

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) **16" x 44"**

NO:		PIPE BRACH HOLE MARKING TEMPLATE									
CENTER LINE	TEE BRANC 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	LAT-ERAL 30°	
R 1	2	3	4	6	C 1	30	3	4	6	30	
R 2	7	9	12	18	C 2	59	9	12	18	59	
R 3	11	15	20	29	C 3	87	15	20	29	87	
R 4	15	21	27	40	C 4	113	21	27	40	113	
R 5	19	25	33	48	C 5	137	25	33	48	137	
R 6	23	29	38	55	C 6	157	29	38	55	157	
R 7	25	32	41	60	C 7	173	32	41	60	173	
R 8	28	34	43	62	C 8	186	34	43	62	186	
R 9	29	35	44	63	C 9	193	35	44	63	193	
R 10	30	35	43	62	C 10	196	35	43	62	196	
R 11	30	34	41	59	C 11	193	34	41	59	193	
R 12	29	32	39	54	C 12	186	32	39	54	186	
R 13	28	30	35	49	C 13	173	30	35	49	173	
R 14	25	27	31	43	C 14	157	27	31	43	157	
R 15	23	23	27	36	C 15	137	23	27	36	137	
R 16	19	19	22	30	C 16	113	19	22	30	113	
R 17	15	15	17	23	C 17	87	15	17	23	87	
R 18	11	11	12	16	C 18	59	11	12	16	59	
R 19	7	6	7	10	C 19	30	6	7	10	30	
R 20	2	2	2	3	C 20	0	2	2	3	0	

[www.fabricatorguide.com](http://www.fabricatorguide.com) **16" x 42"**

NO:		PIPE BRACH HOLE MARKING TEMPLATE									
CENTER LINE	TEE BRANC 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	LAT-ERAL 30°	
R 1	2	3	4	6	C 1	30	3	4	6	30	
R 2	7	9	12	18	C 2	59	9	12	18	59	
R 3	11	15	20	30	C 3	87	15	20	30	87	
R 4	15	21	27	40	C 4	113	21	27	40	113	
R 5	19	26	33	49	C 5	137	26	33	49	137	
R 6	23	29	38	56	C 6	157	29	38	56	157	
R 7	25	32	41	60	C 7	174	32	41	60	174	
R 8	28	34	43	63	C 8	186	34	43	63	186	
R 9	29	35	44	63	C 9	193	35	44	63	193	
R 10	30	35	43	62	C 10	196	35	43	62	196	
R 11	30	34	41	59	C 11	193	34	41	59	193	
R 12	29	32	39	54	C 12	186	32	39	54	186	
R 13	28	30	35	49	C 13	174	30	35	49	174	
R 14	25	26	31	42	C 14	157	26	31	42	157	
R 15	23	23	27	36	C 15	137	23	27	36	137	
R 16	19	19	22	29	C 16	113	19	22	29	113	
R 17	15	15	17	23	C 17	87	15	17	23	87	
R 18	11	11	12	16	C 18	59	11	12	16	59	
R 19	7	6	7	9	C 19	30	6	7	9	30	
R 20	2	2	2	3	C 20	0	2	2	3	0	

www.fabricatorguide.com 16" x 46"										
PIPE BRACH HOLE MARKING TEMPLATE										
NO:	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	
R 1	2	3	4	6	C 1	30	30	30	30	
R 2	7	9	12	18	C 2	59	59	59	59	
R 3	11	15	20	29	C 3	87	87	87	87	
R 4	15	20	27	39	C 4	113	113	113	113	
R 5	19	25	33	48	C 5	137	137	137	137	
R 6	23	29	37	55	C 6	157	157	157	157	
R 7	25	32	41	59	C 7	173	173	173	173	
R 8	28	34	43	62	C 8	185	185	185	185	
R 9	29	35	44	63	C 9	193	193	193	193	
R 10	30	35	43	62	C 10	195	195	195	195	
R 11	30	34	42	59	C 11	193	193	193	193	
R 12	29	32	39	54	C 12	185	185	185	185	
R 13	28	30	36	49	C 13	173	173	173	173	
R 14	25	27	32	43	C 14	157	157	157	157	
R 15	23	23	27	37	C 15	137	137	137	137	
R 16	19	19	22	30	C 16	113	113	113	113	
R 17	15	15	17	23	C 17	87	87	87	87	
R 18	11	11	12	17	C 18	59	59	59	59	
R 19	7	6	7	10	C 19	30	30	30	30	
R 20	2	2	2	3	C 20	0	0	0	0	

www.fabricatorguide.com 16" x 48"										
PIPE BRACH HOLE MARKING TEMPLATE										
NO:	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	
R 1	2	3	4	6	C 1	30	30	30	30	
R 2	7	9	12	18	C 2	59	59	59	59	
R 3	11	15	19	29	C 3	87	87	87	87	
R 4	15	20	26	39	C 4	113	113	113	113	
R 5	19	25	32	47	C 5	137	137	137	137	
R 6	23	29	37	54	C 6	157	157	157	157	
R 7	25	32	41	59	C 7	173	173	173	173	
R 8	28	34	43	62	C 8	185	185	185	185	
R 9	29	35	44	63	C 9	193	193	193	193	
R 10	30	35	43	61	C 10	195	195	195	195	
R 11	30	34	42	59	C 11	193	193	193	193	
R 12	29	32	39	55	C 12	185	185	185	185	
R 13	28	30	36	50	C 13	173	173	173	173	
R 14	25	27	32	44	C 14	157	157	157	157	
R 15	23	23	27	37	C 15	137	137	137	137	
R 16	19	20	23	31	C 16	113	113	113	113	
R 17	15	15	18	24	C 17	87	87	87	87	
R 18	11	11	13	17	C 18	59	59	59	59	
R 19	7	6	7	10	C 19	30	30	30	30	
R 20	2	2	2	3	C 20	0	0	0	0	

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

www.fabricatorguide.com 16" x 50"									
PIPE BRACH HOLE MARKING TEMPLATE									
NO:									
CENTER LINE	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	6	C1	30	30	30	30
R2	7	9	12	17	C2	59	59	59	59
R3	11	15	19	28	C3	87	87	87	87
R4	15	20	26	39	C4	113	113	113	113
R5	19	25	32	47	C5	137	137	137	137
R6	23	29	37	54	C6	157	157	157	157
R7	25	32	40	59	C7	173	173	173	173
R8	28	34	43	62	C8	185	185	185	185
R9	29	35	44	62	C9	192	192	192	192
R10	30	35	43	61	C10	195	195	195	195
R11	30	34	42	59	C11	192	192	192	192
R12	29	32	39	55	C12	185	185	185	185
R13	28	30	36	50	C13	173	173	173	173
R14	25	27	32	44	C14	157	157	157	157
R15	23	24	28	38	C15	137	137	137	137
R16	19	20	23	31	C16	113	113	113	113
R17	15	15	18	24	C17	87	87	87	87
R18	11	11	13	17	C18	59	59	59	59
R19	7	7	7	10	C19	30	30	30	30
R20	2	2	2	3	C20	0	0	0	0

www.fabricatorguide.com 16" x 52"									
PIPE BRACH HOLE MARKING TEMPLATE									
NO:									
CENTER LINE	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	5	C1	30	30	30	30
R2	7	9	12	17	C2	59	59	59	59
R3	11	15	19	28	C3	87	87	87	87
R4	15	20	26	38	C4	113	113	113	113
R5	19	25	32	47	C5	136	136	136	136
R6	23	29	37	54	C6	157	157	157	157
R7	25	32	40	58	C7	173	173	173	173
R8	28	34	42	61	C8	185	185	185	185
R9	29	35	43	62	C9	192	192	192	192
R10	30	35	43	61	C10	195	195	195	195
R11	30	34	42	59	C11	192	192	192	192
R12	29	32	39	55	C12	185	185	185	185
R13	28	30	36	50	C13	173	173	173	173
R14	25	27	32	44	C14	157	157	157	157
R15	23	24	28	38	C15	136	136	136	136
R16	19	20	23	31	C16	113	113	113	113
R17	15	16	18	24	C17	87	87	87	87
R18	11	11	13	17	C18	59	59	59	59
R19	7	7	8	10	C19	30	30	30	30
R20	2	2	2	3	C20	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

