



Thrust Buster Hydrant Flow Testing Kits



H-FK9 2-1/2" NH Hydrant Flow & Static Pressure Test Kit



H-FK940 4" NH Hydrant Flow & Static Pressure Test Kit

Operation:

A traditional fire hydrant contains three outlets: two 2-1/2" NH (65 mm) side outlets and a single 4" (100mm) NH, 4-1/2" (115mm) NH or 5" (150 mm) Storz pumper outlet. The pumper outlet is the preferred choice for the fire department to connect and feed pumper trucks.

This heavy duty Fabricated (Yellow) Swivel T Thrust Buster Diffuser is used for Flow Testing as well as to reduce the force of flowing water from fire hydrant to control soil erosion and to safely direct the flow pattern. The Thrust Buster diffuser adds an increased level of safety to the operator and surrounding property by eliminating the thrust associated with loose hoses that may lay on the ground. It is recommended for all field-testing or water main flushing operations in which unsecured hoses are used to direct water flow.

Features:

- Ideal for high flowing hydrants.
- Flow through the 2-1/2" NH or Pumper ports 4" NH 4-1/2" NH, or 4" & 5" STORZ connections.
- 2-1/2" Test diffusers come with a 4" Dial Liquid Filled Dual Read Psi- GPM Gauge in ranges 60 Psi/1300GPM, 100Psi/1680GPM, & 160Psi/2120GPM
- 4", 4-1/2" NH & 5" Storz Diffusers come with a 4" Dial Liquid Filled Dual read Gauge in range 0-60Psi/2958GPM..0-100 and 0-160Psi Gauges are available with a Flow Chart.

Application:

The 2-1/2", 4" & 4.5" Swivel T Thrust Buster diffusers have a ball-bearing swivel adapter that will fit to a Hose. The 4" & 5" Storz T Thrust Buster diffusers have Storz adapter that will fit to a Hose also. A Pitot is positioned in the middle of the water flow to measure Pressure and flow from Hydrants. Replaceable pressure tube Pitot assembly with a quick connect Rubber covered Glycerine filled Pressure Gauge is used to perform flow tests.



Kit Contents

H-FK9 - 2-1/2" NH Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD250TS	2-1/2" F Swivel NH/NST Straight T Pitot Diffuser
SG-P9445PB	2-1/2" F Swivel NH/NST x M NH/NST In-line Swivel Quick connect Pitot Line Gauge
Choice of Dual Read Gauges	<ul style="list-style-type: none"> SG-P66906LF - 0-60Psi/1300 GPM (2-1/2" Hydrant Nozzle 0.90 coefficient) SG-P66910LF - 0-100Psi/1680 GPM (2-1/2" Hydrant Nozzle 0.90 coefficient) SG-P66916LF - 0-160Psi/2120 GPM (2-1/2" Hydrant Nozzle 0.90 coefficient)
HGV250 NH-AL	Hydrant Gate Valve with Speed Handle 2-1/2" F Swivel NH X 2-1/2" M NH 175 Psi
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE2.5X10	2-1/2" NST x 10' Double Jacket Hose 800Psi Test- Yellow
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
SG-CSE920	Diffuser, Line Gauge and accessory Case, Yellow Seahorse, 24.3" x 16.0" x 10.10"
SG-CB	12" Tote Bag for Hose and Wrench
H-PT0375I	Spare Pitot Tube

H-FK9D - 2-1/2" NH Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
Same as H-FK9 with additional Digital Gauge	
CGD250	Digital Pressure Range: 0-300PSI, Accuracy: 1%FS

H-FK940 - 4" NH Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD400T	4" F Swivel NH/NST Straight T Pitot Diffuser
Choice of Gauges	<ul style="list-style-type: none"> SG-P4060LF - 0-60Psi/2958 GPM (4" Hydrant Nozzle 0.80 coefficient) SG-100LF - 0-100Psi 4" Dial Liquid Filled Gauge SG-160LF - 0-160Psi 4" Dial Liquid Filled Gauge SG-200LF - 0-200Psi 4" Dial Liquid Filled Gauge
HGV400 NH-AL	Hydrant Gate Valve 4" F Swivel NH x 4" M NH 250Psi with air bleeder valve
H-RR025	1/4" x 25 ft Quick Connect Remote read assembly with Bleeder
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE4X10	4" NST x 4" NST x 10' Double Jacket Hose 500Psi Test- Yellow
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
TL-25WH	Spanner Wrench Fits up to 4" pin or rocker lug coupling light weight aluminum alloy
SG-C5800	Gauge and Accessory wheeled Case, Apache 21" x 13.75" x 8.5" Note: T Diffuser will not fit
SG-CB	12" Tool Bag
H-PT400I	Spare Pitot Tube

