

AXIAL VALVE SYSTEM TYPE

HYREVAL®

HYREVAL® WORLD PATENTED
MULTI-FUNCTIONAL AXIAL VALVE SYSTEM



HYDROMAT LTD. - FLOW CONTROL, ACTUATORS AND
VALVE AUTOMATION
IVANEC, CROATIA
WWW.HYDROMAT.HR

HYREVAL® DRIVE MODE:

HYDRAULICALLY



MECHANICALLY

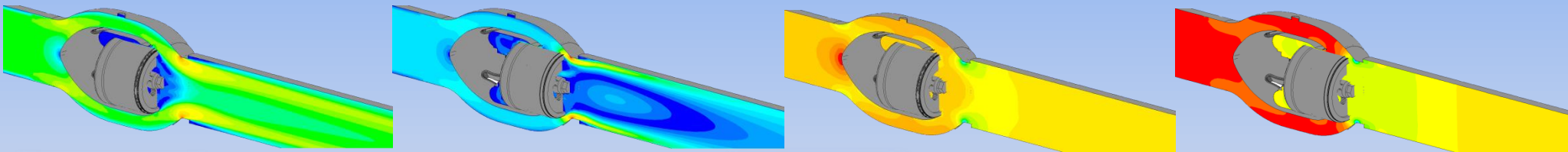


PNEUMATICALLY



AXIAL FLOW PRINCIPIE

AXIAL SYMMETRIC STREAMLINED FLOW SHAPE FOR PERFECT AND RELIABLE FLOW CONTROL AND
DIFFERENT SAFETY FUNCTIONS





SYSTEM REVIEW



THE WORLD PATENTED OF THE VALVE ACTUATOR UNIT WITH **HYDRAULIC, PNEUMATIC AND MECHANICAL** DRIVE PRINCIPLE OF THE VALVE CONTROL PISTON. ACTUATOR UNIT IS LOCATED IN AXIAL CENTRE OF THE VALVE BODY. SOLUTIONS IS CHARACTERIZED BY A COMPACT DESIGN AND IF NECESSARY, EASILY REPLACEABLE AS SUCH. VERY RELIABLE ACTUATOR SEALING SYSTEM PREVENTS CONTACT OF INTERNAL ACTUATOR PARTS WITH FLOWING FLUID, WHICH MEANS THAT IT IS NOT SENSITIVE TO DEGREE OF WATER CONTAMINATION WITH SAND, SLUDGE, SOLID PARTICLES AND SIMILAR IMPURITIES ... THIS CHARACTERISTIC AMONG OTHER THINGS IS VERY SIGNIFICANT ADVANTAGE OVER THE PERFORMANCES OF OTHER MANUFACTURERS.

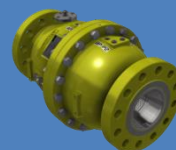
CLASSIFICATION OF HYREVAL® VALVE DEPEND OF DRIVE MODE AND DESIGN:

HYDRAULIC DRIVE - TYPE HD



- DRIVE OPTIONS BY:
 - EXTERNAL PRESSURED FLUIDS AS A HYDRAULIC OIL PRESSURE, COMPRESSED AIR, WATER OR WATER EMULSIONS, OIL AND GAS...
 - FLOW MEDIUM DIRECTLY
- VALVE FUNCTIONS: EXTREMELY RELIABLE AND PRECISE FLOW CONTROL, ON/OFF, SHUT-OFF, SURGE RELIEF AND DIFFERENT SAFETY OPERATIONS IN THE MOST DIFFICULT WORKING CONDITIONS IN DIFFERENT AREAS OF APPLICATION.
- DRIVE OPTIONS: SINGLE AND DOUBLE ACTING

