Part Number: Test Date:

Description: Test Report #:

Vehicle Applications:

### 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!

| <b>FACT:</b> S&B Flows | Better | than | Stock. |
|------------------------|--------|------|--------|
|------------------------|--------|------|--------|

## **WATCH OUT:** Some competitors overstate airflow.

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. 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<br>(Secondary Inlet - Open) |                          | Airflow Setpoint                 |
| S&B Intake w/ Cleanable Filter                             |                          | Relative Humidity                |
| (Secondary Inlet - Closed)                                 |                          | Temperature                      |
| S&B Intake w/ Dry Filter                                   |                          | Type of Dust                     |
| (Secondary Inlet - Open                                    |                          | Batch #                          |
| S&B Intake w/ Dry Filter<br>(Secondary Inlet - Closed)     |                          | Dust Feed Rate<br>(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

| <b>Description</b>                | (Tested @cfm) |
|-----------------------------------|---------------|
| Stock                             |               |
| S&B Intake w/<br>Cleanable Filter |               |
| S&B Intake w/<br>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

# **Air Filter Restriction Test Report**

Test #: 907-1R Sample #: 1R Filter #: Housing #: Date Code: 45086

FΗ 6/9/2023 **FORD** 



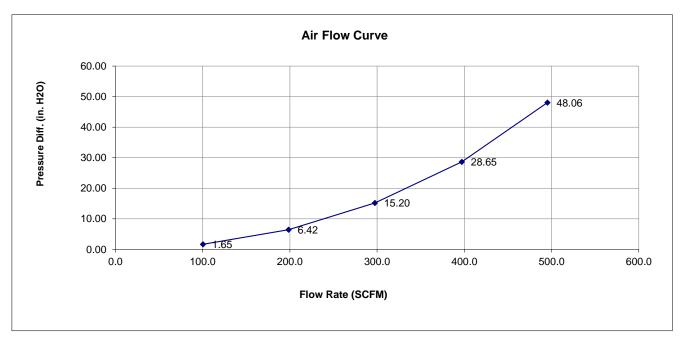
Test Description: 19-23 Ford Bronco Sport 2.3L Restriction Test Stock

#### **Test Conditions**

Barometric Pressure: 28.85426 in. Hg **Relative Humidity:** Air Flow Type: Temperature: SCFM Number of Pleats:

Flow Direction:

53 % 70 deg. F Pleat Depth: in.



#### **Air Flow Curve Data**

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 100       | 1.65                         |
| 199       | 6.42                         |
| 297       | 15.20                        |
| 397       | 28.65                        |
| 495       | 48.06                        |
|           |                              |

# **Air Filter Restriction Test Report**

 Test #: 907-2R
 FH

 Sample #: 2R
 6/12/2023

 Filter #: KF-1057
 S&B

 Housing #: AL1396B-00
 S&B

 Date Code: 45089
 S&B

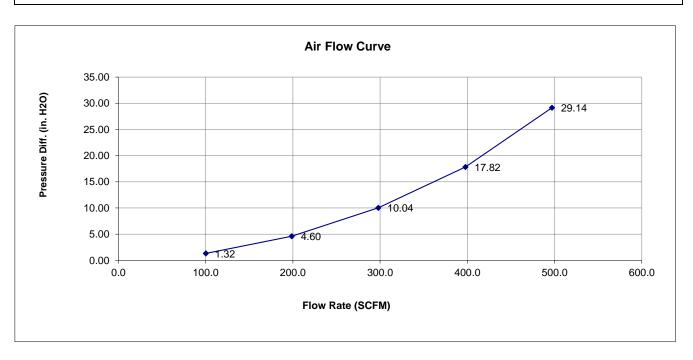


Test Description: 21-23, 75-5161 Ford Bronco Sport 2.3L Restriction Test KF-1057

#### **Test Conditions**

Barometric Pressure:28.90031 in. HgRelative Humidity:54 %Air Flow Type:SCFMTemperature:69 deg. FNumber of Pleats:100Pleat Depth:0.7 in.

