core Part Number	90mm R2-0905	
Roller Hardness (Shore A) Colour Wheel Part Number	74 R2-0905-74	95 R2-0905-95
Load Capacity (Kg)** Net Wheel Weight (g)	50 195	90 195
Bearing Seat/Bore Bearing Seat Inner Bore Hub Width	 28x8mm 19mm Hex 43	
Bearings/Bushings	 S10 S12 S13 S13+ S15	
Adaptors	 14mm Hex Adaptor 13-9613-01 S06 S08 A06 A08 A12 HR11 A13 LX VX H05 H09 H11 H13	
Drive inserts		

Legend:

Imperial ID Sizing

05	3/16"	09	3/8"
11	7/16"	13	1/2"
13+	1/2"+	16	5/8"
19	3/4"		

*With raised inner race Omnia bearing.

**The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

Drive Insert Profiles

H	Hex
D	D-Shape HR Rotating hex
LX	LEGO VX Vex 1/8" square

Bearing/Bush Material

A	Acetal/ABS
S	Sealed (steel) bearing

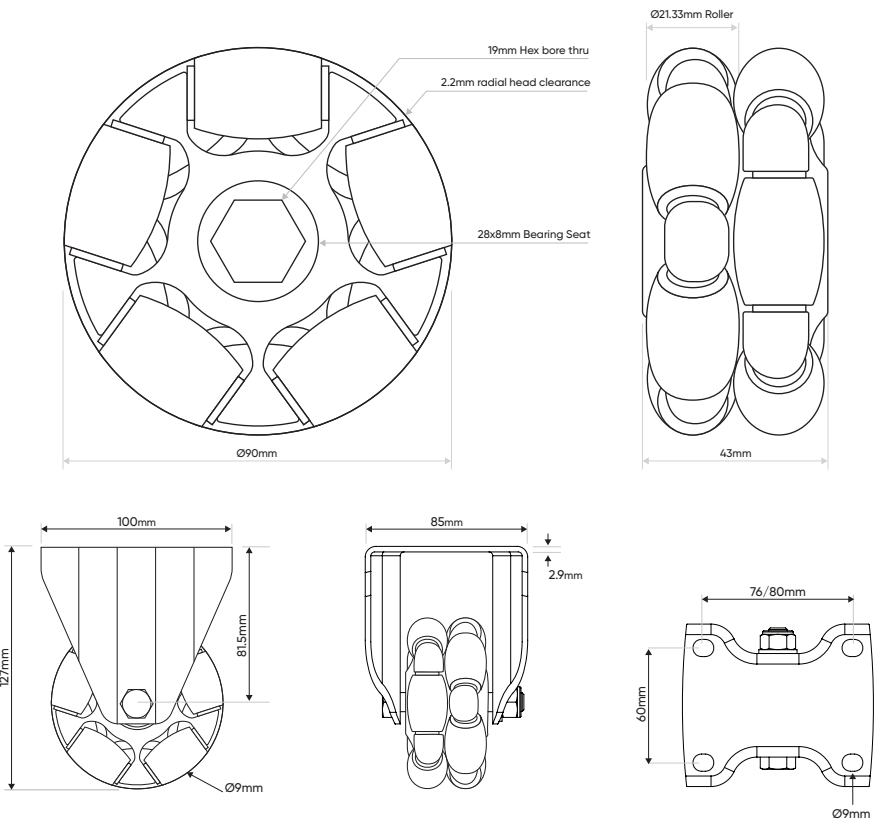
90mm Mount Options

Fork Mount: Controlled Movement Without Swivel

The 90mm fork-mounted omni wheel is a superior alternative to conventional swivel casters. It delivers precise, multi-directional movement without requiring a rotating mount or a change of orientation to change direction. It's ideal for floor-mounted applications where ease of use, straightforward installation, and flexible positioning are essential. It is perfect for environments that demand accurate alignment and intuitive handling.



