



TAPCOENPRO

THE VALUE OF A TRUSTED PARTNER

For over 60 years, TapcoEnpro has been a world leader in the design and manufacture of critical service valves, equipment and services for fluid catalytic cracking (FCC).

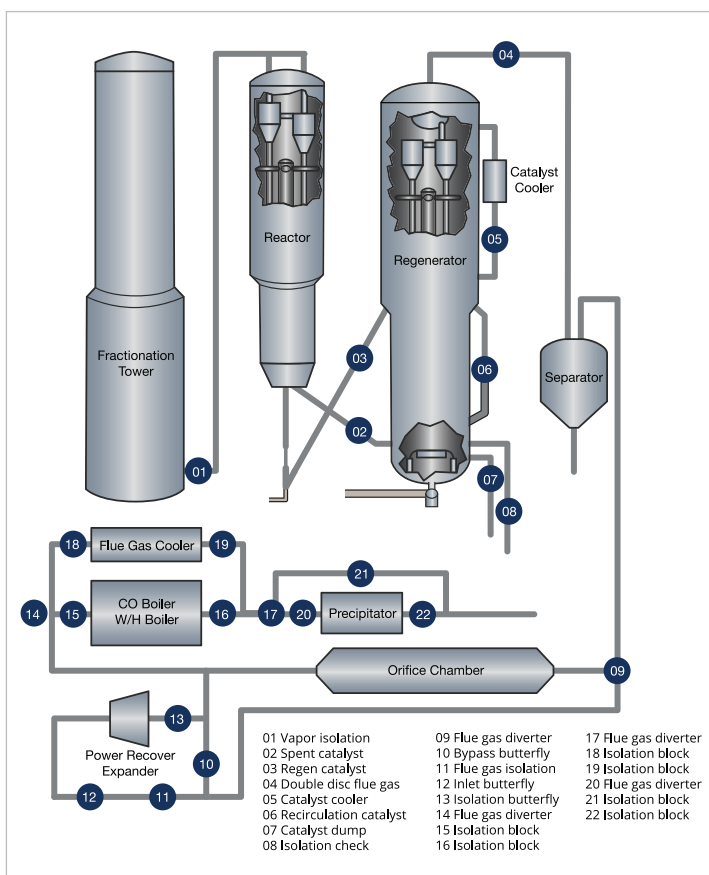
We offer a full range of products including FCC slide valves, diverter valves, high performance butterfly valves, hydraulic power units, digital controllers and actuators. These products along with our ability to supply heavy-wall reactors, regenerators, risers, orifice chambers and FCC components make us a true single source supplier for all your FCC requirements.

Our extensive experience in designing and building engineered severe-service industrial valves and equipment for FCC units has made us one of the premier valve manufacturers in the industry today. We listen to our customers' needs and strive to provide innovative products that meet the critical demands of the FCCU.

As a trusted partner, we deliver safe, reliable products while providing the best value for our customers. From the moment a customer contacts us, through delivery, installation, support and service we're there to provide unparalleled products, service and support. We continually strive to make our products the best, most reliable in the industry.



TapcoEnpro manufacturing and service facility Channelview, Texas



COLD SHELL BOLTED SLIDE VALVES

MAXIMUM TEMPERATURE RESISTANCE

Each of our valves are custom designed to your operating conditions including applicable codes, FCC licensor specifications, customer supplied requirements and our own in-house standards for maximum temperature and abrasion resistance.

