

FLOW TEST REPORT

JMC FIRE PROTECTION SERVICES INC.
5449 NW 24TH STREET STE #4
MARGATE, FLORIDA 33063
CFPC #09560500012008

Flow Property: Festival Flea Market 2900 Sample Rd. Pompano Beach Florida

Flow test performed by JMC qualifier Jack France & Sammy J. on May 8th, 2024.

Residual Hydrant

1996 Kennedy 4-1/2" Color: Yellow

Location: NE corner of building

0-100 psi Gauge scale +1% calibration

#JMC-3230 Gauge cert expires 6-10-2024

Results: Static 68-psi

Results: Residual 63-psi

Flow Hydrant

1985 Kennedy 4-1/2" Color: Yellow

Location: SE corner of building

Hydrant nozzle coefficient: 0.90

0-60psi Gauge scale +1% calibration

#JMC-4102 Gauge cert expires 6-10-2024

Results: Flowing 18-psi on Hosemonster 2" pitot less grooved = 662-gpm

HYDRANT FLOW TEST CALCULATOR

Static Pressure (PSI):

68

Residual Pressure (PSI):

63

Total Test Flow Rate (GPM):

662

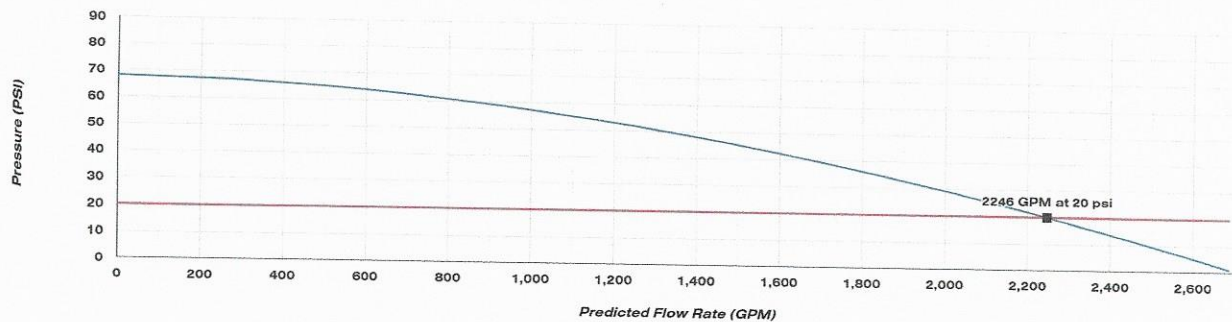
Calculate

GPM at 20 psi: 2246

Class: AA

Marking color: Light Blue

% Pressure Drop: 7%



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PZ24-12000024

02/05/2025

Untitled Map

Write a description for your map.

Legend

- Athletic Factor Gym
- Feature 1
- Feature 2
- Feature 3
- Festival Marketplace
- Hydrant



