Mincon™

Bluebook
2023

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 40 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

Mincon
Geotechnical Center

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

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.

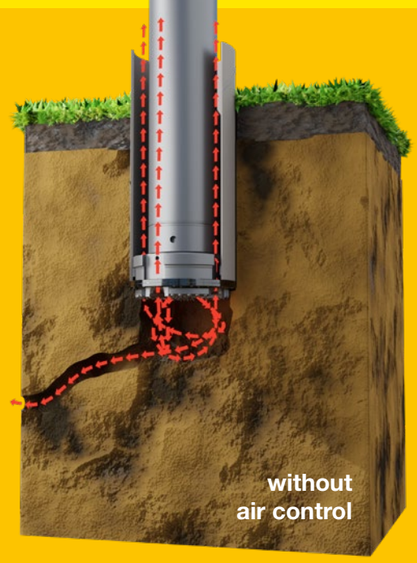
SPIRALFLUSH®

AIRFLOW CONTROLLED

DTH drilling with Spiral Flush air control

- All cuttings and flushing air are kept inside of 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 **IT WORKS?**

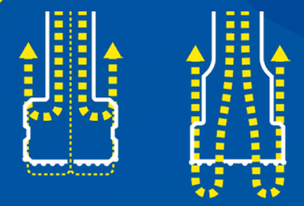
Spiral Flush has been designed so that the high-pressure air is never directed against the ground. Instead, it is directed sideways and upwards, which makes flushing the cuttings both effective and safe. This way the air always stays inside the casing.

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

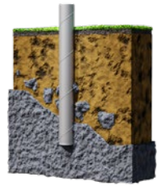
Project requirements can vary greatly depending on ground conditions, which means there are many different approaches for using DTH systems. As one of the pioneers of DTH drilling, Mincon has a solution for every situation.

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 projects 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. When the casing is drilled to the desired depth (1), the pilot bit is released by turning it slightly backwards 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.

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.

Rock bit

The trusty work horse of going through rock of any hardness. In piling, used to drill rock sockets through large ID ring bits.

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.

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.

SPIRALFLUSH®

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.

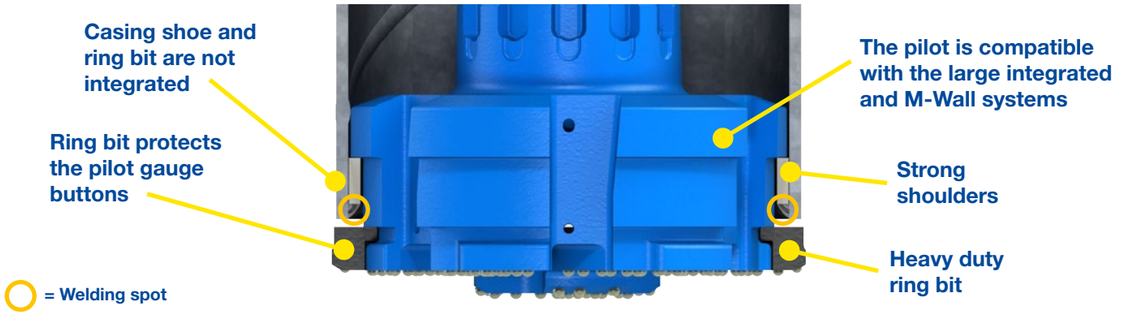
The heavy-duty ring bit is not attached to casing shoe, which makes it the most economical option of the ring bit alternatives.

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.

Mincon™

SOLITARY SYSTEM
114–1 524 mm



System is available from 114 to 1 524 mm casings and 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
S114-8-68	114.3	4.5”	8	0.31”	68	2.68”	125	4.92”	96	3.78”
S127-10-75	127	5”	10	0.39”	75	2.95”	137	5.39”	105	4.13”
S140-10-87	139.7	5.5”	10	0.39”	87	3.43”	149	5.87”	119	4.69”
S152-10-96	152.4	6”	10	0.39”	96	3.78”	162	6.38”	130	5.12”
S159-10-103	158.8	6.25”	10	0.39”	103	4.06”	169	6.65”	137	5.39”
S168-12.7-106	168.3	6.63”	12.7	0.5”	106	4.17”	179	7.05”	140	5.51”
S178-12.7-116	177.8	7”	12.7	0.5”	116	4.57”	188	7.40”	150	5.91”
S194-12.7-125	193.7	7.63”	12.7	0.5”	125	4.92”	205	8.07”	166	6.54”
S219-12.7-150	219.1	8.63”	12.7	0.5”	150	5.91”	230	9.06”	191	7.52”
S244-14.2-170	244.5	9.63”	14.2	0.56”	170	6.69”	257	10.12”	213	8.39”
S254-14.2-172	254	10”	14.2	0.56”	172	6.77”	265	10.43”	223	8.78”
S273-12.7-192	273	10.75”	12.7	0.5”	192	7.56”	286	11.26”	245	9.65”
S301-14.2-220	301.6	11.87”	14.2	0.56”	220	8.66”	312	12.28”	270	10.63”
S323-14.2-241	323.9	12.75”	14.2	0.56”	241	9.49”	335	13.19”	291	11.62”
S339-14.2-255	339.7	13.37”	14.2	0.56”	255	10.04”	350	13.78”	308	12.13”
S355-14.2-270	355.6	14”	14.2	0.56”	270	10.63”	367	14.45”	324	12.76”
S406-16-318	406.4	16”	16	0.63”	318	12.52”	418	16.46”	370	14.57”
S457-16-369	457.2	18”	16	0.63”	369	14.53”	469	18.46”	420	16.54”
S508-16-422	508	20”	16	0.63”	422	16.61”	520	20.47”	471	18.54”
S559-16-470	558.8	22”	16	0.63”	470	18.50”	571	22.48”	521	20.51”
S610-16-502	609.6	24”	16	0.63”	502	19.76”	622	24.49”	572	22.52”
S660-16-545	660.4	26”	16	0.63”	545	21.46”	675	26.57”	615	24.21”
S711-16-610	711.2	28”	16	0.63”	610	24.02”	735	28.94”	675	26.76”
S762-20-655	762	30”	20	0.79”	655	25.79”	785	30.91”	715	28.15”
S813-20-700	812.8	32”	20	0.79”	700	27.56”	830	32.68”	766	30.16”
S863-20-750	863.6	34”	20	0.79”	750	29.53”	880	34.65”	815	32.09”
S914-20-800	914.4	36”	20	0.79”	800	31.50”	930	36.61”	866	34.21”
S1016-20-880	1 016	40”	20	0.79”	880	34.65”	1 032	40.63”	966	38.09”
S1066-20-931	1 066.8	42”	20	0.79”	931	36.65”	1 086	42.76”	1 014	39.92”
S1220-20-1080*	1 219.2	48”	20	0.79”	1 080	42.52”	1 240	48.82”	1 168	45.98”
S1321-22-1160*	1 320.8	52”	22	0.87”	1 150	45.28”	1 344	52.91”	1 247	49.09”
S1422-22-1250*	1 422.4	56”	22	0.87”	1 250	49.21”	1 446	56.93”	1 348	53.07”
S1524-22-1340*	1 524	60”	22	0.87”	1 340	52.76”	1 548	60.94”	1 462	57.56”

