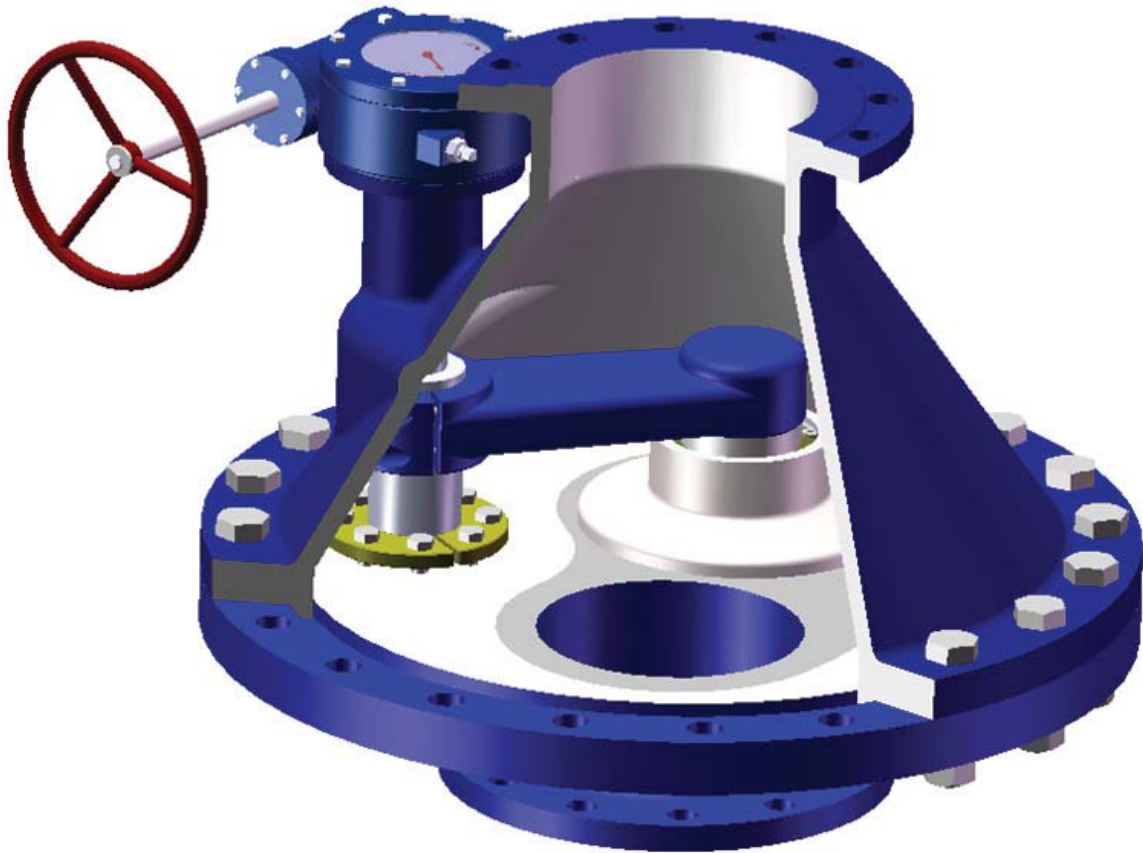


ROTATING DISC VALVE

WEISI VALVE CO.,LTD

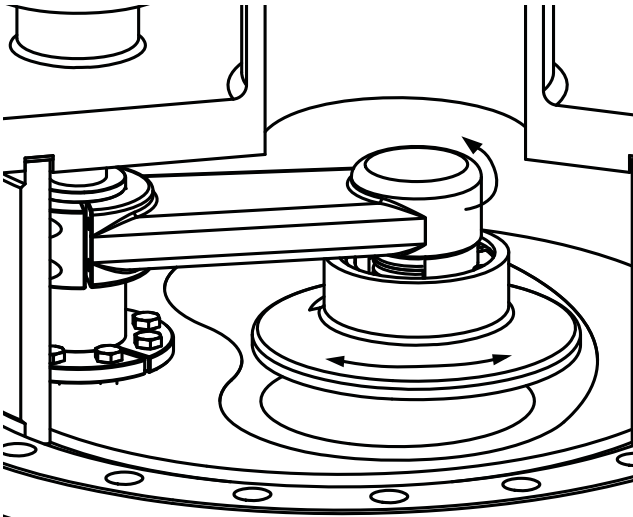




RDPV Series Rotating Disc Valves

- Size: DN50-DN800
- Pressure: Up to 10,000psi
- Temperature: -10 to 800 °C
- Pressure: Up to 10,000psi
- Operating: Lever, gear box, electric actuator, fluid drive, pneumatic actuator
- Field of applications: Polycrystalline Silicon, Petrochemical Processing, Smelting, Thermal Power Plant, Iron/Steel Industry, Coal Chemical Industry
- Fluid: Quartz Sand, Quartz Flour, Ganister Sand, Powdered Aluminum, Aluminum Oxide Powder, Pulverized Coal, Coalslurry, Mortar, Crude Oil, Pitch, Tar, Ore Powder, Tailings, etc.
- Laser-cladding technology used for sealing surface.
- Full port design with large flow ability and less pressure drop.
- Different corrosion resistant coatings are available.

