

Products brochure

GENERAL



Raphael Valves Industries (1975) Ltd, founded in 1949, is the first Israeli manufacturer of water control valves. RAPHAEL's research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire-protection and irrigation systems.

RAPHAEL is part of the TALIS group - an international concern in the field of water supply systems, which has about 1,400 employees at 7 production sites in different countries.

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CONTROL VALVES



RAF-P

RAF-P valves are entirely manufactured from durable plastic materials, with state of the art patented diaphragm, the RAF-P valve offers the best corrosion resistance available in plastic technology with the stream lined, low friction hydraulic performance of the RAF metal valves. RAF-P valves operate with a patented reinforced diaphragm, which eliminated the need for a metal spring. The special elastic design enables gradual and precise opening and closing of the valve, ideal for regulation purposes. By eliminating the metal spring, the RAF-P is virtually maintenance free.

- **Use:** Irrigation, turf
- **Pressure:** PN10
- **Diameter:** "1.5 – "4



RAF

RAF valves made of only three parts; each one is made of durable materials. The inner flow passages are streamlined and coated with low-friction materials. This provides quiet flow in both directions, low head loss and minimal wear. RAF valves operate with a patented reinforced diaphragm, which eliminates the need for a retaining metal spring.

The special elastic design enables gradual and precise opening or closing of the valve. By eliminating the metal spring, the RAF is virtually maintenance free.

- **Use:** Irrigation, water supply, infrastructure, sewage, mines
- **Pressure:** PN16
- **Diameter:** "1 – "16



RAVE

Hydraulic double-chamber «Y» pattern. The valve structure, which includes a unique throttling V-shaped plug, allows optimal pressure regulation in a wide variety of flows, at variable pressures and at high level of accuracy.

- **Use:** water distribution for pressure reducing, pressure sustaining, pressure relief, flow control, surge anticipation, level control and other control applications.
- **Pressure:** PN16 – PN25
- **Diameter:** "2 – "12



RAY-HB

Diaphragm actuated hydraulic control bodies with rigid sealing and full passage construction for minimal standing losses or reduced passage for optimum performance. The valves enable quiet and stable operation and are suitable for installation near or inside buildings.

- **Use:** water supply, infrastructure, plumbing
- **Pressure:** PN16
- **Diameter:** "2 – "48



G TYPE

Piston-actuated hydraulic control valves, with a particularly strong and durable structure, which provide maximum reliability over the years. The valves are suitable for extreme conditions and high pressures. The valve structure and the V-PORT seal bracket allow for extreme pressure regulation under the most difficult conditions, in a wide variety of pressures and flows and at a very high level of accuracy.

- **Uses:** water supply, large water infrastructures
- **Pressure:** PN16 – PN64
- **Diameter:** "2 – "48

ISOLATION VALVES



BUTTERFLY VALVES

B7G/S – Resilient Seated Butterfly Valves Face to face to ISO 5752/EN558

- **Use:** irrigation, air conditioning, water systems.
- **Pressure:** PN16
- **Diameter:** 2"-64"

B3 - Resilient Seated Butterfly Valve With Wide Face to Face

- **Use:** water supply, infrastructure, plumbing, irrigation, wastewater.
- **Pressure:** PN16, PN25
- **Diameter:** 3"-36"

BTF/BHF/BJF – Double and Triple Eccentric flanged butterfly valves

- **Uses:** infrastructure, water supply, wastewater
- **Pressure:** PN16 – PN40
- **Diameter:** 3"-72"

KCS - Composeal Resilient Seated Butterfly Valves

- **Use:** industry, irrigation, water treatment
- **Pressure:** PN10
- **Diameter:** 3"-12"

GATE VALVES

TRS/TRL –Soft Sealing Gate Valves for potable water

- **Use:** water supply, irrigation, water treatment
- **Pressure:** PN16-PN25
- **Diameter:** 2"-48"

TRS/TRL -WW- Soft Sealing Gate Valves for sewage water

- **Uses:** sewage, water treatment, industry
- **Pressure:** PN16, PN25
- **Diameter:** 2"-48"

TMS – Metal seated Gate Valves

- **Use:** water supply, infrastructure, industry
- **Pressure:** PN16-PN40
- **Diameter:** 2"-48"

TMS-WW – Metal seated Gate Valves for sewage water

- **Use:** sewage, water treatment, industry
- **Pressure:** PN16- PN40
- **Diameter:** 2"-48"

PENSTOCKS

Penstocks - a wide variety of industrial penstocks for 4 or 3-sided sealed, for round or quadrangular openings.

- **Use:** open channels, sewage piping, flooding
- **Diameter:** 150 mm - 4,000 mm

Knife valves - Resilient-seated Knife Gate Valves ERU-K1 with metal casting body and stainless steel knife.

