

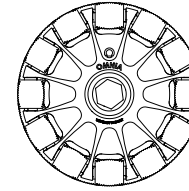
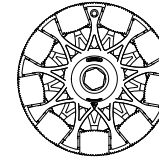
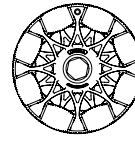
OMNIA[®]



Introducing The New Omni Wheel Product Range

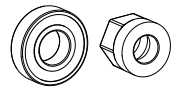
omniawheel.com

Our Range

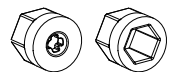


Diameter	35mm			50mm			90mm			127mm			150mm			180mm					
Core part number	R2-0354			R2-0504			R2-0905			R2-1278			R2-1509			R2-1801		R3-1801			
Roller Hardness (Shore A) Colour	57 99			74 74 95			74 74 95			74 85 95			74 85 95			74 85 95					
Load Capacity (Kg)**	2	5		15	25		50	90		60	100	110		70	105	125	R2 R3	75 100	120 145	135 160	
Net Wheel Weight (g)	12	13.5		40	40		195	195		335	355	360		490	510	515	R2 R3	760 1190	790 1240	795 1250	
Bearing Seat/Bore	8 8			14			19			19			19			19			25.4		
Bearing Seat	8mm keyed 8mm plain			16x5mm			28x8mm			28x8mm			28x8mm			35x11mm			35x11mm		
Inner Bore				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*			52			57 (R2)		85 (R3)

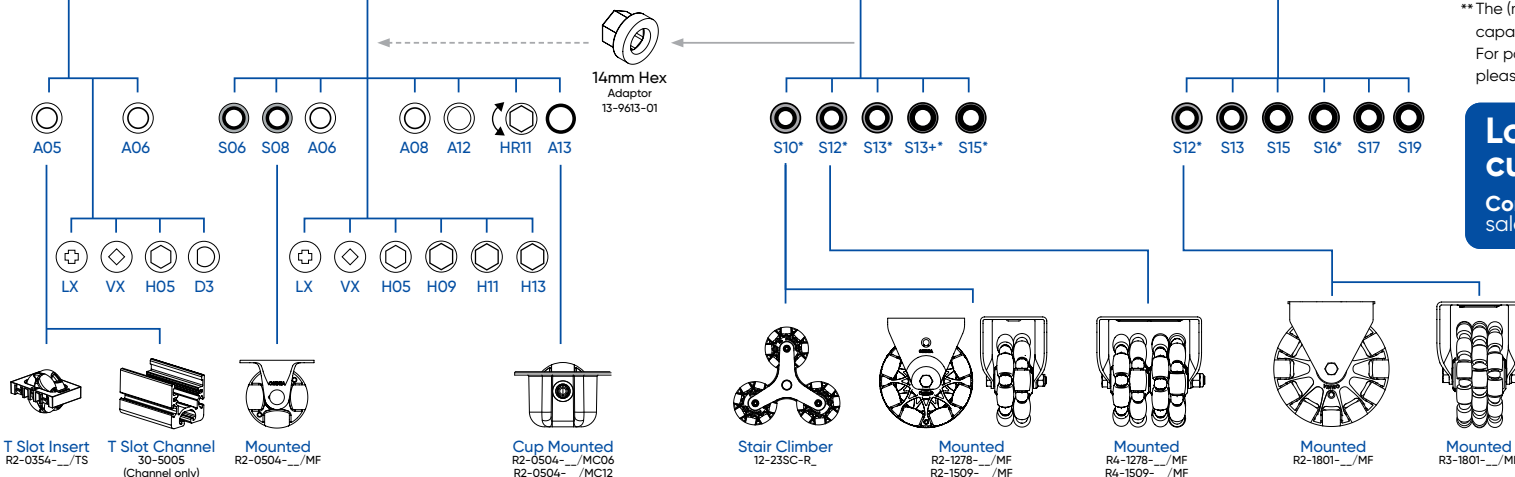
Bearings/Bushings



Drive Inserts



Mounted Options



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 Material

A	Acetal/ABS
S	Sealed (steel) bearing

Drive Insert Profiles

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

* With raised inner race Omni bearing.

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

Looking for a custom solution?

