

Unique Latching System Keeps Wheelchair Passengers Secure During Transit

Queen's University



Q'Straint, the world's leading wheelchair securement company, has its roots in a Queen's University researcher's solution to a significant transportation safety problem: How could wheelchairs and their passengers be safely secured in vehicles that transport the physically disabled? More than 25 years ago, existing securement systems did not provide wheelchair passengers on buses with the same degree of safety as seatbelts provided to automobile passengers.

In response to this safety issue, Professor Henk Wevers, an engineering professor at Queen's, and his clinical mechanics group developed an adjustable, four-point securement system for wheelchairs and their passengers.

“ In the event of a collision or sudden stop, the novel system isolated the forward forces of the occupant from those of their chair by directing the chair's forces to the floor of the vehicle

through a common tether.

Initial funding for the technology was provided by the Ontario Ministry of Transportation and Communications.

In 1984 PARTEQ Innovations, the technology transfer office of Queen's University, licensed the system to Girardin Inc. (now Q'Straint), a manufacturer of buses and vans for the physically disabled.

Q'Straint is now headquartered in Fort Lauderdale, Fla., and has become the largest wheelchair and occupant securement company in the world, with additional offices in Canada, the United Kingdom and Australia. The company currently has 85 employees. To learn more about Q'Straint, visit www.qstraint.com.

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