Ceramic-lined flange adapters are very versatile and extremely cost-effective wear-preventative items. Heavy wall thickness ceramics are installed to prevent virtually any type of wear caused by ID mis-matching, yet are able to survive in the most aggressive services.

Engineer’s Review
Our engineers review every application, cross-reference the process with our installation history and corrosion/wear charts, and will only recommend a ceramic material that is both cost-effective yet will yield years of trouble-free service.

Technical Ceramics
Cerestar flange adapters are available with 99.5% or 99.8% purity alumina or sintered silicon carbide ceramics. All of these ceramics are extremely corrosion and wear resistant materials, and their preference is based upon the severity of the process.

Custom ID
Flange adapter ceramics are custom-cut and machined in-house to provide our customers with a perfectly tailored transition for their service.

Seamless Interior
All flange adapters, straight pipe spools, and reducers are manufactured out of a single-piece, heavy wall thickness ceramic tube, and not by fitted ceramic tiles. This prevents media from attacking and eroding tile epoxies, which would otherwise cause the adapter to fail prematurely.

Exterior Protection
Carbon steel fittings are sandblasted, degreased, and coated with a corrosion and abrasion resistant finish for added protection and longevity in harsh environments.

Minimal Transition
The ceramic OD and flange ID are tightly tolerated to minimize gaps and to keep epoxy exposure to an absolute minimum.

Perfect Matching
Our innovative manufacturing methods ensure a smooth, perfectly matched and level sealing surface without any length difference between the flange face and the ceramic lining, assuring zero leak-by.

ASME Conformance
All flanged fittings meet or exceed ASME B16.5 requirements for pressure-temperature ratings, materials, dimensions, tolerances, marking, and testing.
Valve Damage Due to Worn Piping
If lined piping is in good condition overall but has worn unevenly at the ends, a ceramic flange adapter will prevent costly equipment damage — such as this extensive wear as seen in this stainless steel ball valve.

Ceresist Flange Adapters Are Perfect For:

**Flow-Element Protection**
When installing valves, pumps, flowmeters, or other equipment whose ID does not match the ID of the piping system, ceramic-lined flange adapters will transition gracefully between the mis-matched diameters, saving the flow element and piping — from wear.

**Lined Piping Transitions**
Abrasion-resistant pipe materials such as basalt, glass, or cast-in-place linings are rarely perfectly round — especially if they have been in service for an extended amount of time and have experienced wear. Installing mis-matched diameters will cause the downstream flow element to protrude into the flow path and wear rapidly. Rather than replace the partially-worn length of pipe, it is much more economical to install flange adapters to correct mis-matched ID’s.

**Mini–Reducers**
If a short distance between flanges prohibits the use of standard-length reducers, a flange adapter is ideal. Flange adapters can be made to any custom length — from ½” to greater than 4”.

**Flange Transitions**
When transitioning between flanges of different class ratings and wear protection is necessary, a ceramic-lined flange adapter is ideal. Upstream and downstream bolt patterns can be custom drilled and/or tapped to suit any scenario.

**Ceramic Materials**
If the flange adapter will be used to correct mis-matched ID’s and will therefore be subject to direct impingement, sintered silicon carbide is highly recommended. However, if the service requires the flange adapter to be used as a mini-reducer, both sintered silicon carbide as well as high-purity alumina will perform very well.

**Housing Materials**
In addition to our standard carbon steel housing, stainless steel 316, 304, and other custom materials can be supplied. Mating surfaces are machined to a phonograph finish to ensure positive sealing. For added protection, a corrosion resistant epoxy coating may be applied to carbon steel housings to offer longevity in harsh environments.