



About CoorsTek

CoorsTek combines advanced materials technology, precision manufacturing, and decades of engineering experience to solve real-world challenges in the energy, security & defense, industrial machinery, and other markets. We develop new ideas — applying deep expertise in engineered ceramics, advanced metals, and lightweight composite materials to deliver durable, multi-material products that extend performance lifetime, improve uptime, and reduce operating costs for our customers' critical-service applications.

Ceramic Plungers

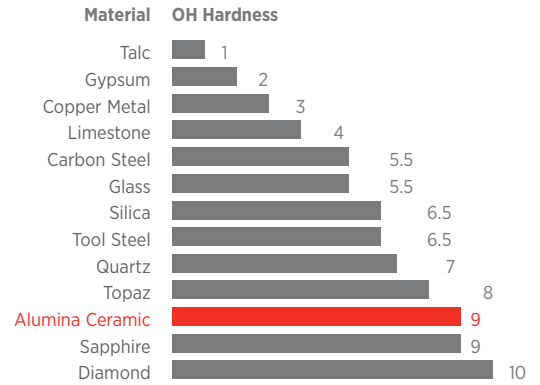
Ceramic plungers work exceptionally well for most saltwater, chemical, and metering applications. CoorsTek specially-formulated grades of ceramic allow a standard 8 RMS surface finish — dramatically extending packing life.

Made of durable stainless steel, CoorsTek adapters successfully resist corrosion. CoorsTek uses a proprietary process to bond the ceramic body to the stainless steel adapter for reliable performance in extreme work environments.

Ceramic plungers are available in hollow ceramic or solid ceramic designs.

When corrosion and abrasion resistance are required and extended packing life is needed, ceramic plungers are unequalled in performance. Contact one of our specialists for specific application information.

Hardness Comparison



CoorsTek ceramic plungers

Coated Plungers & Extension Rods

Hard-Co plungers are general service metal plungers used in the majority of cases where ceramic plungers are not desired. These plungers give the best overall combination of corrosion and wear resistance of our metal-coated plungers.

The Hard-Co™ coating is a nickel chrome hard-facing alloy deposited on a base metal. This produces a non-porous coating which is very dense and corrosion resistant.

STANDARD BASE MATERIAL: CARBON STEEL
OPTIONAL BASE MATERIAL: STAINLESS STEEL

Chrome Oxide Plungers

Recommended for use in the pumping of amine, glycol, or other fluids requiring restricted lubrication, chrome oxide is applied by a special process which melts chrome oxide and deposits it at high speeds onto the base material. This results in a better bond between the coating and base material.

STANDARD BASE MATERIAL: STAINLESS STEEL

Tungsten Carbide Plungers

The right choice for most power oil applications and other areas where the main concern is wear and abrasion, this premium alloy coating gives more wear resistance than our standard Hard-Co plunger.

STANDARD BASE MATERIAL: CARBON STEEL
OPTIONAL BASE MATERIAL: STAINLESS STEEL

Extension rods

Made with the same material and process as our Hard-Co plungers.



Tungsten carbide plunger



Abrasion resistant valve

Stem-Guided Plate Valves

To match your application needs, CoorsTek Valves are available in a variety of pressure ratings and material combinations.

Seats — The CoorsTek standard seat is a three-webb, investment-cast, 316 stainless steel unit also available in a five-webb, high-pressure design. Both styles are also available in Monel® stainless steel. The three webb style is rated at a maximum of 4200 psi (290 bar).

Plates — Our general-service plate, used in most applications, is made with Delrin® plastic. It can be used at up to 1800 psi (124 bar) on our three webb seat and 3500 psi (241 bar) on our five webb seat when used in 70°F (21°C) fluid. The Delrin material strength will retain 25% of its original rating at 160°F (71°C).

Titanium plates are recommended for high temperatures and/or high pressures. Titanium plates can be used at up to 2500 psi (172 bar) on our three webb seat and 4200 psi (290 bar) on our five webb seat.

Springs — CoorsTek springs are made with shot peened Inconel® metal. This provides the dependable service required for virtually all plate-valve applications.

Fasteners — All CoorsTek plate valves use Monel stainless steel fasteners — complete with a nylon thread lock plug which prevents fluid leakage around the threads and keeps the fastener in place.

Pump Products

Abrasion-Resistant & Specialty Valves

Abrasion-resistant valves are recommended for applications where erosive particulates are causing premature failure of standard valves and suspended solids dictate the use of an open flow design. These valves are especially effective in saltwater disposal service, tank truck, and workover applications.

CoorsTek abrasion-resistant valves utilize a hardened 17-4 stainless steel seat and wing guide valve. The cage is made of 316 stainless steel and the springs are shot peened Inconel metal. This abrasion resistant valve comes with a lock ring fitted between the cage and seat.

The wing guided valve comes standard with a polyurethane insert — providing a more cut-resistant seal for the seat. The polyurethane insert is recommended when operating temperatures are 160°F (71°C) or less.

Miscellaneous Valves

CoorsTek provides wing-guided valves and cage-type valves for a variety of pumps. CoorsTek also makes custom valves for special applications.

Plunger Packing

General service 838 plunger packing, composed of nitrile rubber and synthetic fabric, is recommended for service in fresh water, saltwater, propane, butane, gasoline, light or heavy oils, mild chemicals and acids, and most hydraulic fluids.

Optional packing materials — Additional sizes and materials including style 255 Teflon®, assorted styles of Kevlar® fibers, spring-load packing and split-ring, die-formed sets are available upon request.



Abrasion resistant valves



Plunger packing

Contact our experts for more information
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COORSTEK

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