

# SIERRA

Engineering & Manufacturing

## COMPANY PROFILE

[Sierra-eg.com](http://Sierra-eg.com)

# COMPANY PROFILE



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# About Us

Sierra is an experienced and professional manufacturer of valves. We provide probably the most comprehensive range of valves for the water, wastewater and irrigation sectors in Egypt. With a broad range of products, from butterfly valves, to check, air and automatic control valves.



Sierra has the right product for every application. Our scope covers design manufacturing, installation, commissioning, training and after sale support. We have engineering expertise to configure products to specifically match our customer's requirements.



## Our Mission

Avail state-of-the-art Control Valve Solutions to enable building and sustaining communities by providing innovative ideas and products.



## Our Vision

We strive to become the leading manufacturing and supplier of valves and pumps in middle east and Africa.



## Our Values

- One Family
- Working hard
- Respect and Trust
- Live to Innovate

## Our Partners





# ISOLATION VALVES



## Double Eccentric Butterfly Valves Series 7500

Sierra Model 7500 is a double flanged eccentric disc seated butterfly valves suitable for high pressure waterworks and irrigation applications; it is an isolation (on/off) valves and it may be used for throttling purposes under certain conditions.

### Scope of supply & design standards

Range of Sizes	DN100 - DN2600
Design and type to	EN 593
Face-to-face Dimensions	EN 558 Series 13 or 14
Flange dimensions	EN 1092-2 (DIN 2501)
Actuator Flange Dimensions	EN ISO 5211 - 5210
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Ground reservoirs and elevated tanks
- Watertreatment plants
- Primary and secondary cooling for Power stations

## U-Section Double Eccentric Butterfly Valves Series 7500

Sierra Model 7500 is a double flanged eccentric disc seated butterfly valves suitable for moderate pressure waterworks and irrigation applications; it is an isolation (on/off) valves and it may be used for throttling purposes under certain conditions.

### Scope of supply & design standards

Range of Sizes	DN100 - DN800
Design and type to	EN 593
Face-to-face Dimensions	EN 558 Series 20
Flange dimensions	EN 1092-2 (DIN 2501)
Actuator Flange Dimensions	EN ISO 5210 - 5211
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Ground reservoirs and elevated tanks
- Watertreatment plants
- Primary and secondary cooling for Power stations

## U-section Concentric Butterfly Valves Series 7200

Sierra Model 7200 is a concentric rubber lined U-Section flanged type butterfly valve for waterworks and irrigation applications. It is an isolation (on/off) valve and it may be used for throttling purposes under certain conditions.

Scope of supply & design standards	
Range of Sizes	DN100 - DN800
Design and type to	EN 593
Face-to-face Dimensions	EN 558 Series 20
Flange dimensions	EN 1092 - 2 (DIN 2501)
Actuator Flange Dimensions	EN ISO 5210 - 5211
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Ground reservoirs and elevated tanks
- Watertreatment plants

## Wafer Concentric Butterfly Valves Series 7200

Sierra Model 7200 is a concentric rubber lined valve Wafer type butterfly valve for waterworks and irrigation applications. Installed between flanges that are drilled in accordance with EN 1092-2, it is an isolation (on/off) valve and it may be used for throttling purposes under certain conditions.

Scope of supply & design standards	
Range of Sizes	DN100 - DN800
Design and type to	EN 593
Face-to-face Dimensions	EN 558 Series 20
Flange dimensions	EN 1092 - 2 (DIN 2501)
Actuator Flange Dimensions	EN ISO 5210 - 5211
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Ground reservoirs and elevated tanks
- Watertreatment plants



## Eccentric Plug (Ball) Valves Series 7800

Sierra Model 7800 is an eccentric Plug (Ball) valve commonly used in sewage, Wastewater, and installations such as mining where the pumped media can contain sludge or abrasive solids. The eccentric plug (ball) valve is a simple yet critical choice for the maintenance minded end-user.

### Scope of supply & design standards

Range of Sizes	DN100 - DN1800
Face-to-face Dimensions	ISO 5752 series 3 up to DN 200 ISO 5752 series 15 DN250 - DN1800
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208

### Fields of Applications

- Applications including clean and dirty water, sewage, sludge, and slurries services.
- Municipal water, irrigation pipeline mains and distribution networks.
- Water/wastewater treatment plants.
- Isolate and regulate any of these services bi-directionally.



