

Ideal Header Diameter Single Tube

CC's	466		
Single Cylinder (CC's)	116.5		
Ideal RPM	8,000		
Rotations Per Period	2		
Pulses p/min	4000		
Exhaust Gas p/min (CC's)	466000		
Cubic Ft p/min	16.456634	Cu Ft Conversion	28316.848
Gas velocity through a duct	A=Q/V		
A (ft²)	911.48652		
Q	15000		
V	16.456634		
A (inches²)	1.3125	Ft²	0.008155
Ft to Inches Conversion	144.00613	Inches²	1.17437
r²	0.4177276		
A	1.3125		
Π	3.142		
r	0.6463185		
Diameter	1.2926369		

Ideal Header Length

Header Length Equation	(((850 * (180 + EBBC)) / RPM) - 3	
EBBC	54	
RPM	11000	

Header Length 15.081818

Tailpipe Diameter

Tailpipe Diameter Equation $(\text{sqrt}((\text{Single Cylinder CC} * 2) / ((\text{Primary Length} + 3) * 25))) * 2$

Tailpipe Diameter 1.4358759