

Technical Details

Masterflue MF

Applications		Chimney / Flue system
Operating mode		Dry / wet
Pressure		Negative / positive pressure
Max. working pressure		1000 Pa
Operating temperature		550°C (neg. pressure), 200°C (pos. pressure)
Max temperature for short firing		1000°C + 50°C (max 30 min), 250°C (pos.pressure)
Inner Wall:	material	316 grade stainless steel
	thickness	≤ 250 DIA, 0.4mm ≥300 DIA, 0.5mm
Outer Wall:	material	304 grade stainless steel
	thickness	0,6mm
Insulation	type	Rockwool
	thickness	25mm up to 400mm DIA Components
	thickness	37.5mm over 400mm DIA Components
Sealant		Elastomeer
Fuel type		Gas / Oil

Inner diameter	mm	100	130	150	180	200	250	300	350	400	450	500	600
Cross section	cm ²	79	133	177	254	814	488	706	962	1256	1590	1963	2826
Outer diameter	mm	150	180	200	230	250	300	350	400	450	525	575	675
Weight	kg/m	4.3	5.3	6.0	7.0	7.6	9.4	11.9	14.8	19.1	22.8	25.1	29.8

Condensing Boilers

Single or Twin Wall Flue?

Whilst some manufacturers may advocate the use of single wall flues for condensing boilers, there are certain factors that must be guaranteed for such a flue to work consistently and safely under all load conditions.

The boiler must only ever operate at condensing temperatures to maintain safe external surface temperatures on the flue.

The flue system must retain what little temperature is left in the flue gases, to support buoyancy in the flue.

Twin wall insulated flues will retain temperature in the flue gases and ensure a safe external temperature on the flue at all times.

The Hamworthy MF range of components is fully compatible with the Masterflue ME range, which is a fully welded single wall flue system, allowing twin wall and single wall systems to be linked where the design can benefit from such a feature.

Using this technique, it may be possible to construct a combined single and twin wall flue system to satisfy the requirements of a condensing system, and reducing the cost on long flue runs.

CE Mark

British Standards for flues are being superseded by new European Standards under the Construction Products Directive and the harmonised norm for metal chimney systems is BS EN 1856-1:2003 Requirements for metal chimneys - part 1: System chimney products.

The Masterflue MF range has a European Certificate and bears the CE mark, the customers assurance of conformity with European Standards and requirements of the marketplace.

Support & Load bearing data

Masterflue MF system

Support and load bearing (m)							
	A	B	C		D		
∅		MFZ	MFMB/V	MFMB	MFMB/SV	MFMB/V	MFMB
100	18	30	3	3	3	2	1.5
130	18	30	3	3	3	2	1.5
150	18	30	3	3	3	2	1.5
180	17	25	3	3	3	2	1.5
200	17	25	3	3	3	2	1.5
250	15	20	3	3	3	2	1.5
300	14	15	2	2	3	2	1.5
350	13	15	2	2	3	2	1.5
400	12	12	2	2	3	2	1.5
∅		SMD+MFMO	MFMB/V	MFMB	MFMB/V	MFMB	
450	12	13	4	2	2	1.5	
500	11	12	4	2	2	1.5	
600	10	10	4	2	2	1.5	

A - Maximum supportable height above tee piece when chimney is supported by the wall support at base.

B - Maximum supportable height that can be borne by the wall support.

C - Maximum distance between lateral supports i.e. wall bands and wall supports.

D - Maximum permitted free standing height above last support.

Selection table for supports MF 100 - 400					
Adjustment	50-90	50-200		50-400	
Wall band	MFMB	MFMB/V 1 MFMB/V 2	50-100 150-200	MFMB/V 3 MFMB/V 4	250-300 200-400
Wall support	MFZ 1 incl. MFMO	MFZ 1 incl. MFMO	-200	MFZ 2 incl. MFMO	-400
Wall band above last support		MFMB/SV 1 MFMB/SV 2 incl. MFSK (2X)	50-100 150-200	MFMB/SV 3 MFMB/SV 3 incl. MFSK (2X)	250-300 200-400
Wall support	MFMK 1 + MFAPU	MFMK 1 + MFAPU	50-200	MFMK 2 + MFAPU	50-400

Selection table for supports MF 450-600							
Diameter	Type of wallband	Adjustable distance wall-chimney (mm)					Max. allowed height on supports (m.)
		50 - 90	50 - 100	100 - 200	200 - 300	300 - 400	
450	MFMB	S MD0399					13
	MFMBV1		S MD0399				
	MFMBV2			S MD0599			
	MFMBV3				S MD0899		
	MFMBV4					S MD1199	
500	MFMB	S MD0499					12
	MFMBV1		S MD0499				
	MFMBV2			S MD0699			
	MFMBV3				S MD0999		
	MFMBV4					S MD1299	
600	MFMB	S MD0599					10
	MFMBV1		S MD0599				
	MFMBV2			S MD0799			
	MFMBV3				S MD1099		
	MFMBV4					S MD1399	

