

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:	Test Date:	
	Description:	Test Report #:	
L	<i>lehicle Applications:</i>		

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 Bette	er than Stock.	WATCH	OUT: S
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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	Test Conditions
	Stock (tested @cfm)	Barometric Pressure
S&B Intake w/ Cleanable Filter (Secondary Inlet - Open)		Airflow Setpoint
S&B Intake w/ Cleanable Filter		Relative Humidity
(Secondary Inlet - Closed)		Temperature
S&B Intake w/ Dry Filter	1/626	Type of Dust
(Secondary Inlet - Open		Batch #
S&B Intake w/ Dry Filter (Secondary Inlet - Closed)		Dust Feed Rate (grams/minute)

FACT: S&B Protects Your Engine

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

Description	(Tested @cfm)
Stock	
S&B Intake w/ Cleanable Filter	
S&B Intake w/ Dry Filter	

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

RESET FORM

Test #: 931-01R Sample #: 01R

Filter #: FA1922 Housing #: NL3Z9600A Date Code: 45281 12/22/2023

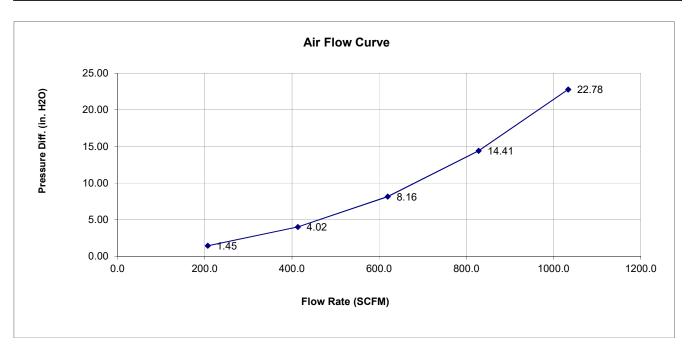


Test Description: FORD RAPTOR R OEM INTAKE, RESTRICTION TEST

Test Conditions

Barometric Pressure: 28.87535 in. Hg
Air Flow Type: SCFM

Number of Pleats: Flow Direction: Relative Humidity: 52 %
Temperature: 71 deg. F
Pleat Depth: in.



Flow Rate	<u>Differential Pressure</u>	
207	1.45	
413	4.02	
620	8.16	
828	14.41	
1033	22.78	

Air Filter Full Life Efficiency Test Report

Operator: JJ

Test #: 931-02CE Sample #: 02CE Filter #: FA1922 Housing #: NL3Z9600A Date Code: 45281

Report Date: 12/22/2023 Filter Mfg.: Housing Mfg.:



Test Description: FORD RAPTOR R OEM, C&E TEST

Test Conditions

Barometric Pressure: 28.848 in. Hg 1036 SCFM Air Flow Setpoint: Test Procedure: CAPACITY Air Flow Type: **SCFM**

Test Endpoint: 10 in. H2O

Number of Pleats: Flow Direction:

Relative Humidity: 54 % Type of Dust: A4 COARSE

Batch #: 14996C 72 deg. F Temperature:

Initial Add Rate: NaN g/min 22 g/min Accumulative Add Rate: Pleat Depth: in.

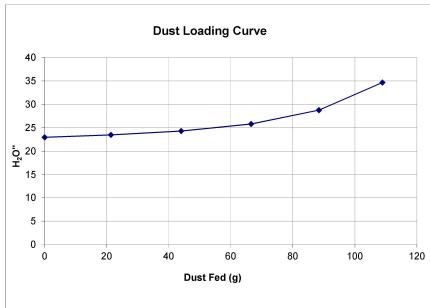
Test Results

Initial Delta P 22.72 in. H2O **Accumulative Capacity:** 109.30 g Test Time:

4.90 min

	Initial	Accumulative)
		Kit	Blanket
Start		3837.60	589.00
End		3946.90	589.13
Gain		109.30	0.13
Efficiency		99.88%	

Standard Restriction Pressure Differential



Dust Fed (g) Pressure ("H2O) 0 23.003 21.387 23.519 44.016 24.342 66.563 25.84 88.421 28.815 108.9 34.696	Dust Loading Curve Data		
21.387 23.519 44.016 24.342 66.563 25.84 88.421 28.815	Dust Fed (g)	Pressure ("H2O)	
44.016 24.342 66.563 25.84 88.421 28.815	0	23.003	
66.563 25.84 88.421 28.815	21.387	23.519	
88.421 28.815	44.016	24.342	
	66.563	25.84	
108.9 34.696		28.815	
	108.9	34.696	

Test #: 931-11R Sample #: 11R Filter #: KF-1095A

Housing #: AL1423B-00 CLOSED

Date Code: 45282

12/22/2023



Test Description: 75-5175, KF-1095A 125 PLEAT COUNTS, OILED, CLOSED, RESTRICTION TEST

Test Conditions

Barometric Pressure: 28.73965 in. Hg
Air Flow Type: SCFM
Number of Pleats: 125

Flow Direction:

Relative Humidity: 48 %
Temperature: 72 deg. F
Pleat Depth: in.

