

2026

# BLUEBOOK

The Driller's Choice



# INNOVATING LOCALLY, LEADING GLOBALLY.

The **Mincon Geotechnical Centre** in Finland develops and manufactures our range of **economical and environmentally friendly tools** for construction and well drilling.

These class-leading products are designed especially for **complex ground conditions** where hardest rocks, sands, clays, and tills meet.

Every Mincon product we design and manufacture benefits from:

- Over 45 years of experience in manufacturing of rock drilling systems
- On-site experience from all continents
- World-class testing and development partners
- Innovative, state-of-the-art manufacturing technologies

## DTH IS THE TOOL FOR DRILLING IN COMPLEX GROUND CONDITIONS

DTH hammers are capable of drilling a straight pile in any ground, even into inclined bedrock. Additionally, each pile bottom can be verified.

Pile depths can be over 100 metres, at any angle. Our DTH product range spans sizes from 76 mm to 1 524 mm, ensuring there is a tool for your exact application.

## SAFE DTH DRILLING WITH SPIRAL FLUSH

**SPIRAL FLUSH®**

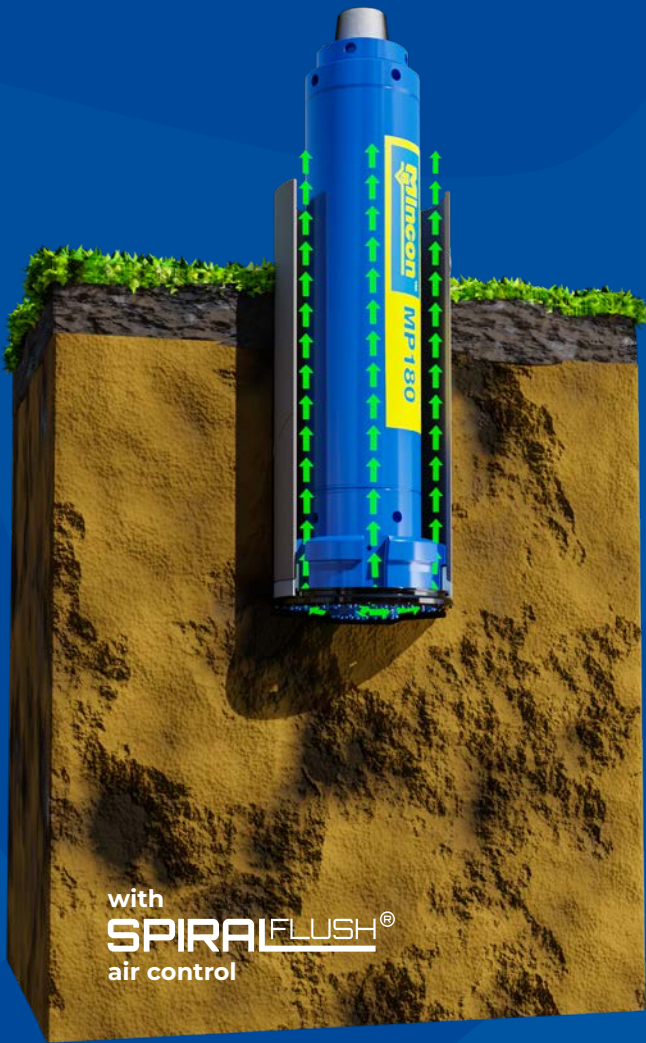
Our patented Spiral Flush product range features drill bits that have a specially designed face, for crosswise flushing.

With this new flushing technology we can now **control air flow** and prevent over drilling and air escape. Large-diameter DTH drilling can be used in urban areas and harbour construction without disturbing the environment.

In addition to increasing the safety of drilling with this technology, we have also improved the total efficiency of the drilling process by designing the world's most powerful DTH hammers and the most reliable shock absorbers on the market.



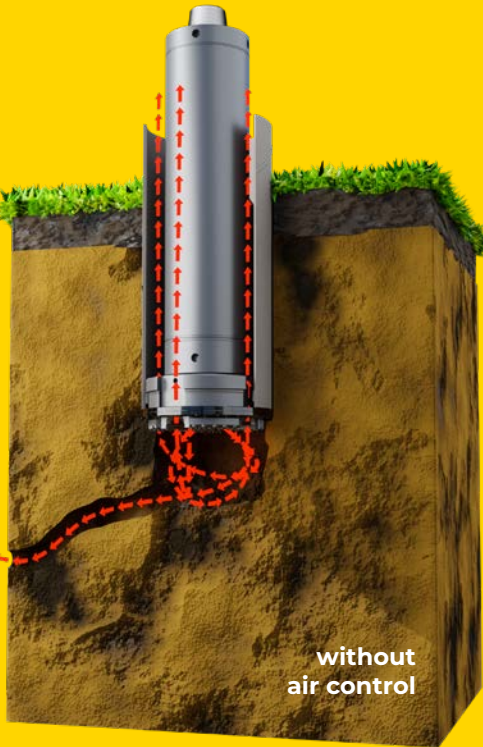
# AIRFLOW CONTROLLED



### DTH drilling with Spiral Flush air control

- All cuttings and flushing air are kept inside the casing.
- No over drilling.
- No air escape.

▶ Spiral Flush has been tested and approved for use in areas where conventional DTH drilling is restricted.



### Conventional DTH drilling without air control

- Pressurised air over-drills material, removing more material than anticipated.
- High-pressure air travels long distances in loose ground or soft clay, causing damages to nearby structures.

▶ Conventional DTH drilling is limited in several city centres, shorelines and other sensitive areas.

## HOW DOES IT WORK?

Spiral Flush has been designed so that the high-pressure air is never directed against the ground. Instead, it is directed sideways and upwards, which makes flushing the cuttings both effective and safe. This way the air always stays inside the casing.

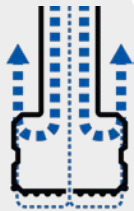
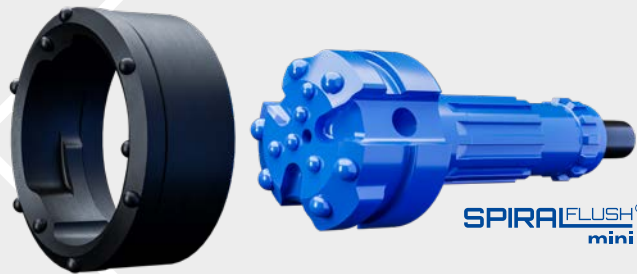
The added safety comes with the same speed and efficiency that our customers have come to expect, and along with Mincon's promise of getting you through any rock on Earth.



## AIR CONTROL SAFETY ALSO IN SMALL SCALE

Originally developed for **Nordic well-drilling applications**, our patent-pending Spiral Flush Mini now offers the safety of the regular Spiral Flush on a much smaller scale.

The airflow flushing the face of the pilot is reduced to absolute minimum, which makes drilling small holes much safer in sensitive ground conditions.



Spiral Flush Mini pilot bit



Conventional DTH pilot bit

Another benefit, when choosing Spiral Flush Mini, is better flushing inside the casing when drilling in clay.

Since only a small fraction of the pressurised air goes to the face, almost all air is used to flush the casing. This way, the sticky clay cannot easily stick to the inside surface of the casing and thus impede airflow.

Ask your local Mincon representative for more information.



# PILING PROFESSIONAL

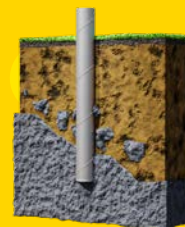
Project requirements can vary greatly depending on ground conditions, which means there are many different approaches for using DTH systems. As one of the pioneers of DTH drilling, Mincon has a solution for every situation.

We have a comprehensive range of solutions, and understand that sometimes your unique projects require something different. This is why all Mincon DTH drilling systems can be fine-tuned based on your specific project requirements.

## COMMON PILE TYPES

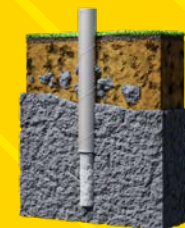
### End-bearing piles

Used in projects where casings resting in bedrock are calculated to take part of the load together with the reinforced concrete. This way, the amount of rebar steel can be reduced.



### Sacrificed casing piles with rock sockets

This is a modification of end-bearing piles for projects that have tensile loads, as rock sockets have an excellent grip in bedrock.



### Retrievable casing piles with rock sockets

Used in projects where tensile loads need to be considered but load calculations don't take casings into account. In these situations, it is better to lift and reuse the casings.



### Drilled friction piles

When support from bedrock is not necessary or even available, drilled friction piles offer good grip as the wet concrete flows and dries in the small cavities of the soil.



### M-Wall piles

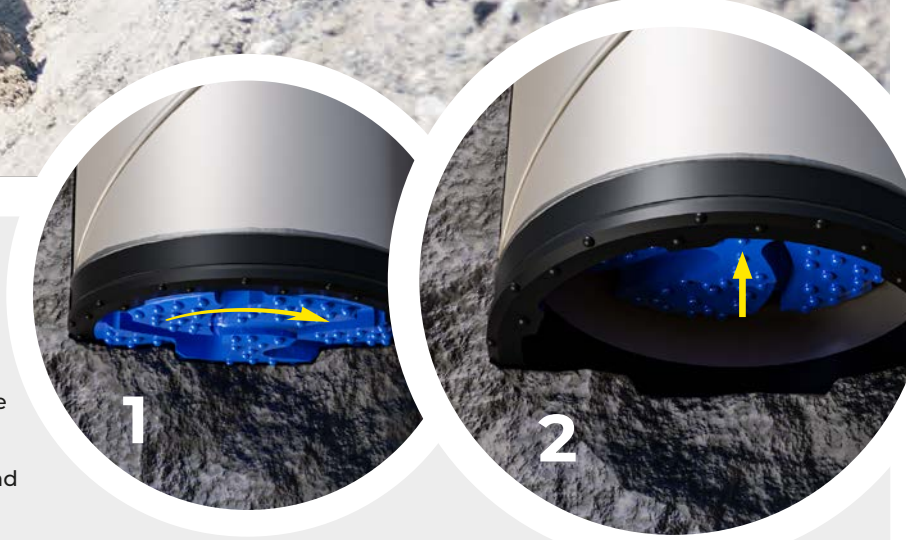
A retaining wall solution, which can do duty as a load-bearing foundation, rather than just a wall that prevents ground masses from collapsing. Can also be made watertight and used with a variety of interlocks.



## OUR PILING CASING SYSTEMS

Piles are drilled using a DTH hammer and a suitable casing system (also called ring bit systems). When the casing is drilled to the desired depth, the pilot bit is released by turning it slightly backwards (1) and then pulled up (2) and used again in the next pile.

For the best piling performance, use Mincon's powerful DTH hammers and shock absorbers.



### Solitary system



The casing shoe and the ring bit are separated. Uses the same double shoulder pilot bit as the large integrated system and the M-Wall systems.

### Integrated system, small



The casing shoe and the ring bit are connected together at the factory. Uses a single shoulder pilot that is not compatible with the solitary system.

### Integrated system, large



The casing shoe and the ring bit are connected together at the factory. Uses the same double shoulder pilot as the solitary system and the M-Wall systems.

### Integrated gen 2 system



Combines single-shoulder integrated and drill through systems into an affordable package. Single-shoulder M-Wall system is also available.

### Large ID system



The most recommended tool for creating rock sockets. The large inner diameter of the ring bit allows for the maximum size rock bit to be drilled through the ring bit.

### Drill through system



The pilot bit can be drilled through the ring bit. This can save time in deep foundations that require rock sockets.

### Retrievable system



The ring bit has been designed to reduce the friction against the soil, allowing an easy retrieval of the casing. This way the ring bit can be reused in the next pile.

### Drill through retrievable system



Combines the features of DT and retrievable systems for situations where piles with temporary casings and rock sockets are needed.

### M-Wall solitary system



Used for M-Wall pipe-pile retaining walls. The casing shoe and the ring bit are separated. Uses the same pilot bit as the solitary and large integrated systems.

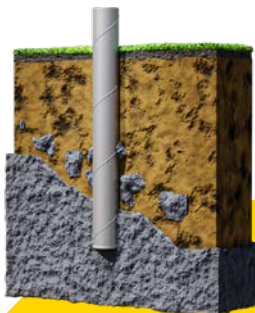
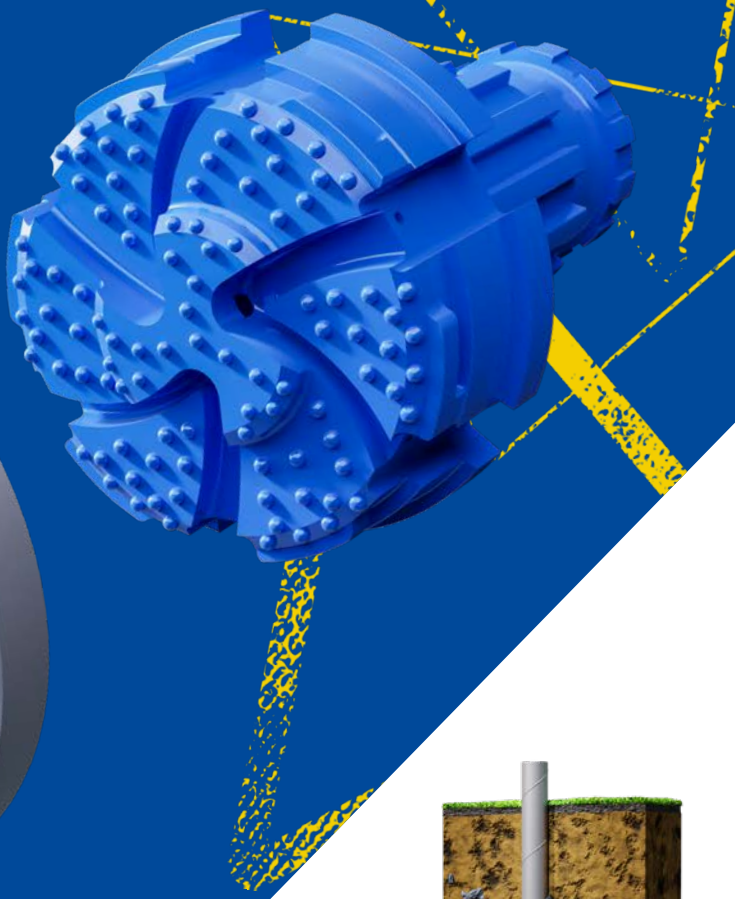
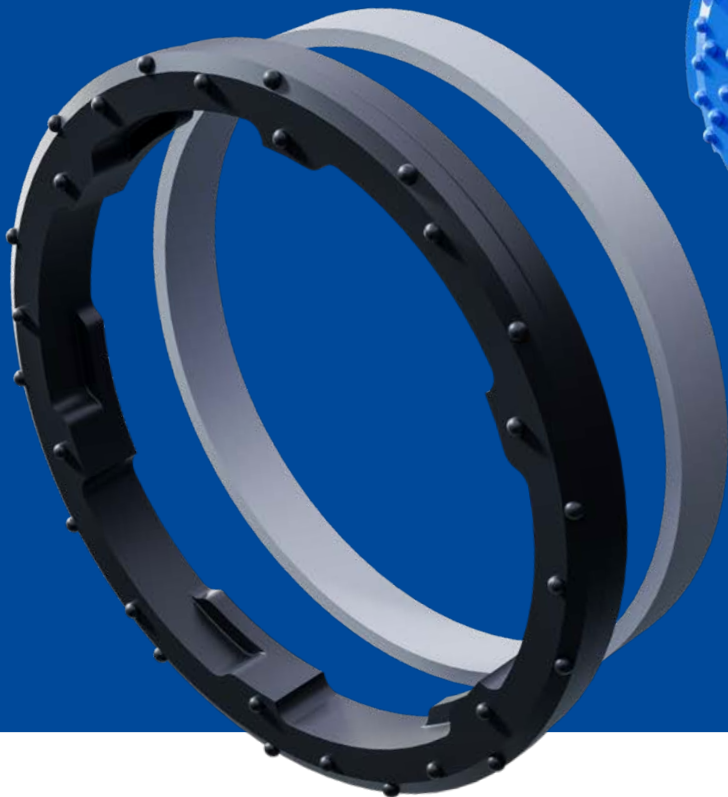
### M-Wall integrated system



Used for M-Wall pipe-pile retaining walls. The ring bit is permanently connected to the casing shoe. Uses the same pilot bit as the solitary and large integrated systems.

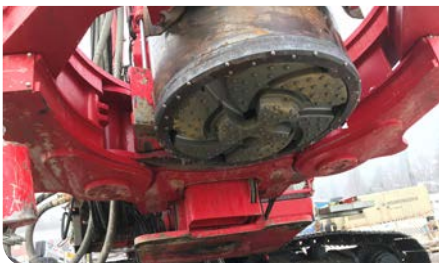


# SOLITARY RING BIT SYSTEM



**Solitary ring bit system** is designed for drilling end-bearing piles through overburden into bedrock. The system can drill straight and inclined piles through boulders and rock layers and it easily manages situations where the bedrock itself is inclined.

The robust ring bit is not attached to casing shoe, which makes it the most budget-friendly option of the ring bit alternatives.



## MAIN APPLICATIONS

- End-bearing piles including micro-piling
- Pilings with sacrificed casings, which have no large ID ring bit requirements
- Slope stabilisation
- Pipe walls, king piles, etc.