Wall Supports SMD:

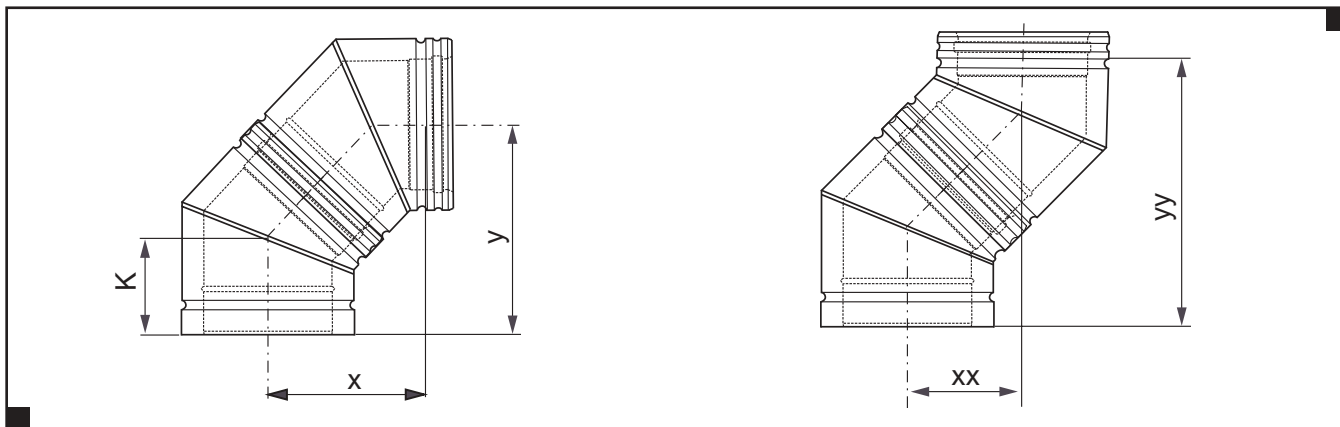
The wall support SMD comes in various sizes, depending on the chimney diameter and the required distance to the wall. The supports come as a pair, and can be used in combination with matching wall bands MFMB - MFMBV.

The selection table to the left can be used to determine the correct wall support and matching wall band. This table also indicates the maximum allowed height in metres on a support.

Please see page 24 for further details on this component.

Flue offset data

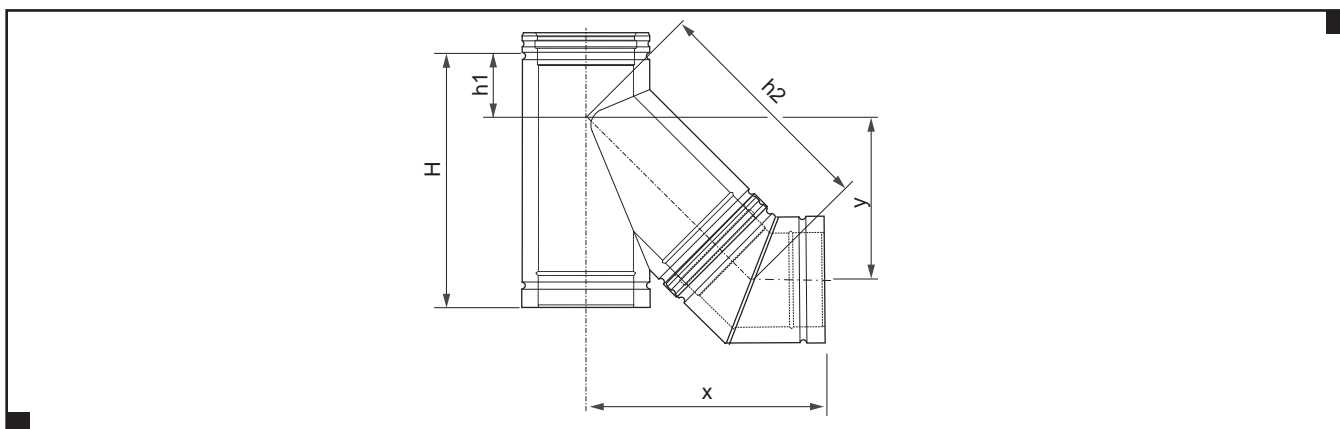
Masterflue MF System



Approximate mixed, hot and cold capacities of appliances in normal use.
Cold water 10°C (50°F), hot water 60°C (140°F), mixed water 40°C (104°F)

