REFCOMM

BLAC INC.
New Division for
FCCU / RFCCU VALVE SYSTEMS
WHO IS BLAC INC.?

BLAC INC. was established in 1990.

Designed and constructed hydraulic control systems for FCCU / RFCCU applications.

We sold directly to refineries, E&C Contractors and various valve companies.

In 2015 BLAC INC. started the valve division to design and manufacture FCCU valves.

Complete in-house design and manufacturing for valves/actuator systems.

Rebuilding and upgrading capabilities for competitor valves and hydraulic control systems throughout the world.

Our company is designed to provide high tech solutions to the refinery’s problems in FCCU valves and actuator systems.
INDUSTRY CHANGES IN FCC VALVE COMPANIES

Z&J  IMI  REMOSA

TAPCO  TEI  CURTISS-WRIGHT  ENPRO

CW – SUN CAPITOL – CIRCO ENERGY
FACILITIES

Elmhurst / Chicago, IL
- Actuator and Valve Manufacturing
- Accessible from Chicago Midway / O'Hare Airports
- Port Access for Large Valves

Houston, TX
- Valve Manufacturing / Actuator Repair
- Accessible from Houston Hobby and Intercontinental Airports
- Port Access for Large Valves
BLAC INC. VALVE PRODUCTS

REFINING – RFCCU AND FCCU UNITS

- Slide Valves
- Butterfly Valves
- Plug Valves
- Diverter Valves
- Goggle Valves
- Fractionator Isolation Valves
- Main Air Blower Suction Valves
- Main Air Blower Discharge Butterfly Valves
- Variable Orifice Valves
- Catalyst Dropout Valves
BLAC INC. VALVE DIVISION

ENGINEERING DESIGN CHANGES
BLAC INC. TECHNOLOGIES

• Actuator Built To The Valve Bonnet – No Lower Yoke

• Actuator Piloted Directly To The Bonnet Cover Of The Valve

• Stuffing Box Is Built Extra Heavy Duty

• Valve Inlet Cone Welded Into Valve Body

• Purge Control of Valve Stuffing Box
BLAC INC. OLDER STYLE OF VALVE ACTUATOR MOUNTING
Actuator is Mounted to Lower Yoke Which is Mounted to Bonnet Cover Flange
Actuator Side Rail is One Piece to the Bonnet Cover
VALVE BONNET COVER FLANGE PILOTED TO ACTUATOR
Actuator Side Rail is One Piece to the Bonnet Cover

BLAC INC. ACTUATOR PILOTED YOKE
VALVE PACKING AND STUFFING BOX IMPROVED DESIGN
FCCU SLIDE VALVE STUFFING BOX ASSEMBLY

Following Flange

Welded On Tab For Following Flange Bolts

BLAC INC. Stuffing Box – Following Flange Bolts Into Stuffing Box

Older Style Stuffing Box
Differences of BLAC’s Stuffing Box
Continuous Purge Type Design

• BLAC’s stuffing box barrels are designed with extra heavy wall thickness - following flange bolting is threaded into barrel wall

• Results in the following flange bolting and spring washers to be located closer to the stem centerline

• Reduces ability for following flange to be over-torqued

• Eliminates the conventional welded-on ears or brackets that are wider apart from valve shaft centerline

• Reduces leakage potential for stuffing box
FCCU SLIDE VALVE STUFFING BOX ASSEMBLY
CONE WELDMENT TO VALVE BODY
INTELLIGENT PURGE CONTROL
3.6 Stuffing Box

a. Design of the stuffing box shall permit replacement of the gland packing during operation of the valve without changing the normal position of the disc. Replaceable gland packing shall be John Crane style 1625G, 1600N, 235 or Slade 3300G.

   Recommended Supplier: John Crane, Inc.
   6400 West Oakton Street
   Morton Grove, IL 60053
   USA
   www.john crane.com

b. Purge and injection ports shall be provided for slide valves. Contractor will provide piping detail for the purge connections as shown in UOP P&ID Unit Specific Details & Notes. The stuffing box shall have the ports listed below as a minimum:

   (1) One purge port, equipped with a 1 inch (25 mm) valve and corresponding drain with plug.

   (2) One sealant injection port, equipped with a 1 inch (25 mm) valve and corresponding drain with plug.

c. Purgeless stuffing box on slide valves is not acceptable
PURGE RELATED FAILURES

Excessive Purge Rates

Stem damage due to excessive packing gland purging

Disc damage due to excessive packing gland purging

Seating Plate damage due to excessive purging
EXTENDED RUN TECHNOLOGY

Optimized Intelligent Purge Control

- Setpoint for flow is adjustable remotely
- Pressure loss is provided as an output alarm
- Flow is controlled accurately and adjustable on line
- Actual flow and pressures with setpoints are continuously recorded
FCCU SLIDE VALVE STEM AND STANDPIPE PURGE SYSTEM

• Replaces the Restriction Orifices on Stuffing Box – There is No Orifice Plugging

• Flow is Controlled Accurately to Setpoint – Thus Guarantee Can Be Provided

• Flows and Pressures for Setpoints Are Recorded for up to 6 Years

• Control Valve is Fully Opened for 10 Seconds Every 8 Hours to Clear Catalyst

• For Blast Ports – Timed Pulse for 20 Seconds Every 24 Hours
THANK YOU FOR YOUR TIME