
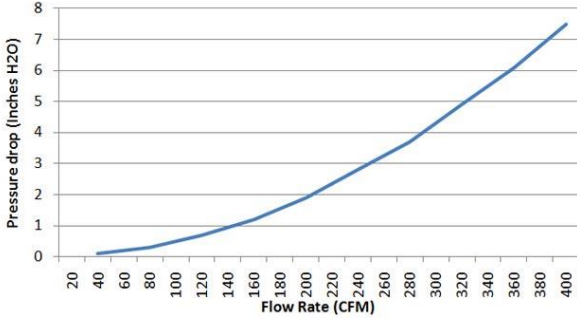

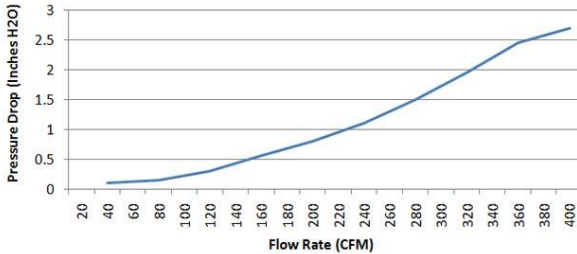


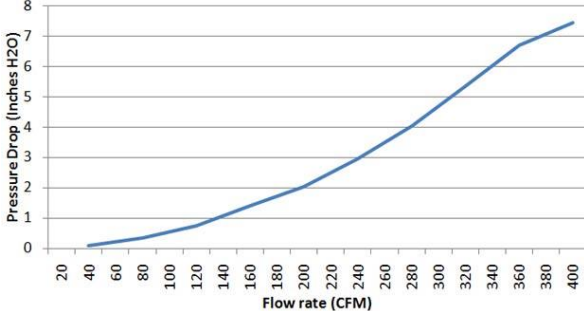



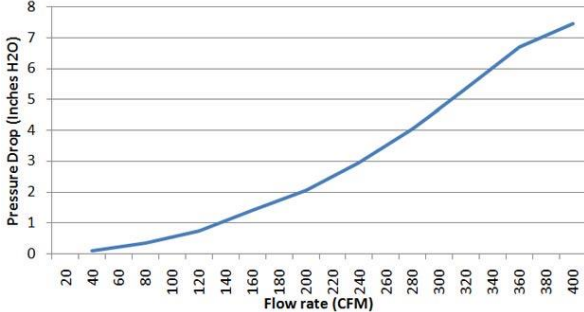

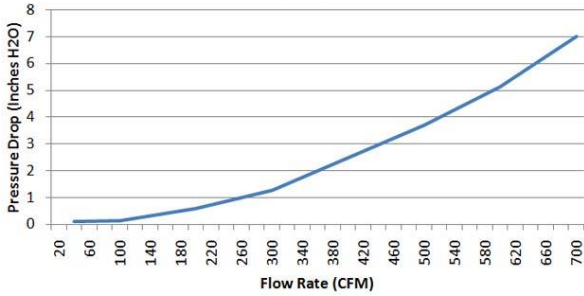



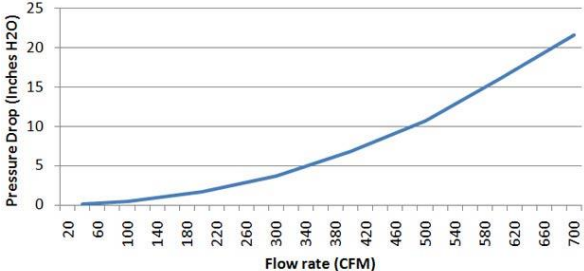

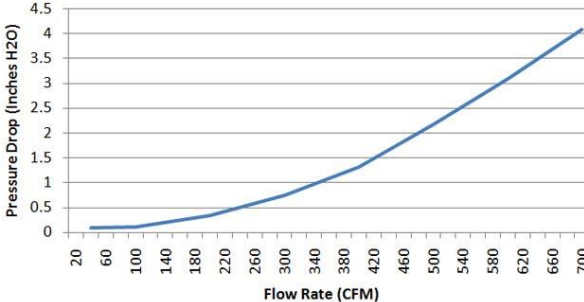

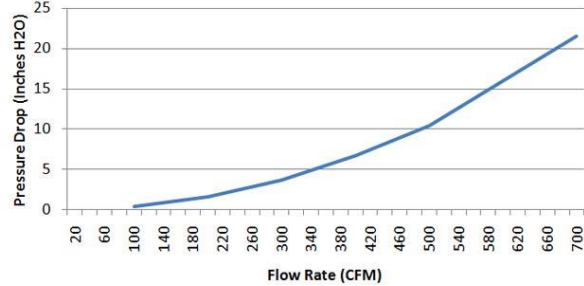
## AIR FLOW RATE DATA FOR AIR FILTERS IN INDUCTION KITS

