



GloTech Corporation

Zenith EP V1000 Series Diaphragm Control Valves

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02.2024



GloTech has developed a series of diaphragm control valves, which are commonly used in mechanized irrigation

- V1000 Series were first launched in 2020
 - Formerly known as “DV” series, through 2021
 - V1020: Used for pivot sprinkler on/off control
 - V1050: Isolates flow through pivot endgun
 - V1050B: Alternative configuration with minimal head loss
- Development involved design analysis of current market leading product
 - Competing valve’s shortcomings were improved upon to create the more robust V1000 series
 - V1000 valves were designed for 100% interchangeability with current installations
- V1000 samples have been rigorously tested to ensure optimum performance using strict cycle testing criteria



V1020



V1050

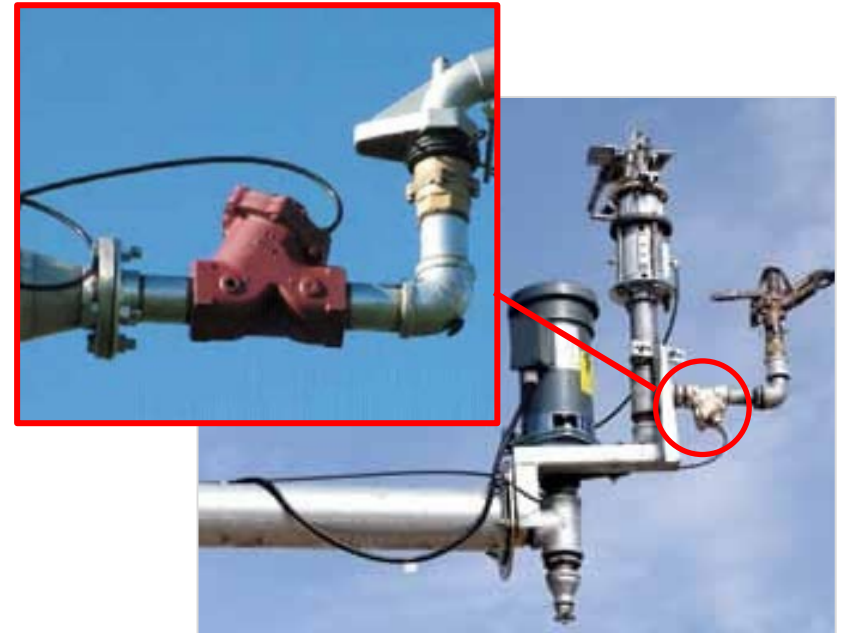


V1050B

Diaphragm valves are commonly used for irrigation flow control in both pivot sprinklers and endguns



3/4" Valve on Pivot Corner Arm



2" Valve on Pivot End Gun

The V1000 series valves feature numerous design improvements which benefit overall product performance

Rugged ductile iron construction – stronger casting material improves product lifespan

Improved, stainless steel shaft design – greater reliability of sealing

>100% increase in diaphragm thickness – increased durability

Stainless steel wear ring – decreases valve wear from repeated open/close cycles

Double O-ring design – improves valve chamber isolation to prevent fluid leakage

V1050

V1050B

The specifications of the V1000 series valves meet most irrigation application requirements

Model	V1020	V1050	V1050B
Connection Size	¾" NPT	2" NPT	2" NPT
Medium	Fluid or Gas	Fluid or Gas	Fluid or Gas
Pressure Rating	125 PSI	125 PSI	125 PSI
Approximate Cv	11	68	88
Max Temperature	140 °F	140 °F	140 °F
Valve Body Material	Ductile Iron	Ductile Iron	Ductile Iron
Internal Material	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Diaphragm	Buna-N	Buna-N	Buna-N
Standard Wear Ring	Overlayed Stainless Steel	Integrated Stainless Steel	Integrated Stainless Steel

Table 1: V1000 Valve General Specifications

Valves have been rigorously tested to ensure peak product performance in harsh outdoor conditions