PNEUMATIC DRIVE - TYPE PHD & PD



- DRIVE OPTIONS AND DESIGN:
 - PNEUMATIC AS A MAIN DRIVE AND HYDRAULIC AS A EMERGENCY TO OPEN AND/OR CLOSE DIRECTION, TYPE PHD
 - PNEUMATIC DRIVE ONLY AS A MAIN DRIVE, TYPE PD
- MAIN DRIVE DIRECTLY WITH COMPRESSED AIR SUPPLY FROM 4 UP TO 10 BAR
- VALVE FUNCTIONS: FLOW CONTROL, ON/OFF, SHUT-OFF AND DIFFERENT SAFETY OPERATIONS.
- DESIGN WITH SOLID PNEUMATIC PISTON OR ELASTIC DIAPHRAGM
- DRIVE OPTIONS: SINGLE AND DOUBLE ACTING

MECHANICAL DRIVE - TYPE MD



- DRIVE OPTIONS: HAND WHEEL ONLY, ELECTRO-MECHANICAL DEVICES LIKE „AUMA“ BRAND OR SIMILAR, CLASSICAL OR SPECIAL ELECTRO-MOTORS, AIR-MOTORS, HYDRO-MOTORS,
- MANUAL OVERRIDE WITH HAND WHEEL AT THE ALL DRIVE OPTIONS,
- VALVE FUNCTIONS: FLOW CONTROL AND ON/OFF OPERATIONS
- FLOW MEDIUM: WATER (POTABLE, PROCESS, WASTE, RAW, SEA) OIL, GAS, ACID GASES CONTAINING H₂S, COMPRESSED AIR, LOW AND HIGH TEMPERATURE MEDIUMS (CRYOGENIC AREAS TO HOT STEAM)

CHECK VALVE – CLASSICAL AND ADVANCED SOLUTIONS



- OPTIONS, FUNCTIONS AND DESIGN:
 - CLASSICAL WITH SPRING
 - ADJUSTABLE CHARACTERISTIC BY EXTERNAL FLUIDS
 - ADVANCED TYPE AS A MOST RELIABLE AND COST EFFECTIVE SOLUTIONS WITHOUT FLOW LOSSES ARISING FROM SPRING OR ACCUMULATOR ACTION, SOLUTION FOR THE MOST DEMANDING SITUATION WITH CLOSING TIME LESS THAN 0,1 SEC
- ALL OPTIONS CAN BE EQUIPPED WITH DEVICE TO VISUAL CONTROL OF VALVE OPENNESS OR/AND LIMIT SWITCHES FOR REMOTE MONITORING

IN TERMS OF FUNCTIONS:

- FLOW CONTROL
- SURGE RELIEF
- SHUT-OFF
- CHECK VALVES
- FLOW MEASUREMENT AND DOSING

BY TYPE OF FLOW MEDIUM:

- WATER: POTABLE, PROCESS, WASTE, RAW, SEA
- OIL, GAS, ACID GASES CONTAINING H₂S
- COMPRESSED AIR
- LOW TEMPERATURE MEDIUMS, CRYOGENIC AREAS
- HIGH TEMPERATURE MEDIUMS, HOT STEAM

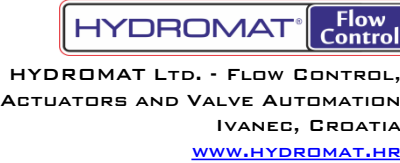
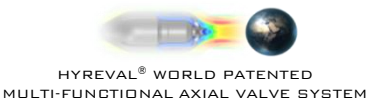
APPLICATION AREA:

- WATER, WATER DISTRIBUTION, SEA WATER DESALINIZATION AND GENERALLY WATER MANAGEMENT
- ENERGY; HYDRO, THERMAL AND NUCLEAR POWER PLANTS
- PROCESS INDUSTRY
- OIL & GAS
- REFINING & PETROCHEMICAL
- OFF SHORE & MARINE EQUIPMENT
- LNG FACILITIES AND CARRIERS
- CRYOGENIC AREA TO HOT STEAM
- FUELS, AVIATION AND ROCKET ENGINEERING
- UNDER WATER AND SUBMERGED INSTALLATIONS



