Data in Metrics

MF-PIPE

A great tool for constructing pipe sheet pile walls:

MF-Pipe Selection Lists

Find out the most economical combinations for vibration and impact pile driving as well as for the DTH procedure.

MF-Pipe - Vibro-/Impact driving with SteelWall connectors

MF-Pipe - DTH procedure with SteelWall connectors

What is MF-Pipe?

MF-Pipe is a steel pipe with welded SteelWall MF connectors that together form a MF-Pipe:
Steel pipe + MF connectors = MF-Pipe.
Contiguous MF-Pipes in a row form a MF-Pipe sheet pile wall. Both longitudinally and spirally welded pipes are suitable.

What are MF-Pipes used for?

MF-Pipes are mainly used for vertical support or waterfront-structures, from small excavation pits to the heaviest walls in deep water harbours. MF-Pipes are also suitable for horizontal protective screens, e.g. in tunnel construction. Common pipe diameters range from 400 mm to 3000 mm and pipe lengths of up to 100 m – supplied in sections – are possible. MF-Pipe sheet pile walls are often the more economical load-bearing systems in comparison.

What are MF connectors?

MF connectors have been specially developed for the requirements of pipe sheet piles. MF connectors are manufactured in Europe.
MF connectors offer a modular system that can be used to realise different pipe spacings as well as special installation procedures, such as DTH or Overburden Drilling. All MF-Pipe connectors have a minimum rotation angle of 20° (except MF64/MF64-IC) and are independently tested to withstand tensile forces from 2550 up to 3400 kN/m.
Connector play and traction are essential properties for difficult pile-driving conditions or longer MF-Pipes. MF-Pipe connectors can be provided with sealing material for tightness requirements. By injection through the integrated injection channel, the F40-IC connector can provide for restoration or reinforcement of the base support.

Advantages of MF-Pipes:

Even if the framework conditions on construction sites are never the same, the following general advantages still apply:
With drilling procedures, MF-Pipes can generally be installed in the correct position, with only minor deviations, and obstacles can be drilled through. The drilling procedures are low in vibration and therefore the first choice when it comes to low noise, environmental protection, as well as in inner cities or sensitive building environments. Soil replacement, as was often necessary when steel sheet piles or beam combination walls were used, is normally not necessary with drilling procedures. MF-Pipes are more environmentally friendly than comparable support systems, as pipes can be manufactured almost worldwide in any country and only the MF connectors need to be transported by container to the respective pipe mill. The CO_2 emissions are the lowest possible for heavy load-bearing elements due to shortest possible transport routes.
In addition, MF-Pipes are easy to divide due to precise manufacturing tolerances and can be reassembled by welding.

Who supplies MF-Pipes?

Ready-to-install MF-Pipes are available from your qualified steel pipe manufacturers or steel pipe dealers.
MF connectors are available from SteelWall: www.steelwall.eu.

For MF connector data, see pages 10-11.

Advantages of MF-Pipes in planning and calculation:

- Section modulus above 40 000 cm^3/m for deep-water ports are already possible with a pipe diameter of 2500 mm. Length restrictions are practically non-existent. Tight manufacturing tolerances allow MF-Pipes to be welded together, even while pile driving if necessary.
- System width optimises cost-effectiveness in comparison with conventional wall structures.
- Low deflection thanks to the high moment of inertia of MF-Pipes.
- Vertical loads are transferred to the ground in the best possible way due to the large base area of MF-Pipes.
- Shear forces usually only stress partial cross-sectional areas of MF-Pipes.
- Anchor forces can be introduced into the MF-Pipes through uncomplicated force transmission structures.
- Changes of direction and corners are simply realised by moving the next MF-Pipe connectors to the corresponding angle on the pipe outer surface. This way, dedicated corner structures are not required.
- Sealing of MF-Pipe connectors can be easily realised – e.g. by hot sealing with Steelant-B – before installation.
- Reinforcement of the base support can be realised cost-effectively through the integrated injection channel of the F40-IC connector.
- Load-bearing capacity reserves can be implemented with MF-Pipe, e.g. through subsequent concreting.
- Tensile force requirements of more than 2550 kN/m are met by all MF-Pipe connectors. This value is already a normative requirement in some countries.