## MODEL 1 CASING SHOE

Casing shoe and ring bit are not integrated

Ring bit protects the pilot gauge buttons

○ = Welding spot



The pilot is compatible with the large integrated and M-Wall systems

Strong shoulders

Ring bit designed for heavy use

## MODEL 2 CASING SHOE



System is available for all major shank designs. Sizes 114–178 mm can be ordered with Spiral Flush Mini or conventional flushing. Model 1 casing shoe comes standard. Model 2 can be delivered on special request.

SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
S114-8-68	114.3	4.5"	8	0.31"	68	2.68"	125	4.92"	96	3.78"	MP30-DH
S127-10-75	127	5"	10	0.39"	75	2.95"	137	5.39"	105	4.13"	MP30-DH
S140-10-87	139.7	5.5"	10	0.39"	87	3.43"	149	5.87"	119	4.69"	MP4H-MQ
S152-10-96	152.4	6"	10	0.39"	96	3.78"	162	6.38"	130	5.12"	MP4H-MQ
S159-10-103	158.8	6.25"	10	0.39"	103	4.06"	169	6.65"	137	5.39"	MP4H-MQ
S168-12.7-106	168.3	6.63"	12.7	0.5"	106	4.17"	179	7.05"	140	5.51"	MP50-MQ
S178-12.7-116	177.8	7"	12.7	0.5"	116	4.57"	188	7.40"	150	5.91"	MP50-MQ
S194-12.7-125	193.7	7.63"	12.7	0.5"	125	4.92"	205	8.07"	166	6.54"	MP60-MQ
S219-12.7-150	219.1	8.63"	12.7	0.5"	150	5.91"	230	9.06"	190	7.48"	MP70-MC-D160
S244-14.2-170	244.5	9.63"	14.2	0.56"	170	6.69"	257	10.12"	213	8.39"	MP80-MQ
S254-14.2-180	254	10"	14.2	0.56"	180	7.09"	265	10.43"	223	8.78"	MP80-MQ
S273-12.7-192	273	10.75"	12.7	0.5"	192	7.56"	286	11.26"	245	9.65"	MP80-MQ
S301-14.2-220	301.6	11.87"	14.2	0.56"	220	8.66"	312	12.28"	270	10.63"	MP80-MQ
S323-14.2-241	323.9	12.75"	14.2	0.56"	241	9.49"	335	13.19"	291	11.62"	MP100-MC
S339-14.2-255	339.7	13.37"	14.2	0.56"	255	10.04"	350	13.78"	308	12.13"	MP100-MC
S355-14.2-270	355.6	14"	14.2	0.56"	270	10.63"	367	14.45"	324	12.76"	MP100-MC
S406-16-318	406.4	16"	16	0.63"	318	12.52"	418	16.46"	370	14.57"	MP120-MC
S457-16-369	457.2	18"	16	0.63"	369	14.53"	469	18.46"	420	16.54"	MP120-MC
S508-16-422	508	20"	16	0.63"	422	16.61"	520	20.47"	471	18.54"	MP150-MC
S559-16-470	558.8	22"	16	0.63"	470	18.50"	571	22.48"	521	20.51"	MP150-MC
S610-16-502	609.6	24"	16	0.63"	502	19.76"	622	24.49"	572	22.52"	MP180-MQ
S660-16-545	660.4	26"	16	0.63"	545	21.46"	675	26.57"	615	24.21"	MP180-MQ
S711-16-610	711.2	28"	16	0.63"	610	24.02"	735	28.94"	675	26.76"	MP240-MQ
S762-20-655	762	30"	20	0.79"	655	25.79"	785	30.91"	715	28.15"	MP240-MQ
S813-20-700	812.8	32"	20	0.79"	700	27.56"	830	32.68"	766	30.16"	MP240-MQ
S863-20-750	863.6	34"	20	0.79"	750	29.53"	880	34.65"	815	32.09"	MP240-MQ
S914-20-800	914.4	36"	20	0.79"	800	31.50"	930	36.61"	866	34.21"	MP240-MQ
S1016-20-880	1 016	40"	20	0.79"	880	34.65"	1 032	40.63"	966	38.09"	MP340
S1067-20-931	1 066.8	42"	20	0.79"	931	36.65"	1 086	42.76"	1 014	39.92"	MP340
S1219-22-1080*	1 219.2	48"	22	0.87"	1 080	42.52"	1 240	48.82"	1 164	45.83"	MP340
S1321-25.4-1150*	1 320.8	52"	25.4	1"	1 150	45.28"	1 344	52.91"	1 247	49.09"	MP400
S1422-25.4-1250*	1 422.4	56"	25.4	1"	1 250	49.21"	1 446	56.93"	1 348	53.07"	MP400
S1524-25.4-1340*	1 524	60"	25.4	1"	1 340	52.76"	1 548	60.94"	1 462	57.56"	MP400

\*Large-diameter systems can be engineered based on the specific customer requirements.

The solitary double-shoulder pilot is not compatible with the small integrated single-shoulder ring bits.

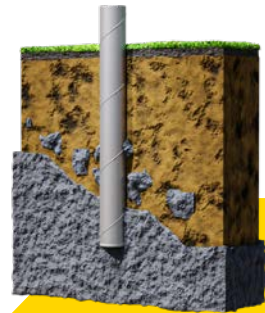
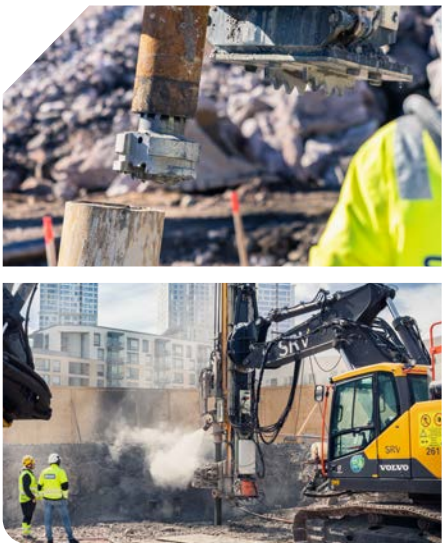
# INTEGRATED RING BIT SYSTEM, SMALL



**Integrated ring bit systems**, divided into small and large designs, are designed for drilling end-bearing piles through overburden into bedrock. The system can drill straight and inclined piles through boulders and rock layers and it easily manages situations where the bedrock itself is inclined.

The robust ring bit is integrated into casing shoe, which makes it safe to drill in loose ground and over water.

The system is compatible with most external threaded casing joint couplers.

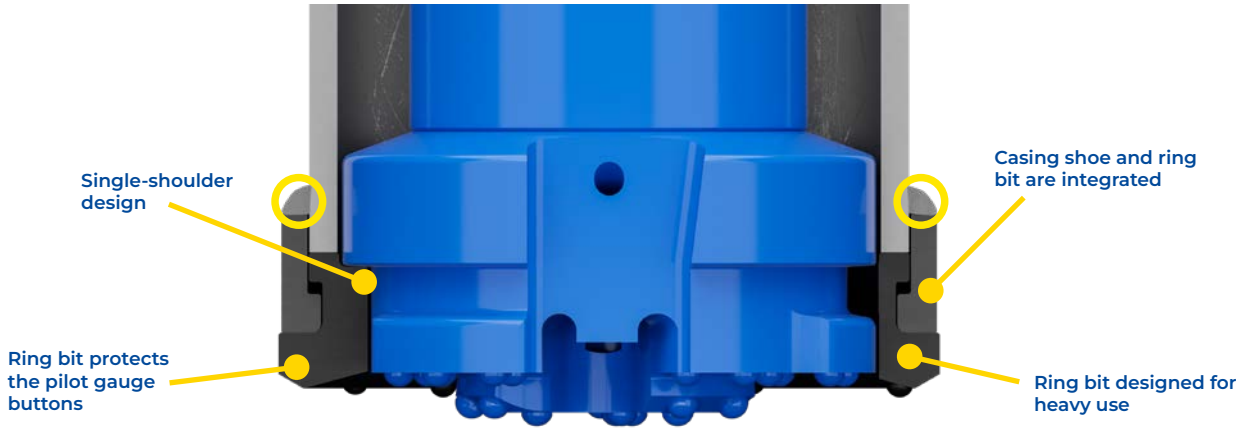


## MAIN APPLICATIONS

- End-bearing piles including micro-piling
- Pilings with sacrificed casings, which have no large ID ring bit requirements
- Slope stabilization
- Pipe walls, king piles



## INTEGRATED SYSTEM, SMALL 114–273 mm



○ = Welding spot

System is available for all major shank designs.  
Sizes 114–178 mm can be ordered with Spiral Flush Mini or conventional flushing.

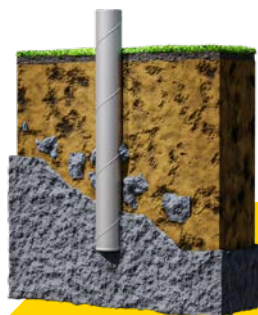
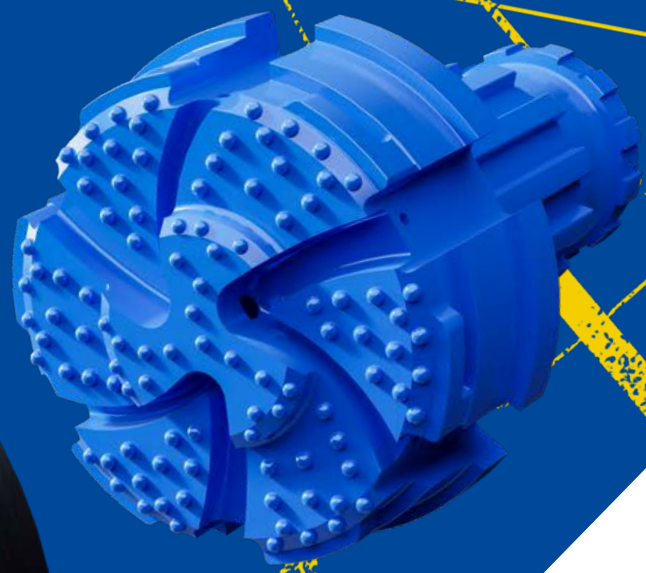
SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
I114-10-76	114.3	4.5"	10	0.39"	76	2.99"	130	5.12"	89	3.50"	MP30-DH
HDI114-10-76	114.3	4.5"	10	0.39"	76	2.99"	138	5.43"	89	3.50"	MP30-DH
I127-10-87	127	5"	10	0.39"	87	3.43"	145	5.71"	105	4.13"	MP30-DH
I140-10-100	139.7	5.5"	10	0.39"	102	4.02"	160	6.30"	116	4.57"	MP4H-MQ
HDI140-10-100	139.7	5.5"	10	0.39"	102	4.02"	168	6.61"	116	4.57"	MP4H-MQ
I152-10-112	152.4	6"	10	0.39"	112	4.41"	172	6.77"	130	5.12"	MP4H-MQ
I159-10-118	158.8	6.25"	10	0.39"	118	4.65"	181	7.13"	136	5.35"	MP4H-MQ
I168-12.7-125	168.3	6.63"	12.7	0.5"	125	4.92"	189	7.44"	140	5.51"	MP50-MQ
HDI168-12.7-125	168.3	6.63"	12.7	0.5"	125	4.92"	196	7.72"	140	5.51"	MP50-MQ
I178-12.7-135	177.8	7"	12.7	0.5"	135	5.31"	199	7.83"	151	5.94"	MP50-MQ
I194-12.7-147	193.7	7.63"	12.7	0.5"	147	5.79"	221	8.70"	166	6.54"	MP60-MQ
I219-12.7-171	219.1	8.63"	12.7	0.5"	171	6.73"	243	9.57"	188	7.40"	MP70-MC-D160
HDI219-12.7-171	219.1	8.63"	12.7	0.5"	171	6.73"	252	9.92"	188	7.40"	MP70-MC-D160
I244-12.7-190	244.5	9.63"	12.7	0.5"	190	7.48"	269	10.59"	216	8.50"	MP80-MQ
I254-14.2-197	254	10"	14.2	0.56"	197	7.76"	279	10.98"	223	8.78"	MP80-MQ
I273-12.7-220	273	10.74"	12.7	0.5"	220	8.66"	300	11.81"	244	9.61"	MP80-MQ
HDI273-12.7-220	273	10.74"	12.7	0.5"	220	8.66"	310	12.20"	244	9.61"	MP80-MQ

The single-shoulder pilot is not compatible with the solitary double-shoulder ring bits.

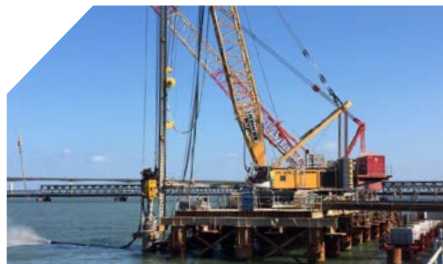


# INTEGRATED RING BIT SYSTEM, LARGE



**Integrated ring bit systems**, divided into small and large designs, are designed for drilling end-bearing piles through overburden into bedrock. The system can drill straight and inclined piles through boulders and rock layers and it easily manages situations where the bedrock itself is inclined.

The robust ring bit is integrated into casing shoe, which makes it safe to drill in loose ground and over water. The large size allows for double-shoulder design.

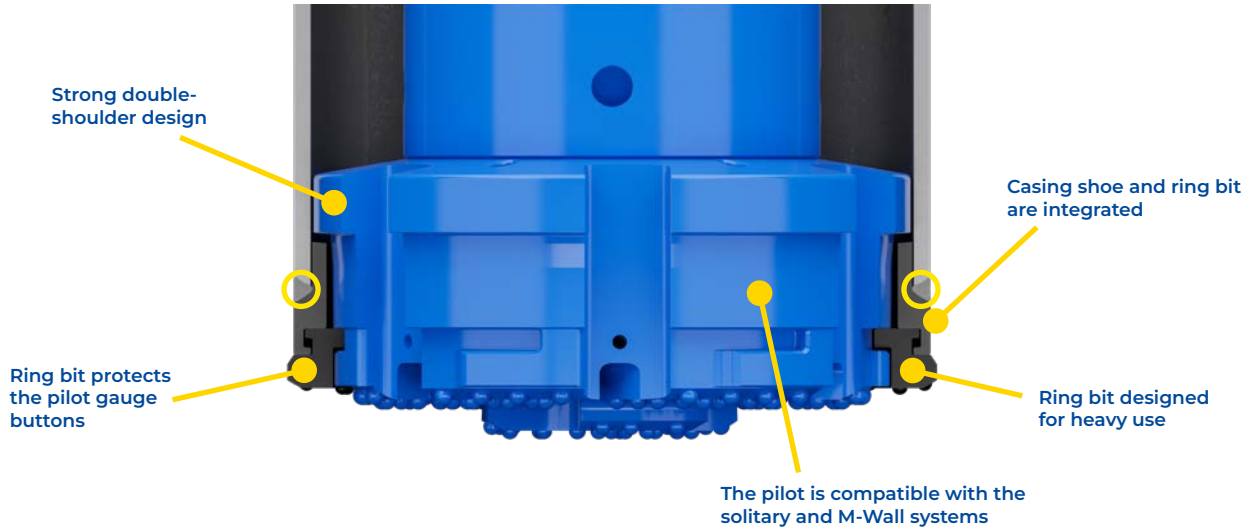


## MAIN APPLICATIONS

- End-bearing piles
- Pilings with sacrificed casings, which have no large ID ring bit requirements
- Pipe walls, king piles



## INTEGRATED SYSTEM, LARGE 323–1 524 mm



 = Welding spot

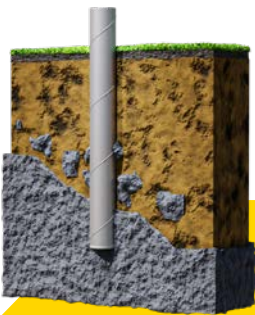
System is available for all major shank designs.

SPIRALFLUSH®

System product code	Casing OD		Max wall		Ring bit ID		Ring bit OD		Pilot bit OD		Recommended hammer
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
I323-14.2-240	323.9	12.75"	14.2	0.56"	240	9.45"	335	13.19"	291	11.46"	MP100-MC
I339-14.2-255	339.7	13.37"	14.2	0.56"	255	10.04"	350	13.78"	308	12.13"	MP100-MC
I355-14.2-270	355.6	14"	14.2	0.56"	270	10.63"	367	14.45"	324	12.76"	MP100-MC
I406-16-318	406.4	16"	16	0.63"	318	12.52"	418	16.46"	370	14.57"	MP120-MC
I457-16-369	457.2	18"	16	0.63"	369	14.53"	469	18.46"	420	16.54"	MP120-MC
I508-16-422	508	20"	16	0.63"	422	16.61"	520	20.47"	471	18.54"	MP150-MC
I559-16-470	558.8	22"	16	0.63"	470	18.50"	571	22.48"	521	20.51"	MP150-MC
I610-16-502	609.6	24"	16	0.63"	502	19.76"	622	24.49"	572	22.52"	MP180-MQ
I660-16-545	660.4	26"	16	0.63"	545	21.46"	675	26.57"	615	24.21"	MP180-MQ
I711-16-610	711.2	28"	16	0.63"	610	24.02"	735	28.94"	675	26.57"	MP240-MQ
I762-20-655	762	30"	20	0.79"	655	25.79"	785	30.91"	715	28.15"	MP240-MQ
I813-20-700	812.8	32"	20	0.79"	700	27.56"	830	32.68"	766	30.16"	MP240-MQ
I863-20-750	863.6	34"	20	0.79"	750	29.53"	880	34.65"	815	32.09"	MP240-MQ
I914-20-800	914.4	36"	20	0.79"	800	31.5"	930	36.61"	866	34.09"	MP240-MQ
I1016-20-880*	1 016	40"	20	0.79"	880	34.65"	1 032	40.63"	966	38.03"	MP340
I1067-20-930*	1 066.8	42"	20	0.79"	930	36.61"	1 086	42.76"	1 014	39.92"	MP340
I1219-22-1080*	1 219.2	48"	22	0.87"	1 080	42.52"	1 240	48.82"	1 164	45.83"	MP340
I1321-25.4-1150*	1 320.8	52"	25.4	1"	1 150	45.28"	1 344	52.91"	1 247	49.09"	MP400
I1422-25.4-1250*	1 422.4	56"	25.4	1"	1 250	49.21"	1 446	56.93"	1 348	53.07"	MP400
I1524-25.4-1340*	1 524	60"	25.4	1"	1 340	52.76"	1 548	60.94"	1 462	57.56"	MP400

\*Large-diameter systems can be engineered based on the specific customer requirements.