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PZ24-12000024
02/05/2025

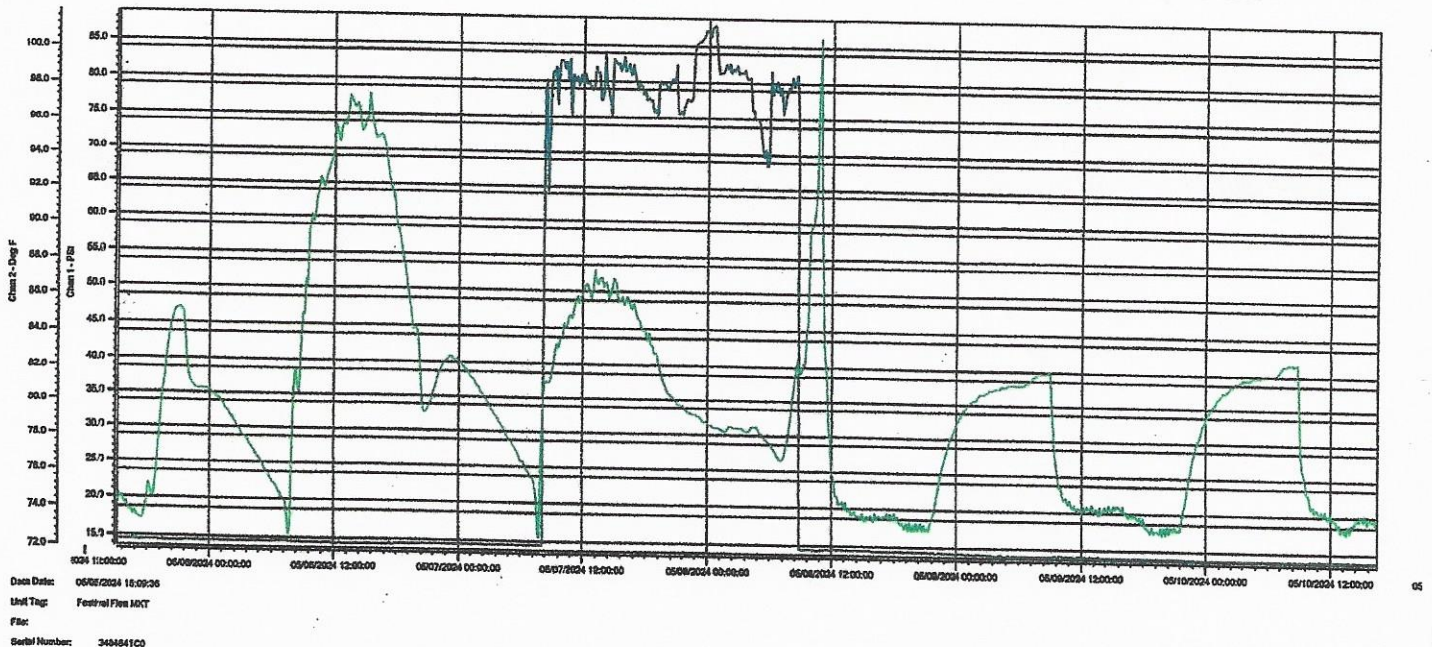
Conducted by,
JMC FIRE PROTECTION SERVICES INC.
5449 NW 24TH STREET STE #4
MARGATE, FLORIDA 33063
CFPC #09560500012008

Summary

File:

Channel Summary

Chan	Chan Tag	Chan Type	Eng Units	Max	Min	Total Samples	Average	MKT	Start Time	Stop Time
Chan 1	Chan 1	Pressure	PSI	88.0	13.7	729	27.4		05/05/2024 15:09:36	05/10/2024 16:29:36
Chan 2	Chan 2	Temperature	Deg F	101.0	72.7	729	80.3	81.3	05/05/2024 15:09:36	05/10/2024 16:29:36



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PZ24-12000024
02/05/2025

Data Table - Festival Flea MKT

File:

Heat of Activation: 83.144

Gas Constant: 0.0083144

MKT = 82.2

Time MM/dd/yyyy hh:mm:ss

Chan 1 - PSI

Alm 1

05/07/2024 07:49:36	14.5
05/07/2024 07:59:36	14.5
05/07/2024 08:09:36	14.5
05/07/2024 08:19:36	78.8
05/07/2024 08:29:36	79.7
05/07/2024 08:39:36	64.2
05/07/2024 08:49:36	78.5
05/07/2024 08:59:36	81.2
05/07/2024 09:09:36	81.0
05/07/2024 09:19:36	82.0
05/07/2024 09:29:36	76.7
05/07/2024 09:39:36	82.3
05/07/2024 09:49:36	83.0
05/07/2024 09:59:36	82.5
05/07/2024 10:09:36	81.8
05/07/2024 10:19:36	82.7
05/07/2024 10:29:36	80.3
05/07/2024 10:39:36	83.0
05/07/2024 10:49:36	75.1
05/07/2024 10:59:36	80.7
05/07/2024 11:09:36	79.9
05/07/2024 11:19:36	80.5
05/07/2024 11:29:36	79.4
05/07/2024 11:39:36	80.4
05/07/2024 11:49:36	80.9
05/07/2024 11:59:36	79.4
05/07/2024 12:09:36	80.9
05/07/2024 12:19:36	79.6
05/07/2024 12:29:36	79.9
05/07/2024 12:39:36	79.1
05/07/2024 12:49:36	78.7
05/07/2024 12:59:36	79.3
05/07/2024 13:09:36	82.0
05/07/2024 13:19:36	81.0
05/07/2024 13:29:36	81.1
05/07/2024 13:39:36	77.3
05/07/2024 13:49:36	77.9
05/07/2024 13:59:36	83.9
05/07/2024 14:09:36	79.5
05/07/2024 14:19:36	78.7