*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.

SPIRALFLUSH®

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.

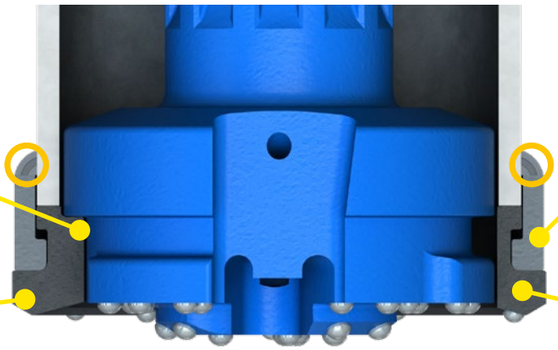
The heavy-duty ring bit is integrated into casing shoe, which makes it safe to drill in loose ground and over water.

MAIN APPLICATIONS

- End-bearing piles including micro-piling
- Pilings with sacrificed casings, which have no large ID ring bit requirements
- Compatible with most external threaded casing joint sleeves
- Slope stabilization
- Pipe walls, king piles

Mincon™

INTEGRATED SYSTEM, SMALL
114–301 mm



= Welding spot

System is available from 114 to 301 mm casings and for all major shank designs.

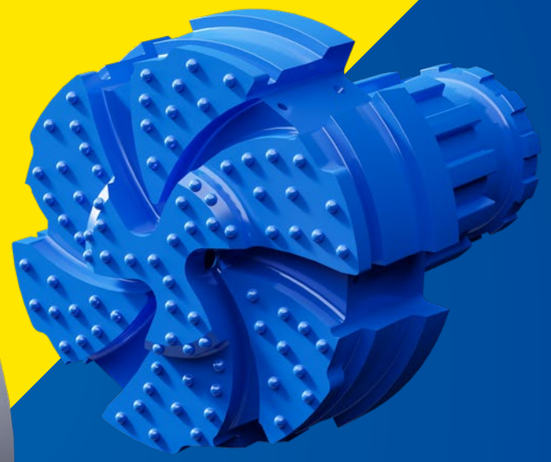
SPIRALFLUSH®

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
I114-10-76	114.3	4.5”	10	0.39”	76	2.99”	130	5.12”	89	3.50”
HDI114-10-76	114.3	4.5”	10	0.39”	76	2.99”	138	5.43”	89	3.50”
I127-10-87	127	5”	10	0.39”	87	3.43”	145	5.71”	105	4.13”
I140-10-100	139.7	5.5”	10	0.39”	102	4.02”	160	6.30”	116	4.57”
HDI140-10-100	139.7	5.5”	10	0.39”	102	4.02”	168	6.61”	116	4.57”
I152-10-112	152.4	6”	10	0.39”	112	4.41”	172	6.77”	130	5.12”
I159-10-118	158.8	6.25”	10	0.39”	118	4.65”	181	7.13”	137	5.39”
I168-12.7-125	168.3	6.63”	12.7	0.5”	125	4.92”	189	7.44”	140	5.51”
HDI168-12.7-125	168.3	6.63”	12.7	0.5”	125	4.92”	196	7.72”	140	5.51”
I178-12.7-135	177.8	7”	12.7	0.5”	135	5.31”	199	7.83”	151	5.94”
I194-12.7-147	193.7	7.63”	12.7	0.5”	147	5.79”	221	8.70”	166	6.54”
I219-12.7-171	219.1	8.63”	12.7	0.5”	171	6.73”	243	9.57”	188	7.40”
HDI219-12.7-171	219.1	8.63”	12.7	0.5”	171	6.73”	252	9.92”	188	7.40”
I244-12.7-190	244.5	9.63”	12.7	0.5”	190	7.48”	269	10.59”	216	8.50”
I254-14.2-197	254	10”	14.2	0.56”	197	7.76”	279	10.98”	223	8.78”
I273-12.7-220	273	10.74”	12.7	0.5”	220	8.66”	300	11.81”	244	9.61”
HDI273-12.7-220	273	10.74”	12.7	0.5”	220	8.66”	310	12.20”	244	9.61”
I301-14.2-220	301.6	11.87”	14.2	0.56”	220	8.66”	312	12.28”	270	10.63”

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

SPIRALFLUSH®

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.

