

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

Part Number: 75-5100, 75-5100D

**Description:** Performance Intake Kit & Filter

Vehicle Applications: 2012 - 2015 Toyota Tacoma 4.0L

**Test Date:** 03/02/17

**Test Report** #: 3, 4, 5, 6, 7, 8

#### **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 65.58% 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 over state airflow.

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

| Description                    | % S&B Flowed Better than Stock (tested @ 294 cfm) |
|--------------------------------|---|
| S&B Intake w/ Cleanable Filter | 65.58%  |
| S&B Intake w/ Dry Filter       | 65.27%  |

#### **TEST CONDITIONS**

| Barometric Pressure           | 28.98         |
|-------------------------------|---------------|
| Airflow Setpoint              | 294 cfm       |
| Relative Humidity             | 50            |
| Temperature                   | 70.2F         |
| Type of Dust                  | ISO<br>Coarse |
| Batch #                       | 13228C        |
| Dust Feed Rate (grams/minute) | 8.33          |

## 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 @ 294 cfm) |
|-----------------------------------|------------------------------------|
| Stock                             | 99.68%                             |
| S&B Intake w/<br>Cleanable Filter | 99.37%                             |
| S&B Intake w/<br>Dry Filter       | 99.66%                             |

## WATCH OUT: Some Competitors Use the Same

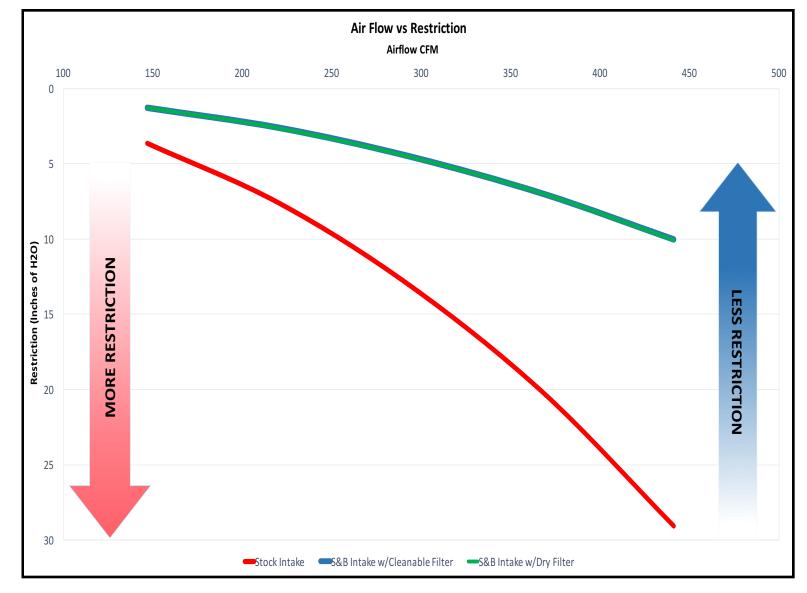
# Efficiency Rates for Multiple Part Numbers.

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 #:
 447
 Operator:
 SD

 Sample #:
 3
 Report Date:
 3/2/2017

 Filter #:
 17801-0P010
 Filter Mfg.:

Housing #: Housing Mfg.:

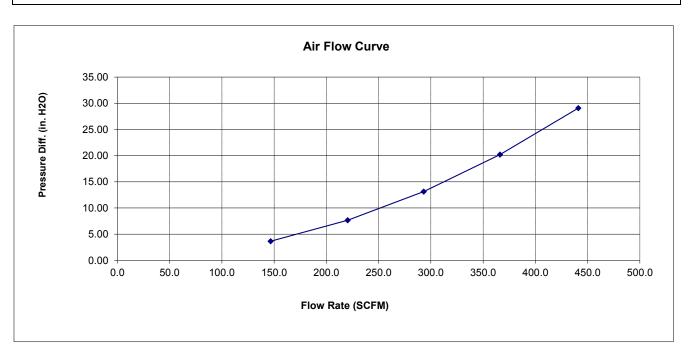


Test Description: STOCK INTAKE AND FILTER, NO CCV, NO SENSORS, FILTER# 17801-0P010

