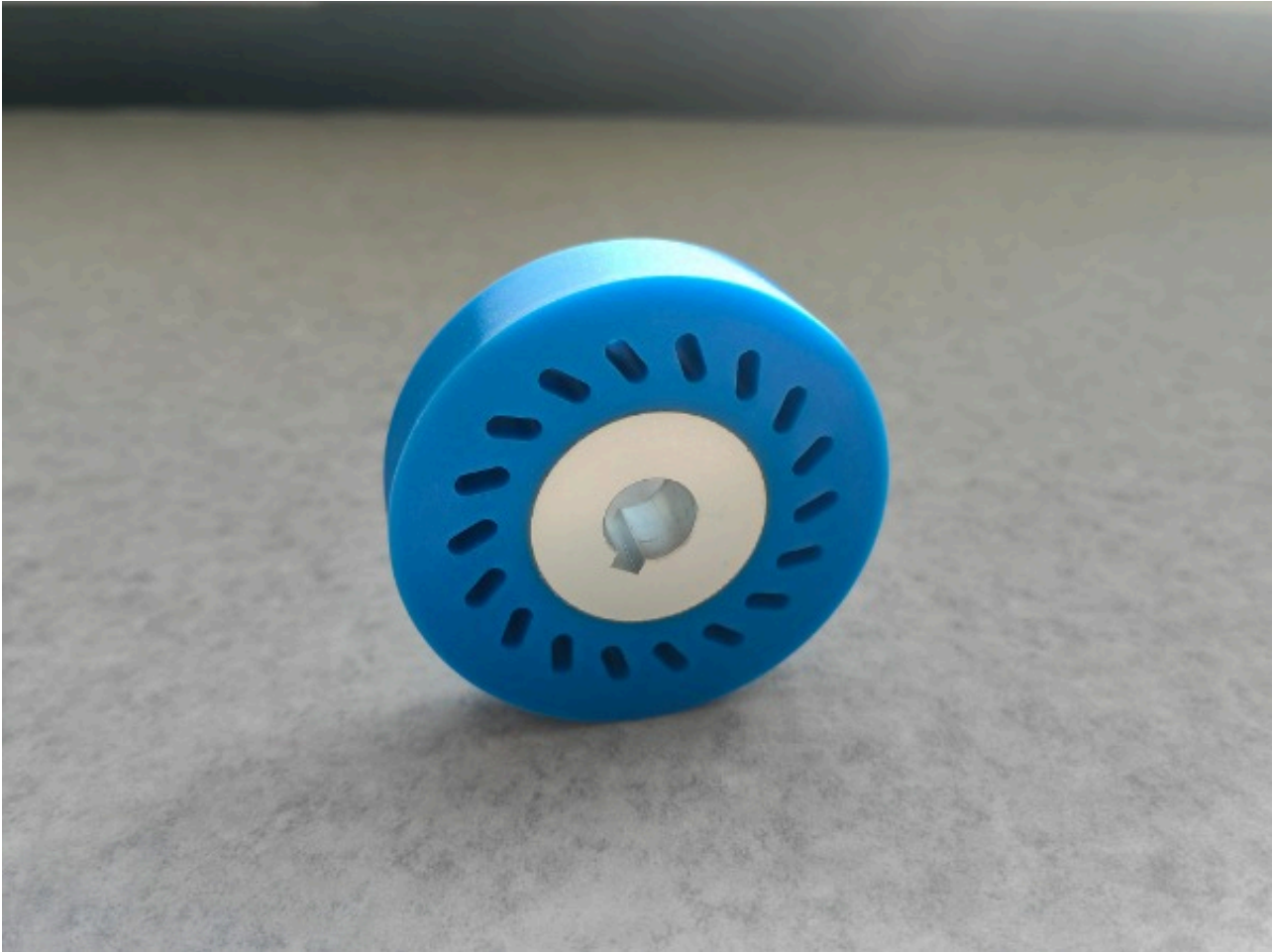

Keyway-mounted Polyurethane AGV Wheels

Title	Keyway-mounted Polyurethane AGV Wheels
Thumb	
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Description

In demanding industrial automation environments, traditional hub mounting methods often struggle with low torque transmission efficiency and positioning deviations under extreme stress. Vulkollan® Keyway-Mounted Polyurethane Wheels offer a revolutionary breakthrough, perfectly merging precision mechanical transmission with high-performance Vulkollan® elastomers.



This innovative design sets a new benchmark for reliability and stability in Automated Guided Vehicle (AGV) operations.

Core Technical Advantages

1. **Zero-Slip Precision Power Transmission:** The keyway mounting design utilizes a mechanical interlocking mechanism to ensure absolute zero relative rotation between the wheel and the drive shaft.
2. **100% Torque Efficiency:** Guarantees instantaneous response during rapid acceleration, emergency braking, or heavy-load startups.
3. **Eliminates Micro-Slippage:** Completely resolves the slight rotational shifting often associated with traditional press-fit (interference fit) methods.
4. **Enhanced Linear Tracking:** Significantly improves the vehicle's path-following accuracy, reducing the compensation load on navigation sensors.

5. Rigid-Yet-Flexible Impact Resistance: By combining the rigid mechanical connection of a keyway with the world-class elasticity of Vulkollan®, this design offers a unique structural advantage:

6. Superior Shock Absorption: Effortlessly dampens impacts from steel plate seams, track intersections, and uneven flooring.

The Vulkollan® Advantage: Built for Extremes

Known as the Rolls-Royce of polyurethanes, Vulkollan® provides these wheels with unparalleled physical properties:

Extended Service Life: Wear resistance is 3-5 times higher than standard polyurethane wheels.

Chemical Resilience: Exceptional resistance to oils, greases, lubricants, and mild acids or bases.

Thermal Stability: Maintains consistent physical properties across a wide temperature range from -30°C to +80°C without hardening or softening.

Technical Parameters

Model	Wheel Dimension (mm)	Wheel Width (mm)	Install Diameter (mm)	
AGV13 0/50	130	50	106	
AGV14 4/32	144	32	95	
AGV16 0/40	160	40	38	
AGV16 5/37	165	37	93	
AGV17 0/40	170	40	63	
AGV17 7/37	177	37	93	
AGV18 0/50	180	50	35	
AGV19 0/40	190	40	20	

AGV19 0/55	190	55	120
AGV20 0/42	200	42	115
AGV21 0/50	210	50	40
AGV25 0/55	250	55	35

Industry-Specific Application Scenarios

Semiconductor & Electronics (Cleanrooms): In ISO Class 5–6 cleanroom environments, keyway mounting eliminates the need for volatile locking adhesives or anti-loosening agents. Combined with the low-dust emission of Vulkollan®, these wheels meet the strictest contamination standards.

Automotive Assembly Lines: When heavy-duty AGVs transport engine blocks or vehicle chassis (3–5 ton loads), the keyway ensures millimeter-perfect stop-start precision, preventing assembly errors caused by shaft slippage.

Aerospace & Heavy Machinery: Transporting large composite components or massive castings requires high vibration damping. Vulkollan® protects sensitive high-value cargo from damage. Even in harsh environments with metal debris or welding spatter, the keyway connection remains rock-solid.

Conclusion

Vulkollan® Keyway-Mounted AGV Wheels are the trusted choice for high-precision, high-reliability material handling. Whether in a sterile semiconductor fab or a heavy-duty automotive plant, this design ensures your automated systems operate with maximum efficiency, safety, and uptime.