## Metal seated Gate Valve Series 4300&3300

GCF Model 4300/3300 is a heavy-duty ductile iron full bore double flanged metal seated gate valve designed to comply with ISO5996. They are available with Non-Rising Stem and Outside Stem and yoke (OS&Y rising stem type). They can be supplied manually with hand wheel and/or gear box or electric actuator.

### Scope of supply & design standards

Range of Sizes	DN 80 – DN 600 Short-bed type (series 3300) DN 400 – DN 1800 Long-bed type (series 4300)
Design and type to	ISO 5996
Face-to-face Dimensions	EN 5996
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208



## Resilient Seat Gate Valves

Double flanged resilient – seated gate valve with short face to face length.

### Scope of supply & design standards

Range of Sizes	DN80 - DN300
Design and type to	ISO 5996
Face-to-face Dimensions	EN 5996
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208



# AUTOMATIC CONTROL VALVES



## Hydraulically Actuated Automatic Control Valves

### Scope of supply & design standards

Range of Sizes	DN 50 – DN 1200
Design and type to	EN1074 – 5
Face-to-face Dimensions	ISO 5752
Flange dimensions	EN 1092-2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208

## 1. Network Control

### Sierra Series 1100 Pressure Reducing Valve

Sierra model 1100 Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that is used to reduce a fluctuating higher upstream pressure to lower constant downstream pressure.



### Sierra Series 1200 Pressure Sustaining Valve

Sierra model 1200 pressure sustaining valve is a hydraulically operated, diaphragm actuated, control valve that is used to maintain pre-set pressure value in the upstream of the valve



### Sierra Series 1300 Flow Control Valves

Sierra model 1300 flow control valve is a hydraulically operated, diaphragm actuated automatic control valve, it used to limit the amount of flow to a preselected maximum rate regardless of fluctuations in upstream and downstream pressure.

## 2. Network Protection Valves

### Sierra Series 1200R Pressure Relief Valve

Sierra model 1200R pressure relief valve is a normally closed valve that is manually adjusted to open once upstream pressure reaches a preset value. When there is an excess pressure in the line the valve opens to flow out the excess water maintaining a constant pressure in the line and preventing the line from bursting. Once upstream pressure falls below the set point the valve closes slowly to a drip tight position.



## Hydraulically Actuated Automatic Control Valves

### 2. Network Protection Valves

#### Sierra Series 1200 - 18 Pressure Sustaining with Check Feature

The model 1200 - 18 Pressure Sustaining Valve with Check Feature is a hydraulically operated, diaphragm actuated automatic control valve. When installed inline, they sustain minimum back-pressure thus prioritizing pressure zones, preventing line emptying, and pump overload.

#### Sierra Series 1900 Pump Control Valve

The model 1900 pump control valve is an electrically operated - hydraulically actuated control valve used to control surges caused by pump starting and stopping and provide adjustable back pressure on pump while it is running. A check feature is added to automatically close the valve on electric power failure.



### 3. Level Control

#### Sierra Series 1400 Modulating Float Valve

Sierra model 1400 Modulating Float Valve is a hydraulically operated, diaphragm actuated, control valve that maintain water level to certain level inside reservoir. The Float Valve modulates to maintain a constant liquid level in the storage tank by compensating for variations in supply or demand.

#### Sierra Series 1500 Non-Modulating Float Valve

Sierra model 1500 Non-Modulating Float Valve is a hydraulically operated, diaphragm actuated, control valve that is used to functions two levels of water inside reservoir. It allows filling of the reservoir to the desired maximum high level, where it closes drip tight. The valve remains closed until the float reaches the predetermined adjustable minimum reservoir level. The valve then reopens to fill the reservoir.

#### Sierra Series 1600 Atitude Valve

Sierra model 1600 Altitude Valve is a hydraulically operated, diaphragm actuated, control valve that allows flow into the elevated tank to maintain the level at the designated maximum. The valve modulates to maintain the tank level. As the reservoir level drops the main valve is open proportionally to increase the filling.





## 4. Electronic Control Valves

### Sierra Series 2100 Single Solenoid Control Valve

The model 2100 Single solenoid control valve is an electrically operated diaphragm actuated, control valve takes an electronic signal to open or close.

### Sierra Series 2200 Dual Solenoid Control Valve

The model 2200 Dual solenoid Valve is an electrically operated, diaphragm actuated; Dual Solenoid Control Valve provides modulating operations to control pressure – level.

