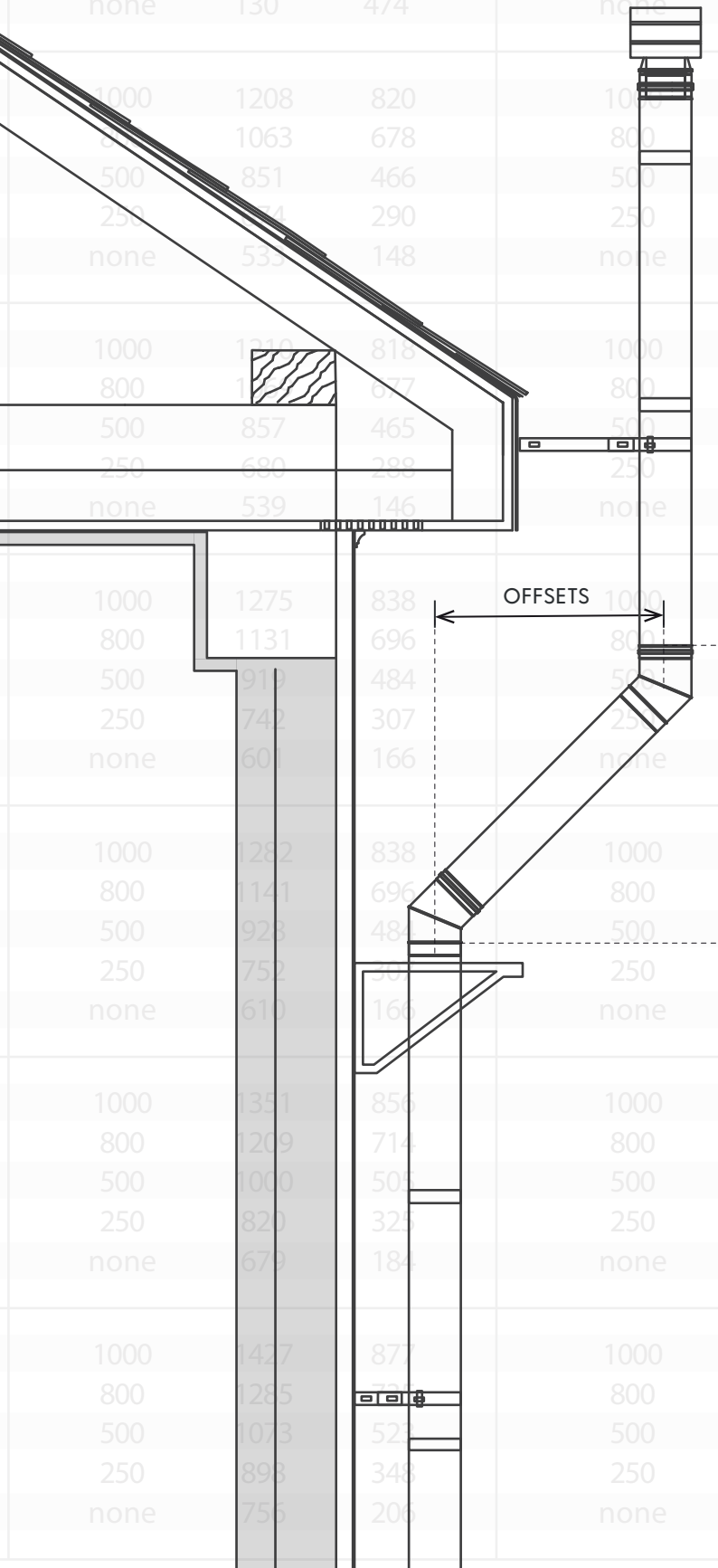


# TECHNICAL CHART

## Offsets Calculation

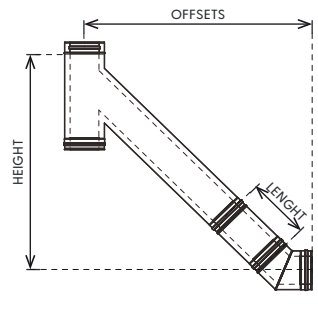
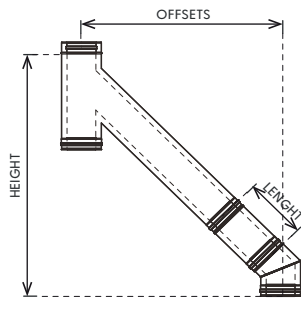
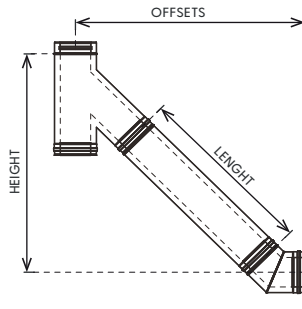
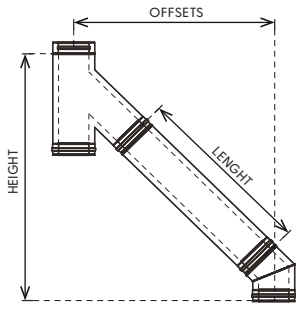
### Double Wall Chimney Systems



1000	1281	555	1000	1339	287
800	1077	468	800	1211	235
500	848	305	500	906	157
250	631	180	250	679	93
none	458	80	none	486	41
1000	1337	566	1000	1404	287
800	1164	466	800	1211	235
500	904	316	500	925	158
250	687	191	250	679	93
none	514	91	none	486	41
1000	1348	566	1000	1417	287
800	1175	466	800	1223	235
500	915	316	500	934	158
250	699	191	250	692	93
none	525	91	none	499	41
1000	1367	567	1000	1432	287
800	1194	467	800	1238	235
500	934	317	500	949	158
250	717	192	250	707	93
none	544	92	none	514	41
1000	1374	567	1000	1440	287
800	1201	467	800	1247	235
500	941	317	500	957	158
250	725	192	250	716	93
none	552	92	none	523	41
1000	1450	580	1000	1516	294
800	1276	480	800	1324	242
500	1017	330	500	1033	164
250	800	205	250	792	100
none	627	105	none	599	48
1000	1521	583	1000	1541	294
800	1348	493	800	1348	242
500	1088	343	500	1058	164
250	872	218	250	817	100
none	699	118	none	624	48