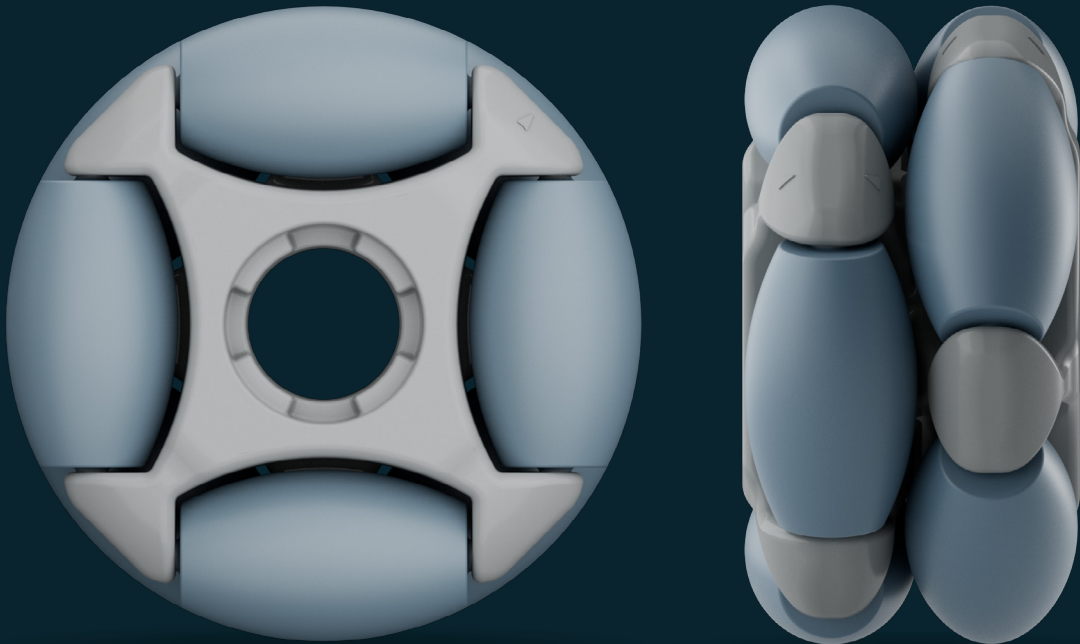
Contact our Team
sales@omniawheel.com

The 35mm Omni Wheel

Designed for optimal traction, versatility and maximum durability.

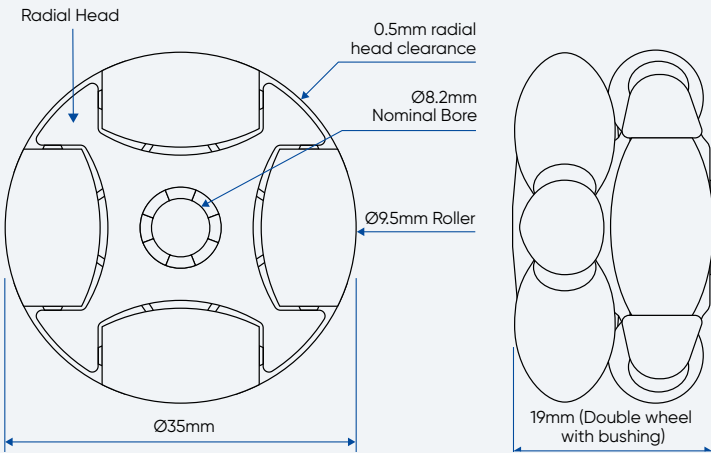
The 35mm R2-0354 is the smallest wheel in the Omnia family, designed for light-duty applications such as conveyor transfer systems, inspection tables, and ball transfer stations, including robotic wheels. Its versatility, with various bushing and drive insert options, makes it an excellent choice for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

The softer 57 Roller delivers superior traction, ensuring optimal rollability 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 robotic applications	Excellent durability, ideal for floor applications
Wheel Weight	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

57

99

Load Capacity (Kg)**

Net Wheel Weight (g)

2

12

5

13.5

Bearing Seat/Bore

Bearing Seat
Inner Bore
Hub Width

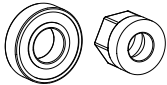


8mm
Keyed



8mm
Plain

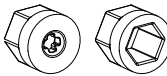
Bearings/Bushings



A05

A06

Drive Inserts



LX

VX

H05

D3

Mounted Options



T Slot Insert
R2-0354-__/_TS



T Slot Insert
30-5005
(Channel Only)

Legend:

Imperial ID Sizing

05 3/16"

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

*With raised inner race Omnia bearing.