# INTEGRATED GEN 2 RING BIT SYSTEM



**Integrated gen 2 ring bit system** is designed for drilling end-bearing piles through overburden into bedrock. The system can drill straight and inclined piles through boulders and rock layers and it easily manages situations where the bedrock itself is inclined.

The robust ring bit is integrated into casing shoe, which makes it safe to drill in loose ground and over water.

The system is compatible with the most common external threaded casing joint couplers.



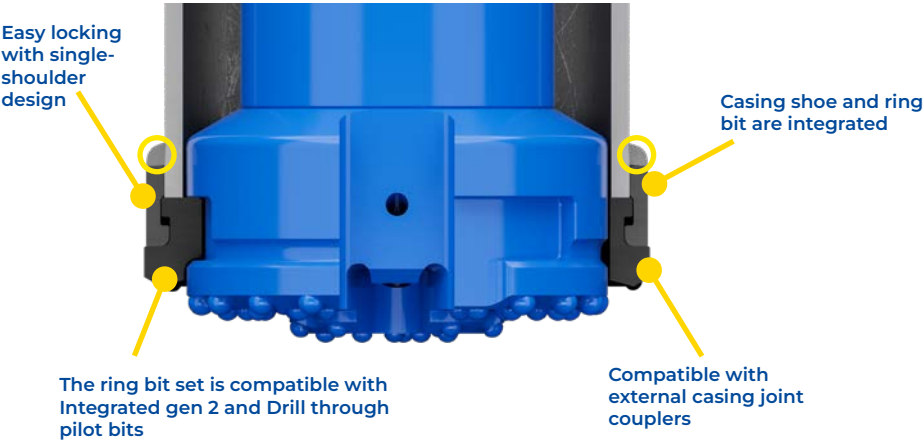
## MAIN APPLICATIONS

- End-bearing piles including micro-piling
- Piling with sacrificed casings, which have no large ID ring bit requirements
- Shallow M-Walls



## INTEGRATED GEN 2 SYSTEM 76–508 mm

### STANDARD CASING SYSTEM



### M-WALL CASING SYSTEM



○ = Welding spot

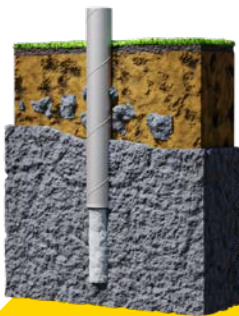
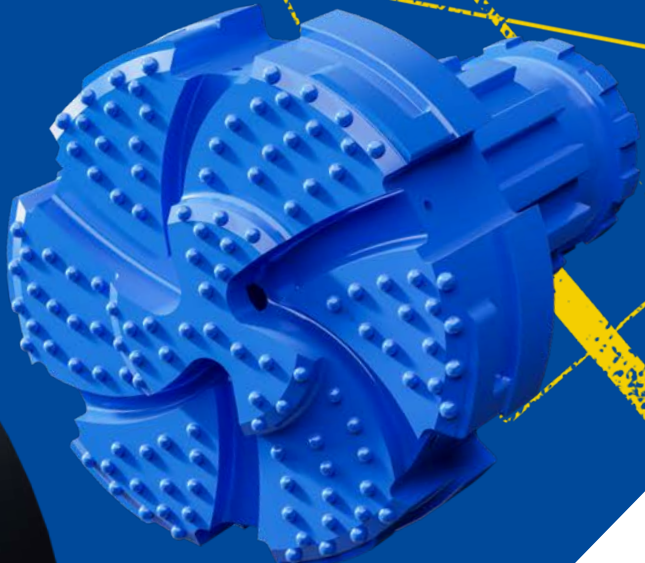
System is available for all major DTH shanks, and in smaller sizes with top hammer threads. Sizes 76–178 mm can be ordered with Spiral Flush Mini or conventional flushing.

SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
I76-8-47-GEN2	76.1	3"	8	0.31"	47	1.85"	92	3.62"	58	2.28"	R32
I89-8-60-GEN2	88.9	3.5"	8	0.31"	60	2.36"	105	4.13"	70	2.76"	T38
I102-8-72-GEN2	101.6	4"	8	0.31"	72	2.83"	118	4.65"	83	3.27"	T38
I114-10-80-GEN2	114.3	4.5"	10	0.39"	80	2.99"	130	5.12"	92	3.50"	MP30-DH
I127-10-87-GEN2	127	5"	10	0.39"	87	3.43"	145	5.71"	105	4.13"	MP30-DH
I140-10-100-GEN2	139.7	5.5"	10	0.39"	102	3.94"	160	6.30"	114	4.49"	MP4H-MQ
I152-10-112-GEN2	152.4	6"	10	0.39"	112	4.41"	172	6.77"	126	4.96"	MP4H-MQ
I159-10-118-GEN2	158.8	6.25"	10	0.39"	118	4.65"	179	7.05"	133	5.24"	MP4H-MQ
I168-12.7-127-GEN2	168.3	6.63"	12.7	0.5"	127	4.92"	189	7.44"	140	5.51"	MP50-MQ
I178-12.7-135-GEN2	177.8	7"	12.7	0.5"	135	5.31"	199	7.83"	150	5.91"	MP50-MQ
I194-12.7-147-GEN2	193.7	7.63"	12.7	0.5"	147	5.79"	221	8.00"	163	6.42"	MP60-MQ
I219-12.7-171-GEN2	219.1	8.63"	12.7	0.5"	171	6.73"	243	9.57"	188	7.40"	MP70-MC-D160
XLI219-12.7-171-GEN2	219.1	8.63"	12.7	0.5"	171	6.73"	277	10.91"	188	7.40"	MP70-MC-D160
I244-12.7-194-GEN2	244.5	9.63"	12.7	0.5"	194	7.64"	269	10.59"	214	8.43"	MP80-MQ
I254-12.7-204-GEN2	254	10"	12.7	0.5"	204	8.03"	279	10.98"	224	9.61"	MP80-MQ
I273-12.7-222-GEN2	273	10.74"	12.7	0.5"	222	8.74"	299	11.77"	243	9.57"	MP80-MQ
XLI273-12.7-222-GEN2	273	10.74"	12.7	0.5"	222	8.74"	331	13.03"	243	9.57"	MP80-MQ
I301-12.7-250-GEN2	301.6	11.87"	12.7	0.5"	250	9.84"	330	12.99"	272	10.71"	MP80-MQ
I323-12.7-272-GEN2	323.9	12.74"	12.7	0.5"	272	10.71"	352	13.86"	294	11.57"	MP100-MC
XLI323-12.7-272-GEN2	323.9	12.74"	12.7	0.5"	272	10.71"	378	14.88"	294	11.57"	MP100-MC
I339-14.2-286-GEN2	339.7	13.37"	14.2	0.56"	286	11.26"	368	14.49"	308	12.13"	MP100-MC
I355-14.2-300-GEN2	355.6	14"	14.2	0.56"	300	11.81"	384	15.12"	324	12.76"	MP100-MC
I406-16-346-GEN2	406.4	16"	16	0.63"	346	13.62"	443	17.44"	370	14.57"	MP120-MC
XLI406-16-346-GEN2	406.4	16"	16	0.63"	346	13.62"	460	18.11"	370	14.57"	MP120-MC
I457-16-393-GEN2	457.2	18"	16	0.63"	393	15.47"	489	19.25"	420	16.54"	MP120-MC
I508-16-442-GEN2	508	20"	16	0.63"	442	17.40"	542	21.34"	471	18.54"	MP150-MC
XLI508-16-442-GEN2	508	20"	16	0.63"	442	17.40"	562	22.13"	471	18.54"	MP150-MC



# LARGE ID RING BIT SYSTEM



**Large ID ring bit system** is used with sacrificed casings when there is a requirement to continue the hole after the casing is set. Large ID system is thus ideally suited to energy and water well drilling applications, where the drilling is continued through the ring bit with a separate small size rock bit.

In piling, large ID system also allows maximum size rock sockets to be drilled through the ring bit, using large diameter rock bits.



## MAIN APPLICATIONS

- Piling with sacrificed casings and rock sockets
- Energy/water wells
- Surface casings (sealing, dewatering)



## LARGE ID SYSTEM 114–813 mm



System is available for all major shank designs.  
Sizes 114–178 mm can be ordered with Spiral Flush Mini or conventional flushing.

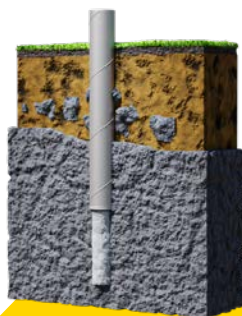
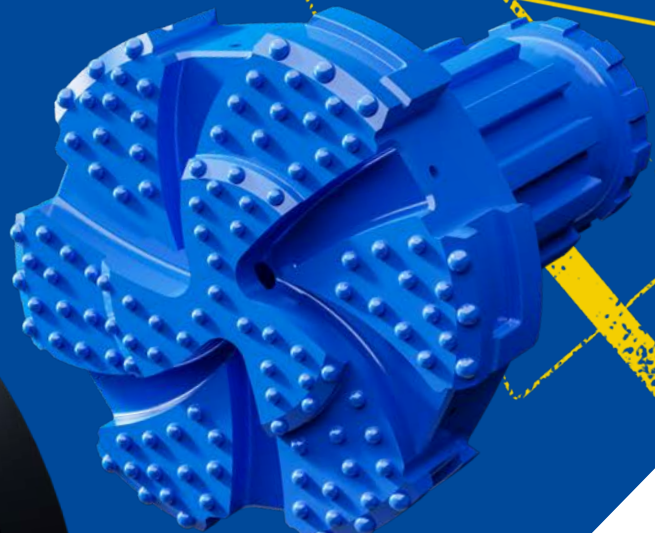
SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
1114-5.5-91	114.3	4.5"	5.5	0.22"	91	3.58"	133	5.24"	101.5	4.00"	MP30-DH
1127-5.5-103	127	5"	5.5	0.22"	103	4.06"	147	5.79"	114	4.49"	MP30-DH
1140-5.5-116	139.7	5.5"	5.5	0.22"	116	4.56"	160	6.30"	127.5	5.02"	MP4H-MQ
HD1140-5.5-116*	139.7	5.5"	5.5	0.22"	116	4.56"	168	6.61"	127.5	5.02"	MP4H-MQ
HCI140-5.5-116**	139.7	5.5"	5.5	0.22"	116	4.56"	166	6.54"	127.5	5.02"	MP4H-MQ
1152-6-128	152.4	6"	6	0.24"	128	5.040"	174	6.85"	139	5.47"	MP4H-MQ
1159-6-134	158.8	6.25"	6	0.24"	134	5.28"	179	7.05"	145	5.71"	MP4H-MQ
1168-6-142	168.3	6.63"	6	0.24"	142	5.59"	189	7.44"	154	6.06"	MP50-MQ
HD1168-6-142*	168.3	6.63"	6	0.24"	142	5.59"	196	7.72"	154	6.06"	MP50-MQ
HCI168-7-142**	168.3	6.63"	7	0.28"	142	5.59"	194	7.64"	152	5.98"	MP50-MQ
1178-7-153	177.8	7"	7	0.28"	153	6.02"	204	8.03"	162	6.38"	MP50-MQ
1194-6-166	193.7	7.63"	6	0.24"	166	6.54"	220	8.66"	179	7.05"	MP60-MQ
1219-6.5-190	219.1	8.63"	6.5	0.26"	190	7.48"	245	9.65"	204	8.03"	MP70-MC-D160
1244-8-212	244.5	9.63"	8	0.31"	212	8.35"	270	10.63"	225	8.86"	MP80-MQ
1254-8-222	254	10"	8	0.31"	222	8.74"	280	11.02"	235	9.25"	MP80-MQ
1273-8-242	273	10.75"	8	0.31"	242	9.53"	299	11.77"	254	10"	MP80-MQ
1301-10-260	301.6	11.87"	10	0.39"	260	10.24"	327	12.87"	279	10.98"	MP80-MQ
1323-10-280	323.9	12.75"	10	0.39"	280	11.02"	350	13.78"	298	11.73"	MP100-MC
1339-10-295	339.7	13.37"	10	0.39"	295	11.61"	366	14.41"	316	12.44"	MP100-MC
1355-10-311	355.6	14"	10	0.39"	311	12.24"	383	15.08"	332	13.07"	MP100-MC
1406-10-365	406.4	16"	10	0.39"	365	14.37"	436	17.17"	382	15.04"	MP120-MC
1457-10-405	457.2	18"	10	0.39"	405	15.94"	487	19.17"	432	17.01"	MP120-MC
1508-12.7-450	508	20"	12.7	0.5"	450	17.72"	538	21.18"	478	18.82"	MP150-MC
1559-12.7-500	558.8	22"	12.7	0.5"	500	19.69"	589	23.19"	528	20.79"	MP150-MC
1610-12.7-555	609.6	24"	12.7	0.5"	555	21.85"	644	25.35"	578	22.76"	MP180-MQ
1660-12.7-600***	660.4	26"	12.7	0.5"	600	23.62"	690	27.17"	629	24.76"	MP180-MQ
1711-12.7-641***	711.2	28"	12.7	0.5"	641	25.24"	741	29.17"	679	26.73"	MP240-MQ
1762-12.7-690***	762	30"	12.7	0.5"	690	27.1"	794	31.26"	729	28.70"	MP240-MQ
1813-12.7-735***	812.8	32"	12.7	0.5"	735	28.94"	845	33.27"	780	30.71"	MP240-MQ

\*Heavy duty systems for deep casing drilling. Special design with large ID.  
\*\*Hardcore design for extremely deep casing drilling. Requires special HC pilot bit.  
\*\*\*Mid-diameter systems can be engineered based on the specific customer requirements (660–813 mm). Larger-diameter systems can be engineered based on the specific customer requirements.



# DRILL THROUGH RING BIT SYSTEM



**Drill through ring bit system** combines a conventional rock bit into a casing advance system. As the name suggests, it allows drilling through the ring bit without changing tools.

In projects where rock sockets are needed and the foundations are deep, DT system can save time by going through overburden and drilling the rock socket into bedrock using the same pilot bit.

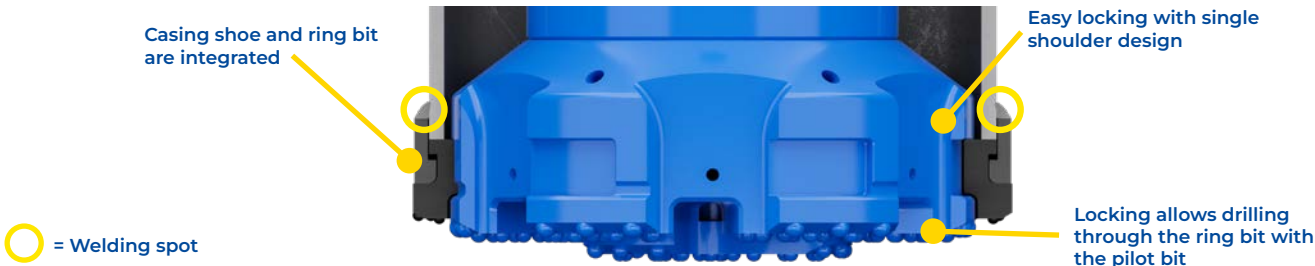


## MAIN APPLICATIONS

- Anchoring applications
- End-bearing piles with rock sockets in deep foundations



## DRILL THROUGH SYSTEM 76-1 524 mm



System is available for all major shank designs, and in smaller sizes with top hammer threads. Sizes 76-178 mm can be ordered with Spiral Flush Mini or conventional flushing.