# Offsets Calculation

## Double Wall Chimney Systems



**TEE 135° + PIPE + ELBOW 45°**

**TEE 135° + PIPE + ELBOW 45°**

**TEE 135 LONG + PIPE + ELBOW 45**

**TEE 135 LONG + PIPE + ELBOW 45**

vertical

horizontal

vertical

horizontal

Ø

LENGTH OFFSET HEIGHT

LENGTH OFFSET HEIGHT

LENGTH OFFSET HEIGHT

LENGTH OFFSET HEIGHT

80-130

1000	940	1155
800	799	1014
500	587	802
250	410	625
none	268	483

1000	1070	1090
800	929	949
500	717	737
250	540	560
none	399	419

100-150

1000	1356	1548
800	1204	1396
500	1003	1195
250	826	1018
none	684	876

1000	1473	1431
800	1332	1290
500	1120	1078
250	943	901
none	801	759

1000	931	1123
800	779	971
500	577	769
250	401	593
none	259	451

1000	1048	1006
800	906	864
500	694	652
250	518	476
none	376	334

130-180

1000	1391	1631
800	1249	1489
500	1037	1277
250	861	1100
none	719	959

1000	1521	1501
800	1379	1359
500	1167	1147
250	990	971
none	849	829

1000	997	1236
800	855	1095
500	643	883
250	466	706
none	325	565

1000	1126	1107
800	985	965
500	773	753
250	596	576
none	455	435

150-200

1000	1407	1636
800	1266	1494
500	1054	1282
250	877	1105
none	735	964

1000	1536	1507
800	1394	1366
500	1182	1154
250	1005	977
none	864	835

1000	1000	1228
800	858	1087
500	646	875
250	469	698
none	328	556

1000	1128	1100
800	987	958
500	775	746
250	598	569
none	456	428

180-230

1000	1442	1720
800	1301	1578
500	1089	1366
250	912	1190
none	771	1048

1000	1585	1577
800	1443	1436
500	1231	1224
250	1055	1047
none	913	906

1000	1062	1340
800	921	1198
500	709	986
250	532	809
none	391	668

1000	1205	1197
800	1063	1056
500	851	844
250	674	667
none	533	526

200-250

1000	1459	1727
800	1318	1585
500	1106	1373
250	929	1196
none	788	1055

1000	1602	1584
800	1460	1443
500	1248	1231
250	1071	1054
none	930	913

1000	1066	1333
800	924	1192
500	712	979
250	535	803
none	394	661

1000	1208	1191
800	1067	1049
500	854	837
250	678	660
none	536	519

250-300

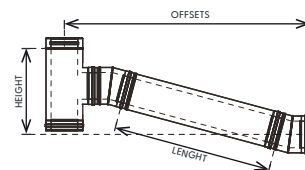
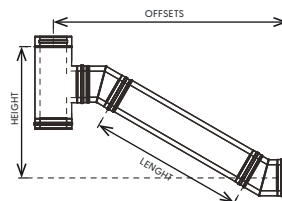
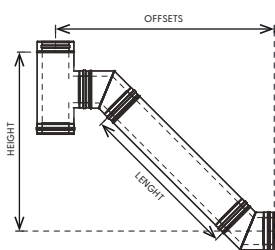
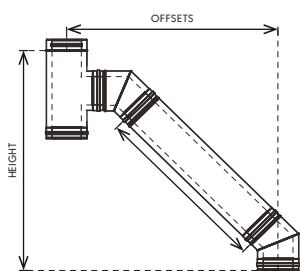
1000	1139	1444
800	997	1302
500	785	1090
250	608	913
none	467	772

1000	1294	1289
800	1152	1147
500	940	935
250	763	758
none	622	617

300-350

1000	1149	1444
800	1008	1303
500	796	1091
250	620	915
none	478	773

1000	1319	1274
800	1178	1133
500	966	921
250	789	744
none	648	603



TEE 90° + ELBOW 45° + PIPE + ELBOW 45°

TEE 90° + ELBOW 45° + PIPE + ELBOW 45°

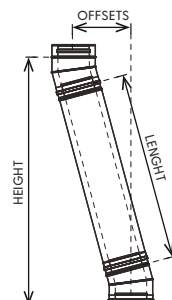
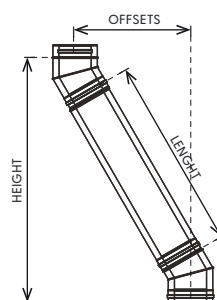
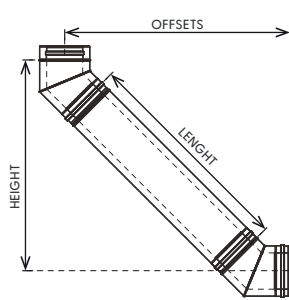
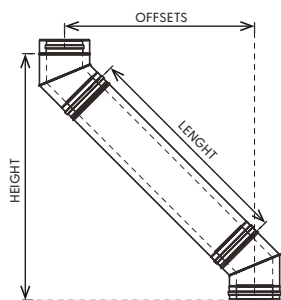
TEE 90° + ELBOW 30° + PIPE + ELBOW 30°

