



Automotive & Powersports

THE FACTS ABOUT YOUR INTAKE & AIR FILTER

ISO 5011 Tested to Make Sure You Maximize Airflow While Still Protecting Your Engine.

Part Number: 75-5140

Test Date: 2020.07.22

Description: Restriction, C&E

Test Report #: 806

Vehicle Applications: 2020 Ford F-250, F350, 6.7L Diesel

TECHNICAL BULLETIN

There is a lot of misinformation in the marketplace. S&B publishes specific test results for each of our intakes & filters as shown below, so you can make an informed decision. Remember, improving your airflow is only good if your engine is still protected. That's the S&B difference!

FACT: S&B Flows 39.05% Better than Stock.

In tests performed in our climate controlled laboratory according to the ISO5011 Test Standard, S&B's intake kit (and filter) had significantly lower restriction (better airflow) than the stock intake system. See the graph on the next page.

WATCH OUT: Some competitors overstate airflow.

If they state that their filter will flow, let's say 1000 cfm, without stating at what restriction level, they are trying to mislead you.

Description	% S&B Flowed Better than Stock (tested @ 580 cfm)
S&B Intake w/ Cleanable Filter (Secondary Inlet - Open)	39.05%
S&B Intake w/ Cleanable Filter (Secondary Inlet - Closed)	34.91%
S&B Intake w/ Dry Filter (Secondary Inlet - Open)	37.47%
S&B Intake w/ Dry Filter (Secondary Inlet - Closed)	33.21%

Test Conditions	
Barometric Pressure	28.7 inHg
Airflow Setpoint	580 CFM
Relative Humidity	52%
Temperature	69 F
Type of Dust	A4 Coarse
Batch #	14057C
Dust Feed Rate (grams/minute)	16.42

FACT: S&B Protects Your Engine

S&B Tests at the highest rated CFM for your vehicle when determining the efficiency rate (amount of dust the filter stops), so that we can be sure that your engine will be protected

Description	Efficiency Rate (Tested @ 580 cfm)
Stock	99.21%
S&B Intake w/ Cleanable Filter	99.42%
S&B Intake w/ Dry Filter	99.54%

WATCH OUT: Some Competitors Use the Same Efficiency Rates for Multiple Part Numbers

Many send one filter off to a lab to be tested at a low cfm and then publish this efficiency rate for all of their part numbers

Air Filter Restriction Test Report

Test #: 806
Sample #: -02R
Filter #: KF-1050
Housing #:
Date Code: 2020.07.21

JM
7/23/2020



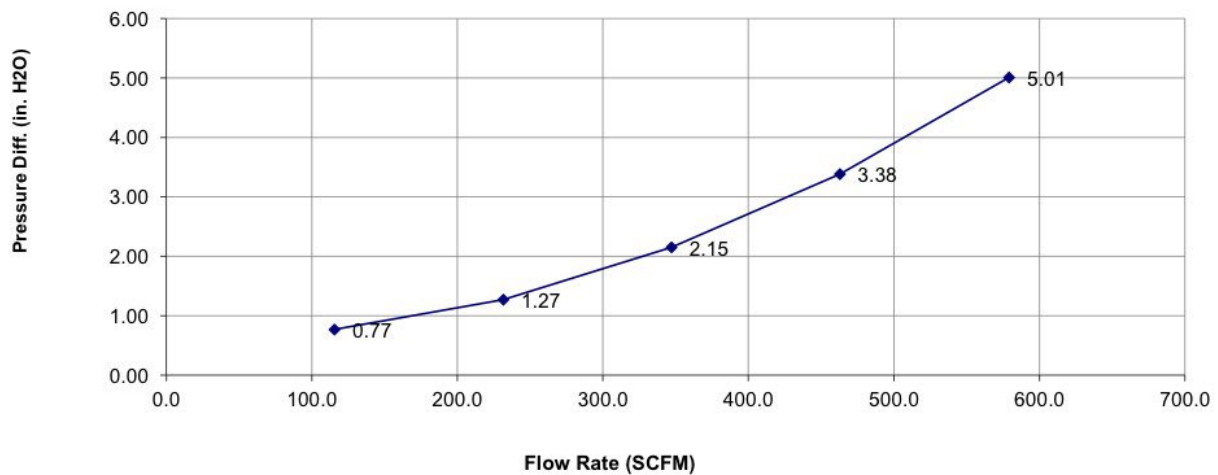
Test Description: 75-5140 with KF-1050, without Box Plug, without MAF Sensor