SPIRALFLUSH®

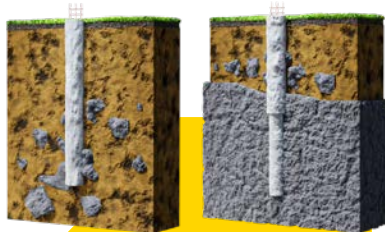
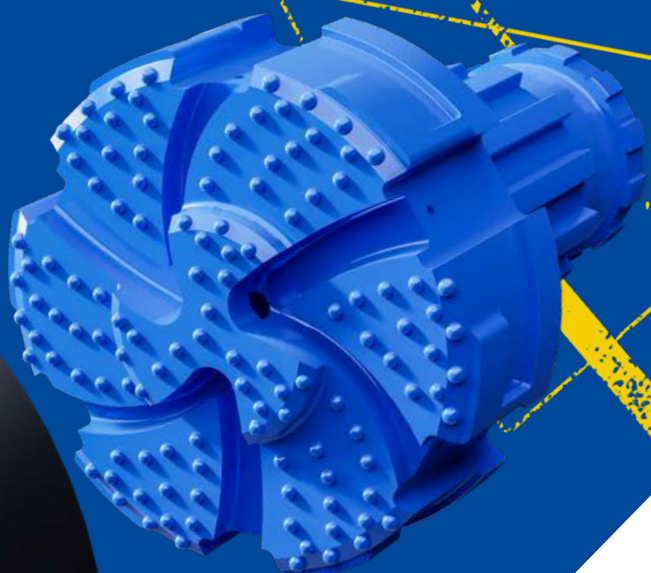
System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
DTI76-8-47	76.1	3"	8	0.31"	47	1.85"	92	3.62"	58	2.28"	R32
DTI89-8-60	88.9	3.5"	8	0.31"	60	2.36"	105	4.13"	70	2.76"	T38
DTI102-8-72	101.6	4"	8	0.31"	72	2.83"	118	4.65"	83	3.27"	T38
DTI114-10-92-80	114.3	4.5"	10	0.39"	80	2.99"	130	5.12"	92	3.50"	MP30-DH
DTI127-10-105-87	127	5"	10	0.39"	87	3.43"	145	5.71"	105	4.13"	MP30-DH
DTI140-10-114-100	139.7	5.5"	10	0.39"	102	3.94"	160	6.30"	114	4.49"	MP4H-MQ
DTI152-10-126-112	152.4	6"	10	0.39"	112	4.41"	172	6.77"	126	4.96"	MP4H-MQ
DTI159-10-133-118	158.8	6.25"	10	0.39"	118	4.65"	179	7.05"	133	5.24"	MP4H-MQ
DTI168-12.7-140-127	168.3	6.63"	12.7	0.5"	127	4.92"	189	7.44"	140	5.51"	MP50-MQ
DTI178-12.7-150-135	177.8	7"	12.7	0.5"	135	5.31"	199	7.83"	150	5.91"	MP50-MQ
DTI194-12.7-163-147	193.7	7.63"	12.7	0.5"	147	5.79"	221	8.70"	163	6.42"	MP60-MQ
DTI219-12.7-188-171	219.1	8.63"	12.7	0.5"	171	6.73"	243	9.57"	188	7.40"	MP70-MC-D160
DTI244-12.7-214-194	244.5	9.63"	12.7	0.5"	194	7.64"	269	10.59"	214	8.43"	MP80-MQ
DTI254-12.7-224-204	254	10"	12.7	0.5"	204	8.03"	279	10.98"	224	9.61"	MP80-MQ
DTI273-12.7-243-222	273	10.74"	12.7	0.5"	222	8.74"	299	11.77"	243	9.57"	MP80-MQ
DTI301-12.7-272-250	301.6	11.87"	12.7	0.5"	250	9.84"	330	12.99"	272	10.71"	MP80-MQ
DTI323-12.7-294-272	323.9	12.74"	12.7	0.5"	272	10.71"	352	13.86"	294	11.57"	MP100-MC
DTI339-14.2-308-286	339.7	13.37"	14.2	0.56"	286	11.26"	368	14.49"	308	12.13"	MP100-MC
DTI355-14.2-324-300	355.6	14"	14.2	0.56"	300	11.81"	384	15.12"	324	12.76"	MP100-MC
DTI406-16-370-346	406.4	16"	16	0.63"	346	13.62"	443	17.44"	370	14.57"	MP120-MC
DTI457-16-420-393	457.2	18"	16	0.63"	393	15.47"	489	19.25"	420	16.54"	MP120-MC
DTI508-16-463-442	508	20"	16	0.63"	442	17.40"	542	21.34"	463	18.23"	MP150-MC
DTI559-16-521-490	558.8	22"	16	0.63"	490	19.29"	593	23.35"	521	20.51"	MP150-MC
DTI610-16-564-540	609.6	24"	16	0.63"	540	21.26"	644	25.35"	564	22.20"	MP180-MQ
DTI660-20-605-580	660.4	26"	20	0.79"	580	22.83"	700	27.56"	605	23.82"	MP180-MQ
DTI711-20-656-625	711.2	28"	20	0.79"	625	24.61"	753	29.65"	656	25.83"	MP240-MQ
DTI762-20-707-672	762	30"	20	0.79"	672	26.46"	804	31.65"	707	27.83"	MP240-MQ
DTI813-20-758-720	812.8	32"	20	0.79"	720	28.35"	855	33.66"	758	29.84"	MP240-MQ
DTI863-20-808-770	863.6	34"	20	0.79"	770	30.32"	905	35.63"	808	31.81"	MP240-MQ
DTI914-20-859-818	914.4	36"	20	0.79"	818	32.20"	958	37.72"	859	33.82"	MP240-MQ
DTI1016-20-960-916*	1 016	40"	20	0.79"	916	36.06"	1 060	41.73"	960	37.80"	MP340
DTI1067-20-1010-952*	1 066.8	42"	20	0.79"	952	37.48"	1 112	43.78"	1 010	39.76"	MP340
DTI1219-22-1161-1101*	1 219.2	48"	22	0.87"	1 101	43.35"	1 268	49.92"	1 161	45.71"	MP340
DTI1321-25-1260-1205*	1 320.8	52"	25	1"	1 205	47.44"	1 378	54.25"	1 260	49.61"	MP400
DTI1422-25-1360-1305*	1 422.4	56"	25	1"	1 305	51.38"	1 478	58.19"	1 360	53.54"	MP400
DTI1524-25-1462-1405*	1 524	60"	25	1"	1 405	55.31"	1 578	62.13"	1 462	57.56"	MP400

\*Large-diameter systems can be engineered based on the specific customer requirements.

The drill through system can also be delivered with a non-DT pilot.



# RETRIEVABLE RING BIT SYSTEM



**Retrieval ring bit system** can be used several times. This is made possible by the features on the ring bit that have been designed to reduce the friction against the soil, allowing an easy retrieval of the casing.

Also, the large inner diameter of the ring bit makes this system ideal for drilling rock sockets through the ring bit.

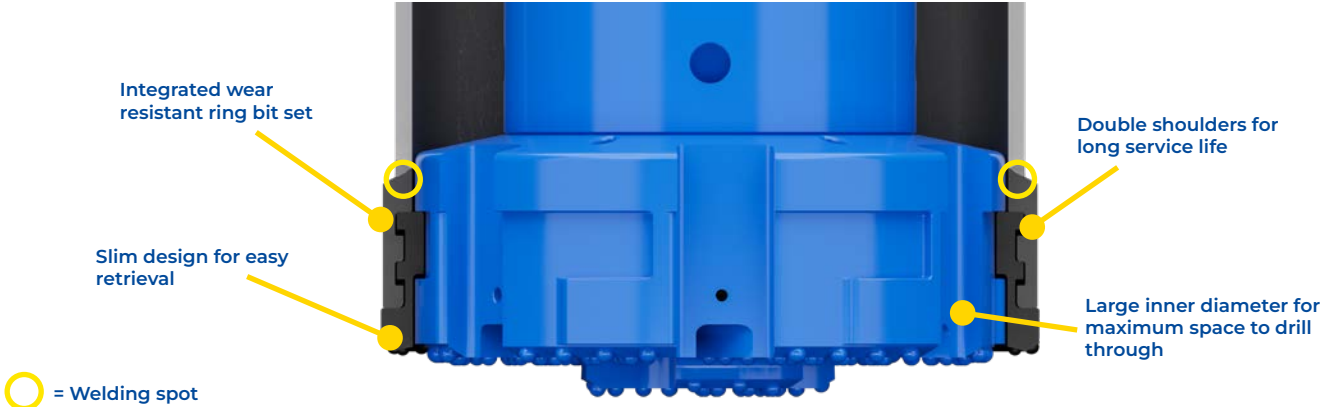


## MAIN APPLICATIONS

- Skin friction piles where casing is fully retrieved
- Anchoring applications
- Pre-drilling/temporary casing applications
- Energy/water wells where casing is fully removed



## RETRIEVABLE SYSTEM 114-1 524 mm



○ = Welding spot

System is available for all major shank designs.  
Sizes 114-178 mm can be ordered with Spiral Flush Mini or conventional flushing.

SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
R114-10-81	114.3	4.5"	10	0.39"	81	3.19"	123	4.84"	92.5	3.64"	MP30-DH
R127-10-95	127	5"	10	0.39"	95	3.74"	135.5	5.33"	105	4.13"	MP30-DH
R140-10-104	139.7	5.5"	10	0.39"	104	4.09"	148	5.83"	118	4.65"	MP4H-MQ
R152-10-116	152.4	6"	10	0.39"	116	4.57"	161	6.34"	129	5.08"	MP4H-MQ
R159-10-122	158.8	6.25"	10	0.39"	122	4.80"	168	6.61"	136	5.35"	MP4H-MQ
R168-10-128	168.3	6.63"	10	0.39"	128	5.04"	179	7.05"	146	5.75"	MP50-MQ
R178-10-142	177.8	7"	10	0.39"	142	5.59"	189	7.44"	156	6.14"	MP50-MQ
R194-12.7-154	193.7	7.63"	12.7	0.5"	154	6.06"	204	8.03"	165	6.50"	MP60-MQ
R219-12.7-175	219.1	8.63"	12.7	0.5"	175	6.89"	231	9.09"	191	7.52"	MP70-MC-D160
R244-12.7-200	244.5	9.63"	12.7	0.5"	200	7.87"	258	10.16"	216	8.50"	MP80-MQ
R254-12.7-210	254	10"	12.7	0.5"	210	8.27"	268	10.55"	226	8.90"	MP80-MQ
R273-12.7-226	273	10.75"	12.7	0.5"	226	8.90"	286	11.26"	245	9.65"	MP80-MQ
R301-12.7-251	301.6	11.87"	12.7	0.5"	251	9.88"	316	12.44"	273	10.75"	MP80-MQ
R323-12.7-273	323.9	12.75"	12.7	0.5"	273	10.75"	338	13.31"	294	11.57"	MP100-MC
R339-12.7-287	339.7	13.37"	12.7	0.5"	287	11.30"	354	13.94"	311	12.24"	MP100-MC
R355-12.7-305	355.6	14"	12.7	0.5"	305	12.01"	368	14.49"	326	12.83"	MP100-MC
R406-12.7-352	406.4	16"	12.7	0.5"	352	13.86"	430	16.93"	376	14.80"	MP120-MC
R457-12.7-378	457.2	18"	12.7	0.5"	378	14.88"	474	18.66"	426	16.77"	MP120-MC
R508-16-446	508	20"	16	0.63"	446	17.56"	538	21.18"	470	18.50"	MP150-MC
R559-16-504	558.8	22"	16	0.63"	504	19.84"	584	22.99"	522	20.55"	MP150-MC
R610-16-555	609.6	24"	16	0.63"	555	21.85"	638	25.12"	572	22.52"	MP180-MQ
R660-16-580	660.4	26"	16	0.63"	580	22.83"	680	26.77"	622	24.49"	MP180-MQ
R711-16-641	711.2	28"	16	0.63"	641	25.24"	738	29.06"	674	26.54"	MP240-MQ
R762-16-685	762	30"	16	0.63"	685	26.97"	788	31.02"	723	28.82"	MP240-MQ
R813-16-736	812.8	32"	16	0.63"	736	28.98"	837	32.95"	775	30.51"	MP240-MQ
R863-16-775	863.6	34"	16	0.63"	775	30.51"	890	35.04"	823	32.40"	MP240-MQ
R914-16-837	914.4	36"	16	0.63"	837	32.95"	940	37.01"	874	34.41"	MP240-MQ
R1016-16-926*	1 016	40"	16	0.63"	926	36.46"	1 042	41.02"	969	38.15"	MP340
R1067-16-970*	1 066.8	42"	16	0.63"	970	38.19"	1 092	42.99"	1 025	40.35"	MP340
R1219-20-1120*	1 219.2	48"	20	0.79"	1 120	44.09"	1 247	49.09"	1 163	45.79"	MP340
R1321-22-1210*	1 320.8	52"	22	0.87"	1 210	47.64"	1 349	53.11"	1 259	49.57"	MP400
R1524-22-1404*	1 524	60"	22	0.87"	1 404	55.28"	1 552	61.10"	1 460	57.48"	MP400

\*Large-diameter systems can be engineered based on the specific customer requirements.

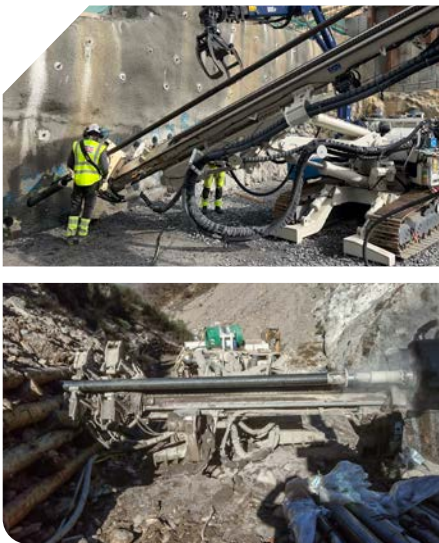


# DRILL THROUGH RETRIEVABLE RING BIT SYSTEM



**Drill through retrievable ring bit system** can be used several times. This is made possible by the features on the ring bit that have been designed to reduce the friction against the soil, allowing an easy retrieval of the casing.

The system allows drilling through the ring bit without changing tools. In projects where rock sockets are needed and the foundations are deep, DT retrievable system can save time by going through overburden and drilling the rock socket into bedrock using the same pilot bit.

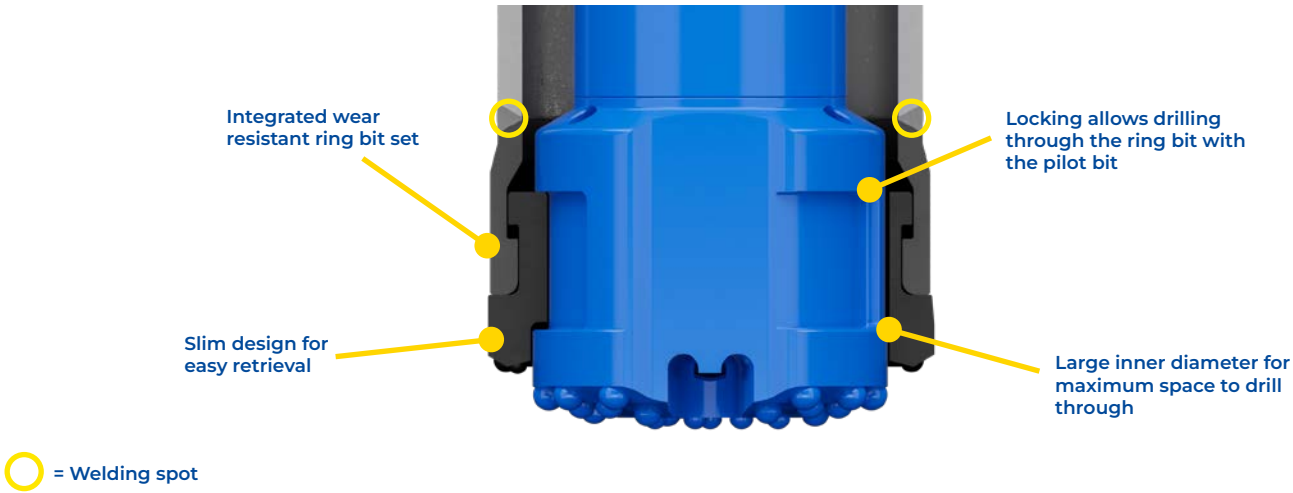


## MAIN APPLICATIONS

- Anchoring applications
- Blasthole drilling through overburden
- Piling with temporary casings and rock sockets



## DRILL THROUGH RETRIEVABLE SYSTEM 114–219 mm



System is available for all major shank designs. Sizes 114–178 mm can be ordered with Spiral Flush Mini or conventional flushing.

