

0.1/4

Σi=1n [(Q*Qi + (i+1)*Qi + (3i+1)*2 ³ Qi ³ ,7799)]										Σi=1n [1^n*Q ⁱ ,C + (3i+1) ² Qi ⁱ ,C ³ ,7799]										Q _{1,6,C,NF} + QCO2 + QN2 + QHe	Q _{1,6,C,NF} + QCO2 + QN2 + QHe	Q _{1,6,C,NF} + (Q _{1,6,NF} *Q _{1,6,NF})	Qf _{1,6,NF} /(1- 4,7799*a)	V _{NF,1,6,NF} = Qf _{1,6,NF} * Ore NF	NOx non norm./1000* V _{NF,1,6,NF}	CO non norm./1000* V _{NF,1,6,NF}	fumi/(consumo comb a NF/1000)	fumi/(consumo comb a NF/1000)		Consumo effettivo in Sm3/ore totali	Consumo effettivo in Nm3/ore totali	
PORTATA TEORICA FUMI DA COMBUSTIONE UMIDI a NF= Q _{1,6,C,NF}										PORTATA TEORICA FUMI DA COMBUSTIONE ANIDRI a NF= Q _{1,6,C,NF}										PORTATA TEORICA FUMI UMIDI a NF= Q _{1,6,NF}	PORTATA TEORICA FUMI ANIDRI a NF= Q _{1,6,NF}	PORTATA EFFETTIVA FUMI UMIDI a NF= Q _{1,6,NF}	PORTATA EFFETTIVA FUMI ANIDRI a NF= Q _{1,6,NF}	VOLUME EFFETTIVO FUMI ANIDRI a NF = V _{NF,1,6,NF}	NOx _{NF} fumi	CO _{NF} fumi	FE NOx rif. a NF	FE CO rif. a NF	Ore totali	Portata media comb.	Portata media comb.	
CH4	C2H6	C3H8	n-C4H10	i-C4H10	n-C5H12	i-C5H12	C6+	(Nm³/h)		CH4	C2H6	C3H8	n-C4H10	i-C4H10	n-C5H12	i-C5H12	C6+	(Nm³/h)		(Nm³/h)	(Nm³/h)	(Nm³/h)	(Nm³/h)	(g)	(g)	(g/1000Sm3 di comb.)	(g/1000Sm3 di comb.)	(h)	(Sm³/h)	(Nm³/h)		
1638,606	211,8024	70,19521	10,37939	16,07322	4,080271	3,715961	2,765222	1957,618		1328,26	176,9467	59,35404	8,833426	13,67919	3,486622	3,175316	2,369455	1596,103		1,963,76	1,602,25	2,517,74	2,156,22	51,749,37	6,590,15	35,211,23	1,476,81	7,890,62	24,00	185,93	176,25	
1607,091	219,9614	75,76749	11,39469	17,75926	4,406716	3,973369	2,659367	1943,2		1302,71	183,763	64,06572	9,859186	15,1141	3,765571	3,395187	2,275855	1584,951		1,950,06	1,591,81	2,531,40	2,153,15	51,675,55	6,514,94	33,112,26	1,459,96	7,420,28	24,00	185,93	176,25	
1625,036	206,1582	74,3183	11,78015	18,20164	4,5011	4,138108	2,927419	1947,042		1317,26	172,2314	62,94035	10,00853	15,49059	3,846223	3,536044	2,508459	1587,721		1,953,86	1,594,53	2,535,48	2,176,17	52,228,14	6,835,63	36,717,52	1,531,82	8,228,17	24,00	185,93	176,25	
1617,38	213,5769	74,94962	11,61967	17,87187	4,347564	4,130186	3,00775	1946,896		1311,05	178,4309	63,37417	9,88897	15,20994	3,715025	3,529274	2,57722	1587,778		1,953,67	1,594,56	2,471,59	2,112,48	50,699,47	6,021,24	27,919,25	1,349,32	6,256,31	24,00	185,93	176,25	
1611,71	218,0944	75,46454	11,42422	17,60743	4,195852	3,761798	2,659701	1944,918		1306,46	182,2033	63,80956	9,722635	14,98489	3,585396	3,214484	2,279037	1586,255		1,951,72	1,593,06	2,443,30	2,084,63	50,031,21	5,486,76	23,574,48	1,229,55	5,282,90	24,00	185,93	176,25	
