TEMA ESPECIAL DO VII ENFIR

TÍTULO: UTILIZAÇÃO DOS CÓDIGOS RELAP4/MOD3 e RELAP4/MOD5 PARA SIMULAÇÃO DA EXPERIÊNCIA CANON

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Indice

1. Objetivo

O objetivo deste trabalho é o de avaliar alguns dos modelos e/ou correlações utilizados pelo código RELAP4/MOD3 [1] e RELAP4/MOD5 [2], segundo a filosofia de estudo do Tema Especial do VII ENFIR, quando da simulação do transiente de despressurização da Experiência CANON [3].

2. Modelagem Utilizada

A modelagem adotada para a simulação da Experiência CANON [4,5,6], figura 1, pelo códigos RELAP4/MOD3 e RELAP4/MOD5 é mostrado na figura 2, que é constituido de 17 volumes de controle, 16 junções de interligação entre os volumes de controle e 1 válvula (que simula a membrana de abertura), de tal modo a fornecer os parâmetros: pressão, temperatura, fração de vazio no local de abertura nos pontos solicitados, conforme a figura 2.

Três condições operacionais foram solicitadas para simulação do problema padrão do tema especial:

Caso 1: pressão inicial do fluido no tubo = 32 bar
temperatura inicial do fluido no tubo = 230 C
diâmetro da ruptura = 100 mm

Caso 2: pressão inicial do fluido no tubo = 32 bar
temperatura inicial do fluido no tubo = 230 C
diâmetro = 50 mm

Caso 3: pressão inicial do fluido no tubo = 150 bar
temperatura inicial do fluido no tubo = 320 C
diâmetro de abertura = 100 mm

Baseados em estudos anteriores [3,4,5] assumiu-se as opções de modelos e/ou correlações "default" dos códigos RELAP4/MOD3 e RELAP4/MOD5 para três casos em estudo.

3. Resultados Obtidos

A seguir são apresentados os resultados da simulação da pressurização da Experiência CANON para os três casos solicitados.

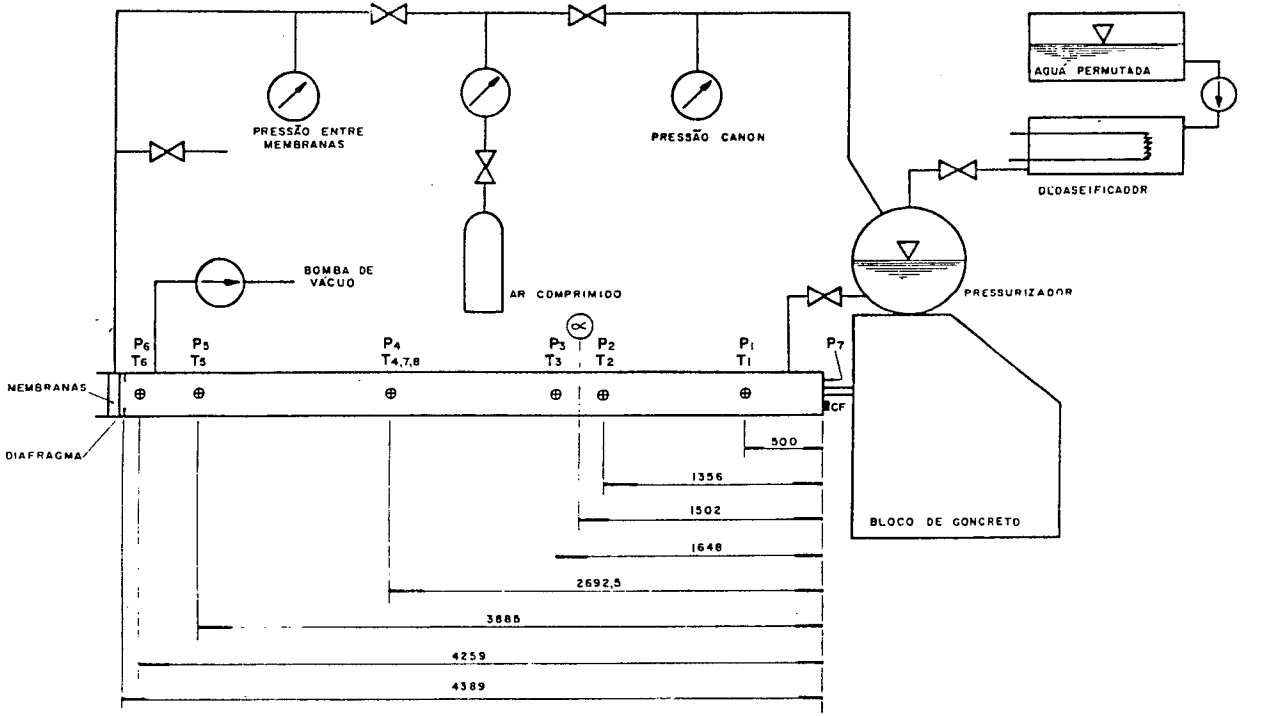


Fig: 1 - Esquema da Experiência CANON com Pontos de Medidas.

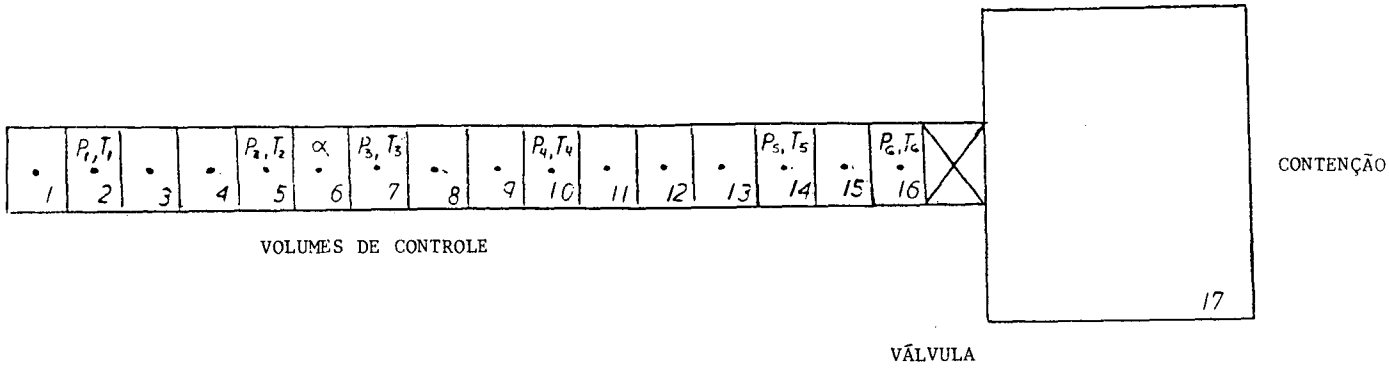
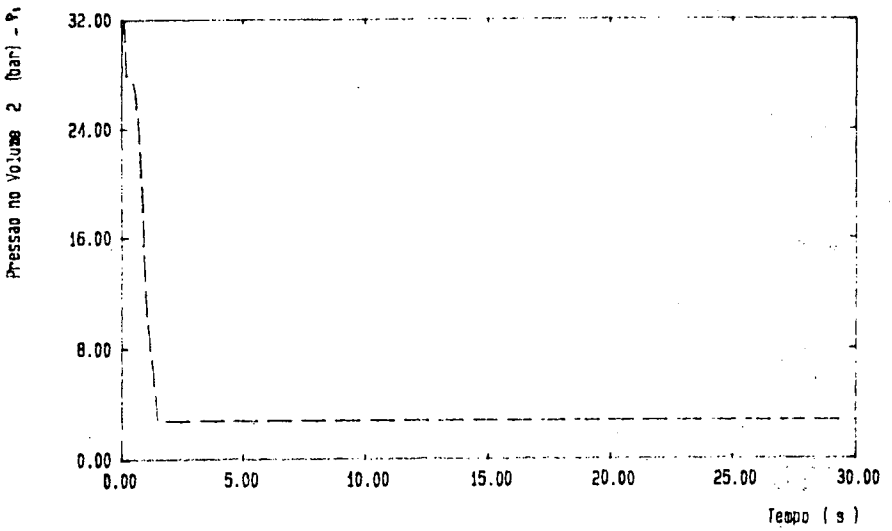
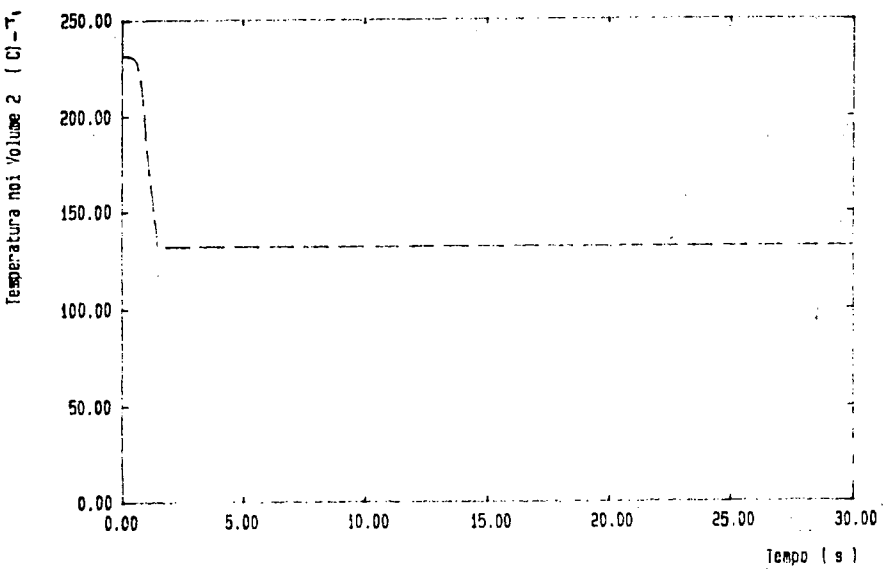
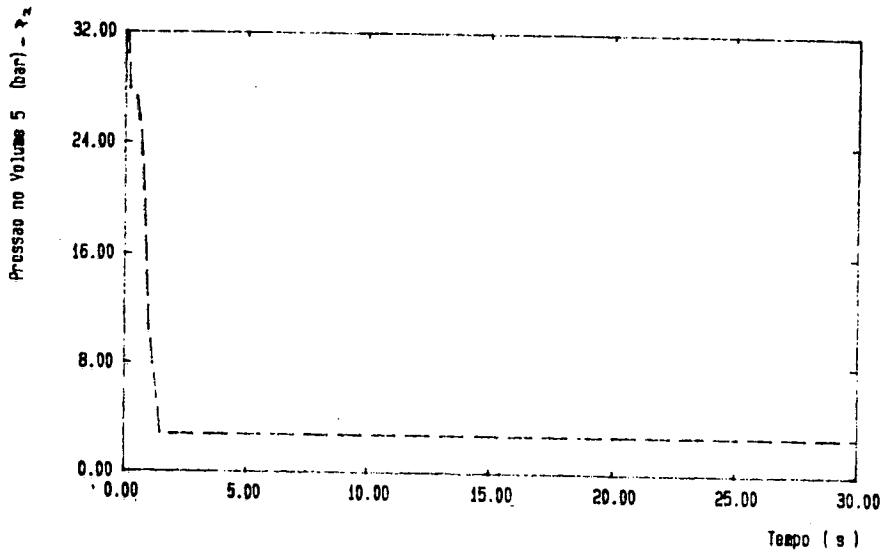
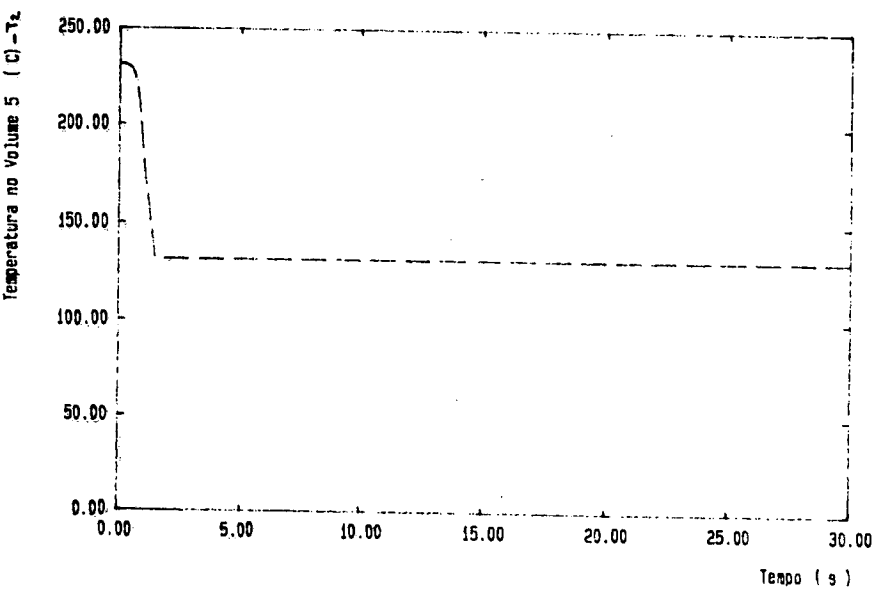


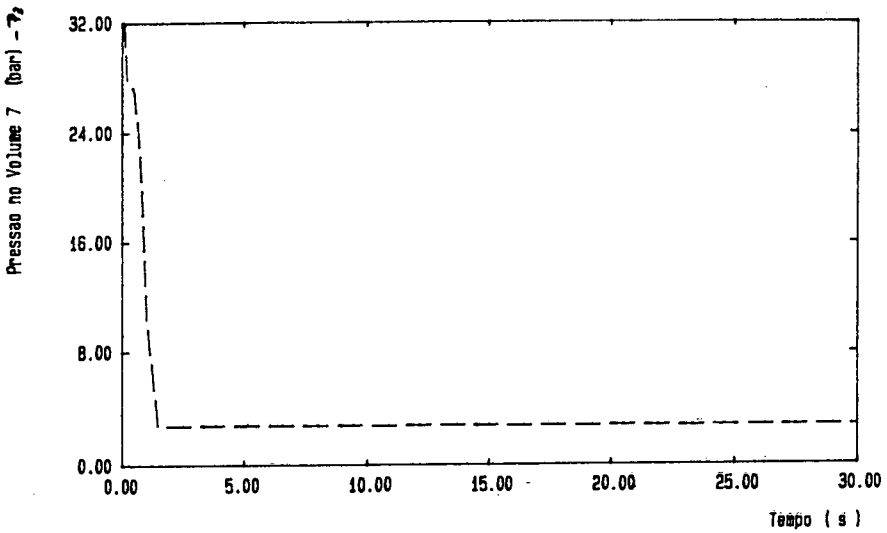
Figura 2 - Modelagem da Experiência CANON Utilizada pelos Códigos RELAP4/MOD3 e RELAP4/MOD5.

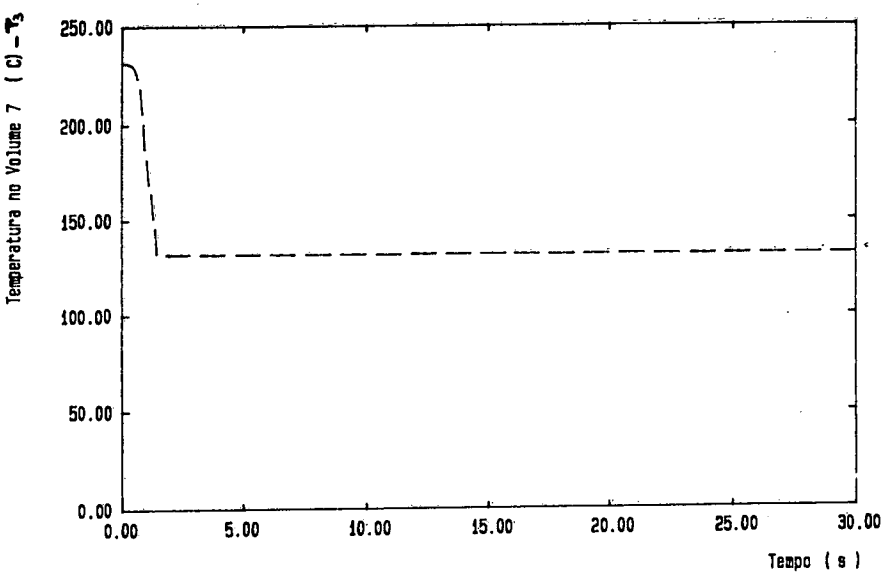

Pressao no Volume 2 (bar) - P1
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

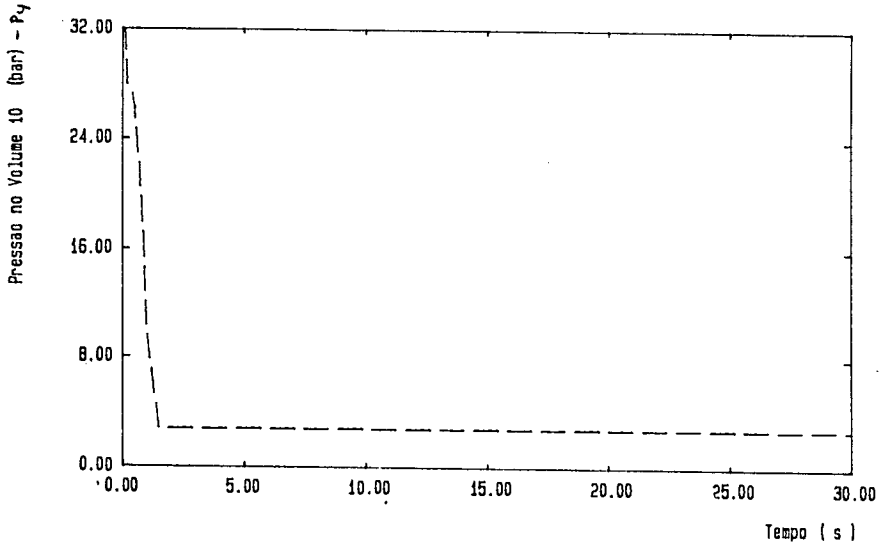

Temperatura nos Volume 2 (C) - T1
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

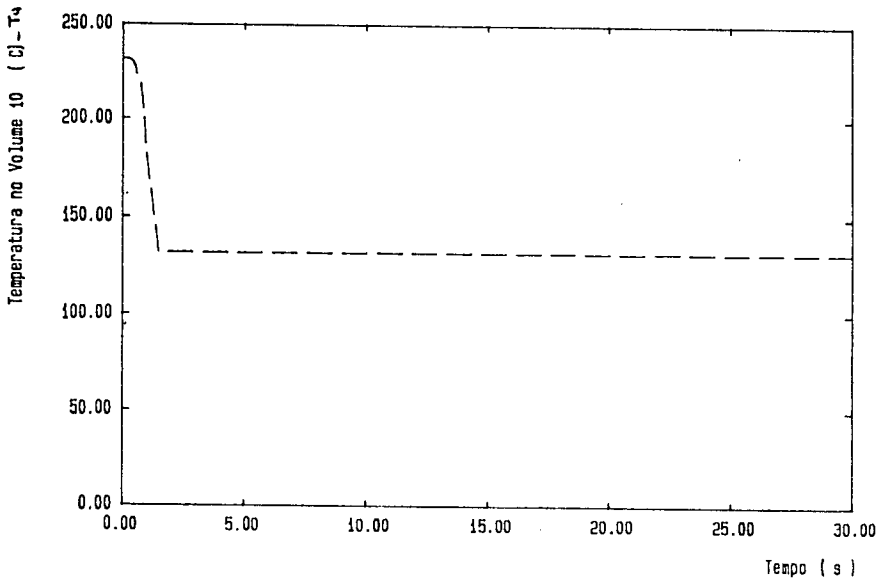

Pressao no Volume 5 (bar) - P5
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

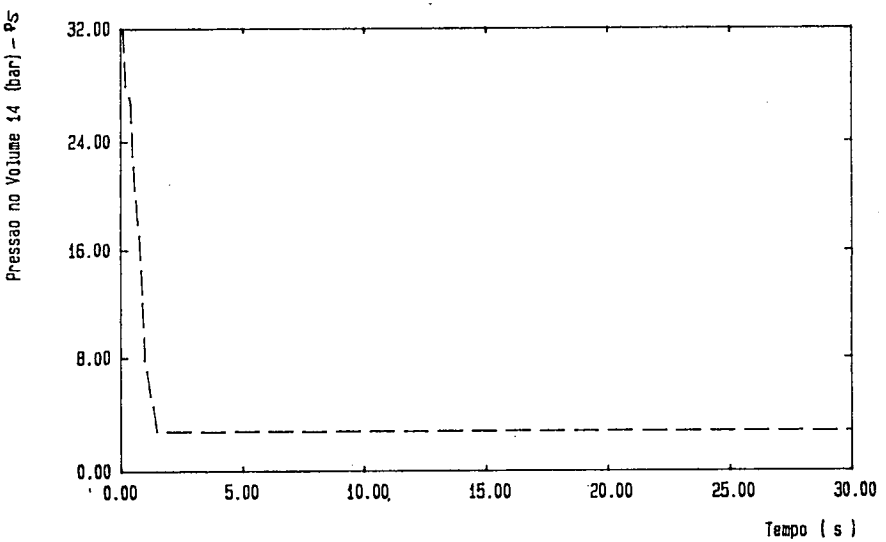

Temperatura no Volume 5 (C) - T5
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