This document shows air flow in CFM (cubic feet/min) for air filters when used in a Reverie air induction kit canister. All measurements were taken while using a 100mm inlet and outlet pipes. Optimal CFM measurement is taken at 1.5" of water; this is considered an acceptable pressure drop across a filter. 1.5" of water equates to approximately 3.73 mbar. 1" H<sub>2</sub>O = 2.49 mbar

	Description	Size (mm)	CF/M	Graph (Pressure Drop/Flow Rate)
 <p>R01SE0198</p>	<p><b>Daytona 230C Carbon Air Induction Canister</b></p> <p>100, 75 or 58 mm outlet (CFM Measured with 100mm inlet &amp; outlet)</p>	<p>152mm x 285mm</p>	<p>178</p>	<p><b>Daytona 100mm entry and exit</b></p> 
 <p>R01SE0198</p>	<p><b>Daytona 230C Carbon Air Induction Canister</b></p> <p>100, 75 or 58 mm outlet (CFM Measured with 100mm inlet &amp; outlet with flow reversed)</p>	<p>152mm x 285mm</p>	<p>300</p>	<p><b>Daytona 100mm entry &amp; exit (reversed flow)</b></p> 

 <p>R01SE0594</p>	<p><b>Daytona 500 Carbon Air Induction Canister</b></p>	<p>205mm x 300mm</p>	<p>N/A</p>	<p>N/A</p>																																										
 <p>R01SE0351</p>	<p><b>Indy 200BC Carbon Air Induction Canister</b> 152mm (6") inlet/outlet</p>	<p>152mm x 235mm</p>	<p>166</p>	<p><b>Indy open entry 100 mm exit</b></p>  <table border="1"> <caption>Pressure Drop vs Flow Rate Data</caption> <thead> <tr> <th>Flow rate (CFM)</th> <th>Pressure Drop (Inches H<sub>2</sub>O)</th> </tr> </thead> <tbody> <tr><td>20</td><td>0.0</td></tr> <tr><td>40</td><td>0.1</td></tr> <tr><td>60</td><td>0.2</td></tr> <tr><td>80</td><td>0.3</td></tr> <tr><td>100</td><td>0.4</td></tr> <tr><td>120</td><td>0.6</td></tr> <tr><td>140</td><td>0.8</td></tr> <tr><td>160</td><td>1.1</td></tr> <tr><td>180</td><td>1.4</td></tr> <tr><td>200</td><td>1.8</td></tr> <tr><td>220</td><td>2.2</td></tr> <tr><td>240</td><td>2.7</td></tr> <tr><td>260</td><td>3.2</td></tr> <tr><td>280</td><td>3.8</td></tr> <tr><td>300</td><td>4.4</td></tr> <tr><td>320</td><td>5.0</td></tr> <tr><td>340</td><td>5.6</td></tr> <tr><td>360</td><td>6.2</td></tr> <tr><td>380</td><td>6.7</td></tr> <tr><td>400</td><td>7.2</td></tr> </tbody> </table>	Flow rate (CFM)	Pressure Drop (Inches H <sub>2</sub> O)	20	0.0	40	0.1	60	0.2	80	0.3	100	0.4	120	0.6	140	0.8	160	1.1	180	1.4	200	1.8	220	2.2	240	2.7	260	3.2	280	3.8	300	4.4	320	5.0	340	5.6	360	6.2	380	6.7	400	7.2
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 <p>R01SE0352</p>	<p><b>Indy 200BC Carbon Air Induction Canister</b> 152mm (6") inlet, custom outlet</p>	<p>152mm x 235mm</p>	<p>N/A</p>	<p>N/A</p>																																										