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

35mm Mount Options

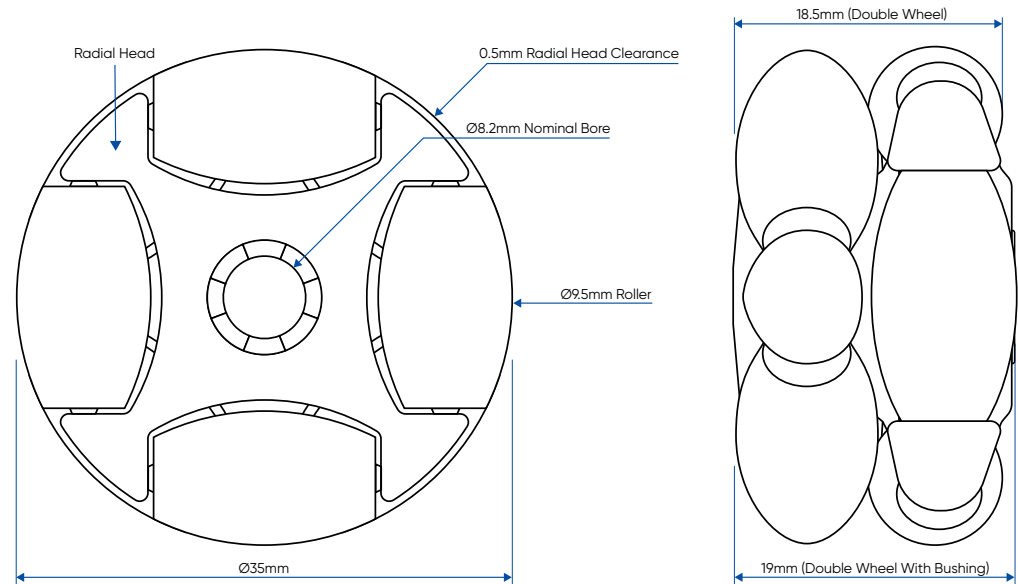
T-Slot Mount: Fast, Adjustable, Compatible

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.



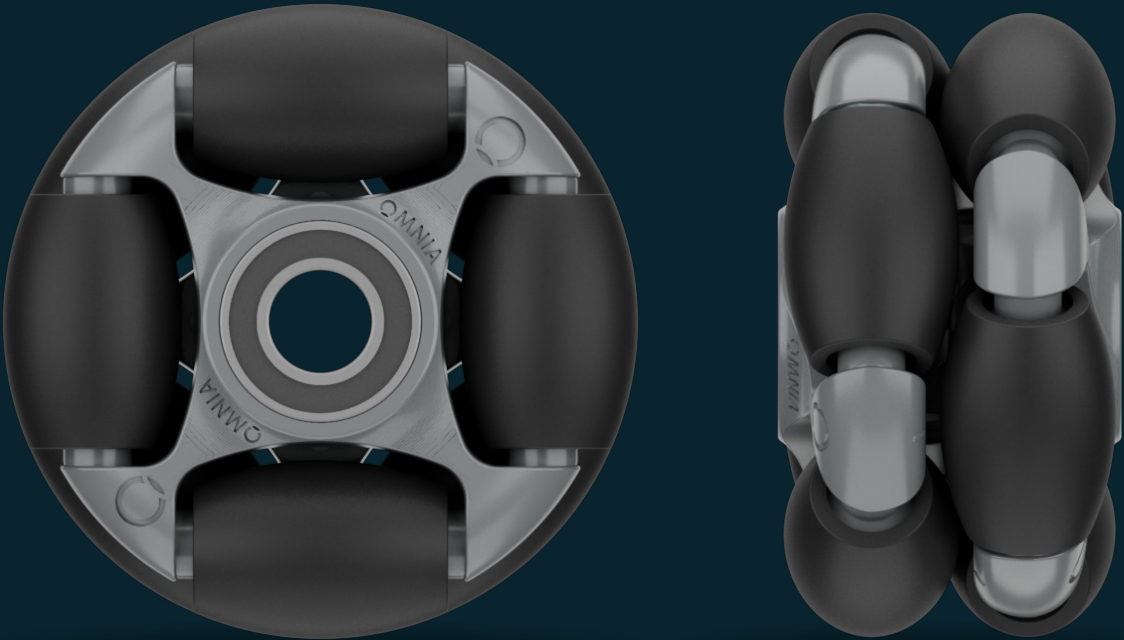
Dimensions



The 50mm Omni Wheel

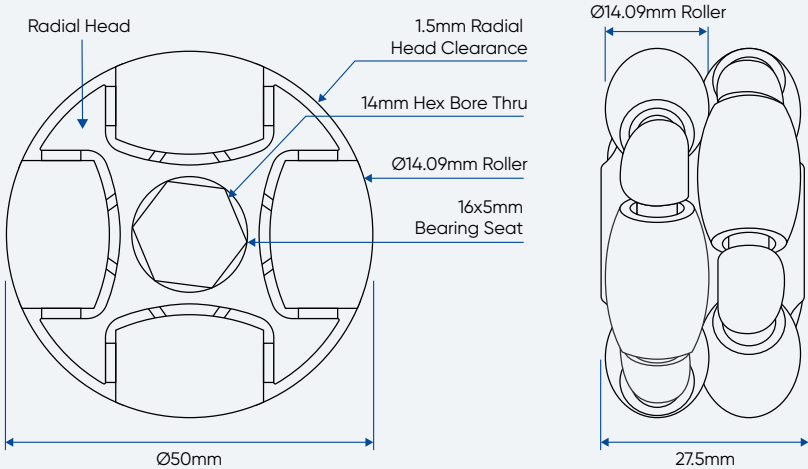
The 50mm wheel is a versatile solution for both manual and powered conveyors, offering a reliable alternative to swivel casters and ball transfers.