#### **Test Conditions**

Barometric Pressure: 29.05517 in. Hg
Air Flow Type: SCFM
Number of Pleats: Relative Humidity: 49 %
Temperature: 69 deg. F

Flow Direction:



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

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 147       | 3.65                         |
| 220       | 7.65                         |
| 293       | 13.13                        |
| 366       | 20.21                        |
| 441       | 29.08                        |
|           |                              |

## **Air Filter Restriction Test Report**

Test #: 447 Operator: SD
Sample #: 5 Report Date: 3/2/2017
Filter #: KF-1053 Filter Mfg.:

Housing #: 75-5095/75-5100 Housing Mfg.:

Date Code:

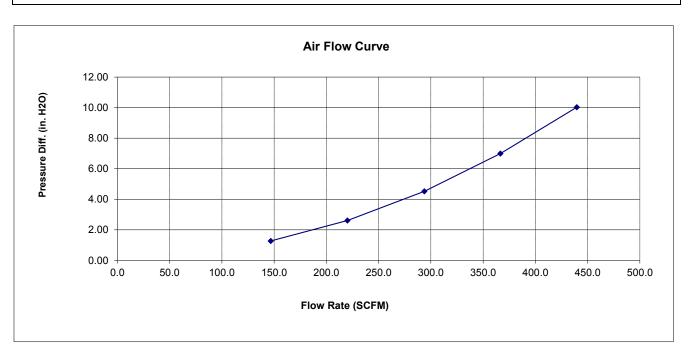
Test Description: 75-5095/75-5100 PRODUCTION KIT, NO SENSORS, NO CCV, FENDER SEAL INSTALLED, LID INSTALLED

KF-1053

#### **Test Conditions**

Barometric Pressure: 29.0449 in. Hg Relative Humidity: 51 %
Air Flow Type: SCFM Temperature: 68 deg. F
Number of Pleats: Pleat Depth: in.

Flow Direction:



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

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 147       | 1.27                         |
| 220       | 2.61                         |
| 294       | 4.52                         |
| 367       | 6.99                         |
| 440       | 10.03                        |
|           |                              |

## **Air Filter Restriction Test Report**

447 Operator: SD Test #: Sample #: 7 Report Date: 3/2/2017 Filter #: KF-1053D Filter Mfg.: **Housing #:** 75-5095/75-5100

Housing Mfg.:

Date Code:

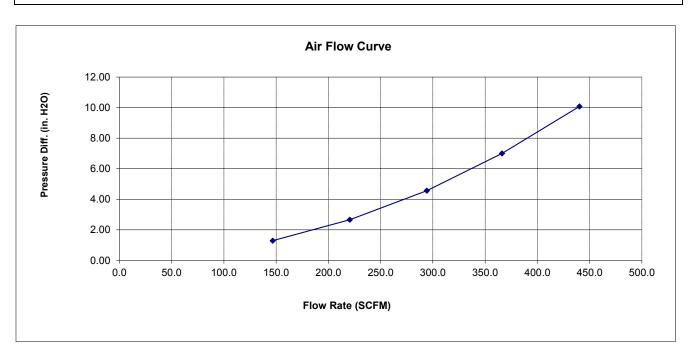
Test Description: 75-5095/75-5100 PRODUCTION KIT, NO SENSORS, NO CCV, FENDER SEAL INSTALLED, LID INSTALLED

KF-1053D

#### **Test Conditions**

Barometric Pressure: 29.04387 in. Hg **Relative Humidity:** 51 % Air Flow Type: Temperature: 68 deg. F SCFM Number of Pleats: Pleat Depth: in.

Flow Direction:



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

| Flow Rate | <u>Differential Pressure</u> |
|-----------|------------------------------|
| 147       | 1.29                         |
| 221       | 2.66                         |
| 294       | 4.56                         |
| 366       | 7.00                         |
| 440       | 10.08                        |
|           |                              |

## Air Filter Full Life Efficiency Test Report

Operator: SD Test #: 447 Sample #: 4 Report Date: 3/2/2017 Filter Mfg.: Filter #: 17801-0P010 Housing Mfg.:

Housing #: Date Code:



Test Description: STOCK INTAKE AND FILTER, NO CCV, NO SENSORS, FILTER# 17801-0P010

#### **Test Conditions**

**Barometric Pressure:** 29.048 in. Hg **Relative Humidity:** 49 % Type of Dust: A4 COARSE 294 SCFM Air Flow Setpoint: **Test Procedure:** Batch #: 13228C

Air Flow Type: 69 deg. F SCFM Temperature: **Test Endpoint:** 10 in. H2O **Initial Add Rate:** NaN g/min **Number of Pleats: Accumulative Add Rate:** 8.33 g/min Flow Direction: Pleat Depth: in.