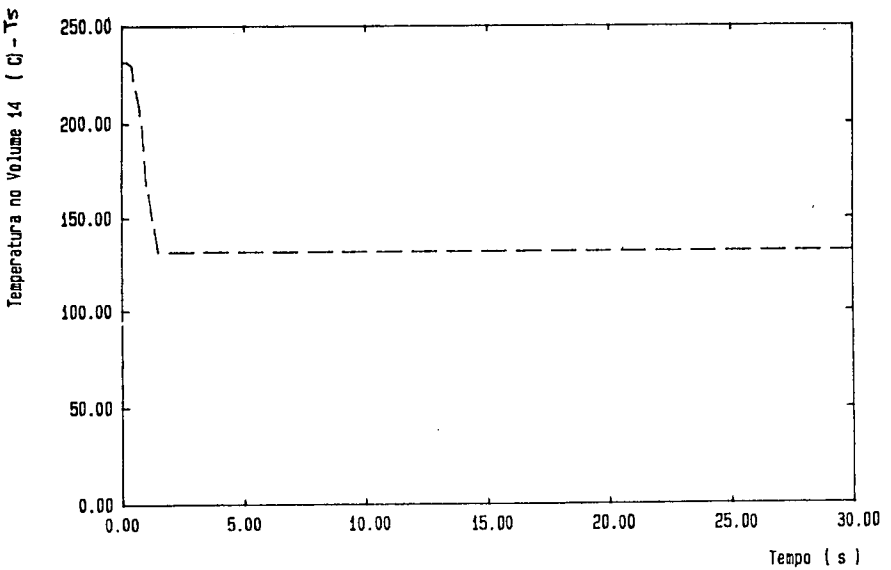

Pressao no Volume 7 (bar) - P7
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

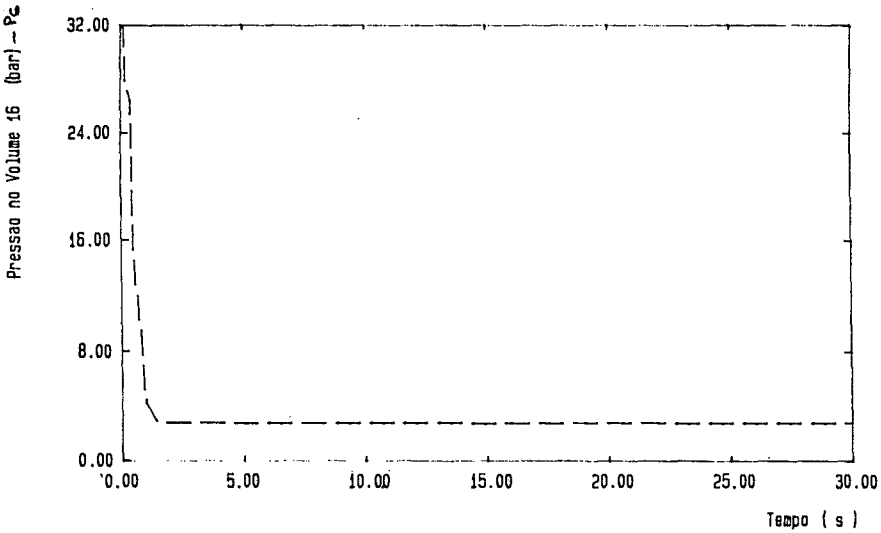

Temperatura no Volume 7 (C) - T3
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

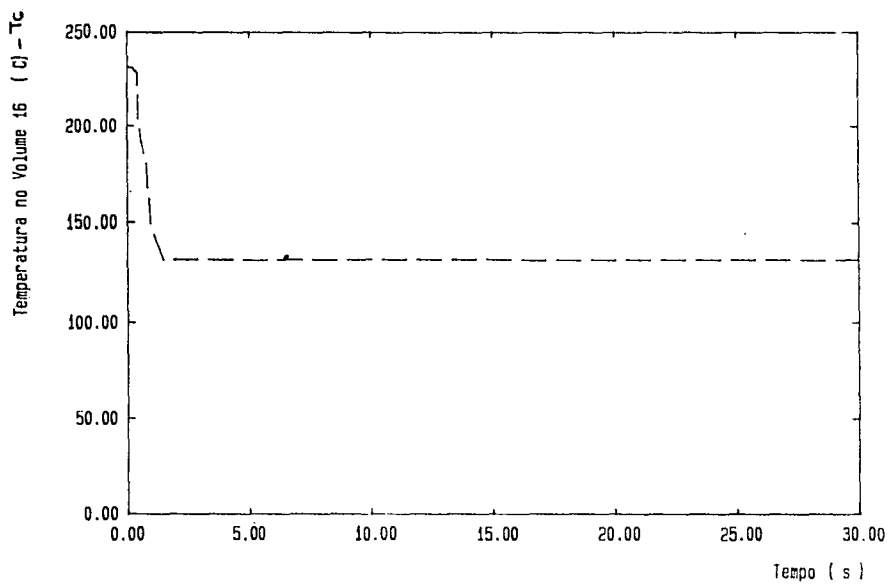

Pressao no Volume 10 (bar) - Py
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

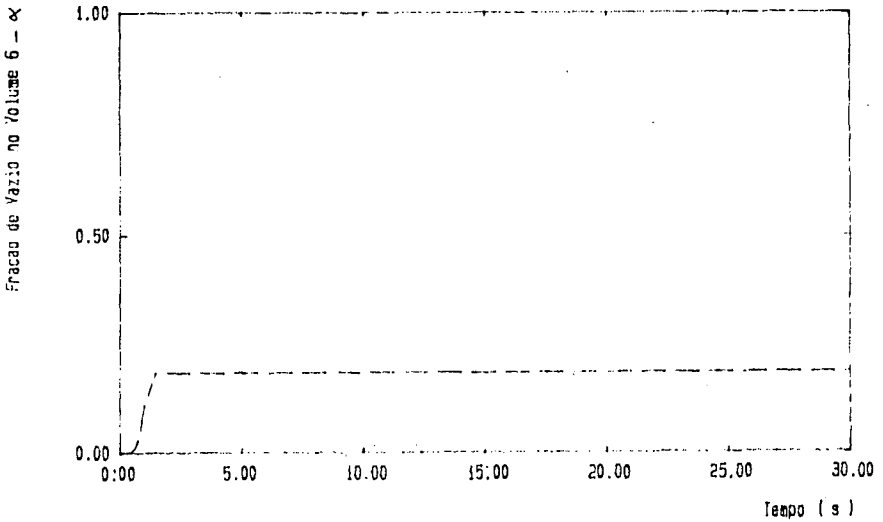

Temperatura no Volume 10 (C) - Ty
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

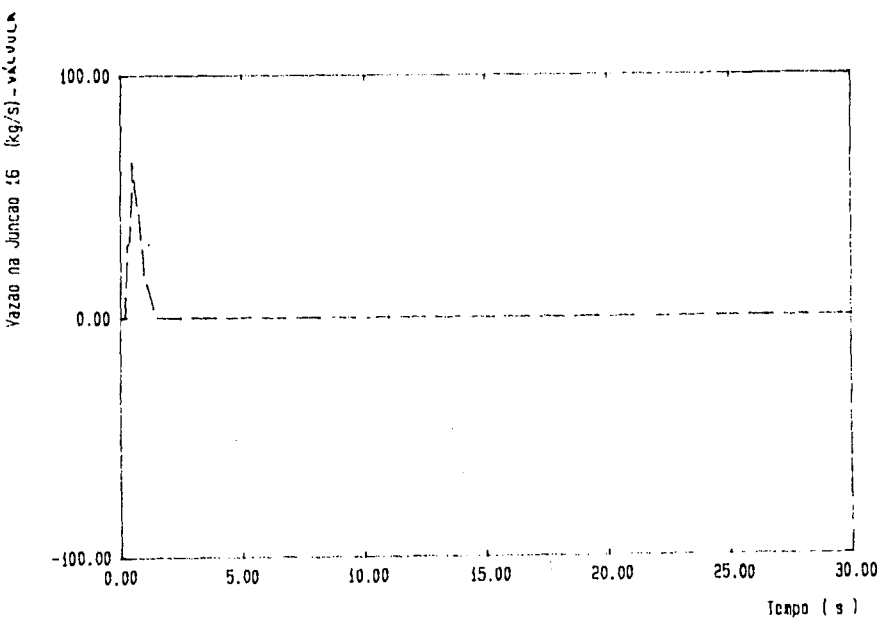

Pressao no Volume 14 (bar) - Ps
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

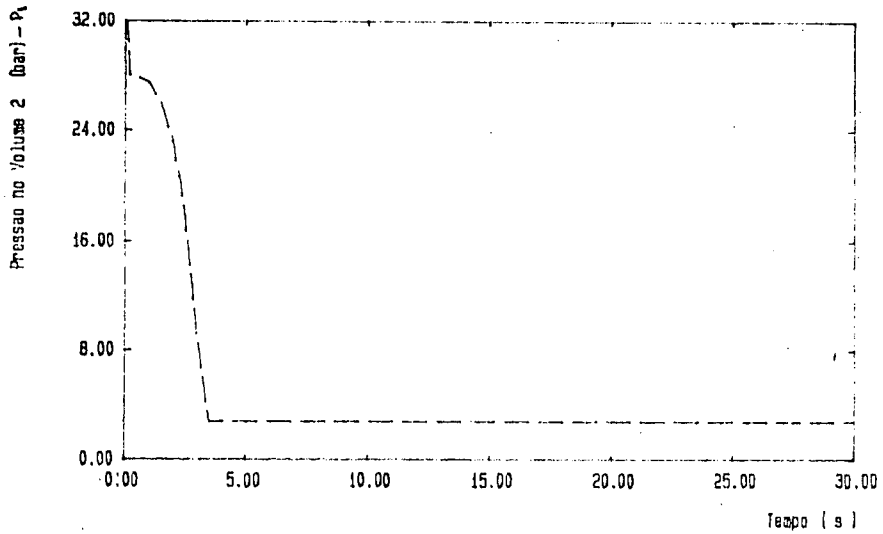

Temperatura no Volume 14 (C) - Ts
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

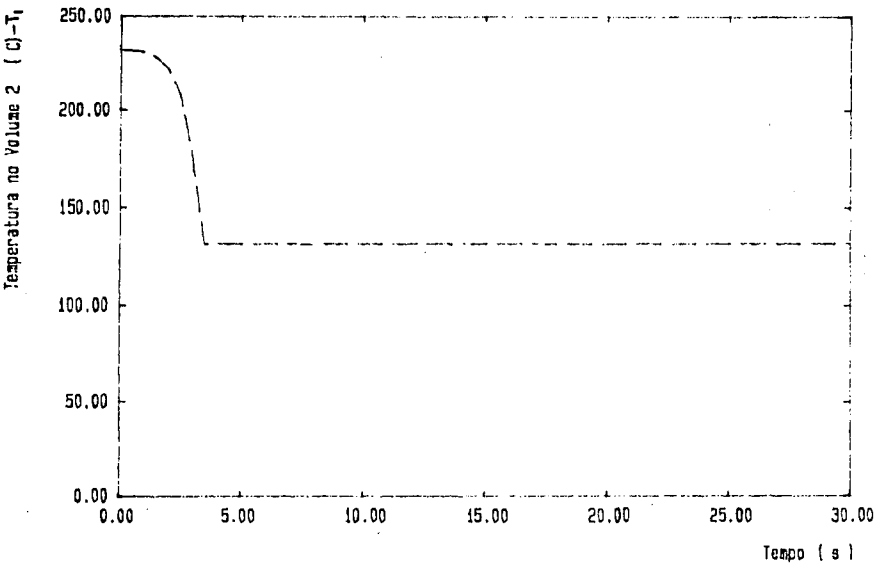

Pressao no Volume 16 (bar) - Pc
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

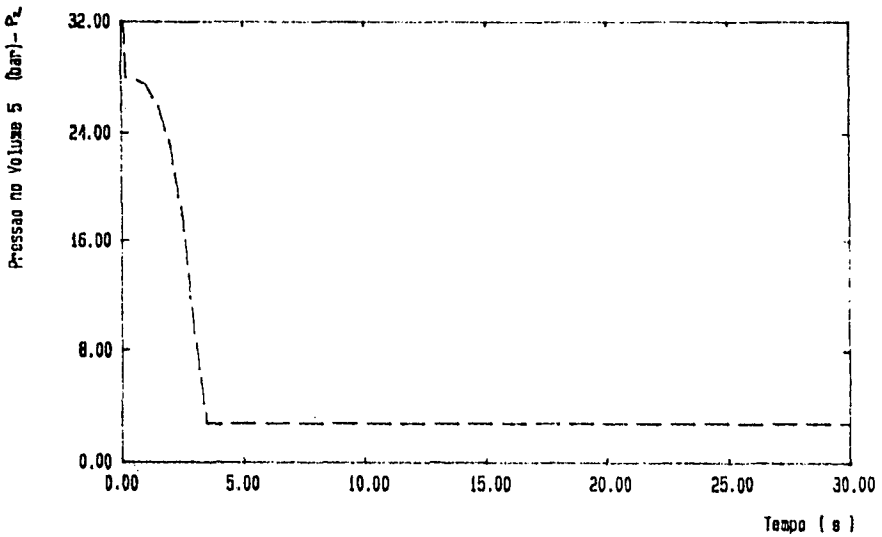

Temperatura no Volume 16 (C) - Tc
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

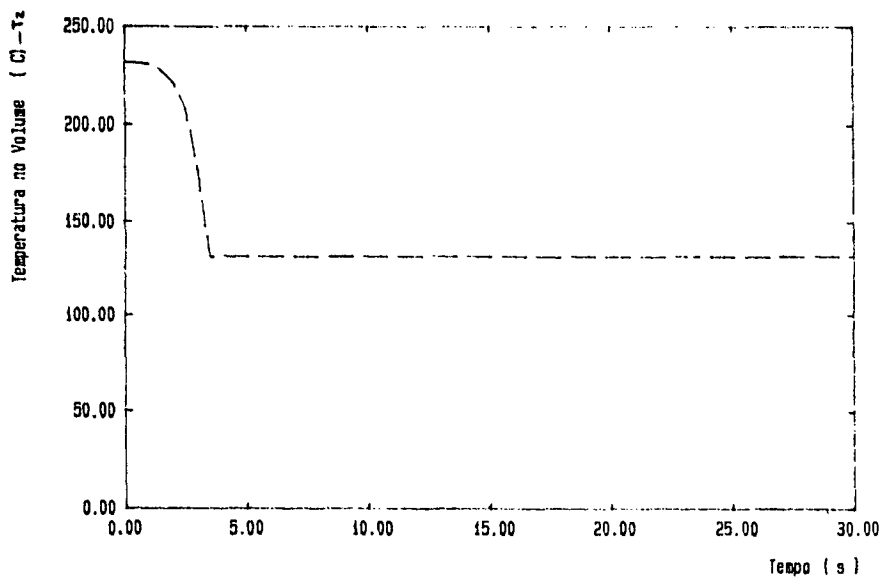

Fracao de Vazio no Volume 6 - α
1.00
0.50
0.00
0:00
5.00
10.00
15:00
20.00
25.00
30.00
Tempo (s)

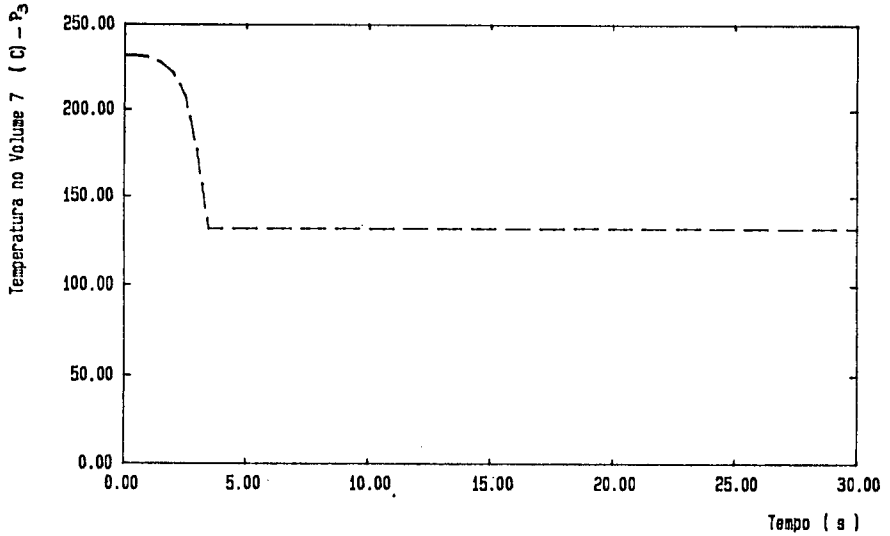

Vazao na Juncao 16 (kg/s) - VALVULA
100.00
0.00
-100.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

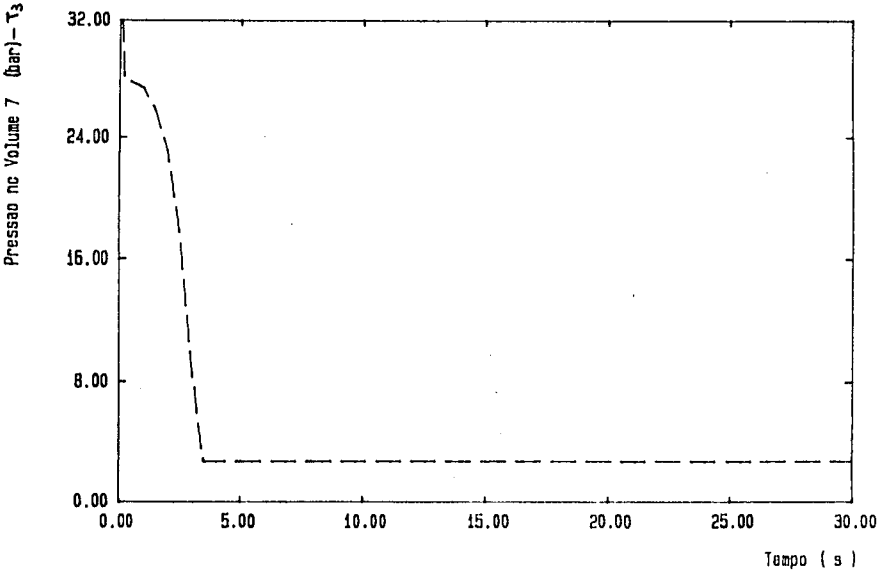

Pressao no Volume 2 (bar) - P_t
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

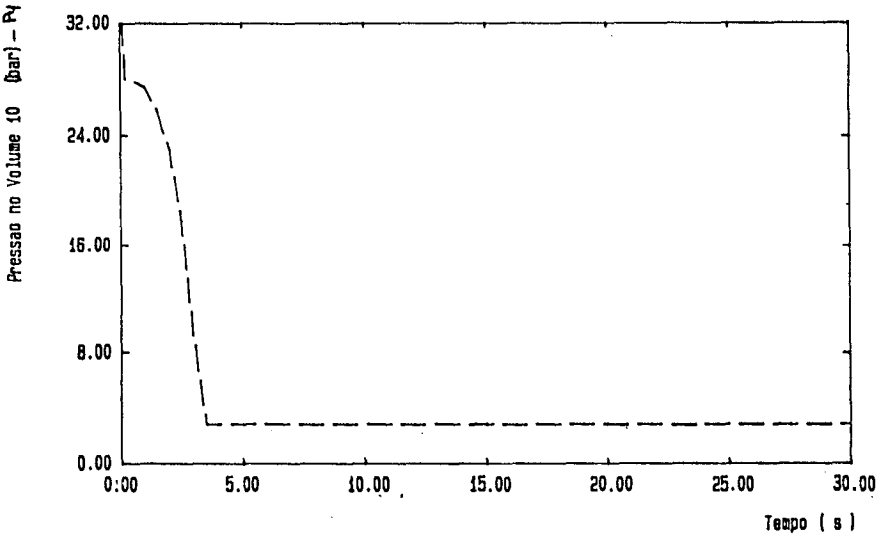

Temperatura no Volume 2 (C) - T_t
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

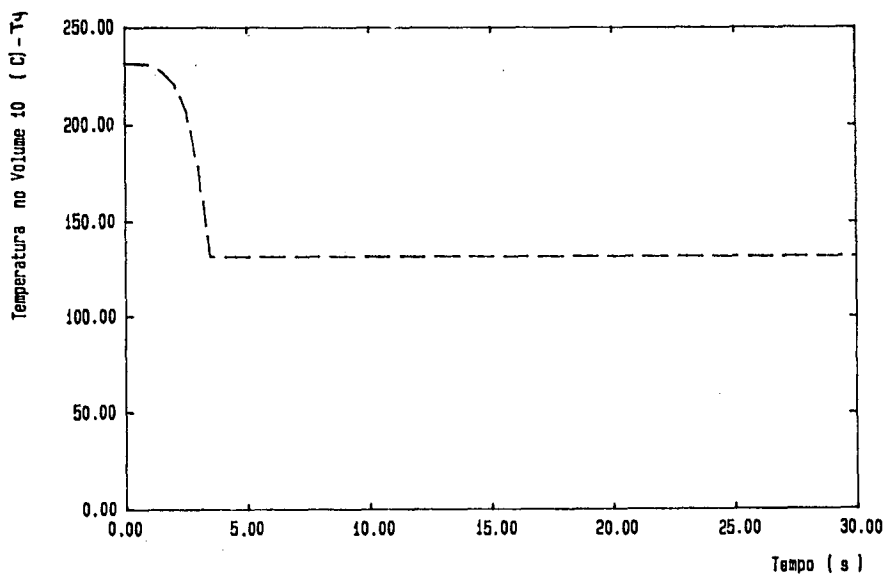

Pressao no Volume 5 (bar)- P_L
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