FEATURES

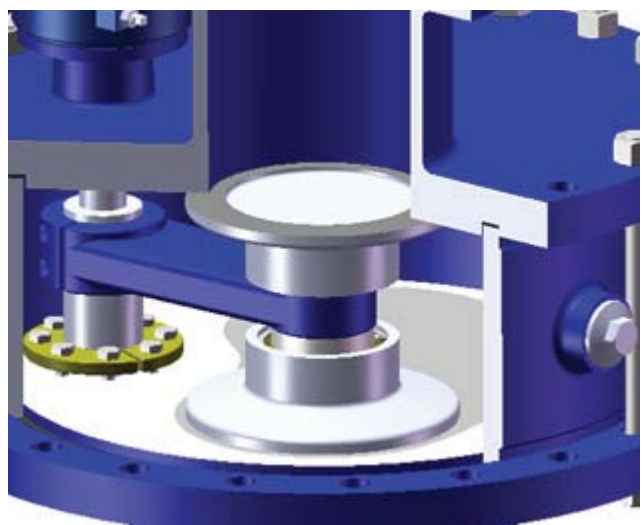
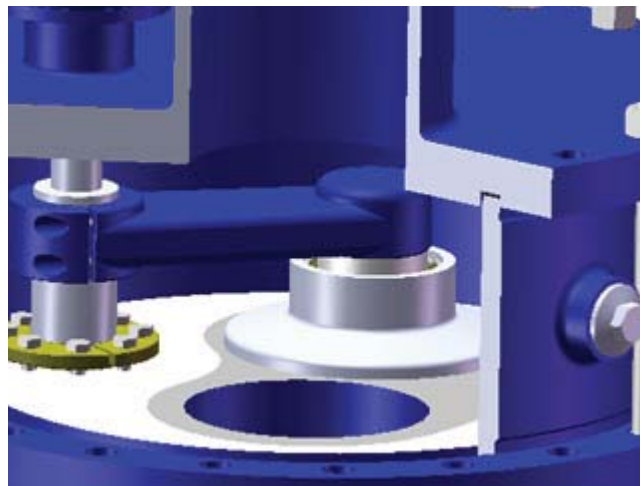


Rotating Disc Operation



The Disc

The actuator moves the stem and lever arm a quarter turn to drive the disc. The whole sealing surface of the disc is constantly in contact with the seat or pad through force exerted by coiled springs. These springs allow the disc to move vertically. This compensates for thermal expansion and contraction of the valves components also overcoming the effect of any back pressure for which it was designed and prevents particles from lodging between the sealing surfaces. Differences in tangential disc to seat friction forces cause the disc to rotate on its seat as the valve cycles, thereby shearing and wiping away any process material that may accumulate in the valve.





Using laser cladding technology to apply the Nickel layer.

