

- MARTE - Marte GAS
- MG001 - Modulo statico/flusso termico stazionario v. 1
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DATI GENERALI -----

Numero di nodi		32
Numero di rami		31
Numero di cabine di salto		0
Nome del gas		propane
Peso molecolare	(kg/kmole)	44.0940
Fattore di compressibilita'	(-)	0.9820
Viscosita' dinamica	(cP)	0.0081
Temperatura media di flusso	(°C)	11.0000
Pressione atmof. a quota zero	(mBar Ass.)	1013.2500
Peso Molecolare dell'aria	(kg/kmole)	28.9700
Temperatura dell'aria	(°C)	11.0000
Precisione finale sulle portate	(Smc/h)	0.0030

TABELLA DEI MATERIALI -----

Nome	Tipo	Area (m2)	Diametro int.(mm)	Scabrez. (micron)	Spessore (mm)	Lunghezza (m)
PES5 110	Circolare	0.006	90.000	10.000	0.000	2906.26
PES5 125	Circolare	0.008	102.200	10.000	0.000	6362.10
PES5 160	Circolare	0.013	130.800	10.000	0.000	1359.51
PES5 200	Circolare	0.021	163.600	10.000	0.000	900.70
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Lunghezza totale (m)						11528.57

RIASSUNTO PER CONDOTTO -----

Gruppo	Lungh. gruppo
PES5 110	2906.2603
PES5 125	6362.1025
PES5 160	1359.5067
PES5 200	900.6993
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Lungh. totale:	11528.5688

DATI DEI NODI -----

Nodo	Quota s.l.m. (m)	Pressione (mBar)	Portata (Smc/h)
1	0.00	0.00	-525.00
10	0.00	0.00	0.00
11	0.00	0.00	-80.00
12	0.00	4500.00	0.00
13	0.00	0.00	0.00
14	0.00	0.00	-20.00
15	0.00	0.00	-40.00
16	0.00	0.00	-20.00
17	0.00	0.00	-40.00

18	0.00	0.00	0.00
19	0.00	0.00	0.00
2	0.00	0.00	0.00
20	0.00	0.00	-20.00
21	0.00	0.00	-40.00
22	0.00	0.00	-20.00
23	0.00	0.00	0.00
24	0.00	0.00	-20.00
25	0.00	0.00	0.00
26	0.00	0.00	-20.00
27	0.00	0.00	0.00
28	0.00	0.00	0.00
29	0.00	0.00	-20.00
3	0.00	0.00	0.00
30	0.00	0.00	-20.00
31	0.00	0.00	-20.00
32	0.00	0.00	-20.00
4	0.00	0.00	-746.00
5	0.00	0.00	0.00
6	0.00	0.00	-614.00
7	0.00	0.00	-40.00
8	0.00	0.00	0.00
9	0.00	0.00	0.00

DATI DEI RAMI -----

Ramo	Nodo iniziale	Nodo finale	Materiale	Lunghezza (m)	Portata (Smc/h)
1	1	2	PES5 110	563.50	0.00
10	10	11	PES5 125	28.58	0.00
11	12	10	PES5 200	42.63	0.00
12	13	14	PES5 110	182.18	0.00
13	15	13	PES5 110	104.24	0.00
14	15	16	PES5 125	714.70	0.00
15	17	18	PES5 125	130.89	0.00
16	17	15	PES5 125	191.80	0.00
17	19	18	PES5 125	318.98	0.00
18	19	20	PES5 110	145.99	0.00
19	21	19	PES5 125	274.02	0.00
2	2	3	PES5 125	665.82	0.00
20	22	21	PES5 110	155.69	0.00
21	23	21	PES5 125	547.35	0.00
22	23	24	PES5 110	258.58	0.00
23	25	26	PES5 110	251.25	0.00
24	27	23	PES5 125	507.85	0.00
25	25	27	PES5 125	404.24	0.00
26	28	25	PES5 125	1371.31	0.00
27	29	25	PES5 110	445.46	0.00
28	29	30	PES5 110	371.62	0.00
29	28	31	PES5 110	359.80	0.00
3	2	4	PES5 110	20.63	0.00
30	32	28	PES5 125	587.15	0.00
31	9	17	PES5 125	590.84	0.00
4	3	5	PES5 160	1224.13	0.00
5	3	6	PES5 110	18.73	0.00
6	5	7	PES5 110	28.58	0.00
7	5	8	PES5 160	135.38	0.00
8	8	9	PES5 125	28.58	0.00
9	8	10	PES5 200	858.07	0.00