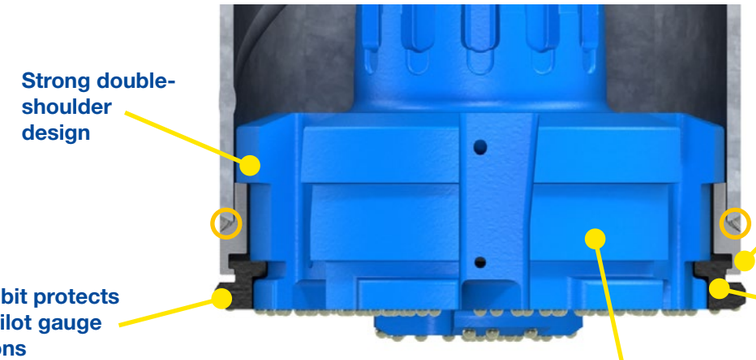
The heavy-duty ring bit is integrated into casing shoe, which makes it safe to drill in loose ground and over water. The large size allows for double-shoulder design.

MAIN APPLICATIONS

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

Mincon™

INTEGRATED SYSTEM, LARGE
323–1 524 mm



○ = Welding spot

System is available from 323 to 1 524 mm casings and for all major shank designs.

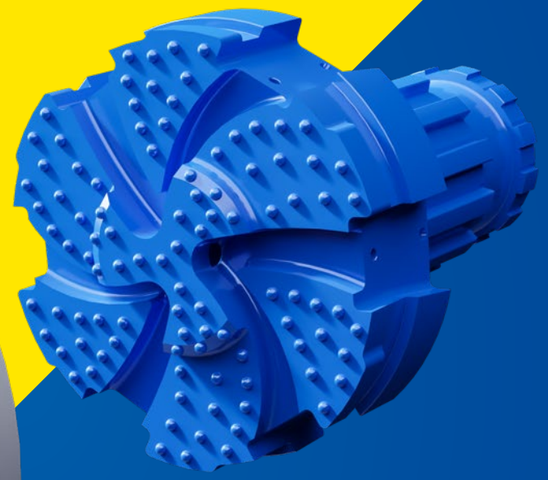
SPIRALFLUSH®

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
I323-14.2-240	323.9	12.74”	14.2	0.56”	240	9.45”	335	13.19”	291	11.46”
I339-14.2-255	339.7	13.37”	14.2	0.56”	255	10.04”	350	13.78”	308	12.13”
I355-14.2-270	355.6	14”	14.2	0.56”	270	10.63”	367	14.45”	324	12.76”
I406-16-318	406.4	16”	16	0.63”	318	12.52”	418	16.46”	370	14.57”
I457-16-369	457.2	18”	16	0.63”	369	14.53”	469	18.46”	420	16.54”
I508-16-422	508	20”	16	0.63”	422	16.61”	520	20.47”	471	18.54”
I559-16-470	558.8	22”	16	0.63”	470	18.50”	571	22.48”	521	20.51”
I610-16-502	609.6	24”	16	0.63”	502	19.76”	622	24.49”	572	22.52”
I660-16-545	660.4	26”	16	0.63”	545	21.46”	675	26.57”	615	24.21”
I711-16-610	711.2	28”	16	0.63”	610	24.02”	735	28.94”	675	26.57”
I762-20-655	762	30”	20	0.79”	655	25.79”	785	30.91”	715	28.15”
I813-20-700	812.8	32”	20	0.79”	700	27.56”	830	32.68”	766	30.16”
I863-20-750	863.6	34”	20	0.79”	750	29.53”	880	34.65”	815	32.09”
I914-20-800	914.4	36”	20	0.79”	800	31.5”	930	36.61”	866	34.09”
I1016-20-880*	1 016	40”	20	0.79”	880	34.65”	1 032	40.63”	966	38.03”
I1066-20-930*	1 066.8	42”	20	0.79”	930	36.61”	1 086	42.76”	1 014	39.92”
I1220-20-1080*	1 219.2	48”	20	0.79”	1 080	42.52”	1 240	48.82”	1 168	45.98”
I1321-22-1150*	1 320.8	52”	22	0.87”	1 150	45.28”	1 344	52.91”	1 247	49.09”
I1422-22-1250*	1 422.4	56”	22	0.87”	1 250	49.21”	1 446	56.93”	1 348	53.07”
I1524-22-1340*	1 524	60”	22	0.87”	1 340	52.76”	1 548	60.94”	1 462	57.56”

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

SPIRALFLUSH®

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.

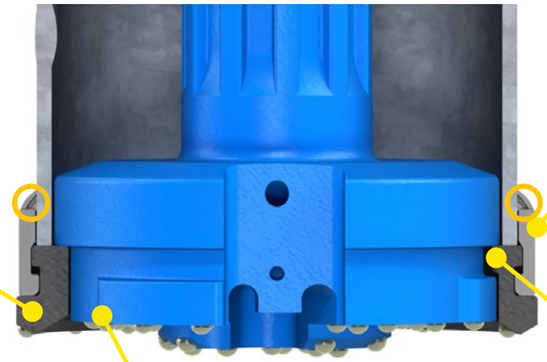
In piling, large ID system also allows maximum size rock sockets to be drilled through the ring bit, using large diameter rock bits.