www.fabricatorguide.com 18" x 20"																		
PIPE BRACH HOLE MARKING TEMPLATE																		
NO:	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	CENTER LINE	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°					
R 1	2	3	4	6	C 1	2	3	4	6	C 1	2	3	4	6	28	28	28	28
R 2	5	9	13	20	C 2	5	9	12	19	C 2	5	9	12	19	56	56	56	56
R 3	9	15	21	33	C 3	9	15	20	31	C 3	9	15	20	31	83	83	83	83
R 4	12	21	29	46	C 4	12	20	28	43	C 4	12	20	28	43	111	111	111	111
R 5	15	27	37	57	C 5	15	25	35	54	C 5	15	25	35	54	137	137	137	137
R 6	18	31	44	68	C 6	18	30	41	63	C 6	18	30	41	63	163	163	163	163
R 7	21	36	50	77	C 7	21	34	46	70	C 7	21	34	46	70	187	187	187	187
R 8	23	39	54	83	C 8	23	36	50	75	C 8	23	36	50	75	210	210	210	210
R 9	25	41	57	88	C 9	25	38	51	78	C 9	25	38	51	78	229	229	229	229
R 10	27	42	58	88	C 10	27	38	51	76	C 10	27	38	51	76	245	245	245	245
R 11	28	41	54	82	C 11	28	37	48	71	C 11	28	37	48	71	255	255	255	255
R 12	28	36	46	67	C 12	28	34	43	62	C 12	28	34	43	62	259	259	259	259
R 13	28	29	34	46	C 13	28	31	37	51	C 13	28	31	37	51	255	255	255	255
R 14	28	23	24	29	C 14	28	27	30	40	C 14	28	27	30	40	245	245	245	245
R 15	27	19	18	20	C 15	27	23	25	31	C 15	27	23	25	31	229	229	229	229
R 16	25	17	15	14	C 16	25	20	20	24	C 16	25	20	20	24	210	210	210	210
R 17	23	15	12	11	C 17	23	18	17	19	C 17	23	18	17	19	187	187	187	187
R 18	21	13	10	9	C 18	21	15	14	15	C 18	21	15	14	15	163	163	163	163
R 19	18	11	9	7	C 19	18	13	11	12	C 19	18	13	11	12	137	137	137	137
R 20	15	9	7	5	C 20	15	10	9	9	C 20	15	10	9	9	111	111	111	111
R 21	12	7	5	4	C 21	12	8	7	7	C 21	12	8	7	7	83	83	83	83
R 22	9	5	4	3	C 22	9	6	5	4	C 22	9	6	5	4	56	56	56	56
R 23	5	3	2	2	C 23	5	3	3	2	C 23	5	3	3	2	28	28	28	28
R 24	2	1	0	0	C 24	2	1	1	1	C 24	2	1	1	1	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 22"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	6	C1	28	28	28	28	28	28	28
R2	5	8	12	18	C2	56	56	56	56	56	56	56
R3	9	14	20	30	C3	83	83	83	83	83	83	83
R4	12	20	27	41	C4	110	110	110	110	110	110	110
R5	15	25	34	51	C5	136	136	136	136	136	136	136
R6	18	29	39	60	C6	161	161	161	161	161	161	161
R7	21	32	44	66	C7	184	184	184	184	184	184	184
R8	23	35	47	71	C8	205	205	205	205	205	205	205
R9	25	36	48	73	C9	222	222	222	222	222	222	222
R10	27	37	48	71	C10	236	236	236	236	236	236	236
R11	28	36	46	67	C11	244	244	244	244	244	244	244
R12	28	34	42	61	C12	247	247	247	247	247	247	247
R13	28	31	38	53	C13	244	244	244	244	244	244	244
R14	28	28	33	44	C14	236	236	236	236	236	236	236
R15	27	25	28	36	C15	222	222	222	222	222	222	222
R16	25	22	23	29	C16	205	205	205	205	205	205	205
R17	23	19	20	24	C17	184	184	184	184	184	184	184
R18	21	16	16	19	C18	161	161	161	161	161	161	161
R19	18	14	13	15	C19	136	136	136	136	136	136	136
R20	15	11	11	11	C20	110	110	110	110	110	110	110
R21	12	9	8	8	C21	83	83	83	83	83	83	83
R22	9	6	5	6	C22	56	56	56	56	56	56	56
R23	5	3	3	3	C23	28	28	28	28	28	28	28
R24	2	1	1	1	C24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 22"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	6	C1	28	28	28	28	28	28	28
R2	5	8	11	18	C2	56	56	56	56	56	56	56
R3	9	14	19	29	C3	83	83	83	83	83	83	83
R4	12	19	26	40	C4	110	110	110	110	110	110	110
R5	15	24	32	49	C5	135	135	135	135	135	135	135
R6	18	28	38	57	C6	159	159	159	159	159	159	159
R7	21	31	42	64	C7	182	182	182	182	182	182	182
R8	23	34	45	68	C8	201	201	201	201	201	201	201
R9	25	35	47	69	C9	217	217	217	217	217	217	217
R10	27	36	46	69	C10	230	230	230	230	230	230	230
R11	28	35	45	65	C11	238	238	238	238	238	238	238
R12	28	34	42	60	C12	230	230	230	230	230	230	230
R13	28	31	38	53	C13	238	238	238	238	238	238	238
R14	28	29	34	46	C14	230	230	230	230	230	230	230
R15	27	26	29	39	C15	217	217	217	217	217	217	217
R16	25	23	25	32	C16	201	201	201	201	201	201	201
R17	23	20	21	27	C17	182	182	182	182	182	182	182
R18	21	17	18	22	C18	159	159	159	159	159	159	159
R19	18	15	15	17	C19	135	135	135	135	135	135	135
R20	15	12	12	13	C20	110	110	110	110	110	110	110
R21	12	9	9	10	C21	83	83	83	83	83	83	83
R22	9	6	6	7	C22	56	56	56	56	56	56	56
R23	5	4	3	4	C23	28	28	28	28	28	28	28
R24	2	1	1	1	C24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 26"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE				
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°
R 1	2	3	5	28	C 1
R 2	5	8	11	17	C 2
R 3	9	14	18	28	C 3
R 4	12	19	25	39	C 4
R 5	15	23	31	48	C 5
R 6	18	27	37	55	C 6
R 7	21	31	41	61	C 7
R 8	23	33	44	65	C 8
R 9	25	35	45	67	C 9
R 10	27	35	45	67	C 10
R 11	28	35	44	64	C 11
R 12	28	33	42	60	C 12
R 13	28	32	38	54	C 13
R 14	28	29	34	47	C 14
R 15	27	27	30	41	C 15
R 16	25	24	27	35	C 16
R 17	23	21	23	29	C 17
R 18	21	18	19	24	C 18
R 19	18	15	16	19	C 19
R 20	15	12	13	15	C 20
R 21	12	10	10	11	C 21
R 22	9	7	7	8	C 22
R 23	5	4	4	4	C 23
R 24	2	1	1	1	C 24

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 28"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE				
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°
R 1	2	2	3	5	C 1
R 2	5	8	11	17	C 2
R 3	9	13	18	27	C 3
R 4	12	18	25	37	C 4
R 5	15	23	31	46	C 5
R 6	18	27	36	54	C 6
R 7	21	30	40	60	C 7
R 8	23	33	43	64	C 8
R 9	25	34	44	65	C 9
R 10	27	35	44	65	C 10
R 11	28	34	43	63	C 11
R 12	28	33	41	59	C 12
R 13	28	32	39	54	C 13
R 14	28	30	35	48	C 14
R 15	27	27	31	42	C 15
R 16	25	24	27	36	C 16
R 17	23	22	24	31	C 17
R 18	21	19	20	26	C 18
R 19	18	16	17	21	C 19
R 20	15	13	13	16	C 20
R 21	12	10	10	12	C 21
R 22	9	7	7	8	C 22
R 23	5	4	4	5	C 23
R 24	2	1	1	1	C 24

