



We Power Your Foundation!



Drillmaster Engineering Technology Co.,Ltd

Headquarters: Depu.Wuhe Enterprise Zone, Changsha, China

Tel: 86-731-84030163

E-mail: info@drillmastergroup.com

www.drillmastergroup.com



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DRILLMASTER

Vibratory Hammer & Impact Hammer



Since 2009
www.drillmastergroup.com

Leading Solution Provider for Foundation Engineering

ABOUT DRILLMASTER

Hunan Drillmaster Engineering Technology Co., Ltd is a leading solution provider for foundation engineering since 2009. As the main enterprise entity, Drillmaster has three subsidiary companies respectively undertaking functions of fabrication and R&D.

We have three brands: "Unimate", "Unidrill" and "Imachine". "Unimate" brand for drilling tools products, including segmental casings, drilling buckets, drilling augers and drilling bits etc.; "Unidrill" brand for kelly bars; "Imachine" brand for used construction machinery.

As a company dedicated to the R&D and manufacture of various rotary drilling tools, attachments and spare parts, by depending on a group of engineers and skilled workers with years of experience in foundation engineering and construction design, Unimate has won more than 20 national patents and takes the lead in terms of drilling technology and quality in China's foundation engineering industry.

With the advanced production facilities, we have completed the designs of drilling tools, attachments and construction methods in many large-scale and complicated foundation projects such as 2014 World Cup Stadium, 2016 Olympic Games Stadium, Wuhan-Guangzhou High Speed Railway, Shanghai-Kunming High Speed Railway, Changsha subway, etc., which have helped us to win a good reputation among our clients.

UNIMATE highly focuses on international cooperation and communication. Till present, our drilling tools have been exported to over 80 countries and regions such as the U.S, Canada, Australia, Russia, Spain, Mexico, UAE, Saudi Arabia, New Zealand, South Africa, Algeria, etc.



HYDRAULIC VIBRATORY HAMMER

Heavy duty lifting ring

Two stage suppressor design protects crane boom better, and also increases pile line pull force.

Deep hole drilling top plate eliminates unwanted hoses that can cause downtime.

Integrated Upending-Pile Driving System

Custom-engineered German FAG high-speed, heavy-duty bearings extend the vibro hammer's service life by 30% under extreme loads."

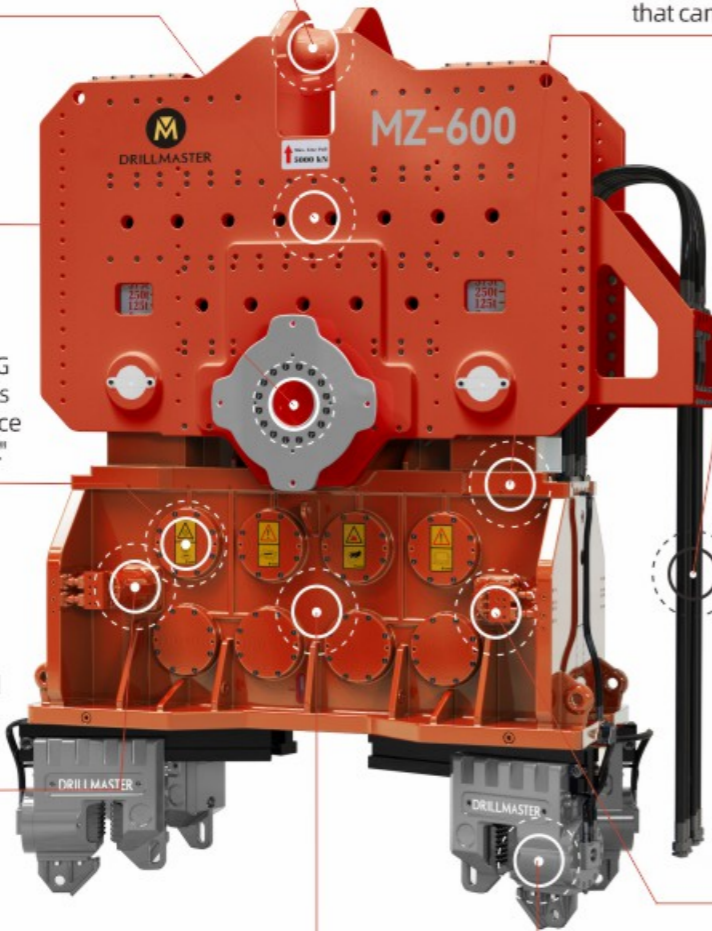
Hydraulic motors are recessed which eliminates the need for bolted onguards. Less parts - less problems.

Using Eaton or Manuli hydraulic hose, distribution manifold makes good arrangement of the hoses

Drillmaster's hydraulic system adopts the world top brand in the hydraulic industry-Rexroth.

A dual forced + splash lubrication system ensures optimal grease distribution during operation while effectively reduce heat buildup.

The hydraulic vibratory hammer clamp is crafted from high-strength alloy through casting, precision-machined with CNC technology, and integrates a hydraulic locking cylinder, ensuring a sturdy yet lightweight structure.