MAIN APPLICATIONS

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

Mincon™

LARGE ID SYSTEM
114–813 mm



○ = Welding spot

System is available from 114 to 813 mm casings and for all major shank designs.

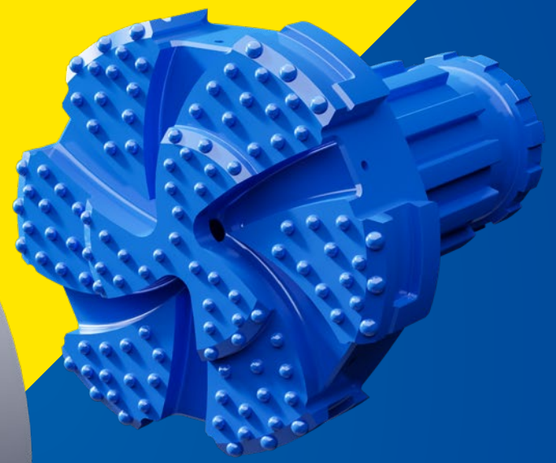
SPIRALFLUSH®

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
I114-5.5-91	114.3	4.5”	5.5	0.22”	91	3.58”	133	5.24”	101.5	4.00”
I127-5.5-103	127	5”	5.5	0.22”	103	4.06”	147	5.79”	114	4.49”
I140-5.5-116	139.7	5.5”	5.5	0.22”	116	4.56”	160	6.30”	127.5	5.02”
HDI140-5.5-116*	139.7	5.5”	5.5	0.22”	116	4.56”	168	6.61”	127.5	5.02”
I152-6-128	152.4	6”	6	0.24”	128	5.040”	174	6.85”	139	5.47”
I159-6-134	158.8	6.25”	6	0.24”	134	5.28”	179	7.05”	145	5.71”
I168-6-142	168.3	6.63”	6	0.24”	142	5.59”	189	7.44”	154	6.06”
HDI168-6-142*	168.3	6.63”	6	0.24”	142	5.59”	196	7.72”	154	6.06”
I178-7-153	177.8	7”	7	0.28”	153	6.02”	204	8.03”	162	6.38”
I194-6-166	193.7	7.63”	6	0.24”	166	6.54”	220	8.66”	179	7.05”
I219-6.5-190	219.1	8.63”	6.5	0.26”	190	7.48”	245	9.65”	203	7.99”
I244-8-212	244.5	9.63”	8	0.31”	212	8.35”	270	10.63”	225	8.86”
I254-8-222	254	10”	8	0.31”	222	8.74”	280	11.02”	235	9.25”
I273-8-242	273	10.75”	8	0.31”	242	9.53”	299	11.77”	254	10”
I301-10-260	301.6	11.87”	10	0.39”	260	10.24”	327	12.87”	279	10.98”
I323-10-280	323.9	12.75”	10	0.39”	280	11.02”	350	13.78”	298	11.73”
I339-10-295	339.7	13.37”	10	0.39”	295	11.61”	366	14.41”	316	12.44”
I355-10-311	355.6	14”	10	0.39”	311	12.24”	383	15.08”	332	13.07”
I406-10-365	406.4	16”	10	0.39”	365	14.37”	436	17.17”	382	15.04”
I457-10-405	457.2	18”	10	0.39”	405	15.94”	487	19.17”	432	17.01”
I508-12.7-450	508	20”	12.7	0.5”	450	17.72”	538	21.18”	478	18.82”
I559-12.7-500	558.8	22”	12.7	0.5”	500	19.69”	589	23.19”	528	20.79”
I610-12.7-555	609.6	24”	12.7	0.5”	555	21.85”	644	25.35”	580	22.83”
I660-12.7-600**	660.4	26”	12.7	0.5”	600	23.62”	690	27.17”	629	24.76”
I711-12.7-641**	711.2	28”	12.7	0.5”	641	25.24”	741	29.17”	679	26.73”
I762-12.7-690**	762	30”	12.7	0.5”	690	27.1”	794	31.26”	729	28.70”
I813-12.7-735**	812.8	32”	12.7	0.5”	735	28.94”	845	33.27”	780	30.71”

*Heavy duty systems for deep casing drilling. Special design with large ID.
**Large diameter system can be engineered based on the specific customer requirements (660–1 524 mm).

SPIRALFLUSH®

DRILL THROUGH 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.

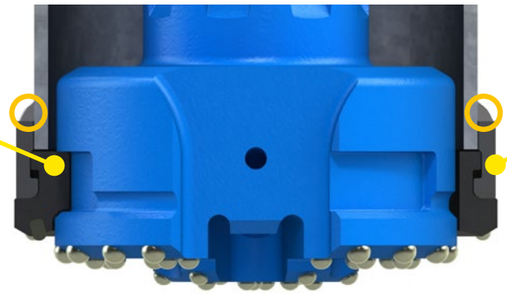
In projects where rock sockets are needed and the foundations are deep, DT system can save time by going through overburden and drilling the rock socket into bedrock using the same ring bit set.

MAIN APPLICATIONS

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

Mincon™

DRILL THROUGH SYSTEM
114–1 524 mm



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System is available from 114 to 1 524 mm casings and for all major shank designs.