Advantages of MF-Pipes in difficult installation conditions:

MF-Pipe opens up the possibility of applying pile-driving aids within the MF-Pipes to maintain the rate of penetration into the ground. A penetration speed of at least 1 m/min for Vibro-/Impact driving should be achieved in order to minimise not only damage that can occur, for example, due to the own impedance of the pipe in case of faltering insertion, but also negative impacts on the immediate surroundings by avoiding excessive vibrations and possible subsidence. Pile-driving aids in the free MF-Pipe interior, can be e.g. additional water flushing, dredging or drilling.
Special attention should be paid to pile driving to exclude negative impacts on the positioning. Relevant guidance on pile-driving aids and procedures in this regard can be found in commonly used manuals such as EAU, CUR, TESPA, NASSPA, etc. Deformations of the pipe base, in particular ovalisation, can be reduced or avoided by reinforcement collars during vibration or impact pile-driving procedures. Recommendations from some countries are close-fitting and welded collars made of pipes of the same material, externally and/or internally fitted, with a minimum length of 300 mm and a minimum steel thickness of 9 mm. A kind of cutting or chiselling effect can be achieved by slightly lifting the collars from the base of the pipe. Approximately twice the wall thickness of the pipe is specified as the height of the offset. Leading/lagging, or positional corrections in vibration and impact pile-driving procedures can be made possible by free vertical strips (gaps) in the collars, and therefore deliberate slight deformations of the MF-Pipes.
From sheet pile driving technology (e.g. TESPA or Delmag technology), attachment and position correction with additional resistors was established. It is necessary to carry out on-site tests on the position and size of the free strips in the collars and to carry out a correction in small steps, spread over several pipes, to prevent damage. For example, leading could be corrected by implementing gaps in the wall axis (slight widening of the pipe base) and lagging could be corrected by implementing gaps at right angles to the wall axis (slight compression of the pipe base).
Due to different project conditions all over the world, quantitative generalisation or guarantee of success of this procedure cannot be given, which also applies for installation of sheet piles. Rocky soils or layers with high density can be well controlled by drilling procedures (DTH, Overburden). The pipes are drilled into the ground with very high positioning accuracy and the risk of damage is minimised. Starting in Scandinavia, this method has shown high efficiency in difficult conditions. Any soil replacement that may be necessary for conventional pile driving is usually no longer required. SteelWall MF64 and MF64-IC connection profiles have been specially designed for MF-Pipe and the DTH procedure. With the DTH method, a rotatable ring bit with an approx. 4 cm larger diameter is welded to the pipe base for protection of the connection profiles. The bores are started with M22 in driving direction ahead. The F40 or the F40-IC is threaded in. Thanks to this precise procedure, the rotatable ring bits reach their final position with a small lateral distance in the ground. This way, the MF64 and MF64-IC connectors are optimally and almost completely protected during installation. The injection channel of the F40-IC allows subsequent filling of the drilled cavity for restoration of the base support for the pipes.

Less vibrations and high penetration force allow the use of the DTH procedure especially in sensitive environments, such as inner cities, near hospitals, data centres, etc. Despite slow penetration into the ground, the construction time is often shortened in the end, as additional measures are practically not necessary in comparison with conventional pile driving.
DTH has so far been used for pipe diameters of up to 1219.2 mm and is under development for diameters of up to 1524 mm.
Other drilling procedures already exist for pipe diameters of up to 1524 mm.

MF-Pipe selection list:

In order to narrow down the almost infinite choice of MF-Pipe types in a sensible and clear way, **the most economical combinations** for vibration and impact pile driving as well as for the DTH procedure are listed in the following tables.
MF-Pipe has been consistently sorted for vibration and impact pile driving in ascending order of section modulus and weight. MF-Pipe-DTH is considered according to ascending section modulus. For special project requirements such as corrosion resistance, greater steel thickness for small pipe diameters, their limitation due to confined space, or other circumstances, please inform us by email: **info@mf-pipe.com**. We will be happy to provide you with an individual and economical MF-Pipe solution from the detailed tables.

