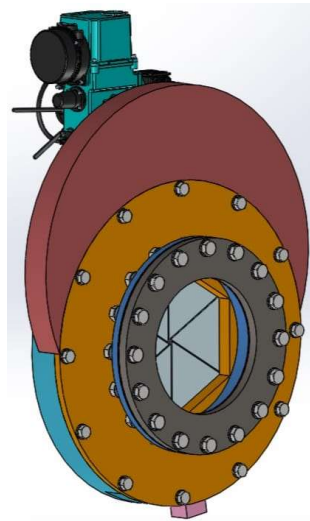


CONCENTRIC SPLIT DIAPHRAGM (CSD) VALVE ALSO CALLED IRIS VALVE ELECTRIC OR PNEUMATIC ACTUATION WITH POSITIONER



**PNEUMATIC IRIS OR CSD CONTROL VALVE
WITH ELECTRO-PNEUMATIC POSITIONER**



**ELECTRICALLY ACTUATED IRIS OR CSD
CONTROL VALVE WITH ELECTRONIC
POSITIONER**



CONCENTRIC SPLIT DIAPHRAGM VALVE OPENS IN THE CENTRE

FLOW CONTROL APPLICATIONS:

SUGAR INDUSTRY: SUGAR SYRUPS, MASSECUITES, MOLASSES, LIME (CAOH) SLURRY, ETC.