MZ-180B



MZ-230F



MZ-400L



MZ-400VM



MZ-500B



MZ-800B



MZ-800BX2

Key Technical Parameter	MZ-90D	MZ-110D	MZ-150B	MZ-180B	MZ-230F	MZ-230B	MZ-280L	MZ-300
Eccentric Moment (kg. m)	26	32	46	51	33.5	76	92	137
Max. Frequency (rpm)	1800	1800	1700	1800	2500	1700	1700	1410
Centrifugal Force (kn)	920	1140	1465	1810	2300	2410	2900	3000
Max. Line Pull Force (kn)	400	600	600	600	800	800	800	2000
Max. Amplitude (mm)	32	33	25	32	20	32	30	37
Max. Oil Flow (L/min)	350	480	620	680	800	800	890	1015
Length (mm)	1800	1950	3050	2845	2600	2400	3855	2650
Width (mm)	500	600	430	530	785	530	705	1150
Height (mm)	1760	2100	1940	1880	2410	2380	2035	4300
Dynamic weight(kg)	3100	4000	5600	5900	6700	8180	9600	16000
Pipe pile clamp recommended	MZJ-80DCX2	MZJ-80DCX2	MZJ-120DCX2	MZJ-120DCX2	MZJ-160DCX2	MZJ-160DCX2	MZJ-160DCX2	MZJ-160DCX2
Sheet pile clamp recommended	MZJ-120	MZJ-160	MZJ-160	MZJ-200	MZJ-320	MZJ-320	MZJ-320	MZJ-320
Recommended power pack	400P	500P	600P	600P	800P	800P	800P	1200P

Key Technical Parameter	MZ-300L	MZ-360B	MZ-400	MZ-400L	MZ-500B	MZ-600	MZ-800B	MZ-1600
Eccentric Moment (kg. m)	133	102	226	200	250	30	550	1000
Max. Frequency (rpm)	1400	1800	1300	1400	1400	1400	1350	1200
Centrifugal Force (kn)	2860	3630	4185	4300	5370	6450	11000	15790
Max. Line Pull Force (kn)	1600	1000	2500	2500	3200	3500/5000	6000	9600
Max. Amplitude (mm)	30	29	40	37	33	30	35	28
Max. Oil Flow (L/min)	1040	1200	1300	1220	1600	2400	3000	6070
Length (mm)	3460	3150	2700	4600	3590	3400	5400	7830
Width (mm)	850	650	1160	940	1280	1300	2000	1980
Height (mm)	2480	2430	3980	2650	4180	4200	4510	7420
Dynamic weight(kg)	14800	10300	18500	21000	24800/30000	356000/41000	66300	135000
Pipe pile clamp recommended	MZJ-160DCX2	MZJ-200DCX2	MZJ-200DCX2	MZJ-200DCX2	MZJ-160DCX2	MZJ-200DCX2	MZJ-320DCX2	MZJ-320DCX6
Sheet pile clamp recommended	MZJ-320	MZJ-320	MZJ-320					
Recommended power pack	1200P	1200P	1200P	1200P	1600P	2600P	3500P	3000PX2

ELECTRIC VIBRATORY HAMMER



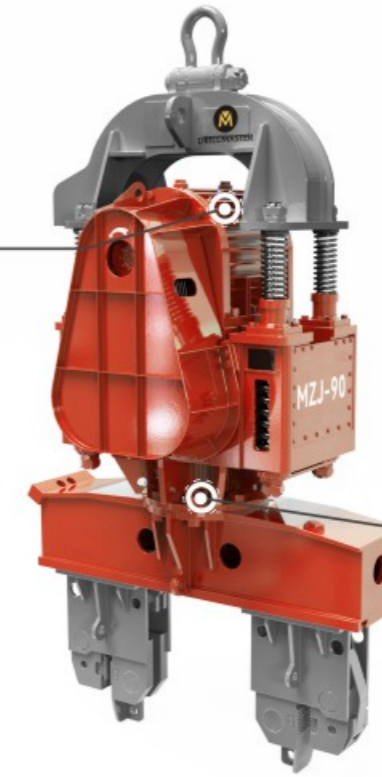
MZ-230VM



MZ-250VM

Key Technical Parameter	MZ-100VM	MZ-130VM	MZ-180VM	MZ-230VM	MZ-250VM	MZ-300VM	MZ-360VM	MZ-400VM
Eccentric Moment (kg. m)	0-15	0-23	0-35	0-40	0-42	0-52	0-62	0-90
Max.Frequency (rpm)	2500	2300	2200	2300	2300	2300	2300	2100
Centrifugal Force (kn)	1030	1340	1860	2320	2430	3020	3600	4350
Max.Line Pull Force (kn)	300	500	600	800	800	800	1000	1000
Max. Amplitude (mm)	13	15	15	19	19	18	18.5	21.5
Max. Oil Flow (L/min)	495	620	820	890	1060	1210	1598	2050
Length (mm)	2100	2240	2300	2910	2910	3050	3100	3100
Width (mm)	515	550	655	600	600	620	680	730
Height (mm)	2250	2230	2350	2300	2300	2300	2380	2670
Dynamic weight(kg)	4500	4880	6300	7850	7600	10800	11500	12800
Pipe pile clamp recommended	MZJ-120	MZJ-160	MZJ-200		MZJ-160DCX2	MZJ-320	MZJ-320	MZJ-320
Sheet pile clamp recommended	MZJ-80DCX2	MZJ-80DCX2	MZJ-120DCX2		MZJ-320	MZJ-200DCX2	MZJ-200DCX2	MZJ-200DCX2
Recommended powepack	500P	600P	800P		1000P	1200P	1600P	2000P

Vibration-optimized motors with 95°C-rated bearings and short-term overload capability for intense operational demands



Lubrication oil sludge sedimentation tank design, this design can make the foreign objects accidentally dropped into the box and the dirt generated by the normal wear and tear of the equipment to settle down without causing damage to the gears or bearings.

