

[USE] User/Owner Name = Second Demonstration Example
 [ADD] Address/Location = Somewhere over the rainbow
 [BLD] Building/Area Ref = Building No 2
 [OCC] Occupancy = Not known
 [INS] Installation/Project = Inst no 1 on Project 12345
 [HAZ] Hazard Classification = High Hazard Most Remotest Design Area
 [SOM] AMAO in Sq.m = 261.00
 [CON] Sprinkler Contractor = Your name and address can be typed in here
 [DES] Designer/Department = Alan Ashfield
 [DRG] Drawing Numbers etc = Drawing nos 4, 5 and 6
 [COM] Comments = No comments at this time
 [SHT] Height of Source in m = 0.000
 [VEL] Maximum Velocity in m/s = 6.00
 [4RH] 4 Most Remotest Heads = 222 223 202 203 9.00
 [4FH] 4 Most Favourable Heads = 0 0 0 0 0.00
 [SUP] Water Supply Details =

Source duty at node 100 = 3522.6 L/min at 2.651 bars

Sprinklers operating = 29 261.000 sq.m total coverage
 Ori fi ce sizes = 20.0 to 20.0 mm
 K factors = 115.00 to 115.00
 Flow rates = 112.5 to 138.5 L/min
 Areas = 9.000 to 9.000 sq.m
 Densi ties = 12.50 to 15.39 mm/min
 Pressures = 0.957 to 1.451 bars
 Heights = 5.500 to 5.500 m
 Pipe sizes to heads = 32 to 40 mm
 Actual density of discharge = 12.75 mm/min over enclosed area of 9.000 sq.m
 Over 4 most remote heads = 222 223 202 203

Pipes = 41 0.831 cu.m volume
 Node numbers = 100 to 226
 Pipe sizes = 32 to 150 mm
 Lengths = 1.000 to 30.000 m
 Flow rates = 112.5 to 3522.6 L/min
 Veloc ities = 1.65 to 5.56 m/s
 Node pressures = 0.957 to 2.651 bars
 Pressure drops = 0.018 to 0.270 bars
 Pressure drops/metre = 6.74 to 69.31 mbar/m