- **Use:** sewage, biogas, chemical industry, food industry, mines
- **Pressure:** up to 10 bar bi-directional sealing
- **Diameter:** 2"-24"

ACTUATORS

Multi-turn Electric Actuators - BIFFI models for operating Gate Valves, Penstocks and large diameter valves.

- **Use:** sewage, water infrastructure

Quarter-turn Electric Actuators - NA and SA models for operating quarter-turn valves such as butterflies and Ball Valves.

- **Use:** water supply, sewage treatment plants, filtration systems, industry

Pneumatic Actuators - A210 models for operating quarter-turn valves such as butterflies and Ball Valves.

- **Use:** sewage treatment plants, filtration systems, desalination plants, industry



NETWORK PROTECTION



AIR VALVES

RAV - Single and Double Chamber Combination Air Valves for water, with ANTI-SHOCK option

- **Use:** Water network
- **Pressure:** P16 – PN40
- **Diameter:** "1 – "12

RAV-70 - Single Chamber Combination Sewage Air Valves - 3 function

- **Use:** sewage infrastructre
- **Pressure:** P16 - PN40
- **Diameter:** "1 - "12



CHECK VALVE

CSW-51 – Dual Plate Wafer type Stainless Steel Disc

- **Use:** irrigation, air conditioning, water systems
- **Pressure:** PN16
- **Diameter:** 2"-36"

S51 - Swing Rubber Check Valve vulcanized sealing part removable inspection cover

- **Use:** irrigation, Water network, sewage
- **Pressure:** PN16
- **Diameter:** 2"-24"

E551 – Swing Rubber Check Valve with counterweight

- **Use:** municipality, Water network, sewage
- **Pressure:** PN16-PN40
- **Diameter:** 2"-36"

E51 – Tilting Disc Check Valve, Eccentric desing

- **Use:** Water network
- **Pressure:** PN16-PN40
- **Diameter:** 6"-48"



STRAINERS

V-251 – "Y" type Strainer St.St. screen and maintenance opening

- **Use:** municipality, irrigation, water system
- **Pressure:** PN16-PN25
- **Diameter:** 3"-12"

V-251B - Basket type strainer, St.St. screen and maintenance opening

- **Use:** municipality, irrigation
- **Pressure:** PN10-PN40
- **Diameter:** 4" - 24"



CONNECTORS

PAS10/PAS20/PAS30 – Dismantling joint with flange adjustment

- **Use:** water infrastructures, pumping, sewage

2200L/1200L – Flange adaptors and Couplings

- **Use:** water supply, sewage piping, pump rooms, irrigation infrastructures



FIRE PROTECTION

DELUGE SYSTEMS



The FDV is a UL/FM approved Fire Protection control valve for Deluge fire sprinkler systems, designed for installations in hazardous environments. It can be actuated electrically, pneumatically or electro-pneumatic and to be reset locally or remotely. The Deluge system incorporates an emergency valve, bypassing the fire detection systems for manual operation. Designed for vertical or horizontal installation, a globe pattern, line pressure operated. The FDV valve features a direct elastomeric diaphragm seal.

- **Use:** refineries, industrial plants, warehouses, parking lots
- **Pressure:** 1 bar-21 bar • **Diameter:** 1.5" to 10" - End connections: flanged, threaded, grooved

PRESSURE CONTROL VALVES

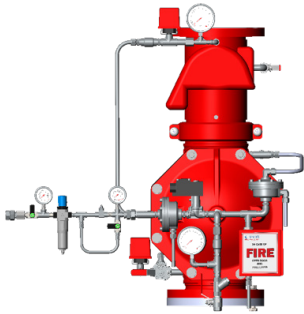


The FDV-R is a UL/FM approved Fire Protection control valve for the use of pressure reducing, relief and level control, are elastomeric diaphragm type, open fail-safe streamlined globe & angle pattern valves, featuring direct resilient diaphragm seal, with no wet spring or metallic moving parts inside the valve body.

FDV-R valves are used for fixed fire suppression systems, water, foam and seawater-based flow control, in manual or remote on-off & pressure control applications. FDV-R valves operate with a patented reinforced diaphragm, which eliminates the need for a compensating metal spring.

- **Use:** Regulation and maintenance of pressure and flow in fire protection systems
- **Pressure:** 1 bar-17.2 bar • **Diameter:** 1.5" to 16" - End connections: flanged, threaded, grooved

PRE-ACTION SYSTEMS



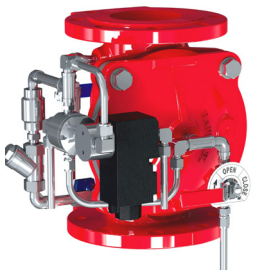
The Preaction UL/FM approved system is based on a controlled FDV deluge valve and a clapper check valve installed at its downstream. The clapper check valve is kept closed by the pressurized automatic sprinklers pipe line.

The space between the close deluge downstream side and the closed clapper, serves as the "Intermediate chamber" where the acoustic alarm and pressure switch are connected to.