TEE 90° + ELBOW 15° + PIPE + ELBOW 15°

vertical

horizontal

Ø	vertical			horizontal								
	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT
80-130	1000	1075	950	1000	1205	820	1000	1343	567	1000	1407	287
	800	933	808	800	1064	679	800	1170	468	800	1214	236
	500	721	596	500	852	467	500	910	318	500	924	158
	250	545	420	250	675	290	250	693	192	250	683	93
	none	403	278	none	533	148	none	520	93	none	490	41
100-150	1000	1029	919	1000	802	1146	1000	1281	555	1000	1339	287
	800	876	766	800	660	1004	800	1097	449	800	1196	235
	500	675	565	500	448	792	500	848	305	500	906	157
	250	498	388	250	271	615	250	631	180	250	504	93
	none	357	247	none	130	474	none	458	80	none	471	41
130-180	1000	1075	950	1000	1208	820	1000	1337	566	1000	1404	287
	800	933	808	800	1063	678	800	1164	466	800	1211	235
	500	721	596	500	851	466	500	904	316	500	925	158
	250	544	419	250	674	290	250	687	191	250	679	93
	none	403	278	none	533	148	none	514	91	none	486	41
150-200	1000	1082	947	1000	1210	818	1000	1348	566	1000	1417	287
	800	940	805	800	1069	677	800	1175	466	800	1223	235
	500	728	593	500	857	465	500	915	316	500	934	158
	250	551	416	250	680	288	250	699	191	250	692	93
	none	410	275	none	539	146	none	525	91	none	499	41
180-230	1000	1130	980	1000	1275	838	1000	1367	567	1000	1432	287
	800	989	839	800	1131	696	800	1194	467	800	1238	235
	500	777	627	500	919	484	500	934	317	500	949	158
	250	600	450	250	742	307	250	717	192	250	707	93
	none	458	308	none	601	166	none	544	92	none	514	41
200-250	1000	1140	980	1000	1282	838	1000	1374	567	1000	1440	287
	800	998	838	800	1141	696	800	1201	467	800	1247	235
	500	786	626	500	928	484	500	941	317	500	957	158
	250	609	437	250	752	307	250	725	192	250	716	93
	none	471	311	none	610	166	none	552	92	none	523	41
250-300	1000	1196	1011	1000	1351	856	1000	1450	580	1000	1516	294
	800	1054	869	800	1209	714	800	1276	480	800	1324	242
	500	845	660	500	1000	505	500	1017	330	500	1033	164
	250	665	480	250	820	325	250	800	205	250	792	100
	none	524	339	none	679	184	none	627	105	none	599	48
300-350	1000	1257	1047	1000	1427	877	1000	1521	583	1000	1541	294
	800	1115	905	800	1285	735	800	1348	493	800	1348	242
	500	903	663	500	1073	523	500	1088	343	500	1058	164
	250	728	518	250	898	348	250	872	218	250	817	100
	none	585	375	none	756	206	none	699	118	none	624	48