SPIRALFLUSH®

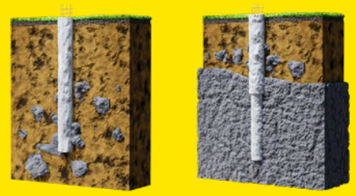
System product code	Casing OD mm	Casing OD inch	Max wall mm	Max wall inch	Ring bit ID mm	Ring bit ID inch	Ring bit OD mm	Ring bit OD inch	Pilot bit OD mm	Pilot bit OD inch
DTI114-10-92-80	114.3	4.5”	10	0.39”	80	2.99”	130	5.12”	92	3.50”
DTI127-10-105-87	127	5”	10	0.39”	87	3.43”	145	5.71”	105	4.13”
DTI140-10-114-100	139.7	5.5”	10	0.39”	102	3.94”	160	6.30”	114	4.49”
DTI152-10-126-112	152.4	6”	10	0.39”	112	4.41”	172	6.77”	126	4.96”
DTI159-10-133-118	158.8	6.25”	10	0.39”	118	4.65”	179	7.05”	133	5.24”
DTI168-12.7-140-127	168.3	6.63”	12.7	0.5”	127	4.92”	189	7.44”	140	5.51”
DTI178-12.7-150-135	177.8	7”	12.7	0.5”	135	5.31”	199	7.83”	150	5.91”
DTI194-12.7-163-147	193.7	7.63”	12.7	0.5”	147	5.79”	221	8.00”	163	6.42”
DTI219-12.7-188-171	219.1	8.63”	12.7	0.5”	171	6.73”	243	9.57”	188	7.40”
DTI244-12.7-214-194	244.5	9.63”	12.7	0.5”	194	7.64”	269	10.59”	214	8.43”
DTI254-12.7-224-204	254	10”	12.7	0.5”	204	8.03”	279	10.98”	224	9.61”
DTI273-12.7-243-222	273	10.74”	12.7	0.5”	222	8.74”	299	11.77”	243	9.57”
DTI301-12.7-272-250	301.6	11.87”	12.7	0.5”	250	9.84”	330	12.99”	272	10.71”
DTI323-12.7-294-272	323.9	12.74”	12.7	0.5”	272	10.71”	352	13.86”	294	11.57”
DTI339-14.2-308-286	339.7	13.37”	14.2	0.56”	286	11.26”	368	14.49”	308	12.13”
DTI355-14.2-324-300	355.6	14”	14.2	0.56”	300	11.81”	384	15.12”	324	12.76”
DTI406-16-370-346	406.4	16”	16	0.63”	346	13.62”	438	17.24”	370	14.57”
DTI457-16-420-393	457.2	18”	16	0.63”	393	15.47”	489	19.25”	420	16.54”
DTI508-16-463-442	508	20”	16	0.63”	442	17.40”	542	21.34”	463	18.23”
DTI559-16-521-490	558.8	22”	16	0.63”	490	19.29”	593	23.35”	521	20.51”
DTI610-20-564-540	609.6	24”	20	0.79”	540	21.26”	644	25.35”	564	22.20”
DTI660-20-605-580	660.4	26”	20	0.79”	580	22.83”	700	27.56”	605	23.82”
DTI711-20-656-625	711.2	28”	20	0.79”	625	24.61”	753	29.65”	656	25.83”
DTI762-20-707-672	762	30”	20	0.79”	672	26.46”	804	31.65”	707	27.83”
DTI813-20-758-720	812.8	32”	20	0.79”	720	28.35”	855	33.66”	758	29.84”
DTI863-20-808-770	863.6	34”	20	0.79”	770	30.32”	905	35.63”	808	31.81”
DTI914-20-859-818	914.4	36”	20	0.79”	818	32.20”	958	37.72”	859	33.82”
DTI1016-20-960-916*	1 016	40”	20	0.79”	916	36.06”	1 060	41.73”	960	37.80”
DTI1066-20-1010-952*	1 066.8	42”	20	0.79”	952	37.48”	1 112	43.78”	1 010	39.76”
DTI1220-22-1161-1101*	1 219.2	48”	22	0.87”	1 101	43.35”	1 268	49.92”	1 161	45.71”
DTI1321-25-1260-1205*	1 320.8	52”	25	1”	1 205	47.44”	1 378	54.25”	1 260	49.61”
DTI1422-25-1360-1305*	1 422.4	56”	25	1”	1 305	51.38”	1 478	58.19”	1 360	53.54”
DTI1524-25-1466-1405*	1 524	60”	25	1”	1 405	55.31”	1 578	62.13”	1 466	57.72”

*Large diameter system can be engineered based on the specific customer requirements.

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

SPIRALFLUSH®

RETRIEVABLE RING BIT SYSTEM



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.

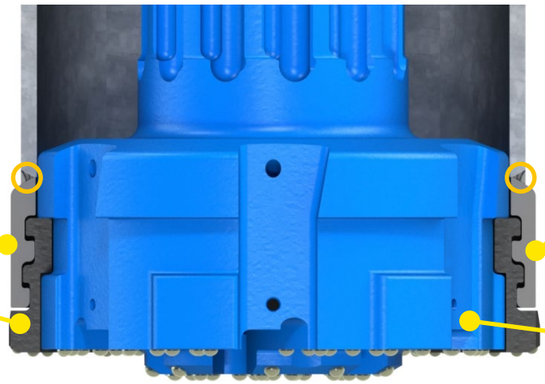
Also, the large inner diameter of the ring bit makes this system ideal for drilling rock sockets through the ring bit.