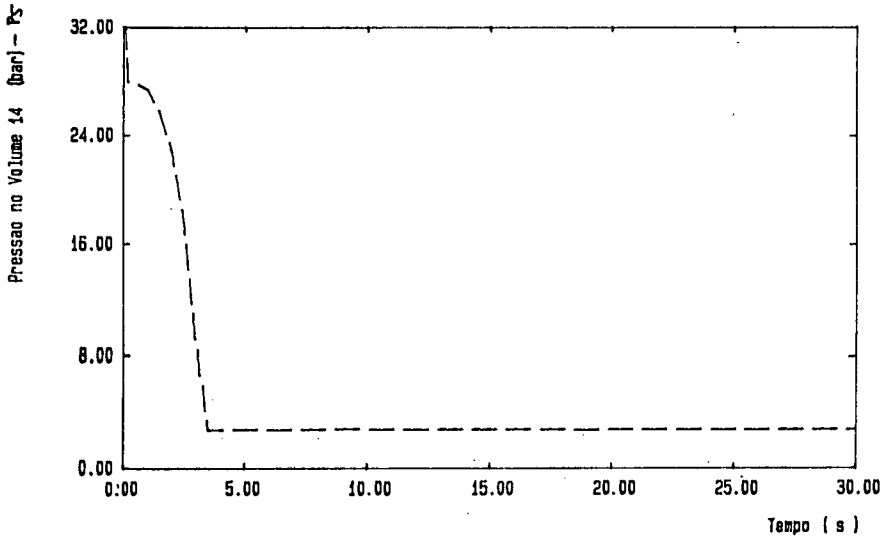

Temperatura no Volume (C) – T_2
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

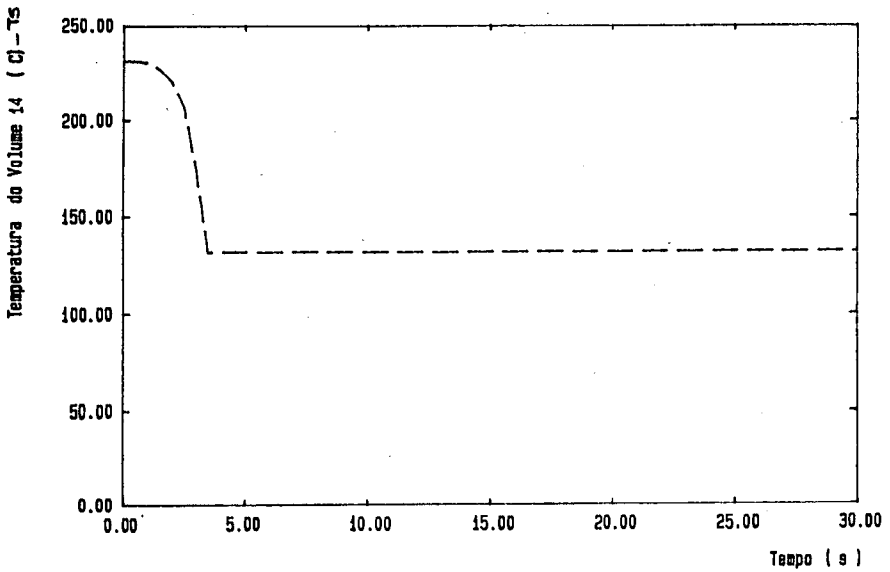

Temperatura no Volume 7 (C) - P3
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

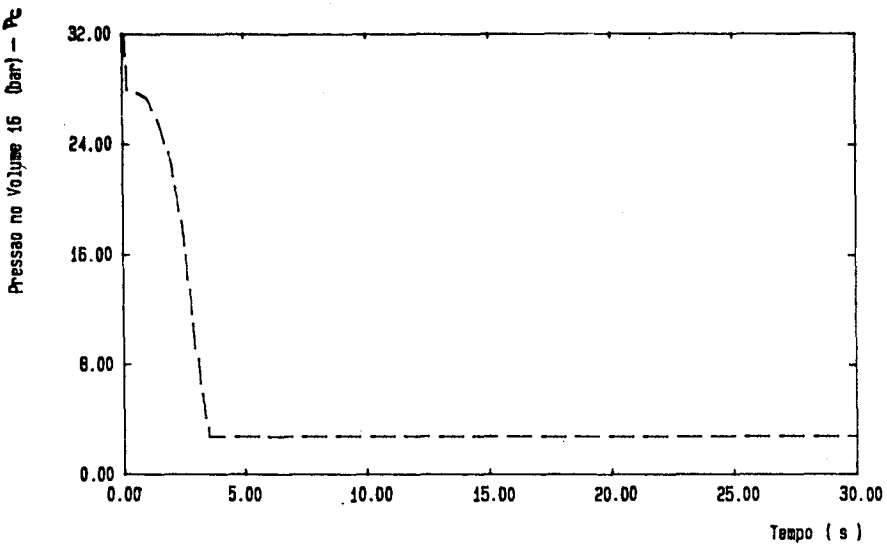

Pressao no Volume 7 (bar)- T3
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

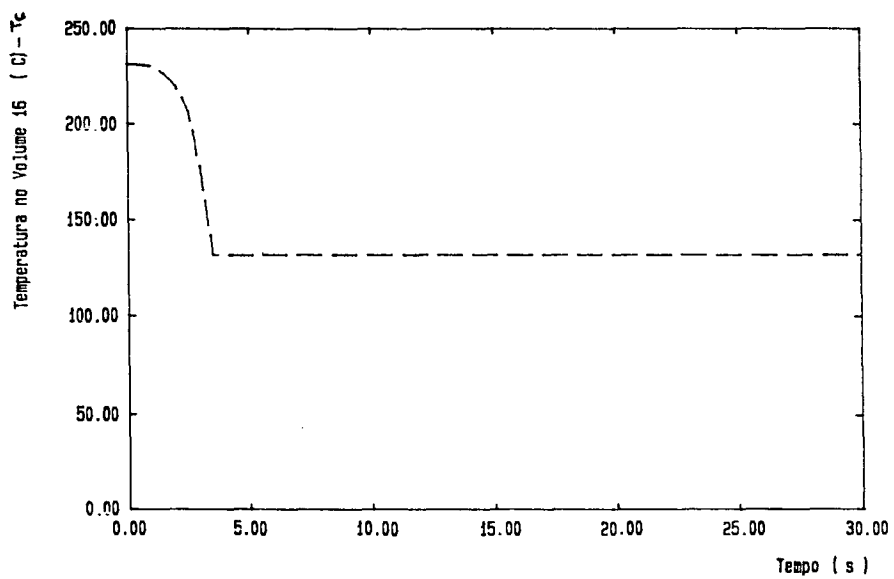

Pressao no Volume 10 (bar) - P4
32.00
24.00
16.00
8.00
0.00
0:00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

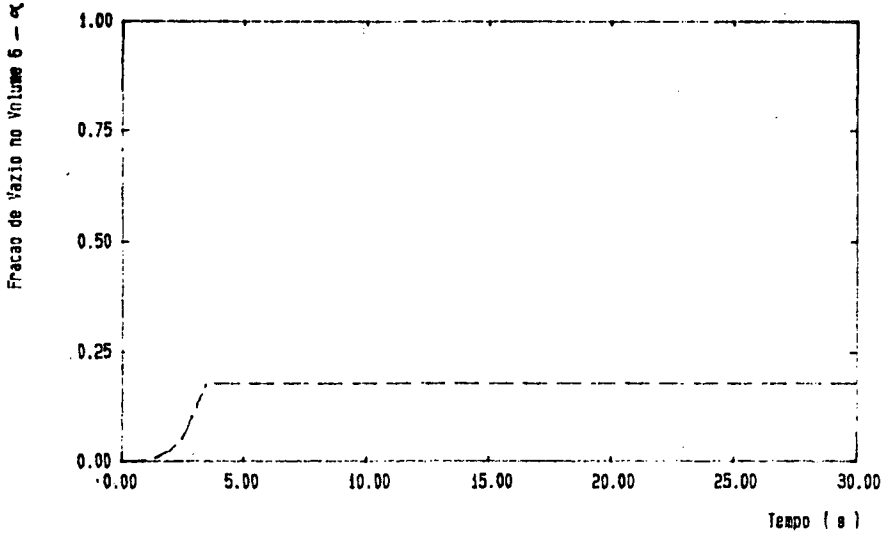

Temperatura no Volume 10 (C) - T4
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

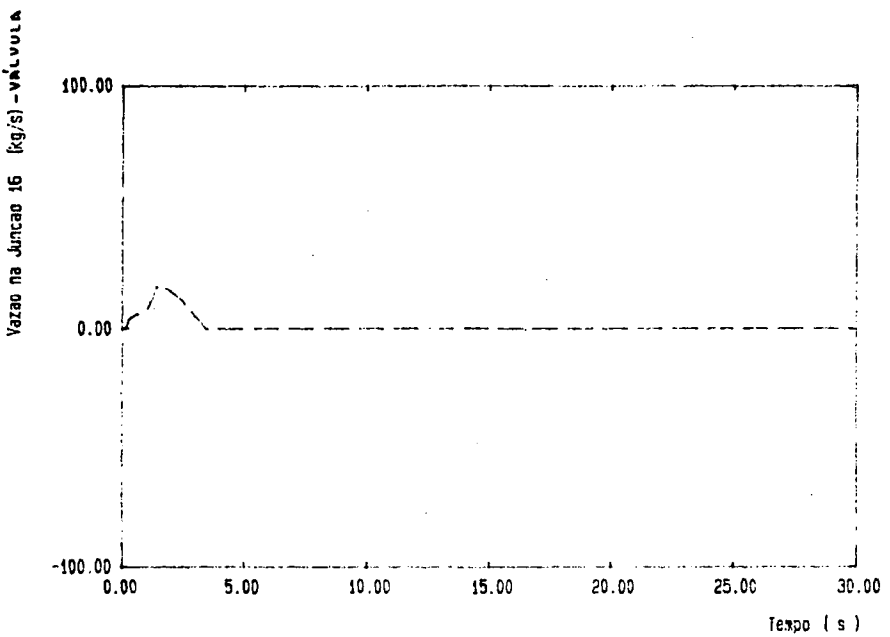

Pressao no Volume 14 (bar) - Ps
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

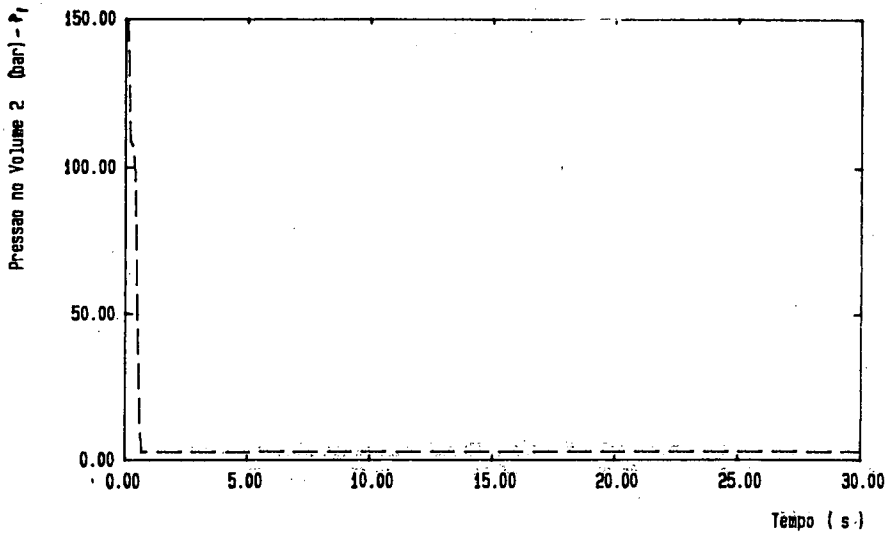

Temperatura do Volume 14 (C) - Ts
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

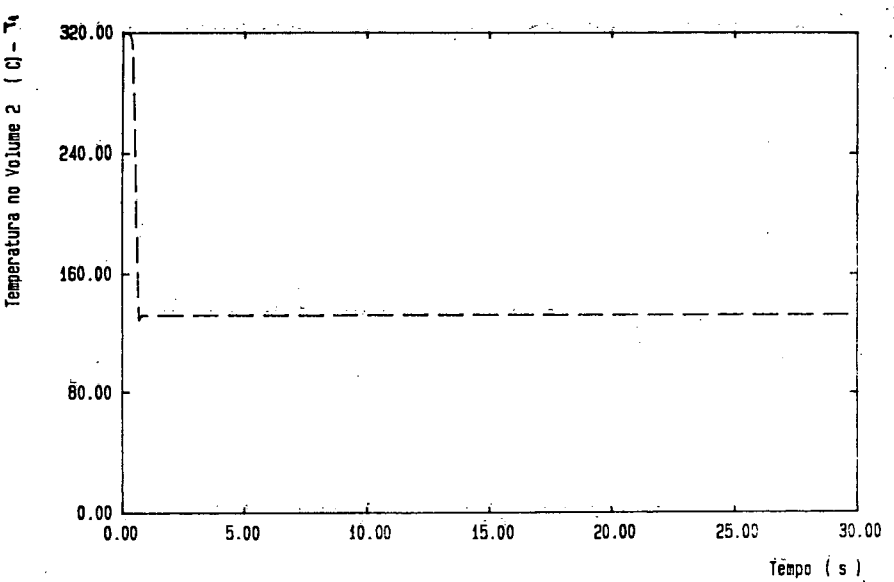

Pressao no Volume 16 (bar) - Pc
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

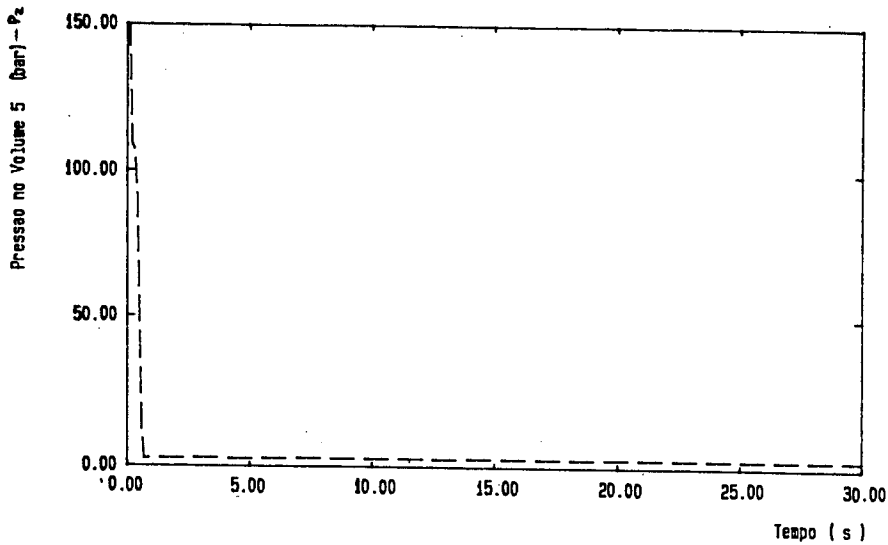

Temperatura no Volume 16 (C) - Tc
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

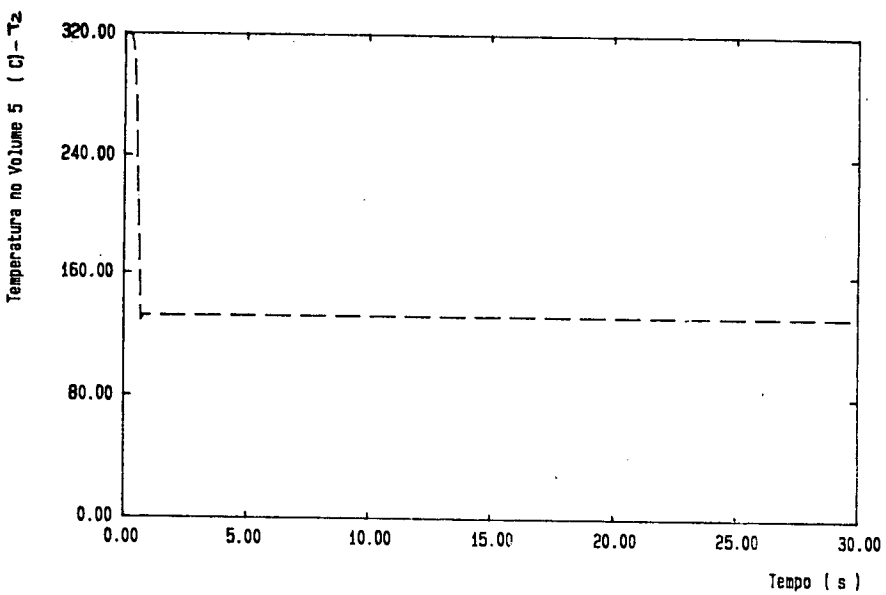

Fracao de Vazio no Volume 6 - α
1.00
0.75
0.50
0.25
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

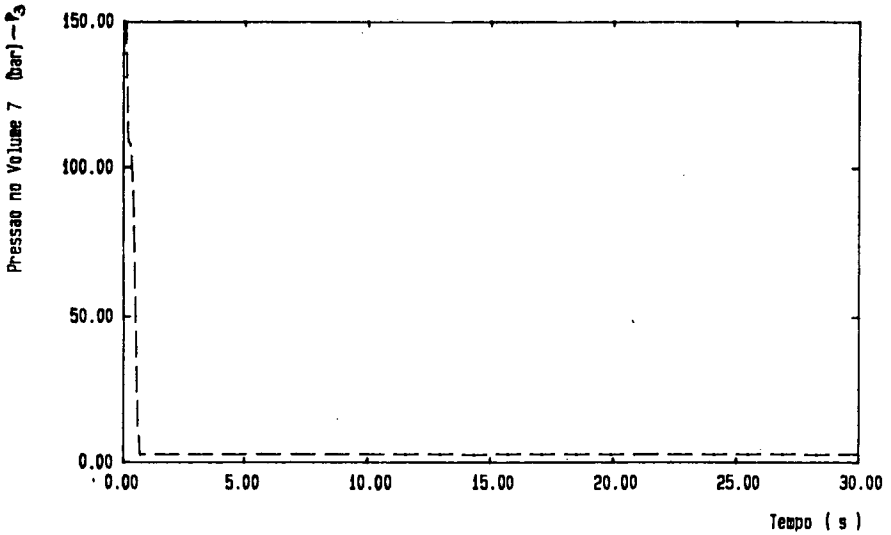

Vazao na Juncao 16 (kg/s) - VÁLVULA
100.00
0.00
-100.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

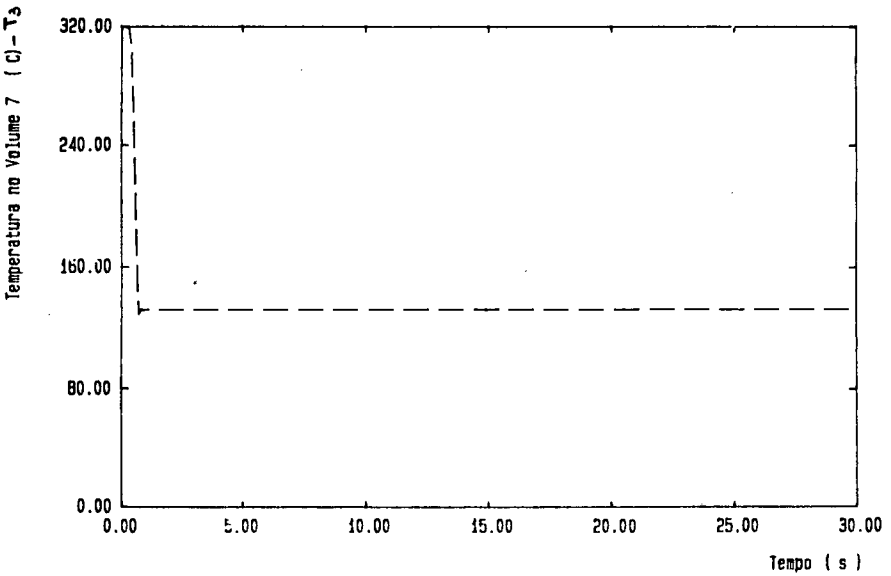

Pressao no Volume 2 (bar) - P_2
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

