/// Race Louvers

Professional R&D - Wind Tunnel Tested - Track Proven

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Adding a Gurney Flap To The GT350 Hood Vent

Welcome to Race Louvers. Here we take a second look at how adding a gurney flap to a hood vent performs. Previously we've tested adding a gurney flap to a recessed louver vent design and the results were marginal, slight increase in cooling, little downforce increase but added drag. This time adding a gurney made by the car owner to the oem GT350 hood vent was a failure, there was more or less no downforce or cooling increase but drag went up a bunch. So we retract our previous guidance of keeping any kind of add-on gurney flap to about ¾" tall or less and recommend no gurneys at all. While gurney flaps in general do create high pressure in front and low pressure in the rear, if the vent design behind the gurney can't make use of the low pressure there are little gains and only added drag. Basically in a nutshell adding gurneys to existing vents because they dont work well from the start is a bandaid at best. This is exactly why all of our extractor kits are unique from one another, we optimize the design of each shape, size, and performance trim.

Video: https://www.youtube.com/watch?v=UvwnPqzKtHM

Wind Tunnel Data

2021.12.13 GT350

REQUIRED SPEED INPUT > > MPH = 100 (Lbs@29.92"hg, 60 F) AERO YNAMI 53

Friday, January 07, 2022

Comments	RUN	Pt.	REF	DRAG HP	DRAG lb	RELATIVE DRAG ΔHP	ΔDrag (lbs)	LBS Force at Speed Total	Front	Rear	Side
oem hood oem vent	2	AVE		81.8	306.6			-344.7	-41.5	-303.3	-15.0
		1		81.7	306.3			-344.7	-41.1	-303.6	-15.6
		2		81.9	307.0			-344.7	-41.8	-303.0	-14.5
		3									
		4									
oem hood vent with 3/4" ramp wicker	3	AVE	2	83.5	313.1	1.7	6.5	-341.0	-41.8	-299.2	-13.8
		1		83.5	313.2			-341.3	-41.7	-299.6	-13.3
		2		83.4	312.9			-340.8	-41.9	-298.9	-14.2
		3									
		4									

Comments	Pt.	RELATIVE FORCE (lb) ΔLift Total	ΔLift Front	ΔLift Rear	ΔSide Force	L / D ift/Dra	BALANCE % Front	ALANC Overall % Front	C1	C2	Rad %	C3	C4	Oil %
oem hood oem vent	AVE					-1.12	12.0%	12.0%	.520	-.005	.00	.372	.101	3.40
	1					-1.13	11.9%	11.9%	.519	-.005		.372	.102	
	2					-1.12	12.1%	12.1%	.520	-.006		.372	.100	
	3													
	4													
oem hood vent with 3/4" ramp wicker	AVE	3.7	-0.3	4.1	1.3	-1.09	12.3%	12.3%	.517	-.013	1.00	.368	.096	3.80
	1					-1.09	12.2%	12.2%	.517	-.013		.368	.096	
	2					-1.09	12.3%	12.3%	.516	-.013		.368	.095	
	3													
	4													

Adding a ¾" wicker to this oem GT350 vent netted only .3lbs of front DF, barely 1% cooling increase but added 6.5lbs of drag at 100mph. Fail.

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Baseline - OEM GT350 Hood With OEM GT350 Vent

OEM GT350 Hood Vent With Test Gurney Made By The Car Owner

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