#### Test Results

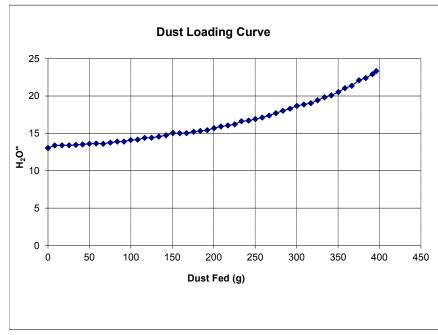
13.21 in. H2O Initial Delta P **Accumulative Capacity:** 393.00 g

**Test Time:** 47.54 min

|            | Initial |         | Accumulative | ;       |
|------------|---------|---------|--------------|---------|
|            |         | Blanket |              | Blanket |
| Start      |         |         | 3982.70      | 171.36  |
| End        |         |         | 4375.70      | 172.63  |
| Gain       |         |         | 393.00       | 1.27    |
| Efficiency |         |         | 99 68%       |         |

Standard Restriction

Pressure Differential



| Dust Loading Curve Data |                 |  |
|-------------------------|-----------------|--|
| Dust Fed (g)            | Pressure ("H2O) |  |
| 0                       | 13.043          |  |
| 8.126                   | 13.379          |  |
| 16.93                   | 13.407          |  |
| 25.553                  | 13.397          |  |
| 33.586                  | 13.447          |  |
| 41.706                  | 13.521          |  |
| 50                      | 13.608          |  |
| 58.204                  | 13.644          |  |
| 66.591                  | 13.612          |  |
| 75.303                  | 13.761          |  |
| 83.554                  | 13.89           |  |
| 91.67                   | 13.902          |  |
| 99.788                  | 14.096          |  |
| 108.164                 | 14.159          |  |
| 116.653                 | 14.399          |  |
| 124.977                 | 14.41           |  |
| 133.872                 | 14.564          |  |
| 142.476                 | 14.732          |  |
| 150.735                 | 15.039          |  |
| 158.927                 | 15.01           |  |
| 167.173                 | 15.023          |  |
| 175.879                 | 15.211          |  |
| 183.903                 | 15.323          |  |
| 192.156                 | 15.423          |  |

## Air Filter Full Life Efficiency Test Report

Operator: SD Test #: 447 Sample #: 6 Report Date: 3/2/2017 Filter Mfg.: Filter #: KF-1053 Housing #: 75-5095/75-5100 Housing Mfg.:

Date Code:



Test Conditions

**Barometric Pressure:** 29.056 in. Hg **Relative Humidity:** 51 % 294 SCFM Air Flow Setpoint: Type of Dust: A4 COARSE **Test Procedure:** Batch #: 13228C

68 deg. F Air Flow Type: SCFM Temperature: **Test Endpoint:** 10 in. H2O **Initial Add Rate:** NaN g/min **Number of Pleats: Accumulative Add Rate:** 8.33 g/min Flow Direction: Pleat Depth: in.

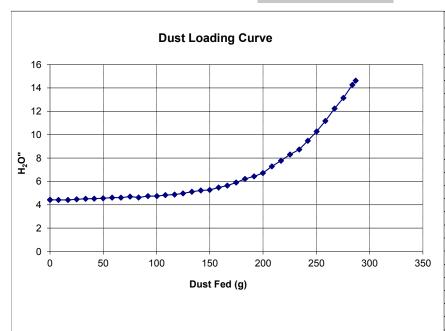
Test Results

Initial Delta P 4.37 in. H2O **Accumulative Capacity:** 285.20 g

**Test Time:** 34.40 min

|            | Initial |         | Accumulative | )       |
|------------|---------|---------|--------------|---------|
|            |         | Blanket |              | Blanket |
| Start      |         |         | 4220.90      | 173.50  |
| End        |         |         | 4506.10      | 175.30  |
| Gain       |         |         | 285.20       | 1.80    |
| Efficiency |         |         | 99.37%       |         |