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 32"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	C 1	28	28	28	28	28	28	28
R 2	5	8	10	16	C 2	56	56	56	56	56	56	56
R 3	9	13	17	26	C 3	83	83	83	83	83	83	83
R 4	12	18	24	36	C 4	109	109	109	109	109	109	109
R 5	15	22	30	44	C 5	134	134	134	134	134	134	134
R 6	18	26	34	51	C 6	157	157	157	157	157	157	157
R 7	21	29	38	57	C 7	177	177	177	177	177	177	177
R 8	23	32	41	61	C 8	195	195	195	195	195	195	195
R 9	25	33	43	63	C 9	209	209	209	209	209	209	209
R 10	27	34	43	63	C 10	219	219	219	219	219	219	219
R 11	28	34	43	62	C 11	226	226	226	226	226	226	226
R 12	28	33	41	59	C 12	228	228	228	228	228	228	228
R 13	28	32	39	55	C 13	226	226	226	226	226	226	226
R 14	28	30	36	50	C 14	219	219	219	219	219	219	219
R 15	27	28	32	44	C 15	209	209	209	209	209	209	209
R 16	25	25	29	39	C 16	195	195	195	195	195	195	195
R 17	23	22	25	33	C 17	177	177	177	177	177	177	177
R 18	21	20	22	28	C 18	157	157	157	157	157	157	157
R 19	18	17	18	23	C 19	134	134	134	134	134	134	134
R 20	15	14	15	18	C 20	109	109	109	109	109	109	109
R 21	12	11	11	14	C 21	83	83	83	83	83	83	83
R 22	9	7	8	10	C 22	56	56	56	56	56	56	56
R 23	5	4	4	6	C 23	28	28	28	28	28	28	28
R 24	2	1	1	2	C 24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 30"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	C 1	28	28	28	28	28	28	28
R 2	5	8	11	16	C 2	56	56	56	56	56	56	56
R 3	9	13	18	27	C 3	83	83	83	83	83	83	83
R 4	12	18	24	37	C 4	109	109	109	109	109	109	109
R 5	15	23	30	45	C 5	134	134	134	134	134	134	134
R 6	18	26	35	53	C 6	157	157	157	157	157	157	157
R 7	21	30	39	58	C 7	178	178	178	178	178	178	178
R 8	23	32	42	62	C 8	196	196	196	196	196	196	196
R 9	25	34	43	64	C 9	210	210	210	210	210	210	210
R 10	27	34	44	64	C 10	221	221	221	221	221	221	221
R 11	28	34	43	62	C 11	228	228	228	228	228	228	228
R 12	28	33	41	59	C 12	230	230	230	230	230	230	230
R 13	28	32	39	54	C 13	228	228	228	228	228	228	228
R 14	28	30	35	49	C 14	221	221	221	221	221	221	221
R 15	27	27	32	43	C 15	210	210	210	210	210	210	210
R 16	25	25	28	38	C 16	196	196	196	196	196	196	196
R 17	23	22	25	32	C 17	178	178	178	178	178	178	178
R 18	21	19	21	27	C 18	157	157	157	157	157	157	157
R 19	18	16	17	22	C 19	134	134	134	134	134	134	134
R 20	15	13	14	17	C 20	109	109	109	109	109	109	109
R 21	12	10	11	13	C 21	83	83	83	83	83	83	83
R 22	9	7	7	9	C 22	56	56	56	56	56	56	56
R 23	5	4	4	5	C 23	28	28	28	28	28	28	28
R 24	2	1	1	1	C 24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 36"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	2	2	3	5	C 1	28	28	28
R 2	5	8	10	15	5	8	10	15	C 2	56	56	56
R 3	9	13	17	25	9	13	17	25	C 3	83	83	83
R 4	12	17	23	35	12	17	23	35	C 4	109	109	109
R 5	15	22	29	43	15	22	29	43	C 5	133	133	133
R 6	18	25	33	50	18	25	33	50	C 6	156	156	156
R 7	21	29	37	55	21	29	37	55	C 7	176	176	176
R 8	23	31	40	59	23	31	40	59	C 8	193	193	193
R 9	25	33	42	61	25	33	42	61	C 9	207	207	207
R 10	27	34	43	62	27	34	43	62	C 10	217	217	217
R 11	28	34	42	61	28	34	42	61	C 11	224	224	224
R 12	28	33	41	58	28	33	41	58	C 12	226	226	226
R 13	28	32	39	55	28	32	39	55	C 13	224	224	224
R 14	28	30	36	51	28	30	36	51	C 14	217	217	217
R 15	27	28	33	46	27	28	33	46	C 15	207	207	207
R 16	25	26	30	41	25	26	30	41	C 16	193	193	193
R 17	23	23	30	35	23	23	30	35	C 17	176	176	176
R 18	21	20	23	30	21	20	23	30	C 18	156	156	156
R 19	18	17	19	25	18	17	19	25	C 19	133	133	133
R 20	15	14	15	20	15	14	15	20	C 20	109	109	109
R 21	12	11	12	15	12	11	12	15	C 21	83	83	83
R 22	9	8	8	11	9	8	8	11	C 22	56	56	56
R 23	5	4	5	6	5	4	5	6	C 23	28	28	28
R 24	2	1	1	2	2	1	1	2	C 24	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 34"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	2	2	3	5	C 1	28	28	28
R 2	5	8	10	16	5	8	10	16	C 2	56	56	56
R 3	9	13	17	26	9	13	17	26	C 3	83	83	83
R 4	12	18	23	35	12	18	23	35	C 4	109	109	109
R 5	15	22	29	43	15	22	29	43	C 5	134	134	134
R 6	18	26	34	51	18	26	34	51	C 6	156	156	156
R 7	21	29	38	56	21	29	38	56	C 7	176	176	176
R 8	23	31	41	60	23	31	41	60	C 8	194	194	194
R 9	25	33	42	62	25	33	42	62	C 9	208	208	208
R 10	27	34	43	63	27	34	43	63	C 10	218	218	218
R 11	28	34	42	61	28	34	42	61	C 11	225	225	225
R 12	28	33	41	59	28	33	41	59	C 12	227	227	227
R 13	28	32	39	55	28	32	39	55	C 13	225	225	225
R 14	28	30	36	50	28	30	36	50	C 14	218	218	218
R 15	27	28	33	45	27	28	33	45	C 15	208	208	208
R 16	25	25	29	40	25	25	29	40	C 16	194	194	194
R 17	23	23	26	34	23	23	26	34	C 17	176	176	176
R 18	21	20	22	29	21	20	22	29	C 18	156	156	156
R 19	18	17	19	24	18	17	19	24	C 19	134	134	134
R 20	15	14	15	19	15	14	15	19	C 20	109	109	109
R 21	12	11	12	15	12	11	12	15	C 21	83	83	83
R 22	9	8	8	10	9	8	8	10	C 22	56	56	56
R 23	5	4	5	6	5	4	5	6	C 23	28	28	28
R 24	2	1	1	2	2	1	1	2	C 24	0	0	0



**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 40"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE					
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 45°
R 1	2	2	3	5	C 1	28
R 2	5	7	10	15	C 2	56
R 3	9	12	16	25	C 3	83
R 4	12	17	22	34	C 4	109
R 5	15	21	28	42	C 5	133
R 6	18	25	33	48	C 6	155
R 7	21	28	36	54	C 7	175
R 8	23	31	39	58	C 8	192
R 9	25	32	41	60	C 9	206
R 10	27	33	42	61	C 10	216
R 11	28	33	42	60	C 11	222
R 12	28	33	41	58	C 12	224
R 13	28	32	39	55	C 13	222
R 14	28	30	37	51	C 14	216
R 15	27	28	34	47	C 15	206
R 16	25	26	31	42	C 16	192
R 17	23	24	27	37	C 17	175
R 18	21	21	24	31	C 18	155
R 19	18	18	20	26	C 19	133
R 20	15	15	16	21	C 20	109
R 21	12	11	12	16	C 21	83
R 22	9	8	9	11	C 22	56
R 23	5	5	5	7	C 23	28
R 24	2	1	1	2	C 24	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 38"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE					
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 45°
R 1	2	2	3	5	C 1	28
R 2	5	7	10	15	C 2	56
R 3	9	12	17	25	C 3	83
R 4	12	17	23	34	C 4	109
R 5	15	21	28	42	C 5	133
R 6	18	25	33	49	C 6	156
R 7	21	28	37	54	C 7	176
R 8	23	31	40	58	C 8	193
R 9	25	32	42	61	C 9	206
R 10	27	33	42	61	C 10	216
R 11	28	34	42	61	C 11	223
R 12	28	33	41	58	C 12	225
R 13	28	32	39	55	C 13	223
R 14	28	30	37	51	C 14	216
R 15	27	28	34	46	C 15	206
R 16	25	26	30	41	C 16	193
R 17	23	23	27	36	C 17	176
R 18	21	20	23	31	C 18	156
R 19	18	17	20	26	C 19	133
R 20	15	14	16	21	C 20	109
R 21	12	11	12	16	C 21	83
R 22	9	8	9	11	C 22	56
R 23	5	5	5	6	C 23	28
R 24	2	1	1	2	C 24	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 42"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	2	3	5	2	3	5	2
R2	5	7	10	14	5	7	10	5
R3	9	12	16	24	9	12	16	9
R4	12	17	22	33	12	17	22	12
R5	15	21	27	41	15	21	27	15
R6	18	25	32	47	18	25	32	18
R7	21	28	36	53	21	28	36	21
R8	23	30	39	57	23	30	39	23
R9	25	32	41	59	25	32	41	25
R10	27	33	42	60	27	33	42	27
R11	28	33	42	60	28	33	42	28
R12	28	33	41	58	28	33	41	28
R13	28	32	39	55	28	32	39	28
R14	28	31	37	52	28	31	37	28
R15	27	29	34	47	27	29	34	27
R16	25	26	31	43	25	26	31	25
R17	23	24	28	38	23	24	28	23
R18	21	21	24	33	21	21	24	21
R19	18	18	20	27	18	18	20	18
R20	15	15	17	22	15	15	17	15
R21	12	12	13	17	12	12	13	12
R22	9	8	9	12	9	8	9	9
R23	5	5	5	7	5	5	7	5
R24	2	2	2	2	2	2	2	2

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 44"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	2	3	5	2	3	5	2
R2	5	7	10	14	5	7	10	5
R3	9	12	16	24	9	12	16	9
R4	12	17	22	33	12	17	22	12
R5	15	21	27	41	15	21	27	15
R6	18	25	32	47	18	25	32	18
R7	21	28	36	53	21	28	36	21
R8	23	30	39	57	23	30	39	23
R9	25	32	41	59	25	32	41	25
R10	27	33	42	60	27	33	42	27
R11	28	33	42	60	28	33	42	28
R12	28	33	41	58	28	33	41	28
R13	28	32	39	55	28	32	39	28
R14	28	31	37	51	28	31	37	28
R15	27	29	34	47	27	29	34	27
R16	25	26	31	42	25	26	31	25
R17	23	24	27	37	23	24	27	23
R18	21	21	24	32	21	21	24	21
R19	18	18	20	27	18	18	20	18
R20	15	15	16	22	15	15	16	15
R21	12	11	13	17	12	11	13	12
R22	9	8	9	12	9	8	9	9
R23	5	5	5	7	5	5	7	5
R24	2	1	1	2	2	1	1	2