Incorporates identical gearbox engineering from hydraulic impact hammers, achieving a sleeker precision-engineered footprint.*



Rubber isolators replace spring dampers, achieving a 10% more compact hammer profile with quieter operation and crane-friendly vibration control.

Dual-function shear pins: Prevent damping rubber overstretch damage while featuring load-indicator markings for real-time vibratory force monitoring.

Single-piece clamp design achieves space-saving dimensions with reinforced clamping force

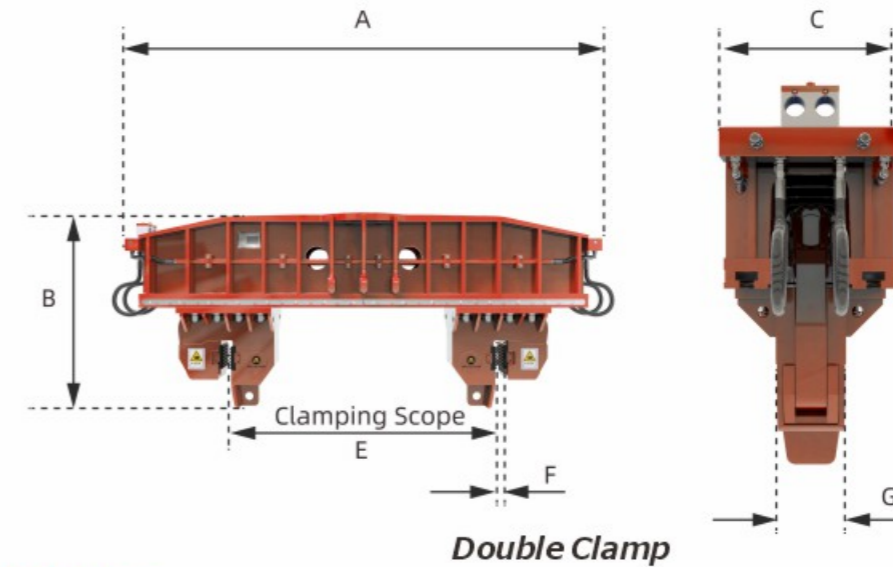
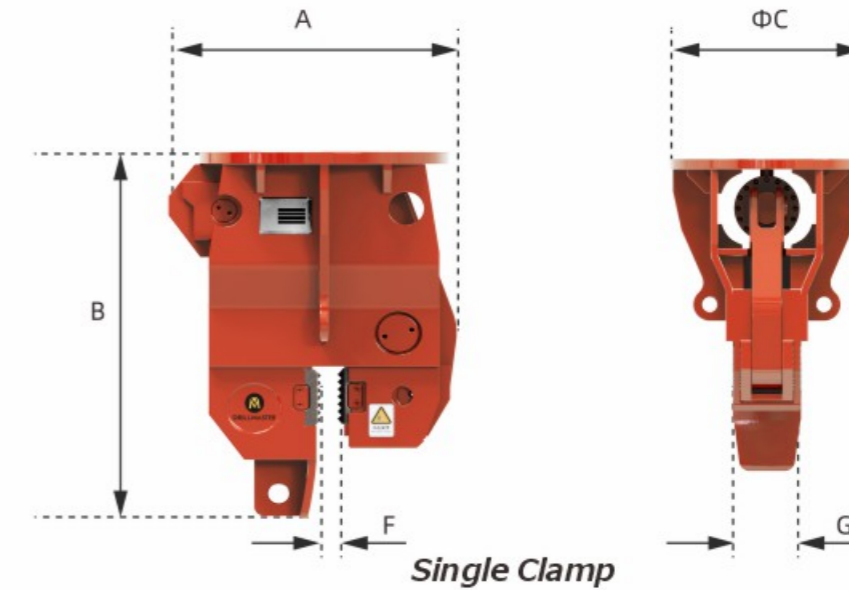
Clamping jaw plate is made of ultra-high-strength special alloy steel with high-precision lathe and grinder, and its wear-resisting characteristics have been consistently affirmed by the market for many years.