Data file name = D:\easyshp\AlansDemo2.txt

29 Operating Heads / Nozzles in System

Node no	Ori fi ce mm	"K" factor	Flows in L/min Minimum	Actual	Area sq.m	Density mm/min Minimum	Actual	Pipe No	to head mm	MRH	Height m	Pressures bars Minimum	Actual
221	20.0	115.00	112.5	119.1	9.000	12.50	13.24	9	40	4.18	5.500	0.50	1.073
222	20.0	115.00	112.5	115.0	9.000	12.50	12.77	10	40	2.74	5.500	0.50	0.999
223	20.0	115.00	112.5	112.5	9.000	12.50	12.50	11	32	1.84	5.500	0.50	0.957
224	20.0	115.00	112.5	119.1	9.000	12.50	13.24	12	40	4.18	5.500	0.50	1.073
225	20.0	115.00	112.5	115.0	9.000	12.50	12.77	13	40	2.74	5.500	0.50	0.999
226	20.0	115.00	112.5	112.5	9.000	12.50	12.50	14	32	1.84	5.500	0.50	0.957
201	20.0	115.00	112.5	121.2	9.000	12.50	13.47	16	40	4.25	5.500	0.50	1.111
202	20.0	115.00	112.5	117.0	9.000	12.50	13.00	17	40	2.79	5.500	0.50	1.035
203	20.0	115.00	112.5	114.5	9.000	12.50	12.72	18	32	1.87	5.500	0.50	0.991
204	20.0	115.00	112.5	121.2	9.000	12.50	13.47	19	40	4.25	5.500	0.50	1.111
205	20.0	115.00	112.5	117.0	9.000	12.50	13.00	20	40	2.79	5.500	0.50	1.035
206	20.0	115.00	112.5	114.5	9.000	12.50	12.72	21	32	1.87	5.500	0.50	0.991
181	20.0	115.00	112.5	124.6	9.000	12.50	13.85	23	40	4.37	5.500	0.50	1.174
182	20.0	115.00	112.5	120.3	9.000	12.50	13.36	24	40	2.87	5.500	0.50	1.094
183	20.0	115.00	112.5	117.7	9.000	12.50	13.08	25	32	1.92	5.500	0.50	1.048
184	20.0	115.00	112.5	124.6	9.000	12.50	13.85	26	40	4.37	5.500	0.50	1.174
185	20.0	115.00	112.5	120.3	9.000	12.50	13.36	27	40	2.87	5.500	0.50	1.094
186	20.0	115.00	112.5	117.7	9.000	12.50	13.08	28	32	1.92	5.500	0.50	1.048
161	20.0	115.00	112.5	126.6	9.000	12.50	14.07	30	40	4.44	5.500	0.50	1.212
162	20.0	115.00	112.5	122.2	9.000	12.50	13.58	31	40	2.92	5.500	0.50	1.129
163	20.0	115.00	112.5	119.6	9.000	12.50	13.29	32	32	1.95	5.500	0.50	1.082
164	20.0	115.00	112.5	126.6	9.000	12.50	14.07	33	40	4.44	5.500	0.50	1.212
165	20.0	115.00	112.5	122.2	9.000	12.50	13.58	34	40	2.92	5.500	0.50	1.129
166	20.0	115.00	112.5	119.6	9.000	12.50	13.29	35	32	1.95	5.500	0.50	1.082
141	20.0	115.00	112.5	132.7	9.000	12.50	14.74	37	40	4.66	5.500	0.50	1.332
142	20.0	115.00	112.5	128.1	9.000	12.50	14.23	38	40	3.06	5.500	0.50	1.241
143	20.0	115.00	112.5	125.4	9.000	12.50	13.94	39	32	2.05	5.500	0.50	1.189
144	20.0	115.00	112.5	138.5	9.000	12.50	15.39	40	40	3.32	5.500	0.50	1.451
145	20.0	115.00	112.5	137.1	9.000	12.50	15.24	41	40	1.65	5.500	0.50	1.422