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 46"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	4	C 1	28	28	28
R 2	5	7	9	14	C 2	56	56	56
R 3	9	12	16	24	C 3	83	83	83
R 4	12	17	22	32	C 4	109	109	109
R 5	15	21	27	40	C 5	133	133	133
R 6	18	25	32	47	C 6	155	155	155
R 7	21	28	36	52	C 7	175	175	175
R 8	23	30	38	56	C 8	191	191	191
R 9	25	32	40	59	C 9	205	205	205
R 10	27	33	41	60	C 10	214	214	214
R 11	28	33	41	60	C 11	220	220	220
R 12	28	33	41	58	C 12	222	222	222
R 13	28	32	39	55	C 13	220	220	220
R 14	28	31	37	52	C 14	214	214	214
R 15	27	29	34	48	C 15	205	205	205
R 16	25	27	31	43	C 16	191	191	191
R 17	23	24	28	38	C 17	175	175	175
R 18	21	21	24	33	C 18	155	155	155
R 19	18	18	21	28	C 19	133	133	133
R 20	15	15	17	23	C 20	109	109	109
R 21	12	12	13	17	C 21	83	83	83
R 22	9	8	9	12	C 22	56	56	56
R 23	5	5	5	7	C 23	28	28	28
R 24	2	2	2	2	C 24	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 48"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	4	C 1	28	28	28
R 2	5	7	9	14	C 2	56	56	56
R 3	9	12	16	23	C 3	83	83	83
R 4	12	17	22	32	C 4	109	109	109
R 5	15	21	27	40	C 5	133	133	133
R 6	18	24	31	46	C 6	155	155	155
R 7	21	27	35	52	C 7	174	174	174
R 8	23	30	38	56	C 8	191	191	191
R 9	25	32	40	58	C 9	204	204	204
R 10	27	33	41	60	C 10	214	214	214
R 11	28	33	41	59	C 11	220	220	220
R 12	28	33	41	58	C 12	222	222	222
R 13	28	32	39	55	C 13	220	220	220
R 14	28	31	37	52	C 14	214	214	214
R 15	27	29	35	48	C 15	204	204	204
R 16	25	27	32	43	C 16	191	191	191
R 17	23	24	28	39	C 17	174	174	174
R 18	21	21	25	33	C 18	155	155	155
R 19	18	18	21	28	C 19	133	133	133
R 20	15	15	17	23	C 20	109	109	109
R 21	12	12	13	18	C 21	83	83	83
R 22	9	8	9	12	C 22	56	56	56
R 23	5	5	5	7	C 23	28	28	28
R 24	2	2	2	2	C 24	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 50"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	2	3	4	C1	28	28	28	28	28	28	28
R2	5	7	9	14	C2	56	56	56	56	56	56	56
R3	9	12	16	23	C3	83	83	83	83	83	83	83
R4	12	16	21	32	C4	109	109	109	109	109	109	109
R5	15	21	27	39	C5	133	133	133	133	133	133	133
R6	18	24	31	46	C6	155	155	155	155	155	155	155
R7	21	27	35	51	C7	174	174	174	174	174	174	174
R8	23	30	38	55	C8	191	191	191	191	191	191	191
R9	25	32	40	58	C9	204	204	204	204	204	204	204
R10	27	33	41	59	C10	214	214	214	214	214	214	214
R11	28	33	41	59	C11	220	220	220	220	220	220	220
R12	28	33	41	58	C12	222	222	222	222	222	222	222
R13	28	32	39	56	C13	220	220	220	220	220	220	220
R14	28	31	37	52	C14	214	214	214	214	214	214	214
R15	27	29	35	48	C15	204	204	204	204	204	204	204
R16	25	27	32	44	C16	191	191	191	191	191	191	191
R17	23	24	28	39	C17	174	174	174	174	174	174	174
R18	21	21	25	34	C18	155	155	155	155	155	155	155
R19	18	18	21	29	C19	133	133	133	133	133	133	133
R20	15	15	17	23	C20	109	109	109	109	109	109	109
R21	12	12	13	18	C21	83	83	83	83	83	83	83
R22	9	8	10	13	C22	56	56	56	56	56	56	56
R23	5	5	6	7	C23	28	28	28	28	28	28	28
R24	2	2	2	2	C24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 18" x 52"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	2	3	4	C1	28	28	28	28	28	28	28
R2	5	7	9	14	C2	56	56	56	56	56	56	56
R3	9	12	15	23	C3	83	83	83	83	83	83	83
R4	12	16	21	31	C4	109	109	109	109	109	109	109
R5	15	20	26	39	C5	133	133	133	133	133	133	133
R6	18	24	31	46	C6	155	155	155	155	155	155	155
R7	21	27	35	51	C7	174	174	174	174	174	174	174
R8	23	30	38	55	C8	191	191	191	191	191	191	191
R9	25	31	40	58	C9	204	204	204	204	204	204	204
R10	27	33	41	59	C10	213	213	213	213	213	213	213
R11	28	33	41	59	C11	219	219	219	219	219	219	219
R12	28	33	41	58	C12	221	221	221	221	221	221	221
R13	28	32	39	56	C13	219	219	219	219	219	219	219
R14	28	31	37	52	C14	213	213	213	213	213	213	213
R15	27	29	35	49	C15	204	204	204	204	204	204	204
R16	25	27	32	44	C16	191	191	191	191	191	191	191
R17	23	24	29	39	C17	174	174	174	174	174	174	174
R18	21	22	25	34	C18	155	155	155	155	155	155	155
R19	18	19	21	29	C19	133	133	133	133	133	133	133
R20	15	15	18	24	C20	109	109	109	109	109	109	109
R21	12	12	14	18	C21	83	83	83	83	83	83	83
R22	9	8	10	13	C22	56	56	56	56	56	56	56
R23	5	5	6	8	C23	28	28	28	28	28	28	28
R24	2	2	2	2	C24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 20"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	7	C1	31	31	31	31	31	31	31
R2	6	10	14	22	C2	62	62	62	62	62	62	62
R3	10	17	24	37	C3	94	94	94	94	94	94	94
R4	14	24	33	51	C4	125	125	125	125	125	125	125
R5	17	30	41	64	C5	156	156	156	156	156	156	156
R6	21	35	49	76	C6	186	186	186	186	186	186	186
R7	24	40	56	86	C7	216	216	216	216	216	216	216
R8	26	44	61	94	C8	245	245	245	245	245	245	245
R9	28	47	64	99	C9	273	273	273	273	273	273	273
R10	30	48	65	99	C10	297	297	297	297	297	297	297
R11	31	46	62	93	C11	316	316	316	316	316	316	316
R12	31	40	52	76	C12	323	323	323	323	323	323	323
R13	31	32	38	51	C13	316	316	316	316	316	316	316
R14	31	26	26	32	C14	297	297	297	297	297	297	297
R15	30	21	20	21	C15	273	273	273	273	273	273	273
R16	28	19	16	15	C16	245	245	245	245	245	245	245
R17	26	17	13	12	C17	216	216	216	216	216	216	216
R18	24	15	11	9	C18	186	186	186	186	186	186	186
R19	21	12	10	8	C19	156	156	156	156	156	156	156
R20	17	10	8	6	C20	125	125	125	125	125	125	125
R21	14	8	6	4	C21	94	94	94	94	94	94	94
R22	10	6	4	3	C22	62	62	62	62	62	62	62
R23	6	3	2	2	C23	31	31	31	31	31	31	31
R24	2	1	1	1	C24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 22"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	7	C1	31	31	31	31	31	31	31
R2	6	10	14	21	C2	62	62	62	62	62	62	62
R3	10	17	23	35	C3	93	93	93	93	93	93	93
R4	14	23	32	49	C4	124	124	124	124	124	124	124
R5	17	29	39	61	C5	154	154	154	154	154	154	154
R6	21	34	46	71	C6	183	183	183	183	183	183	183
R7	24	38	52	79	C7	210	210	210	210	210	210	210
R8	26	41	56	85	C8	236	236	236	236	236	236	236
R9	28	43	58	88	C9	258	258	258	258	258	258	258
R10	30	43	58	86	C10	276	276	276	276	276	276	276
R11	31	42	54	80	C11	288	288	288	288	288	288	288
R12	31	39	48	70	C12	292	292	292	292	292	292	292
R13	31	34	41	57	C13	288	288	288	288	288	288	288
R14	31	30	34	44	C14	276	276	276	276	276	276	276
R15	30	26	27	34	C15	258	258	258	258	258	258	258
R16	28	22	22	26	C16	236	236	236	236	236	236	236
R17	26	19	18	20	C17	210	210	210	210	210	210	210
R18	24	17	15	16	C18	183	183	183	183	183	183	183
R19	21	14	12	12	C19	154	154	154	154	154	154	154
R20	17	12	10	9	C20	124	124	124	124	124	124	124
R21	14	9	7	7	C21	93	93	93	93	93	93	93
R22	10	6	5	5	C22	62	62	62	62	62	62	62
R23	6	4	3	3	C23	31	31	31	31	31	31	31
R24	2	1	1	1	C24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 26"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	6	C1	31	31	31	31	31	31	31
R2	6	9	13	20	C2	62	62	62	62	62	62	62
R3	10	16	21	33	C3	93	93	93	93	93	93	93
R4	14	22	29	45	C4	123	123	123	123	123	123	123
R5	17	27	37	56	C5	152	152	152	152	152	152	152
R6	21	32	43	65	C6	179	179	179	179	179	179	179
R7	24	35	48	72	C7	204	204	204	204	204	204	204
R8	26	38	51	77	C8	226	226	226	226	226	226	226
R9	28	40	53	79	C9	245	245	245	245	245	245	245
R10	30	40	52	78	C10	259	259	259	259	259	259	259
R11	31	40	50	74	C11	268	268	268	268	268	268	268
R12	31	38	47	67	C12	271	271	271	271	271	271	271
R13	31	35	42	59	C13	268	268	268	268	268	268	268
R14	31	32	37	51	C14	259	259	259	259	259	259	259
R15	30	29	32	43	C15	245	245	245	245	245	245	245
R16	28	25	28	35	C16	226	226	226	226	226	226	226
R17	26	22	23	29	C17	204	204	204	204	204	204	204
R18	24	19	19	23	C18	179	179	179	179	179	179	179
R19	21	16	16	18	C19	152	152	152	152	152	152	152
R20	17	13	13	14	C20	123	123	123	123	123	123	123
R21	14	10	10	11	C21	93	93	93	93	93	93	93
R22	10	7	7	7	C22	62	62	62	62	62	62	62
R23	6	4	4	4	C23	31	31	31	31	31	31	31
R24	2	1	1	1	C24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 24"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	7	C1	31	31	31	31	31	31	31
R2	6	10	13	21	C2	62	62	62	62	62	62	62
R3	10	16	22	34	C3	93	93	93	93	93	93	93
R4	14	22	30	47	C4	123	123	123	123	123	123	123
R5	17	28	38	58	C5	153	153	153	153	153	153	153
R6	21	33	44	68	C6	181	181	181	181	181	181	181
R7	24	36	49	75	C7	207	207	207	207	207	207	207
R8	26	39	53	80	C8	230	230	230	230	230	230	230
R9	28	41	55	82	C9	250	250	250	250	250	250	250
R10	30	41	54	81	C10	266	266	266	266	266	266	266
R11	31	40	52	76	C11	276	276	276	276	276	276	276
R12	31	38	47	68	C12	279	279	279	279	279	279	279
R13	31	35	42	59	C13	276	276	276	276	276	276	276
R14	31	31	36	49	C14	266	266	266	266	266	266	266
R15	30	28	30	39	C15	250	250	250	250	250	250	250
R16	28	24	25	32	C16	230	230	230	230	230	230	230
R17	26	21	21	25	C17	207	207	207	207	207	207	207
R18	24	18	18	20	C18	181	181	181	181	181	181	181
R19	21	15	14	16	C19	153	153	153	153	153	153	153
R20	17	12	11	12	C20	123	123	123	123	123	123	123
R21	14	10	9	9	C21	93	93	93	93	93	93	93
R22	10	7	6	6	C22	62	62	62	62	62	62	62
R23	6	4	3	3	C23	31	31	31	31	31	31	31
R24	2	1	1	1	C24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 28"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
CENTER LINE												
R 1	2	3	4	6	31	31	31	31	31	31	31	31
R 2	6	9	13	19	62	62	62	62	62	62	62	62
R 3	10	15	21	32	93	93	93	93	93	93	93	93
R 4	14	21	29	44	123	123	123	123	123	123	123	123
R 5	17	26	36	54	151	151	151	151	151	151	151	151
R 6	21	31	42	63	178	178	178	178	178	178	178	178
R 7	24	35	46	70	202	202	202	202	202	202	202	202
R 8	26	37	49	74	223	223	223	223	223	223	223	223
R 9	28	39	51	76	241	241	241	241	241	241	241	241
R 10	30	40	51	75	254	254	254	254	254	254	254	254
R 11	31	39	50	72	263	263	263	263	263	263	263	263
R 12	31	38	47	67	266	266	266	266	266	266	266	266
R 13	31	35	43	60	263	263	263	263	263	263	263	263
R 14	31	32	38	52	254	254	254	254	254	254	254	254
R 15	30	29	34	45	241	241	241	241	241	241	241	241
R 16	28	26	29	38	223	223	223	223	223	223	223	223
R 17	26	23	25	31	202	202	202	202	202	202	202	202
R 18	24	20	21	26	178	178	178	178	178	178	178	178
R 19	21	17	17	21	151	151	151	151	151	151	151	151
R 20	17	14	14	16	123	123	123	123	123	123	123	123
R 21	14	11	10	12	93	93	93	93	93	93	93	93
R 22	10	7	7	8	62	62	62	62	62	62	62	62
R 23	6	4	4	5	31	31	31	31	31	31	31	31
R 24	2	1	1	1	0	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 30"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
CENTER LINE												
R 1	2	3	4	6	31	31	31	31	31	31	31	31
R 2	6	9	12	19	62	62	62	62	62	62	62	62
R 3	10	15	20	31	93	93	93	93	93	93	93	93
R 4	14	21	28	43	122	122	122	122	122	122	122	122
R 5	17	26	35	53	151	151	151	151	151	151	151	151
R 6	21	30	41	61	177	177	177	177	177	177	177	177
R 7	24	34	45	68	201	201	201	201	201	201	201	201
R 8	26	37	48	72	221	221	221	221	221	221	221	221
R 9	28	38	50	74	238	238	238	238	238	238	238	238
R 10	30	39	50	74	251	251	251	251	251	251	251	251
R 11	31	39	49	71	259	259	259	259	259	259	259	259
R 12	31	37	46	66	262	262	262	262	262	262	262	262
R 13	31	35	43	60	259	259	259	259	259	259	259	259
R 14	31	33	39	54	251	251	251	251	251	251	251	251
R 15	30	30	35	47	238	238	238	238	238	238	238	238
R 16	28	27	30	40	221	221	221	221	221	221	221	221
R 17	26	24	26	33	201	201	201	201	201	201	201	201
R 18	24	21	22	28	177	177	177	177	177	177	177	177
R 19	21	17	18	22	151	151	151	151	151	151	151	151
R 20	17	14	15	18	122	122	122	122	122	122	122	122
R 21	14	11	11	13	93	93	93	93	93	93	93	93
R 22	10	8	8	9	62	62	62	62	62	62	62	62
R 23	6	4	4	5	31	31	31	31	31	31	31	31
R 24	2	1	1	1	0	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 34"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	6	C1	31	31	31	31	31	31	31
R2	6	9	12	18	C2	62	62	62	62	62	62	62
R3	10	15	20	30	C3	93	93	93	93	93	93	93
R4	14	20	27	41	C4	122	122	122	122	122	122	122
R5	17	25	33	50	C5	150	150	150	150	150	150	150
R6	21	29	39	58	C6	175	175	175	175	175	175	175
R7	24	33	43	65	C7	199	199	199	199	199	199	199
R8	26	36	47	69	C8	218	218	218	218	218	218	218
R9	28	37	48	71	C9	235	235	235	235	235	235	235
R10	30	38	49	71	C10	247	247	247	247	247	247	247
R11	31	38	48	69	C11	254	254	254	254	254	254	254
R12	31	37	46	66	C12	257	257	257	257	257	257	257
R13	31	36	43	61	C13	254	254	254	254	254	254	254
R14	31	33	40	55	C14	247	247	247	247	247	247	247
R15	30	31	36	49	C15	235	235	235	235	235	235	235
R16	28	28	32	42	C16	218	218	218	218	218	218	218
R17	26	25	28	36	C17	199	199	199	199	199	199	199
R18	24	22	24	30	C18	175	175	175	175	175	175	175
R19	21	18	20	25	C19	150	150	150	150	150	150	150
R20	17	15	16	20	C20	122	122	122	122	122	122	122
R21	14	12	12	15	C21	93	93	93	93	93	93	93
R22	10	8	8	10	C22	62	62	62	62	62	62	62
R23	6	5	5	6	C23	31	31	31	31	31	31	31
R24	2	1	1	2	C24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 32"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	4	6	C1	31	31	31	31	31	31	31
R2	6	9	12	18	C2	62	62	62	62	62	62	62
R3	10	15	20	30	C3	93	93	93	93	93	93	93
R4	14	20	27	42	C4	122	122	122	122	122	122	122
R5	17	25	34	51	C5	150	150	150	150	150	150	150
R6	21	30	40	60	C6	176	176	176	176	176	176	176
R7	24	33	44	66	C7	199	199	199	199	199	199	199
R8	26	36	47	70	C8	220	220	220	220	220	220	220
R9	28	38	49	73	C9	236	236	236	236	236	236	236
R10	30	39	49	72	C10	249	249	249	249	249	249	249
R11	31	38	48	70	C11	256	256	256	256	256	256	256
R12	31	37	46	66	C12	259	259	259	259	259	259	259
R13	31	35	43	61	C13	256	256	256	256	256	256	256
R14	31	33	39	54	C14	249	249	249	249	249	249	249
R15	30	30	35	48	C15	236	236	236	236	236	236	236
R16	28	27	31	41	C16	220	220	220	220	220	220	220
R17	26	24	27	35	C17	199	199	199	199	199	199	199
R18	24	21	23	29	C18	176	176	176	176	176	176	176
R19	21	18	19	24	C19	150	150	150	150	150	150	150
R20	17	15	15	19	C20	122	122	122	122	122	122	122
R21	14	11	12	14	C21	93	93	93	93	93	93	93
R22	10	8	8	10	C22	62	62	62	62	62	62	62
R23	6	5	5	6	C23	31	31	31	31	31	31	31
R24	2	1	1	2	C24	0	0	0	0	0	0	0