Test Conditions

Barometric Pressure: 28.69513 in. Hg
Air Flow Type: SCFM
Number of Pleats:
Flow Direction:

Relative Humidity: 55 %
Temperature: 70 deg. F
Pleat Depth: in.

Air Flow Curve



Air Flow Curve Data

Flow Rate	Differential Pressure
116	0.77
232	1.27
347	2.15
463	3.38
579	5.01

Air Filter Restriction Test Report

Test #: 806
Sample #: -01R
Filter #: KF-1050
Housing #:
Date Code: 2020.07.21

JM
7/23/2020



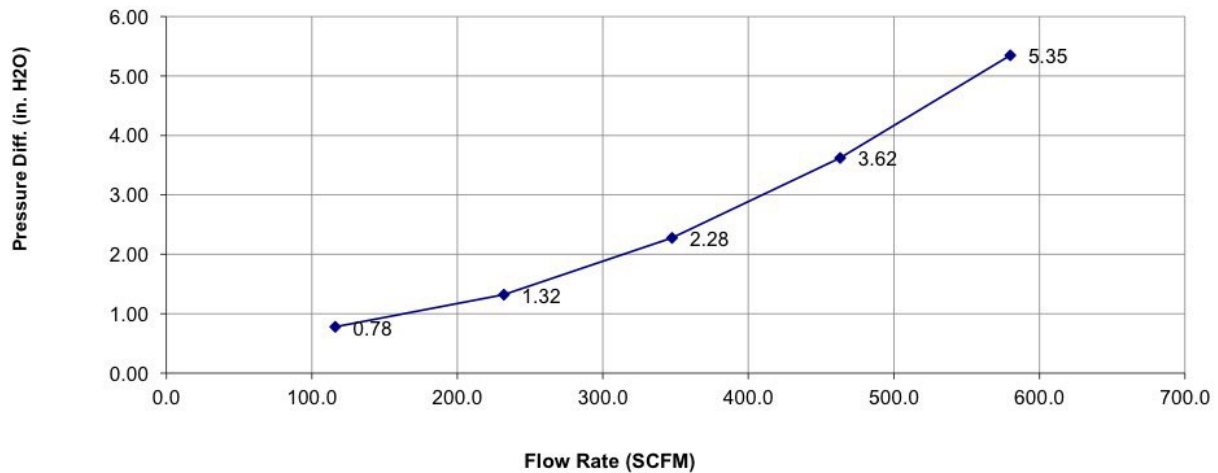
Test Description: 75-5140 with KF-1050, with Box Plug, without MAF Sensor.

Test Conditions

Barometric Pressure: 28.70413 in. Hg
Air Flow Type: SCFM
Number of Pleats:
Flow Direction:

Relative Humidity: 55 %
Temperature: 70 deg. F
Pleat Depth: in.

Air Flow Curve



Air Flow Curve Data

Flow Rate	Differential Pressure
116	0.78
232	1.32
348	2.28
463	3.62
580	5.35

Air Filter Full Life Efficiency Test Report

Test #: 806
Sample #: -07CE
Filter #: KF-1050
Housing #:
Date Code: 2020.07.22

Operator: JM
Report Date: 7/22/2020
Filter Mfg.:
Housing Mfg.:



Test Description: 75-5140 with KF-1050, no MAF Sensor, with Box Plug

Test Conditions

Barometric Pressure: 28.727 in. Hg
Air Flow Setpoint: 580 SCFM
Test Procedure: Capacity and Eff
Air Flow Type: SCFM
Test Endpoint: 10 in. H2O
Number of Pleats:
Flow Direction:

Relative Humidity: 52 %
Type of Dust: A4 Coarse
Batch #:
Temperature: 69 deg. F
Initial Add Rate: NaN g/min
Accumulative Add Rate: 16.42 g/min
Pleat Depth: in.