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	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:

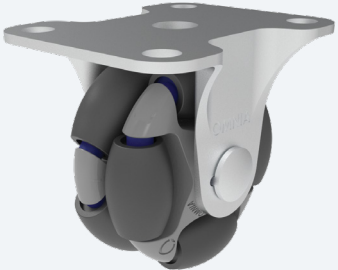
Diameter	50mm	
Core Part Number	R2-0504	
Roller hardness (Shore A) Colour	74 74	95
Wheel Part Number	R2-0504-74	R2-0504-95
Load Capacity (Kg)**	15	25
Net Wheel Weight (g)	40	40
Bearing Seat/Bore	14 16x5mm 14mm Hex 27.5	
Bearings/Bushings	S06 S08 A06 A08 A12 HR11 A13 LX VX H05 H09 H11 H13	
Mounted Options	Mounted Cup R2-0504-___/MF R2-0504-___/MC06 R2-0504-___/MC12	

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	Vex 1/8" square
Bearing/Bush Material		
A	Acetal/ABS	
S	Sealed (steel) bearing	

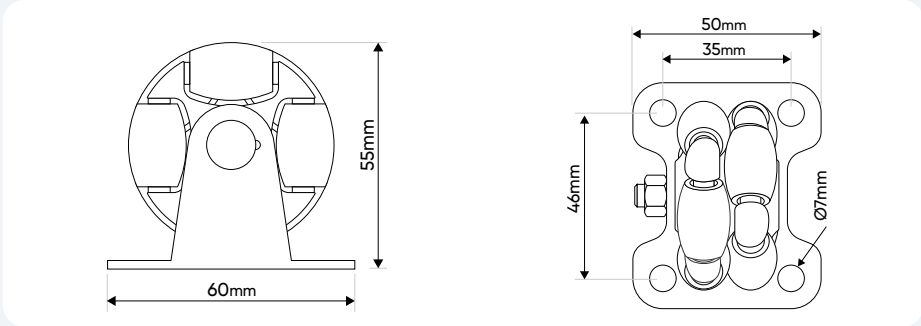
50mm Mount Options

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



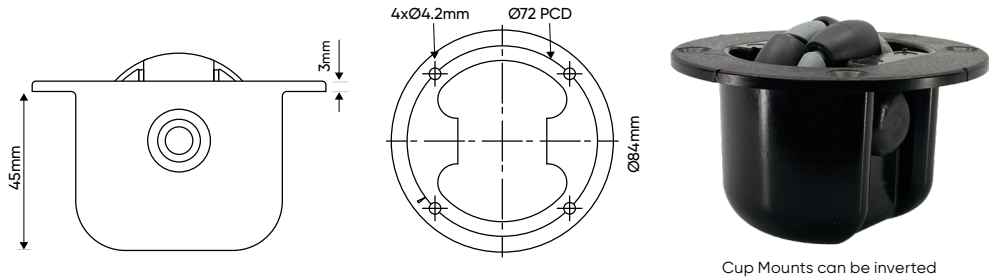
Cup Mount

Low-Profile, Maintenance-Free Multidirectional Support

Designed as a compact, full-polymer alternative to ball transfer units, 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



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

The 90mm Omni Wheel

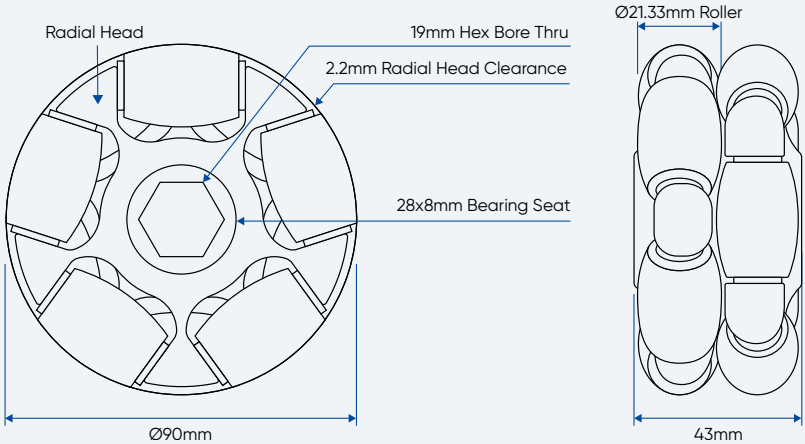
Advanced wheel technology that revolutionises fork-mounted applications and conveyor systems.