AXIAL FLOW CONTROL VALVE TYPE HYREVAL®

FLOW CONTROL, ON/OFF, EMERGENCY SHUT-OFF, SURGE RELIEF AND DIFFERENT SAFETY FUNCTIONS



SYSTEM OVERVIEW IN THE SENSE OF DRIVE OPTIONS OF THE CONTROL PISTON

HYDRAULIC DRIVE OPTIONS OF THE CONTROL PISTON



PERFORMANCES OF HYDRAULIC ACTUATORS ALLOWS DRIVE WITH DIFFERENT TYPES OF CONTROL FLUIDS AS A HYDRAULIC OIL PRESSURE AND WATER MIXTURES



AXIAL FLOW CONTROL VALVE SYSTEM WITH THE WORLD PATENTED PRINCIPLE OF DRIVE AND MEASURING OF CONTROL PISTON DISPLACEMENT. ACTUATOR UNIT IS LOCATED IN AXIAL CENTRE OF THE VALVE BODY.
DRIVE OPTIONS AS A **HYDRAULIC, PNEUMATIC AND MECHANICAL** USES A VERY RELIABLE ACTUATOR SEALING SYSTEM WHICH PREVENTS CONTACT OF INTERNAL ACTUATOR PARTS WITH FLOWING FLUID, WHICH MEANS THAT IT IS NOT SENSITIVE TO DEGREE OF WATER CONTAMINATION WITH SAND, SLUDGE, SOLID PARTICLES AND SIMILAR IMPURITIES OR TEMPERATURE ... THIS CHARACTERISTIC AMONG OTHER THINGS IS VERY SIGNIFICANT ADVANTAGE OVER THE PERFORMANCES OF OTHER MANUFACTURERS.



OPTIONS:
- DIFFERENT HYDROMAT PERFORMANCES OF ELECTRO CONTROL CABINET. ALL OPERATING OPTIONS CAN BE EQUIPPED WITH SIMPLE OR FULL ELECTRO-CABINET AS A PACKAGE FOR DIFFERENT SYSTEM CONTROLS LOCAL / REMOTE / AUTOMATIC
- DIFFERENT CUSTOMER OF STAND-ALONE SOLUTIONS

MECHANICAL DRIVE OPTIONS OF CONTROL PISTON

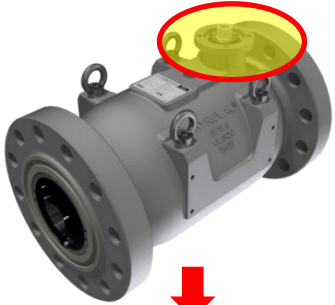
STANDARD DRIVE PERFORMANCES



ELECTRO-MOTOR DRIVE
WITH AUMA ACTUATORS



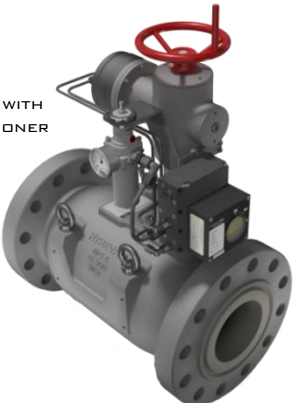
BARESHAF INPUT OF CONTROL VALVE WITH STANDARD ISO 5211 FLANGES TO FASTEN THE DIFFERENT TYPES OF MANUAL AND/OR MOTOR DRIVES.