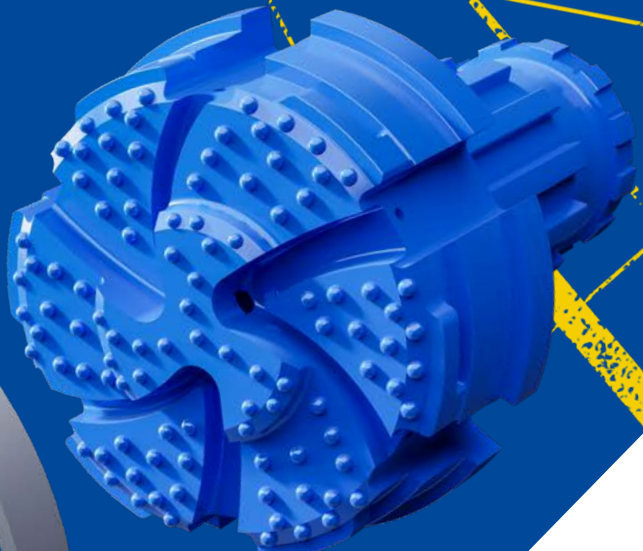
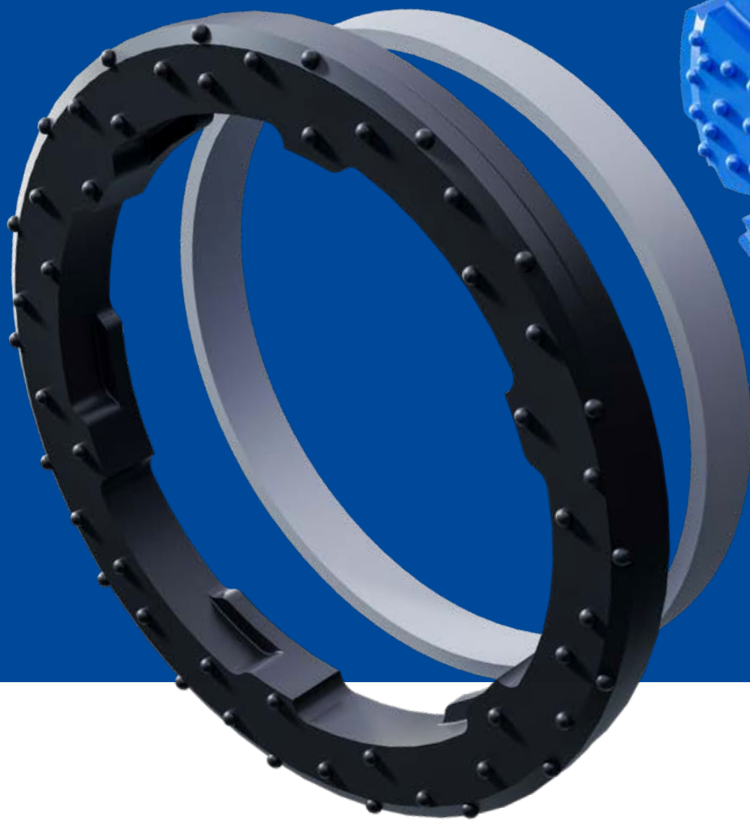
System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
DTR114-10-90-80	114.3	4.5"	10	0.39"	80	3.15"	127	5.00"	90	3.54"	MP30-DH
DTR127-10-96.5-86	127	5"	10	0.39"	86	3.39"	135.5	5.33"	96.5	3.80"	MP30-DH
DTR140-10-112-100	139.7	5.5"	10	0.39"	100	3.94"	156	6.14"	112	4.41"	MP4H-MQ
DTR152-10-119-106	152.4	6"	10	0.39"	106	4.17"	161	6.34"	119	4.69"	MP4H-MQ
DTR159-10-126-112	158.8	6.25"	10	0.39"	112	4.41"	168	6.61"	126	4.96"	MP4H-MQ
DTR168-10-136-118	168.3	6.63"	10	0.39"	118	4.65"	179	7.05"	136	5.35"	MP50-MQ
DTR178-10-146-128	177.8	7"	10	0.39"	128	5.04"	189	7.44"	146	5.75"	MP50-MQ
DTR194-12.7-158-143	193.7	7.63"	12.7	0.5"	143	5.63"	204	8.03"	158	6.22"	MP60-MQ
DTR219-12.7-183-168	219.1	8.63"	12.7	0.5"	168	6.61"	231	9.09"	183	7.20"	MP70-MC-D170

Larger-diameter systems can be engineered based on the specific customer requirements.





# SOLITARY M-WALL RING BIT SYSTEM



**Solitary M-Wall ring bit system** is used to drill straight interlocked casings through boulders and rock layers even into inclined bedrock. M-Wall is a perfect solution to replace sheet piles and slurry walls in rocky ground conditions.

The solitary design means that the casing shoe and the ring bit are separated which, in the hands of an experienced driller, is a very cost-effective drilling solution.



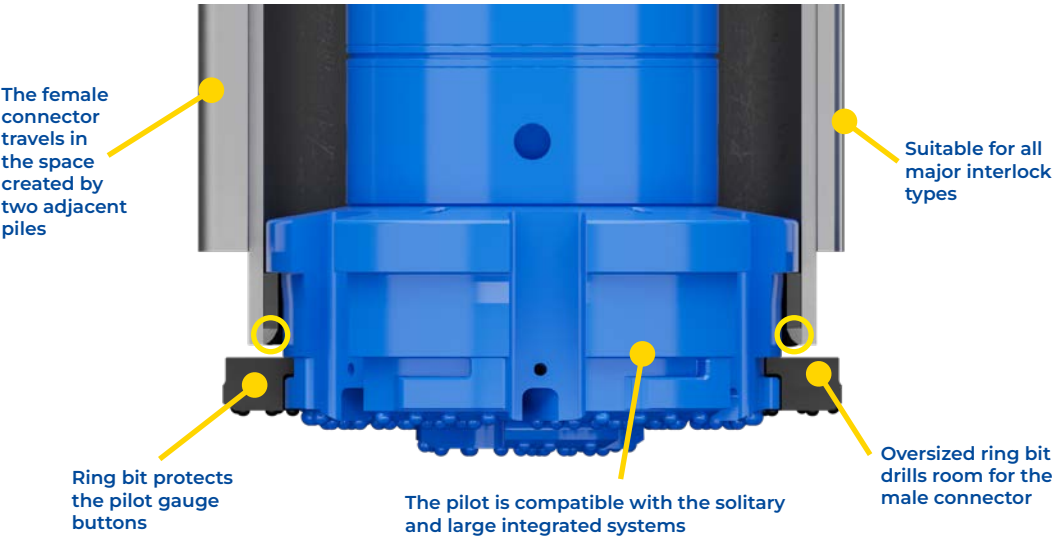
## MAIN APPLICATIONS

- Interlocked walls and roofs
- Cofferdams
- Retaining walls
- Watertight cut off walls



## SOLITARY M-WALL RING BIT SYSTEM 219-1 219 mm

### MODEL 1 CASING SHOE



○ = Welding spot

### MODEL 2 CASING SHOE



System is available for all major shank designs.  
Model 1 casing shoe comes standard. Model 2 can be delivered on special request.

SPIRALFLUSH®

System product code	Casing OD mm	inch	Max wall mm	inch	Ring bit ID mm	inch	Ring bit OD mm	inch	Pilot bit OD mm	inch	Recommended hammer
XL219-12.7-150	219.1	8.63"	12.7	0.5"	150	5.91"	277	10.91"	191	7.52"	MP70-MC-D160
XL244-14.2-170	244.5	9.63"	14.2	0.56"	170	6.69"	302	11.89"	213	8.39"	MP80-MQ
XL254-14.2-178	254	10"	14.2	0.56"	178	7.01"	312	12.28"	223	8.78"	MP80-MQ
XL273-12.7-192	273	10.75"	12.7	0.5"	192	7.56"	331	13.03"	245	9.65"	MP80-MQ
XL301-14.2-220	301.6	11.87"	14.2	0.56"	220	8.66"	355	13.98"	270	10.63"	MP80-MQ
XL323-14.2-240	323.9	12.75"	14.2	0.56"	240	9.45"	378	14.88"	291	11.62"	MP100-MC
XL339-14.2-255	339.7	13.37"	14.2	0.56"	255	10.04"	393	15.47"	308	12.13"	MP100-MC
XL355-14.2-270	355.6	14"	14.2	0.56"	270	10.63"	409	16.10"	324	12.76"	MP100-MC
XL406-16-318	406.4	16"	16	0.63"	318	12.52"	460	18.11"	370	14.57"	MP120-MC
XL457-16-360	457.2	18"	16	0.63"	369	14.53"	511	20.12"	420	16.54"	MP120-MC
XL508-16-422	508	20"	16	0.63"	422	16.61"	562	22.13"	471	18.54"	MP150-MC
XL559-16-470	558.8	22"	16	0.63"	470	18.50"	613	24.13"	521	20.51"	MP150-MC
XL610-16-502	609.6	24"	16	0.63"	502	19.76"	664	26.14"	572	22.52"	MP180-MQ
XL660-16-545	660.4	26"	16	0.63"	545	21.46"	714	28.11"	615	24.21"	MP180-MQ
XL711-16-610	711.2	28"	16	0.63"	610	24.02"	765	30.12"	675	26.76"	MP240-MQ
XL762-20-655	762	30"	20	0.79"	655	25.79"	816	32.13"	715	28.15"	MP240-MQ
XL813-20-700	812.8	32"	20	0.79"	700	27.56"	867	34.13"	766	30.16"	MP240-MQ
XL863-20-750	863.6	34"	20	0.79"	750	29.53"	917	36.10"	815	32.09"	MP240-MQ
XL914-20-800	914.4	36"	20	0.79"	800	31.50"	968	38.11"	866	34.09"	MP240-MQ
XL1016-20-880*	1 016	40"	20	0.79"	880	34.65"	1 070	42.13"	966	38.09"	MP340
XL1067-20-931*	1 066.8	42"	20	0.79"	931	36.65"	1 121	44.13"	1 014	39.92"	MP340
XL1219-22-1080*	1 219.2	48"	22	0.87"	1 080	42.52"	1 273	50.12"	1 164	45.83"	MP340

\*Large-diameter systems can be engineered based on the specific customer requirements.

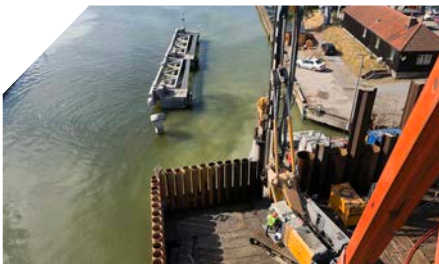


# INTEGRATED M-WALL RING BIT SYSTEM



**Integrated M-Wall ring bit system** is used to drill straight interlocked casings through boulders and rock layers even into inclined bedrock. M-Wall is a perfect solution to replace sheet piles and slurry walls in rocky ground conditions.

The integrated design means that the casing shoe and the ring bit are permanently connected together. This makes drilling over water safe as there is no risk of accidentally dropping the ring bit into water.

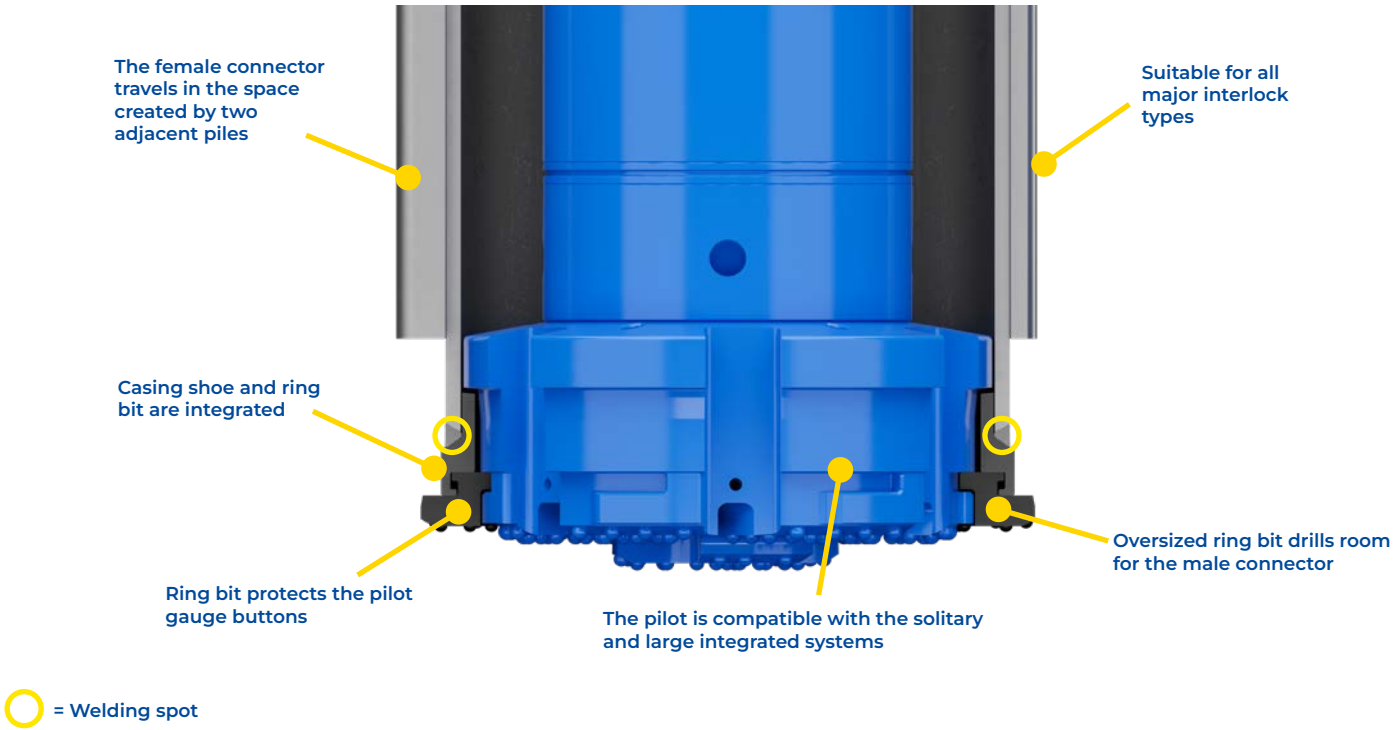


## MAIN APPLICATIONS

- Interlocked walls and roofs
- Cofferdams
- Retaining walls
- Watertight cut off walls



## INTEGRATED M-WALL RING BIT SYSTEM 219–1 219 mm



System is available for all major shank designs.

SPIRALFLUSH®

System product code	Casing OD mm	inch	Max wall mm	inch	Ring bit ID mm	inch	Ring bit OD mm	inch	Pilot bit OD mm	inch	Recommended hammer
XLI219-12.7-150	219.1	8.63"	12.7	0.5"	150	5.91"	277	10.91"	191	7.52"	MP70-MC-D160
XLI244-14.2-170	244.5	9.63"	14.2	0.56"	170	6.69"	302	11.89"	213	8.37"	MP80-MQ
XLI254-14.2-178	254	10"	14.2	0.56"	178	7.01"	312	12.28"	223	8.78"	MP80-MQ
XLI273-12.7-192	273	10.75"	12.7	0.5"	192	7.56"	331	13.03"	245	9.65"	MP80-MQ
XLI301-14.2-220	301.6	11.87"	14.2	0.56"	220	8.66"	355	13.98"	270	10.63"	MP80-MQ
XLI323-14.2-240	323.9	12.75"	14.2	0.56"	240	9.45"	378	14.88"	291	11.62"	MP100-MC
XLI339-14.2-255	339.7	13.37"	14.2	0.56"	255	10.04"	393	15.47"	308	12.13"	MP100-MC
XLI355-14.2-270	355.6	14"	14.2	0.56"	270	10.63"	409	16.10"	324	12.76"	MP100-MC
XLI406-16-318	406.4	16"	16	0.63"	318	12.52"	460	18.11"	370	14.57"	MP120-MC
XLI457-16-360	457.2	18"	16	0.63"	369	14.53"	511	20.12"	420	16.54"	MP120-MC
XLI508-16-422	508	20"	16	0.63"	422	16.61"	562	22.13"	471	18.54"	MP150-MC
XLI559-16-470	558.8	22"	16	0.63"	470	18.50"	613	24.13"	521	20.51"	MP150-MC
XLI610-16-502	609.6	24"	16	0.63"	502	19.76"	664	26.14"	572	22.52"	MP180-MQ
XLI660-16-545	660.4	26"	16	0.63"	545	21.46"	714	28.11"	615	24.21"	MP180-MQ
XLI711-16-610	711.2	28"	16	0.63"	610	24.02"	765	30.12"	675	26.76"	MP240-MQ
XLI762-20-655	762	30"	20	0.79"	655	25.79"	816	32.13"	715	28.15"	MP240-MQ
XLI813-20-700	812.8	32"	20	0.79"	700	27.56"	867	34.13"	766	30.16"	MP240-MQ
XLI863-20-750	863.6	34"	20	0.79"	750	29.53"	917	36.10"	815	32.09"	MP240-MQ
XLI914-20-800	914.4	36"	20	0.79"	800	31.50"	968	38.11"	866	34.09"	MP240-MQ
XLI1016-20-880*	1 016	40"	20	0.79"	880	34.65"	1 070	42.13"	966	38.09"	MP340
XLI1067-20-931*	1 066.8	42"	20	0.79"	931	36.65"	1 121	44.13"	1 014	39.92"	MP340
XLI1219-22-1080*	1 219.2	48"	22	0.87"	1 080	42.52"	1 273	50.12"	1 164	45.83"	MP340

\*Large-diameter systems can be engineered based on the specific customer requirements.

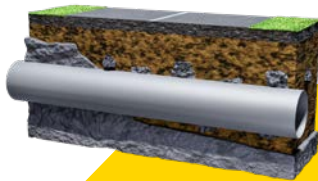


# HORIZONTAL RING BIT SYSTEM



**Horizontal ring bit system** is made for horizontal drilling of utility lines.

High casing friction calls for heavy duty ring bit system and drilling under roads and railways requires advanced air control made possible by Spiral Flush technology. Due to strong design, the ring bit system can be used several times.