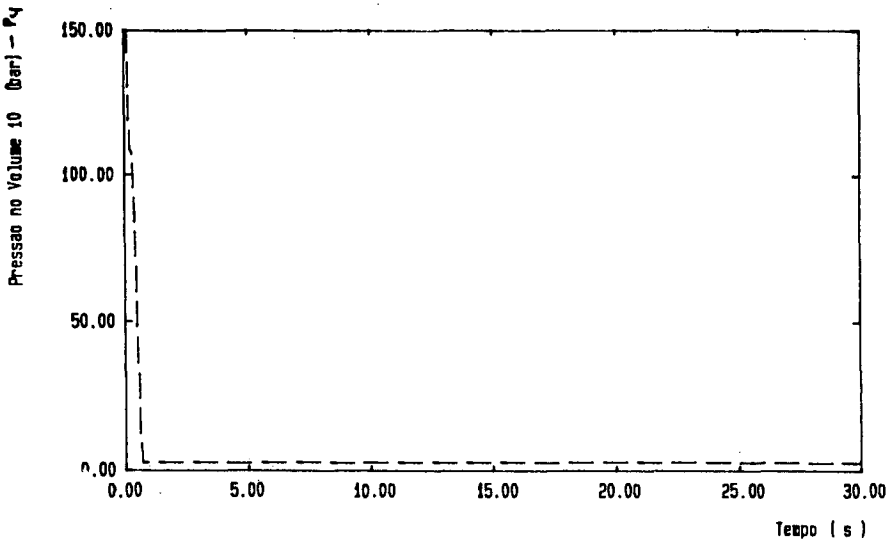

Temperatura no Volume 2 (C) - T_2
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

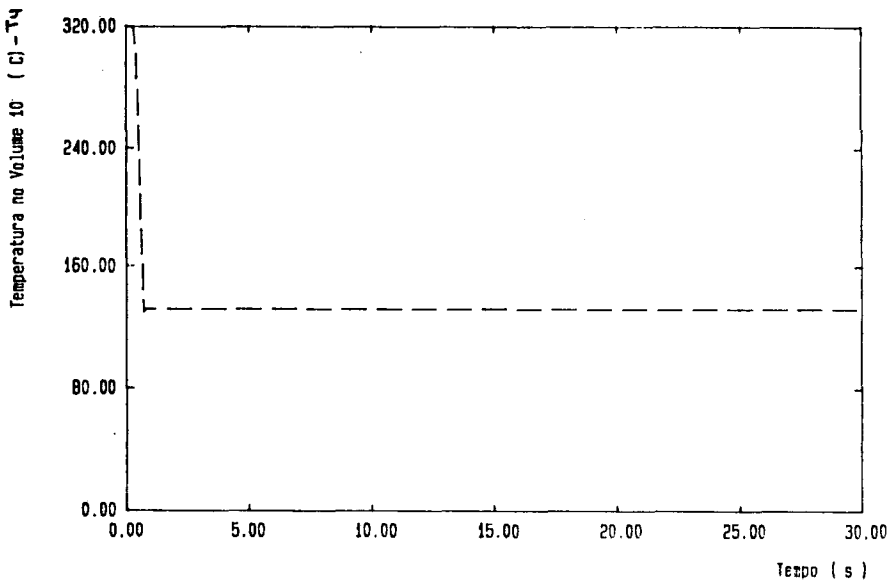

Pressao no Volume 5 (bar) - P2
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

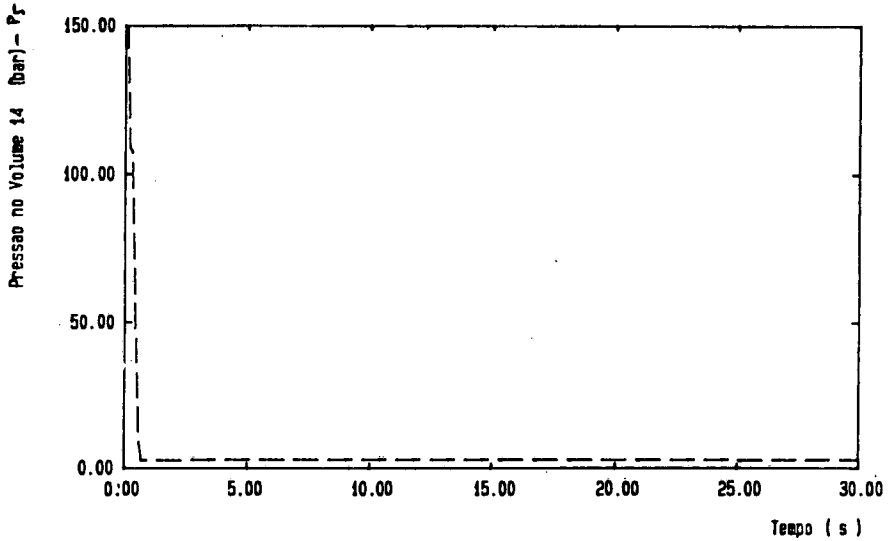

Temperatura no Volume 5 (C) - T2
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

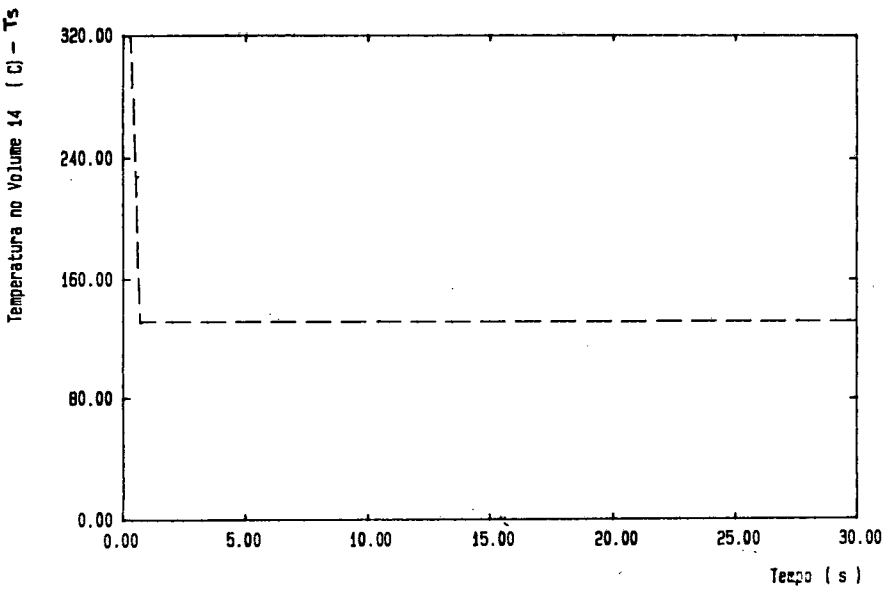

Pressao no Volume 7 (bar) - P3
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

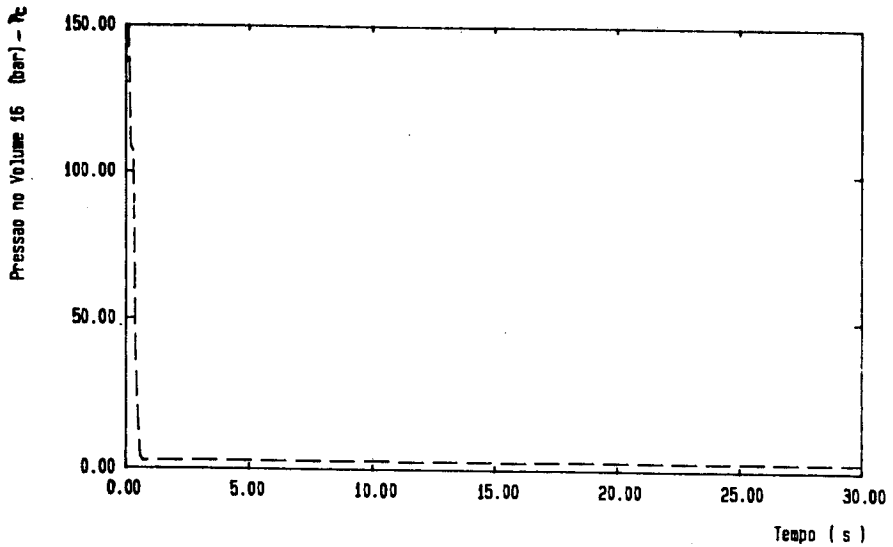

Temperatura no Volume 7 (C) - T3
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

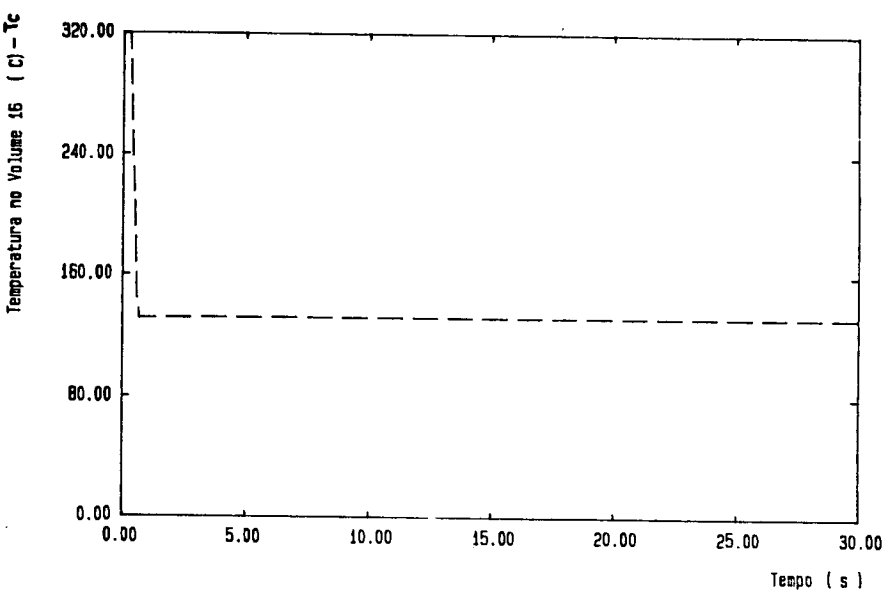

Pressao no Volume 10 (bar) - P4
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

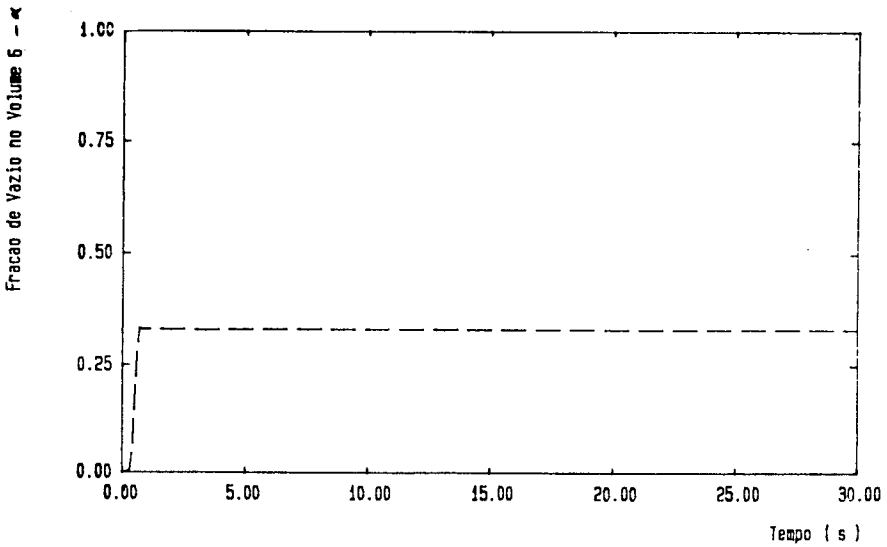

Temperatura no Volume 10 (C) - T4
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

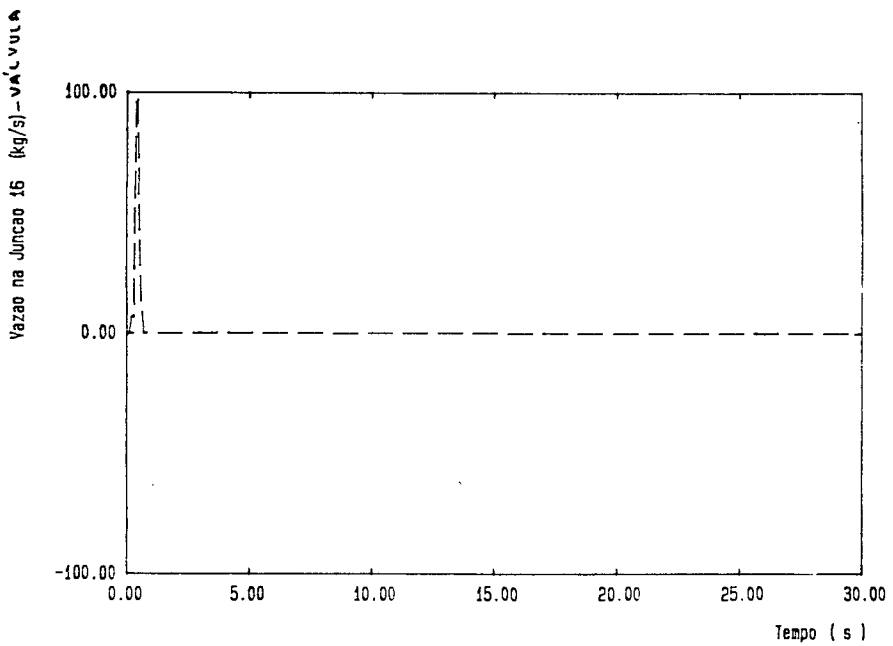

Pressao no Volume 14 (bar) - P_T
150.00
100.00
50.00
0.00
0:00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

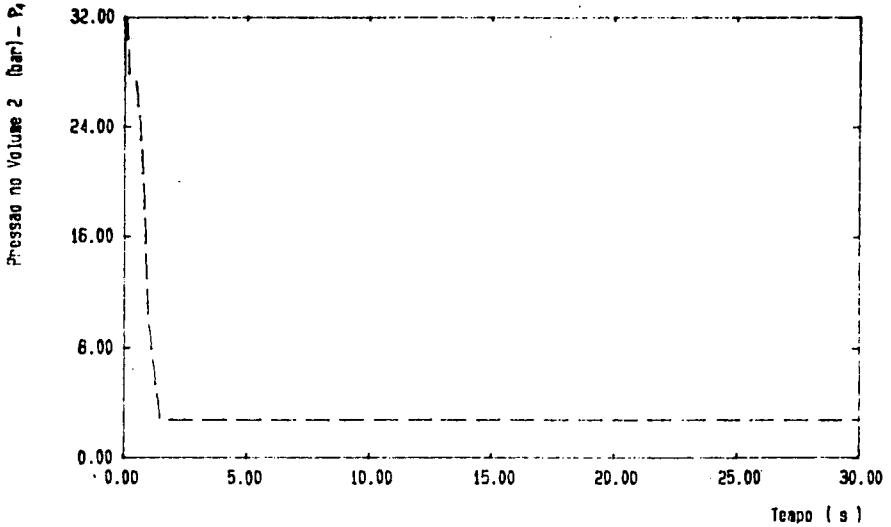

Temperatura no Volume 14 (C) - T_S
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

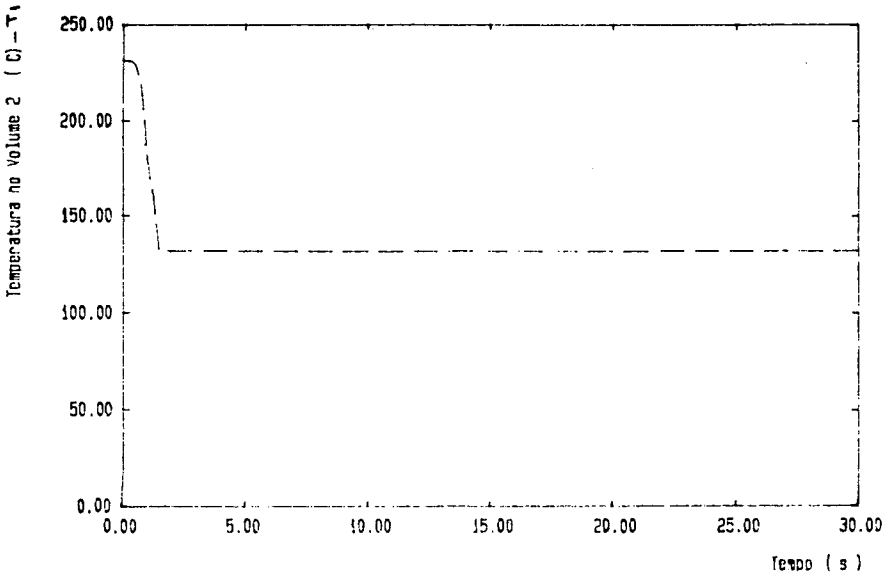

Pressao no Volume 16 (bar) - Pc
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

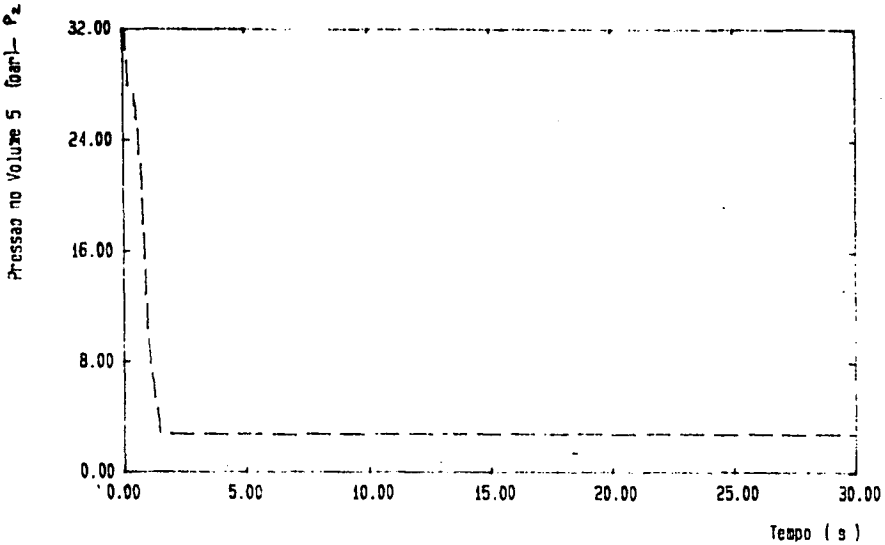

Temperatura no Volume 16 (C) - Tc
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

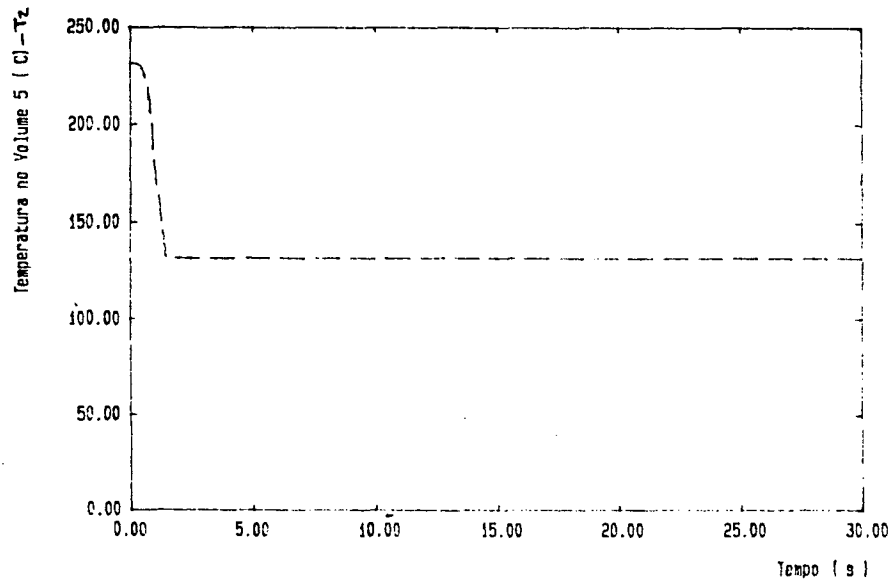

Fracao de Vazio no Volume 6 - 4
1.00
0.75
0.50
0.25
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

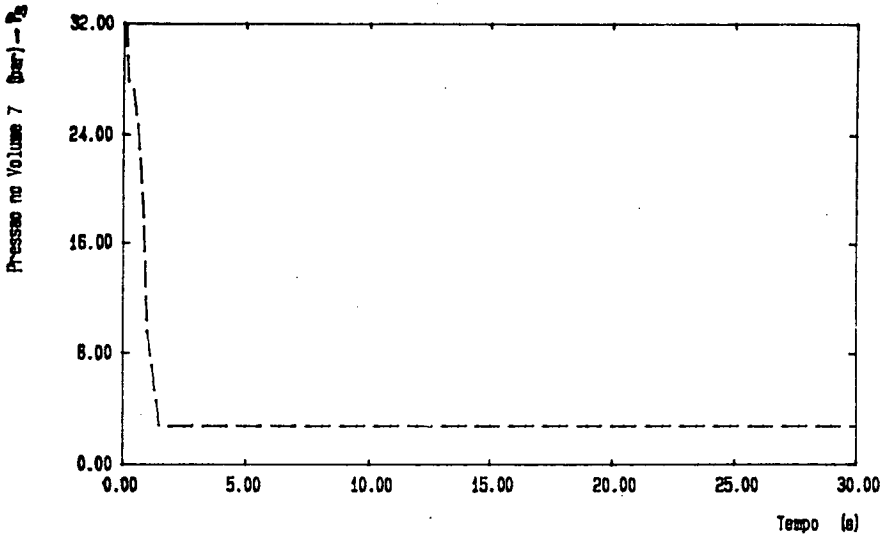

Vazao na Juncao 16 (kg/s) - VALVULA
100.00
0.00
-100.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