41 Hydraulically Significant Pipes in System (0 loops)

From	To	Size	Pipe	H-W	Bore	Flow	Length	Fittings	Total	Vel	Height	Pressures bars
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node	node	mm	type	"C"	mm	L/min	m	if any	eq. len	m/s	m	From	Frict	Static	To
100	110	150	M	120	155.10	3522.6	1.500	Gate Val	2.60	3.11	1.500	2.651	-0.018	-0.147	2.486
110	120	150	M	120	155.10	3522.6	3.000	Swi ngi ng	10.20	3.11	4.500	2.486	-0.069	-0.294	2.123
120	130	150	M	120	155.10	3522.6	30.000	Weld ed El	32.00	3.11	4.500	2.123	-0.216		1.908
130	150	100	M	120	105.05	2860.7	3.000		3.00	5.50	4.500	1.908	-0.092		1.816
150	170	100	M	120	105.05	2123.7	3.000		3.00	4.08	4.500	1.816	-0.053		1.763
170	190	80	M	120	80.75	1398.5	3.000		3.00	4.55	4.500	1.763	-0.088		1.675
190	210	65	M	120	68.75	693.2	3.000		3.00	3.11	4.500	1.675	-0.053		1.623
210	220	50	M	120	53.05	693.2	1.000	90° Tee	3.90	5.23	5.500	1.623	-0.241	-0.098	1.283
220	221	40	M	120	41.95	346.6	1.500	90° Tee	3.90	4.18	5.500	1.283	-0.210		1.073
221	222	40	M	120	41.95	227.5	3.000		3.00	2.74	5.500	1.073	-0.074		0.999
222	223	32	M	120	36.05	112.5	3.000		3.00	1.84	5.500	0.999	-0.042		0.957
220	224	40	M	120	41.95	346.6	1.500	90° Tee	3.90	4.18	5.500	1.283	-0.210		1.073
224	225	40	M	120	41.95	227.5	3.000		3.00	2.74	5.500	1.073	-0.074		0.999
225	226	32	M	120	36.05	112.5	3.000		3.00	1.84	5.500	0.999	-0.042		0.957
190	200	50	M	120	53.05	705.3	1.000	90° Tee	3.90	5.32	5.500	1.675	-0.249	-0.098	1.328
200	201	40	M	120	41.95	352.7	1.500	90° Tee	3.90	4.25	5.500	1.328	-0.217		1.111
201	202	40	M	120	41.95	231.4	3.000		3.00	2.79	5.500	1.111	-0.077		1.035
202	203	32	M	120	36.05	114.5	3.000		3.00	1.87	5.500	1.035	-0.044		0.991
200	204	40	M	120	41.95	352.7	1.500	90° Tee	3.90	4.25	5.500	1.328	-0.217		1.111
204	205	40	M	120	41.95	231.4	3.000		3.00	2.79	5.500	1.111	-0.077		1.035
From node	To node	Si ze mm	Pi pe type	H-W "C"	Bore mm	F l o w L/min	Length m	Fittings if any	Total eq. len	Vel m/s	Height m	P r e s s u r e s From	Frict	Static	b a r s To
205	206	32	M	120	36.05	114.5	3.000		3.00	1.87	5.500	1.035	-0.044		0.991
170	180	50	M	120	53.05	725.2	1.000	90° Tee	3.90	5.47	5.500	1.763	-0.262	-0.098	1.403
180	181	40	M	120	41.95	362.6	1.500	90° Tee	3.90	4.37	5.500	1.403	-0.228		1.174
181	182	40	M	120	41.95	238.0	3.000		3.00	2.87	5.500	1.174	-0.081		1.094
182	183	32	M	120	36.05	117.7	3.000		3.00	1.92	5.500	1.094	-0.046		1.048
180	184	40	M	120	41.95	362.6	1.500	90° Tee	3.90	4.37	5.500	1.403	-0.228		1.174
184	185	40	M	120	41.95	238.0	3.000		3.00	2.87	5.500	1.174	-0.081		1.094
185	186	32	M	120	36.05	117.7	3.000		3.00	1.92	5.500	1.094	-0.046		1.048
150	160	50	M	120	53.05	737.0	1.000	90° Tee	3.90	5.56	5.500	1.816	-0.270	-0.098	1.448
160	161	40	M	120	41.95	368.5	1.500	90° Tee	3.90	4.44	5.500	1.448	-0.235		1.212
161	162	40	M	120	41.95	241.8	3.000		3.00	2.92	5.500	1.212	-0.083		1.129
162	163	32	M	120	36.05	119.6	3.000		3.00	1.95	5.500	1.129	-0.047		1.082
160	164	40	M	120	41.95	368.5	1.500	90° Tee	3.90	4.44	5.500	1.448	-0.235		1.212
164	165	40	M	120	41.95	241.8	3.000		3.00	2.92	5.500	1.212	-0.083		1.129
165	166	32	M	120	36.05	119.6	3.000		3.00	1.95	5.500	1.129	-0.047		1.082
130	140	50	M	120	53.05	661.9	1.000	90° Tee	3.90	4.99	5.500	1.908	-0.222	-0.098	1.588
140	141	40	M	120	41.95	386.2	1.500	90° Tee	3.90	4.66	5.500	1.588	-0.257		1.332
141	142	40	M	120	41.95	253.5	3.000		3.00	3.06	5.500	1.332	-0.091		1.241
142	143	32	M	120	36.05	125.4	3.000		3.00	2.05	5.500	1.241	-0.052		1.189
140	144	40	M	120	41.95	275.6	1.500	90° Tee	3.90	3.32	5.500	1.588	-0.137		1.451
From node	To node	Si ze mm	Pi pe type	H-W "C"	Bore mm	F l o w L/min	Length m	Fittings if any	Total eq. len	Vel m/s	Height m	P r e s s u r e s From	Frict	Static	b a r s To
144	145	40	M	120	41.95	137.1	3.000		3.00	1.65	5.500	1.451	-0.029		1.422

Pipe Length totals in metres for above pipes :-

Type	20	25	32	40	50	65	80	90	100	125	150	200	250	300 mm
M			27	45	5	3	3		6		35			m

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