All MF-Pipe selection lists have been drawn up according to the following criteria:

Pipe diameter: OD 400 - 2500 mm (road transport)
Table works with OD <= 400 mm already exist
Wall thickness: t min >= 12 mm or OD/90 up to OD 2000 mm,
t min >= OD/100 for OD >= 2000 mm
DTH: OD 400 - 1500 mm

MF-Pipe types are specified by the following code in only one line:

CODE
MF- Pipe - 56 - DTH - MF64-IC - 5557 - 330 - 600.0 - 14

with

56 = Abbreviation for MF-Pipe type
DTH = Reference to special installation procedure (currently only for DTH)
MF64-IC = SteelWall connector: (MF64 and MF64-IC only for DTH procedures)
M = male
F = female
64 = pipe spacing in mm
IC = injection channel
5557 = Section modulus in cm^3/m. Only the pipes are taken into account.
330 = Weight in kg/m^2, length of connectors calculated with 97% of the pipe length
600.0 = Outer diameter of the pipe in mm
14 = Wall thickness of the pipe in mm.

This information leads to the most important technical data of the MF-Pipe sheet pile wall.
Only the individual length of the pipes from static calculation must still be added. A short form is already sufficient to reliably identify the code and other information in the selection lists: For example MF-Pipe-56-DTH-MF64-IC or MF- Pipe-191-MF230 (for vibration or impact pile driving always without special reference).

In the tables, there are two more blocks with further information:

SYSTEM

b_{system} = Width in metres from centre of pipe to centre of pipe
Iy_{system} = Moment of inertia in cm^4/m

$_{max}M_{elastic}$ of R_{eH} or $_{min}R_{t0.5}$ and safety factor = 1.0

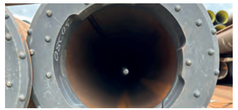
Indicates the bending moment that can be absorbed, calculated according to the global safety system, in kNm/m for different steel grades, taking into account the conditions mentioned. This enables corresponding conversion of the bending moments into other calculation methods or simple conversion of country-specific specifications.

Formulas:
Iy = $(Pi/64) \times (D^4-d^4)/b_{system}$
Wy = $(Pi/32) \times (D^4-d^4)/b_{system}$
Sigma = M / Wy