Dimensions

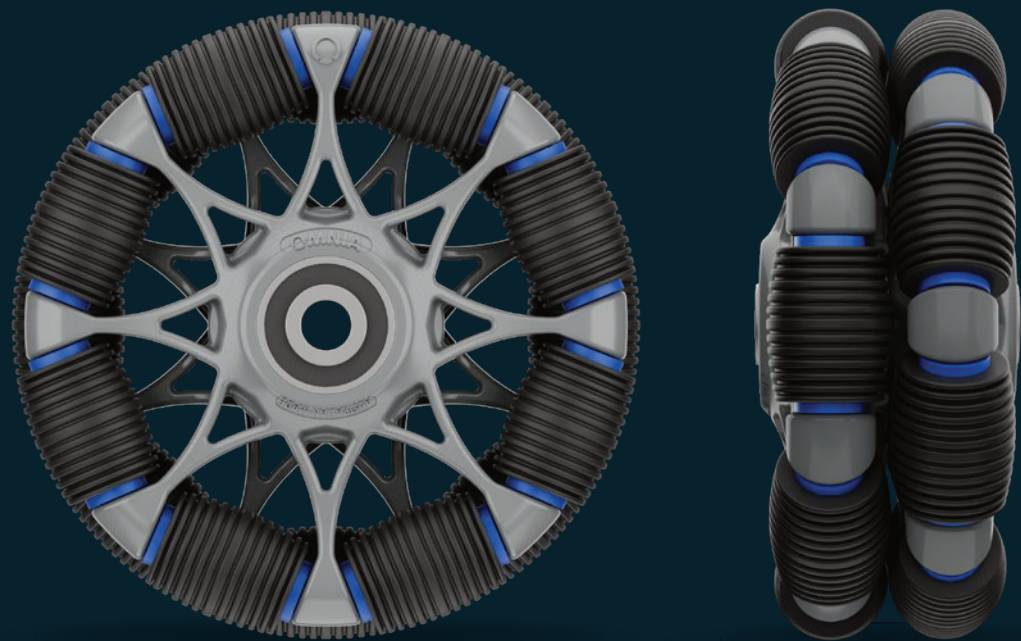


Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.

The 127mm Omni Wheel

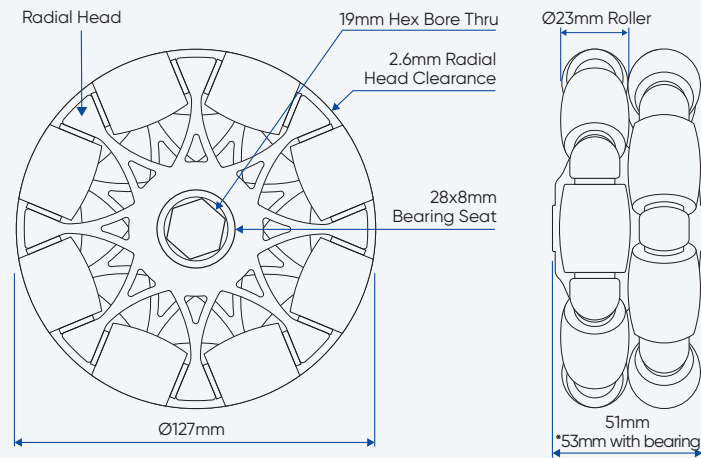
The 127mm (5") omni wheel offers mission-critical reliability with reduced weight and increased impact resistance, minimising the risk of roller loss during normal operation.

Designed to strike the perfect balance between aesthetics and function and delivers a high load capacity relative to its lightweight construction. Omnia's advanced roller technology enhances ride quality, ensuring smooth and stable performance, while the ribbed rollers provide improved traction along the primary axis of rotation for better grip and control.



Roller Hardness (Shore A)	74	85	95
	Maximum traction, ideal for robotic applications	Good traction and durability. All-round performance	Excellent durability, ideal for floor applications
Wheel Weight	335g	355g	360g
Load Capacity	60kg	100kg	110kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.

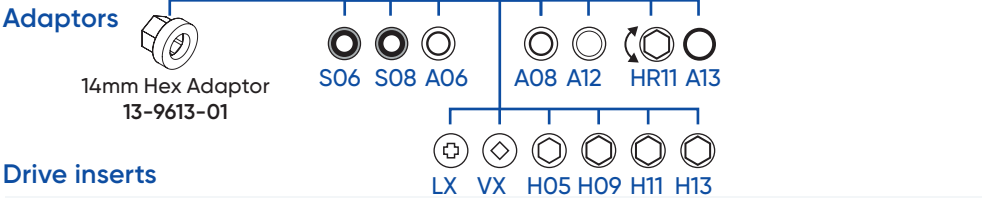
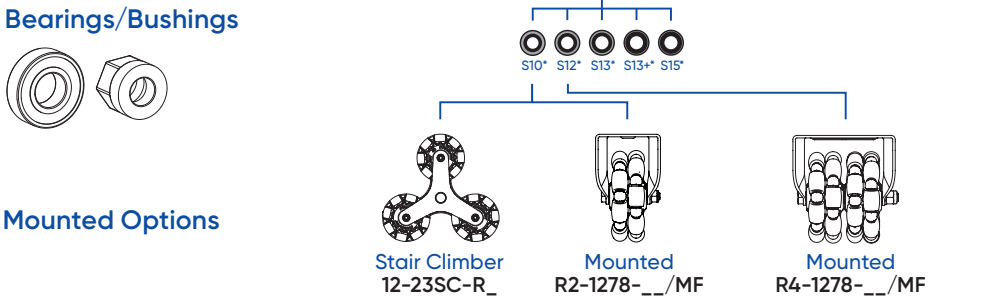