RISULTATI DEI NODI -----

Nodo	Pressione (mBar)	Portata entr. (Smc/h)
1	3644.15	-525.00
10	4494.84	0.00
11	4494.77	-80.00
12	4500.00	2324.99
13	4377.13	0.00
14	4377.06	-20.00
15	4377.17	-40.00
16	4377.02	-20.00
17	4377.65	-40.00
18	4375.95	-0.00
19	4371.81	0.00
2	3737.80	0.00
20	4371.75	-20.00
21	4368.88	-40.00
22	4368.82	-20.00
23	4366.07	0.00
24	4365.97	-20.00
25	4362.71	0.00
26	4362.61	-20.00
27	4364.20	0.00
28	4361.72	0.00
29	4362.12	-20.00
3	4039.43	0.00
30	4361.98	-20.00
31	4361.59	-20.00
32	4361.60	-20.00
4	3731.20	-746.00
5	4360.89	0.00
6	4035.53	-614.00
7	4360.86	-40.00
8	4396.67	-0.00
9	4395.80	-0.00

RISULTATI DEI RAMI

Ramo	Portate di ramo (Smc/h)			Pressione min. (mBar)	Velocita' max in modulo (m/s)
	Ingresso	Uscita	Distrib.		
1	-525.00	-525.00	0.00	3644.1492	4.8294
10	80.00	80.00	0.00	4494.7675	0.4826
11	2324.99	2324.99	0.00	4494.8364	5.4729
12	20.00	20.00	0.00	4377.0628	0.1590
13	20.00	20.00	0.00	4377.1329	0.1590
14	20.00	20.00	0.00	4377.0229	0.1233
15	200.00	200.00	0.00	4375.9481	1.2330
16	80.00	80.00	0.00	4377.1730	0.4931
17	-200.00	-200.00	0.00	4371.8099	1.2340
18	20.00	20.00	0.00	4371.7537	0.1591
19	-180.00	-180.00	0.00	4368.8758	1.1112
2	-1270.99	-1270.99	0.00	3737.8034	8.8883
20	-20.00	-20.00	0.00	4368.8158	0.1592
21	-120.00	-120.00	0.00	4366.0704	0.7412
22	20.00	20.00	0.00	4365.9706	0.1593
23	20.00	20.00	0.00	4362.6093	0.1594
24	-100.00	-100.00	0.00	4364.1975	0.6179
25	-100.00	-100.00	0.00	4362.7062	0.6180
26	-40.00	-40.00	0.00	4361.7248	0.2473
27	-40.00	-40.00	0.00	4362.1200	0.3188
28	20.00	20.00	0.00	4361.9766	0.1594

29	20.00	20.00	0.00	4361.5859	0.1594
3	746.00	746.00	0.00	3731.2000	6.7364
30	-20.00	-20.00	0.00	4361.6011	0.1236
31	320.00	320.00	0.00	4377.6452	1.9722
4	-1884.99	-1884.99	0.00	4039.4294	7.5672
5	614.00	614.00	0.00	4035.5336	5.2103
6	40.00	40.00	0.00	4360.8551	0.3189
7	-1924.99	-1924.99	0.00	4360.8927	7.2656
8	320.00	320.00	0.00	4395.7968	1.9656
9	-2244.99	-2244.99	0.00	4396.6734	5.3805