H-FK945 - 4-1/2" NH Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD450T	4-1/2" F Swivel NH/NST Straight T Pitot Diffuser
Choice of Gauges	<ul style="list-style-type: none">SG-P4060LF - 0-60Psi/2958 GPM (4" Hydrant Nozzle 0.80 coefficient)SG-100LF - 0-100Psi 4" Dial Liquid Filled GaugeSG-160LF - 0-160Psi 4" Dial Liquid Filled Gauge
HGV450 NH-AL	Hydrant Gate Valve 4-1/2" F Swivel NH x 4-1/2" M NH 250Psi with air bleeder valve
H-RR025	1/4" x 25 ft Quick Connect Remote read assembly with Bleeder
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE4.5X10	4-1/2" NST x 4-1/2" NST 5" x 10' Double Jacket Hose 400Psi Test- Yellow
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
TL-25WH	Spanner Wrench Fits up to 4" pin or rocker lug coupling light weight aluminum alloy
SG-C5800	Gauge and Accessory wheeled Case, Apache 21" x 13.75" x 8.5" Note: T Diffuser will not fit
SG-CB	12" Tool Bag
H-PT400I	Spare Pitot Tube

H-FK940S - 4" Storz Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD400TS	4" Storz Straight T Pitot Diffuser
Choice of Gauges	<ul style="list-style-type: none">SG-P4060LF - 0-60Psi/2958 GPM (4" Hydrant Nozzle 0.80 coefficient)SG-100LF - 0-100Psi 4" Dial Liquid Filled GaugeSG-160LF - 0-160Psi 4" Dial Liquid Filled Gauge
HGV400STZ	Hydrant Gate Valve 4" Storz x 4" Storz 250Psi with air bleeder valve
H-RR025	1/4" x 25 ft Quick Connect Remote read assembly with Bleeder
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE4SX10	4" Storz x 4" Storz 10' Double Jacket Hose 400Psi Test- Yellow
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
TL-25WH	Spanner Wrench Fits up to 4" pin or rocker lug coupling light weight aluminum alloy
SG-C5800	Gauge and Accessory wheeled Case, Apache 21" x 13.75" x 8.5" Note: T Diffuser will not fit
SG-CB	12" Tool Bag
H-PT400I	Spare Pitot Tube

H-FK950S - 5" Storz Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD500TS	5" Storz Straight T Diffuser
Choice of Gauges	<ul style="list-style-type: none">SG-P4060LF - 0-60Psi/2958 GPM (4" Hydrant Nozzle 0.80 coefficient)SG-100LF - 0-100Psi 4" Dial Liquid Filled GaugeSG-160LF - 0-160Psi 4" Dial Liquid Filled Gauge
HGV400STZ	Hydrant Gate Valve 5" Storz x 5" Storz 250Psi with air bleeder valve
H-RR025	1/4" x 25 ft Quick Connect Remote read assembly with Bleeder
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE5SX10	5" Storz x 5" Storz 10ft Double Jacket Hose 400Psi Test- Yellow
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
TL-25WH	Spanner Wrench Fits up to 4" pin or rocker lug coupling light weight aluminum alloy
SG-C5800	Gauge and Accessory wheeled Case, Apache 21" x 13.75" x 8.5" Note: T Diffuser will not fit
SG-CB	12" Tool Bag
H-PT400I	Spare Pitot Tube