Models	MZ-45	MZ-60	MZJ-90	MZJ-90B	MZJ-120	MZJ-135	MZJ-150
Motor Power (KW)	45	60	90	90	120	135	150
Eccentric Moment (NM)	29	50	58	48	76	82	114
Centrifugal Force (kN)	380	492	0-579	0-580	0-823	0-883	0-1140
Max. Frequency (rpm)	1100	960	960	1060	1000	1000	960
Max. Amplitude (mm)	8.5	12	11.5	11	12	13	15
Max.Line Pull (kN)	180	215	254	300	392	420	450
Length(mm)	1600	1600	1700	1600	1850	1900	1950
Width (mm)	1050	1130	1400	1200	1350	1450	1400
Height(mm)	2000	2150	2350	2200	2500	2520	3025
Weight (Clamps not included) (kg)	3800	4500	5700	5200	7000	7200	8700
Wire Cable (mm ²)	25	35	50	50	70	70	70
Clamp	Single Clamp	Single Clamp	Single, Double Clamp	Single, Double Clamp	Single, Double Clamp	Single, Double Clamp	Single, Double Clamp
Clamp scope (mm)	/	/	530-1500	530-1500	600-2000	600-2000	600-2500
Generator Capacity (kW)	150	200	250	250	300	300	350

Models	MZ-180	MZ-200	MZJ-240	MZJ-300	MZJ-400	MZJ-480	MZJ-600
Motor Power (KW)	180	200	240	300	400	480	600
Eccentric Moment (NM)	126	163	184	220	324	368	440
Centrifugal Force (kN)	0-1390	0-1600	0-1822	0-2185	0-3250	0-3644	0-4370
Max. Frequency (rpm)	1000	960	960	960	960	960	960
Max. Amplitude (mm)	12.7	16	14	16.5	16	14	16.5
Max.Line Pull (kN)	530	588	638	686	850	1176	1352
Length(mm)	2100	2150	2300	2450	2150	4000	4420
Width (mm)	1650	1750	1850	2000	2350	1950	2150
Height(mm)	3050	3250	3400	3450	4800	5300	5500
Weight (Clamps not included) (kg)	11000	11500	14500	15000	25000	30000	30500
Wire Cable (mm ²)	95	95	120	120	120	120	150
Clamp	Single, Double, Clamp	Double, Quadruple Clamp	Double, Quadruple Clamp	Double, Quadruple Clamp	Double, Quadruple Clamp	Quadruple Clamp	Quadruple Clamp
Clamp scope (mm)	600-2500	800-3000	800-3000	800-3000	800-3000	/	/
Generator Capacity (kW)	400	450	600	600	800	800	800

Hydraulic Clamps For electric hammers



Single Hydraulic Clamp

Model	Clamping Force (kN)	A mm	B mm	ΦC mm	F mm	G mm	Weight(kg)	Applicable hammer
M-60	600	630	920	540	0-45	180	485	MZ-45
M-70	700	1100	1100	540	0-50	225	750	MZ-60
M-85	850	1100	1150	715	0-50	250	1050	MZJ-90
M-150	1500	1130	1700	800	0-50	250	1650	MZJ-120/MZJ-135/MZJ-150

Double Hydraulic Clamp

Model	Clamping Force	A mm	B mm	C mm	E mm	F mm	G mm	Weight(kg)	Applicable hammer
MXS-60B	600 X 2	2400	1550	900	530-1500	0-50	220	2600	MZJ-90
MXS-60A	600 X 2	2900	1550	900	600-2000	0-50	220	2950	MZJ-120/MZJ-135
MQS-85	850 X 2	3400	1500	900	700-2500	0-50	270	4200	MZJ-180
MQS-150	1500 X 2	3950	1700	1100	800-3000	0-50	270	6300	MZJ-200/MZJ-240/MZJ-300
MQS-70	700 X 2	3400	1400	900	600-2500	0-50	270	4000	MZJ-150

Electrical Hydraulic Control Cabin

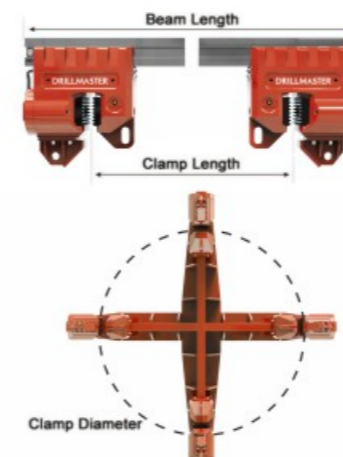
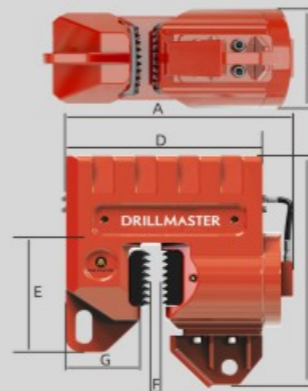
Variable Frequency Control Cabinet Parameters.



Power Capacity	75 kw	90 kw	132 kw	185 kw	310 kw	400 kw	500 kw
Applicable Model	MZ-45	MZ-60	MZJ-90 MZJ-90B	MZJ-120 MZJ-135 MZJ-150	MZJ-200 MZJ-180 MZJ-240	MZJ-300	MZJ-400
Electric Parts for Domestic Market	Famous Domestic Brand in China						
Electric Parts for Oversea Market	Siemens, Schneider etc.						
Hydraulic Oil Pump	Italian Brand						
Operate Method	Both wire and wireless control						
Lighting Equipment	LED Light						

Hydraulic Clamps for MZ Series

Ensure the precision of every single detail



Sheet Pile Clamp Model	MZJ-120	MZJ-160	MZJ-200	MZJ-320
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Clamping Force (kN)	1200	1600	2000	3200
Working Pressure (bar)	320	320	320	320
Weight (kg)	700	1150	1300	2080
Max.Holding Thickness	40	55	55	55
Size (mm)	L 870	L 1080	L 1105	L 1220
	W 360	W 380	W 438	W 480
	H 790	H 940	H 1030	H 1140