**ELBOW 45° + PIPE + ELBOW 45°**

**ELBOW 45° + PIPE + ELBOW 45°**

**ELBOW 30° + PIPE + ELBOW 30°**

**ELBOW 15° + PIPE + ELBOW 15°**

vertical

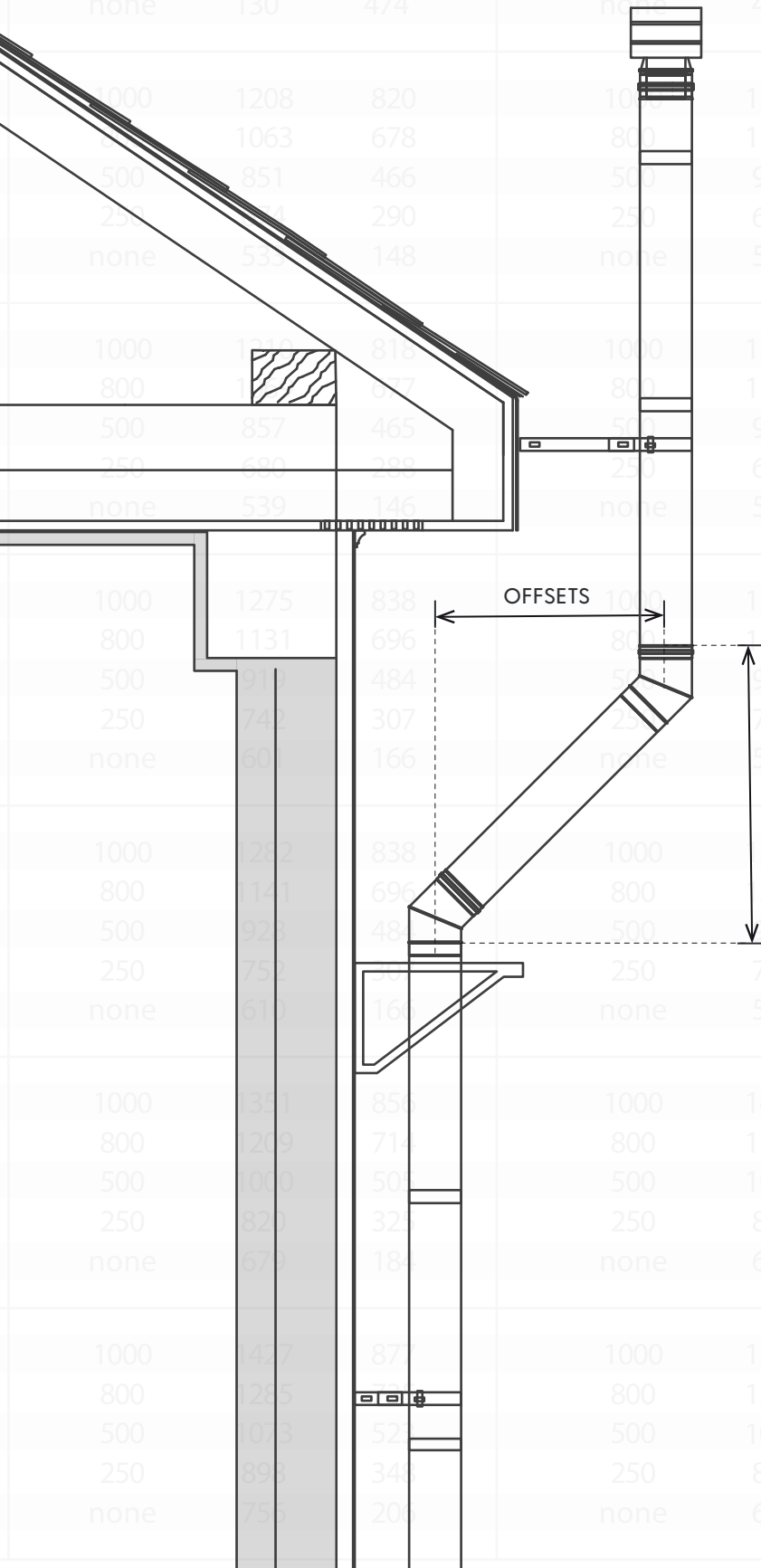
horizontal

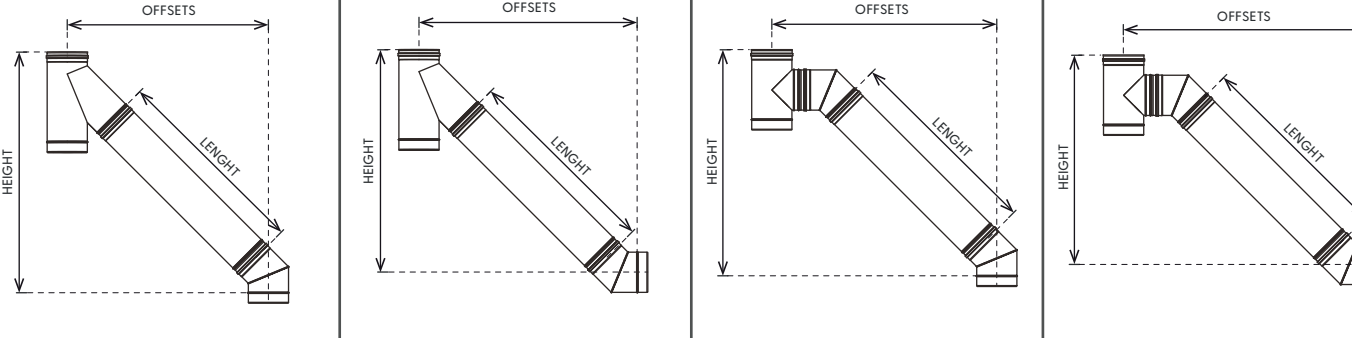
Ø	vertical			horizontal								
	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT
80-130	1000	820	1030	1000	950	900	1000	568	1168	1000	287	1232
	800	679	889	800	809	759	800	467	995	800	236	1039
	500	467	677	500	596	547	500	319	734	500	158	749
	250	290	500	250	420	370	250	192	518	250	93	508
	none	148	358	none	278	228	none	92	345	none	41	315
100-150	1000	802	986	1000	919	944	1000	555	1071	1000	287	1179
	800	660	844	800	777	802	800	449	937	800	235	1036
	500	448	632	500	565	590	500	305	688	500	157	746
	250	271	455	250	388	413	250	180	471	250	93	504
	none	130	314	none	247	272	none	80	298	none	41	311
130-180	1000	820	1029	1000	950	990	1000	566	1162	1000	287	1229
	800	678	888	800	808	848	800	466	989	800	235	1028
	500	466	676	500	596	636	500	316	729	500	158	750
	250	290	499	250	419	459	250	191	512	250	93	504
	none	148	358	none	278	318	none	91	339	none	41	311
150-200	1000	818	1025	1000	947	997	1000	566	1163	1000	287	1232
	800	677	884	800	805	855	800	466	990	800	235	1038
	500	465	672	500	593	643	500	316	730	500	158	749
	250	288	495	250	416	466	250	191	514	250	93	507
