

# **11590 AIR RELEASE - VACUUM RELIEF VALVE**

## **PART 1 - GENERAL**

Air release and/or vacuum relief valves shall be located as shown on the Plans. Shop drawings for valves, fittings, and piping required. Valves used shall be for irrigation of wastewater lagoon effluent.

## **PART 2 - EXTERIOR INSTALLATION**

Valves shall be Val-Matic, Apco, A.R.I, or engineer approved equivalent equal, as specified on the Plans. Adequate fittings and connections, as approved by the Engineer, shall be installed to position the valve within a 24-inch diameter well. This well shall be made from corrugated PVC with a smooth interior or as shown on the plans. A cast iron manhole ring and cover to fit the 24-inch well is to be provided, Deeter Foundry #1981, or equal. PVC force mains may be tapped using approved PVC tees and related fittings. The Contractor shall provide all necessary fittings and piping to connect the main to the valve setting. See "Plan" for air release installation details.

## **PART 3 - INTERIOR INSTALLATION**

Valves shall be located as shown. Contractor shall install air and/or vacuum relief valves per manufacturer's recommendations. Drain piping shall be piped to acceptable locations and all drain piping shall be included in bid.

## **PART 4 - MANUFACTURE**

Non-potable water air and vacuum release valves shall be equivalent to Cla-Val Model 36WW. Potable water air and vacuum release valves shall be equivalent to Cla-Val Model 36.

## **PART 5 - PRESSURE RATING**

The pressure rating for the valves shall be:

1. 300 psi for high service pumps.
2. 150 psi for non potable water
3. Other pressures as required for specific use.

## **PART 6 – PAYMENT**

Payment shall be included as lump sum bid.

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# **11700      IMPACT IRRIGATION SPRINKLERS**

## **PART 1 - GENERAL**

Impact sprinklers shall be mounted on a 3-inch diameter schedule 40 minimum galvanized steel riser pipe as shown on the plans. Sprinkler units shall be mounted approximately 48-inches above finish grade. All fittings, piping, installation, and appurtenances shall be supplied by the Contractor. No special tools shall be required to maintain the sprinklers. The sprinklers shall be designed for the intended use.

## **PART 2 - MATERIAL**

Sprinkler materials shall be heavy duty brass construction with cast brass trip assembly, stainless steel friction type collars, stainless steel spring, and with a 360° spray pattern for the full and 180° spray pattern for the partial sprinklers. All materials including hardware shall be brass, bronze, stainless steel, or other approved corrosive materials.

## **PART 3 - CAPACITY**

The design capacity of the full sprinkler shall operate at approximately 197 gpm at a rate of 70 psi. The full sprinkler shall have an application coverage of approximately 310 feet in diameter. The design capacity of the partial sprinkler shall operate at approximately 155 gpm at a rate of 70 psi. The partial sprinkler shall have an application coverage of approximately 295 feet in diameter.

## **PART 4 - BASIS OF PAYMENT**

Basis of payment shall be included as specified in the bid form.

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