127mm Wheel Product Map

Select your 127mm OMNIA® wheel to suit your application based on the following options:

Diameter	127mm		
Core Part Number	R2-1278		
Roller hardness	74	85	95
(Shore A) Colour			
Wheel Part Number	R2-1278-74	R2-1278-85	R2-1278-95
Load Capacity (Kg)**	60	100	110
Net Wheel Weight (g)	335	355	360

Bearing Seat/Bore	19
Bearing Seat	28x8mm
Inner Bore	19mm Hex
Hub Width	51/53*



Legend:

Imperial ID Sizing

05	3/16"	09	3/8"
11	7/16"	13	1/2"
13+	1/2"+	16	5/8"
19	3/4"		

*With raised inner race Omnia bearing.

**The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

Drive Insert Profiles

H	Hex		
D	D-Shape HR	Rotating hex	
LX	LEGO	VX	Vex 1/8" square

Bearing/Bush Material

A	Acetal/ABS
S	Sealed (steel) bearing

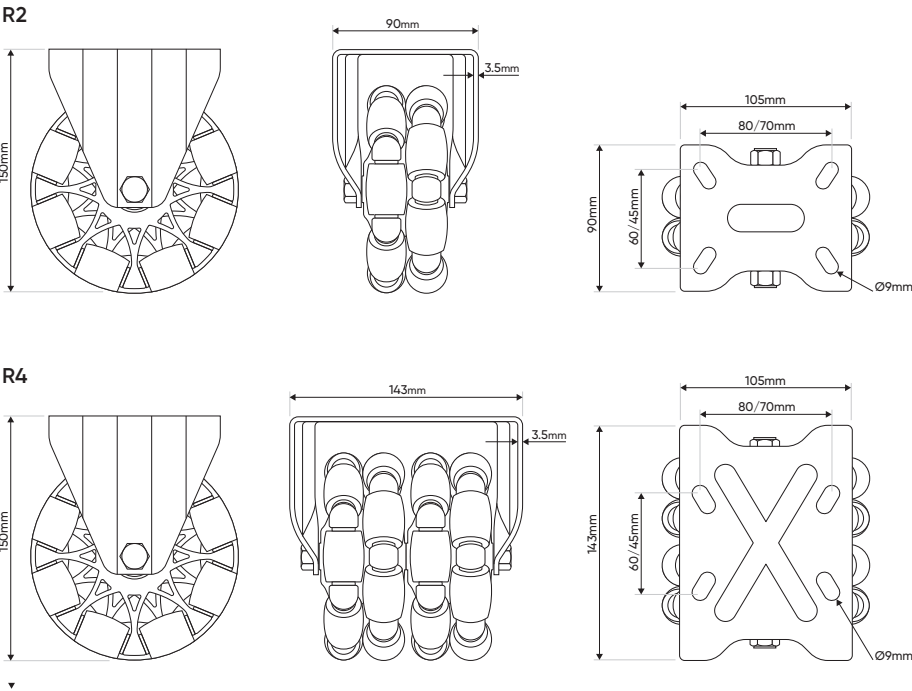
127mm Mount Options

Fork Mount: Precision Without Swivel

The 127mm fork-mounted omni wheel offers a high-capacity, directional alternative to swivel casters—delivering smooth, controlled movement without rotating the mount. It's ideal for floor-mounted applications where higher load capacity, quick setup, mounting versatility, and intuitive multi-directional mobility are key. A smarter solution when stability and precise handling matter most. Available in a dual or quad configuration.