Test Results

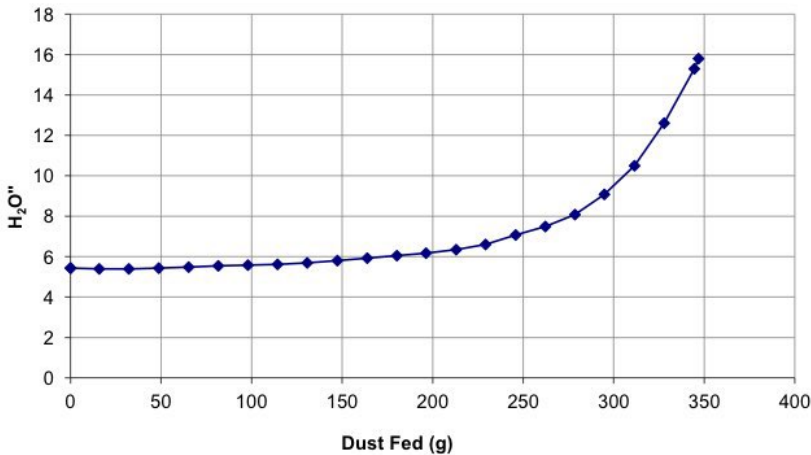
Initial Delta P 5.41 in. H2O

Accumulative Capacity: 328.50 g
Test Time: 21.16 min

	Initial		Accumulative	
		Blanket		Blanket
Start			5489.10	599.07
End			5817.60	600.97
Gain			328.50	1.90
Efficiency			99.42%	

- ☒ Standard Restriction
☐ Pressure Differential

Dust Loading Curve



Dust Loading Curve Data

Dust Fed (g)	Pressure ("H2O)
0	5.433
15.822	5.402
32.223	5.391
48.662	5.429
65.187	5.477
81.602	5.544
98.014	5.587
114.299	5.623
130.77	5.692
147.307	5.802
163.816	5.932
180.201	6.052
196.27	6.17
212.941	6.349
229.246	6.603
245.863	7.07
262.248	7.487
278.65	8.082
294.883	9.076
311.518	10.505
327.84	12.603
344.467	15.294
346.843	15.804

Air Filter Restriction Test Report

Test #: 806
Sample #: -04R
Filter #: KF-1050D
Housing #:
Date Code: 2020.07.21

JM
7/23/2020



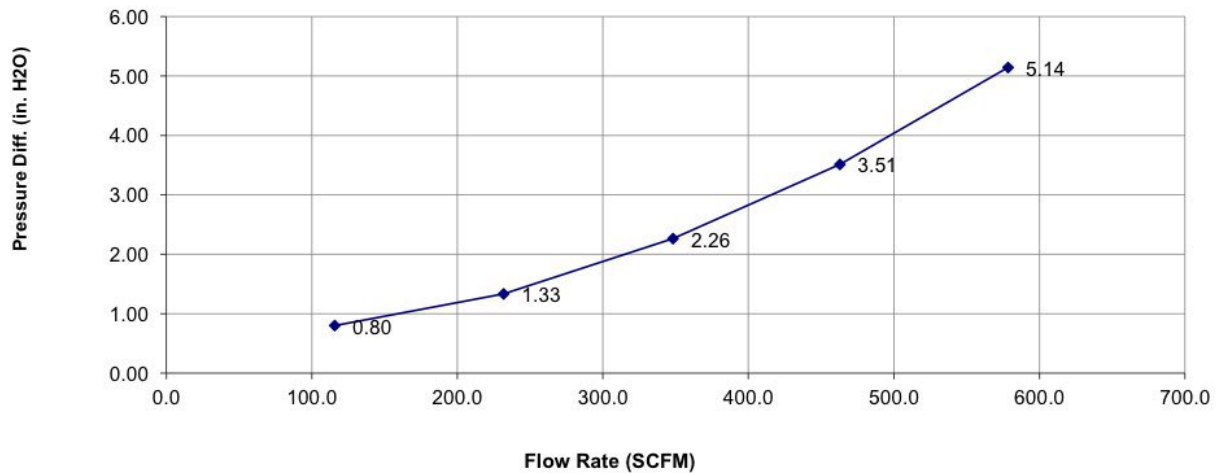
Test Description: 75-5140, with KF-1050D, without Box Plug, without MAF Sensor