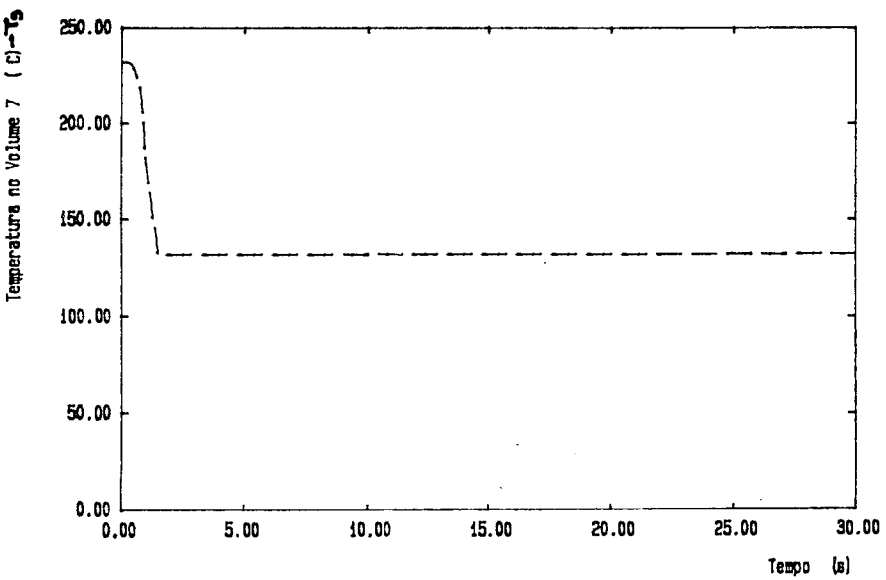

Pressão no Volume 2 (bar) - P2
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

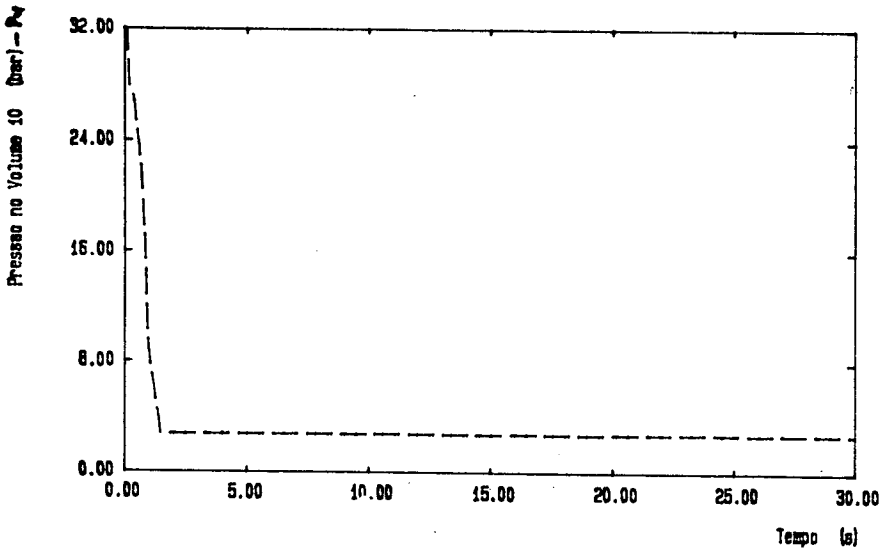

Temperatura no Volume 2 (C) - T2
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

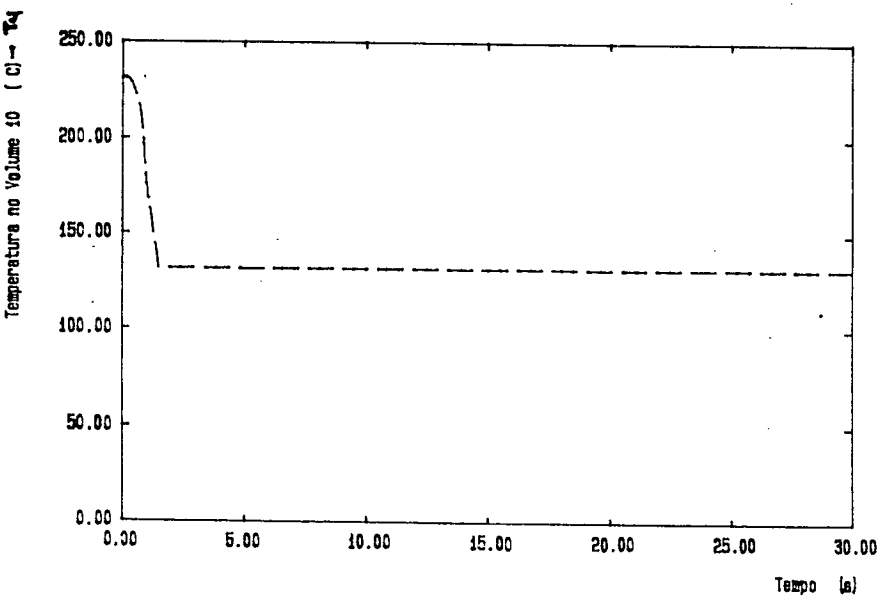

Pressao no Volume 5 (bar)- P_5
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

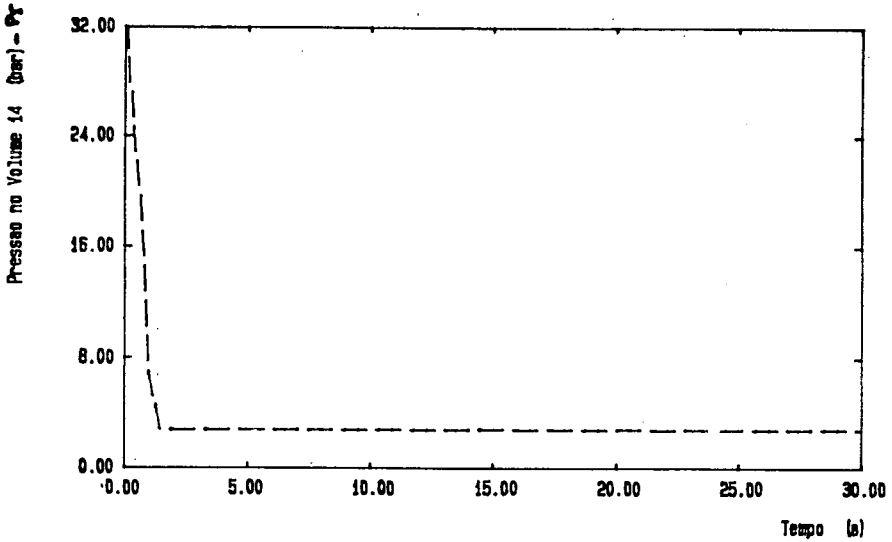

Temperatura no Volume 5 (C)-T_5
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

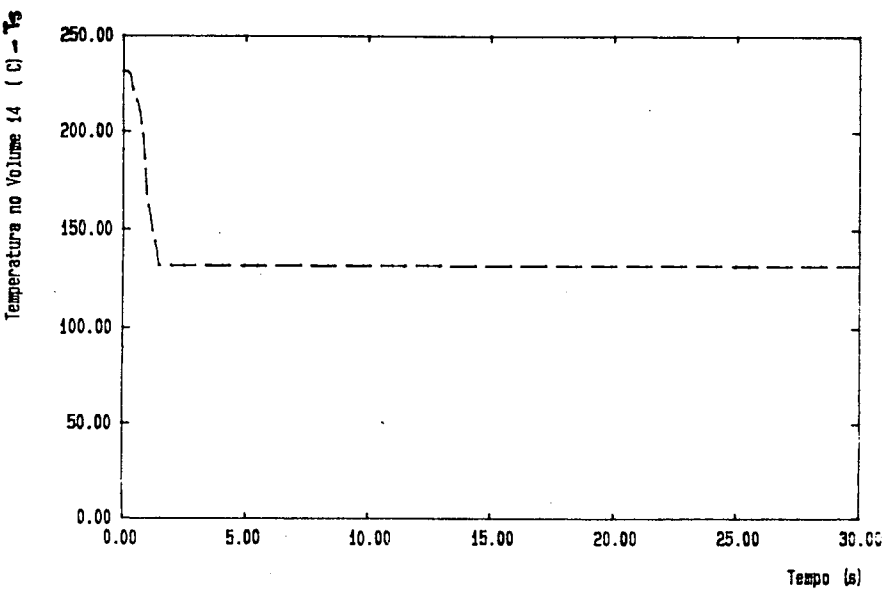

Pressao no Volume 7 (bar) - P7
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

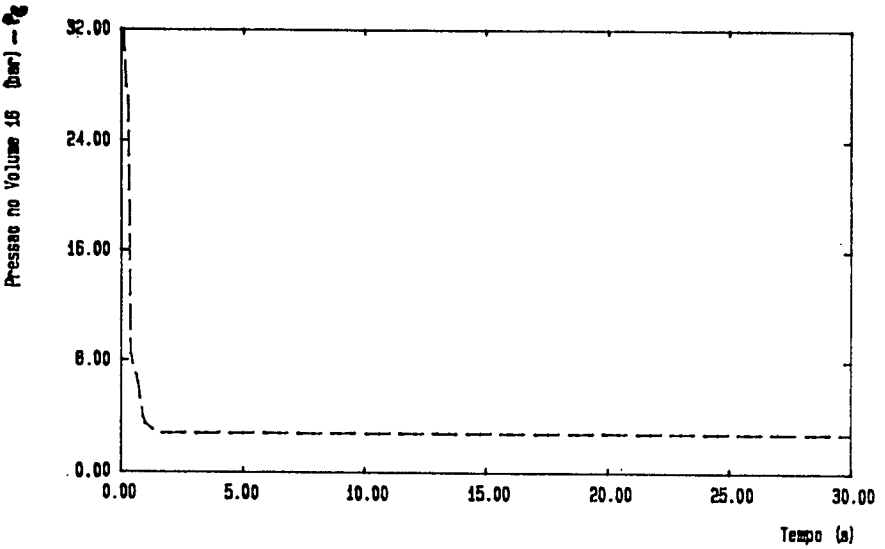

Temperatura no Volume 7 (C)-T7
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

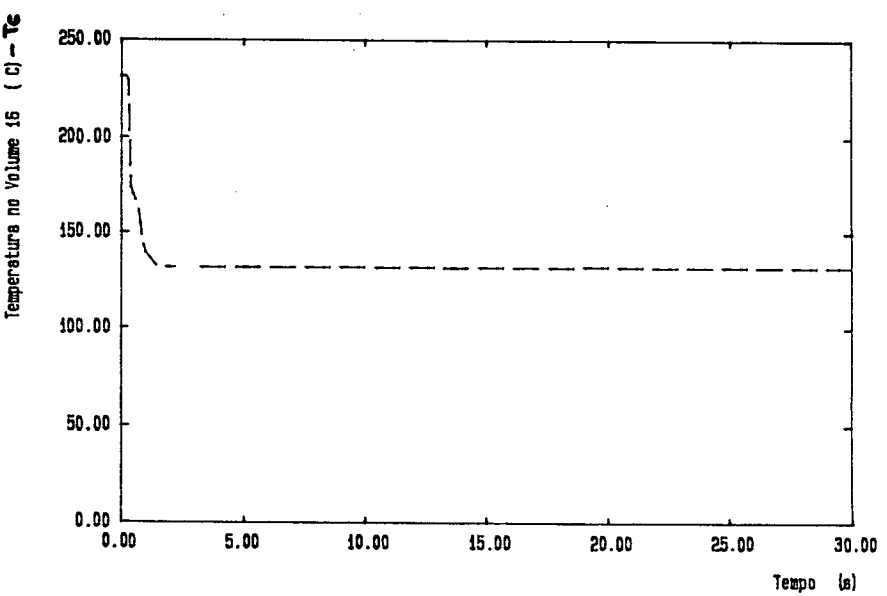

Pressao no Volume 10 (bar) - Pv
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

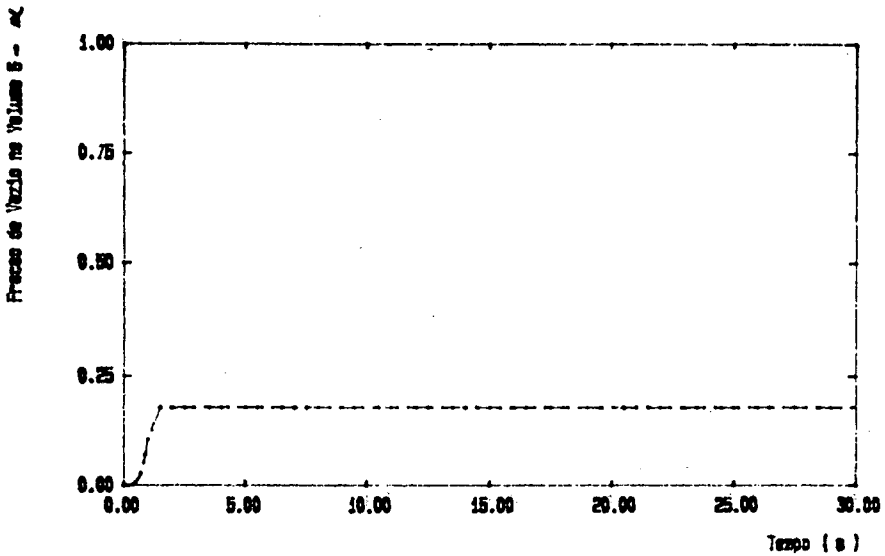

Temperatura no Volume 10 (C) - Tv
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

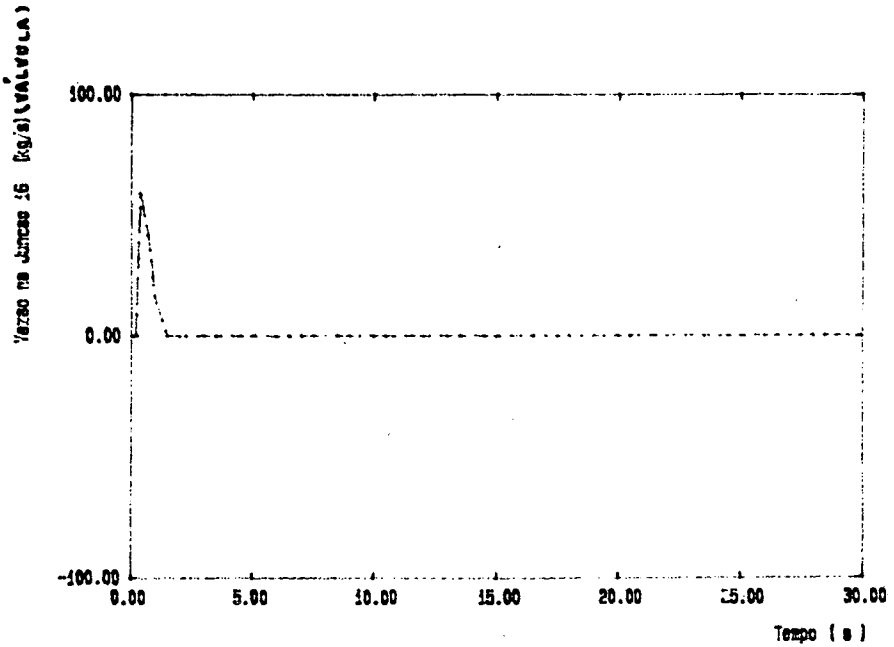

Pressao no Volume 14 (bar) - Pr
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

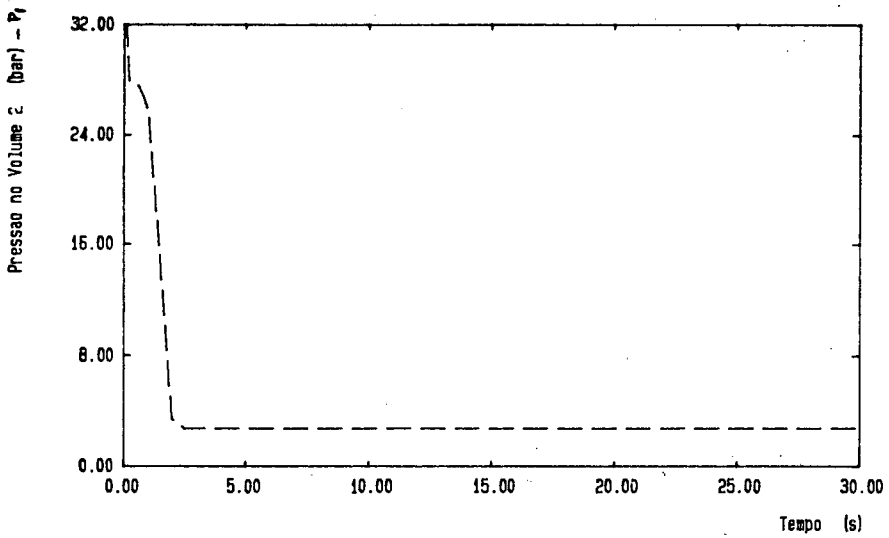

Temperatura no Volume 14 (C) - Ts
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

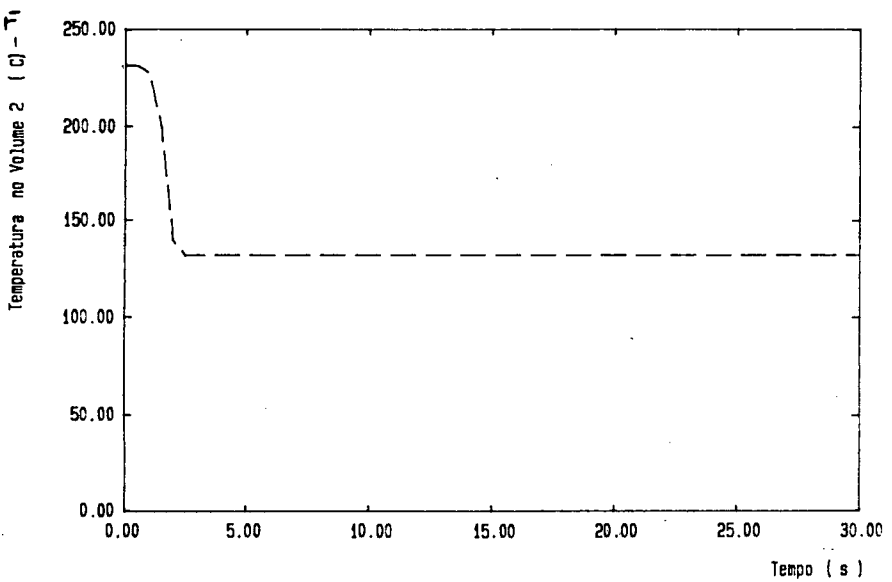

Pressão no Volume 16 (bar) - Pg
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

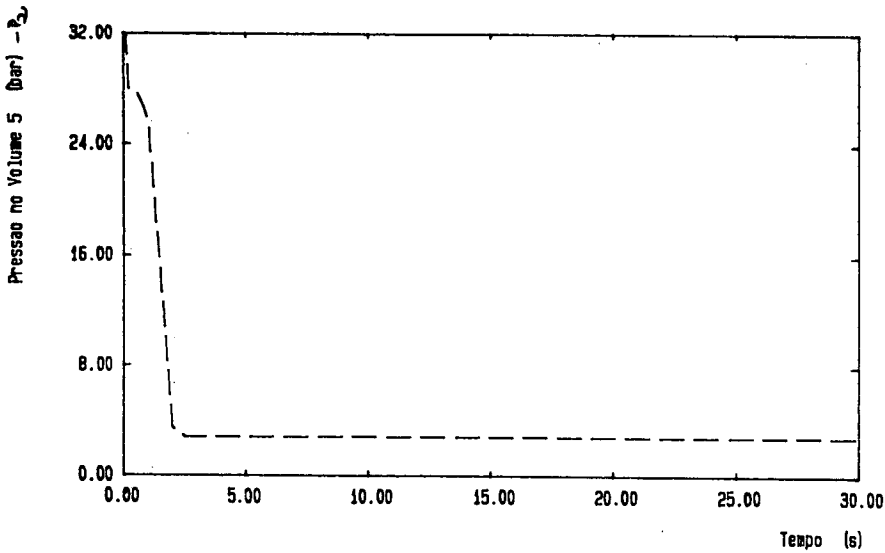

Temperatura no Volume 16 (C) - Tc
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