**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 36"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	6	C1	31	31	31
R2	6	9	12	18	C2	62	62	62
R3	10	14	19	29	C3	93	93	93
R4	14	20	27	40	C4	122	122	122
R5	17	25	33	49	C5	150	150	150
R6	21	29	38	57	C6	175	175	175
R7	24	33	43	64	C7	198	198	198
R8	26	35	46	68	C8	217	217	217
R9	28	37	48	70	C9	233	233	233
R10	30	38	48	71	C10	245	245	245
R11	31	38	48	69	C11	252	252	252
R12	31	37	46	66	C12	255	255	255
R13	31	36	43	61	C13	252	252	252
R14	31	34	40	56	C14	245	245	245
R15	30	31	36	50	C15	233	233	233
R16	28	28	32	44	C16	217	217	217
R17	26	25	28	37	C17	198	198	198
R18	24	22	24	32	C18	175	175	175
R19	21	19	20	26	C19	150	150	150
R20	17	15	16	21	C20	122	122	122
R21	14	12	13	16	C21	93	93	93
R22	10	8	9	11	C22	62	62	62
R23	6	5	5	6	C23	31	31	31
R24	2	1	1	2	C24	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 20" x 38"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R1	2	3	4	6	C1	31	31	31
R2	6	9	11	17	C2	62	62	62
R3	10	14	19	29	C3	93	93	93
R4	14	20	26	39	C4	122	122	122
R5	17	25	32	49	C5	149	149	149
R6	21	29	38	56	C6	175	175	175
R7	24	32	42	63	C7	197	197	197
R8	26	35	45	67	C8	217	217	217
R9	28	37	47	69	C9	232	232	232
R10	30	38	48	70	C10	244	244	244
R11	31	38	47	68	C11	251	251	251
R12	31	37	46	65	C12	253	253	253
R13	31	36	43	61	C13	251	251	251
R14	31	34	40	56	C14	244	244	244
R15	30	31	37	50	C15	232	232	232
R16	28	28	33	44	C16	217	217	217
R17	26	25	29	38	C17	197	197	197
R18	24	22	25	33	C18	175	175	175
R19	21	19	21	27	C19	149	149	149
R20	17	16	17	22	C20	122	122	122
R21	14	12	13	16	C21	93	93	93
R22	10	9	9	11	C22	62	62	62
R23	6	5	5	7	C23	31	31	31
R24	2	2	2	2	C24	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