 R01SE6009	<b>Indy 200BC Carbon Air Induction Canister</b> 152mm (6") inlet, rectangular outlet	152mm x 235mm	N/A	N/A																																										
 R01SE0049	<b>Suzuka 290C Carbon Air Induction Canister</b> 152mm (6") outlet and 100mm inlet with two raised flat mounting surfaces	152mm x 470mm	166	<p style="text-align: center;"><b>Suzuka open entry 100 mm exit</b></p>  <table border="1"> <caption>Approximate data for Suzuka open entry 100 mm exit</caption> <thead> <tr> <th>Flow rate (CFM)</th> <th>Pressure Drop (Inches H2O)</th> </tr> </thead> <tbody> <tr><td>20</td><td>0.0</td></tr> <tr><td>40</td><td>0.1</td></tr> <tr><td>60</td><td>0.2</td></tr> <tr><td>80</td><td>0.3</td></tr> <tr><td>100</td><td>0.4</td></tr> <tr><td>120</td><td>0.6</td></tr> <tr><td>140</td><td>0.8</td></tr> <tr><td>160</td><td>1.1</td></tr> <tr><td>180</td><td>1.4</td></tr> <tr><td>200</td><td>1.8</td></tr> <tr><td>220</td><td>2.2</td></tr> <tr><td>240</td><td>2.7</td></tr> <tr><td>260</td><td>3.2</td></tr> <tr><td>280</td><td>3.8</td></tr> <tr><td>300</td><td>4.4</td></tr> <tr><td>320</td><td>5.0</td></tr> <tr><td>340</td><td>5.6</td></tr> <tr><td>360</td><td>6.2</td></tr> <tr><td>380</td><td>6.8</td></tr> <tr><td>400</td><td>7.4</td></tr> </tbody> </table>	Flow rate (CFM)	Pressure Drop (Inches H2O)	20	0.0	40	0.1	60	0.2	80	0.3	100	0.4	120	0.6	140	0.8	160	1.1	180	1.4	200	1.8	220	2.2	240	2.7	260	3.2	280	3.8	300	4.4	320	5.0	340	5.6	360	6.2	380	6.8	400	7.4
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 R01SE0488	<b>Suzuka 290C Clubman Carbon Air Induction Kit</b> 2 x 152mm (6") inlet with 100mm outlet	152mm x 305mm	317	<p style="text-align: center;"><b>Suzuka dual 152mm entry 100mm exit</b></p>  <table border="1"> <caption>Approximate data for Suzuka dual 152mm entry 100mm exit</caption> <thead> <tr> <th>Flow Rate (CFM)</th> <th>Pressure Drop (Inches H2O)</th> </tr> </thead> <tbody> <tr><td>20</td><td>0.0</td></tr> <tr><td>60</td><td>0.1</td></tr> <tr><td>100</td><td>0.2</td></tr> <tr><td>140</td><td>0.3</td></tr> <tr><td>180</td><td>0.4</td></tr> <tr><td>220</td><td>0.6</td></tr> <tr><td>260</td><td>0.8</td></tr> <tr><td>300</td><td>1.1</td></tr> <tr><td>340</td><td>1.4</td></tr> <tr><td>380</td><td>1.8</td></tr> <tr><td>420</td><td>2.2</td></tr> <tr><td>460</td><td>2.7</td></tr> <tr><td>500</td><td>3.2</td></tr> <tr><td>540</td><td>3.8</td></tr> <tr><td>580</td><td>4.4</td></tr> <tr><td>620</td><td>5.0</td></tr> <tr><td>660</td><td>5.6</td></tr> <tr><td>700</td><td>6.2</td></tr> </tbody> </table>	Flow Rate (CFM)	Pressure Drop (Inches H2O)	20	0.0	60	0.1	100	0.2	140	0.3	180	0.4	220	0.6	260	0.8	300	1.1	340	1.4	380	1.8	420	2.2	460	2.7	500	3.2	540	3.8	580	4.4	620	5.0	660	5.6	700	6.2				
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 <p>R01SE0479</p>	<p><b>Suzuka Pro BC Carbon Air Induction Kit</b> 152mm (6") inlet, 100mm outlet</p>	<p>252mm x 360mm</p>	<p>185</p>	<p><b>Suzuka Pro 100mm exit 152mm entry</b></p> 
 <p>R01SE0479</p>	<p><b>Suzuka Pro BC Carbon Air Induction Kit</b> 152mm (6") inlet/outlet</p>	<p>252mm x 360mm</p>	<p>422</p>	<p><b>6. Suzuka Pro 152mm exit &amp; entry</b></p> 
 <p>R01SE0478</p>	<p><b>Suzuka Pro SC Carbon Air Induction Kit</b> 100mm side inlet, 152mm (6") outlet</p>	<p>252mm x 360mm</p>	<p>190</p>	<p><b>Suzuka Pro SC 100 entry 152mm exit</b></p> 



R01SE0478

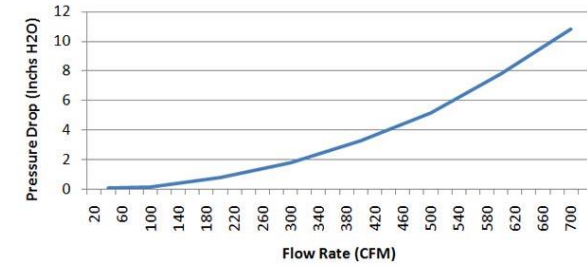
**Suzuka Pro SC Carbon Air Induction Kit**

