

# FIRE PUMP FLOW TESTING EQUIPMENT UNIT EX29051 THE RIPTIDE FLOW TESTING SYSTEM



AS TO FLOW MEASUREMENT ACCURACY SPECIFIED BY THE MANUFACTURER WHEN  
INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS

## RIPTIDE JET STREAM™

### **GENERAL USE**

**Step 1.** Evaluate the condition of the equipment. Observe the Coupling gasket, Pitot Orientation and Flow Tube integrity. Fix, replace or calibrate any component found to be deficient prior to use. All relevant instructions under Assembly, Field Ops, Service, Authorized Stacking Configurations, Authorized Flow Tube Configurations and Authorized Reduced Orifice Insert Configurations in The Riptide Flow Testing System™ User Guide apply.

**Step 2.** Securely connect/thread the exposed female end of the Coupling on the Riptide Jet Stream™ directly to the source being tested. Repeat as needed with additional Riptide Jet Streams™. Do not overtighten or excessively compress internal gaskets. Do not deploy a fire hose between the source being tested and the Riptide Jet Stream™.

**Step 3.** Orientate the Flow Tube and Pitot as needed. Align the Rocker Lugs on the NPT side of the Coupling with the NH side, then slide the Rocker Lug Retainer Clip into place so that it spans Lugs on both sides of the coupling.

**Step 4.** Using the provided Quick Connect configuration, attach a gauge to the Pitot built into the Riptide Jet Stream™. Connections should be water tight.

**Step 5.** Make observations regarding potential situational hazards that may impede the ability to flow water. It is strongly recommended that high visibility traffic cones, barriers, caution tape, etc. are used to aid in securing the work area.

**Step 6.** Slowly open the source being tested so as to introduce water to the Riptide Jet Stream™. Having observed discharge, continue to open the source to a satisfactory point. The recommended discharge per 2.5" Riptide Jet Stream™ is 500 GPM. For each additional 500 GPM, another Riptide Jet Stream™ should be used.

**Step 7.** Observe the gauge(s). Take note of the reading(s) and reference The Riptide™ factory Pitot chart to determine the volume flowing.

**Step 8.** After flow rates have been achieved, very slowly begin to close the source being tested. It is vital that the source is closed in a predictable, controlled manner without haste or aggressive turns to avoid potential source damage.

**Step 9.** Post flow, disconnect the Riptide Jet Stream™. Dry it off and if desired, wipe down the interior of the Flow Tube with a rag and Blaster Surface Shield Rust Protectant. Store in a safe, secure place for future use.

**Step 10.** Return the work area to the state it was found in upon arrival. Do not leave tools or equipment behind.



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USE OF THIS PRODUCT IS AT YOUR OWN RISK