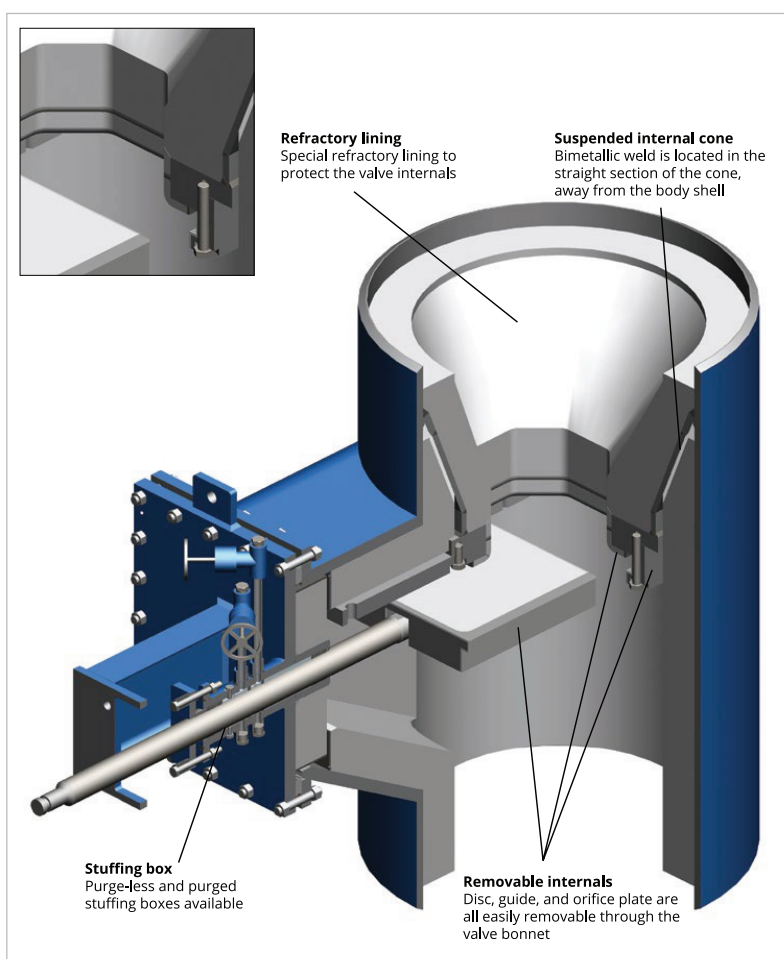
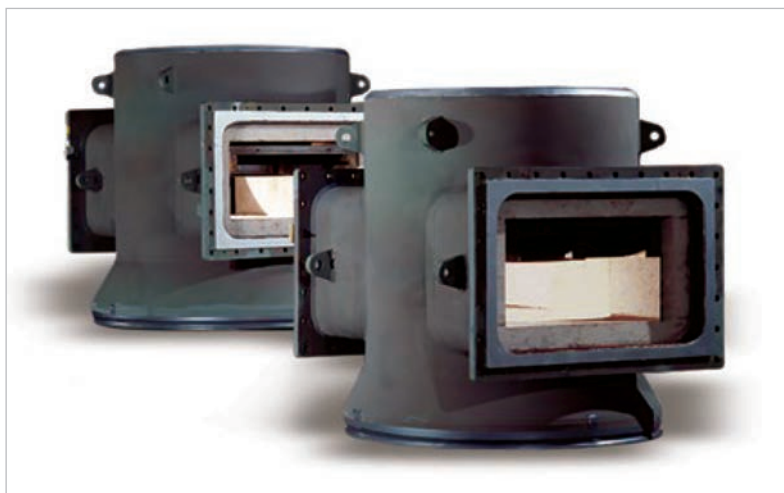
Cold shell slide valve body material is carbon steel (SA516-70), while internal parts material will be selected based on design temperatures (304H or SA387-GR11) up to 1800°F (980°C) to provide maximum resistance to high temperatures and erosion.

Our cold shell slide valve design includes special refractory linings to protect the valve body and internals from high temperatures and erosion. The disc and orifice plate are refractory lined specifically to protect against erosion. Our suspended internal cone is welded to the body shell with bimetallic weld located in the straight section of the cone itself.

Slide valve internals are easily removable through the valve bonnet for easy maintenance. We designed their internal components to withstand high temperatures, pressure drops and erosive properties of the flowing catalyst. Internal components centre catalyst flow through the valve to minimise erosion of internal valve body surfaces.

