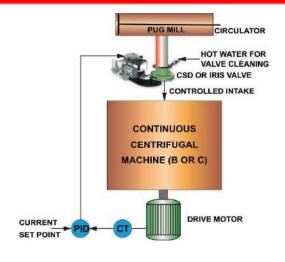
## **Concentric Split Diaphragm Control Valve also called Iris Type Valve**











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## **Continuous Centrifugal Machine Automation Salient Features: Big Money Maker**



- Constant Load on the Machine Basket Drive results in Constant Machine Operation and Optimum Current Consumption of the Drive Motor thus Saving Power and Maximizing Capacity Utilization at the Same Time.
- Constant Load on the Machine Basket results in Improved Purity as well as Increased Throughput at the same time.
- Uniform flow of Massecuite results in Water and Steam Saving.
- Concentric Material Intake Ensures Proper Basket Balance thus Elimination of Basket Unbalance reduces Wear and Tear.
- Higher Capacity Utilization of Continuous Centrifugal Machines and Operational life improvement and Reduced Cost of Ownership.
- Eliminates Human Errors, Overflows and Stoppages therefore termed "STOP LOSS AUTOMATION".
- Power Saving of up to 20% for total Massecuite Curing. Very Attractive pay back.

## **Continuous Centrifugal Machine Automation Advantages: Big Money Maker**

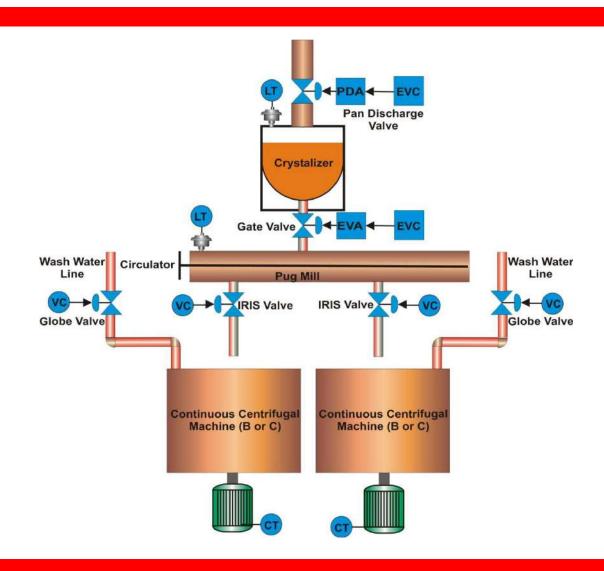


Well Engineered and Good Automation Systems in Continuous Centrifugal Machines:

- Reduce Cycle Time and Increase Throughput
- Maximize Machine Capacity Utilization
- Eliminate Stoppages due to Human Errors
- Eliminate Wastage through Basket Overflows
- Reduce Power, Steam and Water Consumption
- Proper Basket Balance results in Reduced Wear and Tear
- In some cases it is observed that One or Two Machines have been kept spare as total load is taken care of by 4 Machines instead of 6
- Thus we can Conclude that Continuous Centrifugal Machine Automation can get more Work Done from the Same Mechanical Equipment and:
  - Increase Profitability
  - Reduce Cost of Ownership
  - Increase Return on Investment

### **Continuous Centrifugal Machine Automation**





### **Concentric Split Diaphragm Control Valve for Continuous Centrifugal Machine Automation:**



Controlled Constant Sugar Massecuite Intake into the Continuous Centrifugal Machine with respect to Drive Motor Load.

Sugar Massecuite is a very thick Slurry formed of Sugar Crystals and Molasses and is very Sticky and Viscous Mass.

CSD or IRIS Type Valve's Concentric Opening provides perfect solution for dropping Sugar Massecuite into Centrifugal Machine. Spilling and splattering is avoided, as Massecuite falls in the center of the Basket, and so facilitating a perfect Machine Operation.