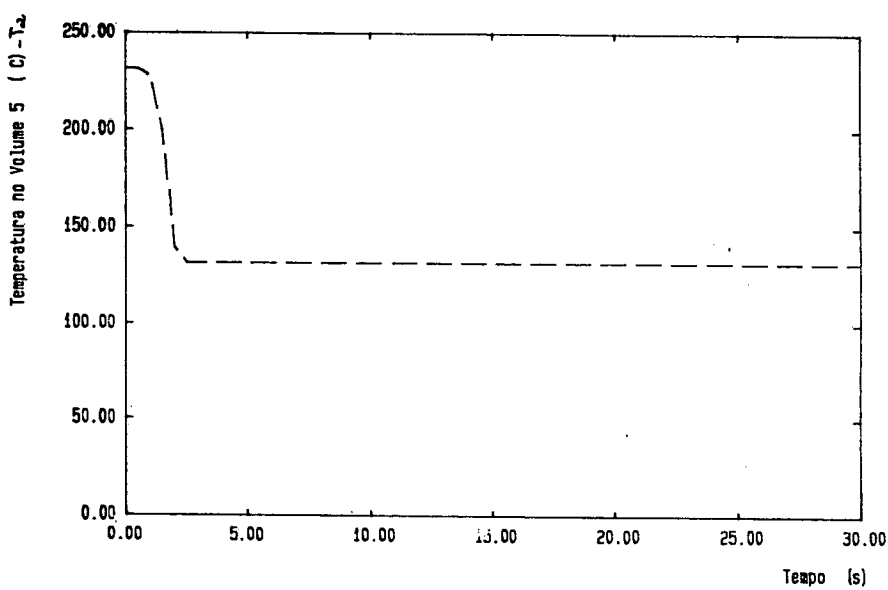

1.00
0.75
0.50
0.25
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

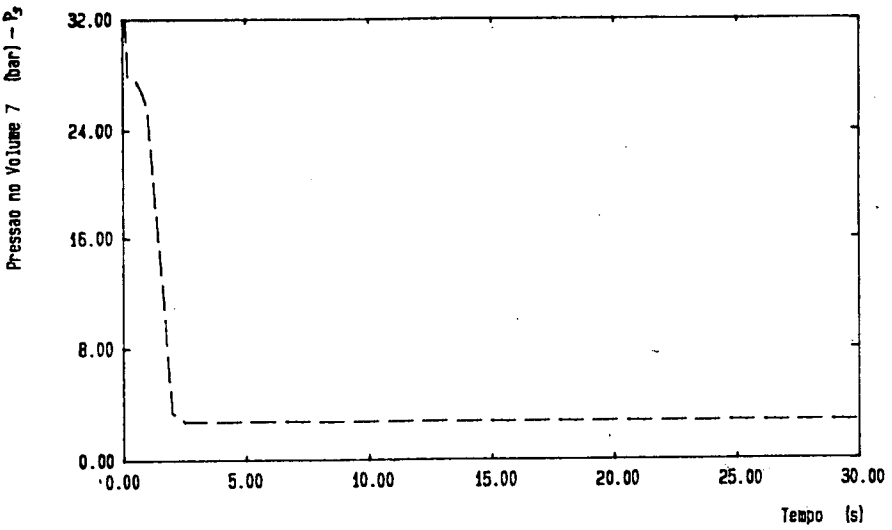

100.00
0.00
-100.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

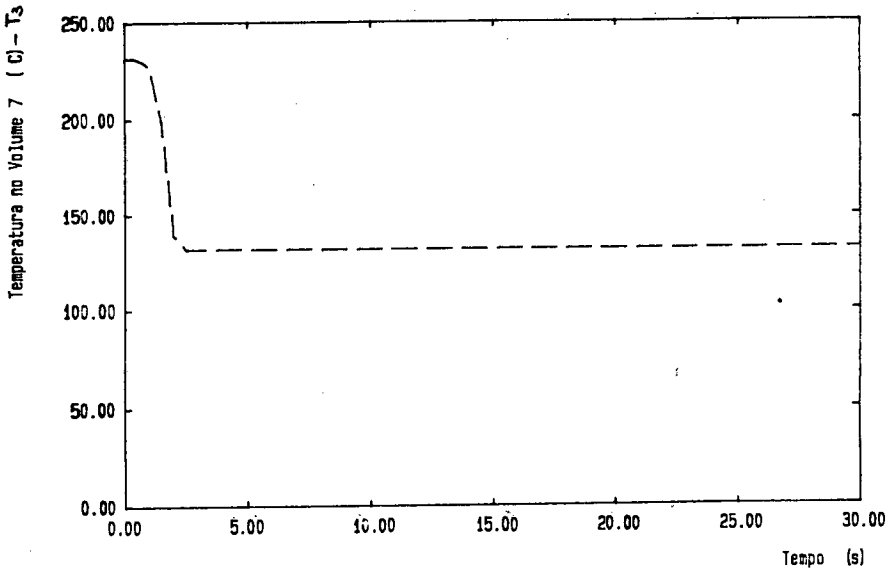

Pressao no Volume 2 (bar) - P_2
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

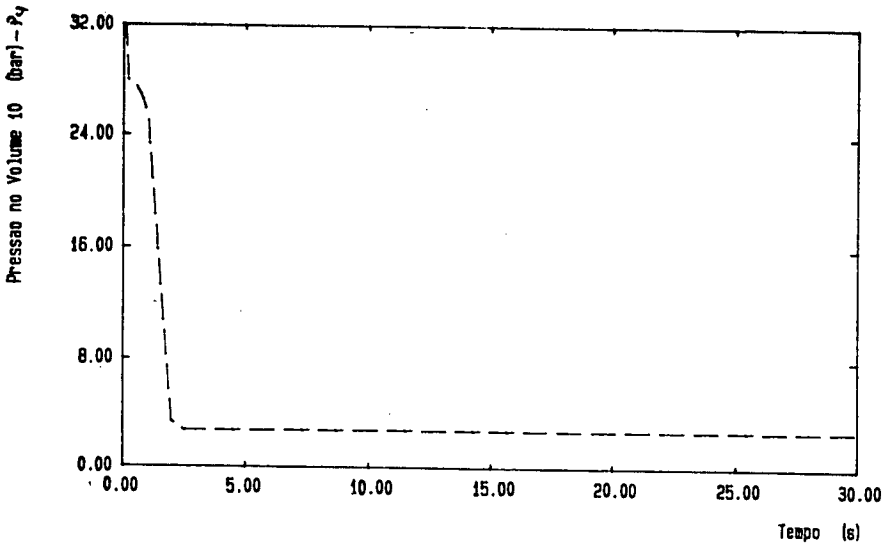

Temperatura no Volume 2 (C) - T_1
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

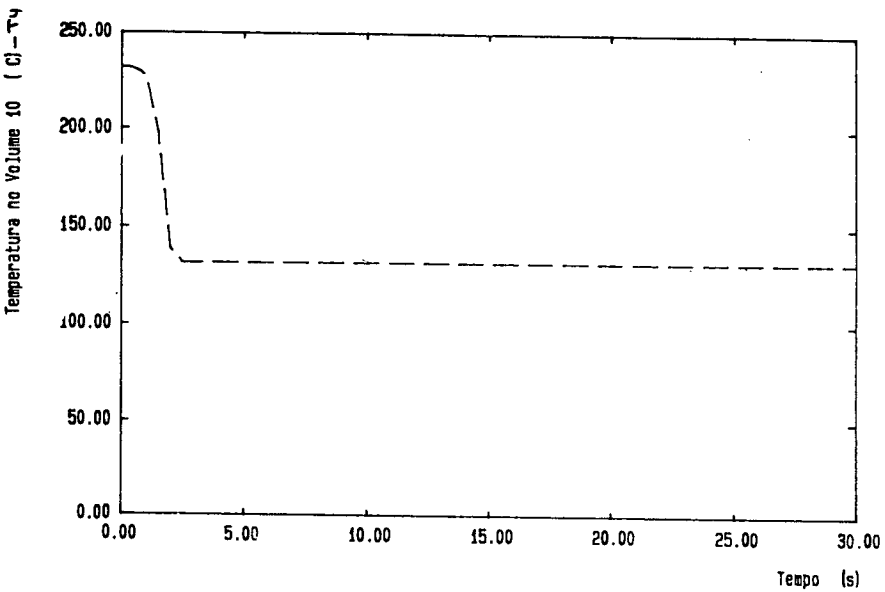

Pressao no Volume 5 (bar) - P5
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

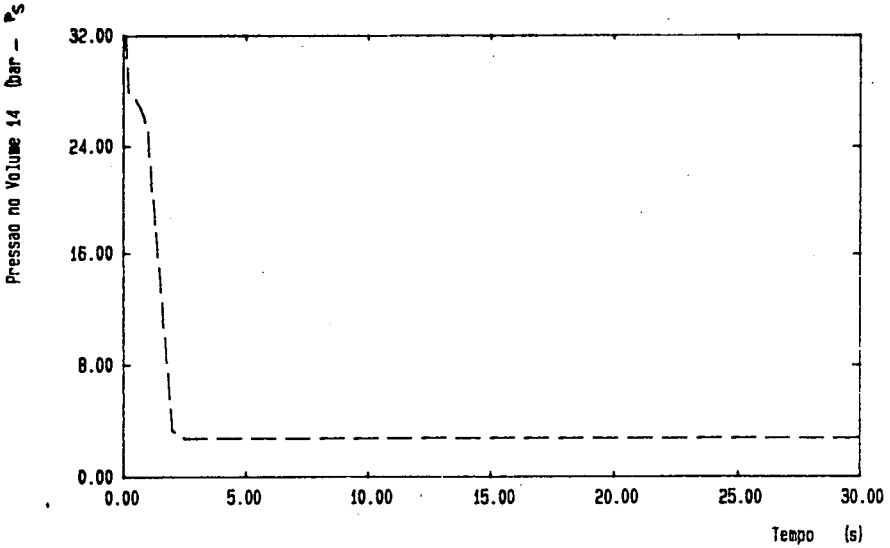

Temperatura no Volume 5 (C) - T5
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

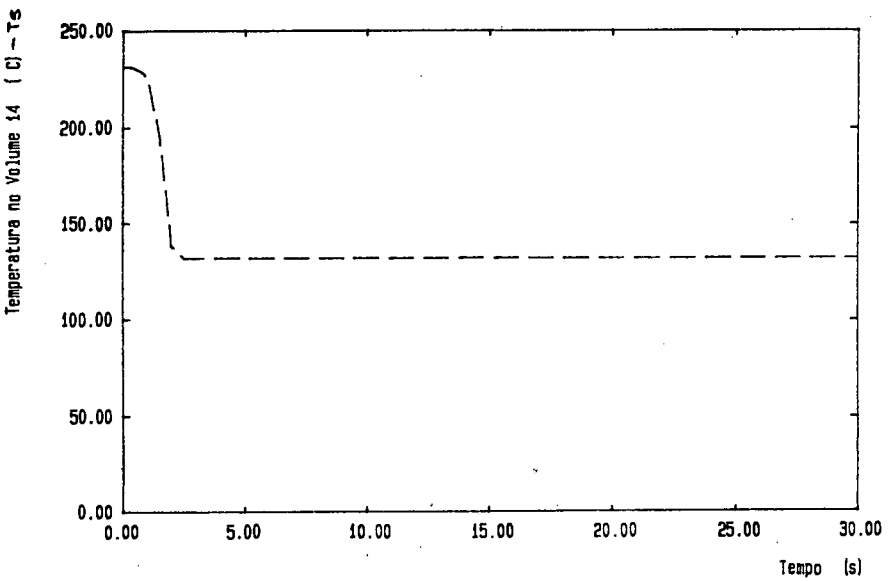

Pressao no Volume 7 (bar) - P_3
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

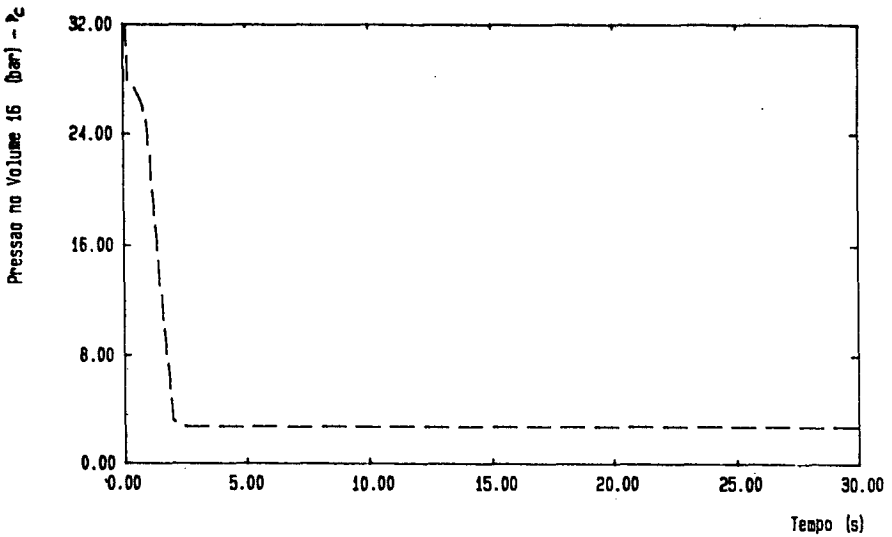

Temperatura no Volume 7 (C) - T_3
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

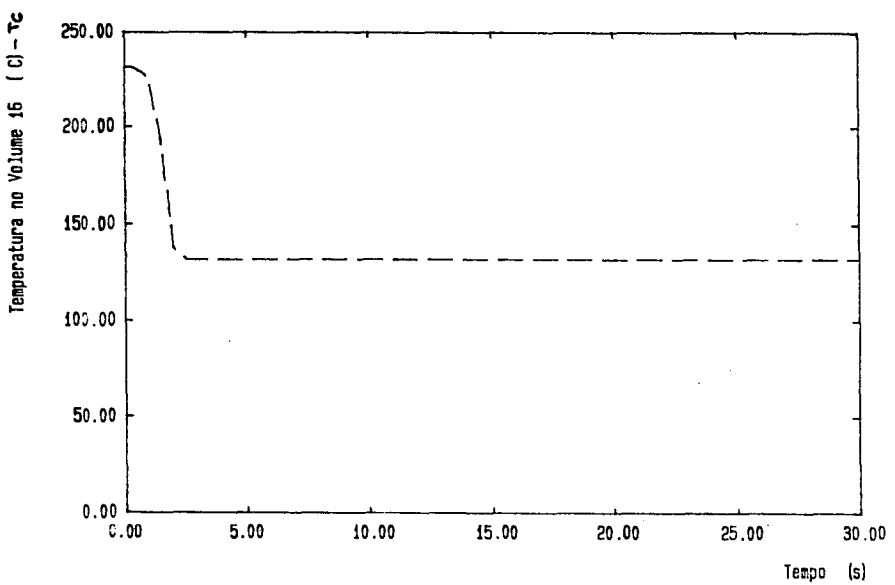

Pressao no Volume 10 (bar)-P4
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

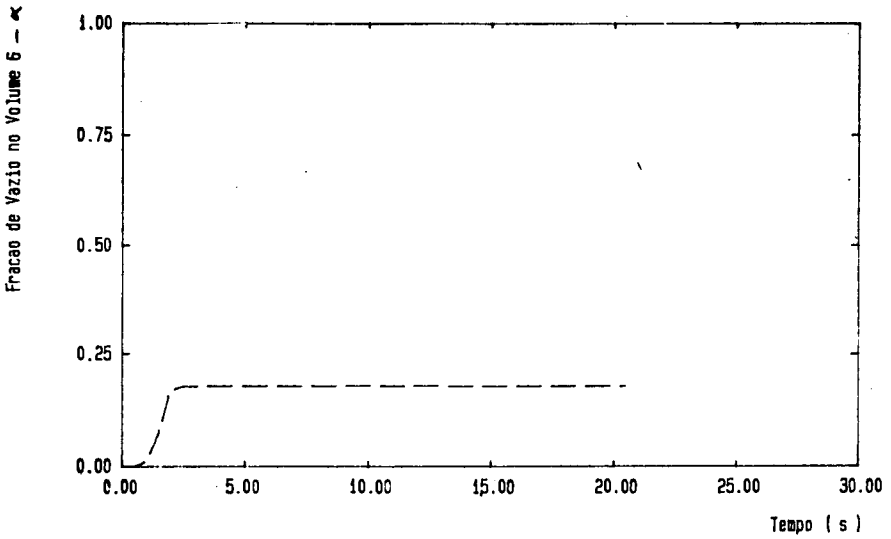

Temperatura no Volume 10 (C)-T4
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

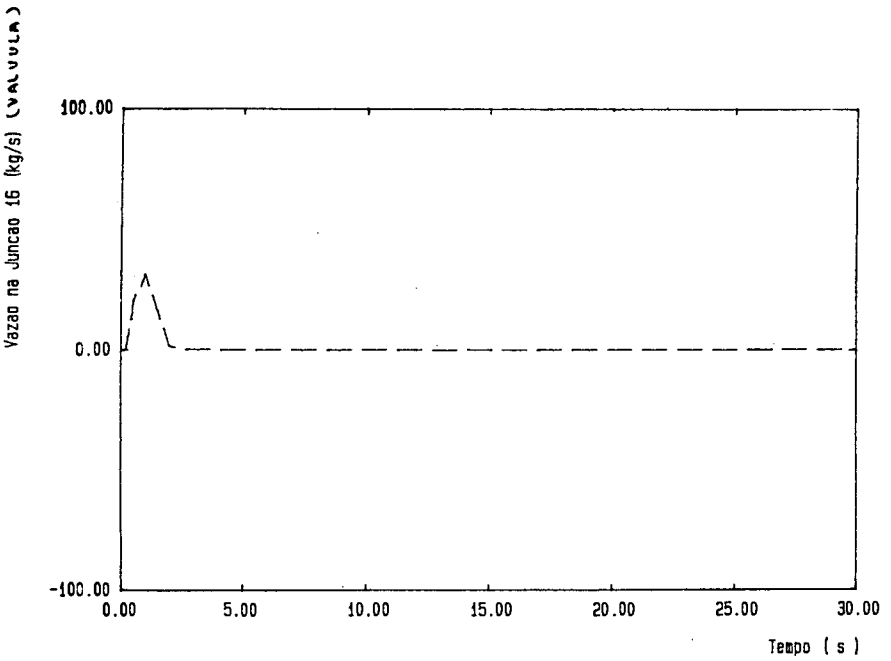

Pressao no Volume 14 (bar - Ps
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

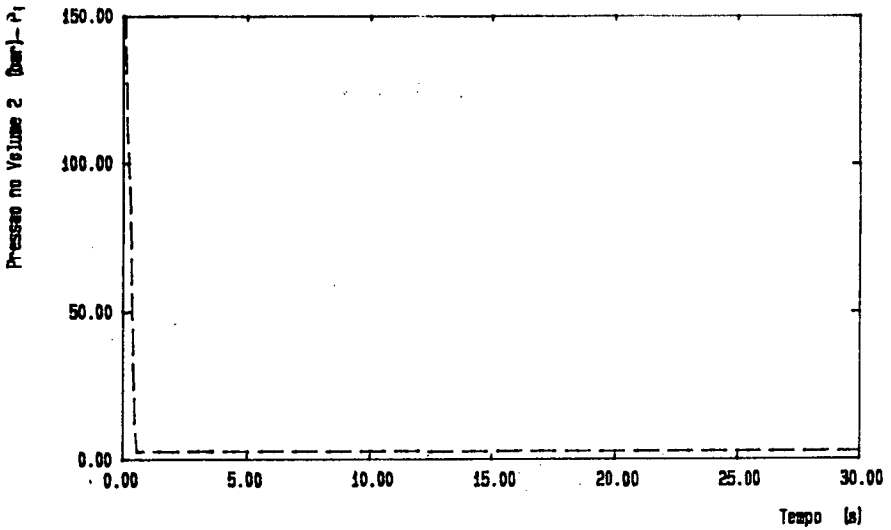

Temperatura no Volume 14 (C) - Ts
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

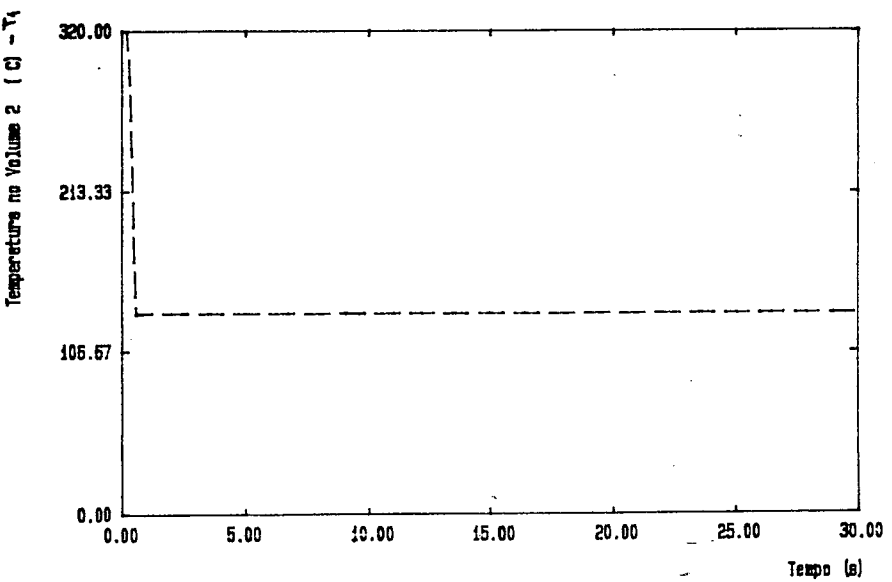

Pressao no Volume 16 (bar) - Pc
32.00
24.00
16.00
8.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