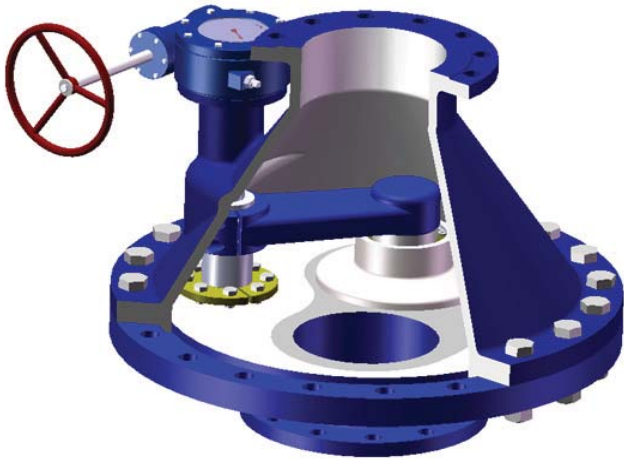
Laser cladding is a technology using high energy density laser to synthesize a layer of material in order to meet the component performance requirement. Especially used for hardening the partial component. This technology is used for valves' sealing surface which will significantly increase the ability of anti-friction, anti-crossion and anti-high temperature. And this technology features with high efficiency, less effect to the component and automatic control. This technology was widely used on the exhaust valves in the automobile. To laser cladding the Nickel



Cladded Nickel Layer

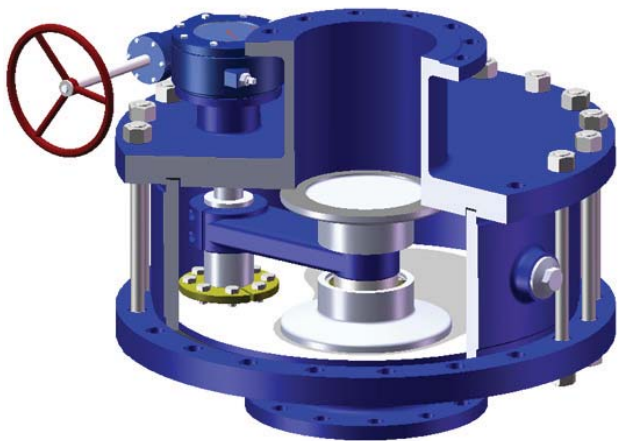
alloy on the sealing surface of the exhaust valve, the life will be increased by 3 to 5 times.

All of our RDPV series Rotating Disc Vavles are using this laser cladding technology to apply a layer of Co/WC alloy on the sealing surface. The layer thickness is between 0.3 to 2.0mm, the hardness is greater than HRC65. The layer is composed of evenly arranged WC elements and this will ensure the durability of the sealing surface. The life of the valves are improved significantly and this material is capable of anti-corrosion, anti-high temperature.



One Sealing Surface Model

This model is suitable for that the loadings' static pressure is on the back of the disc when valve closed. The back pressure of this kind single seal model is usually no greater than 0.3Mpa.



Two Sealing Surface Model

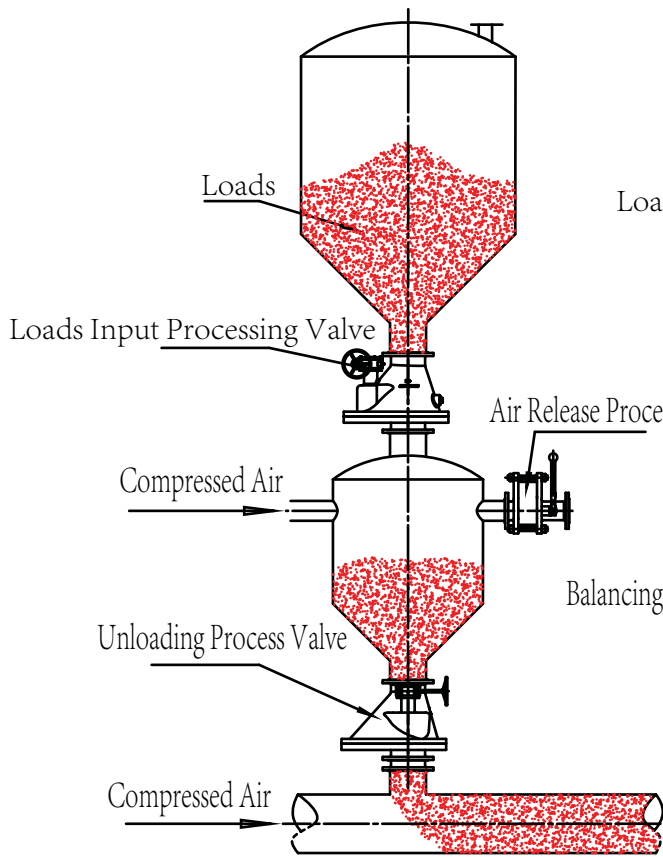
This model has two sealing surfaces and two discs. This model can take pressures from either side.