PHARMA AND CHEMICAL: VARIOUS TYPES OF SLURRIES, MULTIPLE KINDS OF VISCOUS FLUIDS AND FREE-FLOWING MATERIALS

WASTEWATER TREATMENT PLANTS: WASTEWATER FROM MUNICIPALITIES AND INDUSTRIES, AIR FLOW FOR AERATION CONTROL

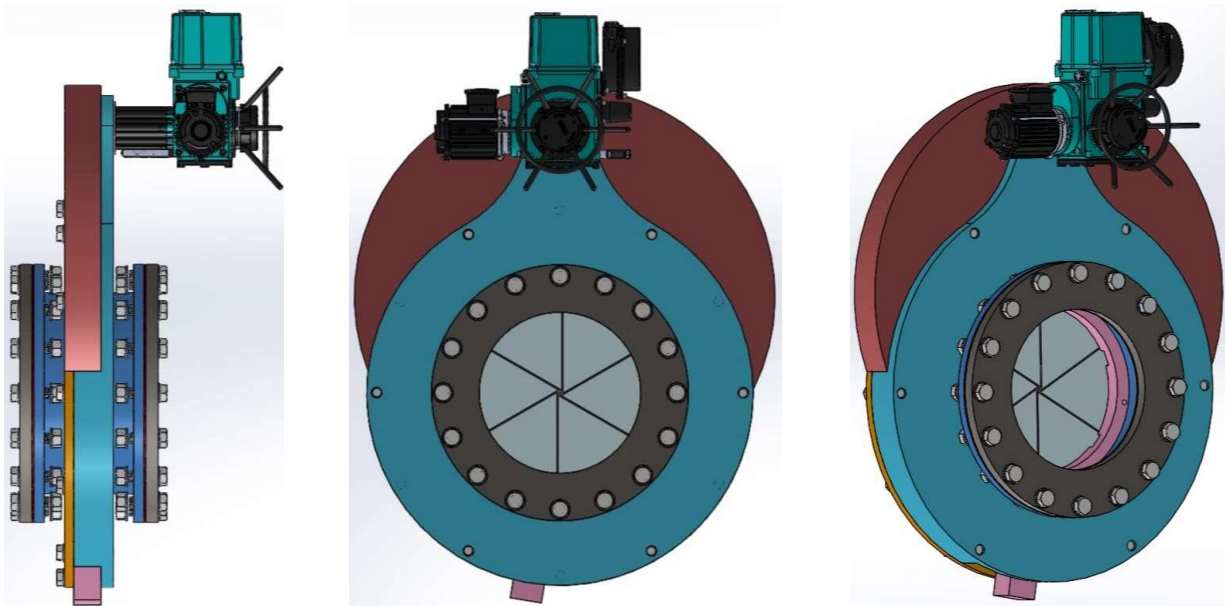
PULP AND PAPER INDUSTRY: PAPER PULP AND FLUIDS WITH FIBROUS SUSPENSIONS

FREE-FLOWING GRANULES OR PELLETS: SALT, POWDERS, GRAIN, POLYMER GRANULES ETC

AIR AND GAS: INDUSTRIAL HOT AND COLD AIR, NON-CORROSIVE GASES

CHARACTERISTICS AND ADVANTAGES OF IRIS OR CSD VALVE:

- RUGGED BUILD QUALITY FOR LONG LIFE AND FREQUENT THROTTELING AND ON / OFF OPERATIONS.
- HEAVY-DUTY RUGGED VALVE CONSTRUCTION ABSORBS ALL SHOCKS AND VIBRATIONS.
- VALVE INTERNALS DESIGNED TO OPERATE UNDER HEAVY MEDIA LOADS.
- PRECISE FLOW CONTROL WITHOUT HYSTERESIS DUE TO THE CONCENTRIC OPENING OF THE SPLIT DIAPHRAGM.
- ENERGY SAVING WHILST FLOW CONTROL DUE TO FREE PASSAGE THROUGH CONCENTRIC OPENING.
- LOW NOISE AND NO FLOW TURBULENCE THROUGHOUT THE FULL FLOW CONTROL RANGE.
- VERY LOW MAINTENANCE.
- HIGH FLOW CAPACITY
- LOWER PRESSURE LOSS THAN OTHER VALVE TYPES DUE TO FREE PASSAGE THROUGH CONCENTRIC OPENING.



MOTORIZED ACTUATOR IRIS VALVE OR CONCENTRIC SPLIT DIAPHRAGM VALVE

OTHER APPLICATIONS:

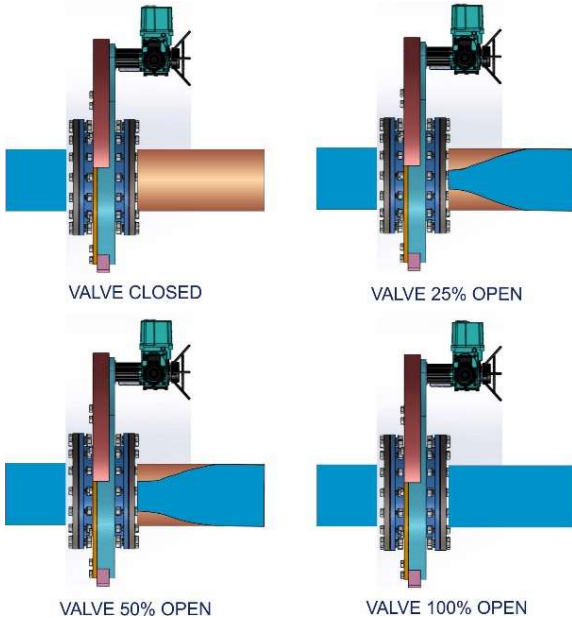
- CONTROLLED GRAVITY FLOW OF GRAINS OR PELLETS OR POWDERS WITH A PARTICLE SIZE BETWEEN 0.5 MM AND 10 MM
- IDEAL FOR CONTROLLING GRAVITY FLOW CONTROL OF FLOW OF SLURRIES / SEMI-SOLIDS / CONCRETE AND OTHER FLUIDS
- IDEAL FOR RATIO CONTROL OF TWO OR MORE INGREDIENTS FALLING IN A VESSEL
- HOT AND COLD AIRFLOW CONTROL

IRIS VALVE CONCENTRIC SPLIT DIAPHRAGM VALVE



FLOW PROFILE FOR INLINE INSTALLATION AND OPEN TO ATMOSPHERE GRAVITY FLOW INSTALLATION:

INLINE INSTALLATION:



THE FLOW PROFILE IS LIKE FLOW THROUGH A VARIABLE DIAMETER ORIFICE HENCE IT MINIMIZES NOISE AND TURBULENCE

SUGAR MASSECUTE FLOW CONTROL FOR CENTRIFUGAL MACHINE FEED CONTROL USING CSD OR IRIS VALVE:



GRAVITATIONAL DISCHARGE OF VISCOUS SLURRY FLOW PROFILE FROM THE CENTER OF THE VALVE



VALVE CONTROLLER WITH THE FOLLOWING FEATURES:

- PID CONTROL ACTION FOR FLOW CONTROL
- REMOTE SET VARIABLE FACILITY FOR FLOW CONTROL AS PER ANOTHER PROCESS PARAMETER
- BUILT-IN AUTO-MANUAL STATION
- DCS INPUT FACILITY (4-20mA DCS CONTROL OUTPUT FOR VALVE CONTROL GIVEN THROUGH TOGGLE SWITCH. THIS AVOIDS NEED OF ADDITIONAL JUNCTION BOX ON FIELD)
- TOGGLE SWITCH FOR SWITCHING BETWEEN DCS OUTPUT AND LOCAL CONTROLLER OUTPUT
- OPTIONAL VALVE POSITION FEEDBACK AS 4-20mA

IRIS VALVE CONCENTRIC SPLIT DIAPHRAGM VALVE



PNEUMATIC ACTUATION:

PNEUMATIC CLYLINDER WITH ELECTRO-PNEUMATIC POSITIONER FOR SMOOTH LINEAR CONTROL ACTION

OPERATING AIR PRESSURE: 2 – 7 KG/CM²

INPUT: 4-20MA FROM ANY EXTERNAL SOURCE

ELECTRIC MOTORIZED ACTUATION:

ELECTRIC ACTUATOR GEARED AC INDUCTION MOTOR

OPERATING VOLTAGE: SINGLE PHASE 110 VAC 60HZ / 230 VAC 50 HZ OR THREE PHASE 440 VAC 50 / 60HZ

INPUT: 4-20MA FROM ANY EXTERNAL SOURCE OR PUSH BUTTONS

HAND WHEEL:

GEARED HAND-WHEEL

HAND LEVER:

HAND LEVEL OPERATED

IRIS OR CSD VALVE SPECIFICATIONS:

VALVE TYPE	: IRIS OR CONCENTRIC SPLIT DIAPHRAGM VALVE
SIZES	: 2" (50mm), 3" (75mm), 4" (100mm), 6" (150mm), 8" (200mm), 10" (250mm), 12" (300mm), 16" (400mm), 18" (450mm)
BODY MATERIAL	: STANDARD: MS FABRICATED ON REQUEST: SS 316L / SS 304 / LCB
PETAL SEGMENTS	: STANDARD: SS 304. ON REQUEST: SS 316L, DUPLEX STEEL 2205 / OTHER SPECIAL MATERIAL
BEARINGS AND WEDGES MATERIAL	: STANDARD: SS 304. ON REQUEST: SS 316L, DUPLEX STEEL 2205 / OTHER SPECIAL MATERIAL
SHEATHING	: PTFE / PU
ACTUATION	: PNEUMATIC LINEAR / ELECTRIC - MOTORIZED / HAND - WHEEL
ACTUATOR STROKE / TORQUE	: AS PER VALVE SIZE AND LINE PRESSURE
POSITIONER	: ELECTRO-PNEUMATIC / ELECTRONIC
POSITION FEEDBACK (OPTIONAL)	: 4 – 20 MA / 0 – 5 VDC
INPUT (FOR ACTUATED VALVES ONLY)	: 4 – 20 MA FROM ANY EXTERNAL SOURCE OR PUSH BUTTONS FOR OPEN AND CLOSE
MEDIA TEMPERATURE AND PRESSURE	: -45 TO 160°C, 0-10Kg/cm ²

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