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

74

95

R2-0905-74

R2-0905-95

Load Capacity (Kg)**

50

90

Net Wheel Weight (g)

195

195

Bearing Seat/Bore

Bearing Seat

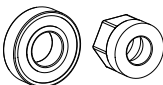
Inner Bore

Hub Width



28x8mm
19mm Hex
43

Bearings/Bushings



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"		

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

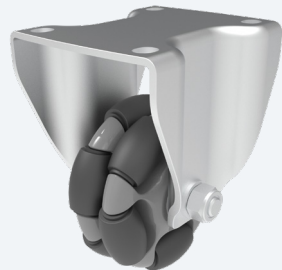
*With raised inner race Omnia bearing.

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

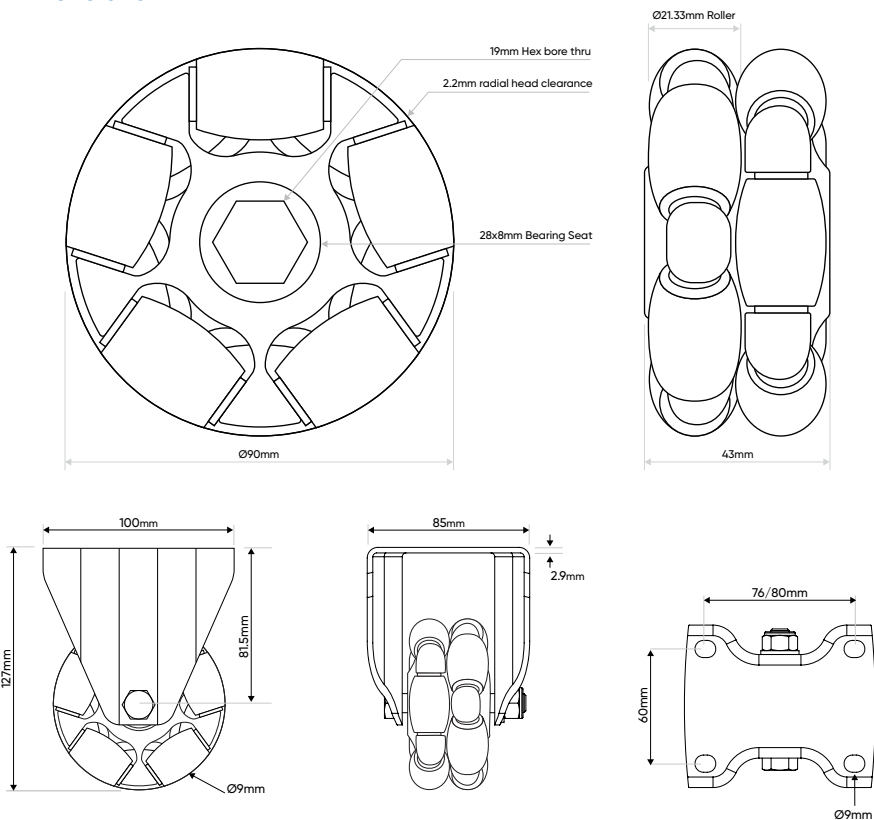
90mm Mount Options

Fork Mount: Controlled Movement Without Swivel

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



Dimensions



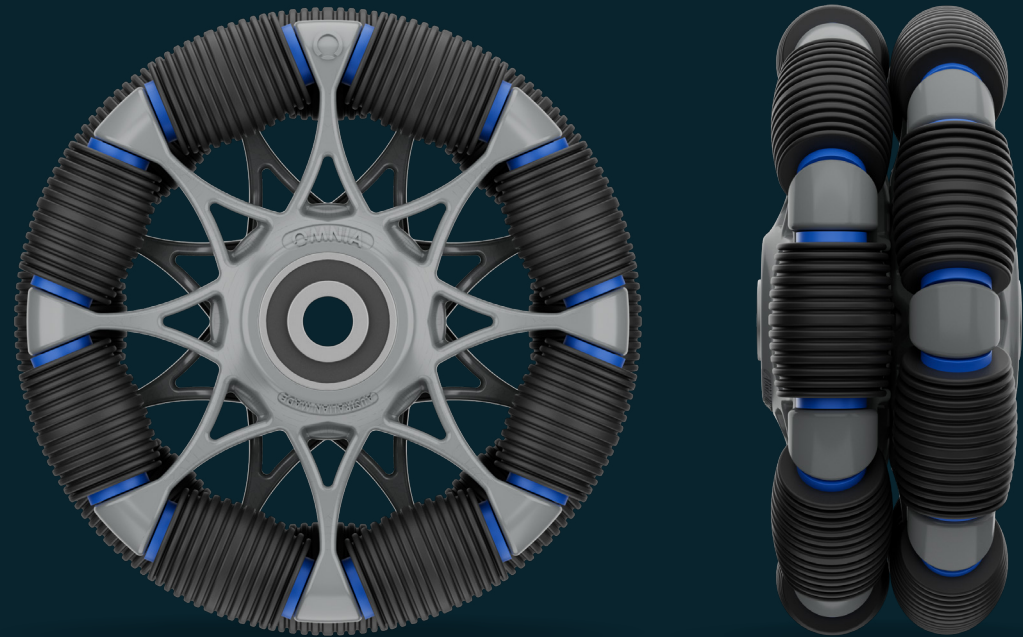
Load Capacity Notes: The stated load capacity has been determined through a combination of various tests including ISO 22883, static compression, impact, and endurance testing. At these loads our wheels are suitable for manual handling equipment operating at speeds up to 1.1 m/s (4 km/h). For applications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

