

Additional Table 2: Consumption time of isoflurane, sevoflurane and desflurane in the Aisys CS™ fresh gas flow, and the MIRUS™ system.

System	Consumption n (h)	95% bias-corrected confidence interval	and accelerated- Statistics
Isoflurane			
0.5%			
0.5 L/min	0.93±0.82	0.80-1.10	$F_{(4,10)} = 1034.09, P < 0.001, R_c^2 = 0.997$
FGF			
1.0 L/min	2.00±0.53	1.90-2.10	$P < 0.001$
FGF			
2.5 L/min	4.00±0.05	3.93-4.08	$P < 0.001$
FGF			
5.0 L/min	7.77±0.14	7.50-8.00	$P < 0.001$
FGF			
MIRUS™	2.00±0.00	2.00-2.00	
MV 5 L			
1.0%			
0.5 L/min	1.97±0.03	1.90-2.00	$F_{(4,10)} = 4866.24, P < 0.001, R_c^2 = 0.999$
FGF			
1.0 L/min	3.40±0.05	3.30-3.50	$P < 0.001$
FGF			
2.5 L/min	8.13±0.11	7.90-8.30	$P < 0.001$
FGF			
5.0 L/min	15.80±0.11	15.60-16.00	$P < 0.001$
FGF			
MIRUS™	4.00±0.00	4.00-4.00	
MV 5L			
1.5%			
0.5 L/min	2.90±0.05	2.80-3.00	$F_{(4,10)} = 6291.84, P < 0.001, R_c^2 > 0.999$
FGF			
1.0 L/min	5.50±0.14	5.30-5.80	$P < 0.001$
FGF			

2.5	L/min	12.10±0.55	12.00-12.20	$P < 0.001$
FGF				
5.0	L/min	23.80±0.14	23.50-24.00	$P < 0.001$
FGF				
MIRUS™		8.00±0.00	8.00-8.00	
MV 5 L				
2.0%				
0.5	L/min	3.70±0.54	3.60-3.80	$F_{(4,10)} = 7452.61, P < 0.001, R_c^2 >$
FGF				
				0.999
1.0	L/min	7.27±0.19	6.90-7.60	$P < 0.001$
FGF				
2.5	L/min	15.77±0.08	15.60-15.90	$P < 0.001$
FGF				
5.0	L/min	30.77±0.13	30.50-31.00	$P < 0.001$
FGF				
MIRUS™		16.00±0.00	16.00-16.00	
MV 5 L				
2.5%				
0.5	L/min	4.97±0.08	4.80-5.10	$F_{(4,10)} = 457.61, P < 0.001, R_c^2 =$
FGF				
				0.992
1.0	L/min	8.67±0.17	8.30-8.90	$P < 0.001$
FGF				
2.5	L/min	19.57±0.26	19.20-20.10	$P < 0.001$
FGF				
5.0	L/min	38.43±0.22	38.00-38.80	$P < 0.001$
FGF				
MIRUS™		24.67±1.23	22.00-26.00	
MV 5 L				
Sevoflurane				
0.5%				
0.5	L/min	1.00±0.00	1.00-1.00	$F_{(4,10)} = 70.04, P < 0.001, R_c^2 =$
FGF				
				0.952

1.0	L/min	2.00±0.00	2.00-2.00	$P = 0.484$
FGF				
2.5	L/min	4.33±0.13	4.10-4.60	$P = 0.007$
FGF				
5.0	L/min	8.33±0.30	8.00-9.00	$P < 0.001$
FGF				
MIRUS™		4.67±0.62	4.00-6.00	
MV 5 L				
1.0%				
0.5	L/min	2.33±0.32	2.00-3.00	$F_{(4,10)} = 98.62, P < 0.001, R_c^2 =$
FGF				
				0.965
1.0	L/min	4.00±0.00	4.00-4.00	$P = 0.432$
FGF				
2.5	L/min	8.37±0.16	8.20-8.70	$P = 0.002$
FGF				
5.0	L/min	16.00±0.00	16.00-16.00	$P < 0.001$
FGF				
MIRUS™		10.00±1.08	8.67-11.50	
MV 5 L				
1.5%				
0.5	L/min	3.00±0.00	3.00-3.00	$F_{(4,10)} = 510.33, P < 0.001, R_c^2 >$
FGF				
				0.993
1.0	L/min	5.33±0.31	5.00-6.00	$P = 0.013$
FGF				
2.5	L/min	12.47±0.16	12.20-12.80	$P < 0.001$
FGF				
5.0	L/min	24.33±0.31	24.00-25.00	$P < 0.001$
FGF				
MIRUS™		14.67±0.62	14.00-16.00	
MV 5 L				
2.0%				
0.5	L/min	4.33±0.30	4.00-5.00	$F(4,10) = 190.81, p < 0.001,$