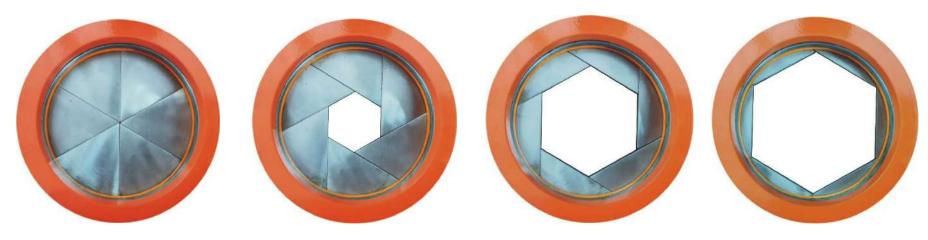
#### **Concentric Split Diaphragm Control Valve also called Iris Type**

Valve: Product Code: CV-IR-1005-6-EP





**Concentric Opening of Split Diaphragm Controlled by Electro-Pneumatic Positioner** 



### **Concentric Split Diaphragm Pneumatic Control Valve for Continuous Centrifugal Machine Automation:**





Controlled Quantity of Massecuite drops from the Concentric Opening (Split opening from the Centre of the Valve) Hence No Spilling, No Splattering, No Unbalance, No Overflow, No Underfeeding

Typical Concentric Opening Split
Diaphragm
Pneumatic Control Valve
Installation

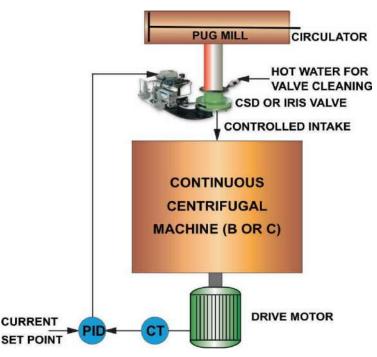


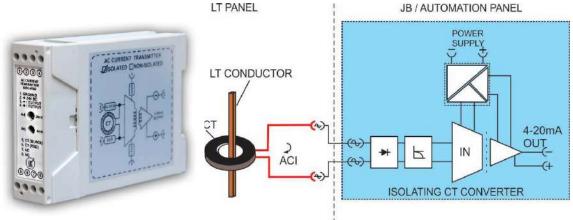
### **Concentric Split Diaphragm Pneumatic Control Valve for Continuous Centrifugal Machine Automation:**



Continuous Centrifugal Machine's Drive Motor Current Load is sensed.

The Current is maintained by taking exact amount of Feed by Controlling the CSD Valve opening in a PID Loop.





YUTECH's Precision CT Converters Sense the CT Load and Convert the Signal to Isolated 4-20mA Signal which is given to PID Controller which gives a very finely tuned Output to the CSD Valve thus linearly controlling the Massecuite Intake to Centrifuge.

### **Concentric Split Diaphragm Control Valve**

#### **FACTS:**



- Rugged Build Quality for Long Life.
- Heavy Duty Rugged Valve Construction absorbs all shocks and Vibrations.
- Valve Internals are of Heavy Gauge SS Construction and designed to operate under heavy Massecuite loads without bending or deformation.
- Precise Flow Control due to Concentric Opening of Split Diaphragm (similar to a camera aperture).
- Energy saving whilst Flow Control due to Free Passage through Concentric Opening
- Low-noise due to Easy Passage
- Maintenance free
- Pneumatic Actuation with Electro-Pneumatic Positioner for smooth Linear Control Action
- Operating Air Pressure 2 7 Kg/cm<sup>2</sup>
- Input 4-20mA from any external source

## **Concentric Split Diaphragm Control Valve Specifications:**



Valve Type : Concentric Split Diaphragm Type Central Opening Valve with

Camera Aperture like Action

Sizes : 2" (50mm) 3" (75mm) / 4" (100mm) / 6" (150mm) / 8"

(200mm) / 10" (250mm)

Body material : MS Fabricated / Other Material on Request

Valve Internals : SS 410 / 304 / 316L - On request

Bearings and wedges : SS

material

Sheathing : PTFE / PU

Actuation : Pneumatic Linear (2 - 7 Kg/cm2 Air Pressure) / Electric -

Motorized / Hand - Wheel

Actuator Stroke : As per Valve Size

Positioner : Electro-Pneumatic / Electronic

Position Feedback : 4 - 20 mA / 0 - 5 VDC

(Optional)

Input (for Actuated Valves : 4 - 20 mA from any external source

only) Or

Push Buttons for Open and Close

### Concentric Split Diaphragm Control Valve Latest Installations with new Improved Design:





## **Concentric Split Diaphragm Control Valve Latest Installations with new Improved Design:**







## **Concentric Split Diaphragm Control Valve Earlier Installations:**





www.yutech.in; sale@yutech.in



# THANK YOU! For your Time and Presence



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**AND YET, MAKE MONEY** 

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