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

The 127mm Omni Wheel

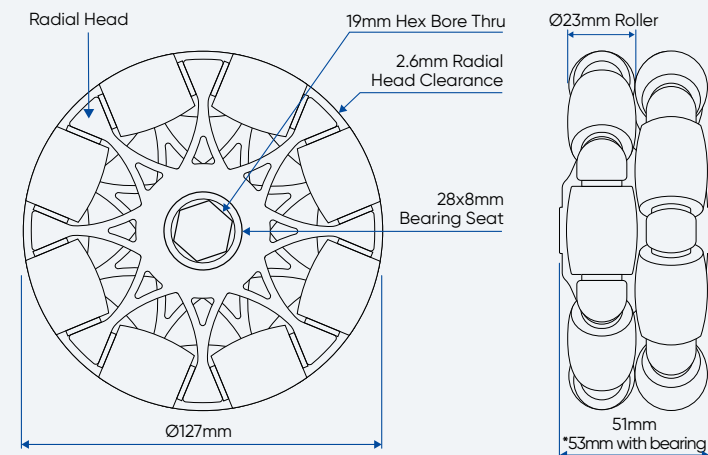
The 127mm (5") omni wheel offers mission-critical reliability with reduced weight and increased impact resistance, minimizing the risk of roller loss during normal operation.

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.



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

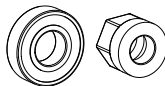
Bearing Seat/Bore

Bearing Seat
Inner Bore
Hub Width



28x8mm
19mm Hex
51/53*

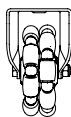
Bearings/Bushings



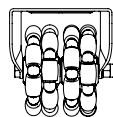
Mounted Options



Stair Climber
12-23SC-R_



Mounted
R2-1278-__MF



Mounted
R4-1278-__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"		

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

*With raised inner race Omnia bearing.

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

127mm Mount Options

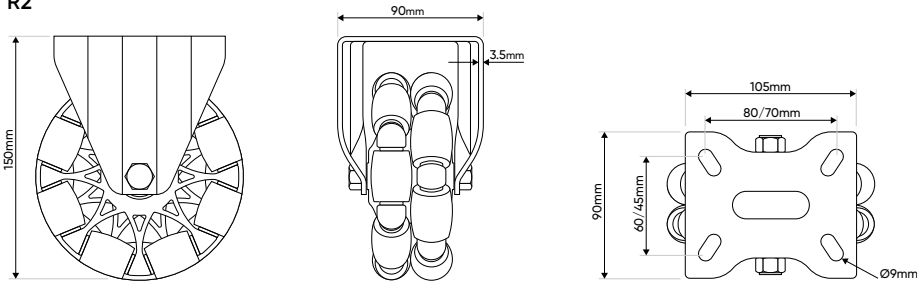
Fork Mount: Precision Without Swivel

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.