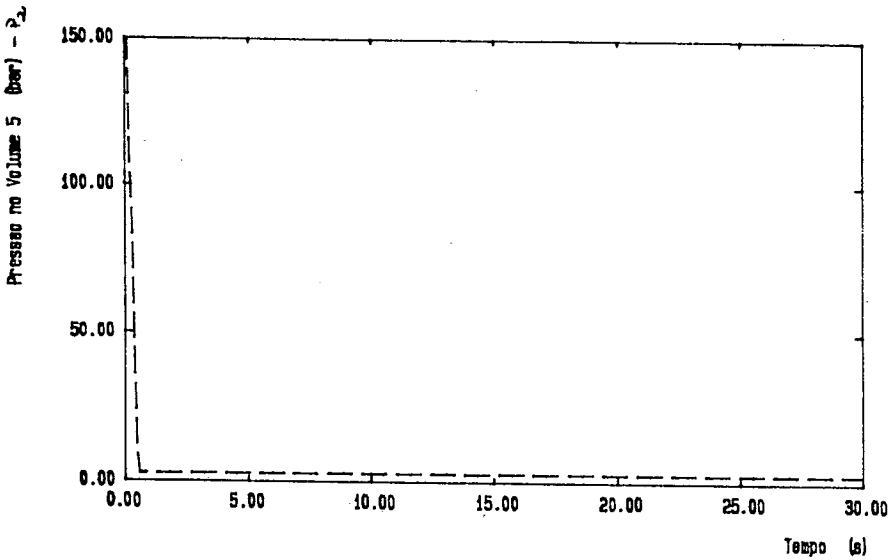

Temperatura no Volume 16 (C) - Tc
250.00
200.00
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

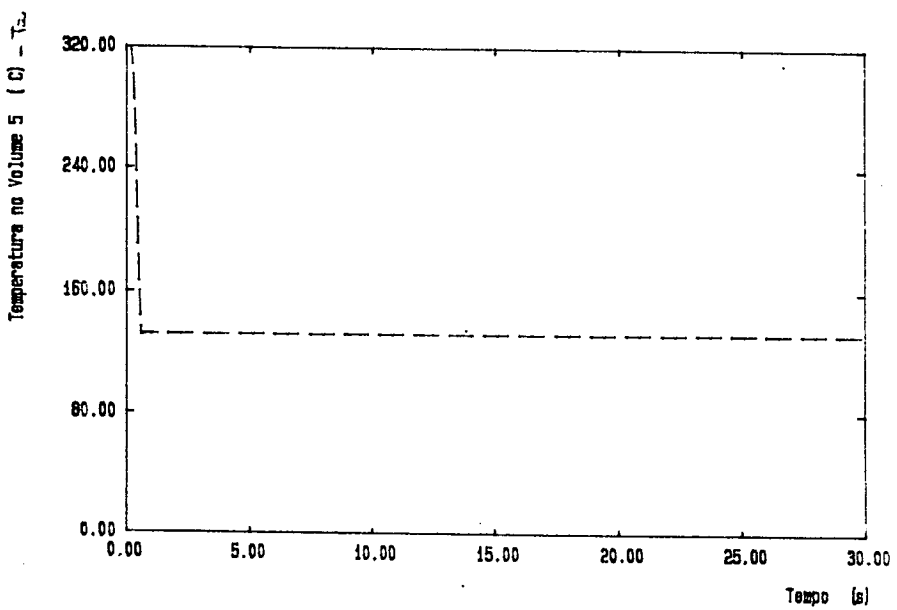

Fracao de Vazio no Volume 6 - α
1.00
0.75
0.50
0.25
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

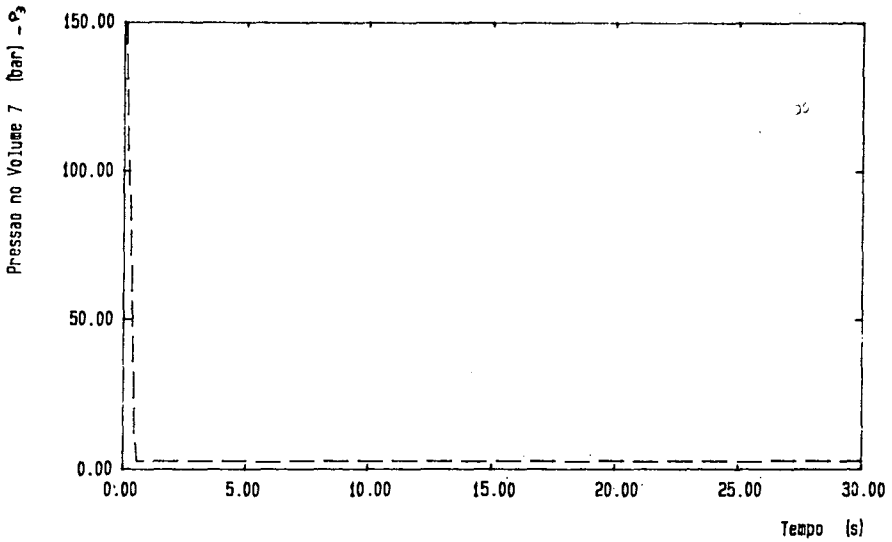

Vazao na Juncao 16 (kg/s) (VALVULA)
100.00
0.00
-100.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

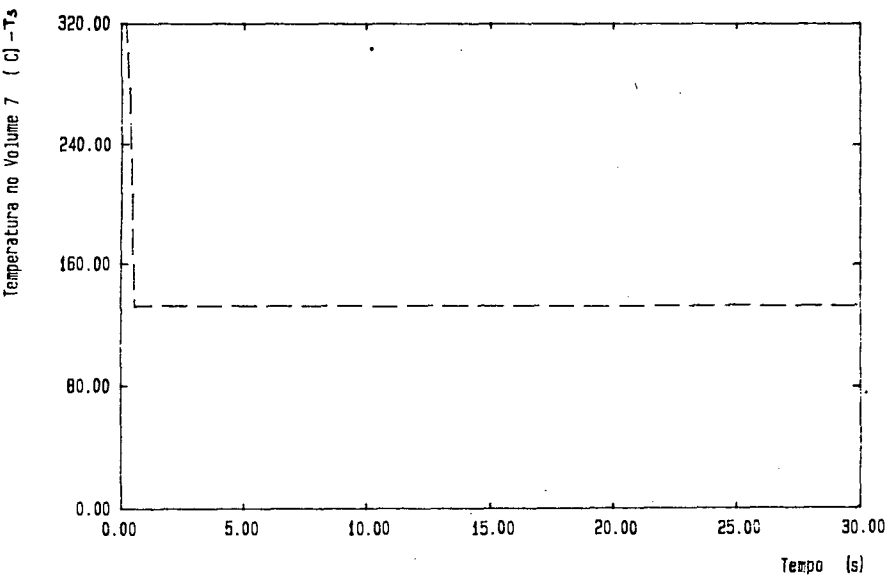

Pressão no Volume 2 (bar) - P_1
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)


Temperatura no Volume 2 (°C) - T_1
320.00
213.33
106.67
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)


Pressão no Volume 5 (bar) - P_5
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)


Temperatura no Volume 5 (°C) - T_5
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)


Pressao no Volume 7 (bar) - P_3
150.00
100.00
50.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)


Temperatura no Volume 7 (C) - T_3
320.00
240.00
160.00
80.00
0.00
0.00
5.00
10.00
15.00
20.00
25.00
30.00
Tempo (s)

4. Conclusões

Através de resultados obtidos neste trabalho verificou-se que o' códigos RELAP4/MOD3 e RELAP4/MOD5, representam de forma adequada o comportamento temporal da pressão, temperatura e vazão durante a simulação da despressurização da experiência CANON.

Deve-se ressaltar, que apenas de posse dos resultados experimentais da simulação da Experiência CANON, para cada um dos casos em estudo, pode-se-a avaliar e validar o comportamento do código RELAP4/MOD3 e RELAP4/MOD5.

5. Referências Bibliográficas

(1) MOORE, K. V. & RETING, N.H.; RELAP4 - A computer Program for Transiente Thermal Testing Station - Idaho Falls. Idaho - 8341. December, 1973.

(2) RELAP4/MOD5: a computer program for transient thermal hydraulic analysis of nuclear and selected systems. Idaho Falls, Idaho National Engineering Lab, Sept-1976. (ANCR - NUREG - 1335)

(3) REIGEL, B. Comtributon à Pétude de la décompresson d'une capacité em régime diphasique. Grenoble, 1978. (These de Docteur Ingenieur, Institut National Poly Techique de Grenoble, Université Screntique et Nédicale de Grenoble).

(4) CONTI, T. N. & FREITAS, R. L. Aplicação do Código TRAC-PD2 na Simulação da Experiência CANON. In Brasil. Comissão Nacional de Energia Nuclear. Física de Reatores Realizado no Rio de Janeiro, 10-12 abril, 1985.

(5) CONTI, T. N. & FREITAS, R. L. Simulação de Experiência de despressurização através do Código TRAC-PD2. In: Associação Brasileira de Energia Nuclear: Anais do 1º Congresso Geral de Energia Nuclear realizado no Rio de Janeiro, 17-20 Março, 1986. Rio de Janeiro, vol. 1, pg. 383-6.

(6) CONTI, T. N.; SABUNDJIAN, G. & FREITAS, R. L. Comparação entre os códigos RELAP5/MOD1 e TRAC-PD2 na simulação da Experiência CANON. In: Brasil. Comissão Nacional de Energia Nuclear. Física de Reatores: anais do VI Encontro Nacional de Física de reatores realizado em São José dos Campos, 3-5 dezembro, 1986.

ANEXO 1 - Memorial de Cálculo

Nº DE VOLUMES	COMPRIMENTO (m)	DIÂMETRO HIDRÁULICO (m)	ÁREA (m^2) $x10^{-3}$	VOLUME (m^3) $x10^{-3}$
1	0,350	0,1	7,85	2,75
2	0,300	0,1	7,85	2,36
3	0,333	0,1	7,85	2,61
4	0,300	0,1	7,85	2,36
5	0,146	0,1	7,85	1,15
6	0,146	0,1	7,85	1,15
7	0,146	0,1	7,85	1,15
8	0,397	0,1	7,85	1,15
9	0,375	0,1	7,85	2,94
10	0,400	0,1	7,85	3,14
11	0,293	0,1	7,85	2,30
12	0,300	0,1	7,85	2,36
13	0,300	0,1	7,85	2,36
14	0,200	0,1	7,85	1,57
15	0,144	0,1	7,85	1,13
16	0,260	0,1	7,85	2,04

ANEXO 2 - TABELAS DOS DADOS DE SAÍDA DOS CÓDIGOS RELAP4/MOD3 e RELAP4/MOD5

Tabela dos dados de saída do RELAP4/MOD3 - caso 1

SAS

[illegible] DECEMBER 13, 198[illegible]

[illegible]	PRESSAO NO VOL[illegible] (P6)	TEMPERATURA NO VOL[illegible] (T6)	PRESSAO NO VOL14 (P5)	TEMPERATURA NO VOL14 (T5)	PRESSAO NO VOL[illegible] (P4)	TEMPERATURA NO VOL[illegible] (T4)	PRESSAO NO VOL7 (P3)	TEMPERATURA NO VOL7 (T3)
[illegible]	[illegible]	231.840	32.0002	231.840	32.0002	231.840	32.0002	231.840
[illegible]	27.9265	231.743	27.9265	231.743	27.9265	231.743	27.9265	231.743
[illegible]	[illegible]	229.901	27.3333	230.565	[illegible]	231.170	27.7457	231.382
[illegible]	[illegible]	[illegible]	26.8143	225.519	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	220.642	[illegible]	[illegible]	[illegible]	229.718
[illegible]	[illegible]	[illegible]	[illegible]	214.506	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	209.422	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	177.369	15.5525	201.642	[illegible]	[illegible]	[illegible]	215.140
[illegible]	[illegible]	[illegible]	11.6939	189.061	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	169.711	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	131.851	2.7672	131.854	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	131.850	2.7669	131.850	2.7669	[illegible]	2.7669	131.850
[illegible]	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
[illegible]	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
[illegible]	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
4.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
4.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
5.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
5.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.766	131.850
7.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
7.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850

APII SEQUENCE	PRESSAO NO VOL16 (P_6)	TEMPERATURA NO VOL16 (T_6)	PRESSAO NO VOL14 (P_5)	TEMPERATURA NO VOL14 (T_5)	PRESSAO NO VOL10 (P_4)	TEMPERATURA NO VOL10 (T_4)	PRESSAO NO VOL7 (P_3)	TEMPERATURA NO VOL7 (T_3)
23.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
23.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
24.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
24.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
25.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
25.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
26.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
26.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
27.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
27.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
28.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
28.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
29.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
29.05	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
30.00	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85

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TEMPO DE [illegible]	PRESSAO NO VOL3 (P2)	TEMPERATURA NO VOL3 (T2)	PRESSAO NO VOL2 (P1)	TEMPERATURA NO VOL2 (T1)	PRESSAO NO VOL1	TITULO NO VOL3 (α)	VAZAO DA JUNCAO (VÁLVULA)
0.1	32.0002	231.840	32.0002	231.840	32.0002	0.000000	0.0000
0.2	27.9265	231.743	27.9265	231.743	27.9265	0.000015	0.6724
0.3	27.7027	231.461	27.8129	231.519	27.8160	0.000537	30.0561
0.4	27.4665	230.851	27.5167	230.951	27.5217	0.002409	32.2057
0.5	27.0341	229.904	27.0985	230.094	27.1036	0.004704	64.7070
0.6	25.9420	227.725	26.3045	226.470	26.3400	0.011166	54.2165
0.7	23.9251	223.591	24.1674	225.726	24.1854	0.021463	47.0303
0.8	20.6221	216.135	21.0975	216.714	21.0742	0.053162	37.2622
0.9	16.3555	204.062	16.5578	204.650	16.5715	0.085903	27.4615
1.0	10.7376	184.540	10.8976	185.125	10.9074	0.151156	16.1656
1.5	2.7664	131.666	2.7660	131.670	2.7656	0.179903	0.0049
2.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
2.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
3.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
3.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
4.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
4.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
5.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
5.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
6.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
6.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	-0.0000
7.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
7.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
8.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
8.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
9.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
9.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
10.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
10.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
11.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
11.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
12.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
12.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
13.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
13.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
14.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
14.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
15.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
15.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
16.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
16.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
17.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
17.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
18.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
18.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
19.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
19.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
20.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
20.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
21.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
21.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
22.0	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000
22.5	2.7669	131.650	2.7669	131.650	2.7669	0.179922	0.0000

TEMPO SEGUNDOS	PRESSAO NO VOLS (P_2)	TEMPERATURA NO VOLS (T_2)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSAO NO VOL1	TITULO DO VOLUME (α)	VALOR DA DENSIDADE (MOLS/VOL1)
22.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
23.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
24.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
25.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
26.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
27.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
28.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
29.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
30.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
31.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
32.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
33.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
34.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
35.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78
36.0	2.76091	131.85	2.76091	131.85	2.76091	0.179922	3.47009E-78

Tabela dos dados de saída do RELAP4/MOD3 - caso 2

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TEMPO (SEGUNDOS)	PRESSAO NO VOL16 (P6)	TEMPERATURA NO VOL16 (T6)	PRESSAO NO VOL14 (P5)	TEMPERATURA NO VOL14 (T5)	PRESSAO NO VOL10 (P4)	TEMPERATURA NO VOL10 (T4)	PRESSAO NO VOL7 (P3)	TEMPERATURA NO VOL7 (T3)
0.1	32.0002	231.840	32.0002	231.840	32.0002	231.840	32.0002	231.840
0.2	27.9205	231.743	27.9205	231.743	27.9205	231.743	27.9205	231.743
0.3	27.6579	231.608	27.6615	231.614	27.6693	231.609	27.6999	231.690
0.4	27.7113	231.470	27.6070	231.508	27.5565	231.565	27.5524	231.590
0.5	27.7440	231.362	27.7507	231.408	27.779	231.452	27.7520	231.479
0.6	27.6613	231.270	27.6996	231.295	27.727	231.330	27.7200	231.343
0.7	27.6172	231.135	27.6318	231.160	27.6465	231.195	27.6531	231.206
0.8	27.5446	230.979	27.5541	231.006	27.5716	231.040	27.5703	231.054
0.9	27.4537	230.806	27.4664	230.835	27.4679	230.874	27.4957	230.890
1.0	27.3612	230.617	27.3703	230.651	27.3976	230.674	27.4000	230.712
1.5	25.5622	226.727	25.6692	227.196	25.6415	227.516	25.6999	227.657
2.0	22.7473	220.556	22.6605	221.006	23.0092	221.456	23.1460	221.647
2.5	17.3524	207.337	17.5705	207.569	17.6002	208.237	17.6595	209.469
3.0	3.6644	175.159	6.6101	175.850	8.9906	176.719	9.6037	177.049
3.5	2.7652	131.520	2.7643	131.818	2.7619	131.736	2.7660	131.700
4.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
4.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
5.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
5.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
7.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
7.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850

TEMPO SEGUNDOS	PRESSAO NO VOL[illegible] (P6)	TEMPERATURA NO VOL16 (T6)	PRESSAO NO VOL14 (P5)	TEMPERATURA NO VOL14 (T5)	PRESSAO NO VOL15 (P4)	TEMPERATURA NO VOL1[illegible] (T4)	PRESSAO NO VOL17 (P3)	TEMPERATURA NO VOL17 (T3)
23.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
23.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
24.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
24.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
25.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
25.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
26.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
26.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
27.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
27.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
28.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
28.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
29.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
29.5	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85
30.0	2.7669	131.85	2.7669	131.85	2.7669	131.85	2.7669	131.85

	TEMPERATURA NO VOL3 (P_2)	TEMPERATURA NO VOL3 (T_2)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSAO NO VOL1	TEMPO NO VOL1 (α)	VAZAO NO DUCTO (VAZAO VOLA)
0.1	32.0000	231.000	32.0002	231.000	32.0002	0.000000	0.0000
0.2	27.9265	231.743	27.9265	231.743	27.9265	0.000000	0.0000
0.3	27.9074	231.070	27.9070	231.704	27.9074	0.000157	0.0001
0.4	27.8855	231.011	27.8855	231.002	27.8861	0.000300	0.0000
0.5	27.8501	231.491	27.8143	231.502	27.8149	0.010000	0.0000
0.6	27.7304	231.330	27.7333	231.361	27.7330	0.010000	0.0000
0.7	27.6579	231.211	27.6584	231.214	27.6591	0.010000	0.0000
0.8	27.5205	231.058	27.5819	231.061	27.5820	0.000771	0.0000
0.9	27.4956	230.009	27.5004	230.033	27.5000	0.000000	0.0000
1.0	27.4100	230.715	27.4122	230.723	27.4129	0.000000	0.0000
1.1	25.9204	227.000	25.9331	227.031	25.9341	0.000000	0.0000
1.2	25.1772	225.742	25.1943	225.781	25.1950	0.000000	0.0000
1.3	17.9313	208.279	17.9513	208.033	17.9520	0.000000	0.0000
1.4	7.0995	177.104	7.0995	177.104	7.1005	0.000000	0.0000
1.5	2.7891	131.724	2.7582	131.743	2.7981	0.000000	0.0000
1.6	2.7669	131.650	2.7669	131.650	2.7669	0.000000	0.0000
1.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
1.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
1.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	0.0000
2.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	0.0000
2.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
2.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
3.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
4.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
5.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
6.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
7.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
8.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
9.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
10.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
11.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
12.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
13.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
14.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
15.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
16.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
17.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
18.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
19.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
20.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.1	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.2	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.3	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.4	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.5	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.6	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.7	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.8	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
21.9	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000
22.0	2.7669	131.650	2.7669	131.650	2.7669	0.179714	-0.0000

SAS

[illegible] TUESDAY, DECEMBER 19, 1900

[illegible]	PRESSAO NO VOL3 (P_2)	TEMPERATURA NO VOL3 (T_2)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSAO NO VOL1	FLUXO NO VOL1 (α)	VAZAO NO JUNCAO (VALVULA)
23.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-9.699361E-15
23.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-7.030408E-15
24.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-5.094259E-15
24.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-3.693033E-15
25.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-2.677330E-15
25.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-1.940552E-15
26.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-1.406160E-15
26.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-1.019337E-15
27.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-7.387700E-16
27.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-5.355200E-16
28.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-3.881784E-16
28.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-2.813711E-16
29.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-2.039053E-16
29.5	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-1.477455E-16
30.0	2.7009	131.05	2.7009	131.05	2.7009	0.17714	-1.070942E-16

Tabela dos dados de saída do RELAP4/MOD3 - caso 3

SAS ... WEDNESDAY, DECEMBER 14, [illegible]