www.fabricatorguide.com		20" x 40"						
NO:	PIPE BRACH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R 1	2	3	3	5	C 1	31	31	31
R 2	6	8	11	17	C 2	62	62	62
R 3	10	14	19	28	C 3	93	93	93
R 4	14	19	26	39	C 4	122	122	122
R 5	17	24	32	48	C 5	149	149	149
R 6	21	29	37	56	C 6	174	174	174
R 7	24	32	42	62	C 7	197	197	197
R 8	26	35	45	66	C 8	216	216	216
R 9	28	37	47	69	C 9	231	231	231
R 10	30	38	48	69	C 10	243	243	243
R 11	31	38	47	68	C 11	250	250	250
R 12	31	37	46	65	C 12	252	252	252
R 13	31	36	44	61	C 13	250	250	250
R 14	31	34	41	57	C 14	243	243	243
R 15	30	31	37	51	C 15	231	231	231
R 16	28	29	33	45	C 16	216	216	216
R 17	26	26	29	39	C 17	197	197	197
R 18	24	23	25	33	C 18	174	174	174
R 19	21	19	21	28	C 19	149	149	149
R 20	17	16	17	22	C 20	122	122	122
R 21	14	12	13	17	C 21	93	93	93
R 22	10	9	9	12	C 22	62	62	62
R 23	6	5	5	7	C 23	31	31	31
R 24	2	2	2	2	C 24	0	0	0

www.fabricatorguide.com		20" x 42"						
NO:	PIPE BRACH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R 1	2	2	3	5	C 1	31	31	31
R 2	6	8	11	17	C 2	62	62	62
R 3	10	14	19	28	C 3	93	93	93
R 4	14	19	25	38	C 4	122	122	122
R 5	17	24	32	47	C 5	149	149	149
R 6	21	28	37	55	C 6	174	174	174
R 7	24	32	41	61	C 7	196	196	196
R 8	26	34	44	65	C 8	215	215	215
R 9	28	36	46	68	C 9	231	231	231
R 10	30	37	47	69	C 10	242	242	242
R 11	31	38	47	68	C 11	249	249	249
R 12	31	37	46	65	C 12	251	251	251
R 13	31	36	44	62	C 13	249	249	249
R 14	31	34	41	57	C 14	242	242	242
R 15	30	32	37	52	C 15	231	231	231
R 16	28	29	34	46	C 16	215	215	215
R 17	26	26	30	40	C 17	296	296	296
R 18	24	23	26	34	C 18	174	174	174
R 19	21	19	22	29	C 19	149	149	149
R 20	17	16	18	23	C 20	122	122	122
R 21	14	12	14	18	C 21	93	93	93
R 22	10	9	10	12	C 22	62	62	62
R 23	6	5	6	7	C 23	31	31	31
R 24	2	2	0	2	C 24	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