Pipe Pile Clamp Model	MZJ-80DC	MZJ-120DC	MZJ-160DC	MZJ-200DC	MZJ-320DC
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Clamping Force (kN)	800	1200	1600	2000	3200
Working Pressure (bar)	320	320	320	320	320
Weight (kg)	580	820	1120	1420	2980
Max.Holding Thickness	55	55	65	85	95
Size (mm)	L 685	L 740	L 860	L 970	L 1170
	W 300	W 360	W 382	W 440	W 520
	H 650	H 880	H 920	H 920	H 125

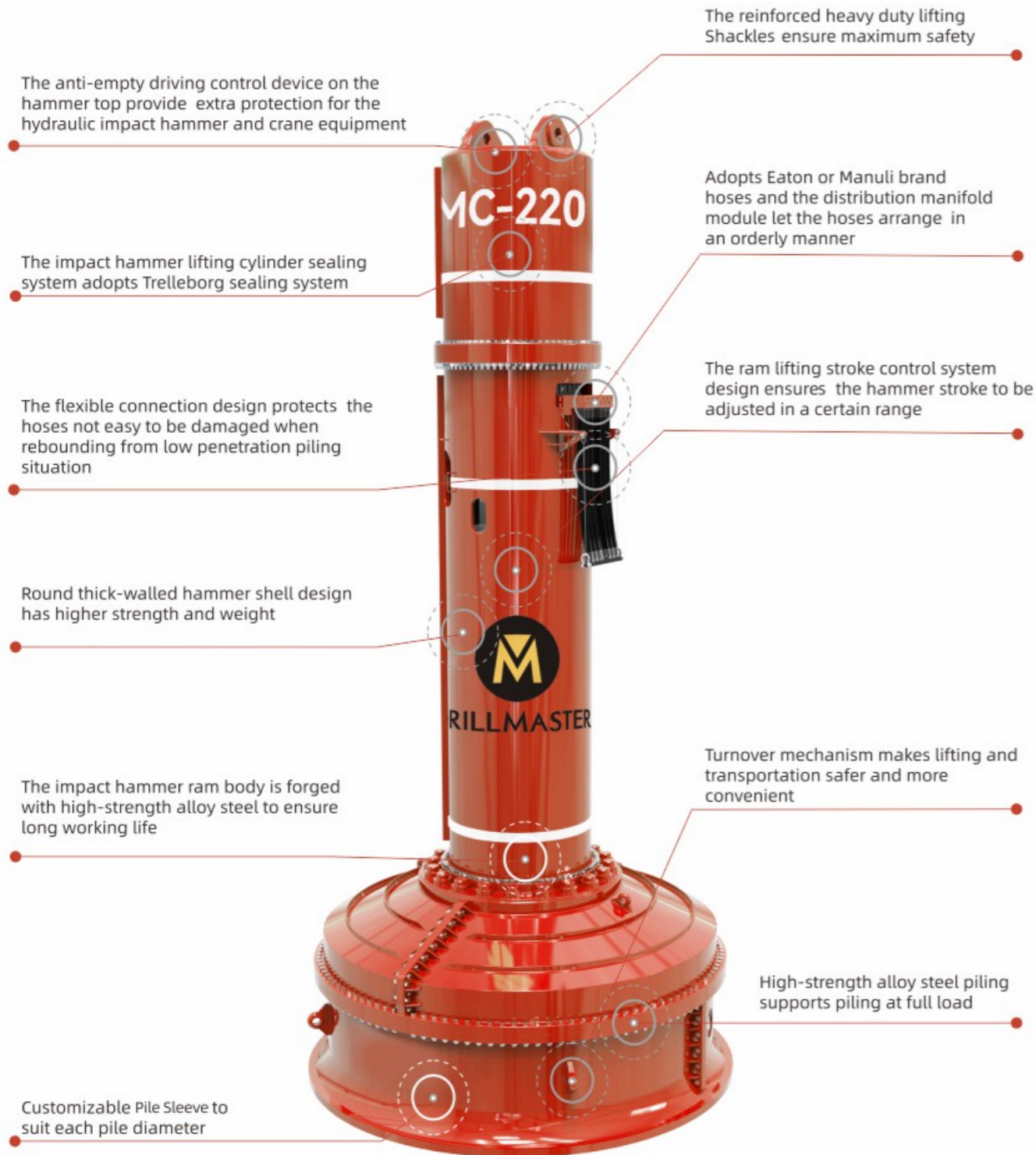
Pipe pile clamps	MZJ-80DC	MZJ-120DC	MZJ-160DC	MZJ-200DC	MZJ-320DC
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A (mm)	690	740	860	970	1170
B (mm)	795	880	920	950	1225
C (mm)	300	360	380	440	550
D (mm)	500	575	740	850	1050
E (mm)	340	370	430	440	520
F (mm)	50	55	60	85	90
G (mm)	200	225	300	335	430