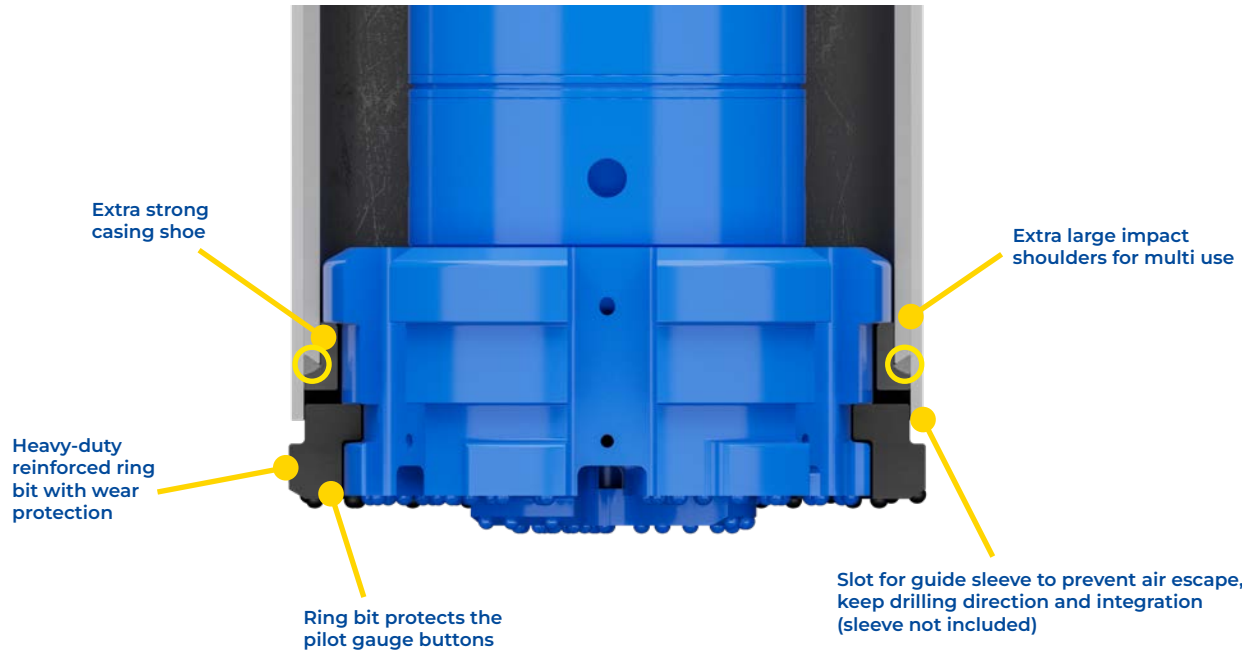


## MAIN APPLICATIONS

- Horizontal drilling of utility lines
- Road and railway underpasses
- Replacing of concrete culverts
- HDD surface casings
- All break through drilling



## HORIZONTAL SYSTEM 219–1 524 mm



○ = Welding spot

System is available for all major shank designs.

SPIRALFLUSH®

System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch	Recommended hammer
HZ219-12.7-138	219.1	8.63"	12.7	0.5"	138	5.43"	240	9.45"	191	7.52"	MP60-MQ
HZ273-12.7-170	273	10.75"	12.7	0.5"	170	6.69"	295	11.61"	245	9.65"	MP80-MQ
HZ323-12.7-215	323.9	12.75"	12.7	0.5"	215	8.46"	350	13.78"	294	11.57"	MP100-MC
HZ406-12.7-300	406.4	16"	12.7	0.5"	300	11.81"	440	17.32"	376	14.80"	MP120-MC
HZ457-12.7-351	457.2	18"	12.7	0.5"	351	13.82"	491	19.33"	423	16.65"	MP120-MC
HZ508-12.7-400	508	20"	12.7	0.5"	400	15.75"	540	21.26"	477	18.78"	MP150-MC
HZ610-16-495	609.6	24"	16	0.63"	495	19.49"	640	25.20"	572	22.52"	MP180-MQ
HZ711-16-590	711.2	28"	16	0.63"	590	23.23"	740	29.13"	675	26.57"	MP240-MQ
HZ762-16-630	762	30"	16	0.63"	630	24.80"	792	31.18"	723	28.46"	MP240-MQ
HZ813-16-675	812.8	32"	16	0.63"	675	26.57"	845	33.27"	774	30.47"	MP240-MQ
HZ914-16-775	914.4	36"	16	0.63"	775	30.51"	945	37.20"	874	34.41"	MP240-MQ
HZ1016-16-860	1 016	40"	16	0.63"	860	33.86"	1 050	41.34"	974	38.35"	MP340
HZ1067-16-910	1 066.8	42"	16	0.63"	910	35.83"	1 100	43.31"	1 024	40.31"	MP340
HZ1219-20-1050*	1 219.2	48"	20	0.79"	1 050	41.34"	1 250	49.21"	1 176	46.30"	MP340
HZ1321-20-1150*	1 320.8	52"	20	0.79"	1 150	45.28"	1 353	53.27"	1 273	50.12"	MP400
HZ1422-20-1250*	1 422.4	56"	20	0.79"	1 250	49.21"	1 457	57.36"	1 366	53.78"	MP400
HZ1524-20-1340*	1 524	60"	20	0.79"	1 340	52.76"	1 560	61.42"	1 466	57.72"	MP400

\*Large-diameter systems can be engineered based on the specific customer requirements.



# FOREPOLING SYSTEM AKA TUBE UMBRELLA



Forepoling ring bit system and casing tubes are designed to be drilled with top hammer or DTH in an umbrella shape as secondary support in the tunnel roof. Weak ground and overburden must be strengthened by grouting through the casing and grouting valves into the ground.

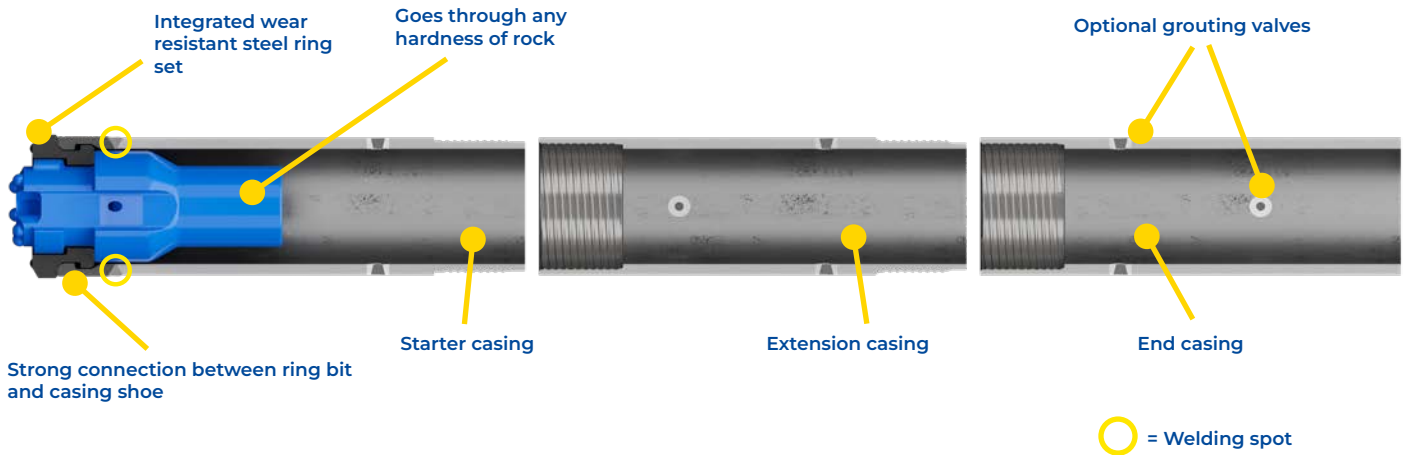


### MAIN APPLICATIONS

- Forepoling or tube umbrella
- Anchoring
- Micro-piling
- PVC drainage
- Fibre glass face stabilisation (GFRP system)
- Ground consolidation in front of TBM (GFRP system)



## FOREPOLING SYSTEM 73–219 mm



System is available for all major DTH shanks and top hammer threads. Threaded casings normally come with 1 start, but they are also available with 2–3 start trapezoidal threads and 10 mm entrance.

System product code	Casing OD		Max wall		Ring bit ID		Ring bit OD		Pilot bit OD		Recommended hammer
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
F73-5.5-40	73	2.87"	5.5	0.22"	40	1.57"	82	3.23"	58	2.28"	R32
F76-8-40	76.1	3.00"	8	0.31"	40	1.57"	82	3.23"	58	2.28"	R32
F89-8-52	88.9	3.5"	8	0.31"	52	2.05"	94.5	3.72"	70.9	2.79"	T38
F102-8-62	101.6	4.0"	8	0.31"	62	2.44"	106.6	4.20"	83	3.27"	T38
F114-10-70	114.3	4.5"	10	0.39"	70	2.76"	120	4.72"	92	3.62"	T38, T45
F140-10-94	139.7	5.5"	10	0.39"	94	3.70"	148	5.83"	116.7	4.59"	T45
F159-10-116	159	6.26"	10	0.39"	116	4.57"	169	6.65"	136	5.35"	T45, T51
I168-12.7-127-GEN2	168.3	6.63"	12.7	0.5"	127	4.92"	189	7.44"	140	5.51"	MP50-MQ
I219-12.7-171-GEN2	219.1	8.63"	12.7	0.5"	171	6.73"	243	9.57"	188	7.40"	MP70-MC-DI60

## CASING OPTIONS

### Steel casings



### GFRP casings



### PVC drainage casings



All forepoling systems come with starter, extension and end casings. Mincon offers convenient and flexible customization options to suite all project needs. Several casing options, such as steel, fibre glass and PVC drainage casings as well as accessories are available. See a separate forepoling brochure for more information.

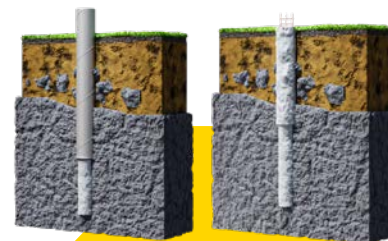


# LARGE DIAMETER ROCK BITS



**Mincon's rock bits** are the trusty work horses of going through rock of any hardness.

In piling, the large diameter rock bits are used to drill rock sockets through large ID or retrievable ring bits. Rock bits can also be designed and manufactured according to specific customer requirements.



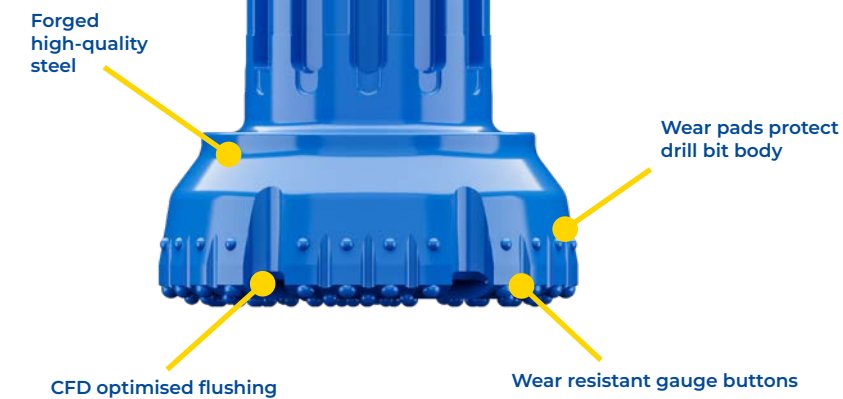
## MAIN APPLICATIONS

- Air ventilation for tunnels
- Shafts for utility lines
- Rescue shafts for mining
- Rock sockets



## LARGE DIAMETER ROCK BIT 300–1 524 mm

Large diameter rock bits are available from 300 to 1 524 mm diameter and for all major shank designs.



## HOLE OPENER ROCK BIT DESIGN FEATURES



Hole opener rock bits are available up to 1 524 mm diameter and for all major shank designs.

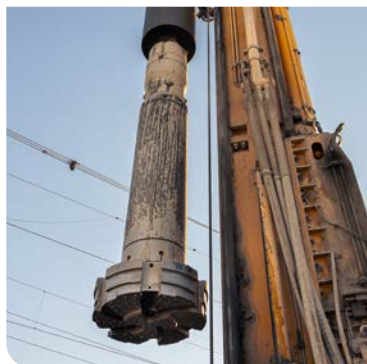


# MINCON DTH HAMMERS



**Mincon DTH hammers** are designed around proven technology to perform at the top end of the performance scale.

Our hammers are excellent for all types of drilling applications including residential geothermal, production quarry drilling, seismic drilling and construction drilling.



## KEY FEATURES AND BENEFITS

- Patented features maximise energy output and reduce service requirements.
- Fewer internal components minimize service requirements.
- Valveless, high frequency design ensures smooth operation.
- All critical internal components are heat treated under strict control to maximize tool longevity.



## DTH HAMMERS 3-40"

### 3-40" HAMMER SPECIFICATIONS

For more hammer models and additional information, please visit [mincon.com](http://mincon.com).

Range	Hammer product name	Shank	Footvalve	Hammer OD mm	inch	Tool length mm	inch	Piston weight kg	lb	Weight kg	lb	Std. Backhead
3"	MP30-DH	DHD3.5	YES	77	3.05"	858	33.78"	4.1	9.0	22.3	49.2	2 3/8" API Reg Pin
4"	MP4H-DH	DHD340	YES	98	3.86"	955	37.61"	7.3	16.1	38.5	84.9	2 3/8" API Reg Pin
	MP4H-TD	TD40	YES	98	3.86"	956	37.64"	7.3	16.1	38.5	84.9	2 3/8" API Reg Pin
	MP4H-MQ	MQ40	-	98	3.86"	1 021	40.20"	7.9	17.5	40.1	88.4	2 3/8" API Reg Pin
5"	MP50-DH	DHD350	YES	115	4.53"	1 014	39.92"	12.6	27.8	56	123.5	3 1/2" API Reg Pin
	MP50-QL	QL50	YES	115	4.53"	994	39.12"	12.5	27.6	55.4	122.1	3 1/2" API Reg Pin
	MP50-MQ	QL50	-	115	4.53"	1 057	41.61"	13.7	30.2	59.9	132.1	3 1/2" API Reg Pin
6"	MP6H-DH	DHD360	YES	140	5.51"	1 134	44.65"	20	44.1	95.3	210.1	3 1/2" API Reg Pin
	MP60-QL	QL60	YES	141	5.55"	1 002	39.45"	21.6	47.6	83.7	184.6	3 1/2" API Reg Pin
	MP60-MQ	MQ60	-	141	5.55"	1 002	39.45"	19.3	42.5	85.0	187.4	3 1/2" API Reg Pin
7"	MP70-MC-D160	MC71	-	160	6.30"	1 114	43.86"	30.3	66.8	157	346.1	4 1/2" API Reg Pin
8"	MP8H-DH	DHD380	YES	182	7.15"	1 205	47.44"	39	86.0	176	388.0	4 1/2" API Reg Pin
	MP80-QL	QL80	YES	182	7.15"	1 186	46.69"	39	86.0	173	381.8	4 1/2" API Reg Pin
	MP80-MQ	QL80	-	182	7.15"	1 306	51.42"	46.3	102.1	193	425.5	4 1/2" API Reg Pin
10"	MP100-SD	SD10	YES	219	8.62"	1 360	53.54"	77.8	171.5	295	650.4	6 5/8" API Reg Pin
	MP100-MC	MC100	-	219	8.62"	1 380	54.33"	79.3	174.8	309	681.2	6 5/8" API Reg Pin
12"	MP120-N125	N125	YES	273	10.75"	1 451	57.13"	137.4	302.9	455	1 003	6 5/8" API Reg Pin
	MP120-QL	QL120	YES	273	10.75"	1 454	57.24"	138.5	305.3	457	1 008	6 5/8" API Reg Pin
	MP120-MC	MC120	-	273	10.75"	1 454	57.24"	151.8	334.7	468	1 032	6 5/8" API Reg Pin
15"	MP150-MC	MC150	-	340	13.39"	1 662	65.43"	206	454.2	857	1 889	8 5/8" API Reg Pin
	MP150-MC-INTG1518	MC150	-	340	13.39"	1 591	62.64"	206	454.2	747	1 647	INTG1518
18"	MP180-N180	N180	YES	400	15.75"	1 695	66.73"	282	621.7	1 164	2 566	8 5/8" API Reg Pin
	MP180-QL	QL200	YES	400	15.75"	1 659	65.31"	284	626.1	1 177	2 595	8 5/8" API Reg Pin
	MP180-MQ	MQ180	-	400	15.75"	1 781	70.12"	320	705.5	1 241	2 736	8 5/8" API Reg Pin
	MP180-MQ-INTG1518	MQ180	-	400	15.75"	1 691	66.57"	320	705.5	1 142	2 518	INTG1518
24"	MP240-N240	N240	YES	525	20.67"	2 016	79.37"	545	1 202	2 536	5 591	HEX275 Pin
	MP240-MQ	MQ240	-	525	20.67"	2 077	81.77"	548	1 207	2 630	5 798	HEX275 Pin
	MP240-MQ-INTG24	MQ240	-	525	20.67"	1 987	78.23"	548	1 207	2 395	5 280	INTG24
34"	MP340	MF34	-	750	29.53"	2 336	91.97"	1 050	2 315	5 807	12 802	HEX370 Pin
40"	MP400	MF34	-	750	29.53"	2 336	91.97"	1 500	3 307	6 048	13 334	HEX370 Pin