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

Mincon™

RETRIEVABLE SYSTEM
114–1 524 mm



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System is available from 114 to 1 524 mm casings and 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
R114-10-81	114.3	4.5”	10	0.39”	81	3.19”	123	4.84”	92.5	3.64”
R127-10-95	127	5”	10	0.39”	95	3.74”	135.5	5.33”	105	4.13”
R140-10-104	139.7	5.5”	10	0.39”	104	4.09”	148	5.83”	118	4.65”
R152-10-116	152.4	6”	10	0.39”	116	4.57”	161	6.34”	129	5.08”
R159-10-122	158.8	6.25”	10	0.39”	122	4.80	168	6.61”	136	5.35”
R168-10-128	168.3	6.63”	10	0.39”	128	5.04”	179	7.05”	146	5.75”
R178-10-142	177.8	7”	10	0.39”	142	5.59”	189	7.44”	156	6.14”
R194-12.7-154	193.7	7.63”	12.7	0.5”	154	6.06”	204	8.03”	165	6.50”
R219-12.7-175	219.1	8.63”	12.7	0.5”	175	6.89”	231	9.09”	191	7.52”
R244-12.7-200	244.5	9.63”	12.7	0.5”	200	7.87	258	10.16”	216	8.50”
R254-12.7-210	254	10”	12.7	0.5”	210	8.27”	268	10.55”	226	8.90”
R273-12.7-226	273	10.75”	12.7	0.5”	226	8.90”	286	11.26”	245	9.65”
R301-12.7-251	301.6	11.87”	12.7	0.5”	251	9.88”	316	12.44”	273	10.75”
R323-12.7-273	323.9	12.75”	12.7	0.5”	273	10.75”	338	13.31”	294	11.57”
R339-12.7-287	339.7	13.37”	12.7	0.5”	287	11.30”	354	13.94”	311	12.24”
R355-12.7-305	355.6	14”	12.7	0.5”	305	12.01”	368	14.49”	326	12.83”
R406-12.7-352	406.4	16”	12.7	0.5”	352	13.86”	430	16.93”	376	14.80”
R457-12.7-378	457.2	18”	12.7	0.5”	378	14.88”	474	18.66”	427	16.81”
R508-16-446	508	20”	16	0.63”	446	17.56”	538	21.18”	475	18.70”
R559-16-504	558.8	22”	16	0.63”	504	19.84”	584	22.99”	522	20.55”
R610-16-555	609.6	24”	16	0.63”	555	21.85”	638	25.12”	574	22.60”
R660-16-580	660.4	26”	16	0.63”	580	22.83”	680	26.77”	622	24.49”
R711-16-641	711.2	28”	16	0.63”	641	25.24”	738	29.06”	674	26.54”
R762-16-685	762	30”	16	0.63”	685	26.97”	788	31.02”	723	28.82”
R813-16-736	812.8	32”	16	0.63”	736	28.98”	837	32.95”	775	30.51”
R863-16-775	863.6	34”	16	0.63”	775	30.51”	890	35.04”	823	32.40”
R914-16-837	914.4	36”	16	0.63”	837	32.95”	940	37.01”	874	34.41”
R1016-16-926*	1 016	40”	16	0.63”	926	36.46”	1 042	41.02”	969	38.15”
R1066-16-970*	1 066.8	42”	16	0.63”	970	38.19”	1 092	42.99”	1 025	40.35”
R1220-20-1120*	1 219.2	48”	20	0.79”	1 120	44.09”	1 247	49.09”	1 163	45.79”
R1321-22-1210*	1 320.8	52”	22	0.87”	1 210	47.64”	1 349	53.11”	1 259	49.57”
R1524-22-1404*	1 524	60”	22	0.87”	1 404	55.28”	1 552	61.10”	1 460	57.48”

*Large diameter system can be engineered based on the specific customer requirements.

SPIRALFLUSH®

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.

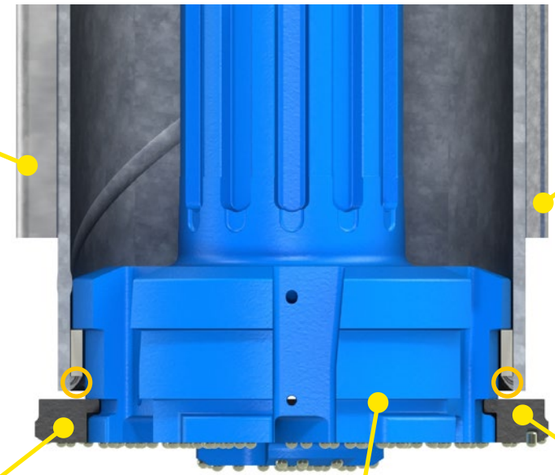
The solitary design means that the casing shoe and the ring bit are separated which, in the hands of an experienced driller, is a very cost-effective drilling solution.