Clamp Model	Weight (Kg)	Beam Length	Min.Clamp Length	Max.Clamp Length
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MZJ120DC	2420	1900	450	1200
	2580	2500	450	1800
	2690	2700	450	2000
MZJ160DC	2780	3100	450	2500
	3460	2200	680	1300
	3690	2700	680	1800
MZJ200DC	3880	3100	680	2200
	3960	3400	680	2500
	4060	2200	700	1200
MZJ200DC	4290	2700	700	1700
	4480	3100	700	2100
	4480	3400	700	2400
MZJX-BEAM	4580	3600	700	2600
	9510	4500	1150	3500

HYDRAULIC IMPACT HAMMER

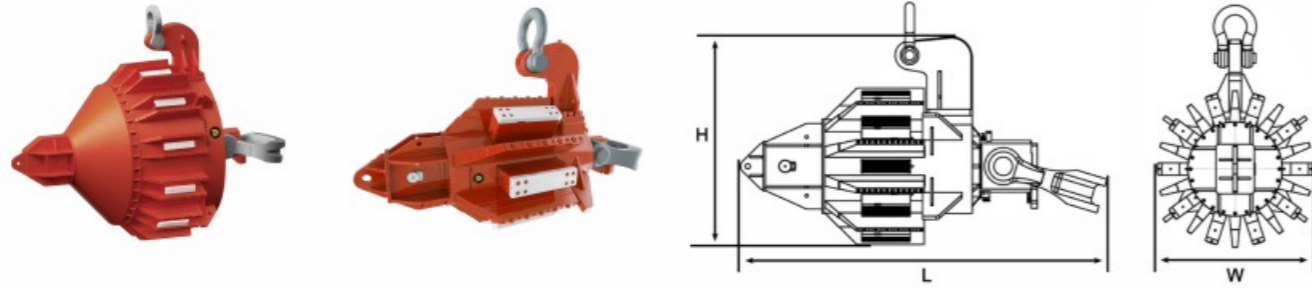


Single Cylinder Lifting	MC-3	MC-5	MC-8	MC-12	MC-14	MC-16	MC-17	MC-18	MC-21	MC-25	MC-30	MC-35
Impact Energy	36	60	120	180	210	240	255	270	315	425	510	595
Working Stroke	1200	1200	1500	1500	1500	1500	1500	1500	1500	1700	1700	1700
Impact Frequency	80/35	80/35	70/30	70/32	70/30	70/30	70/30	70/30	70/30	65/25	60/25	60/25
Ram Weight	3000	5000	8000	12000	14000	16000	17000	18000	21000	25000	30000	35000
Size Excluding Pile Cap	Length (mm)	4845	6425	6800	7100	7510	7760	7960	8400	7500	8380	9300
	Width (mm)	960	960	1075	1185	1185	1185	1185	1185	1350	1460	1700
	Height (mm)	1075	1075	1185	1300	1300	1300	1300	1300	1580	1750	1700
	Weight (kg)	5800	8500	12500	18000	20000	22000	23000	24000	31500	36000	46000
Recommended power pack	120P	200P	300P	400P	400P	400P	400P	400P	600P	600P	800P	800P

Single Cylinder Lifting	MC-40	MC-50	MC-60	MC-80	MC-110	MC-120	MC-130	MC-150	MC-180	MC-200	MC-210	MC-250
Impact Energy	680	850	1020	1360	1870	2040	2210	2550	3060	3400	3600	4500
Working Stroke	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1800
Impact Frequency	60/25	60/25	60/24	60/23	60/22	60/22	55/20	55/20	55/20	55/20	55/18	55/20
Ram Weight	40000	50000	60000	80000	110000	120000	130000	150000	180000	200000	210000	250000
Size Excluding Pile Cap	Length (mm)	9320	10100	13330	14170	11830	12410	12550	12740	14400	15400	17104
	Width (mm)	1820	2010	2805	2975	3230	3200	3260	2765	2765	2765	3424
	Height (mm)	1950	2180	2180	2180	2500	2500	2845	2765	2765	2765	2900
	Weight (kg)	58000	70000	110000	130000	165000	177200	195000	244500	287000	310000	320000
Recommended power pack	800P	1200P	1200P	1600P	2600P	2600P	2600P	2400X2	2600PX2	30000PX2		