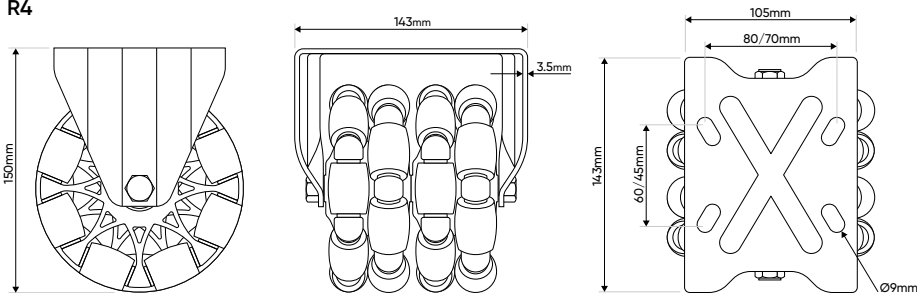


Dimensions

R2



R4



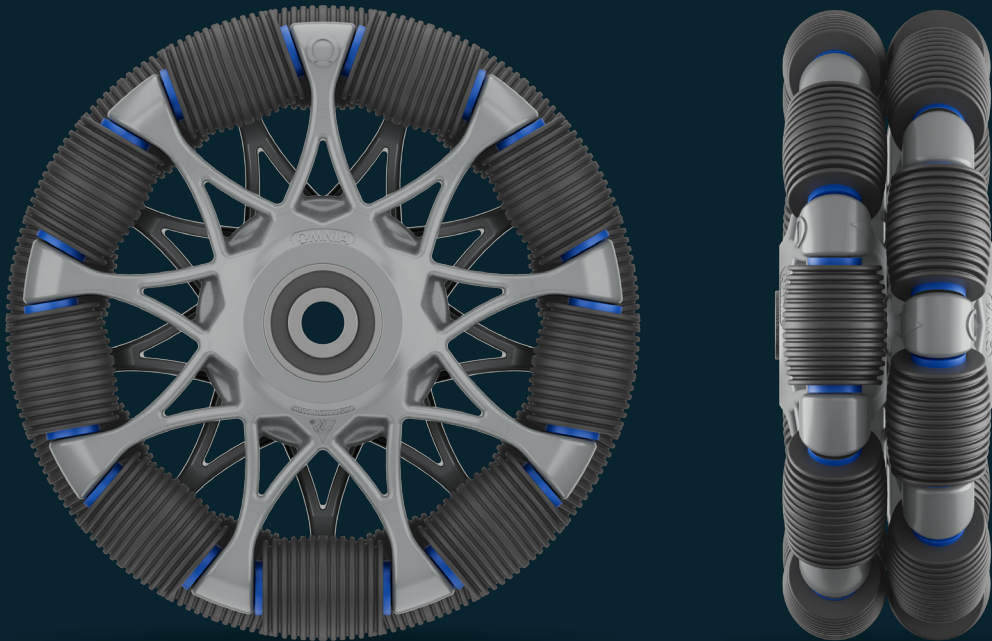
- Same mount used for 127mm and 150mm wheels means fewer sku's to be carried for distributors.
- Common mount hole patterns makes wheel scaling possible when swapping between 127mm and 150mm.

The 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.

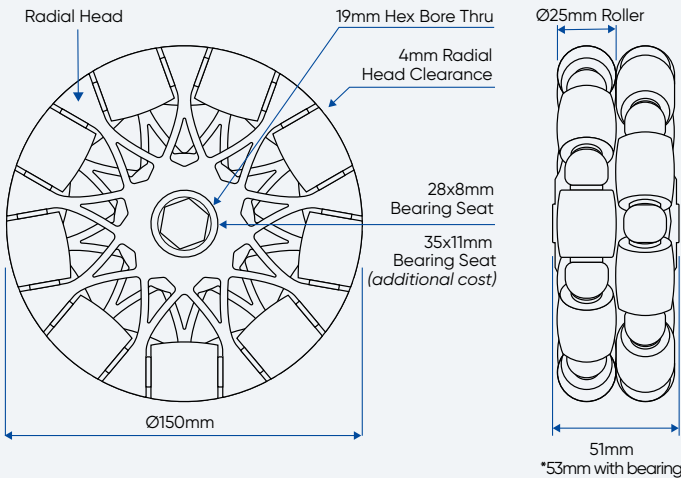
Designed to strike the perfect balance between aesthetics and function and delivers a high load capacity relative to its lightweight construction. Omnia's advanced roller technology enhances ride quality, ensuring smooth and stable performance, while the ribbed rollers provide improved traction along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

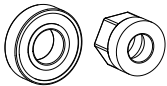


28x8mm
19mm Hex
51/53*



35x11mm
19mm Hex
52

Bearings/Bushings

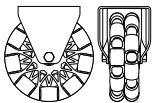


S10* S12* S13* S13+* S15

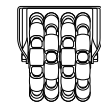


S13 S15 S16 S17 S19

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

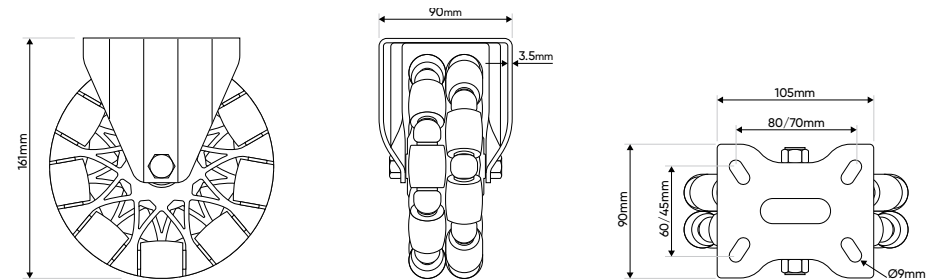
Fork Mount – Heavy-Duty Precision Without Swivel

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.