SPECIAL DRIVE PERFORMANCES

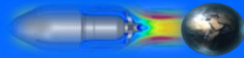


AIR-MOTOR DRIVE WITH
PNEUMATIC POSITIONER



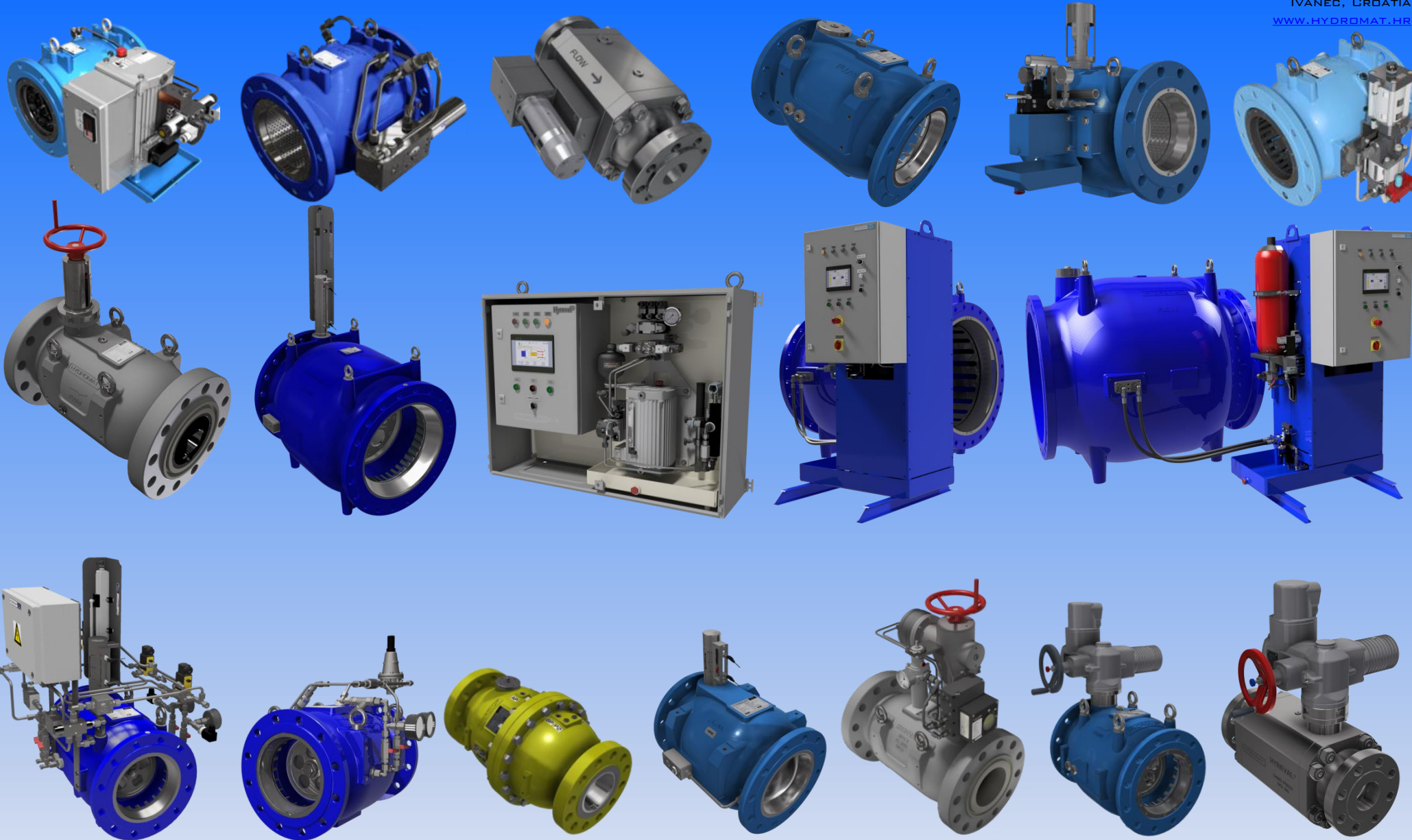
HYDRAULIC-MOTOR DRIVE
WITH POSITIONER





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THE BEST SOLUTIONS IN THE FLOW CONTROL