Upending lifting tools

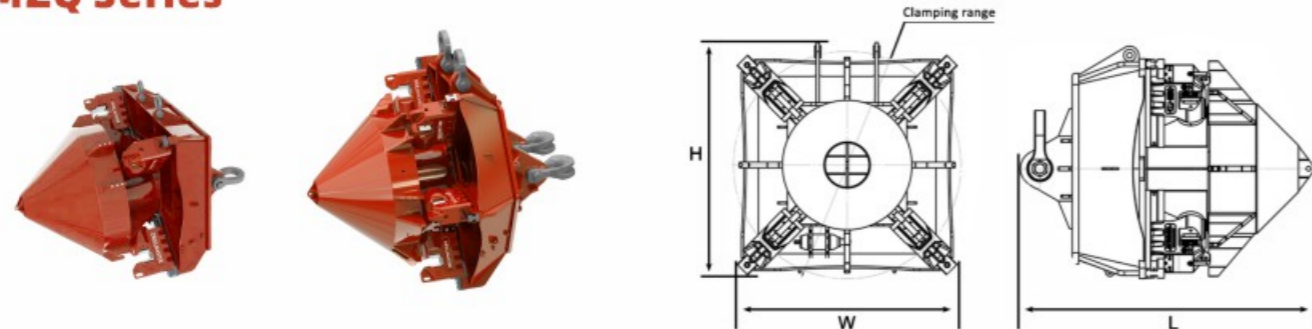
MZQ- i series



Technical Specification		MZQ-200i	MZQ-300i	MZQ-400i	MZQ-600i	MZQ-800i	MZQ-1000i	MZQ-1200i
Min inner diameter	Inch	19.7"	31.5"	59.1"	78.7" / 126.0"	145.7"	196.9"	236.2"
	mm	500	800	1500	2000 / 3200	3700	5000	6000
Max inner diameter	Inch	39.4"	63.0"	78.7"	98.4" / 145.7"	173.2"	236.2"	315.0"
	mm	1000	1600	2000	2500 / 3700	4400	6000	8000
Max Capacity	Metric Ton	200	300	400	600	800	1000	1200
Min Tightening force	Metric Ton	407.89	611.83	815.77	1223.66	1631.55	2039.43	2447.32
Operating pressure	bar	250	250	250	250	250	250	250
Weight	Metric Ton	3.3	8.2	14.5	22.2 / 27.0	42.0	81.0	103.0

Dimensions								
Length / L	mm	2410	3220	4190	5000 / 5000	6200	7300	7500
Width / W	mm	950	1550	1920	2350 / 3650	4320	4850	7800
Height / H	mm	1365	2200	2520	3040 / 3980	4950	6100	9600

MZQ Series



Technical Specification		MZQ-100	MZQ-200	MZQ-300	MZQ-400	MZQ-600	MZQ-800	MZQ-1000	MZQ-1200
Min outer diameter	Inch	19.7"	59.1"	70.9"	78.7"	98.4"	137.8"	157.5"	236.2"
	mm	500	1500	1800	2000	2500	3500	4000	6000
Max outer diameter	Inch	59.1"	98.4"	102.4"	137.8"	137.8"	236.2"	315.0"	393.7"
	mm	1500	2500	2600	3500	3500	6000	8000	10000
Max Capacity	Metric Ton	100	200	300	400	600	800	1000	1200
Min Clamping force	Metric Ton	203.94	407.89	611.83	815.77	1223.66	1631.55	2039.43	2447.32
Operating pressure	bar	250	250	250	250	250	250	250	250
Weight	Metric Ton	8.2	10.5	13	17.8	30.0	45.8	76.0	110.0

Dimensions									
Length / L	mm	2380	2380	2520	3160	4500	4500	7600	9700
Width / W	mm	2380	2380	2380	3020	4000	4000	7200	10200
Height / H	mm	2570	2570	2570	2210	2600	2600	3400	4010



Drillmaster Machinery Hydraulic Power Pack equipped with CAT diesel engine, Rexroth hydraulic system and is connected by Eaton tubing. The quick dis-connectors also take ordinary DNP from Italy. All details make the equipment safe, reliable, durable and efficient in the whole working jobsite.