Figure 2: V1020 Valves on GloTech Cycle Testing Apparatus

- Custom valve testing rig has been used to test maximum cycle lifetime of valves
 - Testing apparatus simulates harsh outdoor pivot conditions (Wet/dry weather, exposure to adverse elements, etc.)
 - Valve open, close, and full seal is tested every 5 seconds for the several month-long process
- Product batch testing exceeded 500,000 cycles while continuing to fully open/close
 - Exceeds the lifetime expectations of similar competing valve models

100% dimensionally interchangeable w/ common competitor models

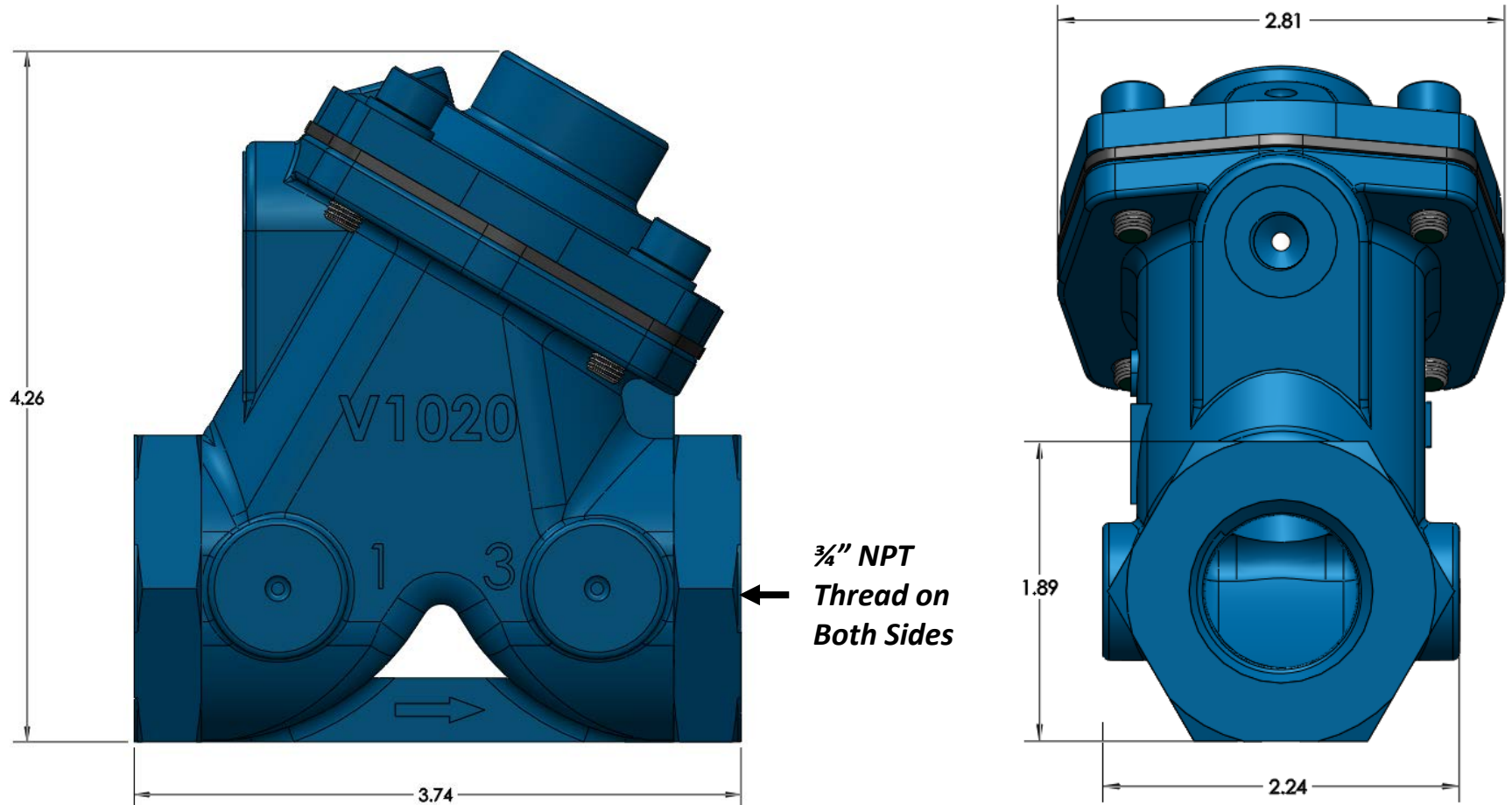


Figure 3: V1020 Dimensional Diagram (Units in Inches)