In a fire situation, the flames heat shatters open of one or more of the automatic sprinklers causing the pipe line to depressurize. The pressure decrease causes a pneumatic actuator to open.

- **Use:** Exhibition halls / museums, offices, server farms, hangars
- **Diameter:** 1.5" to 10" • **End connections:** flanged, threaded, grooved • **Pressure:** 1 bar-21 bar

MONITOR SYSTEMS



Monitors systems are designed to provide large volumes of water to a target location, or a sector. Monitor systems are fast acting, versatile, and can set to extinguish fire by projecting water or foam solutions from large distances, either by manual or remote control devices. A monitor valve is attached to each monitor to enable its operation.

Monitor systems are controlled by electric, hydraulic or pneumatic actuator.

- **Use:** water cannons, municipal hydrants
- **Diameters (monitors):** 1.5" to 16" • **End connections:** flanged, threaded, grooved
- **Diameter (hydrants):** 3" to 6" • **Pressures (monitors + hydrants):** 1 bar-17.2 bar

FIRE HYDRANTS



Used as a connection point by which firefighters can tap into a water supply. It is a component of active fire protection. It provides a connection interface from public water source to firefighter's water hoses. The hydrant is equipped with a pressure-reducing valve in order to prevent injuries caused by unexpected high pressure. • FH/FH12/FH13 – single and double hydrant - Diameters: 3", 4", 6"

- F21 - the safest and most reliable breaking device available on the market - Diameters: 4", 6", 8"
- F1/F2/F3/F4 - complete hydrant including breaking device, upright and single/double hydrant head

- **Use:** local authorities • **Diameter:** 4", 6", 8"

SMART SOLUTIONS

APOLLO - smart data logger



The APOLLO is a Smart Data Logger designed to enable monitoring and control of a wide range of parameters in the municipal and agricultural water networks. The APOLLO contains digital and analogue inputs to read water meters, flow meters, valves controlling and real time monitoring. Its robust design allows the APOLLO to work in harsh environmental conditions with high humidity, such as sewage pits and water tanks. The APOLLO supports different types of IoT communication protocols.

Main technical data:

- Operating temperature: +75 : -20
- IP rating: IP68
- Power supply: Lithium v 7.2 14AH
- Communication protocols: 2G/3G/4G/ NB-IoT/ LTE-M
- Analog inputs: 2
- Digital inputs: 4
- Digital outputs: 2
- Antenna type: external

- Pressure sensor: 2 (optional), 0-10, 0-20 bar
- Life time(estimated): up to 10 years
- Internal memory of 90,000 values
- Target applications : flow/pressure monitoring, level/tank monitoring , On/Off, other advance applications.

Uses: control of flow, control of pressures, monitoring of sewers, monitoring of drainage pits, temperature, water quality

MARS - compact data logger



Mars is a compact and easy-to-use cellular data logger. The main purpose of the product is to monitor pressures and water meters in remote places in a simple and easy way, combined with advanced IOT communication, a built-in pressure gauge (optional) and an easy and user-friendly web interface.

Main technical data:

- Power: Lithium v 3.7 14AH
- Programming interface: BLE
- Memory capacity: 90,000 records
- Types of communication: 2G/3G /NB-IoT/LTE-M

- Pressure sensor: 1 (optional) 0-10, 0-20 bar
- Life time (estimated): up to 5 years

Uses: flow and pressure monitoring

ULTRAF - digital ultrasonic hydrometer



ULTRAF combines the highest level of pressure and flow control valve technology with an accurate and reliable Ultrasonic water meter in one compact design. ULTRAF PRO combines state of the art technologies from different fields such as advanced hydraulics, accurate sensing and modern communications.

The ULTRAF is a unique product, based on the "RAF" control valve merged with the newest technology of battery operated, ultrasonic water meter. It enables flow monitoring and pressure regulation in a small footprint saving significant space in manholes and valve boxes.

The ULTRAF product flexibility allows it to be relevant to different markets and applications such as: agriculture, turf & municipal market, for pressure control and flow monitoring, municipal market for leakage control and other.

Main technical data:

- Nominal Diameter (DN): 40 mm-200 mm (1.5" to 8")
- Nominal Pressure (PN): Nominal: 10 – 16, Working: 16 bar
- Working temperature: up to 70 °C
- Body material: cast iron or SST (stainless steel)
- Pipe connection: flanges, Thread or grooved

Target applications : Water distribution , agriculture (field crops, orchards, wineries), pressure control, pivot Irrigation

FIELD SERVICE



Field service is an integral part of the overall package we offer to our customers. Whether it is in the areas of field crops and plantations, urban infrastructure or fire extinguishing installations in buildings - wherever we are required to perform a complex or simple operation, we will be there quickly, professionally and courteously. The real strength of our company lies in the human capital and the deep and long-standing relationship with our variety of clients. We are committed and proud to stand behind our products at all times.