1608,281	223,1037	76,53066	11,53149	17,82675	4,336586	3,975204	2,657281	1948,243		1303,68	186,3882	64,71102	9,813929	15,17153	3,705645	3,396841	2,276963	1589,141		1,954,88	1,595,78	2,492,89	2,133,79	51,210,94	6,061,70	26,934,53	1,358,39	6,035,86	24,00	185,93	176,25	
1620,097	217,8437	75,48512	11,389	17,76212	4,349576	3,967111	2,66524	1953,578		1313,25	181,9938	63,82696	9,692662	15,11654	3,716745	3,407016	2,283783	1593,292		1,959,95	1,599,67	2,548,22	2,187,94	52,510,48	6,683,56	33,700,34	1,497,75	7,552,04	24,00	185,93	176,25	
1628,156	216,0393	74,45262	11,11653	17,2661	4,285788	3,777305	2,498364	1957,592		1319,79	180,4863	62,95392	9,460774	14,69439	3,662237	3,227735	2,140791	1596,413		1,963,73	1,602,56	2,547,70	2,186,53	52,476,63	6,799,21	35,966,37	1,523,66	8,059,85	24,00	185,93	176,25	
1638,378	216,551	70,08329	10,20515	15,84171	3,935971	3,498641	2,247556	1960,741		1328,07	180,9138	59,25941	8,685138	13,48216	3,363316	2,989614	1,925879	1598,692		1,966,75	1,604,70	2,526,79	2,164,74	51,953,84	6,539,66	30,386,88	1,465,50	6,809,52	24,00	185,93	176,25	
1634,721	217,2202	69,52583	10,25653	15,94801	3,932921	3,49593	2,159437	1957,26		1325,11	181,4729	58,78804	8,728863	13,57263	3,36071	2,987298	1,850372	1595,87		1,963,46	1,602,07	2,557,99	2,196,60	52,718,49	6,460,59	25,280,42	1,447,78	5,665,19	24,00	185,93	176,25	
1625,814	216,4274	72,58312	10,93928	16,97067	4,14056	3,777353	2,412244	1953,065		1317,89	180,8106	61,37315	9,309924	14,44296	3,538139	3,227776	2,066997	1592,659		1,959,50	1,599,10	2,525,15	2,164,75	51,953,90	6,369,62	28,279,23	1,427,39	6,337,20	24,00	185,93	176,25	
1620,721	215,0646	73,24451	11,27649	17,59369	4,279173	3,844003	2,40849	1948,432		1313,76	179,6721	61,93239	9,596909	14,97319	3,656585	3,284729	2,06378	1588,94		1,955,09	1,595,60	2,583,67	2,224,18	53,380,31	7,284,95	38,689,37	1,632,51	8,670,05	24,00	185,93	176,25	
1627,466	217,928	70,69153	10,29905	15,9221	3,70839	3,562963	2,500877	1952,079		1319,23	182,0642	59,77371	8,765055	13,55057	3,168847	3,044578	2,142944	1591,738		1,958,59	1,598,25	2,564,35	2,204,01	52,896,15	7,215,60	37,151,25	1,616,97	8,325,37	24,00	185,93	176,25	
1629,786	216,1219	70,20419	10,24872	15,87662	3,711597	3,566044	2,503039	1952,018		1321,11	180,5553	59,36163	8,722217	13,51187	3,171587	3,047211	2,144797	1591,624		1,958,19	1,598,19	2,540,96	2,180,57	52,333,56	6,824,82	36,100,30	1,529,40	8,089,86	24,00	185,93	176,25	
1646,032	210,9641	67,93134	9,697229	15,11102	3,508073	3,361903	2,340292	1958,946		1334,28	176,2464	57,43981	8,252871	12,8603	2,997674	2,872771	2,005343	1596,953		1,965,14	1,603,15	2,549,33	2,187,34	52,496,04	6,873,46	38,165,39	1,540,30	8,552,63	24,00	185,93	176,25	