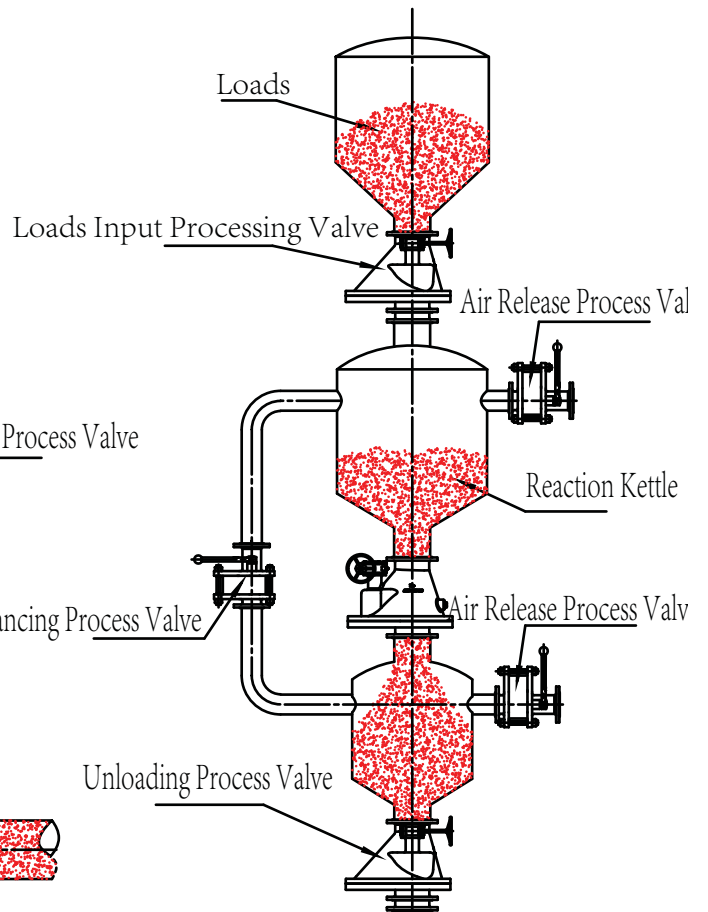
Three Way Model

This model has two outlet ports. The output can be switched between these two. This model can only take one side of pressure. Back pressure is usually less than 0.3Mpa.

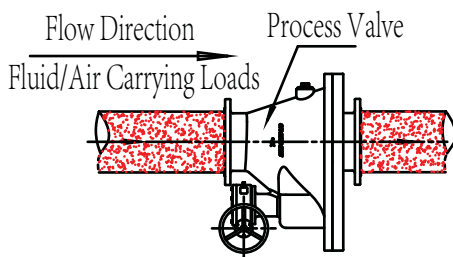
EXAMPLE



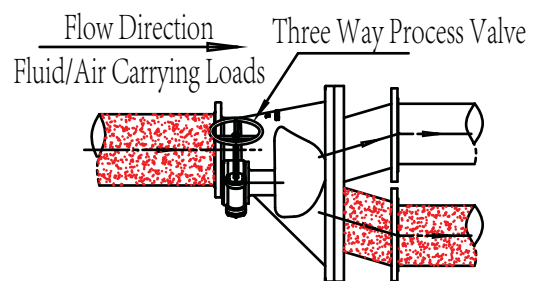
Pneumatic Conveying



Reactor Loading



Loads Transportation



Loads Transportation

The open body of the valve is self cleaning design with precision flat lapped hard metal seats and disc moving in non-wedging, non-binding fashion thru abrasive materials whether they are dry powders or in a slurry. Differences in tangential disc to seat friction cause the disc to rotate a few degrees with each cycle. This rotation polishes the mating surfaces improving the valves seal with each operation.

Pneumatic Conveying

Loads of materials are held in the two or more vessels. When the rotating disc valve is opened, the media will be transported to another vessel. If the media is not able to be transported further by gravity, compressed air can be brought in to increase the pressure and help to transport the media. By opening the unloading rotating disc valve, the media can be unloaded to the line and blew to the next stop. Our rotating disc valves are being bought every day for more of these systems.

Reactor Loading

Rotating disc valves are used to replace other valves or rotary feeders for reactors that can begin its process with positive pressure then drop to a negative pressure.