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Alm 1

05/07/2024 14:29:36	77.1
05/07/2024 14:39:36	75.2
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05/07/2024 14:59:36	82.7
05/07/2024 15:09:36	82.3
05/07/2024 15:19:36	82.4
05/07/2024 15:29:36	81.5
05/07/2024 15:39:36	82.1
05/07/2024 15:49:36	83.4
05/07/2024 15:59:36	81.4
05/07/2024 16:09:36	81.8
05/07/2024 16:19:36	82.4
05/07/2024 16:29:36	80.9
05/07/2024 16:39:36	82.2
05/07/2024 16:49:36	80.9
05/07/2024 16:59:36	80.1
05/07/2024 17:09:36	78.9
05/07/2024 17:19:36	79.6
05/07/2024 17:29:36	79.5
05/07/2024 17:39:36	78.2
05/07/2024 17:49:36	78.7
05/07/2024 17:59:36	77.4
05/07/2024 18:09:36	77.8
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05/07/2024 19:09:36	79.9
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05/07/2024 19:29:36	79.7
05/07/2024 19:39:36	79.9
05/07/2024 19:49:36	79.6
05/07/2024 19:59:36	79.0
05/07/2024 20:09:36	79.2
05/07/2024 20:19:36	80.3
05/07/2024 20:29:36	80.3
05/07/2024 20:39:36	80.1
05/07/2024 20:49:36	82.3
05/07/2024 20:59:36	76.2

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MKT = 82.2

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05/07/2024 21:59:36	77.7
05/07/2024 22:09:36	77.4
05/07/2024 22:19:36	77.4
05/07/2024 22:29:36	78.2
05/07/2024 22:39:36	84.1
05/07/2024 22:49:36	85.5
05/07/2024 22:59:36	85.6
05/07/2024 23:09:36	85.7
05/07/2024 23:19:36	85.9
05/07/2024 23:29:36	86.3
05/07/2024 23:39:36	86.7
05/07/2024 23:49:36	87.2
05/07/2024 23:59:36	87.1
05/08/2024 00:09:36	86.4
05/08/2024 00:19:36	87.5
05/08/2024 00:29:36	87.8
05/08/2024 00:39:36	88.0
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05/08/2024 02:39:36	82.3
05/08/2024 02:49:36	81.3
05/08/2024 02:59:36	81.5
05/08/2024 03:09:36	81.5
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05/08/2024 04:49:36	75.0
05/08/2024 04:59:36	74.1
05/08/2024 05:09:36	70.9
05/08/2024 05:19:36	69.6
05/08/2024 05:29:36	70.7
05/08/2024 05:39:36	68.3
05/08/2024 05:49:36	68.8
05/08/2024 05:59:36	81.6
05/08/2024 06:09:36	78.3
05/08/2024 06:19:36	79.0
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05/08/2024 08:49:36	14.4
05/08/2024 08:59:36	14.4
05/08/2024 09:09:36	14.4
05/08/2024 09:19:36	14.4

BACKFLOWGAGE.COM

MAIL & SHIP- 11261 NW 33 ST, CORAL SPRINGS, FL 33065
WALK-IN SERVICE CENTER - 12327 NW 35 ST 33065
(954)-592-1741, SALES@BACKFLOWGAGE.COM

Certificate of Calibration Test Gage

We herby certify that the pressure gage referenced here has been cleaned and recalibrated to $\pm 2\%$ of full scale accuracy for the listed calibration points. The gage has been calibrated on air at room temperature and hydrostatically tested to the highest psig.

Manufacturer Hose Monster Model O-60 PSI Serial No. JMC-3230

Gage	Calibration Standard
10.0	9.8
20.0	19.6
30.0	29.4
40.0	39.2
50.0	49.1
60.0	58.8

The primary standards are high accuracy test instruments. These standards are certified to be accurate by their respective manufacturers. The manufacturers masters are traceable to the National Institute of Standards and Technology.