MAIN APPLICATIONS

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

Mincon™

SOLITARY M-WALL RING BIT SYSTEM
219–1 220 mm



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System is available from 219 to 1 220 mm casings and 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
XL219-12.7-150	219.1	8.63”	12.7	0.5”	150	5.91”	273	10.75”	191	7.52”
XL244-14.2-170	244.5	9.63”	14.2	0.56”	170	6.69”	298	11.73”	213	8.39”
XL254-14.2-178	254	10”	14.2	0.56”	178	7.01”	308	12.13”	223	8.78”
XL273-12.7-192	273	10.75”	12.7	0.5”	192	7.56”	327	12.87”	245	9.65”
XL301-14.2-220	301.6	11.87”	14.2	0.56”	220	8.66”	355	13.98”	270	10.63”
XL323-14.2-240	323.9	12.75”	14.2	0.56”	240	9.45”	377	14.84”	291	11.62”
XL339-14.2-255	339.7	13.37”	14.2	0.56”	255	10.04”	393	15.47”	308	12.13”
XL355-14.2-270	355.6	14”	14.2	0.56”	270	10.63”	409	16.10”	324	12.76”
XL406-16-318	406.4	16”	16	0.63”	318	12.52”	460	18.11”	370	14.57”
XL457-16-360	457.2	18”	16	0.63”	369	14.53”	511	20.12”	420	16.54”
XL508-16-422	508	20”	16	0.63”	422	16.61”	562	22.13”	471	18.54”
XL559-16-470	558.8	22”	16	0.63”	470	18.50”	613	24.13”	521	20.51”
XL610-16-502	609.6	24”	16	0.63”	502	19.76”	664	26.14”	572	22.52”
XL660-16-545	660.4	26”	16	0.63”	545	21.46”	714	28.11”	615	24.21”
XL711-16-610	711.2	28”	16	0.63”	610	24.02”	765	30.12”	675	26.76”
XL762-20-655	762	30”	20	0.79”	655	25.79”	816	32.13”	715	28.15”
XL813-20-700	812.8	32”	20	0.79”	700	27.56”	867	34.13”	766	30.16”
XL863-20-750	863.6	34”	20	0.79”	750	29.53”	917	36.10”	815	32.09”
XL914-20-800	914.4	36”	20	0.79”	800	31.50”	968	38.11”	866	34.09”
XL1016-20-880*	1 016	40”	20	0.79”	880	34.65”	1 070	42.13”	966	38.09”
XL1220-20-1080*	1 219.2	48”	20	0.79”	1 080	42.52”	1 273	50.12”	1 168	45.98”

*Large diameter system can be engineered based on the specific customer requirements.

SPIRALFLUSH®

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.

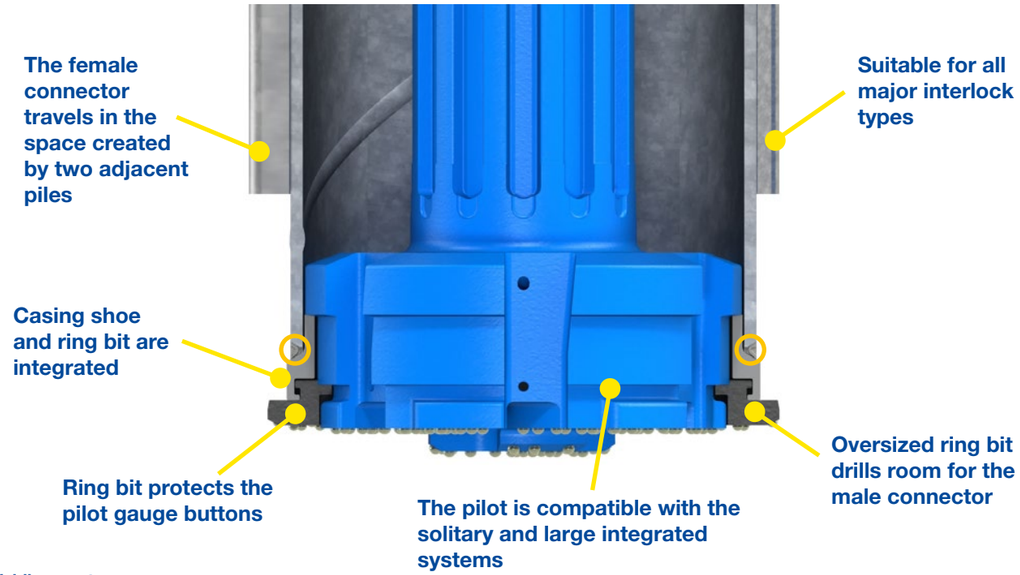
The integrated design means that the casing shoe and the ring bit are permanently connected together. This makes drilling over water safe as there is no risk of accidentally dropping the ring bit into water.

MAIN APPLICATIONS

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

Mincon™

INTEGRATED M-WALL RING BIT SYSTEM
219–1 220 mm



○ = Welding spot

System is available from 219 to 1 220 mm casings and for all major shank designs.