FGF				$R_c^2 > 0.982$
1.0	L/min	8.00±0.00	8.00-8.00	$p = 0.100^*$
FGF				
2.5	L/min	16.43±0.24	16.00-16.90	$P < 0.001$
FGF				
5.0	L/min	32.67±0.32	32.00-33.00	$P < 0.001$
FGF				
MIRUS™		22.67±1.62	20.00-26.00	
MV 5 L				
2.5%				
0.5	L/min	5.33±0.32	5.00-6.00	$F_{(4,10)} = 1639.03, P < 0.001, R_c^2 = 0.998$
FGF				
1.0	L/min	9.33±0.32	9.00-10.00	$P < 0.001$
FGF				
2.5	L/min	20.37±0.17	20.10-20.70	$P < 0.001$
FGF				
5.0	L/min	42.00±0.00	42.00-42.00	$P < 0.001$
FGF				
MIRUS™		30.67±0.62	30.00-32.00	
MV 5 L				
Desflurane				
1.0%				
0.5	L/min	1.57±0.06	1.50-1.63	$F_{(4,11)} = 41.861, P < 0.001, R_c^2 = 0.916$
FGF				
1.0	L/min	3.20±0.14	3.00-3.50	$P = 0.877$
FGF				
2.5	L/min	8.03±0.11	7.80-8.20	$P = 0.016$
FGF				
5.0	L/min	14.83±0.08	14.7-15.00	$P < 0.001$
FGF				
MIRUS™		4.13±1.33	2.17-7.00	
MV 5L				

2.0%

0.5	L/min	3.4±0.29	3.00-4.00	$F_{(4,11)} = 681.278, P < 0.001, R_c^2$
FGF				$= 0.995$
1.0	L/min	6.33±0.30	6.00-7.00	$P = 0.003$
FGF				
2.5	L/min	15.07±0.29	14.50-15.60	$P < 0.001$
FGF				
5.0	L/min	29.07±0.21	28.70-29.50	$P < 0.001$
FGF				
MIRUS™		6.88±0.50	6.00-8.00	
MV 5 L				

3.0%

0.5	L/min	5.00±0.00	5.00-5.00	$F_{(4,11)} = 853.355, P < 0.001, R_c^2$
FGF				$= 0.995$
1.0	L/min	9.67±0.31	9.00-10.00	$P = 0.001^*$
FGF				
2.5	L/min	22.80±0.55	21.70-23.80	$P < 0.001$
FGF				
5.0	L/min	43.00±0.53	42.00-44.00	$P < 0.001$
FGF				
MIRUS™		13.00±0.55	12.00-14.00	
MV 5 L				

4.0%

0.5	L/min	6.17±0.15	6.00-6.50	$F_{(4,11)} = 908.994, P < 0.001, R_c^2$
FGF				$= 0.987$
1.0	L/min	11.33±0.30	11.00-12.00	$P = 0.002$
FGF				
2.5	L/min	30.27±0.39	29.80-31.10	$P < 0.001$
FGF				
5.0	L/min	57.00±0.52	56.36-57.60	$P < 0.001$
FGF				
MIRUS™		21.25±0.96	20.00-24.00	

MV 5 L

5.0%

0.5 L/min 8.50±0.72 7.50-10.00 $F_{(4,11)} = 186.508, p < 0.001, R_c^2 = 0.980$

FGF

1.0 L/min 15.50±0.27 15.08-15.90 $P = 0.177$

FGF

2.5 L/min 37.43±0.32 36.80-38.00 $P < 0.001$

FGF

5.0 L/min 71.83±0.67 70.50-73.00 $P < 0.001$

FGF

MIRUS™ 31.00±2.80 25.52-38.00

MV 5 L

6.0%

0.5 L/min 10.83±1.00 9.50-13.00 $F_{(4,14)} = 306.655, P < 0.001, R_c^2 = 0.985$

FGF

1.0 L/min 19.04±0.49 18.00-20.27 $P = 0.023$

FGF

2.5 L/min 44.77±0.19 44.40-45.10 $P < 0.001$

FGF

5.0 L/min 86.50±0.72 85.00-87.50 $P < 0.001$

FGF

MIRUS™ 40.70±2.38 34.41-45.09

MV 5 L

Bootstrapped data are presented as mean ± SEM and 95% bias-corrected and accelerated-confidence interval. Sidak correction was performed for *post hoc* analyses as a follow up to univariate analysis of variance (main effect “device” for isoflurane, with adjacent FGFs tested against each other (0.5 vs. 1 L/min FGF; 1 vs. 2.5 L/min FGF, 2.5 vs. 5 L/min FGF).

FGF: Fresh gas flow of the Aisys CS™; MV: minute volume; R_c^2 : corrected R^2 .