



Left: For technical reasons the European Style mirror has gained acceptance in the rest of the world, but slow to catch on in North America.

Velvac introduces European Style side mirrors to North America

Velvac Inc., New Berlin, WI, has introduced two new mirror-camera vision systems that the company says will solve long-standing vision problems particular to shuttle buses.

The 2020SS Shuttle System

The 2020SS Shuttle System takes aim at a long list of concerns with current vision systems that include glass vibration, limited field-of-view and mirror damage, as well as aesthetics. Velvac says the design is significantly improved, mates perfectly to OEM fenders and provides 25 to 30 percent wider field-of-view than most current products.

Velvac says the 2020SS Shuttle System incorporates a spring-loaded fold-away pivot system with detents for home and parked positions. The mirrors fold away easily for washing and parking, and upon minor impact.

The finish meets automotive OEM corrosion standards through e-coating under a powder coat paint finish. Similarly, all wiring is run

internally for trouble-free use, rather than externally.

As an option for the ultimate in visibility and driver safety, the 2020SS system offers integrated CMOS side cameras precisely positioned for an optimal field-of-view. Combined with a Velvac ClearCam™ rear camera and one of several LCD monitor options, the system essentially eliminates blind spots around the vehicle.

A Euro-inverted solution for motorcoaches

The inverted mirrors on motorcoaches feature long, side-mounted mirror arms.

Velvac says these mirrors offer certain advantages for ground clearance around the bus and eliminate blind spots the mirrors create.

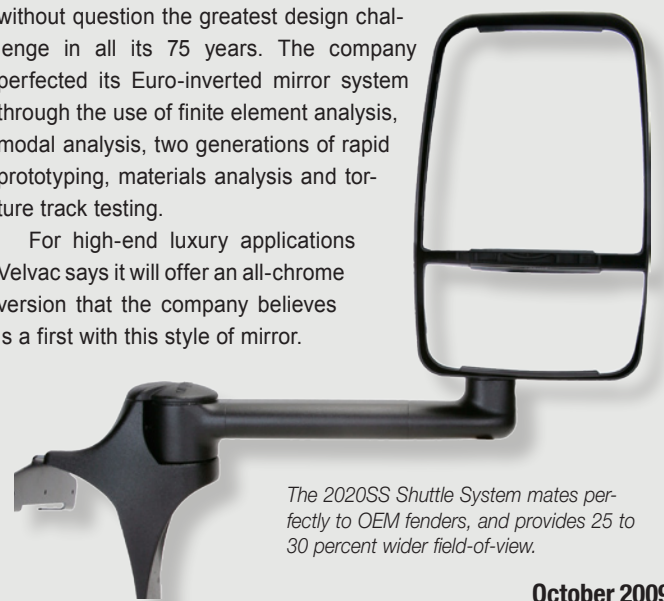
"The European Style mirror has gained acceptance in the rest of the world, but is slow to catch on in North America," says sales manager Paul Hughes. "The perception is this style of mirror is not very stable due to the long, overhung design."

According to Velvac, convex mirror glass is the only requirement for commercial vehicles in Europe and Asia. In North America, flat mirror glass that aids drivers with depth perception is a legal requirement. Unlike convex mirrors, flat glass mirrors reflect one-for-one any vibration transmitted through the mirror system.

"Visibility through flat glass is much less forgiving than the flexing and shaking inherent in mirror systems designed for other markets," says Hughes. "But we still recognized a potentially strong demand for a Euro-styled inverted mirror system to meet the rigors of the North American flat mirror glass requirement."

Velvac says its two-year undertaking to design this product was without question the greatest design challenge in all its 75 years. The company perfected its Euro-inverted mirror system through the use of finite element analysis, modal analysis, two generations of rapid prototyping, materials analysis and torture track testing.

For high-end luxury applications Velvac says it will offer an all-chrome version that the company believes is a first with this style of mirror.



The 2020SS Shuttle System mates perfectly to OEM fenders, and provides 25 to 30 percent wider field-of-view.

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