



NTNU  
Calgary, Alberta  
CANADA

Case Name: M:\5kl\Projekt\Hysys\1\_7\6 4P CO2 SC IC.hsc

Unit Set: SI

Date/Time: Mon Dec 01 11:06:41 2003

## Workbook: Case (Main)

### Material Streams

Name	Dry feed gas	PCR	LCR	SCR	1
Vapour Fraction	1.0000	0.0000	1.0000	1.0000	0.0000
Temperature (C)	8.000	8.000 *	8.000	8.000	-7.000
Pressure (kPa)	7000 *	4830	1640 *	5300 *	4830
Molar Flow (kgmole/h)	4.628e+004	6.384e+004	2.083e+004	2.515e+004	4.775e+004
Mass Flow (kg/h)	8.000e+005 *	2.809e+006	6.200e+005 *	5.500e+005 *	2.101e+006
Liquid Volume Flow (m3/h)	2588	3404	1711	1579	2546
Heat Flow (kJ/h)	-3.619e+009	-2.594e+010	-1.815e+009	-1.881e+009	-1.949e+010
Name	2	4	5	6	7
Vapour Fraction	0.0000	0.1633	1.0000	1.0000	1.0000
Temperature (C)	8.000	-8.000 *	-7.000 *	-7.000	-7.000
Pressure (kPa)	4830	2759	7000	5300	1640
Molar Flow (kgmole/h)	4.775e+004	1.609e+004	4.628e+004	2.515e+004	2.083e+004
Mass Flow (kg/h)	2.101e+006	7.080e+005	8.000e+005	5.500e+005	6.200e+005
Liquid Volume Flow (m3/h)	2546	857.9	2588	1579	1711
Heat Flow (kJ/h)	-1.940e+010	-6.537e+009	-3.655e+009	-1.903e+009	-1.834e+009
Name	8	9	11	12	13
Vapour Fraction	0.0000	0.1198	1.0000	1.0000	1.0000
Temperature (C)	-22.00	-23.00 *	-10.00	4.940	8.000
Pressure (kPa)	4830	1750	1750	2759	2759
Molar Flow (kgmole/h)	2.373e+004	2.402e+004	2.402e+004	1.609e+004	4.775e+004
Mass Flow (kg/h)	1.044e+006	1.057e+006	1.057e+006	7.080e+005	2.101e+006
Liquid Volume Flow (m3/h)	1265	1281	1281	857.9	2546
Heat Flow (kJ/h)	-9.724e+009	-9.803e+009	-9.513e+009	-6.372e+009	-1.890e+010
Name	14	15	16	17	18
Vapour Fraction	1.0000	1.0000	1.0000	0.2461	1.0000
Temperature (C)	7.225	50.61	-22.00 *	-22.00	-22.00
Pressure (kPa)	2759	4830	7000	1640	5300
Molar Flow (kgmole/h)	6.384e+004	6.384e+004	4.628e+004	2.083e+004	2.515e+004
Mass Flow (kg/h)	2.809e+006	2.809e+006	8.000e+005	6.200e+005	5.500e+005
Liquid Volume Flow (m3/h)	3404	3404	2588	1711	1579
Heat Flow (kJ/h)	-2.528e+010	-2.521e+010	-3.694e+009	-2.024e+009	-1.928e+009
Name	19	3	10	20	21
Vapour Fraction	0.0000	0.0000	0.6633	1.0000	0.0000
Temperature (C)	8.000	-37.00	-37.00	-37.00 *	-7.000
Pressure (kPa)	4830	1640	5300	7000	4830
Molar Flow (kgmole/h)	1.609e+004 *	2.083e+004	2.515e+004	4.628e+004	2.402e+004 *
Mass Flow (kg/h)	7.080e+005	6.200e+005	5.500e+005	8.000e+005	1.057e+006
Liquid Volume Flow (m3/h)	857.9	1711	1579	2588	1281
Heat Flow (kJ/h)	-6.537e+009	-2.100e+009	-1.993e+009	-3.741e+009	-9.803e+009
Name	24	25	26	27	28
Vapour Fraction	0.1007	1.0000	1.0000	1.0000	1.0000
Temperature (C)	-38.00 *	-25.27	-1.114	8.000	14.48
Pressure (kPa)	1047	1047	1750	1750	1750
Molar Flow (kgmole/h)	1.481e+004	1.481e+004	4.775e+004	2.373e+004	2.373e+004
Mass Flow (kg/h)	6.517e+005	6.517e+005	2.101e+006	1.044e+006	1.044e+006
Liquid Volume Flow (m3/h)	789.7	789.7	2546	1265	1265
Heat Flow (kJ/h)	-6.068e+009	-5.869e+009	-1.889e+010	-9.382e+009	-9.375e+009
Name	29	30	31	32	33
Vapour Fraction	1.0000	0.0000	0.0000	0.0000	0.0000
Temperature (C)	31.42	-7.000	-22.00	-37.00	-22.00
Pressure (kPa)	2759	4830	4830	4830	4830
Molar Flow (kgmole/h)	4.775e+004	2.373e+004	1.481e+004 *	8923 *	8923
Mass Flow (kg/h)	2.101e+006	1.044e+006	6.517e+005	3.927e+005	3.927e+005
Liquid Volume Flow (m3/h)	2546	1265	789.7	475.8	475.8
Heat Flow (kJ/h)	-1.885e+010	-9.688e+009	-6.068e+009	-3.668e+009	-3.656e+009



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## Workbook: Case (Main) (continued)

### Material Streams (continued)

Name	34	35	36	37	38
Vapour Fraction	1.0000	0.3986	0.0000	0.0795	1.0000
Temperature (C)	-50.00 *	-50.00	-50.00	-51.00 *	-40.02
Pressure (kPa)	7000	5300	1640	632.2	632.2
Molar Flow (kgmole/h)	4.628e+004	2.515e+004	2.083e+004	8923	8923
Mass Flow (kg/h)	8.000e+005	5.500e+005	6.200e+005	3.927e+005	3.927e+005
Liquid Volume Flow (m3/h)	2588	1579	1711	475.8	475.8
Heat Flow (kJ/h)	-3.797e+009	-2.042e+009	-2.123e+009	-3.668e+009	-3.539e+009
Name	39	41	22		
Vapour Fraction	1.0000	1.0000	0.0000 *		
Temperature (C)	-9.622	-19.40	13.00		
Pressure (kPa)	1047	1047	4830		
Molar Flow (kgmole/h)	8923	2.373e+004	6.384e+004		
Mass Flow (kg/h)	3.927e+005	1.044e+006	2.809e+006		
Liquid Volume Flow (m3/h)	475.8	1265	3404		
Heat Flow (kJ/h)	-3.530e+009	-9.399e+009	-2.589e+010		