Dimensions



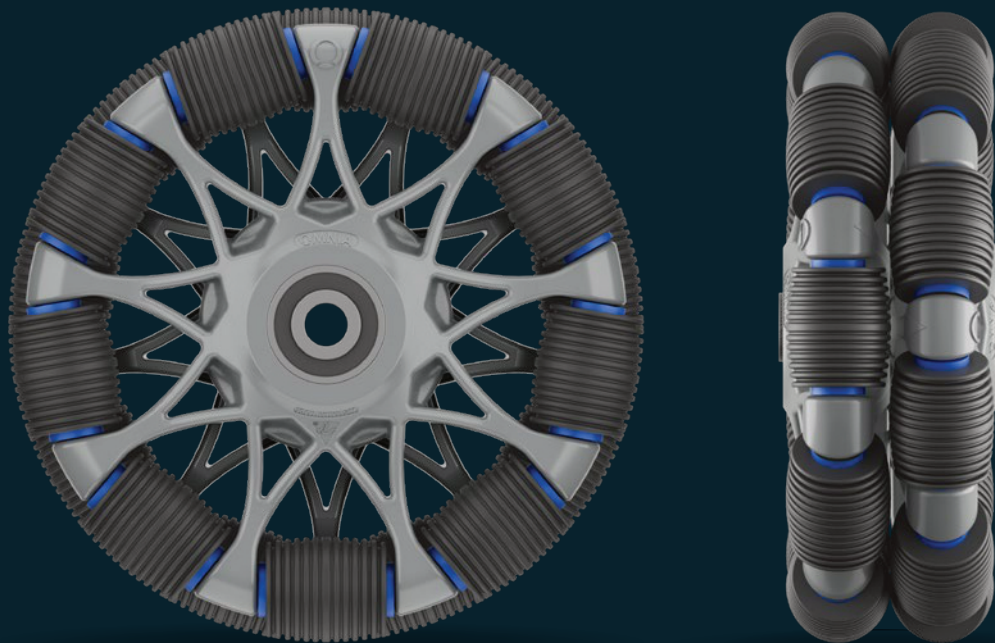
- Same mount used for 127mm and 150mm wheels means fewer SKUs to be carried for distributors.
- Common mount hole patterns makes wheel scaling possible when swapping between 127mm and 150mm.

The 150mm Omni Wheel

The 150mm (6") omni wheel offers mission-critical reliability with reduced weight and increased impact resistance, minimizing the risk of roller loss during normal operation.

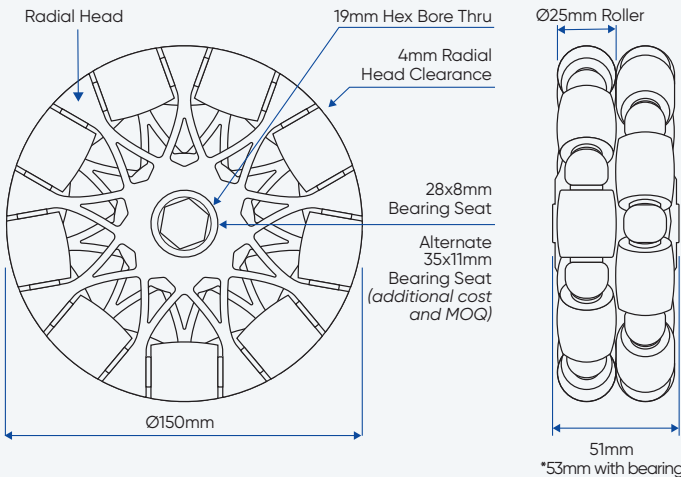
Designed to strike the perfect balance between aesthetics and function and delivers a high load capacity relative to its lightweight construction. Omnia's advanced roller technology enhances ride quality, ensuring smooth and stable performance, while the ribbed rollers provide improved traction along the primary axis of rotation for better grip and control.

With scalable production capabilities and rigorous quality control, the wheel is competitively priced and offers exceptional value without compromising on performance or durability.



Roller Hardness (Shore A)	74	85	95
	Maximum traction, ideal for robotic applications	Good traction and durability. All-round performance	Excellent durability, ideal for floor applications
Wheel Weight	490g	510g	515g
Load Capacity	70kg	105kg	125kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.



150mm Wheel Product Map

Select your 150mm OMNIA® wheel to suit your application based on the following options:

Diameter

Core Part Number

150mm
R2-1509

Roller Hardness

(Shore A) Colour

Wheel Part Number

74

85

95

R2-1509-74

R2-1509-85

R2-1509-95

Load Capacity (Kg)**

Net Wheel Weight (g)

70

105

125

490

510

515

Bearing Seat/Bore

Bearing Seat

Inner Bore

Hub Width

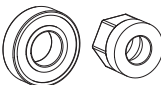


28x8mm
19mm Hex
51/53*



35x11mm
19mm Hex
52

Bearings/Bushings

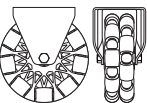


S10* S12* S13* S13+* S15*

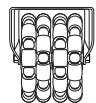


S13 S15 S16* S17 S19

Mounted Options



Mounted
R2-1509-__MF



Mounted
R4-1509-__MF

Adaptors



14mm Hex Adaptor
13-9613-01

Legend:

Imperial ID Sizing

05	3/16"	09	3/8"
11	7/16"	13	1/2"
13+	1/2"+	16	5/8"
19	3/4"		

*With raised inner race Omnia bearing.