Air Flow Curve 25.00 Pressure Diff. (in. H2O) 20.00 20.05 15.00 12.44 10.00 5.00 3.24 **◆ 1.16** 0.00 0.0 200.0 400.0 600.0 800.0 1000.0 1200.0 Flow Rate (SCFM)

Flow Rate	<u>Differential Pressure</u>	
207	1.16	
413	3.24	
622	6.98	
828	12.44	
1034	20.05	

Test #: 931-11R Sample #: 11R

Filter #: KF-1095A

Housing #: AL1423B-00 OPEN

Date Code: 45282

12/22/2023



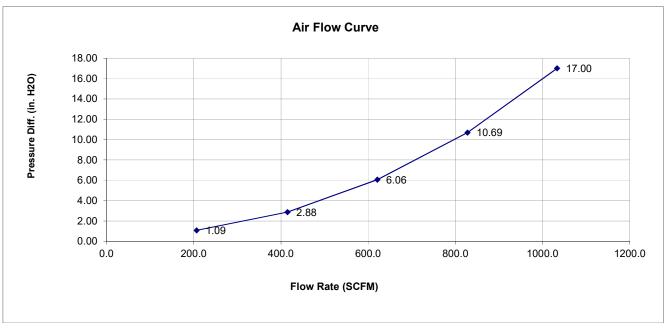
Test Description: 75-5175, KF-1095A 125 PLEAT COUNTS, OILED, OPEN, RESTRICTION TEST

Test Conditions

Barometric Pressure: 28.73892 in. Hg
Air Flow Type: SCFM
Number of Pleats: 125

Flow Direction:

Relative Humidity: 47 %
Temperature: 72 deg. F
Pleat Depth: in.



Flow Rate	<u>Differential Pressure</u>	
207	1.09	
415	2.88	
621	6.06	
828	10.69	
1033	17.00	

Air Filter Full Life Efficiency Test Report

Test #: 931 Sample #: 12CE Filter #: KF-1095A Housing #: Date Code: 45282

Flow Direction:

Operator: JJ Report Date: 12/22/2023 Filter Mfg.: Housing Mfg.:



Test Description: 75-5175 INTAKE, KF-1095A 125 PLEAT, CAPACITY AND EFFICIENCY TEST

Test Conditions

| Barometric Pressure: 28.737 in. Hg | 1036 SCFM | CE | Air Flow Type: Air Flow Type: Test Endpoint: 10 in. H2O | Number of Pleats: 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 |

Test Results

Initial Delta P 20.28 in. H2O

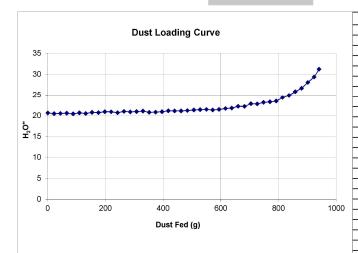
Accumulative Capacity: 912.10 g
Test Time: 42.76 min

nulative
Blanket

	Initial Accumulative		;	
			Kit	Blanket
Start			8731.60	586.27
End			9643.70	591.82
Gain			912.10	5.55
Efficiency			99.40%	

Standard Restriction

Pressure Differential



0	20.677
21.888	20.466
43.617	20.54
65.712	20.592
87.682	20.459
109.44	20.68
131.658	20.526
153.748	20.782
175.573	20.729
197.597	20.94
219.645	20.928
241.916	20.713
264.13	21.016
285.926	20.897
307.916	20.985
329.722	21.099
351.566	20.813
373.726	20.864
395.774	20.941
417.714	21.163
439.513	21.151
462.165	21.141
484.098	21.239
506.24	21.376
528.197	21.443
550.279	21.489
571.939	21.368
593.951	21.499
616.117	21.729
637.966	21.837
659,906	22,265
681.988	22.227
703.903	22.881
726.063	22.825
748.113	23.201
770.078	23.344
791.852	23.519
813.914	24.375
836.232	24.904
857.966	25.841
879.873	26.673
901.553	28.076
923.742	29.371
940.473	31.228
940.473	31.220

Dust Loading Curve Data

Pressure ("H2O) 20.677

Dust Fed (g)