Test Conditions

Barometric Pressure: 28.68174 in. Hg
Air Flow Type: SCFM
Number of Pleats:
Flow Direction:

Relative Humidity: 54 %
Temperature: 70 deg. F
Pleat Depth: in.

Air Flow Curve



Air Flow Curve Data

<u>Flow Rate</u>	<u>Differential Pressure</u>
116	0.80
232	1.33
348	2.26
463	3.51
579	5.14

Air Filter Restriction Test Report

Test #: 806
Sample #: -03R
Filter #: KF-1050D
Housing #:
Date Code: 2020.07.21

JM
7/23/2020



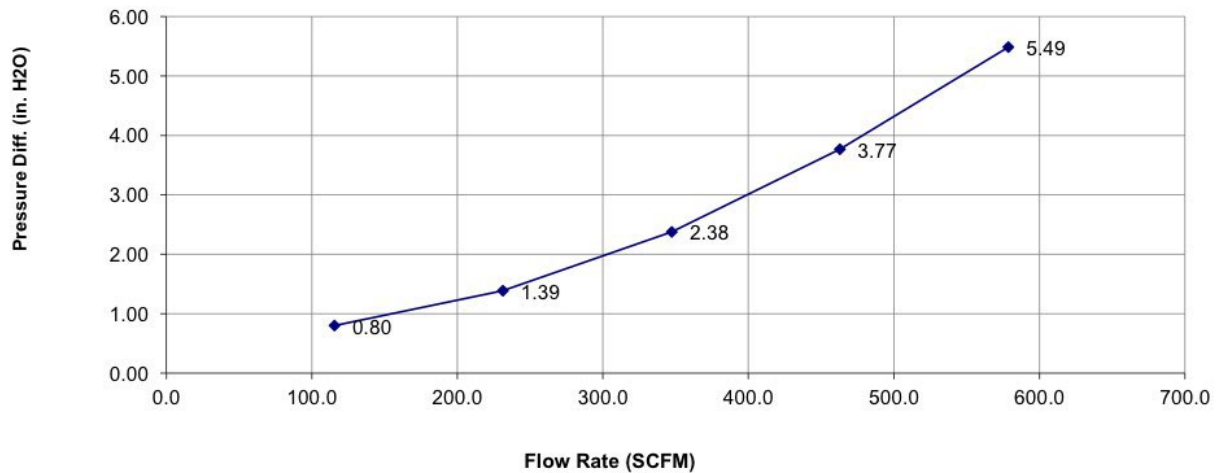
Test Description: 75-5140, with KF-1050D, with Box Plug, without MAF Sensor

Test Conditions

Barometric Pressure: 28.68532 in. Hg
Air Flow Type: SCFM
Number of Pleats:
Flow Direction:

Relative Humidity: 54 %
Temperature: 70 deg. F
Pleat Depth: in.

Air Flow Curve



Air Flow Curve Data

Flow Rate	Differential Pressure
116	0.80
231	1.39
347	2.38
463	3.77
579	5.49

Air Filter Full Life Efficiency Test Report

Test #: 806
 Sample #: -06CE
 Filter #: KF-1050D
 Housing #:
 Date Code: 2020.07.22

Operator: JM
 Report Date: 7/23/2020
 Filter Mfg.:
 Housing Mfg.:



Test Description: 75-5140 with KF-1050D, no MAF Sensor, with Box Plug

Test Conditions

Barometric Pressure: 28.757 in. Hg
 Air Flow Setpoint: 580 SCFM
 Test Procedure: Capacity and Eff
 Air Flow Type: SCFM
 Test Endpoint: 10 in. H2O
 Number of Pleats:
 Flow Direction:

Relative Humidity: 59 %
 Type of Dust: A4 Coarse
 Batch #:
 Temperature: 68 deg. F
 Initial Add Rate: NaN g/min
 Accumulative Add Rate: 16.42 g/min
 Pleat Depth: in.