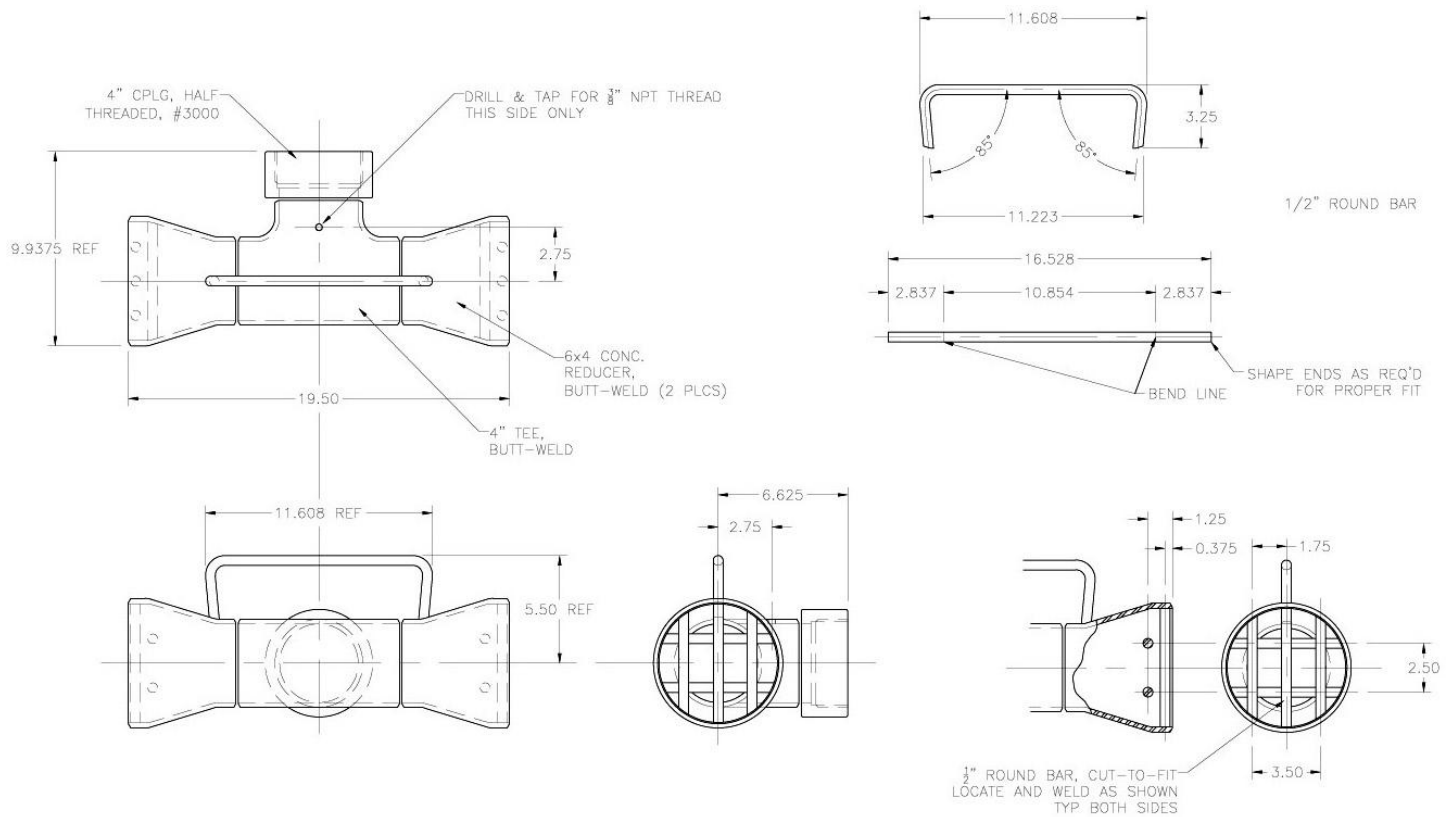
H-FK9504S - 5" Storz x 4" NH Hydrant T Diffuser & Static Pressure Test Kit

Item	Description
H-SD400T	4" F Swivel NH/NST Straight T Pitot Diffuser
Choice of Gauges	<ul style="list-style-type: none">SG-P4060LF - 0-60Psi/2958 GPM (4" Hydrant Nozzle 0.80 coefficient)SG-100LF - 0-100Psi 4" Dial Liquid Filled GaugeSG-160LF - 0-160Psi 4" Dial Liquid Filled Gauge
HGV400STZ	Hydrant Gate Valve 5" Storz x 5" Storz
H-RR025	1/4" x 25 ft Quick Connect Remote read assembly with Bleeder
H-CGQ	2-1/2" NH/NST Quick connect Cap Gauge with Bleeder with your choice of Pressure Gauges, 0 to 100 Psi, 0-160Psi, 0-200Psi or 0-300Psi (for Static/Residual Test)
HS-HOSE5SX10	5" Storz x 4" M NST 10ft Double Jacket Hose 400Psi Test- Yellow. Connects to a 5" Storz outlet Gate Valve and reduces to 4" MNST to connect to T Diffuser
TL-AHW	Adjustable Hydrant Wrench for pentagon nuts up to 1-3/4", Built-in spanner for pin or rocker lug couplings - 16-1/4" Length
TL-25WH	Spanner Wrench Fits up to 4" pin or rocker lug coupling light weight aluminum alloy
SG-C5800	Gauge and Accessory wheeled Case, Apache 21" x 13.75" x 8.5" Note: T Diffuser will not fit
SG-CB	12" Tool Bag
H-PT400I	Spare Pitot Tube