100% dimensionally interchangeable w/ common competitor models

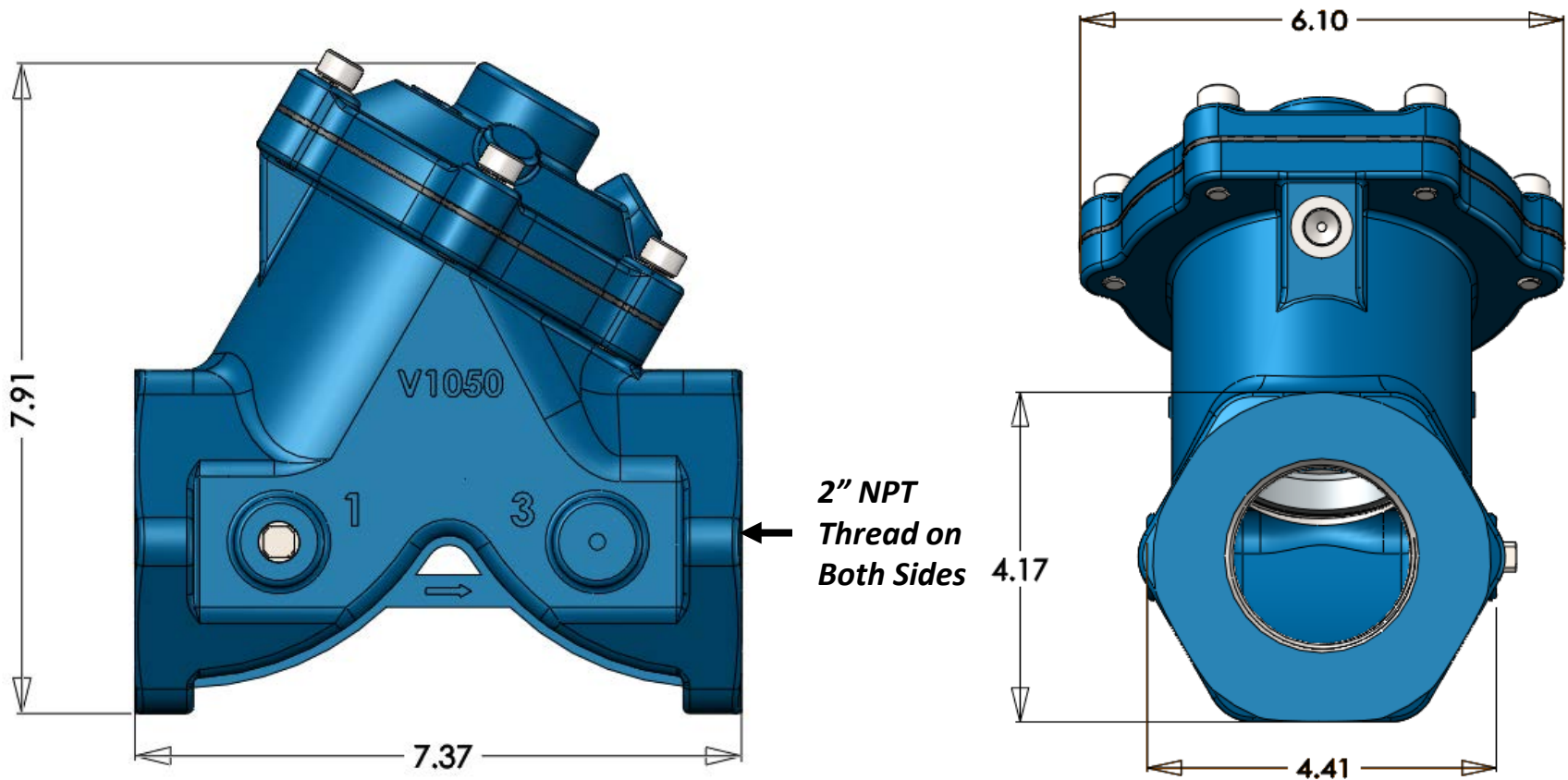


Figure 4: V1050 Dimensional Diagram (Units in Inches)