By: Bill Lopez Date: 6-10-23 Due Date: 6-10-24 Interval: 1 YR.

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Certificate of Calibration Test Gage

We hereby certify that the pressure gage referenced here has been cleaned and recalibrated to $\pm 1\%$ of full scale accuracy on the listed calibration points. The gage has been calibrated on air at room temperature and hydrostatically tested to maximum gage psig.

Manufacturer Hose Monitor Model 0-100 PSI Serial No. W-5401

Gage	Calibration Standard
10.0	10.9
20.0	20.8
40.0	40.6
60.0	60.4
80.0	80.4
100.0	100.4

The primary standards are high accuracy test instruments. These standards are certified to be accurate by their respective manufacturers. The manufacturers masters are traceable to the National Institute of Standards and Technology.

By: Bill Jorgensen

Date: 6-10-23

Due Date: 6-10-24

Interval: 1 YR.

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PZ24-12000024

02/05/2025



MONARCH INSTRUMENT
the Professional's Choice

Service Repair Report

RMA Number: **48448**

Customer: JMC Fire Protection Inc

Date Received: 2/29/2024

Sales Order: 75940

PO Number: RMA#48448-CALIB

Product: Pressure Track-It

Serial Number: 3404641

Accessories: (1) battery

Condition Of Unit On Receipt: minor scuffs/scratches; GOOD battery

Complaint/Request:

(1) YR NIST; 350 A; mfg 2017

Findings:

No problem found

Repairs Performed:

Verified unit functionality and issued a one-year NIST traceable certificate of calibration

Technician: BK

Date: 3/19/24 Loc: DC2

Performance Certification

Monarch Instrument certifies that the equipment listed above was thoroughly tested and found to meet or exceed its published specifications at the time of shipment from the factory service center. Monarch Instrument further certifies that the listed equipment has been verified using standards, which are traceable to the National Institute of Standards and Technology, as well as comply with the requirements of Mil-Std 45662A.

Meridith Kosiorek

Meridith Kosiorek, Customer Service Manager

LIMITED WARRANTY

Seller warrants products to be free from any defect in materials or workmanship for a period of 90 days from date of shipment to buyer. Any liability of Seller resulting from any defect in workmanship or material in the product covered by this warranty shall be limited to and fully discharged by replacement or repair of such item at Seller's option without charge. The warranty provided in this clause is in lieu of all other warranties, express or implied, arising by law or otherwise, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, and shall not be modified except by an arrangement signed by both parties specifically referencing this clause. In no event shall Seller be liable for consequential damages. This warranty does not extend or apply to equipment, instruments or accessories which are warranted separately by the original manufacturer of these items.

Monarch Instrument • Division of Monarch International, Inc. • 15 Columbia Dr. Amherst, NH 03031 • Phone (603) 883-3390 • Fax (603) 883-3300

Form No. RMA-1.3

PZ24-12000024

02/05/2025

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COEFFICIENT AND K-FACTOR TABLE FOR VARIOUS FLOW DEVICES

PITOTLESS NOZZLE™	K-FACTOR	COEFFICIENT	ORIFICE DIAMETER	psi RANGE	FLOW RANGE (GPM)
2" Pitotless Nozzle + Little Hose Monster	156.0	1.31	2"	10-70	493-1305
2" Pitotless Nozzle + 2 1/2" Hose Monster	164.8	1.38	2"	10-70	521-1379
2" Pitotless Nozzle + Open Atmosphere	167.2	1.40	2"	10-70	529-1399
1 3/4" Pitotless Nozzle + Little Hose Monster	104.7	1.15	1.75"	10-80	331-936
1 3/4" Pitotless Nozzle + 2 1/2" Hose Monster	106.6	1.17	1.75"	10-80	337-953
1 3/4" Pitotless Nozzle + Open Atmosphere	109.7	1.20	1.75"	10-80	347-981
1 1/8" Pitotless Nozzle + Little Hose Monster	37.2	0.98	1.125"	10-80	83-333
1 1/8" Pitotless Nozzle + 2 1/2" Hose Monster	37.4	0.99	1.125"	10-80	84-335
1 1/8" Pitotless Nozzle + Open Atmosphere	37.0	0.98	1.125"	10-80	83-331
1" Pitotless Nozzle + Little Hose Monster	27.2	0.91	1"	3-80	47-243
1" Pitotless Nozzle + 2 1/2" Hose Monster	27.6	0.93	1"	3-80	48-247
1" Pitotless Nozzle + Open Atmosphere	27.7	0.93	1"	3-80	48-248