TEMPO (SEGUNDOS)	PRESSAO NO VOL13 (P_G)	TEMPERATURA NO VOL13 (T_G)	PRESSAO NO VOL14 (P_5)	TEMPERATURA NO VOL14 (T_5)	PRESSAO NO VOL10 (P_4)	TEMPERATURA NO VOL10 (T_4)	PRESSAO NO VOL7 (P_3)	TEMPERATURA NO VOL7 (T_3)
0.1	150.000	322.560	150.000	322.560	150.000	322.560	150.000	322.560
0.2	108.779	319.745	108.779	319.745	108.779	319.746	108.700	319.740
0.3	107.714	319.005	107.724	319.010	107.730	319.019	107.759	319.021
0.4	57.572	249.254	67.365	285.471	66.025	302.401	92.666	307.052
0.5	17.072	207.366	33.990	242.790	44.011	259.020	47.799	265.205
0.6	4.595	145.630	8.158	172.595	11.038	165.095	11.669	169.044
0.7	2.731	131.844	2.719	131.260	2.821	130.022	2.557	129.204
0.8	2.707	131.850	2.707	131.853	2.700	131.566	2.709	131.074
0.9	2.707	131.850	2.707	131.849	2.707	131.040	2.700	131.044
1.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
1.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
2.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
2.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
3.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
3.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
4.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
4.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
5.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
5.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
6.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
6.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
7.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
7.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
8.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
8.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
9.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
9.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
10.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
10.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
11.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
11.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
12.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
12.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
13.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
13.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
14.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
14.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
15.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
15.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
16.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
16.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
17.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
17.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
18.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
18.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
19.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
19.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
20.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
20.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
21.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
22.0	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850
22.5	2.707	131.850	2.707	131.850	2.707	131.850	2.707	131.850

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                                                              SAS                                   9:05 WEDNESDAY, DECEMBER 14, 1988   2

TEMPO SEGUNDOS    PRESSAO       TEMPERATURA    PRESSAO       TEMPERATURA    PRESSAO      TEMPERATURA    PRESSAO    TEMPERATURA
                  NO            NO             NO            NO-            NO           NO             NO         NO
                  VOL16 (PG)    VOL16 (TG)     VOL14 (PS)    VOL14 (TS)     VOL10 (P4)   VOL10 (T4)     VOL7       VOL7 (VÁLVULA)

     23.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     23.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     24.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     24.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     25.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     25.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     26.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     26.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     27.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     27.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     28.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     28.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     29.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     29.5         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
     30.0         2.76691         131.85       2.76691         131.85       2.76691        131.85       2.76691      131.85
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TEMPO SEGUNDOS	PRESSÃO NO VOL3 (P_3)	TEMPERATURA NO VOL3 (T_3)	PRESSÃO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSÃO NO VOL1	TÍTULO NO VOL0 (x)	VAZÃO NA JUNÇÃO (VÁLVULA)
[illegible]	[illegible]	322.500	150.000	322.500	150.000	0.000000	0.000
[illegible]	[illegible]	319.746	108.780	319.747	108.780	0.002925	7.170
[illegible]	107.740	317.021	107.741	319.022	107.741	[illegible]	[illegible]
[illegible]	[illegible]	309.690	98.592	[illegible]	99.122	0.047566	120.755
[illegible]	[illegible]	264.358	49.491	[illegible]	49.558	0.170755	55.170
[illegible]	12.130	[illegible]	12.336	190.727	12.351	[illegible]	[illegible]
0.7	2.544	129.033	2.520	[illegible]	2.516	0.333772	-0.014
0.8	2.769	131.661	2.770	[illegible]	2.770	0.332171	-0.023
0.9	2.766	131.843	2.766	131.842	2.766	0.332195	0.000
1.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
1.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
2.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
2.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
3.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
3.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
4.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
4.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
5.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
5.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
6.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
6.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
7.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
7.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
8.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
8.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
9.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
9.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
10.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
10.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
11.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
11.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
12.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
12.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
13.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
13.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
14.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
14.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
15.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
15.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
16.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
16.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
17.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
17.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
18.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
18.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
19.0	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
19.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
20.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
20.5	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
21.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
21.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000
22.0	2.767	131.850	2.767	131.850	2.767	0.332191	-0.000
22.5	2.767	131.850	2.767	131.850	2.767	0.332191	0.000

OBS	PRESSAO NO VOL3 (P3)	TEMPERATURA NO VOL3 (T3)	PRESSAO NO VOL2 (P2)	TEMPERATURA NO VOL2 (T2)	PRESSAO NO VOL1	TITULO NO VOL0 (X)	PRESSAO NO JOUKOW (VA'(VOLA)
23.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-2.197008-15
24.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-7.633098-17
24.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	9.952522-17
25.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	9.405258-17
25.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	1.978918-15
26.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-1.937008-15
26.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-8.711938-16
27.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-6.087278-16
27.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	1.390548-17
28.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	3.227938-16
28.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-6.263718-16
29.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	1.167638-16
29.5	2.76691	131.85	2.76691	131.85	2.76691	0.332191	-6.088128-15
30.0	2.76691	131.85	2.76691	131.85	2.76691	0.332191	3.107648-17

Tabela dos dados de saída do RELAP4/MOD5 - caso 1

TEMPO SEGUNDOS	PRESSÃO VOL 16 (P_6)	TEMPERATURA VOL 16 (T_6)	PRESSÃO VOL 14 (P_5)	TEMPERATURA VOL 14 (T_5)	PRESSÃO VOL 10 (P_4)	TEMPERATURA VOL 10 (T_4)	(P_3)	(T_3)
0.1	32.0000	231.840	32.0000	231.840	32.0000	231.840	[illegible]	[illegible]
0.2	27.9265	231.743	27.9265	231.743	27.9265	231.743	[illegible]	[illegible]
0.3	[illegible]	[illegible]	27.2937	230.486	[illegible]	[illegible]	[illegible]	[illegible]
0.4	[illegible]	[illegible]	[illegible]	223.559	[illegible]	[illegible]	[illegible]	[illegible]
0.5	[illegible]	[illegible]	[illegible]	217.623	[illegible]	[illegible]	[illegible]	[illegible]
0.6	7.1017	167.205	[illegible]	215.975	[illegible]	[illegible]	[illegible]	[illegible]
0.7	6.3975	[illegible]	13.6392	210.512	[illegible]	[illegible]	[illegible]	[illegible]
0.8	5.2192	[illegible]	15.5451	201.588	[illegible]	[illegible]	[illegible]	[illegible]
0.9	3.9533	144.346	11.6976	187.936	[illegible]	[illegible]	[illegible]	[illegible]
1.0	[illegible]	[illegible]	[illegible]	163.274	[illegible]	[illegible]	[illegible]	[illegible]
1.5	2.7669	[illegible]	2.7570	131.850	[illegible]	[illegible]	[illegible]	[illegible]
2.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
2.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
3.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
3.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
4.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
4.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
5.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
5.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
6.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
6.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
7.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
7.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
8.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
8.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
9.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
9.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
10.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
10.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
11.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
11.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
12.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
12.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
13.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
13.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
14.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
14.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
15.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
15.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
16.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
16.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
17.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
17.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
18.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
18.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
19.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	[illegible]	[illegible]
19.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
20.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
20.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
21.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
21.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
22.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]
22.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	[illegible]	[illegible]

"GAS".

ON 32 TUESDAY, DECEMBER 13, 1988

TEMPO SEGUNDOS	PRESSAO NO VOLUME(P6)	TEMPERATURA NO VOLUME(T6)	PRESSAO NO VOLUME(P5)	TEMPERATURA NO VOLUME(T5)	PRESSAO NO VOLUME(P4)	TEMPERATURA NO VOLUME(T4)	PRESSAO NO VOLUME(P3)	TEMPERATURA NO VOLUME(T3)
23.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
23.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
24.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
24.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
25.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
25.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
26.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
26.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
27.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
27.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
28.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
28.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
29.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
29.5	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85
30.0	2.76691	131.85	2.76691	131.85	2.76691	131.85	2.76691	131.85

TEMPO SEGUNDOS	PRESSAO NO VOL5 (P_5)	TEMPERATURA NO VOL5 (T_5)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSAO NO VOL1	[illegible] (α)	VALVULA (VALVULA)
0.1	32.0000	231.840	32.0000	231.840	32.0000	[illegible]	1.0000
0.2	27.9265	231.743	27.9265	231.743	27.9265	[illegible]	[illegible]
0.3	27.7455	231.445	27.8066	231.306	27.8066	[illegible]	1.7715
0.4	27.5234	230.745	27.5979	231.093	27.6022	[illegible]	[illegible]
0.5	26.6518	229.184	27.0237	229.993	27.0610	[illegible]	2.2702
0.6	25.1925	226.164	25.3577	226.497	25.3662	[illegible]	1.7911
0.7	22.9498	221.193	23.1528	221.656	23.1673	[illegible]	1.4382
0.8	19.7342	213.393	19.9390	213.918	19.9338	[illegible]	1.4732
0.9	15.4687	200.663	15.4172	201.191	15.4270	[illegible]	1.8865
1.0	9.7697	180.284	9.9040	180.701	[illegible]	[illegible]	[illegible]
1.5	2.7670	131.851	2.7670	131.851	2.7670	[illegible]	[illegible]
2.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
2.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
3.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	0.0000
3.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	0.0000
4.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
4.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
5.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
5.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	0.0000
6.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
6.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
7.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
7.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
8.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
8.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
9.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
9.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
10.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
10.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
11.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
11.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
12.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
12.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
13.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
13.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
14.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
14.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
15.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
15.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
16.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
16.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
17.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
17.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
18.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
18.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
19.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
19.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
20.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
20.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
21.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
21.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
22.0	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000
22.5	2.7669	131.850	2.7669	131.850	2.7669	[illegible]	-0.0000

TEMPO SEGUNDOS	PRESSAO NO VOL1 (P_2)	TEMPERATURA NO VOL2 (T2)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T1)	PRESSAO NO VOL1	TITULO NO VOLO (α)	VAZAO NA JUNCAO (VALVULA)
23.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
23.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
24.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
24.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
25.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
25.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
26.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
26.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
27.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
27.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
28.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
28.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
29.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
29.5	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06
30.0	2.76691	131.85	2.76691	131.85	2.76691	0.179933	-3.1E-06

Tabela dos dados de saída do RELAP4/MOD5 - caso 2

SAS

10:22 TUESDAY, DECEMBER 13, 1988

TEMPO SEGUNDOS	PRESSAO NO VOL16 (P_6)	TEMPERATURA NO VOL16 (T_6)	PRESSAO NO VOL14 (P_5)	TEMPERATURA NO VOL14 (T_5)	PRESSAO NO VOL10 (P_4)	TEMPERATURA NO VOL10 (T_4)	PRESSAO NO VOL7 (P_3)	TEMPERATURA NO VOL7 (T_3)
0.1	32.0000	231.840	32.0000	231.840	32.0000	231.840	32.0000	231.840
0.2	27.9265	231.743	27.9265	231.743	27.9265	231.743	27.9265	231.743
0.3	27.7923	231.659	27.8232	231.539	27.8699	231.631	27.9174	231.666
0.4	27.5966	231.065	27.6918	231.279	27.7786	231.661	27.8115	231.522
0.5	27.1762	230.250	27.3451	230.595	27.5802	231.753	27.6756	231.744
0.6	26.8732	229.639	27.0471	229.990	27.2906	229.490	27.4129	230.724
0.7	26.5275	228.935	26.7335	229.355	26.9839	229.863	27.1057	231.176
0.8	26.0634	227.977	26.3033	228.474	26.5902	229.065	26.7366	22?.230
0.9	25.4179	226.625	25.7451	227.314	26.0909	228.033	26.2219	225.196
1.0	24.3943	224.625	24.8832	225.493	25.4168	226.623	25.5143	227.739
1.5	13.2023	193.857	13.8657	196.149	14.6771	198.838	14.9530	199.444
2.0	3.2823	137.725	3.3332	138.264	3.4034	139.954	3.4309	139.341
2.5	2.7669	131.850	2.7669	131.850	2.7668	131.849	2.7668	131.849
3.0	2.7669	131.850	2.7669	131.850	2.7669	131.851	2.7669	131.850
3.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
4.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
4.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
5.0	2.7669	131.850	2.7669	131.850	2.7669	131.851	2.7669	131.850
5.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
6.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
7.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
7.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
8.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
9.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
10.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
11.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
12.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
13.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
14.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
15.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
16.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
17.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
18.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
19.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
20.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
21.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.0	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850
22.5	2.7669	131.850	2.7669	131.850	2.7669	131.850	2.7669	131.850

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                                                                 SAS                            10:22 TUESDAY, DECEMBER 13, 1988     2

   [illegible] SEGUNDOS   PRESSAO     TEMPERATURA    PRESSAO     TEMPERATURA    PRESSAO    TEMPERATURA    PRESSAO    TEMPERATURA
                          NO          NO             NO          NO             NO         NO             NO         NO
                          VOL16(P6)   VOL16 (T6)     VOL14 (P5)  VOL14 (T5)     VOL10(P4)  VOL10(T4)      VOL7 (P3)  VOL7 (T3)

          23.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          23.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          24.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          24.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          25.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          25.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          26.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          26.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          27.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          27.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          28.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          28.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          29.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          29.5            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
          30.0            2.7669        131.85       2.7669        131.85       2.7669       131.85       2.7669       131.85
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TEMPO (SEGUNDOS)	PRESSAO NO VOL5 (P_2)	TEMPERATURA NO VOL5 (T_2)	PRESSAO NO VOL2 (P_1)	TEMPERATURA NO VOL2 (T_1)	PRESSAO NO VOL1	TITULO NO VOL6 (α)	VAZAO NA JUNCAO (VÁLVULA)
0.1	32.0000	231.840	32.0000	231.840	32.0000	0.000000	0.0000
0.2	27.9265	231.743	27.9265	231.743	27.9265	0.000035	0.8724
0.3	27.8995	231.679	27.8996	231.689	27.9000	0.000210	6.1653
0.4	27.8687	231.550	27.8406	231.573	27.8415	0.000558	13.0234
0.5	27.7134	231.316	27.7346	231.364	27.7371	0.001192	20.8123
0.6	27.4470	230.833	27.5087	230.915	27.5130	0.002460	23.2231
0.7	27.1268	230.155	27.1549	230.206	27.1570	0.004129	25.1118
0.8	26.7322	229.392	26.7519	229.392	26.7532	0.006125	26.2100
0.9	26.2873	228.599	26.2958	228.458	26.2981	0.008916	28.5335
1.0	25.8038	227.184	25.7259	227.273	25.7294	0.011990	31.7536
1.5	15.2031	200.187	15.1804	200.385	15.1845	0.031134	15.7684
2.0	3.4911	139.426	3.4813	139.591	3.4822	0.169920	1.3424
2.5	2.7665	131.549	2.7668	131.849	2.7668	0.179729	-0.0006
3.0	2.7664	131.850	2.7669	131.850	2.7669	0.179727	0.0000
3.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	0.0000
4.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
4.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
5.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	0.0000
5.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	0.0000
6.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
6.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
7.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	0.0000
7.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
8.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	0.0000
8.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
9.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
9.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
10.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
10.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
11.0	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
11.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
12.0	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
12.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	0.0000
13.0	2.7669	131.850	2.7669	131.850	2.7669	0.179727	0.0000
13.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
14.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	0.0000
14.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
15.0	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
15.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
16.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
16.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
17.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
17.5	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
18.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
18.5	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
19.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
19.5	2.7669	131.850	2.7669	131.850	2.7665	0.179727	-0.0000
20.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
20.5	2.7669	131.850	2.7669	131.850	2.7665	0.179727	-0.0000
21.0	2.7665	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
21.5	2.7669	131.850	2.7669	131.850	2.7665	0.179727	-0.0000
22.0	2.7669	131.850	2.7669	131.850	2.7669	0.179727	-0.0000
22.5	2.7669	131.850	2.7669	131.850	2.7665	0.179727	-0.0000

	(P2)	(T2)	(P1)	(T1)		(K)	(VALUE)
23.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-2.30744E-15
23.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-3.07971E-15
24.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-2.04535E-15
24.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-1.59774E-15
25.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-2.36966E-17
25.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-4.85729E-16
26.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	1.16833E-17
26.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-2.04652E-16
27.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-1.00476E-17
27.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-3.51756E-16
28.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-6.75422E-16
28.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	1.16394E-17
29.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	2.27134E-16
29.5	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-8.23966E-16
30.0	2.7669	131.85	2.7669	131.85	2.7669	0.179727	-1.50313E-15

Tabela dos dados de saída do RELAP4/MOD5 - caso 3

TEMPO (s)	PRESSÃO NO VOLUME (Pe)	TEMPERATURA NO VOLUME (Te)	PRESSÃO NO VOLUME (Pt)	TEMPERATURA NO VOLUME (Ts)	PRESSÃO NO VOLUME (Pq)	TEMPERATURA NO VOLUME (Tq)	PRESSÃO NO VOLUME (Pg)	TEMPERATURA NO VOLUME (Tg)
0.0	150.000	342.500	150.000	342.500	150.000	342.500	150.000	342.500
0.2	108.775	319.745	108.774	319.745	108.776	319.745	108.760	319.745
0.5	55.500	281.814	64.149	282.185	62.297	299.241	67.736	303.911
0.4	13.816	195.981	28.949	233.727	30.116	299.502	30.893	303.696
0.5	2.070	135.403	0.218	161.520	0.969	174.174	9.150	177.377
0.6	2.750	131.746	2.750	131.034	2.742	131.679	2.750	131.150
0.7	2.767	131.834	2.766	131.866	2.773	131.946	2.779	132.003
0.8	2.767	131.850	2.767	131.849	2.767	131.847	2.767	131.847
0.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
1.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
2.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
3.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
4.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
5.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
6.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
7.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
8.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
9.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
10.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
11.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
12.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
13.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
14.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
15.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
16.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
17.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
18.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
19.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
20.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.6	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.7	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.8	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
21.9	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.0	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.1	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.2	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.3	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.4	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850
22.5	2.767	131.850	2.767	131.850	2.767	131.850	2.767	131.850

TEMPO (SEGUNDOS)	PRESSAO NO VOL16 (P2)	TEMPERATURA NO VOL16 (T2)	PRESSAO NO VOL14 (P3)	TEMPERATURA NO VOL14 (T3)	PRESSAO NO VOL10 (P4)	TEMPERATURA NO VOL10 (T4)	PRESSAO NO VOL7 (P5)	TEMPERATURA NO VOL7 (T5)
23.0	[illegible]	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
23.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
24.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
24.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
25.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	[illegible]	131.85
25.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
26.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
26.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
27.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
27.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
28.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
28.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	[illegible]
29.0	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
29.5	2.70091	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85
30.0	[illegible]	131.85	2.70091	131.85	2.70091	131.85	2.70091	131.85

TEMP. SEGUNDOS	PRESSAO NO VOLB (P_L)	TEMPERATURA NO VOLB (T_L)	PRESSAO NO VOLZ (P_I)	TEMPERATURA NO VOLZ (T_I)	PRESSAO NO VOLI	ESTADO NO VOLB(α)	VAZAO NA JUNCAO (VÁLVULA)
0.1	150.000	522.580	150.000	522.580	150.000	0.000000	0.000
0.2	108.780	519.747	108.780	519.747	108.780	0.332192	7.170
0.3	69.417	305.263	90.180	505.082	90.180	0.000000	143.170
0.4	41.861	294.778	42.337	499.751	42.341	0.110401	98.017
0.5	9.219	170.256	9.480	170.777	9.482	0.332192	0.000
0.6	2.703	131.862	2.698	150.999	2.698	0.332192	-0.000
0.7	2.760	132.015	2.762	132.037	2.763	0.332192	-0.000
0.8	2.767	131.845	2.766	131.845	2.766	0.332192	-0.000
0.9	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
1.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
1.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
2.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
2.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
3.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
3.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
4.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
4.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
5.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
5.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
6.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
6.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
7.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
7.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
8.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
8.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
9.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
9.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
10.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
10.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
11.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
11.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
12.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
12.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
13.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
13.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
14.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
14.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
15.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
15.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
16.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
16.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
17.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
17.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
18.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
18.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
19.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
19.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
20.0	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
20.5	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
21.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
21.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000
22.0	2.767	131.850	2.767	131.850	2.767	0.332192	0.000
22.5	2.767	131.850	2.767	131.850	2.767	0.332192	-0.000

SAS

TIEMPO (SEGUNDOS)	PRESION NO VELO (P2)	TEMPERATURA NO VELO (T2)	PRESION NO VEL2 (P1)	TEMPERATURA NO VEL2 (T1)	PRESION NO VEL1	TITULO NO VELO (α)	VALOR NO JUNTO (VALVULA)
[illegible]	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-1.233090E-17
2.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-3.620413E-18
3.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-5.421287E-17
3.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	9.490078E-18
4.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	1.800038E-17
4.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-8.729496E-17
5.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	7.197275E-18
5.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-2.771400E-18
6.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-9.580017E-18
6.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	3.591450E-18
7.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	3.077000E-17
7.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-5.620977E-17
8.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	3.000017E-17
8.5	2.760691	131.65	2.760691	131.65	2.760691	0.332192	-3.030777E-17
9.0	2.760691	131.65	2.760691	131.65	2.760691	0.332192	8.341017E-18