Whatever your needs might be in the FCCU, our slide valves are available for the following applications:

- Regenerated catalyst
- Spent catalyst
- Recirculation catalyst
- Catalyst cooler
- Double disc flue gas
- Flue gas diversion
- Expander flue gas
- Flue gas bypass
- Flue gas isolation



ELECTRO-HYDRAULIC CONTROLS

DIGITAL AND ANALOG SERIES

TapcoEnpro's digital and analog actuators keep scheduled maintenance as routine as possible. Unlike other companies that build their systems using highpriced, proprietary, custom parts, TapcoEnpro designs its actuators with quality-proven components. So, your initial investment in a superior TapcoEnpro actuator pays for itself with affordable, convenient maintenance.

Replacement parts from recognised manufacturers, like Vickers and Parker, are available worldwide through authorised distributors or from TapcoEnpro warehouses in Houston, Texas, USA or Barnsley, South Yorkshire, U.K. Usually, these parts can be easily installed by your own personnel. If you are unable to find a part readily, we will overnight it to you from one of our warehouses.

CUSTOM CONFIGURATION

Every valve demands unique capabilities from its actuator counterpart. So TapcoEnpro offers total flexibility in your configuration upon installation. Available for all types of valves, TapcoEnpro actuators are available in several packages that fit the requirements of most plants. But, if you have specific needs, no problem. TapcoEnpro completes each package with components tailored to your situation. TapcoEnpro's everimproving actuator technology offers increasing operational capabilities, such as on-stream fluid conditioning and greater redundancies, to whatever degree you specify.

CUSTOM SPECIFICATIONS

Not only will your configuration be customised to your operation, your written specification can be too. If your personnel aren't familiar with actuator parameters, we'll write specifications for you to help set operational standards. Or if you have experienced instrumentation and operations people, we'll provide detailed specifications for their professional review and refinement.

For smaller companies with limited engineering resources, TapcoEnpro will design the actuator system to comply with industry requirements. TapcoEnpro innovates to keep at the forefront of flow control technology for severe conditions.

PIONEERS IN HYDRAULIC POSITIONING SYSTEMS

TapcoEnpro was the first to:

- Mount an electro-hydraulic actuator on a slide valve in the 1970s
- Become a single source actuator, HPU and valve supplier on a FCCU
- Design the system to use off-the-shelf components for simplicity, ease of maintenance and repair with parts that are available worldwide

DIGITAL TA3000 CONTROL UNIT

- One of the true digital controllers FCCU slide valves
- Built in diagnostics for ease of maintenance and preventative maintenance
- Programmable so each application can be customised
- Data and event logging for history logs
- Self-contained health monitoring

DIGITAL PLC3000 CONTROL UNIT

- Simplex and redundant PLC configurations
- Configurative parameters
- Built in diagnostics
- Data logging

ANALOG TA2000 CONTROL UNIT

- Proven technology in this analog system that has been in service for over 25 years
- Meets all requirements and specifications of industry standards and best practices



FIELD SERVICES

Our field service technicians provide a superior level of service, providing 24-7 coverage and responding to our customers' needs in a timely and efficient manner.

TapcoEnpro's network of technicians are highly trained to evaluate, troubleshoot and resolve issues. They are backed by our engineering group allowing for quick access to technical expertise, drawings, bills of materials and other data to expedite practical and reliable solutions.



Core services of the TapcoEnpro field service team are:

- Equipment installations
- Site acceptance tests
- Commissioning supervision
- Site audits
- Turnaround service
- Maintenance and repair
- Equipment rebuilds
- Storage
- Hydraulic flush services
- Electrical loop checks
- On-site training
- Bolt/tensioning/torquing
- Spare parts
- High performance hydraulic fluids

In order to respond to our customers' requirements, TapcoEnpro has sizeable service facilities staffed with our certified, dedicated technicians in the United States, Canada and Europe. We are also planning such facilities globally to meet the demands of our growing list of worldwide customers.

For additional information
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