2 MFB 45"

ÿ	100	130	150	180	200	250	300	350	400	450	500	600
K	88	93	98	103	108	118	143	143	153	175	185	206
x	151	163	176	187	199	223	284	284	308	422	446	497
y	187	199	212	223	235	259	320	320	344	422	446	497
xx	99	106	113	120	127	141	177	177	191	247	261	291
yy	239	256	273	290	307	341	427	427	461	597	631	703



MFT 45° + MFB 45°

ÿ	130	150	180	200	250	300	350	400	450	500	600
H	400	400	450	500	600	700	750	850	1010	1010	1150
h1	100	100	113	125	150	175	188	225	180	190	200
h2	333	362	422	453	529	568	629	699	868	938	1156
x	330	355	401	428	482	545	598	647	788	848	1023
y	237	256	298	320	374	402	445	494	613	663	817

Flue off-set Data

Masterflue MF system

Length	Angle	Dimension	100	130	150	180	200	250	300	350	400
0	15"	a x	273 36	293 39	313 41	332 44	352 46	391 52	391 52	391 52	490 64
	30"	a x	259 70	278 75	297 80	315 85	334 90	371 100	371 100	371 100	465 125
	45"	a x	239 99	256 106	273 113	290 120	307 127	341 141	427 177	427 177	461 191
250mm	15"	a x	515 101	534 103	554 106	574 108	593 111	633 116	633 116	633 116	731 129
	30"	a x	476 195	495 200	513 205	532 210	551 215	588 225	588 225	588 225	681 250
	45"	a x	416 276	433 283	450 290	467 297	484 304	518 318	604 354	604 354	638 368
500mm	15"	a x	756 165	776 168	796 171	815 173	835 176	874 181	874 181	874 181	972 194
	30"	a x	692 320	711 325	730 330	748 335	767 340	804 350	804 350	804 350	898 375
	45"	a x	593 453	610 460	627 467	644 474	661 481	695 495	780 530	780 530	814 544
750mm	15"	a x	998 230	1017 233	1037 235	1057 238	1076 240	1116 246	1116 246	1116 246	1214 259
	30"	a x	909 445	928 450	946 455	965 460	984 465	1021 475	1021 475	1021 475	1114 500
	45"	a x	769 629	786 636	803 643	821 651	838 658	872 672	957 707	957 707	991 721
1000mm	15"	a x	1239 295	1259 297	1279 300	1298 303	1318 305	1357 310	1357 310	1357 310	1455 323
	30"	a x	1125 570	1144 575	1163 580	1181 585	1200 590	1237 600	1237 600	1237 600	1331 625
	45"	a x	946 806	963 813	980 820	997 827	1014 834	1049 849	1134 884	1134 884	1168 898
1250mm	15"	a x	1481 359	1500 362	1520 365	1540 367	1559 370	1599 375	1599 375	1599 375	1697 388
	30"	a x	1342 695	1361 700	1379 705	1398 710	1417 715	1454 725	1454 725	1454 725	1547 750
	45"	a x	1123 983	1140 990	1157 997	1174 1004	1191 1011	1225 1025	1311 1061	1311 1061	1345 1075
1500mm	15"	a x	1722 424	1742 427	1761 429	1781 432	1801 435	1840 440	1840 440	1840 440	1938 453
	30"	a x	1558 820	1577 825	1596 830	1614 835	1633 840	1670 850	1670 850	1670 850	1764 875
	45"	a x	1300 1160	1311 1167	1334 1174	1351 1181	1368 1188	1402 1202	1487 1237	1487 1237	1522 1252
1750mm	15"	a x	1964 489	1983 491	2003 494	2023 497	2042 499	2082 504	2082 504	2082 504	2180 517
	30"	a x	1775 945	1794 950	1812 955	1831 960	1850 965	1887 975	1887 975	1887 975	1980 1000
	45"	a x	1476 1336	1494 1344	1511 1351	1528 1358	1545 1365	1579 1379	1664 1414	1664 1414	1698 1428

Flue off-set Data

Masterflue MF system

450	500	600
462	472	511
61	62	67
439	448	485
118	120	130
691	727	768
286	301	318
703	713	753
126	127	132
655	664	702
243	245	255
868	904	945
463	478	495
945	955	994
190	192	197
872	881	918
368	370	380
1045	1081	1122
640	655	672
1186	1196	1236
255	256	261
1088	1097	1135
493	495	505
1222	1258	1299
817	832	849
1428	1438	1477
320	321	326
1305	1314	1351
618	620	630
1398	1434	1475
993	1008	1025
1669	1679	1719
384	386	391
1521	1530	1568
743	745	755
1575	1611	1652
1170	1185	1202
1911	1921	1960
449	450	456
1738	1747	1784
868	870	880
1752	1788	1829
1347	1362	1379
2152	2162	2202
514	515	520
1954	1963	2001
993	995	1005
1929	1965	2006
1524	1539	1556