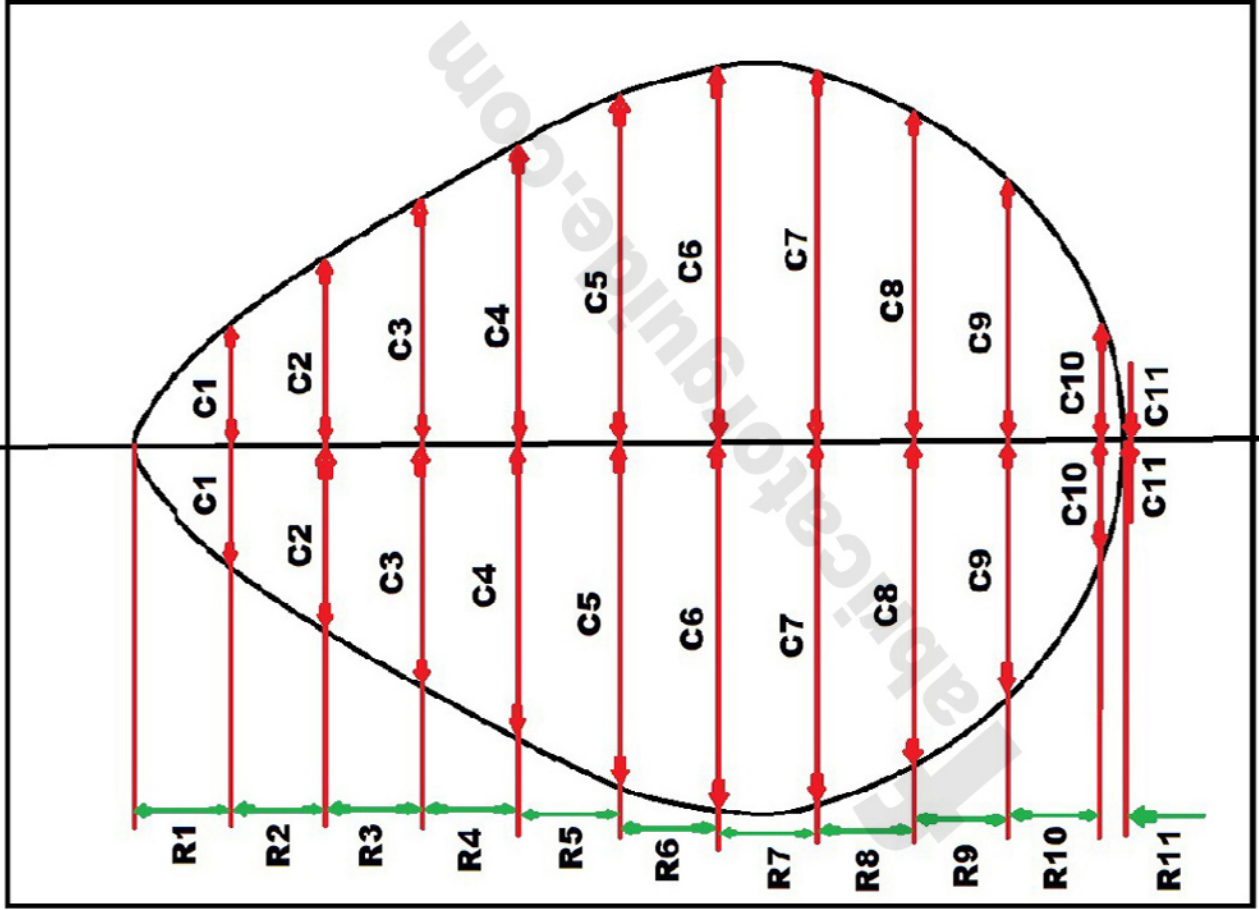
www.fabricatorguide.com 20" x 44"												
NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	C 1	31	31	31	31	31	31	31
R 2	6	8	11	17	C 2	63	63	63	63	63	63	63
R 3	10	14	18	28	C 3	93	93	93	93	93	93	93
R 4	14	19	25	38	C 4	122	122	122	122	122	122	122
R 5	17	24	31	47	C 5	149	149	149	149	149	149	149
R 6	21	28	37	54	C 6	174	174	174	174	174	174	174
R 7	24	32	41	60	C 7	196	196	196	196	196	196	196
R 8	26	34	44	65	C 8	215	215	215	215	215	215	215
R 9	28	36	46	67	C 9	230	230	230	230	230	230	230
R 10	30	37	47	68	C 10	242	242	242	242	242	242	242
R 11	31	38	47	67	C 11	249	249	249	249	249	249	249
R 12	31	37	46	65	C 12	251	251	251	251	251	251	251
R 13	31	36	44	62	C 13	249	249	249	249	249	249	249
R 14	31	34	41	57	C 14	242	242	242	242	242	242	242
R 15	30	32	38	52	C 15	230	230	230	230	230	230	230
R 16	28	29	34	47	C 16	215	215	215	215	215	215	215
R 17	26	26	30	41	C 17	196	196	196	196	196	196	196
R 18	24	23	26	35	C 18	174	174	174	174	174	174	174
R 19	21	20	22	29	C 19	149	149	149	149	149	149	149
R 20	17	16	18	24	C 20	122	122	122	122	122	122	122
R 21	14	13	14	18	C 21	93	93	93	93	93	93	93
R 22	10	9	10	13	C 22	63	63	63	63	63	63	63
R 23	6	5	6	7	C 23	31	31	31	31	31	31	31
R 24	2	2	2	2	C 24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

www.fabricatorguide.com		20" x 48"		www.fabricatorguide.com		20" x 50"							
NO:		PIPE BRACH HOLE MARKING TEMPLATE											
NO:	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°				
R 1	2	2	3	5	C 1	31	31	31	31	31	31	31	31
R 2	6	8	11	16	C 2	62	62	62	62	62	62	62	62
R 3	10	14	18	27	C 3	93	93	93	93	93	93	93	93
R 4	14	19	25	37	C 4	122	122	122	122	122	122	122	122
R 5	17	24	31	46	C 5	149	149	149	149	149	149	149	149
R 6	21	28	36	53	C 6	174	174	174	174	174	174	174	174
R 7	24	31	40	59	C 7	195	195	195	195	195	195	195	195
R 8	26	34	43	64	C 8	214	214	214	214	214	214	214	214
R 9	28	36	46	66	C 9	229	229	229	229	229	229	229	229
R 10	30	37	47	67	C 10	240	240	240	240	240	240	240	240
R 11	31	37	47	67	C 11	247	247	247	247	247	247	247	247
R 12	31	37	46	65	C 12	249	249	249	249	249	249	249	249
R 13	31	36	44	62	C 13	247	247	247	247	247	247	247	247
R 14	31	34	41	58	C 14	240	240	240	240	240	240	240	240
R 15	30	32	38	53	C 15	229	229	229	229	229	229	229	229
R 16	28	30	35	47	C 16	214	214	214	214	214	214	214	214
R 17	26	27	31	42	C 17	195	195	195	195	195	195	195	195
R 18	24	23	27	36	C 18	174	174	174	174	174	174	174	174
R 19	21	20	23	30	C 19	149	149	149	149	149	149	149	149
R 20	17	17	19	25	C 20	122	122	122	122	122	122	122	122
R 21	14	13	14	19	C 21	93	93	93	93	93	93	93	93
R 22	10	9	10	13	C 22	62	62	62	62	62	62	62	62
R 23	6	5	6	8	C 23	31	31	31	31	31	31	31	31
R 24	2	2	2	2	C 24	0	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

www.fabricatorguide.com		20" x 52"		www.fabricatorguide.com		20" x 54"		
NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R1	2	3	5	C1	31	31	31	31
R2	6	8	11	C2	62	62	62	62
R3	10	13	18	C3	93	93	93	93
R4	14	19	24	C4	122	122	122	122
R5	17	23	30	C5	149	149	149	149
R6	21	27	35	C6	173	173	173	173
R7	24	31	40	C7	195	195	195	195
R8	26	34	43	C8	214	214	214	214
R9	28	36	45	C9	228	228	228	228
R10	30	37	46	C10	239	239	239	239
R11	31	37	46	C11	246	246	246	246
R12	31	37	45	C12	248	248	248	248
R13	31	36	44	C13	246	246	246	246
R14	31	34	41	C14	239	239	239	239
R15	30	32	39	C15	228	228	228	228
R16	28	30	35	C16	214	214	214	214
R17	26	27	31	C17	195	195	195	195
R18	24	24	27	C18	173	173	173	173
R19	21	20	23	C19	149	149	149	149
R20	17	17	19	C20	122	122	122	122
R21	14	13	15	C21	93	93	93	93
R22	10	9	10	C22	62	62	62	62
R23	6	5	6	C23	31	31	31	31
R24	2	2	2	C24	0	0	0	0



PIPE BRANCH HOLE MARKING TEMPLATE												
NO:	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	2	3	5	C 1	31	31	31	31	31	31	31
R 2	6	8	10	16	C 2	62	62	62	62	62	62	62
R 3	10	13	17	26	C 3	93	93	93	93	93	93	93
R 4	14	18	24	35	C 4	122	122	122	122	122	122	122
R 5	17	23	30	44	C 5	149	149	149	149	149	149	149
R 6	21	27	35	51	C 6	173	173	173	173	173	173	173
R 7	24	31	39	57	C 7	195	195	195	195	195	195	195
R 8	26	33	42	62	C 8	213	213	213	213	213	213	213
R 9	28	35	45	65	C 9	228	228	228	228	228	228	228
R 10	30	37	46	66	C 10	239	239	239	239	239	239	239
R 11	31	37	46	66	C 11	245	245	245	245	245	245	245
R 12	31	37	45	65	C 12	248	248	248	248	248	248	248
R 13	31	36	44	62	C 13	245	245	245	245	245	245	245
R 14	31	34	42	58	C 14	239	239	239	239	239	239	239
R 15	30	32	39	54	C 15	228	228	228	228	228	228	228
R 16	28	30	36	49	C 16	213	213	213	213	213	213	213
R 17	26	27	32	44	C 17	195	195	195	195	195	195	195
R 18	24	24	28	38	C 18	173	173	173	173	173	173	173
R 19	21	21	24	32	C 19	149	149	149	149	149	149	149
R 20	17	17	19	26	C 20	122	122	122	122	122	122	122
R 21	14	13	15	20	C 21	93	93	93	93	93	93	93
R 22	10	9	11	14	C 22	62	62	62	62	62	62	62
R 23	6	6	6	8	C 23	31	31	31	31	31	31	31
R 24	2	2	2	3	C 24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 22"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	4	5	8	34	34	34	34	C 1	34	34	34
R 2	6	11	16	25	69	69	69	69	C 2	69	69	69
R 3	11	19	26	41	104	104	104	104	C 3	104	104	104
R 4	15	26	37	57	138	138	138	138	C 4	138	138	138
R 5	19	33	46	71	172	172	172	172	C 5	172	172	172
R 6	23	39	54	84	206	206	206	206	C 6	206	206	206
R 7	26	44	62	95	239	239	239	239	C 7	239	239	239
R 8	29	49	67	104	272	272	272	272	C 8	272	272	272
R 9	31	52	71	110	302	302	302	302	C 9	302	302	302
R 10	33	53	72	111	330	330	330	330	C 10	330	330	330
R 11	34	51	69	104	351	351	351	351	C 11	351	351	351
R 12	35	45	57	84	359	359	359	359	C 12	359	359	359
R 13	35	36	41	56	351	351	351	351	C 13	351	351	351
R 14	34	28	28	34	330	330	330	330	C 14	330	330	330
R 15	33	23	21	22	302	302	302	302	C 15	302	302	302
R 16	31	20	17	16	272	272	272	272	C 16	272	272	272
R 17	29	18	15	12	239	239	239	239	C 17	239	239	239
R 18	26	16	12	10	206	206	206	206	C 18	206	206	206
R 19	23	14	11	8	172	172	172	172	C 19	172	172	172
R 20	19	11	9	6	138	138	138	138	C 20	138	138	138
R 21	15	9	7	5	104	104	104	104	C 21	104	104	104
R 22	11	6	5	3	69	69	69	69	C 22	69	69	69
R 23	6	4	3	2	34	34	34	34	C 23	34	34	34
R 24	2	1	1	0	0	0	0	0	C 24	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 24"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE											
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
R 1	2	3	5	8	C 1	34	34	34	34	34	34	34
R 2	6	11	15	24	C 2	69	69	69	69	69	69	69
R 3	11	18	26	39	C 3	103	103	103	103	103	103	103
R 4	15	25	35	54	C 4	137	137	137	137	137	137	137
R 5	19	32	44	67	C 5	170	170	170	170	170	170	170
R 6	23	37	52	79	C 6	203	203	203	203	203	203	203
R 7	26	42	58	89	C 7	233	233	233	233	233	233	233
R 8	29	46	62	95	C 8	262	262	262	262	262	262	262
R 9	31	48	65	98	C 9	287	287	287	287	287	287	287
R 10	33	48	64	96	C 10	307	307	307	307	307	307	307
R 11	34	46	60	90	C 11	321	321	321	321	321	321	321
R 12	35	43	54	77	C 12	326	326	326	326	326	326	326
R 13	35	38	45	63	C 13	321	321	321	321	321	321	321
R 14	34	33	37	48	C 14	307	307	307	307	307	307	307
R 15	33	28	29	36	C 15	287	287	287	287	287	287	287
R 16	31	24	24	28	C 16	262	262	262	262	262	262	262
R 17	29	21	20	21	C 17	233	233	233	233	233	233	233
R 18	26	18	16	17	C 18	203	203	203	203	203	203	203
R 19	23	15	13	13	C 19	170	170	170	170	170	170	170
R 20	19	13	11	10	C 20	137	137	137	137	137	137	137
R 21	15	10	8	7	C 21	103	103	103	103	103	103	103
R 22	11	7	6	5	C 22	69	69	69	69	69	69	69
R 23	6	4	3	3	C 23	34	34	34	34	34	34	34
R 24	2	1	1	1	C 24	0	0	0	0	0	0	0