Code						System		$_{max}M_{elast.}$ of $_{min}R_{eH}$ or $_{min}R_{t0.5}$ and safety factor = 1.0					
	Connector	$Wy_{el\ system}$ cm³/m	$G_{97\%}$ kg/m²	OD mm	t mm	b_{system} m	$Iy_{el\ system}$ cm⁴/m	S355J2 kNm/m	S460MH kNm/m	X60 kNm/m	X65 kNm/m	X70 kNm/m	X80 kNm/m
MF-Pipe - 56	MF230	5598	258	800,0	12	1,030	223915	1987	2575	2323	2519	2715	3107
MF-Pipe - 65	MF230	6490	261	900,0	12	1,130	292066	2304	2986	2693	2921	3148	3602
MF-Pipe - 74	MF230	7391	264	1000,0	12	1,230	369548	2624	3400	3067	3326	3585	4102
MF-Pipe - 80	MF130	8045	280	1000,0	12	1,130	402251	2856	3701	3339	3620	3902	4465
MF-Pipe - 90	MF230	8965	286	1100,0	13	1,330	493063	3182	4124	3720	4034	4348	4975
MF-Pipe - 100	MF230	9952	289	1200,0	13	1,430	597134	3533	4578	4130	4479	4827	5523
MF-Pipe - 107	MF130	10701	304	1200,0	13	1,330	642031	3799	4922	4441	4815	5190	5939
MF-Pipe - 109	MF100	10947	309	1200,0	13	1,300	656847	3886	5036	4543	4926	5310	6076
MF-Pipe - 113	MF63	11268	313	1200,0	13	1,263	676089	4000	5183	4676	5071	5465	6254
MF-Pipe - 115	MF130	11495	326	1200,0	14	1,330	689685	4081	5288	4770	5173	5575	6380
MF-Pipe - 118	MF100	11760	331	1200,0	14	1,300	705601	4175	5410	4880	5292	5704	6527
MF-Pipe - 126	MF230	12569	332	1300,0	15	1,530	817012	4462	5782	5216	5656	6096	6976
MF-Pipe - 130	MF180	12994	340	1300,0	15	1,480	844613	4613	5977	5393	5847	6302	7212
MF-Pipe - 134	MF130	13448	349	1300,0	15	1,430	874145	4774	6186	5581	6052	6522	7464
MF-Pipe - 137	MF100	13737	354	1300,0	15	1,400	892877	4876	6319	5701	6181	6662	7624
MF-Pipe - 146	MF230	14600	355	1400,0	16	1,630	1022018	5183	6716	6059	6570	7081	8103
MF-Pipe - 156	MF130	15555	372	1400,0	16	1,530	1088817	5522	7155	6455	7000	7544	8633
MF-Pipe - 168	MF230	16783	378	1500,0	17	1,730	1258761	5958	7720	6965	7553	8140	9315
MF-Pipe - 173	MF180	17283	386	1500,0	17	1,680	1296224	6135	7950	7172	7777	8382	9592
MF-Pipe - 178	MF130	17813	396	1500,0	17	1,630	1335985	6324	8194	7392	8016	8639	9886
MF-Pipe - 191	MF230	19119	401	1600,0	18	1,830	1529526	6787	8795	7934	8604	9273	10611
MF-Pipe - 197	MF180	19656	410	1600,0	18	1,780	1572491	6978	9042	8157	8845	9533	10909
MF-Pipe - 202	MF130	20224	420	1600,0	18	1,730	1617938	7180	9303	8393	9101	9809	11224
MF-Pipe - 216	MF230	21607	425	1700,0	19	1,930	1836601	7671	9939	8967	9723	10479	11992

