

# Fluid & Air Transfer - TIME Ball Valve

## TIME SG Iron Ball Valves



***Manufactured for use in a rugged, underground, mine environment.***

### Key Benefits of TIME's Full Flow Lockable Ball Valve:

- Rugged SG Iron Cast body
- Full Flow valve - prevents turbulent flows / restrictions
- 316 Stainless Steel Ball - minimizes corrosion
- Floating Ball Design - creates a positive seal on the ball seat when valve is closed
- NPT Threads
- Spindle & Thrust washer & nut - made from 316 Stainless Steel to minimize corrosion.
- PTFE Spindle Seals & Ball Seats - perfect for use in an underground environment, designed to not be affected by harsh mediums. They also do not crack, swell or breakdown.
- 90 degree quarter turn Lever Handle
- Sizes range from 1/2" up to 2"

### Safety Features:

- Lockable handle in both the on and off positions
- Tamper-proof design
  - The locking portion of the valve is built in to the handle and the body, not an add-on
  - incorporates a spring pin in the nut of the handle to prevent removal.

Product Number	Size
MVLH-1/2PF	Valve 1/2" Female NPT
MVLH-1PF-1PF	Valve 1" Female NPT
MVLH-1-1/2PF	Valve 1-1/2" Female NPT
MVLH-2PF	Valve 2" Female NPT
MVLH-2VC-1PF	Valve 2" Grooved to 1" Female NPT (Header Valve)



## TIME SG Iron Ball Valves

### 3rd Party Testing results:

Hydrostatic Pressure Test of Ball Valves  
for TIME Limited

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Report No. 13-06-C0161

EXOVA

#### 1.0 INTRODUCTION

This report contains the results from the hydrostatic pressure test on two (2) ball valves for TIME Limited.

The received test samples were assigned with Exova's sample numbers and cross referenced to TIME Limited's sample description as listed:

<u>Exova Sample No.</u>	<u>Description</u>
13-06-C0161-1 & 2	1" NPTF Full Flow Ball Valve, Sample # 1 & 2

#### 2.0 TEST EQUIPMENT

- Haskel Hydrostatic Booster 20 kip, S/N 0912-0446
- Pressure Gauge 20,000 psi range, MII # B01161, Ref.
- Pressure Transducer 10,000 psi range, MII # B07476, Calibrated
- National Instrument PCI-6071, DAQ-Labview, MII # B07402, Calibrated

#### 3.0 TEST PROCEDURE

The hydrostatic pressure test was conducted in accordance with the client's instructions as briefly outlined as follows:

- The hydrostatic pressure test was conducted at ambient room condition.
- Each valve was connected to a hydrostatic pressure intensifier then filled with water and freed of entrapped air before the pressure test was conducted.
- The pressure was gradually applied until failure occurred to obtain the burst pressure.
- The test sample was visually inspected for any evidence of leakage or signs of structural deformation during the pressure test and documented any mode of failures.

#### 4.0 RESULTS

The hydrostatic pressure test results of two 1" NPTF Full Flow Ball Valves are summarized in Table 1 below. Photographs of test set-up and failure modes are presented in Appendix A, Figures 1A to 3A.

Table 1: Hydrostatic Test Results

Sample #	Burst Pressure (psi)	Comments
13-06-C0161-1	6,753	Body fractured.
13-06-C0161-2	6,613	Body fractured.

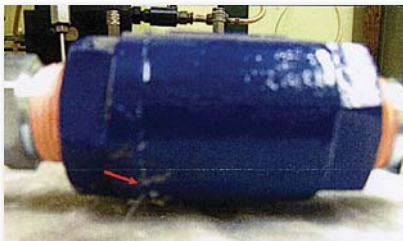


Figure 2A: Failure mode of Sample# 13-06-C0161-1, Body fractured at 6,753 psi.



Figure 3A: Failure mode of Sample# 13-06-C0161-2, Body fractured at 6,613 psi.