1631,87	210,6425	71,79122	10,83232	17,22516	3,854016	3,563147	2,501006	1952,278		1322,8	175,9777	60,70356	9,218895	14,65996	3,293925	3,044735	2,143055	1591,838		1,959,69	1,598,24	2,502,09	2,141,65	51,399,49	6,527,22	27,266,07	1,462,71	6,110,16	24,00	185,93	176,25	
1624,817	213,7062	71,3541	10,70317	16,73479	3,995432	3,922788	2,756957	1947,991		1317,08	178,5372	60,33395	9,10898	14,24222	3,414126	3,352051	2,362374	1588,432		1,954,73	1,595,17	2,521,91	2,162,35	51,896,43	6,857,67	31,999,46	1,536,76	7,170,89	24,00	185,93	176,25	
1623,637	211,7225	72,7503	10,93013	17,37004	4,209677	3,991935	2,668465	1947,28		1316,12	176,8799	61,51452	9,302135	14,78285	3,5972	3,411138	2,286547	1587,898		1,954,00	1,594,62	2,592,74	2,233,35	57,967,03	4,917,53	26,126,38	1,555,75	8,265,55	23,00	185,93	176,25	
1615,892	211,2494	72,95159	11,3773	18,02072	4,417526	4,20027	2,834278	1940,843		1309,85	176,4847	61,68472	9,682704	15,25151	3,774808	3,589162	2,286227	1582,742		1,947,89	1,589,78	2,518,98	2,160,88	51,861,00	6,793,76	35,143,85	1,522,44	7,875,52	24,00	185,93	176,25	
1636,952	216,5553	68,77222	9,667034	14,82764	4,590008	4,00715	1,900067	1957,271		1326,92	180,9174	58,15083	8,227714	12,61836	3,922196	3,424139	1,628895	1595,806		1,963,41	1,601,95	2,550,13	2,188,67	52,528,07	6,664,81	30,276,31	1,493,54	6,784,74	24,00	185,93	176,25	
1669,077	219,5411	60,5439	7,242769	11,07366	3,456085	2,867815	0,959308	1974,762		1352,96	183,4118	51,19331	6,163992	9,424286	2,95325	2,450569	0,82201	1609,378		1,979,91	1,614,53	2,571,84	2,206,46	52,955,04	6,746,02	29,712,65	1,511,74	6,658,43	24,00	185,93	176,25	
1650,944	220,4402	66,22194	8,696456	13,22338	3,951396	3,512352	1,475315	1968,465		1338,26	184,163	55,99441	7,401159	11,25382	3,376497	3,00133	1,264164	1604,714		1,974,05	1,610,30	2,565,03	2,201,27	52,830,58	6,828,54	32,194,97	1,530,23	7,214,70	24,00	185,93	176,25	
1628,307	228,4566	71,16379	9,235657	13,97189	4,00121	3,636474	1,552609	1960,324		1319,91	190,8602	60,17303	7,860048	11,89084	3,418133	3,107394	1,330395	1598,55		1,966,30	1,604,52	2,583,22	2,221,45	22,214,46	2,759,16	12,445,05	1,483,95	6,693,26	11,00	185,93	176,25	
1641,957	224,3924	70,9926	8,851146	13,54404	3,867732	3,502852	1,12513	1968,232		1330,97	187,4648	60,02828	7,532808	11,52671	3,305006	2,993213	0,964099	1604,789		1,973,78	1,610,34	2,479,51	2,116,07	6,348,20	724,96	4,842,40	1,299,68	8,681,23	4,00	185,93	176,25	
1626,678	223,0465	74,66973	9,938529	15,38106	4,287777	3,99708	1,809999	1959,809		1318,59	186,3404	63,1375	8,458231	13,09012	3,663937	3,415534	1,550947	1598,246		1,965,88	1,604,32	2,534,23	2,172,67	23,899,33	2,563,42	9,005,15	1,253,34	4,402,91	13,00	185,93	176,25	
0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0	0	0,00	0	0,00