Flow Direction:



#### **Air Flow Curve Data**

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 100       | 1.32                         |
| 199       | 4.60                         |
| 298       | 10.04                        |
| 398       | 17.82                        |
| 497       | 29.14                        |
|           |                              |

# **Air Filter Restriction Test Report**

Test #: 907-3R Sample #: 3R Filter #: KF-1057D Housing #: AL1396B-00 Date Code: 2023.06.26

DC 6/26/2023 S&B S&B



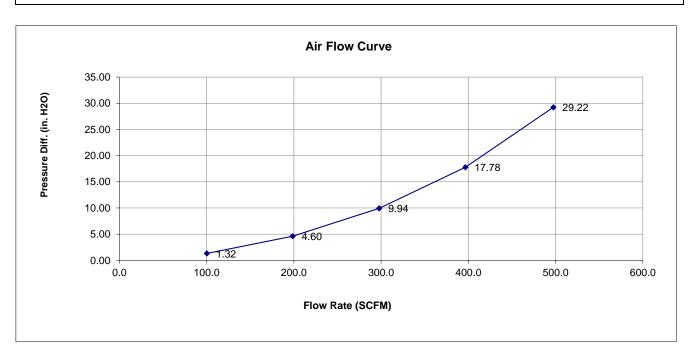
Test Description: 21-23 FORD BRONCO SPORT 2.3L 75-5161D S&B INTAKE RESTRICTION TEST

#### **Test Conditions**

Barometric Pressure: 28.72968 in. Hg Air Flow Type: SCFM **Number of Pleats:** 100

Flow Direction:

**Relative Humidity:** 54 % Temperature: 69 deg. F Pleat Depth: in.



#### **Air Flow Curve Data**

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 100       | 1.32                         |
| 198       | 4.60                         |
| 298       | 9.94                         |
| 397       | 17.78                        |
| 497       | 29.22                        |
|           |                              |

# Air Filter Full Life Efficiency Test Report

Test #: 907-4CE Sample #: 4CE Filter #: Housing #: Date Code: 45089

Operator: FH Report Date: 6/12/2023 Filter Mfg.: FORD Housing Mfg.: FORD



Test Description: 21-23 FORD BRONCO SPORT 2.3L CAPACITY & EFFICIENCY STOCK TEST

**Test Conditions** 

**Barometric Pressure:** 28.905 in. Hg 458 SCFM Air Flow Setpoint: **Test Procedure:** CE SCFM Air Flow Type:

**Test Endpoint:** 10 in. H2O

**Number of Pleats:** Flow Direction:

**Relative Humidity:** 53 % Type of Dust: ) A4 COARSE Batch #: 14996C

Temperature: 70 deg. F **Initial Add Rate:** NaN g/min **Accumulative Add Rate:** 12.97 g/min Pleat Depth: in.

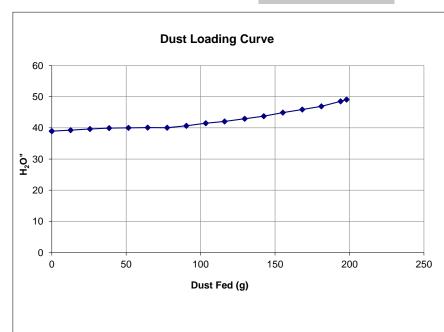
Test Results

Initial Delta P 38.65 in. H2O **Accumulative Capacity:** 197.30 g

**Test Time:** 15.31 min

|            | Initial | Accumulative | Э       |
|------------|---------|--------------|---------|
|            |         | Kit          | Blanket |
| Start      |         | 3497.20      | 604.24  |
| End        |         | 3694.50      | 604.28  |
| Gain       |         | 197.30       | 0.04    |
| Efficiency |         | 99.98%       |         |

Standard Restriction Pressure Differential



| Dust Loading Curve Data |                 |  |
|-------------------------|-----------------|--|
| Dust Fed (g)            | Pressure ("H2O) |  |
| 0                       | 38.95           |  |
| 12.651                  | 39.278          |  |
| 25.625                  | 39.651          |  |
| 38.527                  | 39.921          |  |
| 51.516                  | 40.02           |  |
| 64.395                  | 40.081          |  |
| 77.442                  | 40.041          |  |
| 90.376                  | 40.684          |  |
| 103.412                 | 41.505          |  |
| 116.119                 | 42.057          |  |
| 129.555                 | 42.932          |  |
| 142.379                 | 43.761          |  |
| 155.217                 | 44.902          |  |
| 168.308                 | 45.874          |  |
| 181.074                 | 46.906          |  |
| 193.958                 | 48.508          |  |
| 198.021                 | 49.084          |  |
|                         |                 |  |
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# Air Filter Full Life Efficiency Test Report

Test #: 907-5CE Sample #: 5CE Filter #: KF-1057 Housing #: AL1396B-00 Date Code: 45089

Operator: DC Report Date: 6/12/2023 Filter Mfg.: S&B Housing Mfg.: S&B



Test Description: 21-23 FORD BRONCO SPORT 2.3L 75-5161 S&B INTAKE CAPCITY AND EFFICIENCY TEST

**Test Conditions** 

**Barometric Pressure:** 28.891 in. Hg 458 SCFM Air Flow Setpoint: **Test Procedure:** CE SCFM Air Flow Type:

**Test Endpoint:** 10 in. H2O

Flow Direction:

**Number of Pleats:** 100

**Relative Humidity:** 54 % Type of Dust: ) A4 COARSE Batch #: 14996C

Temperature: 70 deg. F **Initial Add Rate:** NaN g/min **Accumulative Add Rate:** 12.97 g/min

Pleat Depth: 0.7 in.