Code						System		$_{max}M_{elast.}$ of $_{min}R_{eH}$ or $_{min}R_{t0.5}$ and safety factor = 1.0					
	Connector	$Wy_{el\ system}$ cm³/m	$G_{97\%}$ kg/m²	OD mm	t mm	b_{system} m	$Iy_{el\ system}$ cm⁴/m	S355J2 kNm/m	S460MH kNm/m	X60 kNm/m	X65 kNm/m	X70 kNm/m	X80 kNm/m
MF-Pipe - 222	MF180	22182	434	1700,0	19	1,880	1885447	7875	10204	9205	9982	10758	12311
MF-Pipe - 228	MF130	22788	443	1700,0	19	1,830	1936962	8090	10482	9457	10255	11052	12647
MF-Pipe - 242	MF230	24247	448	1800,0	20	2,030	2182271	8608	11154	10063	10911	11760	13457
MF-Pipe - 249	MF180	24860	457	1800,0	20	1,980	2237379	8825	11435	10317	11187	12057	13797
MF-Pipe - 255	MF130	25504	467	1800,0	20	1,930	2295342	9054	11732	10584	11477	12369	14155
MF-Pipe - 270	MF230	27040	472	1900,0	21	2,130	2568823	9599	12439	11222	12168	13115	15007
MF-Pipe - 277	MF180	27690	481	1900,0	21	2,080	2630573	9830	12738	11491	12461	13430	15368
MF-Pipe - 284	MF130	28372	491	1900,0	21	2,030	2695366	10072	13051	11774	12768	13761	15747
MF-Pipe - 300	MF230	29985	496	2000,0	22	2,230	2998543	10645	13793	12444	13493	14543	16642
MF-Pipe - 307	MF180	30673	505	2000,0	22	2,180	3067317	10889	14110	12729	13803	14876	17024
MF-Pipe - 314	MF130	31393	515	2000,0	22	2,130	3139320	11145	14441	13028	14127	15226	17423
MF-Pipe - 331	MF230	33083	519	2100,0	23	2,330	3473718	11744	15218	13729	14887	16045	18361
MF-Pipe - 338	MF180	33809	529	2100,0	23	2,280	3549896	12002	15552	14031	15214	16397	18764
MF-Pipe - 346	MF130	34567	539	2100,0	23	2,230	3629490	12271	15901	14345	15555	16765	19184
MF-Pipe - 363	MF230	36333	543	2200,0	24	2,430	3996634	12898	16713	15078	16350	17622	20165
MF-Pipe - 371	MF180	37096	553	2200,0	24	2,380	4080597	13169	17064	15395	16693	17992	20588
MF-Pipe - 379	MF130	37892	563	2200,0	24	2,330	4168163	13452	17431	15725	17052	18378	21030
MF-Pipe - 397	MF230	39735	567	2300,0	25	2,530	4569577	14106	18278	16490	17881	19272	22053
MF-Pipe - 417	MF230	41678	569	2400,0	25	2,630	5001302	14796	19172	17296	18755	20214	23131
MF-Pipe - 436	MF230	43621	571	2500,0	25	2,730	5452644	15486	20066	18103	19630	21156	24210
MF-Pipe - 444	MF180	44435	580	2500,0	25	2,680	5554373	15774	20440	18441	19996	21551	24661
MF-Pipe - 453	MF130	45280	589	2500,0	25	2,630	5659969	16074	20829	18791	20376	21961	25130
MF-Pipe - 462	MF180	46157	602	2500,0	26	2,680	5769597	16386	21232	19155	20771	22386	25617
MF-Pipe - 470	MF130	47034	612	2500,0	26	2,630	5879285	16697	21636	19519	21165	22812	26104