1609,323	220,2623	79,39176	11,42056	17,42518	4,990091	4,628481	2,058463	1949,499		1304,52	184,0144	67,13025	9,719518	14,82978	4,264006	3,95502	1,76385	1590,198		1,956,18	1,596,88	2,611,25	2,251									

media p.	media p.	somma	somma
----------	----------	-------	-------

FE NOx _{tot} + comb tot/1000		FE CO _{tot} + comb tot/1000	MISURE CEMS	
NOx fumi	CO fumi	Concentrazione Media NOx normalizzata	Concentrazione Media CO normalizzata	
(kg)	(kg)	mg/Nm ³	mg/Nm ³	
6.59	35.21	48.9	261.3	
6.51	33.11	48.7	247.3	
6.84	36.72	51.0	273.8	
6.02	27.92	44.9	208.2	
5.49	23.57	41.0	176.0	
6.06	26.93	45.2	200.7	
6.68	33.70	49.7	250.5	
6.80	35.97	50.4	266.8	
6.54	30.39	48.5	225.1	
6.46	25.28	47.9	187.6	
6.37	28.28	47.4	210.3	
7.28	38.69	54.3	288.2	
7.22	37.15	53.7	276.3	
6.82	36.10	50.8	268.5	
6.87	38.17	51.0	283.0	
6.53	27.27	48.6	202.8	
6.86	32.06	51.1	238.5	
6.65	35.35	51.8	274.9	
6.79	35.14	50.8	262.8	
6.66	30.28	49.5	224.7	
6.75	29.71	49.7	218.8	
6.83	32.19	50.4	237.7	
3.04	13.69	49.1	221.3	
0.97	6.46	42.8	286.1	
3.03	10.64	41.4	145.6	
1.87	16.67	47.7	425.4	
6.28	26.82	46.6	198.8	
6.12	27.53	45.4	204.2	
2.01	4.17	39.5	82.2	
168.94	815.10	48.2	236.1	

somma

somma

														BMS(AB5/100)				Ore Totali			Ore di normale funzionamento
NOx (NO2 (normalizzato att))	CO (normalizzato ato)	O2	PORTATA COMBUSTIBILE a NF	appNOx	appCO	appO2	appQC	NOx normalizzato	CO normalizzato	O2	NO	NOx non normalizzato	CO non normalizzato	FE NOx rif. a NF	FE CO rif. a NF	ore tot	Portata media comb.	ore NF			
mg/Nm³	mg/Nm³	%	(kg/s)					mg/Nm³	mg/Nm³	%	(kg/s)	mg/Nm³	mg/Nm³	(g/1000Sm³ di comb.)	(g/1000Sm³ di comb.)	h	(Sm³/h)	h			
48.9	261.3	5.4	0.040	VERO	VERO	VERO	VERO	48.90	261.28	5.38	0.04	127.35	680.42	1.476,81	7.890,62	24,00	185,93	24,00			
48.7	247.3	5.5	0.040	VERO	VERO	VERO	VERO	48.66	247.31	5.45	0.04	126.07	640.77	1.459,96	7.420,26	24,00	185,93	24,00			
51.0	273.8	5.6	0.040	VERO	VERO	VERO	VERO	50.96	273.76	5.59	0.04	130.88	703.02	1.531,82	8.228,17	24,00	185,93	24,00			
44.9	208.2	5.1	0.040	VERO	VERO	VERO	VERO	44.90	208.18	5.13	0.04	118.76	550.66	1.349,32	6.256,31	24,00	185,93	24,00			
41.0	176.0	4.9	0.040	VERO	VERO	VERO	VERO	40.95	175.97	4.93	0.04	109.67	471.20	1.229,55	5.282,90	24,00	185,93	24,00			
45.2	200.7	5.3	0.040	VERO	VERO	VERO	VERO	45.16	200.68	5.28	0.04	118.37	525.95	1.358,39	6.035,86	24,00	185,93	24,00			
49.7	250.5	5.6	0.040	VERO	VERO	VERO	VERO	49.67	250.45	5.63	0.04	127.28	641.78	1.497,75	7.552,04	24,00	185,93	24,00			
50.4	266.8	5.6	0.040	VERO	VERO	VERO	VERO	50.44	266.81	5.59	0.04	129.57	685.38	1.523,66	8.059,85	24,00	185,93	24,00			