# THE RIPTIDE FLOW TESTING SYSTEM™



PSI	1.125"	1.75"	2.5"	PSI	1.125"	1.75"	2.5"	PSI	1.125"	1.75"	2.5"
1	-	-	-	51	178.8	456.2	882.0	101	251.6	642.0	1241.1
2	-	-	-	52	180.5	460.7	890.6	102	252.8	645.2	1247.3
3	-	-	-	53	182.2	465.1	899.1	103	254.1	648.3	1253.4
4	-	-	-	54	184.0	469.4	907.5	104	255.3	651.5	1259.4
5	-	-	-	55	185.7	473.8	915.9	105	256.5	654.6	1265.5
6	-	-	-	56	187.3	478.1	924.2	106	257.7	657.7	1271.5
7	-	-	-	57	189.0	482.3	932.4	107	259.0	660.8	1277.5
8	-	-	-	58	190.7	486.5	940.5	108	260.2	663.9	1283.4
9	-	-	-	59	192.3	490.7	948.6	109	261.4	667.0	1289.4
10	79.2	-	-	60	193.9	494.8	956.6	110	262.6	670.0	1295.3
11	83.0	-	-	61	195.5	498.9	964.6	111	263.7	673.0	1301.1
12	86.7	-	-	62	197.1	503.0	972.4	112	264.9	676.1	1307.0
13	90.3	-	-	63	198.7	507.1	980.2	113	266.1	679.1	1312.8
14	93.7	-	-	64	200.3	511.1	988.0	114	267.3	682.1	1318.6
15	97.0	-	-	65	201.8	515.0	995.7	115	268.5	685.1	1324.4
16	100.1	255.5	494.0	66	203.4	519.0	1003.3	116	269.6	688.0	-
17	103.2	263.4	509.2	67	204.9	522.9	1010.9	117	270.8	691.0	-
18	106.2	271.0	524.0	68	206.4	526.8	1018.4	118	271.9	693.9	-
19	109.1	278.5	538.3	69	207.9	530.6	1025.9	119	273.1	696.9	-
20	112.0	285.7	552.3	70	209.4	534.5	1033.3	120	274.2	699.8	-
21	114.7	292.7	565.9	71	210.9	538.3	1040.6	121	275.4	702.7	-
22	117.4	299.6	579.3	72	212.4	542.1	1047.9	122	276.5	705.6	-
23	120.1	306.4	592.3	73	213.9	545.8	1055.2	123	277.6	708.5	-
24	122.6	313.0	605.0	74	215.4	549.5	1062.4	124	278.8	711.4	-
25	125.2	319.4	617.5	75	216.8	553.2	1069.5	125	279.9	714.2	-
26	127.6	325.7	629.7	76	218.2	556.9	1076.6	126	281.0	717.1	-
27	130.1	331.9	641.7	77	219.7	560.6	1083.7	127	282.1	719.9	-
28	132.5	338.0	653.5	78	221.1	564.2	1090.7	128	283.2	722.7	-
29	134.8	344.0	665.1	79	222.5	567.8	1097.7	129	284.3	725.6	-
30	137.1	349.9	676.4	80	223.9	571.4	1104.6	130	285.4	728.4	-
31	139.4	355.7	687.6	81	225.3	574.9	1111.5	131	286.5	731.2	-
32	141.6	361.4	698.6	82	226.7	578.5	1118.3	132	287.6	734.0	-
33	143.8	367.0	709.4	83	228.1	582.0	1125.1	133	288.7	736.7	-
34	146.0	372.5	720.1	84	229.4	585.5	1131.9	134	289.8	739.5	-
35	148.1	377.9	730.6	85	230.8	589.0	1138.6	135	290.9	742.2	-
36	150.2	383.3	741.0	86	232.2	592.4	1145.3	136	291.9	745.0	-
37	152.3	388.6	751.2	87	233.5	595.9	1151.9	137	293.0	-	-
38	154.3	393.8	761.3	88	234.8	599.3	1158.5	138	294.1	-	-
39	156.3	398.9	771.2	89	236.2	602.7	1165.1	139	295.1	-	-
40	158.3	404.0	781.1	90	237.5	606.0	1171.6	140	296.2	-	-
41	160.3	409.0	790.8	91	238.8	609.4	1178.1	141	297.3	-	-
42	162.2	414.0	800.4	92	240.1	612.7	1184.6	142	298.3	-	-
43	164.2	418.9	809.8	93	241.4	616.1	1191.0	143	299.4	-	-
44	166.1	423.7	819.2	94	242.7	619.4	1197.4	144	300.4	-	-
45	167.9	428.5	828.5	95	244.0	622.6	1203.7	145	301.4	-	-
46	169.8	433.3	837.6	96	245.3	625.9	1210.0	146	-	-	-
47	171.6	438.0	846.7	97	246.6	629.2	1216.3	147	-	-	-
48	173.4	442.6	855.6	98	247.8	632.4	1222.6	148	-	-	-
49	175.2	447.2	864.5	99	249.1	635.6	1228.8	149	-	-	-
50	177.0	451.7	873.3	100	250.3	638.8	1235.0	150	-	-	-

All laboratory instrumentation used in the creation of this chart is ISO 17025 traceable.

Readings were found to be accurate to within +/-2%.

D (in)	AVERAGE C
1.125"	0.6629
1.750"	0.6990
2.493"	0.6659

$Q = 29.84 \times C \times D^2 \times \sqrt{P}$

## 1.125"

Refer to the data in this column when operating The Riptide™ with a 1.125" Reduced Orifice Insert.

## 1.75"

Refer to the data in this column when operating The Riptide™ with a 1.75" Reduced Orifice Insert.

## 2.50"

Refer to the data in this column when operating The Riptide™ without a Reduced Orifice Insert.

## MULTI-STREAM OPERATION

Readings should be taken at each stream with each independent correlating GPM added together to determine the total volume flowing.