**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 26"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
CENTER LINE								
R 1	2	3	5	7	34	34	34	34
R 2	6	11	15	23	69	69	69	69
R 3	11	18	25	38	103	103	103	103
R 4	15	25	34	52	137	137	137	137
R 5	19	31	42	65	169	169	169	169
R 6	23	36	49	75	200	200	200	200
R 7	26	41	55	84	229	229	229	229
R 8	29	44	59	90	255	255	255	255
R 9	31	46	61	92	278	278	278	278
R 10	33	46	61	90	296	296	296	296
R 11	34	45	58	85	307	307	307	307
R 12	35	42	53	76	311	311	311	311
R 13	35	38	46	64	307	307	307	307
R 14	34	34	39	53	296	296	296	296
R 15	33	30	33	42	278	278	278	278
R 16	31	26	28	34	255	255	255	255
R 17	29	23	23	27	229	229	229	229
R 18	26	20	19	21	200	200	200	200
R 19	23	17	15	17	169	169	169	169
R 20	19	14	12	13	137	137	137	137
R 21	15	10	9	10	103	103	103	103
R 22	11	7	6	6	69	69	69	69
R 23	6	4	4	4	34	34	34	34
R 24	2	1	1	1	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 28"

NO:	PIPE BRANCH HOLE MARKING TEMPLATE							
	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°	TEE BRANCH 90°	LAT-ERAL 60°	LAT-ERAL 45°	LAT-ERAL 30°
CENTER LINE								
R 1	2	3	5	7	34	34	34	34
R 2	6	10	14	22	69	69	69	69
R 3	11	17	24	37	103	103	103	103
R 4	15	24	33	50	136	136	136	136
R 5	19	30	41	62	168	168	168	168
R 6	23	35	48	73	198	198	198	198
R 7	26	39	53	81	226	226	226	226
R 8	29	43	57	86	251	251	251	251
R 9	31	44	59	88	272	272	272	272
R 10	33	45	58	87	288	288	288	288
R 11	34	44	56	82	298	298	298	298
R 12	35	42	52	75	302	302	302	302
R 13	35	39	47	65	298	298	298	298
R 14	34	35	41	56	288	288	288	288
R 15	33	31	35	46	272	272	272	272
R 16	31	28	30	38	251	251	251	251
R 17	29	24	25	31	226	226	226	226
R 18	26	21	21	25	198	198	198	198
R 19	23	18	17	20	168	168	168	168
R 20	19	14	14	15	136	136	136	136
R 21	15	11	10	11	103	103	103	103
R 22	11	8	7	8	69	69	69	69
R 23	6	4	4	4	34	34	34	34
R 24	2	1	1	1	0	0	0	0



**pipe branch hole layout 90 degree 60 degree 45 degree 30 degree**

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 32"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R 1	2	3	4	7	C 1	34	34	34	34	34	34	34
R 2	6	10	14	21	C 2	69	69	69	69	69	69	69
R 3	11	17	23	35	C 3	103	103	103	103	103	103	103
R 4	15	23	31	48	C 4	135	135	135	135	135	135	135
R 5	19	29	39	59	C 5	167	167	167	167	167	167	167
R 6	23	34	45	68	C 6	196	196	196	196	196	196	196
R 7	26	38	50	76	C 7	222	222	222	222	222	222	222
R 8	29	41	54	81	C 8	246	246	246	246	246	246	246
R 9	31	43	56	83	C 9	265	265	265	265	265	265	265
R 10	33	43	56	82	C 10	279	279	279	279	279	279	279
R 11	34	43	54	79	C 11	288	288	288	288	288	288	288
R 12	35	41	51	74	C 12	291	291	291	291	291	291	291
R 13	35	39	47	66	C 13	288	288	288	288	288	288	288
R 14	34	36	43	59	C 14	279	279	279	279	279	279	279
R 15	33	33	38	51	C 15	265	265	265	265	265	265	265
R 16	31	29	33	43	C 16	246	246	246	246	246	246	246
R 17	29	26	28	36	C 17	222	222	222	222	222	222	222
R 18	26	22	24	29	C 18	196	196	196	196	196	196	196
R 19	23	19	20	24	C 19	167	167	167	167	167	167	167
R 20	19	15	16	19	C 20	135	135	135	135	135	135	135
R 21	15	12	12	14	C 21	103	103	103	103	103	103	103
R 22	11	8	8	10	C 22	69	69	69	69	69	69	69
R 23	6	5	5	5	C 23	34	34	34	34	34	34	34
R 24	2	1	1	2	C 24	0	0	0	0	0	0	0

[www.fabricatorguide.com](http://www.fabricatorguide.com) 22" x 30"

NO:	PIPE BRACH HOLE MARKING TEMPLATE											
	TEE BRANC 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°	TEE BRANCH 90°	LAT- ERAL 60°	LAT- ERAL 45°	LAT- ERAL 30°
R 1	2	3	4	7	C 1	34	34	34	34	34	34	34
R 2	6	10	14	22	C 2	69	69	69	69	69	69	69
R 3	11	17	23	36	C 3	103	103	103	103	103	103	103
R 4	15	24	32	49	C 4	136	136	136	136	136	136	136
R 5	19	29	40	60	C 5	167	167	167	167	167	167	167
R 6	23	34	46	70	C 6	197	197	197	197	197	197	197
R 7	26	39	52	78	C 7	224	224	224	224	224	224	224
R 8	29	42	55	83	C 8	248	248	248	248	248	248	248
R 9	31	43	57	85	C 9	268	268	268	268	268	268	268
R 10	33	44	57	84	C 10	283	283	283	283	283	283	283
R 11	34	43	55	80	C 11	292	292	292	292	292	292	292
R 12	35	42	52	74	C 12	296	296	296	296	296	296	296
R 13	35	39	47	66	C 13	292	292	292	292	292	292	292
R 14	34	36	42	57	C 14	283	283	283	283	283	283	283
R 15	33	32	37	49	C 15	268	268	268	268	268	268	268
R 16	31	29	31	41	C 16	248	248	248	248	248	248	248
R 17	29	25	27	34	C 17	224	224	224	224	224	224	224
R 18	26	22	22	27	C 18	197	197	197	197	197	197	197
R 19	23	18	18	22	C 19	167	167	167	167	167	167	167
R 20	19	15	15	17	C 20	136	136	136	136	136	136	136
R 21	15	12	11	13	C 21	103	103	103	103	103	103	103
R 22	11	8	8	9	C 22	69	69	69	69	69	69	69
R 23	6	5	4	5	C 23	34	34	34	34	34	34	34
R 24	2	1	1	1	C 24	0	0	0	0	0	0	0