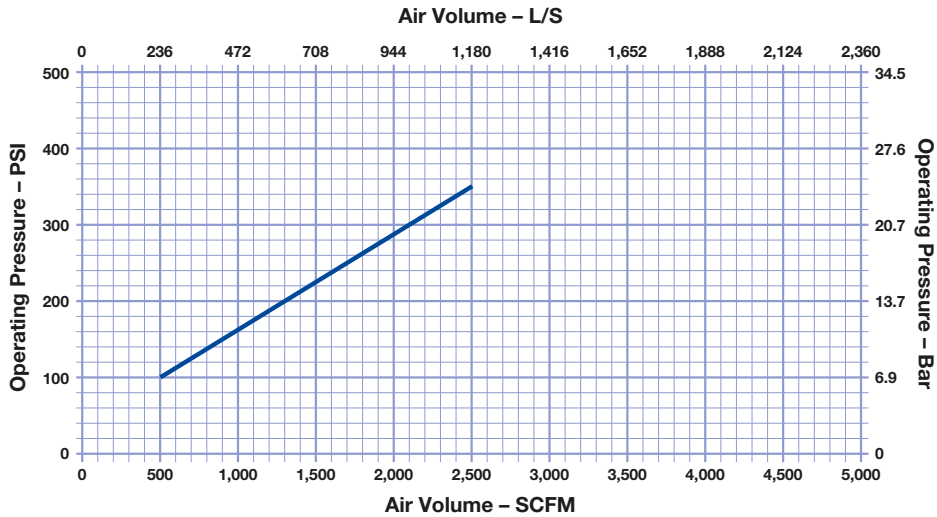




MP120 SPECIFICATIONS

Technical specifications:		MP120-N125		MP120-QL		MP120-MC	
Outside diameter		273 mm	10.75"	273 mm	10.75"	273 mm	10.75"
Length shoulder to shoulder		1 451 mm	57.13"	1 454 mm	57.24"	1 454 mm	57.24"
Weight without bit		455 kg	1 003 lb	457 kg	1 008 lb	468 kg	1 032 lb
Piston weight		137.4 kg	302.9 lb	138.5 kg	305.3 lb	151.8 kg	334.7 lb
Stroke		100 mm	4"	100 mm	4"	100 mm	4"
Beats per minute		1 286 <sup>1</sup> / <sub>min</sub> @ 300 psi					
Connections:							
Backhead		6 <sup>1</sup> / <sub>8</sub> " API Reg Pin					
Shank		N125		QL120		MC120	
Drill bit diameters:							
Minimum size	Overburden Rock	406 mm 304.8 mm			16" 12"		
Maximum size	Overburden Rock	457 mm 381 mm			18" 15"		

Air consumption:



Disclaimer:

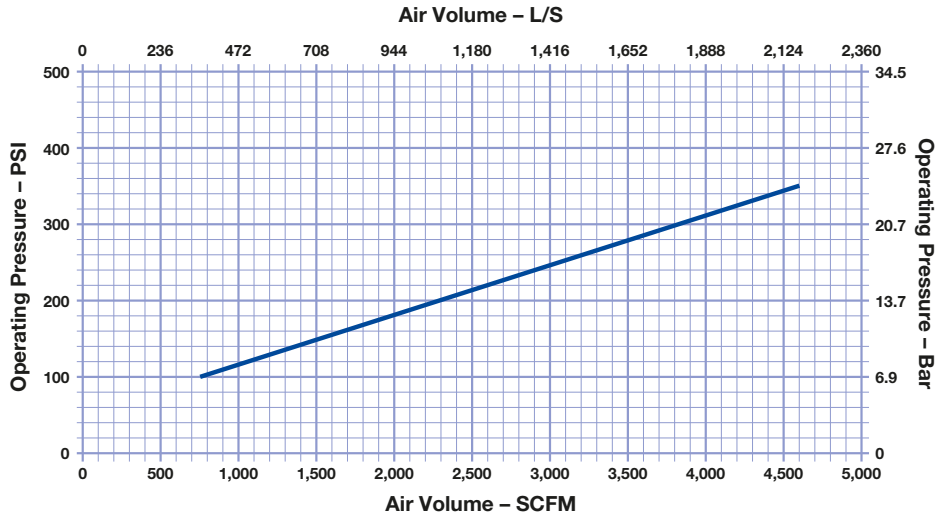
1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



MP150 SPECIFICATIONS

Technical specifications:		MP150-MC		MP150-MC-BLANK	
Outside diameter		340 mm	13.39"	340 mm	13.39"
Length shoulder to shoulder		1 662 mm	65.43"	1 591 mm	62.64"
Weight without bit		857 kg	1 889 lb	747 kg	1 647 lb
Piston weight		206 kg	454.2 lb	206 kg	454.2 lb
Stroke		102 mm	4.02"	102 mm	4.02"
Beats per minute		1 020 1/2 @ 250 psi			
Connections:					
Backhead		8 5/8 " API Reg Pin		INTG1518	
Shank		MC150		MC150	
Drill bit diameters:					
Minimum size	Overburden Rock	457 mm 381 mm		18" 15"	
Maximum size	Overburden Rock	559 mm 457 mm		22" 18"	

Air consumption:



Disclaimer:

1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



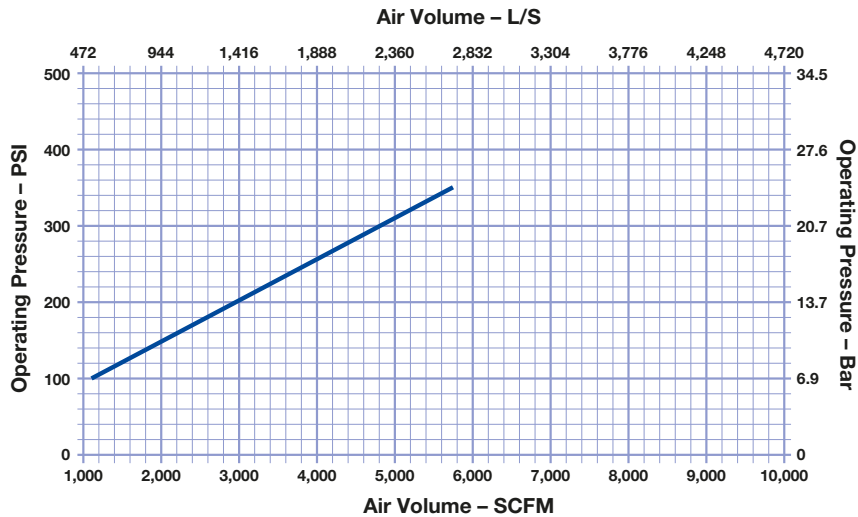




MP180 SPECIFICATIONS

Technical specifications:		MP180-N180		MP180-MQ		MP180-MQ-BLANK	
Outside diameter		400 mm	15.75"	400 mm	15.75"	400 mm	15.75"
Length shoulder to shoulder		1 695 mm	66.73"	1 781 mm	70.12"	1 691 mm	66.57"
Weight without bit		1 164 kg	2 566 lb	1 241 kg	2 736 lb	1 142 kg	2 518 lb
Piston weight		282 kg	621.7 lb	320 kg	705.5 lb	320 kg	705.5 lb
Stroke		127 mm	5"	108 mm	4.25"	108 mm	4.25"
Beats per minute		1 025 1/2 @ 250 psi		945 1/2 @ 250 psi			
Connections:							
Backhead		8 3/4" API Reg Pin / HEX275 Pin				INTG1518	
Shank		N180		MQ180		MQ180	
Drill bit diameters:							
Minimum size	Overburden Rock	559 mm 457 mm			22" 18"		
Maximum size	Overburden Rock	711 mm 609.6 mm			28" 24"		

Air consumption:



Disclaimer:

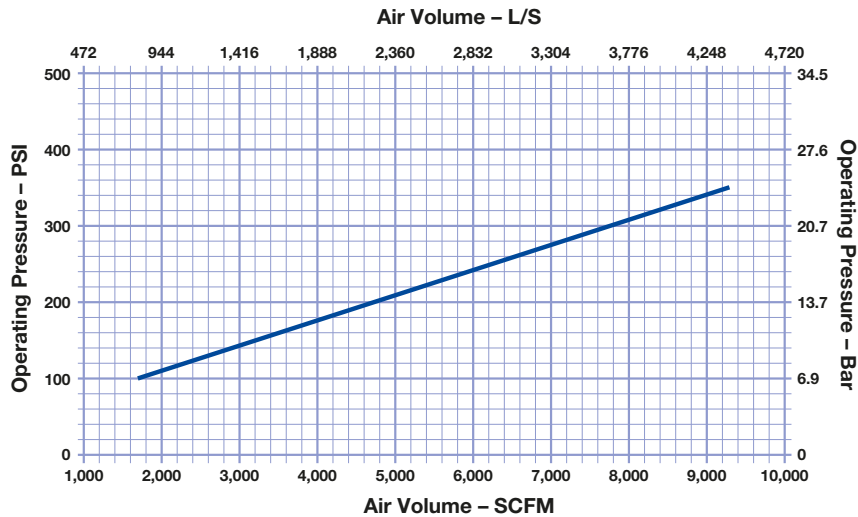
1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



MP240 SPECIFICATIONS

Technical specifications:		MP240-N240		MP240-MQ		MP240-MQ-BLANK	
Outside diameter		525 mm	20.67"	525 mm	20.67"	525 mm	20.67"
Length shoulder to shoulder		2 016 mm	79.37"	2 077 mm	81.77"	1 987 mm	78.23"
Weight without bit		2 536 kg	5 591 lb	2 630 kg	5 798 lb	2 395 kg	5 280 lb
Piston weight		545 kg	1 202 lb	548 kg	1 207 lb	548 kg	1 207 lb
Stroke		140 mm	5.5"	140 mm	5.5"	140 mm	5.5"
Beats per minute		860 1/2 <sub>min</sub> @ 200 psi					
Connections:							
Backhead - Hexagonal (double pin)		HEX275 mm (10.83")				INTG24	
Shank		N240		MQ240		MQ240	
Drill bit diameters:							
Minimum size	Overburden Rock	711 mm 609.6 mm			28" 24"		
Maximum size	Overburden Rock	914.4 mm 863.6 mm			36" 34"		

Air consumption:



Disclaimer:

1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



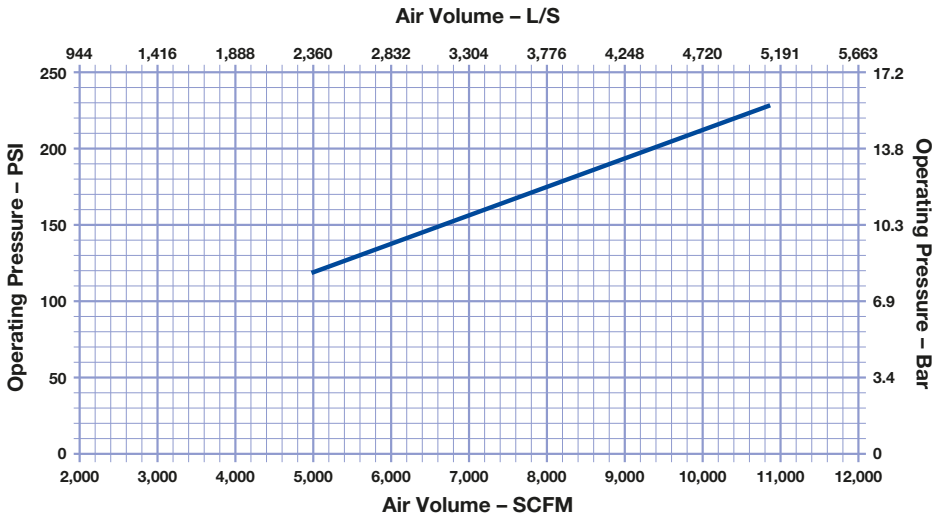




MP340 SPECIFICATIONS

Technical specifications:		MP340-MC	
Outside diameter		750 mm	29.53"
Length shoulder to shoulder		2 336 mm	91.97"
Weight without bit		5 807 kg	12 802 lb
Piston weight		1 050 kg	2 315 lb
Stroke		150 mm	6"
Beats per minute		580 1/2 @ 150 psi	
Connections:			
Backhead - Hexagonal (double pin)		HEX370 mm	14.57"
Shank		MF34	
Drill bit diameters:			
Minimum size	Overburden Rock	1 016 mm 850 mm	40" 33"
Maximum size	Overburden Rock	1 220 mm 1 000 mm	48" 39"

Air consumption:



Disclaimer:

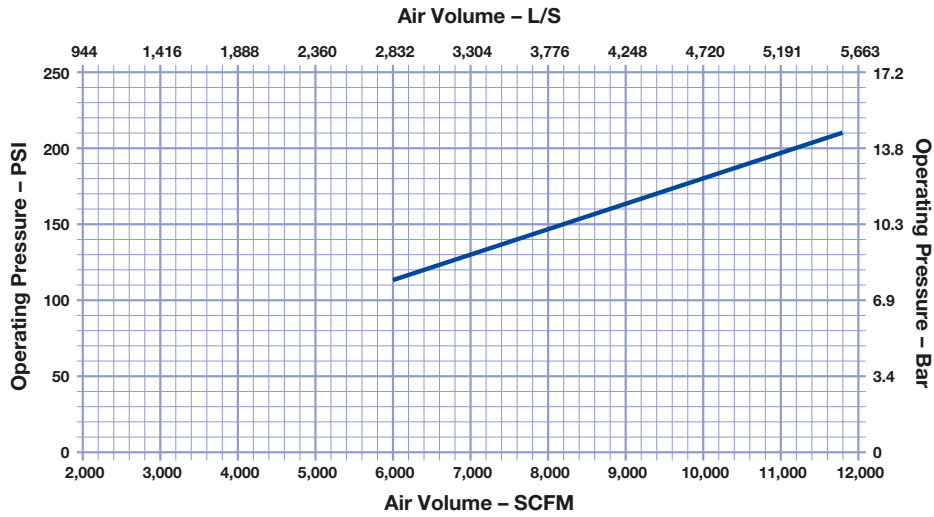
1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



MP400 SPECIFICATIONS

Technical specifications:		MP400-MC	
Outside diameter		750 mm	29.53"
Length shoulder to shoulder		2 336 mm	91.97"
Weight without bit		6 048 kg	13 334 lb
Piston weight		1 500 kg	3 307 lb
Stroke		150 mm	6"
Beats per minute		580 1/2 @ 150 psi	
Connections:			
Backhead - Hexagonal (double pin)		HEX370 mm	14.57"
Shank		MF34	
Drill bit diameters:			
Minimum size	Overburden Rock	1 220 mm 1 000 mm	48" 39"
Maximum size	Overburden Rock	1 524 mm 1 450 mm	60" 57"

Air consumption:



Disclaimer:

1. Air consumption values are based on a combination of simulation data and real-world testing.
2. All air charts are based on normal temperature and atmospheric pressure: 20°C and 101.325 kPa (68°F and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.



# SHOCK ABSORBERS



Mincon's heavy duty DTH shock absorbers have been engineered to protect your drill rig, rotary head, boom joints, and drill string components, with easy maintenance in mind. Place them just behind the DTH hammer for trouble-free worksite operation every day.



## FEATURES IN LARGE SIZES

- Three-cushion construction
- Damping on both directions
- Easy to change drive pins for rotation
- Connections according to requirements



## SHOCK ABSORBERS 4-34"

### SHOCK ABSORBER SPECIFICATIONS

System product code	OD		Length		Tool length		Weight		Connections*		Drive pins	Dampers both directions
	mm	inch	mm	inch	mm	inch	kg	lb	bottom	top		
MSA40	95	3.76"	556	22.28"	488	19.21"	22	47.8	2 3/8" API Reg	2 3/8" API Reg	-	-
MSA50	114	4.49"	626	24.65"	528	20.79"	34	75.0	3 1/2" API Reg	3 1/2" API Reg	-	-
MSA60	140	5.50"	680	26.77"	583	22.95"	55	120.8	3 1/2" API Reg	3 1/2" API Reg	-	-
SA07-API412box-API412pin	160	6.30"	750	29.53"	642	25.28"	90	198.4	4 1/2" API Reg	4 1/2" API Reg	-	YES
SA08-API412box-API412pin	182	7.17"	798	31.42"	690	27.17"	102	224.9	4 1/2" API Reg	4 1/2" API Reg	-	YES
SA10-API658box-API658pin	219	8.62"	936	36.85"	809	31.85"	173	381.4	6 5/8" API Reg	6 5/8" API Reg	-	YES
SA12-API658box-API658pin	273	10.75"	1 012	39.84"	885	34.84"	293	645.9	6 5/8" API Reg	6 5/8" API Reg	YES	YES
SA15-API858box-API858pin	340	13.39"	1 024	40.31"	888	34.96"	480	1 058	8 5/8" API Reg	8 5/8" API Reg	YES	YES
SA15-INTG1518pin-API858	340	13.39"	1 054	41.50"	723	28.46"	487	1 074	INTG1518	8 5/8" API Reg	YES	YES
SA15-INTG1518pin-HEX200pin	340	13.39"	1 127	44.37"	723	28.46"	488	1 076	INTG1518	HEX200	YES	YES
SA15-INTG1518pin-HEX200Lpin	340	13.39"	1 182	46.54"	733	28.86"	504	1 111	INTG1518	HEX200L	YES	YES
SA18-API858box-API858pin	400	15.75"	1 048	41.26"	911	35.87"	611	1 347	8 5/8" API Reg	8 5/8" API Reg	YES	YES
SA18-API858box-HEX200pin	400	15.75"	1 121	44.13"	911	35.87"	654	1 442	8 5/8" API Reg	HEX200	YES	YES
SA18-API858box-HEX200Lpin	400	15.75"	1 166	45.91"	911	35.87"	665	1 466	8 5/8" API Reg	HEX200L	YES	YES
SA18-HEX240Hbox-HEX240Hpin	400	15.75"	1 572	61.89"	1 173	46.18"	843	1 859	HEX240H	HEX240H	YES	YES
SA18-INTG1518PIN-HEX200pin	400	15.75"	1 209	47.60"	805	31.69"	709	1 563	INTG1518	HEX200	YES	YES
SA18-INTG1518PIN-HEX200Lpin	400	15.75"	1 254	49.37"	805	31.69"	722	1 592	INTG1518	HEX200L	YES	YES
SA24-HEX275box-HEX200pin	507	19.96"	1 211	47.68"	1 001	39.41"	1 079	2 379	HEX275	HEX200	YES	YES
SA24-HEX275box-HEX200Lpin	507	19.96"	1 256	49.45"	1 001	39.41"	1 092	2 407	HEX275	HEX200L	YES	YES
SA24-INTG24pin-HEX200pin	507	19.96"	1 293	50.91"	843	33.19"	1 190	2 624	INTG24	HEX200	YES	YES
SA24-INTG24pin-HEX200Lpin	507	19.96"	1 338	52.68"	843	33.19"	1 108	2 443	INTG24	HEX200L	YES	YES
SA24-INTG24pin-API858pin	507	19.96"	1 366	53.78"	843	33.19"	1 095	2 414	INTG24	8 5/8" API Reg	YES	YES
SA24-HEX240Hbox-HEX240Hpin	507	19.96"	1 558	61.34"	1 159	45.63"	1 345	2 965	HEX240H	HEX240H	YES	YES
SA34-HEX370box-HEX275pin	607	23.90"	1 398	55.04"	1 118	44.02"	1 836	4 048	HEX370	HEX275	YES	YES

\*Connections according to the requirements.





