

# Large Isolation Valve for Mining Slurry

Case Study: Peru  
February 2012

Industry: Mining



## Process Conditions:

Size	36"
Valve Model	CSV Style Ceramic Slurry Knife Gate Valve
Quantity	4 pcs
Temperature	Ambient
Application	Isolation of mine tailings at concentrator
Media	Mine Tailings
Pressure	20 psi rating
Problem	The Toromocho mine in Peru is a \$2.16 billion project to mine 210,000 tons of copper annually from the Peru countryside. A large engineering firm was chosen as the contractor of choice to develop the mine's working process. To handle the aggressively abrasive mine tailings, the valves would incur serious abrasion and it was expected that valve failure would be often and critical to the mine's uptime. The only choice was to select ceramics for the area in question. Thus, the specification was set even before finding a suitable vendor.
SKYCERA Solution	SKYCERA <sup>®</sup> proposed the 36" CSV ceramic-on-ceramic seated knife gate valve for the application. Competition included resilient seated and metal seated knife gate valves from many large manufacturers. In early 2011, SKYCERA <sup>®</sup> proposed our valve to the engineering firm and was granted a resounding YES to the project and a purchase order was placed. Our valve was chosen because of the extreme abrasion that will occur in the system leading to premature valve failure and seat leakage. Ceramics are 6-8 times harder than just the steel used in other valves.