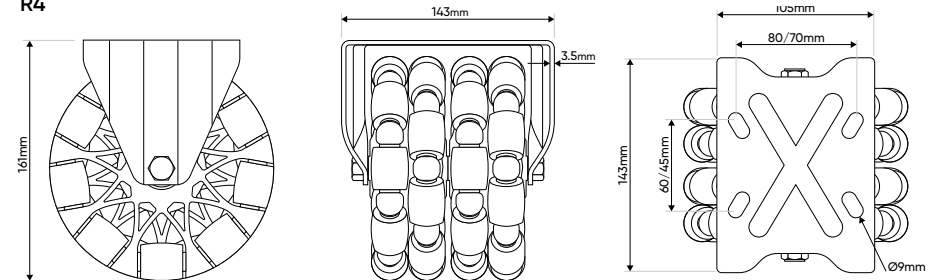


Dimensions

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

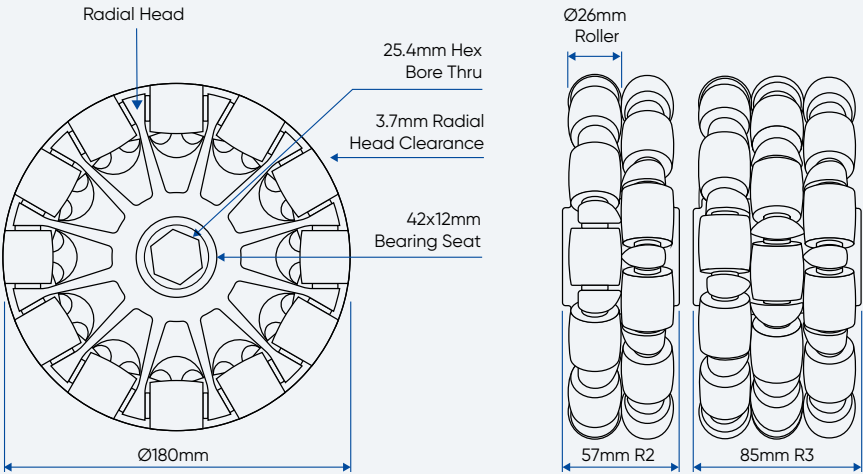
The 180mm (7") omni wheel delivers essential reliability with a lightweight design and enhanced impact resistance, reducing the risk of roller loss during operation.

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	74	85	95	
(Shore A) Colour				
Load Capacity (Kg)*	R2	75	120	135
	R3	100	145	160
Net Wheel Weight (g)	R2	760	790	795
	R3	1190	1240	1250

Bearing Seat/Bore

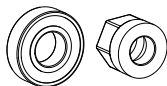
Bearing Seat
Inner Bore
Hub Width

57 (R2)

42x12mm
25.2mm Hex

85 (R3)

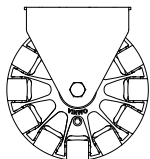
Bearings/Bushings



S20

T12 Tophat

Mounted Options



Mounted
R2-1801-__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

Bearing/Bush Material

A Acetal/ABS
S Sealed (steel) bearing

*With raised inner race Omnia bearing.

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

180mm Mount Options

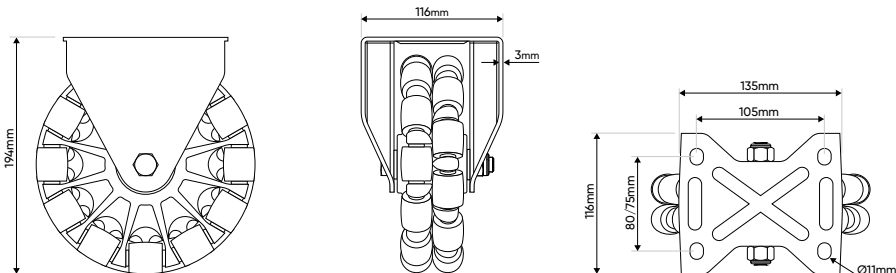
Fork Mount – Maximum Stability and Control

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.

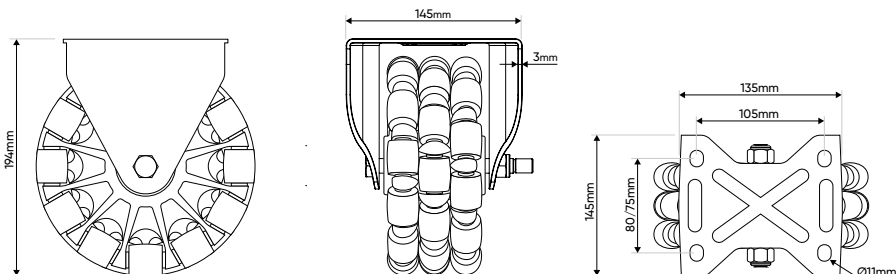


Dimensions

R2



R3





Changing The Way The World Moves