Standard Restriction Pressure Differential



| <b>Dust Loading Curve Data</b> |                 |  |
|--------------------------------|-----------------|--|
| Dust Fed (g)                   | Pressure ("H2O) |  |
| 0                              | 4.423           |  |
| 8.003                          | 4.417           |  |
| 16.813                         | 4.418           |  |
| 24.984                         | 4.464           |  |
| 33.401                         | 4.514           |  |
| 41.482                         | 4.526           |  |
| 49.846                         | 4.559           |  |
| 58.304                         | 4.607           |  |
| 66.629                         | 4.611           |  |
| 75.187                         | 4.699           |  |
| 83.123                         | 4.621           |  |
| 91.89                          | 4.74            |  |
| 100.298                        | 4.743           |  |
| 108.322                        | 4.828           |  |
| 116.929                        | 4.872           |  |
| 124.874                        | 4.974           |  |
| 133.168                        | 5.114           |  |
| 141.583                        | 5.22            |  |
| 149.912                        | 5.264           |  |
| 158.245                        | 5.474           |  |
| 166.465                        | 5.643           |  |
| 174.78                         | 5.898           |  |
| 182.992                        | 6.214           |  |
| 191.53                         | 6.429           |  |
|                                |                 |  |

## Air Filter Full Life Efficiency Test Report

Operator: SD Test #: 447 Sample #: 8 Report Date: 3/2/2017 Filter Mfg.: Filter #: KF-1053D

Housing #: 75-5095/75-5100 Housing Mfg.:

Date Code:



KF-1053D

Test Conditions

**Barometric Pressure:** 29.064 in. Hg **Relative Humidity:** 52 % 294 SCFM Air Flow Setpoint: Type of Dust: A4 COARSE **Test Procedure:** Batch #: 13228C

Air Flow Type: 68 deg. F SCFM Temperature: **Test Endpoint:** 10 in. H2O **Initial Add Rate:** NaN g/min **Number of Pleats: Accumulative Add Rate:** 8.33 g/min Flow Direction: Pleat Depth: in.

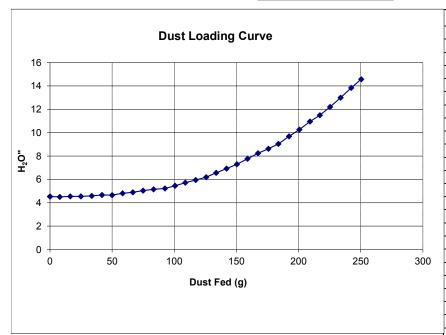
Test Results

Initial Delta P 4.55 in. H2O **Accumulative Capacity:** 252.50 g

**Test Time:** 30.00 min

|            | Initial |         | Accumulative | ;       |
|------------|---------|---------|--------------|---------|
|            |         | Blanket |              | Blanket |
| Start      |         |         | 4245.60      | 172.63  |
| End        |         |         | 4498.10      | 173.50  |
| Gain       |         |         | 252.50       | 0.87    |
| Efficiency |         |         | 99 66%       |         |

Standard Restriction Pressure Differential



| Dust Loading | Curve Data      |
|--------------|-----------------|
| Dust Fed (g) | Pressure ("H2O) |
| 0            | 4.533           |
| 7.873        | 4.503           |
| 16.303       | 4.547           |
| 24.898       | 4.543           |
| 33.575       | 4.587           |
| 41.809       | 4.669           |
| 49.938       | 4.655           |
| 58.4         | 4.812           |
| 66.614       | 4.899           |
| 74.951       | 5.037           |
| 83.304       | 5.143           |
| 92.503       | 5.227           |
| 100.68       | 5.451           |
| 108.927      | 5.72            |
| 117.217      | 5.951           |
| 125.677      | 6.19            |
| 133.721      | 6.564           |
| 142.086      | 6.925           |
| 150.38       | 7.292           |
| 158.938      | 7.77            |
| 167.355      | 8.239           |
| 175.694      | 8.624           |
| 183.775      | 9.039           |
| 192.274      | 9.684           |
|              |                 |