MF-Pipe - DTH procedure with MF64 / MF64-IC



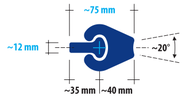
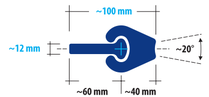
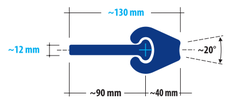
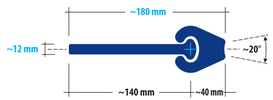
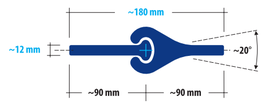
Code							System		$_{max}M_{elast.}$ of $_{min}R_{eH}$ or $_{min}R_{t0.5}$ and safety factor = 1.0					
		Connector	$Wy_{el\ system}$ cm³/m	$G_{97\%}$ kg/m²	OD mm	t mm	b_{system} m	$Iy_{el\ system}$ cm⁴/m	S355J2 kNm/m	S460MH kNm/m	X60 kNm/m	X65 kNm/m	X70 kNm/m	X80 kNm/m
MF-Pipe - 30	DTH	MF64/-IC	2969	283,2	400,0	12	0,464	59379	1054	1366	1232	1336	1440	1648
MF-Pipe - 32	DTH	MF64/-IC	3192	303,1	400,0	13	0,464	63842	1133	1468	1325	1436	1548	1772
MF-Pipe - 34	DTH	MF64/-IC	3412	323,0	400,0	14	0,464	68234	1211	1569	1416	1535	1655	1894
MF-Pipe - 45	DTH	MF64/-IC	4480	326,9	500,0	14	0,564	111990	1590	2061	1859	2016	2173	2486
MF-Pipe - 56	DTH	MF64/-IC	5557	329,7	600,0	14	0,664	166710	1973	2556	2306	2501	2695	3084
MF-Pipe - 66	DTH	MF64/-IC	6640	331,7	700,0	14	0,764	232406	2357	3054	2756	2988	3220	3685
MF-Pipe - 71	DTH	MF64/-IC	7084	353,4	700,0	15	0,764	247935	2515	3259	2940	3188	3436	3932
MF-Pipe - 75	DTH	MF64/-IC	7524	375,0	700,0	16	0,764	263325	2671	3461	3122	3386	3649	4176
MF-Pipe - 80	DTH	MF64/-IC	7959	396,5	700,0	17	0,764	278578	2826	3661	3303	3582	3860	4417
MF-Pipe - 84	DTH	MF64/-IC	8391	418,0	700,0	18	0,764	293694	2979	3860	3482	3776	4070	4657
MF-Pipe - 93	DTH	MF64/-IC	9277	399,1	800,0	17	0,864	371095	3293	4268	3850	4175	4500	5149
MF-Pipe - 98	DTH	MF64/-IC	9786	421,0	800,0	18	0,864	391443	3474	4502	4061	4404	4746	5431
MF-Pipe - 100	DTH	MF64/-IC	10009	379,0	900,0	16	0,964	450404	3553	4604	4154	4504	4854	5555
MF-Pipe - 103	DTH	MF64/-IC	10291	442,8	800,0	19	0,864	411633	3653	4734	4271	4631	4991	5711
MF-Pipe - 112	DTH	MF64/-IC	11185	423,4	900,0	18	0,964	503317	3971	5145	4642	5033	5425	6208
MF-Pipe - 126	DTH	MF64/-IC	12586	425,3	1000,0	18	1,064	629319	4468	5790	5223	5664	6104	6985
MF-Pipe - 140	DTH	MF64/-IC	13990	426,9	1100,0	18	1,164	769452	4966	6435	5806	6296	6785	7764
MF-Pipe - 147	DTH	MF64/-IC	14727	449,4	1100,0	19	1,164	809975	5228	6774	6112	6627	7143	8173
MF-Pipe - 154	DTH	MF64/-IC	15395	428,2	1200,0	18	1,264	923716	5465	7082	6389	6928	7467	8544
MF-Pipe - 155	DTH	MF64/-IC	15459	471,9	1100,0	20	1,164	850270	5488	7111	6416	6957	7498	8580
MF-Pipe - 162	DTH	MF64/-IC	16210	450,9	1200,0	19	1,264	972587	5754	7457	6727	7294	7862	8996
MF-Pipe - 168	DTH	MF64/-IC	16802	429,4	1300,0	18	1,364	1092113	5965	7729	6973	7561	8149	9325
MF-Pipe - 170	DTH	MF64/-IC	17020	473,6	1200,0	20	1,264	1021207	6042	7829	7063	7659	8255	9446
MF-Pipe - 177	DTH	MF64/-IC	17694	452,2	1300,0	19	1,364	1150117	6281	8139	7343	7962	8582	9820

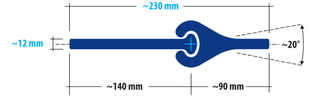
Code							System		$_{max}M_{elast.}$ of $_{min}R_{eH}$ or $_{min}R_{t0.5}$ and safety factor = 1.0					
		Connector	$Wy_{el\ system}$ cm³/m	$G_{97\%}$ kg/m²	OD mm	t mm	b_{system} m	$Iy_{el\ system}$ cm⁴/m	S355J2 kNm/m	S460MH kNm/m	X60 kNm/m	X65 kNm/m	X70 kNm/m	X80 kNm/m
MF-Pipe - 182	DTH	MF64/-IC	18209	430,4	1400,0	18	1,464	1274645	6464	8376	7557	8194	8831	10106
MF-Pipe - 192	DTH	MF64/-IC	19180	453,3	1400,0	19	1,464	1342566	6809	8823	7959	8631	9302	10645
MF-Pipe - 195	DTH	MF64/-IC	19466	497,8	1300,0	21	1,364	1265300	6910	8954	8078	8760	9441	10804
MF-Pipe - 201	DTH	MF64/-IC	20146	476,3	1400,0	20	1,464	1410189	7152	9267	8360	9065	9771	11181
MF-Pipe - 203	DTH	MF64/-IC	20346	520,5	1300,0	22	1,364	1322481	7223	9359	8444	9156	9868	11292
MF-Pipe - 211	DTH	MF64/-IC	21107	499,2	1400,0	21	1,464	1477514	7493	9709	8760	9498	10237	11715
MF-Pipe - 217	DTH	MF64/-IC	21710	477,3	1500,0	20	1,564	1628237	7707	9987	9010	9769	10529	12049
MF-Pipe - 221	DTH	MF64/-IC	22065	522,0	1400,0	22	1,464	1544542	7833	10150	9157	9929	10701	12246
MF-Pipe - 227	DTH	MF64/-IC	22750	500,4	1500,0	21	1,564	1706218	8076	10465	9441	10237	11034	12626
MF-Pipe - 238	DTH	MF64/-IC	23785	523,3	1500,0	22	1,564	1783879	8444	10941	9871	10703	11536	13201