	none	146	354	none	275	325	none	91	340	none	41	314
180-230	1000	838	1072	1000	980	1045	1000	567	1167	1000	287	1232
	800	696	931	800	839	904	800	467	994	800	235	1028
	500	484	719	500	627	692	500	317	734	500	144	749
	250	307	542	250	450	515	250	192	517	250	93	507
	none	166	401	none	308	373	none	92	344	none	41	314
200-250	1000	838	1072	1000	980	1055	1000	567	1164	1000	287	1230
	800	696	931	800	838	913	800	467	991	800	235	1037
	500	487	722	500	630	705	500	317	731	500	158	747
	250	311	545	250	453	528	250	192	515	250	93	506
	none	166	400	none	308	383	none	92	342	none	41	313
250-300	1000	856	1116	1000	1011	961	1000	580	1215	1000	294	1281
	800	714	974	800	869	819	800	480	1041	800	242	1089
	500	505	765	500	657	610	500	330	782	500	164	798
	250	325	585	250	480	430	250	205	565	250	100	557
	none	184	444	none	339	289	none	105	392	none	48	364
300-350	1000	877	1167	1000	1047	997	1000	593	1261	1000	294	1281
	800	735	1025	800	905	855	800	493	1088	800	242	1088
	500	523	813	500	693	643	500	343	828	500	164	798
	250	348	638	250	518	468	250	218	612	250	100	557
	none	206	496	none	375	325	none	118	439	none	48	364

# TECHNICAL CHART

## Offsets Calculation

### Single Wall Chimney Systems



Ø	vertical			horizontal			vertical			horizontal		
	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT
												