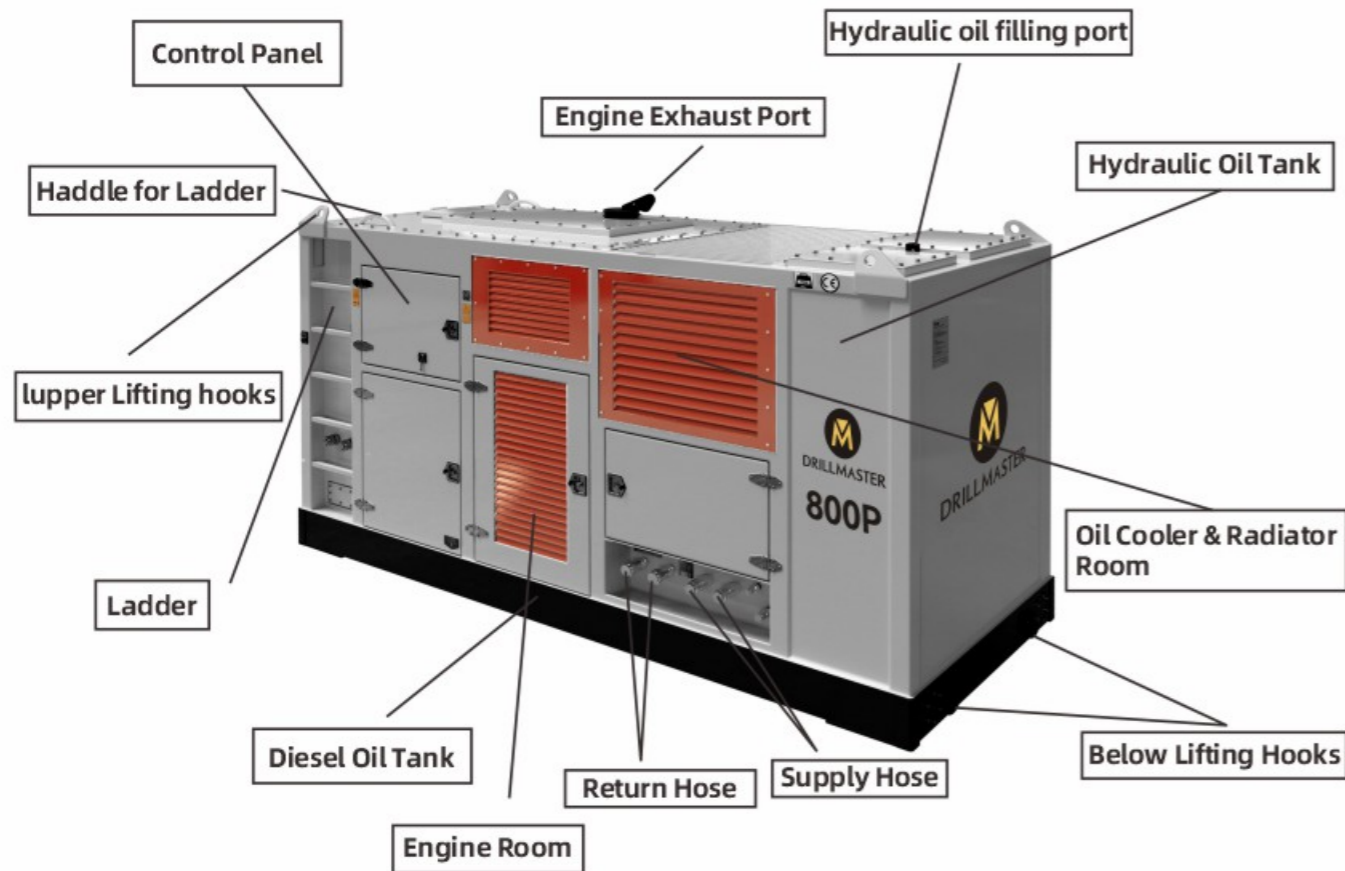
Main Technical Parameters

Power Pack	400p	500P	600P	800P	1000P	1200P	1600P	2600P	3000P	3500P
Engine Type	CUMMINS	CUMMINS	CAT C15	CAT C18	Weichai GM33G915E304	KTA38	KTA38	CUMMINS	CUMMINS	S16R-Y1PTAA2-3
Max. Power (KW/HP)	264	298	403	522/700	670/915	895/1200	1007/1350	1492/2000	1492/2014	1939/2599
Max. Frequency (rpm)	2200	2100	2100	2100	1900	1800	1900	2000	2100	1500
Working Pressure (bar)	320	320	320	320		320	320	320	320	320
Max. Oil Flow (L/min)	400	500	630	800	1000	1200	1600	2600	2600	3500
Diesel Tank Volume(L)	500	500	600	600	1100	1000	1000	1400	1400	1420
Hydraulic oil Tank Volume (L)	1400	1600	2000	2200	2700	4200	4200	5200	5200	6400
Size L*W*H (mm)	L 3910	L 3910	L 4550	L 4450	L 5650	L 6050	L 6050	L 7310	L 7310	L 8200
	w 1520	w 1520	W 1820	W 1850	W 1920	W 2350	W 2350	W 2360	W 2360	w 2920
weight(KG)	H 2100	H 2100	H 2400	H 2520	H 2550	H 2820	H 2820	H 2750	H 2750	H 3600
	6000	6000	8200	9000	10500	20000	20000	23500	23500	38000
Suitable for Vibratory hammer models	MZ-90D	MZ-110D	MZ-180B	MZ-230		MZ-300	MZ-400			MZ-800B
		MZ-150		MZ-230F		MZ-400	MZ-400B	MZ-600	MZ-600	MZ-800BX2
Suitable for impact hammer models				MZ-230B		MZ-300L	MZ-400X2			
				MZ-280L		MZ-300X2	MZ-400BX2			
Suitable for impact hammer models	MC-10 MC-11		MC-21					MC-110 MC-120	MC-110 MC-120	
	MC-12 MC-14	MC-16 MC-17	MC-25	MC-35		MC-50		MC-130 MC-150	MC-130 MC-150	
	MC-15 MC-16		MC-30	MC-40		MC-60	MC-80			
	MC-17							MC-180	MC-180	

DRILLMASTER

Headquarters
Drillmaster Engineering Technology Co.,Ltd

More than a drilling tools supplier, Drillmaster is a leading solution provider for foundation engineering. With decades of years' experience in the R&D, fabrication and sales of piling equipments: pile breaker, casing rotator, oscillator, drill bits, etc, Drillmaster has established a complete factory production system. Unimate, Unidrill and Imachine are subsidiaries of Drillmaster, respectively responsible for the R&D and production of different foundation engineering products.



Engineered with premium-grade combustion engines and hydraulic components, our power units comply with Tier 2 through Stage VI emission standards. The open-loop hydraulic architecture and thermal management system guarantee operational stability across temperature extremes, from -40°C arctic zones to +55°C desert environments. Streamlined control interface ensures peak performance through bilingual monitoring and diagnostics.



Unimate Heavy Industry Co.,Ltd

With factory in Wuhan, China, more than 15 years of production experience, specializes in the production of ultrasonic drilling monitor, drilling tools, casings and drilling accessories, etc.

Unidrill Technology Co.,Ltd

Factories are located in Hebei and Wuhan, mainly responsible for the production of Kelly Bars, well known by its strict quality control.

Hunan Imachine Technology Co.,Ltd

A technology and service oriented company focusing on the recycling, maintenance and export of used construction machinery.