Pressure balancing valves balance the loading or let-down hoppers so the reactor valves may cycle with zero differential. They also may cycle with a full differential. Pressure balancing valves are opened to either allow media to enter the loading hopper or the let-down hopper.

Diverting

The rotating disc valve is ideal for diverting flow to storage bins or silos and to isolate pumps for maintenance. Our rotary disc valves or diverters can remain operating for years in 65% coal and sludge slurries. Turn them around and they converge the process from separate sources into a single stream. This valve is a best choice for use in processing abrasive, corrosive and chemical waste.



Installation on Job Site

SUITABLE FOR VARIOUS APPLICATIONS



1 Smelting Industry



2 Iron Steel Industry



3 Coal Chemical Industry



4 Reaction Kettle

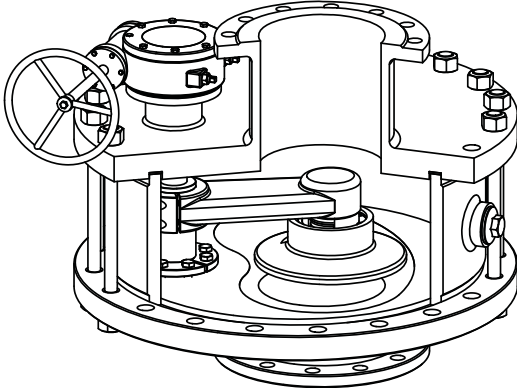
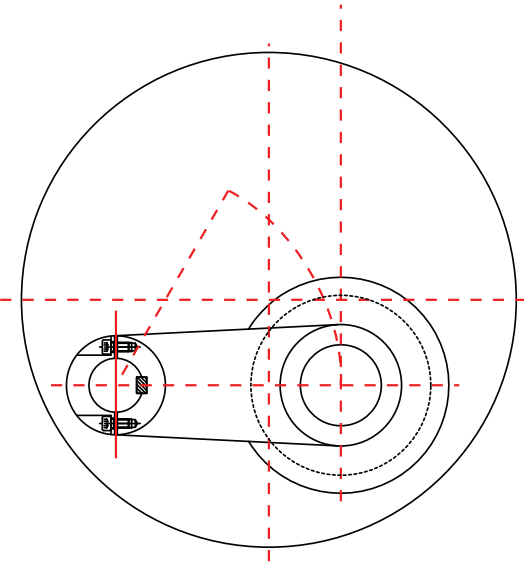
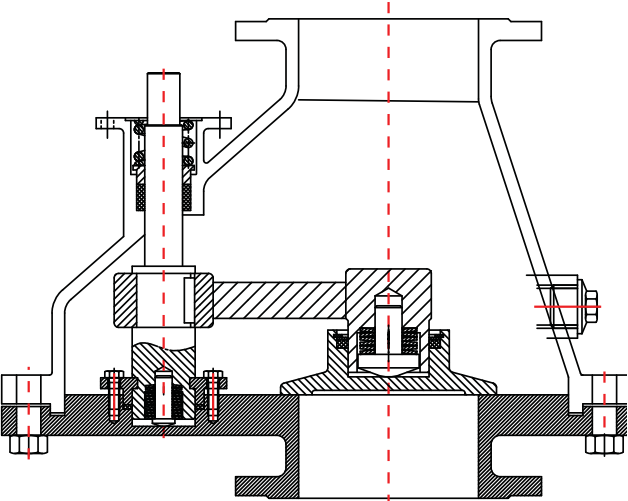
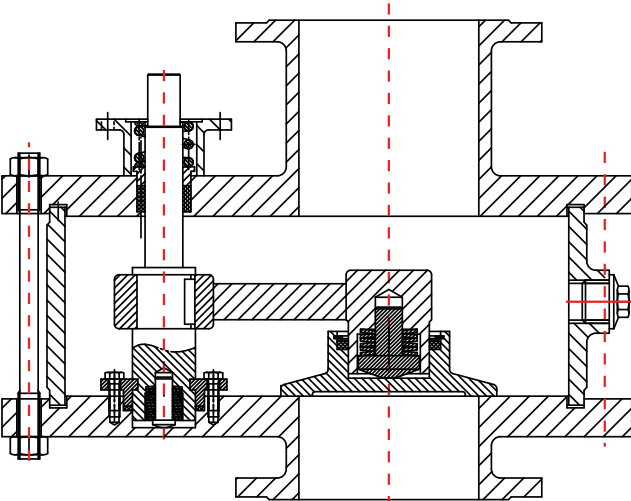