<b>TEE 135° + PIPE + ELBOW 45°</b> <b>TEE 135 + PIPE + ELBOW 45</b> <b>TEE 90 + ELB. 45° + PIPE + ELB. 45°</b> <b>TEE 90 + ELB. 45° + PIPE + ELB. 45°</b>												
80	1000	863	1023	1000	913	973	1000	933	828	1000	983	778
	500	509	669	500	562	619	500	579	474	500	629	424
	250	332	492	250	382	442	250	402	297	250	452	247
	none	191	351	none	241	301	none	261	156	none	311	106
100	1000	896	1080	1000	964	963	1000	1005	870	1000	1074	803
	500	543	727	500	610	609	500	652	517	500	719	449
	250	366	550	250	434	433	250	475	340	250	542	272
	none	225	409	none	292	291	none	333	198	none	401	131
130	1000	909	1085	1000	984	1010	1000	1038	888	1000	1113	813
	500	555	732	500	630	657	500	685	535	500	760	460
	250	379	555	250	454	480	250	508	359	250	583	283
	none	237	414	none	312	289	none	366	216	none	441	141
150	1000	979	1179	1000	1054	1104	1000	1048	888	1000	1123	813
	500	590	790	500	665	715	500	695	534	500	770	459
	250	590	790	250	665	715	250	518	361	250	593	282
	none	272	472	none	347	397	none	376	216	none	452	141
180	1000	1013	1265	1000	1105	1173	1000	1105	980	1000	1198	838
	500	659	912	500	802	819	500	752	627	500	844	484
	250	482	735	250	625	642	250	575	450	250	668	308
	none	341	594	none	484	501	none	434	309	none	526	166
200	1000	1013	1255	1000	1155	1163	1000	1115	930	1000	1208	838
	500	659	901	500	801	809	500	761	576	500	854	484
	250	482	725	250	625	632	250	585	400	250	678	308
	none	341	584	none	483	491	none	443	258	none	536	166
230	1000	1069	1347	1000	1162	1254	1000	1130	930	1000	1223	838
	500	716	993	500	808	901	500	777	577	500	869	484
	250	539	817	250	632	724	250	600	400	250	693	308
	none	398	675	none	490	583	none	459	259	none	551	166
250	1000	1078	1358	1000	1183	1253	1000	1171	961	1000	1276	856
	500	725	1005	500	828	900	500	817	607	500	922	502
	250	548	828	250	653	723	250	640	430	250	745	325
	none	407	687	none	512	582	none	499	289	none	604	184
300	1000	1139	1444	1000	1244	1339	1000	1196	961	1000	1301	856
	500	785	1090	500	940	985	500	842	607	500	947	502
	250	608	913	250	763	808	250	665	430	250	770	325
	none	467	772	none	622	667	none	524	289	none	629	184

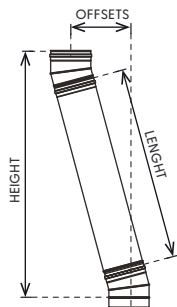
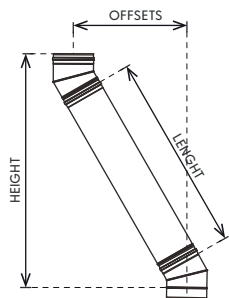
# Offsets Calculation