48.5	225.1	5.4	0.040	VERO	VERO	VERO	VERO	48.45	225.14	5.41	0.04	125.87	584.88	1.465,50	6.809,52	24,00	185,93	24,00			
47.9	187.6	5.7	0.040	VERO	VERO	VERO	VERO	47.94	187.59	5.66	0.04	122.55	479.54	1.447,78	5.665,19	24,00	185,93	24,00			
47.4	210.3	5.5	0.040	VERO	VERO	VERO	VERO	47.36	210.25	5.47	0.04	122.60	544.31	1.427,39	6.337,20	24,00	185,93	24,00			
54.3	288.2	5.9	0.040	VERO	VERO	VERO	VERO	54.27	288.23	5.91	0.04	136.47	724.79	1.632,51	8.670,05	24,00	185,93	24,00			
53.7	276.3	5.8	0.040	VERO	VERO	VERO	VERO	53.67	276.33	5.75	0.04	136.41	702.34	1.616,97	8.325,37	24,00	185,93	24,00			
50.8	268.5	5.6	0.040	VERO	VERO	VERO	VERO	50.77	268.54	5.59	0.04	130.41	689.81	1.529,40	8.089,86	24,00	185,93	24,00			
51.0	283.0	5.6	0.040	VERO	VERO	VERO	VERO	50.97	283.02	5.59	0.04	130.93	727.01	1.540,30	8.552,63	24,00	185,93	24,00			
48.6	202.8	5.3	0.040	VERO	VERO	VERO	VERO	48.56	202.84	5.31	0.04	126.99	530.47	1.462,71	6.110,16	24,00	185,93	24,00			
51.1	238.5	5.5	0.040	VERO	VERO	VERO	VERO	51.11	238.49	5.49	0.04	132.14	616.60	1.536,76	7.170,89	24,00	185,93	24,00			
51.8	274.9	6.0	0.040	VERO	VERO	VERO	VERO	51.75	274.95	5.98	0.04	129.52	688.13	1.555,75	8.265,55	23,00	185,93	17,00			
50.8	262.8	5.5	0.040	VERO	VERO	VERO	VERO	50.81	262.81	5.53	0.04	131.00	677.65	1.522,44	7.875,52	24,00	185,93	24,00			
49.5	224.7	5.6	0.040	VERO	VERO	VERO	VERO	49.46	224.69	5.61	0.04	126.88	576.38	1.493,54	6.784,74	24,00	185,93	24,00			
49.7	218.8	5.6	0.040	VERO	VERO	VERO	VERO	49.67	218.78	5.61	0.04	127.39	561.09	1.511,74	6.658,43	24,00	185,93	24,00			
50.4	237.7	5.6	0.040	VERO	VERO	VERO	VERO	50.41	237.69	5.62	0.04	129.25	609.40	1.530,23	7.214,70	24,00	185,93	24,00			
49.1	221.3	5.8	0.040	VERO	VERO	VERO	VERO	49.06	221.29	5.81	0.04	124.21	560.22	1.483,95	6.693,26	11,00	185,93	10,00			
42.8	286.1	5.0	0.040	VERO	VERO	VERO	VERO	42.83	286.05	5.00	0.04	114.20	762.80	1.299,68	8.681,23	4,00	185,93	3,00			
41.4	145.6	5.5	0.040	VERO	VERO	VERO	VERO	41.45	145.60	5.47	0.04	107.26	376.79	1.253,34	4.402,91	13,00	185,93	11,00			
				FALSO	FALSO	FALSO	FALSO	0,00	0,00	0,00	0,00	0,00	0,00	0	0	0,00	0	0,00			
47.7	425.4	6.1	0.040	VERO	VERO	VERO	VERO	47.67	425.36	6.09	0.04	118.49	1.057.33	1.435.04	12.805.92	7,00	185,93	6,00			
46.6	198.8	5.4	0.040	VERO	VERO	VERO	VERO	46.58	198.84	5.36	0.04	121.40	518.22	1.407.93	6.010.01	24,00	185,93	24,00			
45.4	204.2	5.1	0.040	VERO	VERO	VERO	VERO	45.42	204.17	5.15	0.04	120.01	539.49	1.372.52	6.169.88	24,00	185,93	24,00			
39.5	82.2	5.6	0.040	VERO	VERO	VERO	VERO	39.50	82.23	5.61	0.04	101.31	210.90	1.198.33	2.494.52	9,00	185,93	9,00			
				FALSO	FALSO	FALSO	FALSO	0,00	0,00	0,00	0,00	0,00	0,00	0	0	0,00	0	0,00			
		5.5																			