**The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

Drive Insert Profiles

H Hex

Bearing/Bush Material

A	Acetal/ABS
S	Sealed (steel) bearing

150mm Mount Options

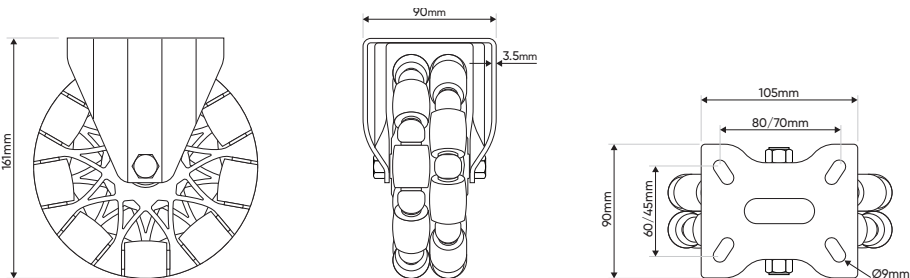
Fork Mount – Heavy-Duty Precision Without Swivel

The 150mm fork-mounted omni wheel provides a robust, high-capacity alternative to traditional swivel casters—offering precise multi-directional movement without needing to rotate the mount. Ideal for demanding floor-based applications where stability, ease of integration, mounting flexibility, and intuitive mobility are essential. Designed for performance where swivel casters fall short. Available in a dual or quad configuration.

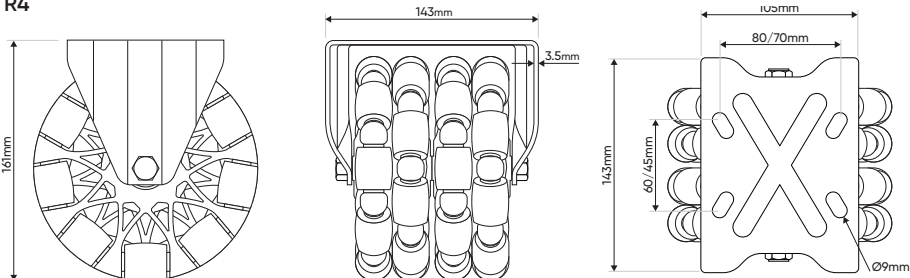


Dimensions

R2



R4



- Same mount used for 127mm and 150mm wheels means fewer sku's to be carried for distributors.
- Common mount hole patterns makes wheel scaling possible when swapping between 127mm and 150mm.

The 180mm Omni Wheel

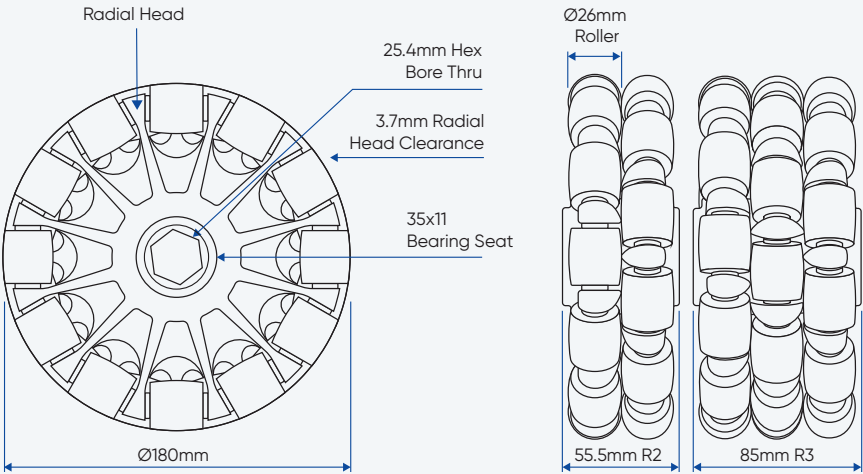
The 180mm (7") omni wheel delivers essential reliability with a lightweight design and enhanced impact resistance, reducing the risk of roller loss during operation.