Disclaimer:

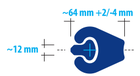
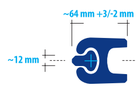
The selection lists do not claim to be complete. Use and application of these tables and their calculated values is at your own risk. Neither SteelWall nor MF-Pipe assume any liability for accuracy nor any errors or damages resulting from the application.
Before application, the data must be checked by qualified specialist engineers.

SteelWall MF connectors for vibration and impact pile driving

Connectors | We recommend continuous welds of at least 6 mm on both sides.	Steel grade	Steel thickness	Standard lengths	Weights	Application	Max. tensile strength	Pile driving methods
MF63 	S355J2	12 mm	8 m 11.8 m	M35: 4.76 kg/m F28: 10.7 kg/m	Pipe pile walls	2552 kN/m (FEM)	Vibration Impact
MF75 	S355J2	12 mm	8 m 11.8 m	M35: 4.76 kg/m F40: 14.28 kg/m	Pipe pile walls	3419 kN/m	Vibration Impact
MF100 	S355J2	12 mm	8 m 11.8 m	M60: 6.9 kg/m F40: 14.28 kg/m	Pipe pile walls	3419 kN/m	Vibration Impact
MF130 	S355J2	12 mm	8 m 11.8 m	M90: 9.76 kg/m F40: 14.28 kg/m	Pipe pile walls	3419 kN/m	Vibration Impact
MF180a 	S355J2	12 mm	8 m 11.8 m	M140: 14.77 kg/m F40: 14.28 kg/m	Pipe pile walls	3419 kN/m	Vibration Impact
MF180b 	S355J2	12 mm	8 m 11.8 m	M90: 9.76 kg/m F90: 18.42 kg/m	Pipe pile walls	2558 kN/m (FEM)	Vibration Impact

Connectors | We recommend continuous welds of at least 6 mm on both sides.	Steel grade	Steel thickness	Standard lengths	Weights	Application	Max. tensile strength	Pile driving methods
MF230 	S355J2	12 mm	8 m 11.8 m	M140: 14.77 kg/m F90: 18.42 kg/m	Pipe pile walls	2558 kN/m (FEM)	Vibration Impact

SteelWall MF connectors for the DTH procedure

Connectors | We recommend continuous welds of at least 6 mm on both sides.	Steel grade	Steel thickness	Standard lengths	Weights	Application	Max. tensile strength	Pile driving method
MF64 	S355J2	12 mm	8 m 11.8 m	M22: 3.42 kg/m F40: 14.28 kg/m	Pipe pile walls	3419 kN/m	DTH procedure only
MF64-IC 	S355J2	10 - 12 mm	8 m 11.8 m	M22: 3.42 kg/m F40-IC: 13.55 kg/m	Pipe pile walls	3164 kN/m	DTH procedure only

MF-Pipe Selection Lists

MF-Pipe is a division of SteelWall ISH GmbH
Tassilostr. 21
82166 Gräfelfing / Germany

Phone: +49-89-74 120 122
Fax: +49-89-74 120 128
E-Mail: info@mf-pipe.com

www.steelwall.eu
www.mf-pipe.com

MF-PIPE