127.5mm side inlet, 100mm outlet

252mm x 360mm

270

**Suzuka Pro SC 127.5 mm & entry 100 mm exit (reversed flow)**

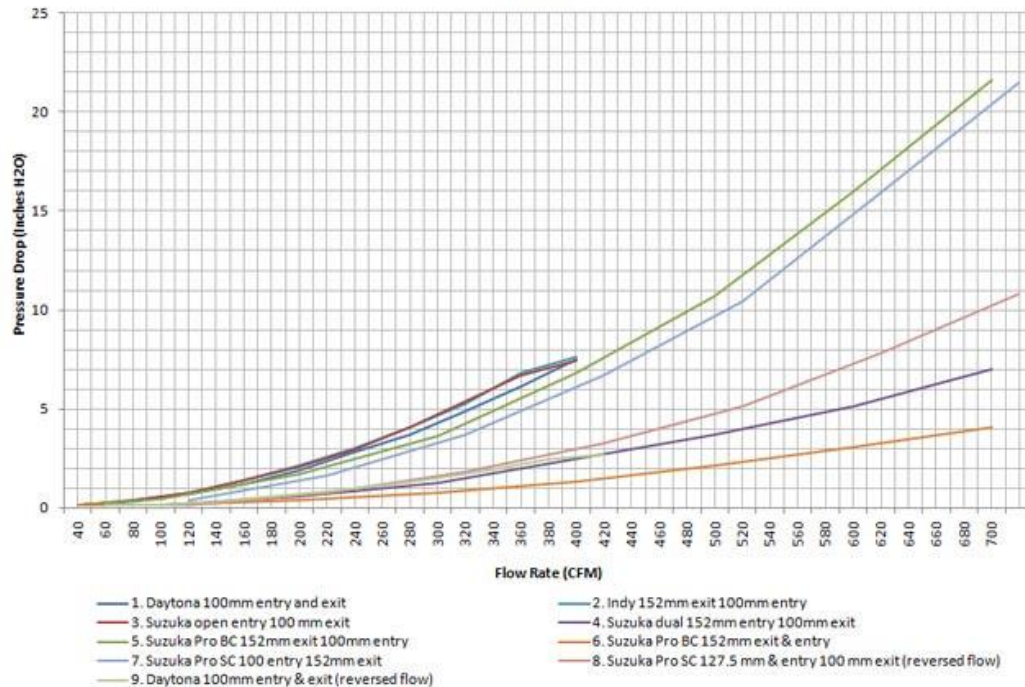


# Graph Comparing Flow Rates of Different Air Induction Kits

The graph below shows flow rate in cubic feet per minute (CFM) against pressure loss across the filter measured in inches of water (Inches  $H_{2O}$ ). Measurements were taken for each air induction kit with 100mm inlet/outlet pipe, however, as the larger air boxes are not designed for use with a 100mm inlet pipe so flow graphs with their optimum intake size have been included. The larger Suzuka Pro is designed to use a 127.5 mm or a 152mm inlet pipe allowing it to flow much more air.

1"/H<sub>2</sub>O = 2.49 mbar

**Graph Comparing the flow rate vs pressure loss for our range of remote filters**



## Intake Sizing

An inlet that is too small will cause a pressure drop inside the air box restricting performance. The inlet sizing table (below) shows the minimum recommended inlet/ducting size for a power output category. The larger the power output of an engine the more air it will require to run at peak efficiency, therefore a larger intake is needed as power increases. Multiple smaller inlets can be used to achieve the same open inlet area as a larger intake, for example, if a larger inlet pipe won't fit on the air box, multiple smaller inlet or [oval inlet pipes](#) could be used to create a comparable open area. [High flow alloy straight trumpets can also be used as intakes.](#)

BHP Category	Open Area (cm <sup>2</sup> )	Inlet Diameter (mm)
1 - 150	44.18	75.0
150 - 205	56.75	85.0
205 - 265	78.54	100.0
265 - 325	127.68	127.5
325 +	181.46	152.0

**On typical engines 150CFM is required for each 100BHP**

**On high performance engines 130CFM is required for each 100 BHP**

The formula below shows the formula for required airflow to the engine in cubic feet per minute.

$$\text{CFM} = \text{Engine Capacity (Cubic Inches)} / 3464 \times \text{Max RPM 1L} = 61.0237\text{in}^3$$

For example a 5.7 litre engine requires 703CFM of air at 7000rpm :

$$703 \text{ CFM} = 347.84\text{CI} / 3464 * 7000\text{RPM}$$

Or if supercharged:

$$\text{CFM} = (\text{CI} \times \text{RPM} / 3456) \times (\text{boost [psi]} / 14.7 + 1)$$