/// Race Louvers

Professional R&D - Wind Tunnel Tested - Track Proven

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Adding a Gurney Flap To A Competitor's Vent - Fail

Welcome to Race Louvers. Here we take a second look at how adding a gurney flap to a competitor's vent performs. Previously we’ve tested adding a gurney flap to a competitor's vent and the results were marginal, slight increase in cooling, little downforce increase but added drag. This time around adding a gurney to another competitor's 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 on competitors' stuff. 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=sFDfKRqdQUY

Wind Tunnel Data

	A	B	C	D	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	BB	BC	BD	BE	BF	BG
1				ronta		REQUIRED SPEED INPUT > >			MPH =	100				(Lbs@29.92"hg, 60 F)				AERO	YNAMI	53					
2	Friday, January 07, 2022				DRAG	DRAG	RELATIVE DRAG		LBS Force at Speed				RELATIVE FORCE (lb)				L / D	BALANC	ALANC	Coefficient of Pressure: CP = DP/					
3	Comments	RUN	Pt.	REF	HP	lb	ΔHP	ΔDrag (lbs)	Total	Front	Rear	Side	ΔLift Total	ΔLift Front	ΔLift Rear	ΔSide Force	ift/Dra	% Front	Overall % Front	C1	C2	Rad %	C3	C4	Oil %
9	oem hood oem vent	2	AVE		81.8	306.6			-344.7	-41.5	-303.3	-15.0					-1.12	12.0%	12.0%	.520	-.005	.00	.372	.101	3.40
10			1		81.7	306.3			-344.7	-41.1	-303.6	-15.6					-1.13	11.9%	11.9%	.519	-.005		.372	.102	
11			2		81.9	307.0			-344.7	-41.8	-303.0	-14.5					-1.12	12.1%	12.1%	.520	-.006		.372	.100	
12			3																						
13			4																						
14	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	3.7	-0.3	4.1	1.3	-1.09	12.3%	12.3%	.517	-.013	1.00	.368	.096	3.80
15			1		83.5	313.2			-341.3	-41.7	-299.6	-13.3					-1.09	12.2%	12.2%	.517	-.013		.368	.096	
16			2		83.4	312.9			-340.8	-41.9	-298.9	-14.2					-1.09	12.3%	12.3%	.516	-.013		.368	.095	
17			3																						
18			4																						

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

Baseline - OEM Hood With OEM Vent

OEM Hood Vent With Gurney Flap

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