

PRODUCT BRIEF



GATES AUTOMOTIVE EUROGRIP® COUPLING

As engine technology trends are continually driven by fuel economy, emission controls and package reductions, Gates has responded with a new product platform: the Gates Automotive EuroGrip® Coupling. Gates has used its years of experience in under-bonnet materials to design a composite sleeve and end piece system that transmits torque and damps vibrations between two connected shafts. Excellent durability ensures that the components remain protected for the life of engine.

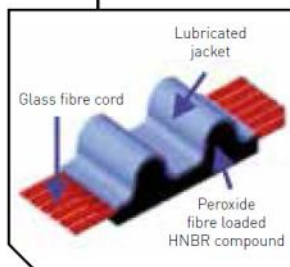


THE PRODUCT

- > The Gates Automotive EuroGrip® Coupling is a cylindrical composite sleeve connecting 2 metal end pieces
- > Coupling transmits torque by shear
- > All accessory components may be directly driven through this system
- > System allows incorporation of a one-way clutch to one side if required
- > Multiple accessories may be mounted in line, facilitating packaging options

COMPOSITE TECHNOLOGY

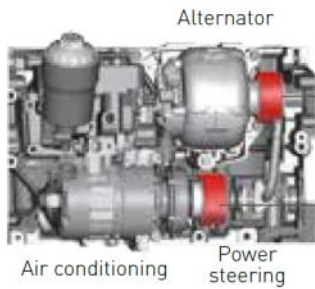
- > Based on proven material technology for Automotive Synchronous Belts
- > Lubricated jacket minimises coupling and end piece wear and retains tooth integrity during operation
- > Glass fibre cord (E glass) provides excellent dimensional stability at high rotational speeds
- > Fibre loaded HNBR (peroxide cured) maximises torque transmission capability, controls damping characteristics and provides excellent long-term ageing resistance



ADDITIONAL BENEFITS

- > As there are no moving parts, system is silent in operation
- > Tooth design allows easy assembly with zero backlash
- > Coupling's flexibility tolerates misalignment in component mountings
- > System is lightweight and low inertia
- > Predictable shear properties allow for component protection
- > Fail-safe design available if required

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APPLICATIONS AND BENEFITS

- High durability – Gates EuroGrip® Couplings give a minimum life of 150,000 km under extreme loads
- Damping of vibration – Outstanding damping characteristics allow continued performance at high rotation speeds with twist angles controlled
- Component protection – Tolerance to misalignment and designed fail-safe provide protection for connected accessories
- Flexible package options – Gates EuroGrip® Coupling facilitates in-line component mounting
- Silent operation – Unique meshing of coupling and end piece and zero backlash ensure silent operation
- Low weight – Low mass of the system contributes to lower fuel consumption
- Ease of assembly – Gates EuroGrip® Coupling accommodates tolerance stack-up
- Vibration damping – Tuned damping properties ensure smooth operation
- Zero backlash – Essential safety feature for positive steering



PRODUCT SELECTION CHART

Coupling size code	Max. shaft (mm)	Design Torques (Nm)			Stiffness Nm/rad $C_{T\ dyn}$	Damping	Damping Power W
		Nominal T_{KN}	Peak $T_K\ max.$	Alternating T_{KW}			
19	19	18	30	4	700	1.4	12
28	28	70	110	14	2 000	1.7	28
42	42	150	250	30	7 000	1.2	48
48	48	300	500	60	12 000	1.6	70
60	60	500	850	100	15 000	1.4	110

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