### Sierra Series 2300 Motorized Pilot Control Valve

The model 2300 is a series of motorized pilots that can be used with all network control valves; pressure reducing, sustaining and flow limiting valves. The motorized pilot is basically a conventional hydraulic pilot that is driven by a motor for remote set point adjustment.



## 5. Irrigation Valves

The sierra irrigation valves are a hydraulically operated, valves have been specially designed for irrigation purposes. The design of valve includes a full-bore seat with unobstructed flow path, free of any obstructions. This valve can control upstream pressure, downstream pressure, flow rate, tank level, or combination of each of through the use of various pilots.

### Scope of supply & design standards

Range of Sizes	DN80 - DN200
Design and type to	EN 1074-5
Face-to-face Dimensions	ISO 5752
Flange dimensions	EN 1092 - 2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208



# CHECK VALVES



## NON-SLAM Nozzle Check Valves Series 5500

Sierra Model 5500 non-slam nozzle check valve is the fastest closing check valves, it provides a very quick closure before any significant reverse flow occurs, so it prevents slam and water hammer. The non-slam nozzle check valve has minimal headloss, hence it is the most economical check valve. It shall be used for potable, raw water, firefighting, and Irrigation applications.

### Scope of supply & design standards

Range of Sizes	DN65 - DN1200
Design and type to	EN 5153
Face-to-face Dimensions	EN 558 Series 14
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Potable, raw, and Firefighting systems
- Irrigation systems

## Swing-Flex Check Valve Series 5600

Sierra Model 5600 is a robust swing flex check valve, commonly used in sewage, wastewater, raw Water, and drinking water applications. It has one moving part which is the flapper that does not pivot in a hinge pin, rather it flexes to open.

This check valve has non-slamming characteristics because the flapper only travels 35° to reach the seat. Since the flapper is loaded (due to resiliency) it usually closes before flow reversal, so it prevents slam and water hammer.

### Scope of supply & design standards

Range of Sizes	DN65 - DN1000
Design and type to	EN 5153
Face-to-face Dimensions	DN600 ISO 5752 Series10 DN 700-1000 DIN 3232 - F6
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Clean and dirty water, sewage, sludge, and slurries.
- Municipal water, irrigation pipeline mains and distribution networks
- Water/wastewater treatment plants
- Primary and secondary cooling for Power stations



## Combined Check Valves Series 5700

Sierra combined check valve is a check/Isolation valves, used at all critical areas where the pipelines must be reliable, immediate, and controlled quickly for valve closing, e.g., power failure. Valve opens automatically when the pump starts and closes automatically before the pump is stopped. In case of power failure during water hammer conditions, valve closes like a hydraulic damped check valve.

### Scope of supply & design standards

Range of Sizes	DN1000 - DN2600
Design and type to	EN 593
Face-to-face Dimensions	EN 558 Series 13 or 14
Flange dimensions	EN 1092 - 2 (DIN 2501)
Actuator Flange Dimensions	EN ISO 5210 - 5211
Hydrostatic testing	EN 12266 and ISO 5208



### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Water/wastewater treatment plants
- Primary and secondary cooling for Power stations

## Tilting Check Valves Series 5400

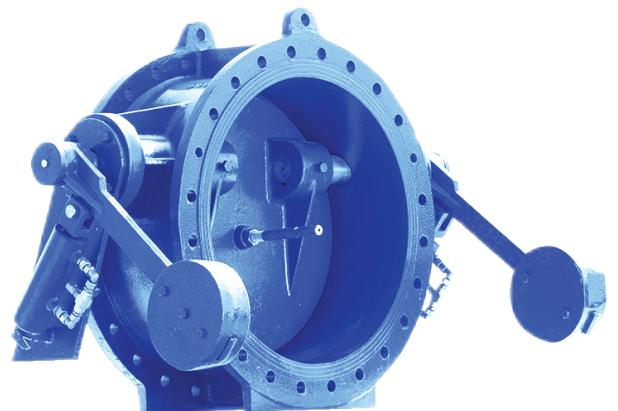
Sierra Model 5400 is a Tilting disc check valve that is designed to minimize flow reversal. It shall be supplied with counter weight and/or hydraulic damper to minimize slam and water hammer.