5 Petro-Chemical

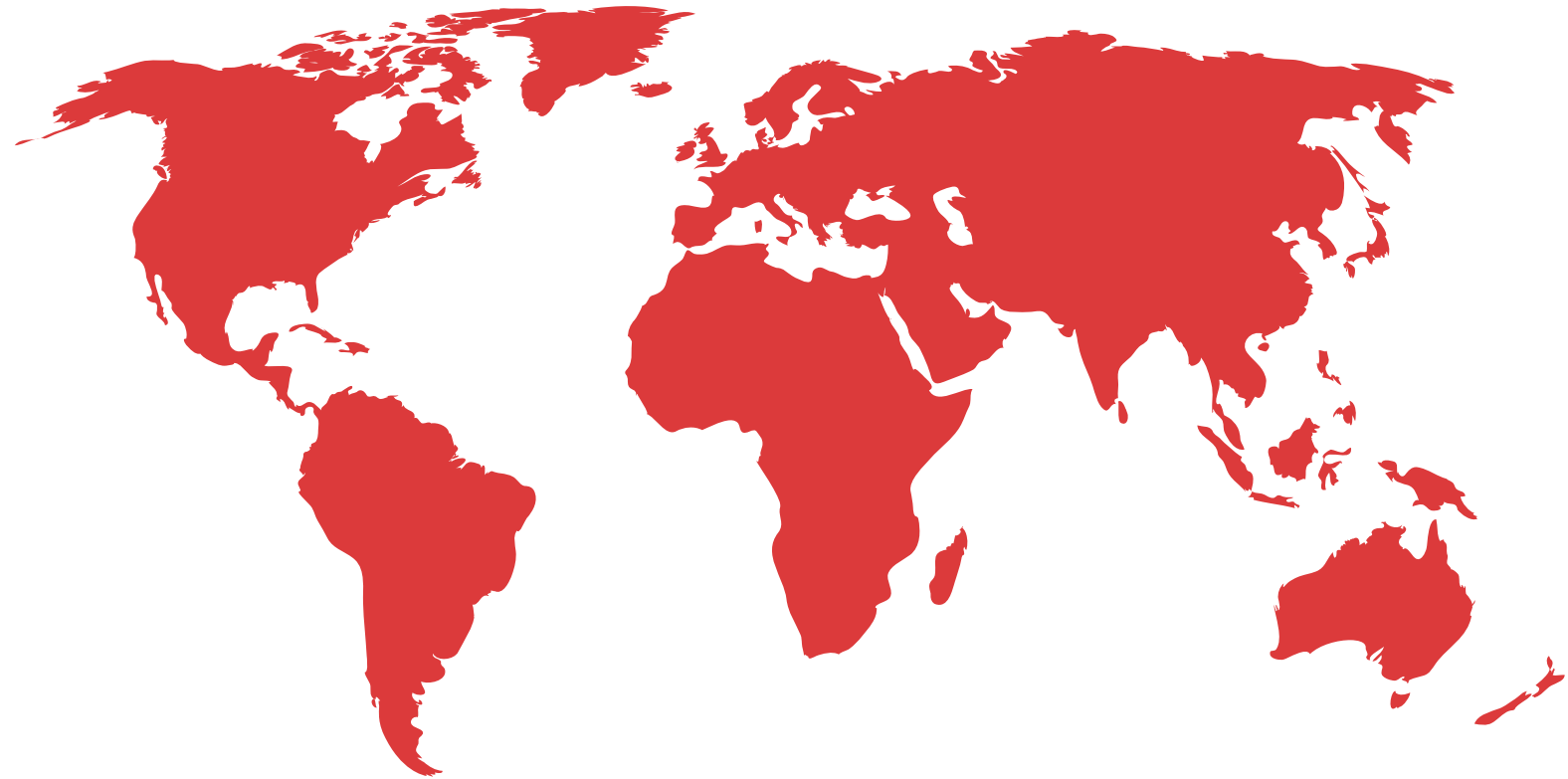


6 Power Plant

PRODUCT DRAWING



WWW.VSIVALVE.COM



CONSTANTLY IMPROVING...

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