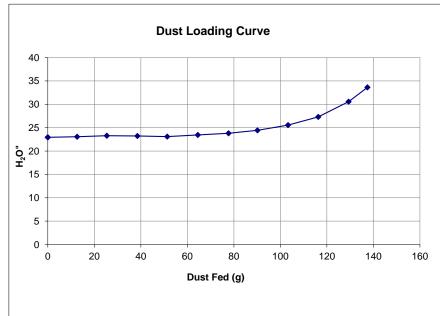
Test Results

Initial Delta P 22.68 in. H2O **Accumulative Capacity:** 133.40 g

Test Time: 10.64 min

|            | Initial | Accumulative | )       |
|------------|---------|--------------|---------|
|            |         | Kit          | Blanket |
| Start      |         | 6946.40      | 604.23  |
| End        |         | 7079.80      | 604.82  |
| Gain       |         | 133.40       | 0.59    |
| Efficiency |         | 99.56%       |         |

Standard Restriction Pressure Differential



| Dust Loading Curve Data |                 |  |
|-------------------------|-----------------|--|
| Dust Fed (g)            | Pressure ("H2O) |  |
| 0                       | 22.931          |  |
| 12.595                  | 23.046          |  |
| 25.381                  | 23.277          |  |
| 38.502                  | 23.211          |  |
| 51.356                  | 23.078          |  |
| 64.522                  | 23.454          |  |
| 77.721                  | 23.801          |  |
| 90.139                  | 24.431          |  |
| 103.32                  | 25.552          |  |
| 116.294                 | 27.297          |  |
| 129.336                 | 30.565          |  |
| 137.441                 | 33.617          |  |
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# Air Filter Full Life Efficiency Test Report

Test #: 907-6CE Sample #: 6CE Filter #: KF-1057D Housing #: AL1396B-00 Date Code: 2023.06.26

Operator: RT Report Date: 6/26/2023 Filter Mfg.: S&B Housing Mfg.: S&B



Test Description: 21-23 FORD BRONCO SPORT 2.3L 75-5161D S&B INTAKE CAPACITY AND EFFICIENCY TEST

**Test Conditions** 

**Barometric Pressure:** 28.758 in. Hg 458 SCFM Air Flow Setpoint: **Test Procedure:** CE SCFM Air Flow Type:

**Test Endpoint:** 10 in. H2O 100

Flow Direction:

**Number of Pleats:** 

**Relative Humidity:** 53 % Type of Dust: A4 COARSE

Batch #: 14996C Temperature: 69 deg. F

**Initial Add Rate:** NaN g/min **Accumulative Add Rate:** 12.97 g/min

0.75 in. Pleat Depth:

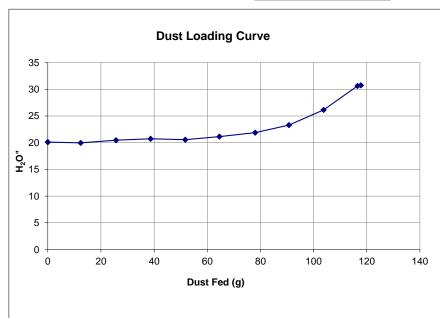
Test Results

Initial Delta P 19.98 in. H2O **Accumulative Capacity:** 114.40 g Test Time:

9.10 min

|            | Initial | Accumulative | )       |
|------------|---------|--------------|---------|
|            |         | Kit          | Blanket |
| Start      |         | 6579.80      | 585.58  |
| End        |         | 6694.20      | 585.98  |
| Gain       |         | 114.40       | 0.40    |
| Efficiency |         | 99.65%       |         |

Standard Restriction Pressure Differential



| Dust Loading Curve Data |                 |  |
|-------------------------|-----------------|--|
| Dust Fed (g)            | Pressure ("H2O) |  |
| 0                       | 20.109          |  |
| 12.372                  | 19.967          |  |
| 25.681                  | 20.458          |  |
| 38.674                  | 20.725          |  |
| 51.714                  | 20.566          |  |
| 64.575                  | 21.128          |  |
| 77.988                  | 21.874          |  |
| 90.735                  | 23.302          |  |
| 103.768                 | 26.14           |  |
| 116.557                 | 30.62           |  |
| 117.786                 | 30.756          |  |
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