### Scope of supply & design standards

Range of Sizes	DN250 - DN1400
Design and type to	EN 5153
Face-to-face Dimensions	EN 558 Series 14
Flange dimensions	EN 1092 - 2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208

### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- Water/wastewater treatment plants





# AIR VALVES



## Kientic Water Air Valves 6400

Sierra Model 6400 water air valve is a double orifice three function water air valve, designed to automatically release or admit large volumes of air during pipeline filling/draining, and release small volumes of air during pipeline operation. The safe operation and efficiency of a pipeline are dependent on the continual removal of air from the pipeline.

### Scope of supply & design standards

Range of Sizes	DN80 - DN250
Design and type to	AWWA C512
Flange dimensions	EN 1092-2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208

### Fields of Applications

- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- High geometrical locations and pipeline road crossing
- Water treatment plants and in the front of pumps
- Primary and secondary cooling for Power stations
- Long ascending and descending segments
- In case of pressure changes (ACV) and reducers



## Wastewater Air Valves Series 6600

Sierra Model 6600 is a double orifice three function sewage/wastewater air valve, designed to automatically release or admit large volumes of air during pipeline filling/draining, and release small volumes of air during pipeline operation. The safe operation and efficiency of a pipeline are dependent on the continual removal of air from the pipeline.

### Scope of supply & design standards

Range of Sizes	DN50 - DN200
Design and type to	AWWA C512
Flange dimensions	EN 1092 -2 (DIN 2501)
Hydrostatic testing	EN 12266 and ISO 5208

### Fields of Applications

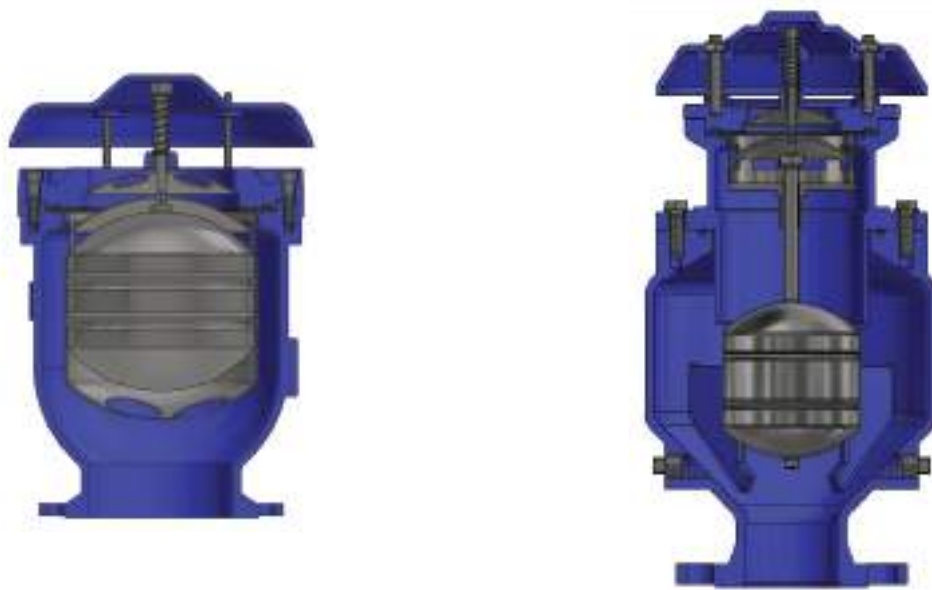
- Municipal water, irrigation pipeline mains and distribution networks
- Pumping Stations and Intakes
- High geometrical locations and pipeline road crossing
- Water/sewage treatment plants and in the front of pumps
- Primary and secondary cooling for Power stations
- Long ascending and descending segments
- In case of pressure changes reducers



## Anti-Shock Combination Air Valves

In water piping mains common problem is the transient and water hammer caused by pump failures, frequent and sometimes uncontrolled pump cycles result is a negative pressure wave propogating downstream the pump check valve along the pipeline leading in some cases to devastating effects, column separation and consequent pressure spikes may lead to pipe collapse and valves failure.

Anti-shock valves are used to control the air outflow to generate an air cushion necessary for surge prevention in up-surge conditions and allow the entrance of large quantities of air to prevent vacuum in down surge- conditions.



### Where To Use Anti-Shock Combination Air Valves

- Changes in slopes with the risk of column separation
- With vertical/submersible pumps
- Downstream of pumps



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