4" T Thrust Buster Diffuser with built in Pitot

Dimensions (4' x 6" T Thrust Buster Diffuser)



FLOW CHART

This flow chart is based on the "Q" formula $[Q=(29.83(C(d2)p0.5))]$ used by ISO and others to calculate water flowing during a flow test. (d) is diameter of outlet flowed in inches, (p) is the Pitot Pressure, (C) Coefficient refers to the factor used for the type of opening in the fire hydrant inside the barrel. Most fire hydrants have a rounded opening where the outlet and barrel join. Such hydrants have a coefficient of 0.9. Hydrants with square outlets have a coefficient of 0.8. Hydrants with a square outlet that projects into the barrel have a coefficient of 0.7. This Flow Chart uses a coefficient of 0.9 for 2-1/2" Diffuser & 0.7 for 4" Diffuser for calculating the flow and is for reference purpose only. Please Refer to NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants for more information.

PSI	2-1/2" GPM	4" GPM	PSI	2-1/2" GPM	4" GPM	PSI	2-1/2" GPM	4" GPM	PSI	2-1/2" GPM	4" GPM
5	375	747	26	856	1704	47	1150	2290	68	1384	2755
6	411	818	27	872	1736	48	1163	2315	69	1394	2775
7	444	884	28	888	1768	49	1175	2339	70	1404	2795
8	475	945	29	904	1799	50	1186	2362	71	1414	2815
9	503	1002	30	919	1830	51	1198	2386	72	1424	2835
10	531	1057	31	934	1860	52	1210	2409	73	1434	2855
11	557	1108	32	949	1890	53	1222	2432	74	1443	2874
12	581	1157	33	964	1919	54	1233	2455	75	1453	2893
13	605	1205	34	978	1948	55	1244	2478	76	1463	2913
14	628	1250	35	993	1977	56	1256	2500	77	1472	2932
15	650	1294	36	1007	2005	57	1267	2522	78	1482	2951
16	671	1336	37	1021	2032	58	1278	2544	79	1491	2970
17	692	1378	38	1034	2060	59	1289	2566	80	1501	2988
18	712	1417	39	1048	2086	60	1300	2588	81	1510	3007
19	731	1456	40	1061	2113	61	1311	2609	82	1519	3025
20	750	1494	41	1074	2139	62	1321	2631	83	1529	3044
21	769	1531	42	1087	2165	63	1332	2652	84	1538	3062
22	787	1567	43	1100	2191	64	1342	2673	85	1547	3080
23	805	1602	44	1113	2216	65	1353	2694	86	1556	3098
24	822	1637	45	1126	2241	66	1363	2714	87	1565	3116
25	839	1670	46	1138	2266	67	1373	2735	88	1574	3134

Available Models

Model	Size	Style	Description	Flow Gauge	
				PSI	GPM
H-SD250TS-060	2-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-60	1300
H-SD250TS-100	2-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-100	1680
H-SD250TS-160	2-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-160	2120
H-SD250TS2-060	2-1/2"	Straight Double Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-60	1300
H-SD250TS2-100	2-1/2"	Straight Double Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-100	1680
H-SD250TS2-160	2-1/2"	Straight Double Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-160	2120
H-SD250TB-060	2-1/2"	30° up-bend	Thrust Buster Street T Hydrant Pitot Diffuser	0-60	1300
H-SD250TB-100	2-1/2"	30° up-bend	Thrust Buster Street T Hydrant Pitot Diffuser	0-100	1680
H-SD250TB-160	2-1/2"	30° up-bend	Thrust Buster Street T Hydrant Pitot Diffuser	0-160	2120
H-SD400T-060	4"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-60	-
H-SD400T-100	4"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-100	-
H-SD400T-060	4"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-160	-
H-SD450T-060	4-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-60	-
H-SD450T-060	4-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-100	-
H-SD450T-060	4-1/2"	Straight Single Handle	Thrust Buster Street T Hydrant Pitot Diffuser	0-160	-