Test Results

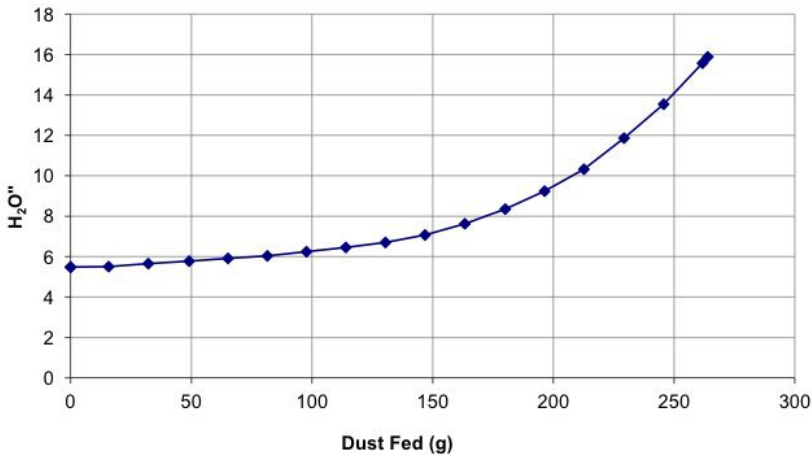
Initial Delta P 5.44 in. H2O

Accumulative Capacity: 250.70 g
 Test Time: 16.13 min

	Initial		Accumulative	
		Blanket		Blanket
Start			5382.90	598.21
End			5633.60	599.37
Gain			250.70	1.16
Efficiency			99.54%	

- ☒ Standard Restriction
☐ Pressure Differential

Dust Loading Curve



Dust Loading Curve Data

Dust Fed (g)	Pressure (in. H2O)
0	5.485
15.812	5.51
32.183	5.654
49.084	5.776
65.258	5.91
81.535	6.038
97.719	6.245
114.019	6.453
130.392	6.707
146.813	7.076
163.37	7.626
180.018	8.352
196.348	9.237
212.721	10.33
229.25	11.861
245.728	13.538
261.75	15.58
263.993	15.882

Air Filter Restriction Test Report

Test #: 803
Sample #: 1
Filter #: STOCK
Housing #: STOCK
Date Code: 43938

BL
4/17/2020
FORD
FORD



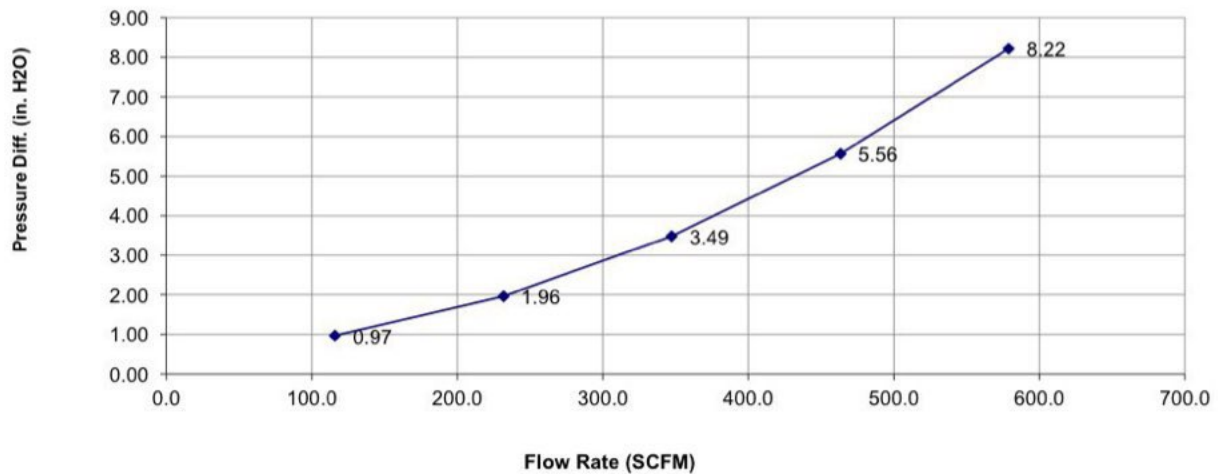
Test Description: 2020 FORD POWERSTROKE STOCK INTAKE