## Single Wall Chimney Systems

Ø	TEE 90° + ELB. 30° + PIPE + ELB. 30°			TEE 90° + ELB. 15° + PIPE + ELB. 15°			ELBOW 45° + PIPE + ELBOW 45°			ELBOW 45° + PIPE + ELBOW 45°		
	vertical			horizontal			vertical			horizontal		
	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT
80	1000	1158	550	1000	1268	285	1000	778	928	1000	828	918
	500	725	300	500	785	155	500	424	574	500	474	564
	250	508	175	250	546	91	250	247	397	250	297	387
	none	335	75	none	350	39	none	106	256	none	156	246
100	1000	1206	555	1000	1318	287	1000	803	988	1000	870	920
	500	773	305	500	834	158	500	449	634	500	517	567
	250	557	180	250	593	93	250	272	457	250	340	390
	none	384	80	none	400	41	none	131	316	none	198	248
130	1000	1268	567	1000	1332	287	1000	814	1014	1000	888	938
	500	835	317	500	849	158	500	460	660	500	535	585
	250	618	193	250	608	93	250	284	484	250	359	408
	none	445	92	none	415	41	none	142	342	none	216	266
150	1000	1278	568	1000	1343	287	1000	813	1013	1000	888	938
	500	845	318	500	860	158	500	459	663	500	534	585
	250	629	193	250	94	621	250	282	486	250	361	408
	none	455	93	none	425	41	none	143	347	none	216	266
180	1000	1293	568	1000	1357	287	1000	568	1168	1000	930	980
	500	860	318	500	874	158	500	318	735	500	577	627
	250	643	193	250	633	93	250	193	518	250	400	450
	none	470	93	none	440	41	none	93	345	none	259	309
200	1000	1303	568	1000	1367	287	1000	838	1073	1000	930	980
	500	870	318	500	884	158	500	484	719	500	576	629
	250	653	193	250	643	93	250	308	543	250	400	450
	none	480	93	none	450	41	none	166	401	none	258	308
230	1000	1415	580	1000	1382	287	1000	838	1073	1000	930	980
	500	932	330	500	899	158	500	484	719	500	577	627
	250	715	205	250	658	93	250	308	543	250	400	450
	none	542	105	none	465	41	none	166	401	none	259	309
250	1000	1375	580	1000	1441	294	1000	856	1116	1000	961	1011
	500	942	330	500	958	164	500	502	762	500	607	657
	250	725	205	250	716	100	250	325	585	250	430	480
	none	552	105	none	524	48	none	184	444	none	289	339
300	1000	1446	593	1000	1467	294	1000	856	1116	1000	961	1011
	500	1013	343	500	983	164	500	502	762	500	607	607
	250	797	218	250	742	100	250	325	585	250	430	430
	none	624	118	none	549	48	none	184	444	none	289	289

# Offsets Calculation

## Single Wall Chimney Systems



**ELBOW 30° + PIPE + ELBOW 30°**

**ELBOW 15° + PIPE + ELBOW 15°**

vertical

horizontal

Ø	vertical			horizontal		
	LENGTH	OFFSET	HEIGHT	LENGTH	OFFSET	HEIGHT
80	1000	550	1103	1000	285	1213
	500	300	670	500	155	730
	250	175	453	250	91	491
	none	75	280	none	39	295
100	1000	555	1121	1000	287	1233
	500	305	688	500	158	750
	250	180	472	250	93	508
	none	80	299	none	315	41
130	1000	567	1168	1000	287	1232
	500	317	735	500	158	749
	250	193	518	250	93	508
	none	92	345	none	41	315
150	1000	568	1168	1000	287	1232
	500	318	735	500	158	749
	250	193	519	250	94	510
	none	93	345	none	41	315
180	1000	568	1168	1000	287	1232
	500	318	735	500	158	749
	250	193	518	250	93	508
	none	93	345	none	41	315
200	1000	568	1168	1000	287	1232
	500	318	735	500	158	749
	250	193	518	250	93	508
	none	93	345	none	41	315
230	1000	580	1215	1000	287	1232
	500	330	782	500	158	749
	250	205	565	250	93	508
	none	105	392	none	41	315
250	1000	580	1215	1000	294	1281
	500	330	782	500	164	798
	250	205	565	250	100	556
	none	105	392	none	48	364
300	1000	593	1261	1000	294	1282
	500	343	828	500	164	798
	250	218	612	250	100	557
	none	118	439	none	48	364