As the largest wheel we offer, this design is engineered to tackle the most demanding and rugged terrains. Perfect for floor applications with obstacles and steps, it delivers a higher load capacity while occupying less space than an equivalent caster. Ideal for robotic mobility, material handling, and conveyor transfers, this wheel delivers exceptional performance in challenging environments.



Roller Hardness (Shore A)	74		85		95	
Configuration	R2	R3	R2	R3	R2	R3
	Maximum traction, ideal for robotic applications		Good traction and durability.		Outstanding durability, ideal for floor applications	
Wheel Weight	760g	1190g	790g	1240g	795g	1250g
Load Capacity	75kg	100kg	120kg	145kg	135kg	160kg

Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications involving powered, robotic, continuous use, high duty cycles, or highly dynamic loads, please contact Omnia to assess suitability.



180mm Wheel Product Map

Select your 180mm OMNIA® wheel to suit your application based on the following options:

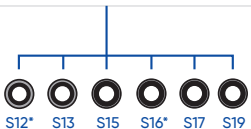
Diameter	180mm			
Core Part Number	R2-1801		R3-1801	
Roller hardness (Shore A) Colour	74	85	95	
Load Capacity (Kg)*	R2 R3	75 100	120 145	135 160
Net Wheel Weight (g)	R2 R3	760 1190	790 1240	795 1250

Bearing Seat/Bore

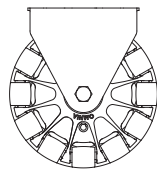
Bearing Seat
Inner Bore
Hub Width



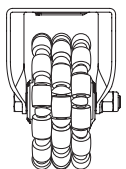
Bearings/Bushings



Mounted Options



Mounted
R2-1801-__ /MF



Mounted
R3-1801-__ /MF

Legend:

Imperial ID Sizing

05	3/16"	09	3/8"
11	7/16"	13	1/2"
13+	1/2"+	16	5/8"
19	3/4"		

Bearing/Bush Profile

H	Hex
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Bearing/Bush Material

A	Acetal/ ABS
S	Sealed (steel) bearing

*With raised inner race Omnia bearing (width +2mm).

**The (maximum recommended) load capacities apply to manual applications. For powered or constant duty use, please enquire.

180mm Mount Options

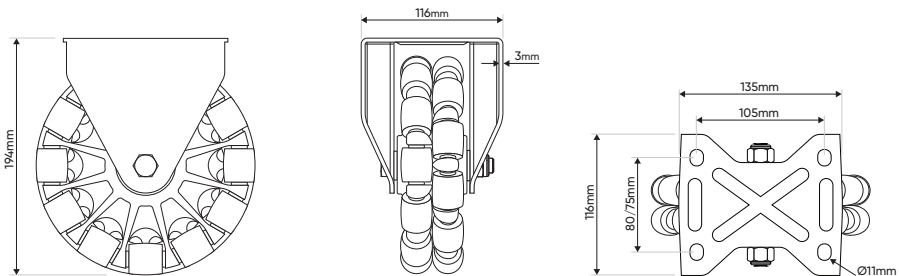
Fork Mount – Maximum Stability and Control

The 180mm fork-mounted omni wheel delivers exceptional load capacity and smooth, controlled multi-directional movement, without the complexity of a swivel. Ideal for large-scale floor applications where precision, easy setup, and dependable, maintenance-free operation are critical. A superior fixed-position alternative to traditional swivel casters when intuitive mobility and robust performance matter most.

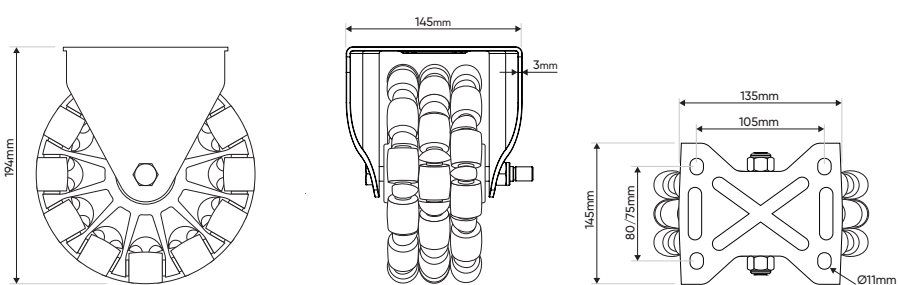


Dimensions

R2



R3





Changing The Way The World Moves