IN-LINE PITOTLESS NOZZLE™	K-FACTOR	COEFFICIENT	ORIFICE DIAMETER	psi RANGE	FLOW RANGE (GPM)
2" In-line Pitotless Nozzle	165.3	1.38	2"	10-75	523-1432
1 3/4" In-line Pitotless Nozzle	109.9	1.20	1.75"	5-80	246-983
1 1/8" In-line Pitotless Nozzle	38.4	1.02	1.125"	5-70	86-321
1 1/2" In-line Pitotless Nozzle	31.7	1.06	1.0"	2-90	45-301

BIGBOY HOSE MONSTER™	K-FACTOR	COEFFICIENT	ORIFICE DIAMETER	psi RANGE	FLOW RANGE (GPM)
5-11psi (BigBoy Hose Monster)	382.9	1.38	3.05"	5-11	856-1270
12-38psi (BigBoy Hose Monster)	376.0	1.35	3.05"	12-38	1303-2318
39-55psi (BigBoy Hose Monster)	372.0	1.34	3.05"	39-55	2323-2759

NOTE: Due to the shape and size of the BigBoy Pitotless Nozzle, the BigBoy Hose Monster uses three different K-factors over its operating range.

2 1/2" Hose Monster®	K-FACTOR	COEFFICIENT	ORIFICE DIAMETER	psi RANGE	FLOW RANGE (GPM)
2 1/2" Hose Monster	168.67	0.906	2.5"	10-70	533-1411
1 3/4" Nozzle Insert	89.04	0.975	1.75"	10-70	282-745
1 1/8" Nozzle Insert	37.36	0.990	1.25"	10-70	118-313

4" & 4 1/2" Hose Monster®	K-FACTOR	COEFFICIENT	CONNECTION DIAMETER	psi RANGE	FLOW RANGE (GPM)
4 1/2" Hose Monster	331.07	0.548	4.5"	10-70	1047-2770
4" Hose Monster	339.65	0.712	4"	10-70	1074-2842

USING SOFTWARE

Use the table to the right if you are using software that requires the coefficient input to be less than '1.0.' Notice that the orifice diameter must be changed from its true diameter in order to accommodate the lower coefficient. This is necessary only for the 2" Pitotless Nozzle and the 3/4" Pitotless Nozzle.

A HAND-HELD PITOT DIRECTLY AT A HYDRANT OUTLET

OUTLET TYPE	COEFFICIENT
Outlet smooth and rounded	0.9
Outlet square and sharp	0.8
Outlet square and projecting into barrel	0.7
If a stream straightener is used	0.95

DEVICE	COEFFICIENT	ORIFICE DIAMETER
--------	-------------	------------------

2" Pitotless Nozzle + Little Hose Monster	0.99	2.30"
2" Pitotless Nozzle + 2 1/2" Hose Monster	0.99	2.36"
2" Pitotless Nozzle + Open Atmosphere	0.99	2.38"
1 3/4" Pitotless Nozzle + Little Hose Monster	0.99	1.88"
1 3/4" Pitotless Nozzle + 2 1/2" Hose Monster	0.99	1.90"
1 3/4" Pitotless Nozzle + Open Atmosphere	0.99	1.93"

NOTE: If your software uses the Theoretical Discharge Formula, found in NFPA 291, 4.7.3, the coefficient of discharge can be used to produce flow rates that will match our flow charts.

CLASSIFYING AND MARKING OF HYDRANTS

Rated Capacity at 20psi	Class	Marking Color of Hydrant Tops and Nozzles
≥1500 GPM	AA	Light Blue
1000-1499 GPM	A	Green
500-999 GPM	B	Orange
≤499 GPM	C	Red

The above are the NFPA hydrant classifications and color marking for various rated capacities. Source NFPA 291, Chapter 5 2019