Same 2" NPT thread connections as V1050

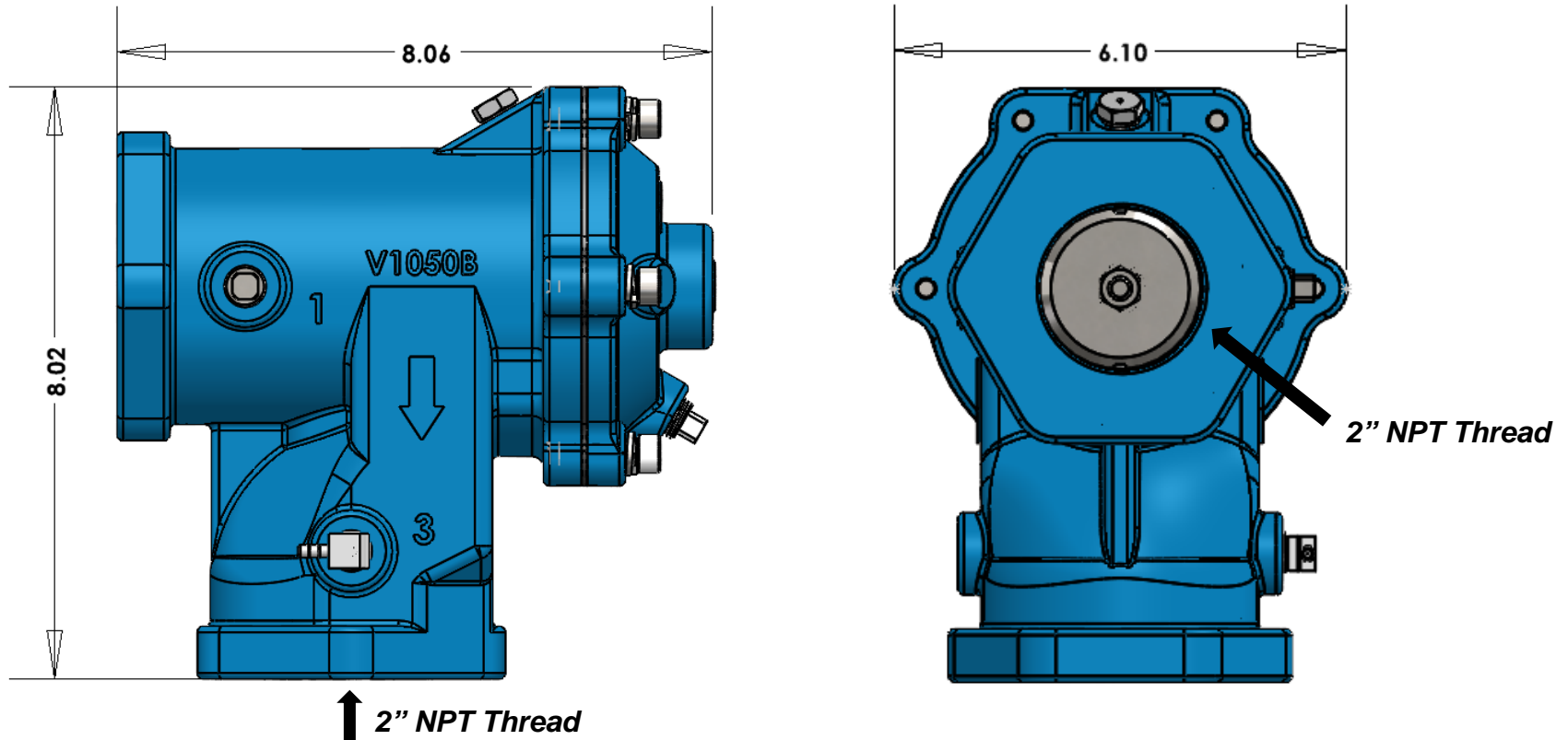


Figure 5: V1050B Dimensional Diagram (Units in Inches)