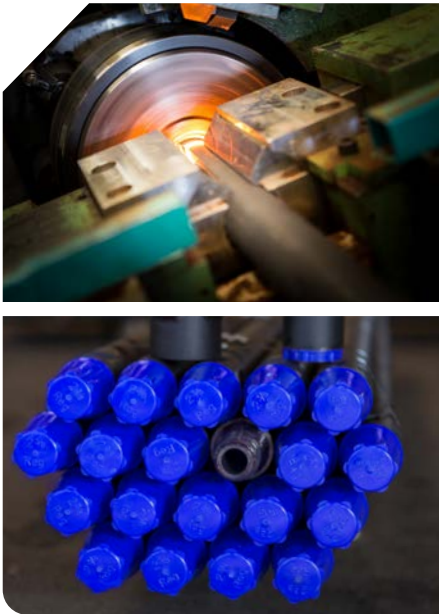
# DRILL PIPES



**Mincon drill pipes** are manufactured in our own factories, ensuring high quality, flexibility and sustainability. We work together with leading material manufacturers and suppliers in Sweden and Germany.

By using our high quality drill pipes our customers will enjoy trouble-free drilling and lower cost per metre average. This is made possible by higher-strength steel that allows for thinner wall thickness and less weight.

Mincon drill pipes have been know for decades as Driconeq drill pipes. For more information please visit [www.driconeq.com](http://www.driconeq.com)

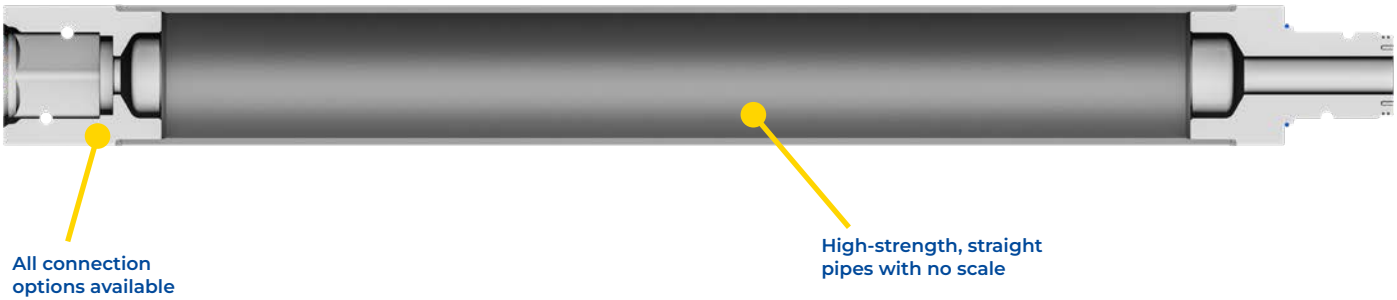


### MAIN FEATURES

- Friction welding 76–140 mm
- Cold-drawn seamless pipes 76–140 mm
- High-strength, straight pipes with no scale
- API certified testing after production
- eX-Flow® pipes reduce noise and fuel consumption



## DRILL PIPES 76–355 mm

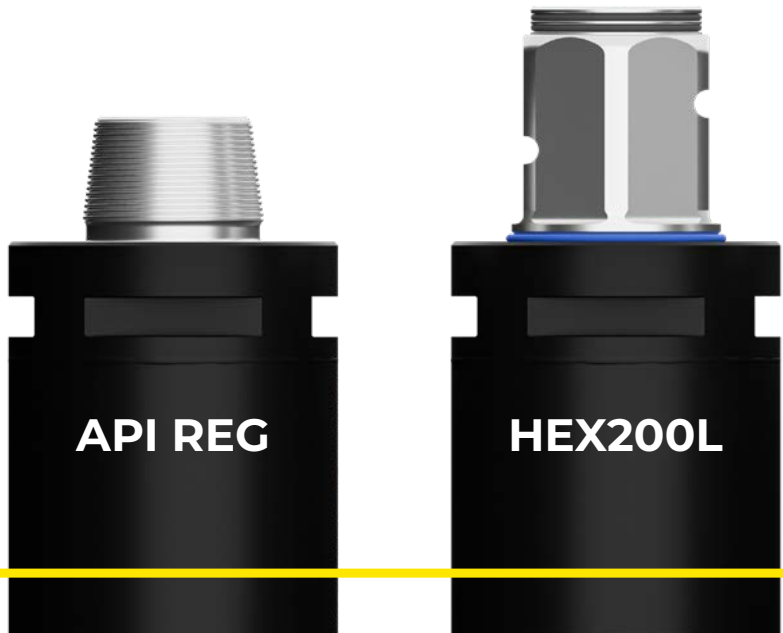


For more drill pipes and additional information, please visit [www.driconeq.com](http://www.driconeq.com).

Size & connections	OD mm	WT mm	Connections bottom and top	Example weights (kg)			
				1 m	3 m	6 m	12 m
76x8.8 2 3/8" REG	76	8.8	2 3/8"API REG	17.1	46.3	92.0	-
89x8.8 2 3/8" REG	89	8.8	2 3/8"API REG	19.8	51.7	99.6	-
102x6.3 2 7/8" REG	102	6.3	2 7/8"API REG	23.6	53.2	97.6	-
114x8.8 3 1/2" REG	114	8.8	3 1/2"API REG	30.8	76.6	145	-
127x8.8 3 1/2" REG	127	8.8	3 1/2"API REG	41.1	92.5	170	-
140x8.8 4 1/2" REG	140	8.8	4 1/2"API REG	46.5	103	189	-
159x12 4 1/2"REG	159	12	4 1/2"API REG	86	176	312	-
168x12 4 1/2"REG	168	12	4 1/2"API REG	90	186	330	-
178x12 4 1/2"REG	178	12	4 1/2"API REG	104	206	359	-
194x12.5 6 5/8"REG	194	12.5	6 5/8"API REG	120	236	396	731
219x12.5 6 5/8"REG	219	12.5	6 5/8"API REG	159	287	479	861
244x12.5 6 5/8"REG	244	12.5	6 5/8"API REG	174	317	532	960
254x12.5 8 5/8"REG	254	12.5	6 5/8"API REG	180	329	553	1 000
273x16 HEX200L	273	16	HEX 200L*	272	475	779	1 387
305x16 HEX200L	305	16	HEX 200L*	322	550	892	1 576
324x16 HEX200L	324	16	HEX 200L*	382	635	990	1 720
355x16 HEX200L	355	16	HEX 200L*	431	699	1100	1 905

\*Threads available on request.

Threads are the preferred connection type for backlash-free operation. However, larger sizes often use HEX connections for easier opening.



# SHROUDED DRILL PIPES



**Mincon shrouded drill pipes** are used in large-diameter drilling, particularly when there is a requirement to enhance uphole velocity. The combination of correct uphole velocity and our Spiral Flush air control technology ensures safe drilling, even in challenging ground conditions.

Our shrouded drill pipes are manufactured at our own factory in Sweden, guaranteeing the highest quality and a long lifespan.

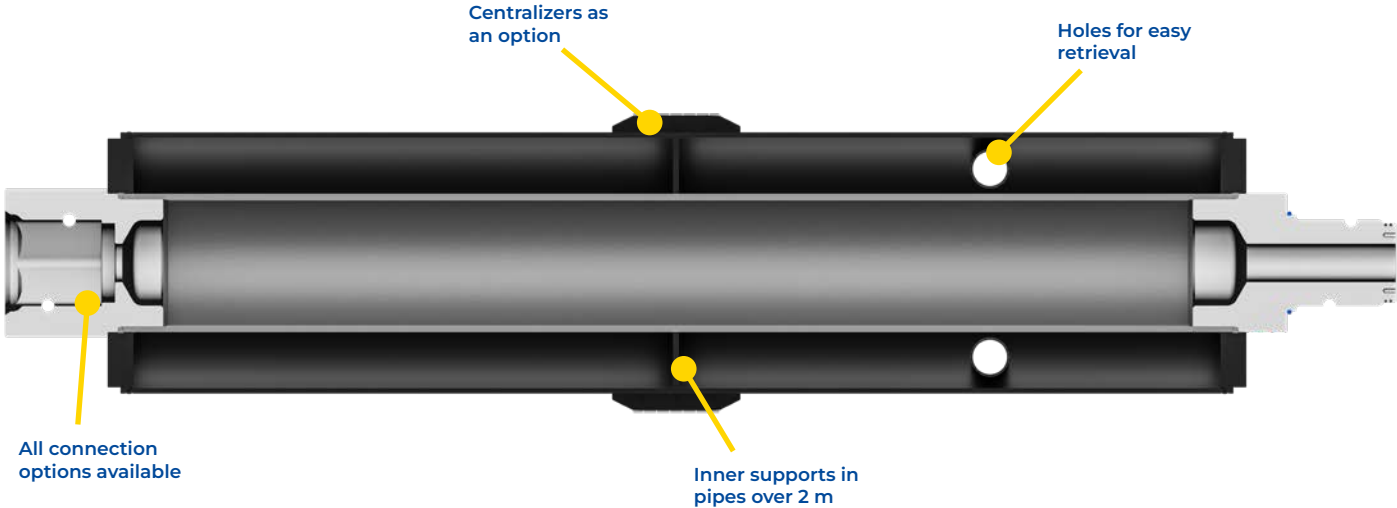


### MAIN FEATURES

- Submerged arc welded tool joints
- Center tube seamless hot rolled pipe
- High-strength, straight pipes with no scale
- Available with Mincon HEX or customer-specific connection
- Optional joint covers available



## SHROUDED DRILL PIPES 406–1 321 mm



For more drill pipes and additional information, please visit [www.driconeq.com](http://www.driconeq.com).

Size & connections	OD outer mm	WT outer mm	OD inner mm	WT inner mm	Connections bottom and top	Example weights (kg)		
						1 m	6 m	12 m
406x12/273x16 HEX200L	406	12	273	16	HEX 200L	403	1 525	2 877
457x12/273x16 HEX200L	457	12	273	16	HEX 200L	445	1 650	3 106
508x12/273x16 HEX200L	508	12	273	16	HEX 200L	464	1 755	3 280
559x12/273x16 HEX200L	559	12	273	16	HEX 200L	531	1 905	3 573
610x12/273x16 HEX200L	610	12	273	16	HEX 200L	582	2 041	3 818
660x12/273x16 HEX200L	660	12	273	16	HEX 200L	639	2 183	4 068
711x12/273x16 HEX200L	711	12	273	16	HEX 200L	695	2 328	4 326
762x12/273x16 HEX200L	762	12	273	16	HEX 200L	762	2 480	4 584
813x12/273x16 HEX200L	813	12	273	16	HEX 200L	831	2 635	4 853
863x12/324x16 HEX275	863	12	324	16	HEX 275	1 061	3 135	5 472
914x12/324x16 HEX275	914	12	324	16	HEX 275	1 132	3 312	5 755
1016x12/324x16 HEX275	1 016	12	324	16	HEX 275	1 248	3 685	6 423
1066x12/324x16 HEX275	1 066	12	324	16	HEX 275	1 366	3 879	6 646
1219x12/324x16 HEX275	1 219	12	324	16	HEX 275	1 633	4 495	7 594
1321x12/324x16 HEX275	1 321	12	324	16	HEX 275	1 834	4 940	8 266
1372x12/324x16 HEX275	1 372	12	324	16	HEX 275	1 912	5 063	8 449
1422x12/324x16 HEX275	1 422	12	324	16	HEX 275	1 992	5 223	8 705

HEX200 connection is available on request but HEX200L is more recommended for its superior durability. HEX275 is used in the largest drill pipes.







# DRILL PIPE OPTIONS

## HAMMER SHROUDS

Hammer shrouds are an important component to install around the hammer and shock absorber. They help to increase the uphole velocity and ensure trouble-free flushing and fast drilling, while reducing fuel consumption. There are two types of hammer shrouds, detachable and welded.

### Detachable

These shrouds are connected to the hammer-shock-absorber-assembly with shroud adapters. The shroud is secured between the shroud adapter and the first drill pipe. They are easy to detach by disconnecting the drill pipe.



### Welded

These shrouds are welded securely to the first drill pipe, which can be done already in the factory. They slide over the hammer-shock-absorber-assembly creating a robust package. It is easy to remove the assembly from the shroud if necessary.



## JOINT COVERS

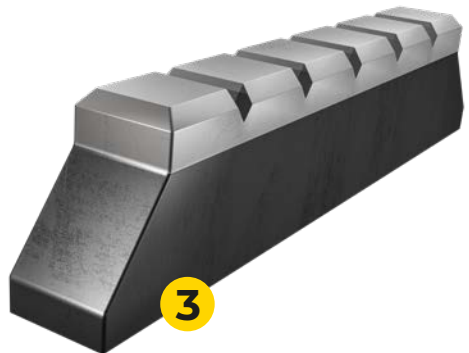
Optional joint covers are installed around drill pipe joints in order to improve the flow of cuttings. Joint covers are selected according to the drill pipe size.



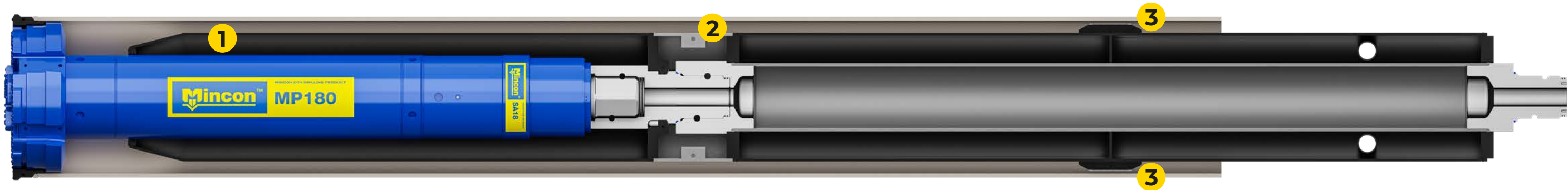
## CENTRALIZERS

Centralizers are important components to weld on the outer side of drill pipes to maintain hole straightness. Well centralized and rigid drill string will also spread loads evenly and improve tool-life.

Centralizers' outer diameter should be chosen according to the casing size, wall thickness and tolerance as well as customer preference.



System product code	Thickness mm	Length L1 mm	Length L2 mm	Height mm
C40-240-300-H50	40	240	300	50
C40-240-400-H100	40	240	400	100



# ACCESSORIES



**Mincon provides** all the necessary tools and accessories that are needed in successful drilling operations and equipment maintenance.

Only the most commonly used tools and products are listed on these pages. Please contact Mincon sales to know more about other items available.

### ACCESSORIES

- Wide range of accessories for drilling
- Non-return valves for mud and air
- Stabilisers and wrenches
- Chucks with guiding, fishing and lifting tools

### ADAPTERS/SUBS

- Wide range of standard cross over subs, saver subs and subs with API threads
- Customised subs by customer specifications
- The subs are made out of micro alloy steel with a hard surface for wear resistance and a tough core for fatigue resistance as standard



## ACCESSORIES

### AIR TOOL OIL

Mincon Envirosafe RDO is a high performance, environmentally safe rock drill oil. It can be used in all in-line lubricators and has proprietary lubricating compounds that are resistant to being washed off in acidic water, salt water, and foam environments, thus reducing rust in the hammer even after the equipment is not in use. Mincon Envirosafe RDO is a biodegradable product that lubricates more efficiently than conventional rock drill oils while reducing contamination of surface and groundwater.



### FLUSHING FLUIDS

#### Foam

Mincon Envirosafe Foamer ES is an environmentally acceptable foaming agent. It has an excellent half-life comparable to the leading foams on the market. It develops immediate tight foam (compact bubbles) with good lifting characteristics.



#### Hole control

Mincon Hole Control is a unique cost saving fluid formulated to stabilize the drill hole. It reduces the risk of re-drilling a hole, due to hole collapse or transference between adjacent drill holes through cracks and voids in the rock.



### BUTTON SHARPENING



System product code	Name
203-0020-00	CME VS-220 HD PRO Handheld Grinder



System product code	Name
100-5000-12	CME Grinding Cup HD round 12 mm
100-5000-14	CME Grinding Cup HD round 14 mm
100-5000-16	CME Grinding Cup HD round 16 mm
100-5000-18	CME Grinding Cup HD round 18 mm
100-5000-20	CME Grinding Cup HD round 20 mm
100-5000-22	CME Grinding Cup HD round 22 mm
5300-28	CME Grinding Cup HD round 28 mm



**Mincon integrated 1 219 mm pilot bit**  
being prepared for painting at Mincon Finland.