Test #: 931 Sample #: 07R

Filter #: KF-1095D

Housing #: AL1423B-00 CLOSED

Date Code: 45282

12/22/2023



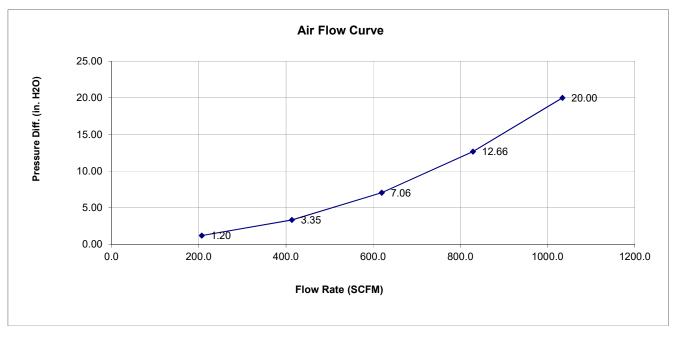
Test Description: 75-5175 INTAKE, KF-1095D 210 PLEAT COUNT, DRY MEDIA, CLOSED SYSTEM, RESTRCITION TEST,

Test Conditions

Barometric Pressure: 28.82031 in. Hg
Air Flow Type: SCFM
Number of Pleats: 210

Flow Direction:

Relative Humidity: 50 %
Temperature: 70 deg. F
Pleat Depth: in.



<u>Differential Pressure</u>	
1.20	
3.35	
7.06	
12.66	
20.00	

Test #: 931 Sample #: 07R

Filter #: KF-1095D

Housing #: AL1423B-00 OPEN Date Code: 45282

JJ 12/22/2023

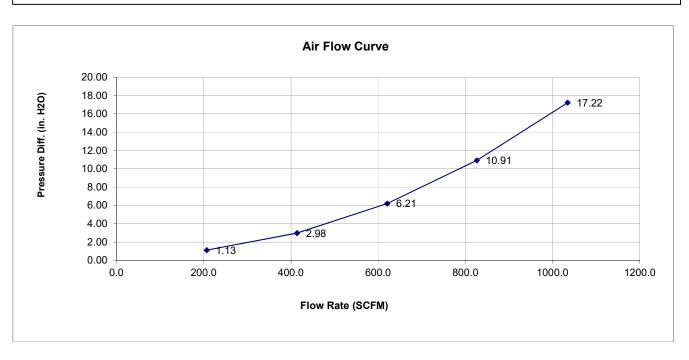


Test Description: 75-5175 INTAKE, KF-1095D 210 PLEAT COUNT, DRY MEDIA, OPEN SYSTEM, RESTRCITION TEST

Test Conditions

Barometric Pressure:28.82154 in. HgRelative Humidity:50 %Air Flow Type:SCFMTemperature:70 deg. FNumber of Pleats:210Pleat Depth:in.

Flow Direction:



Flow Rate	<u>Differential Pressure</u>
207	1.13
414	2.98
621	6.21
826	10.91
1034	17.22

Air Filter Full Life Efficiency Test Report

 Test #: 931-08CE
 Operator: JJ

 Sample #: 8
 Report Date: 12/22/2023

 Filter #: KF-1095D
 Filter Mfg.:

 Housing #:
 Housing Mfg.:

Housing #: Housing Mfg.:
Date Code: 45282



Test Description: 75-5175D, KF-1095D, 210 PLEATS, EFFICIENCY AND CAPACITY TEST

Test Conditions

28.756 in. Hg **Barometric Pressure:** Relative Humidity: 46 % Air Flow Setpoint: 1036 SCFM Type of Dust: A4 COARSE 14996C Test Procedure: CAPACITY Batch #: Air Flow Type: **SCFM** Temperature: 72 deg. F Test Endpoint: 10 in. H2O Initial Add Rate: NaN g/min Accumulative Add Rate: **Number of Pleats:** 22 g/min

Flow Direction: Pleat Depth: in.

Test Results

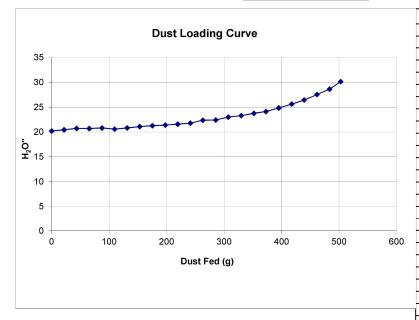
Initial Delta P 19.68 in. H2O Accumulative Capacity: 500.30 g

Test Time: 22.88 min

	Initial	Accumulative)
		Kit	Blanket
Start		8367.80	584.55
End		8868.10	586.21
Gain		500.30	1.66
Efficiency		99.67%	

Standard Restriction

Pressure Differential



Dust Loading Curve Data		
Dust Fed (g)	Pressure ("H2O)	
0	20.227	
21.549	20.45	
43.236	20.751	
65.322	20.723	
87.709	20.841	
109.424	20.612	
131.352	20.847	
153.199	21.105	
175.211	21.3	
197.459	21.421	
219.416	21.616	
241.355	21.796	
262.978	22.39	
285.387	22.454	
307.225	23.017	
329.754	23.315	
351.805	23.781	
372.798	24.133	
395.218	24.852	
417.718	25.651	
439.193	26.458	
461.553	27.559	
483.4	28.631	
502.736	30.176	