Test Conditions

Barometric Pressure: 28.83342 in. Hg
Air Flow Type: SCFM
Number of Pleats:
Flow Direction:

Relative Humidity: 35 %
Temperature: 72 deg. F
Pleat Depth: in.

Air Flow Curve



Air Flow Curve Data

Flow Rate	Differential Pressure
116	0.97
232	1.96
347	3.49
463	5.56
579	8.22

Air Filter Full Life Efficiency Test Report

Test #: 803
Sample #: 2
Filter #: STOCK
Housing #: STOCK
Date Code: 43938

Operator: BL
Report Date: 4/17/2020
Filter Mfg.: FORD
Housing Mfg.: FORD



Test Description: 2020 FORD POWERSTROKE STOCK INTAKE

Test Conditions

Barometric Pressure:	28.823 in. Hg	Relative Humidity:	44 %
Air Flow Setpoint:	0 SCFM	Type of Dust:	
Test Procedure:	FICIENCY	Batch #:	
Air Flow Type:	SCFM	Temperature:	66 deg. F
Test Endpoint:	10 in. H2O	Initial Add Rate:	NaN g/min
Number of Pleats:		Accumulative Add Rate:	0 g/min
Flow Direction:		Pleat Depth:	in.

Test Results

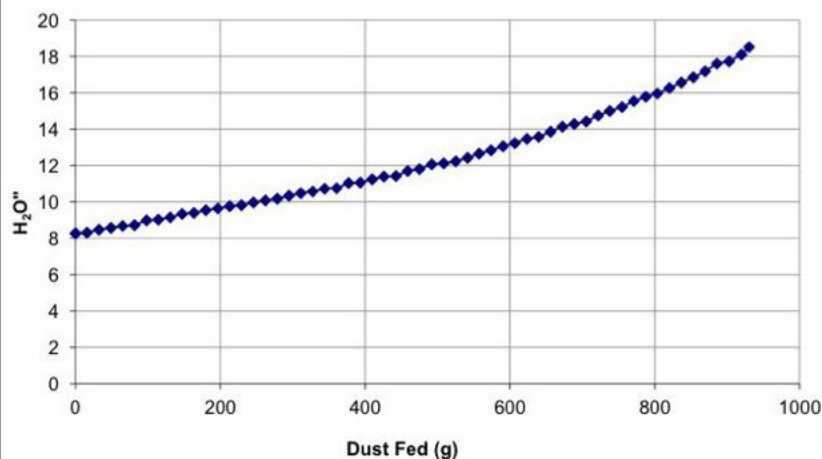
Initial Delta P 8.16 in. H2O Accumulative Capacity: 884.40 g
Test Time: 56.69 min

	Initial		Accumulative	
		Blanket		Blanket
Start			4010.50	589.02
End			4894.90	596.07
Gain			884.40	7.05
Efficiency			99.21%	

☒ Standard Restriction

☐ Pressure Differential

Dust Loading Curve



Dust Loading Curve Data

Dust Fed (g)	Pressure ("H2O)
0	8.267
15.94	8.317
32.468	8.475
48.835	8.576
65.115	8.684
81.679	8.716
98.027	8.976
114.255	9.019
130.591	9.144
147.053	9.338
163.54	9.397
180.041	9.54
196.4	9.64
212.969	9.762
229.066	9.817
245.48	9.969
262.109	10.076
278.485	10.175
294.756	10.343
311.036	10.469
327.481	10.572
344.087	10.727
360.371	10.753
377.106	11.03