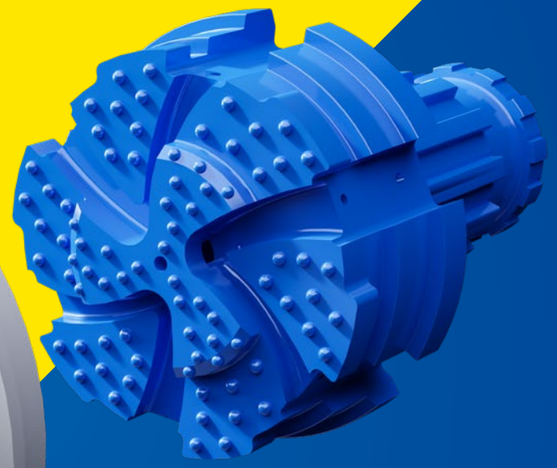
SPIRALFLUSH®

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
XLI219-12.7-150	219.1	8.63”	12.7	0.5”	150	5.91”	273	10.75”	191	7.52”
XLI244-14.2-170	244.5	9.63”	14.2	0.56”	170	6.69”	298	11.73”	213	8.37”
XLI254-14.2-178	254	10”	14.2	0.56”	178	7.01”	308	12.13”	223	8.78”
XLI273-12.7-192	273	10.75”	12.7	0.5”	192	7.56”	327	12.87”	245	9.65”
XLI301-14.2-220	301.6	11.87”	14.2	0.56”	220	8.66”	355	13.98”	270	10.63”
XLI323-14.2-240	323.9	12.75”	14.2	0.56”	240	9.45”	377	14.84”	291	11.62”
XLI339-14.2-255	339.7	13.37”	14.2	0.56”	255	10.04”	393	15.47”	308	12.13”
XLI355-14.2-270	355.6	14”	14.2	0.56”	270	10.63”	409	16.10”	324	12.76”
XLI406-16-318	406.4	16”	16	0.63”	318	12.52”	460	18.11”	370	14.57”
XLI457-16-360	457.2	18”	16	0.63”	369	14.53”	511	20.12”	420	16.54”
XLI508-16-422	508	20”	16	0.63”	422	16.61”	562	22.13”	471	18.54”
XLI559-16-470	558.8	22”	16	0.63”	470	18.50”	613	24.13”	521	20.51”
XLI610-16-502	609.6	24”	16	0.63”	502	19.76”	664	26.14”	572	22.52”
XLI660-16-545	660.4	26”	16	0.63”	545	21.46”	714	28.11”	615	24.21”
XLI711-16-610	711.2	28”	16	0.63”	610	24.02”	765	30.12”	675	26.76”
XLI762-20-655	762	30”	20	0.79”	655	25.79”	816	32.13”	715	28.15”
XLI813-20-700	812.8	32”	20	0.79”	700	27.56”	867	34.13”	766	30.16”
XLI863-20-750	863.6	34”	20	0.79”	750	29.53”	917	36.10”	815	32.09”
XLI914-20-800	914.4	36”	20	0.79”	800	31.50”	968	38.11”	866	34.09”
XLI1016-20-880*	1 016	40”	20	0.79”	880	34.65”	1 070	42.13”	966	38.09”
XLI1220-20-1080*	1 219.2	48”	20	0.79”	1 080	42.52	1 273	50.12”	1 168	45.98”

*Large diameter system can be engineered based on the specific customer requirements.

SPIRALFLUSH®

HORIZONTAL RING BIT SYSTEM



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

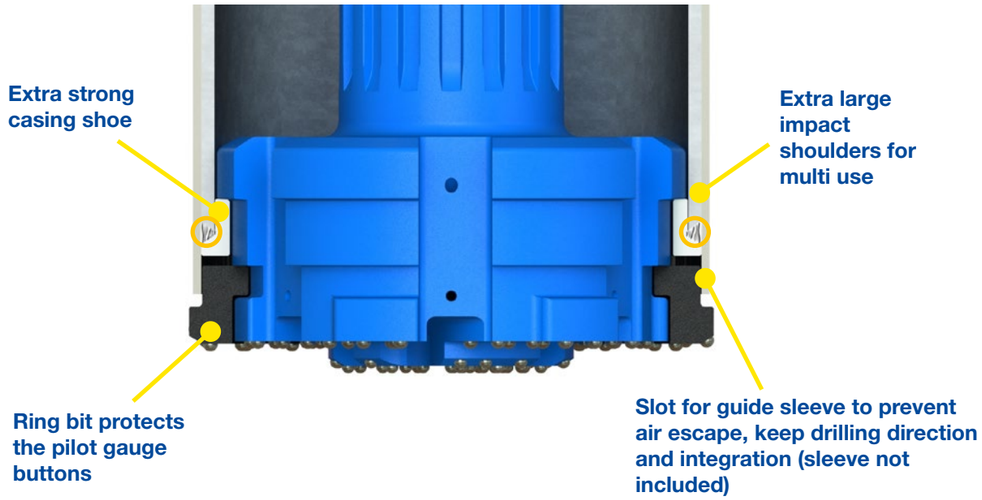
High casing friction calls for heavy duty ring bit system and drilling under roads and railways requires advanced air control made possible by Spiral Flush technology. Due to strong design, the ring bit system can be used several times.

MAIN APPLICATIONS

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

Mincon™

HORIZONTAL SYSTEM
219–1 524 mm



= Welding spot

System is available from 219 to 1 524 mm casings and 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
HZ219-12.7-138	219.1	8.63”	12.7	0.5”	138	5.43”	237	9.33”	191	7.52”
HZ273-12.7-170	273	10.75”	12.7	0.5”	170	6.69”	285	11.22”	245	9.65”
HZ323-12.7-215	323.9	12.75”	12.7	0.5”	215	8.46”	350	13.78”	294	11.57”
HZ406-12.7-300	406.4	16”	12.7	0.5”	300	11.81”	440	17.32”	376	14.80”
HZ457-12.7-351	457.2	18”	12.7	0.5”	351	13.82”	491	19.33”	423	16.65”
HZ508-12.7-400	508	20”	12.7	0.5”	400	15.75”	540	21.26”	477	18.78”
HZ610-16-495	609.6	24”	16	0.63”	495	19.49”	640	25.20”	572	22.52”
HZ711-16-590	711.2	28”	16	0.63”	590	23.23”	740	29.13”	675	26.57”
HZ762-16-630	762	30”	16	0.63”	630	24.80”	792	31.18”	723	28.46”
HZ813-16-675	812.8	32”	16	0.63”	675	26.57”	845	33.27”	774	30.47”
HZ914-16-775	914.4	36”	16	0.63”	775	30.51”	945	37.20”	874	34.41”
HZ1016-16-860	1 016	40”	16	0.63”	860	33.86”	1 050	41.34”	974	38.35”
I1066-16-910	1066.8	42”	16	0.63”	910	35.83”	1 100	43.31”	1 024	40.31”
HZ1219-16-1050*	1 219.2	48”	16	0.63”	1 050	41.34”	1 239	48.78”	1 176	46.30”
HZ1321-16-1150*	1 320.8	52”	16	0.63”	1 150	45.28”	1 341	52.80”	1 273	50.12”
HZ1422-20-1250*	1 422.4	56”	20	0.79”	1 250	49.21”	1 442	56.77”	1 366	53.78”
HZ1524-20-1340*	1 524	60”	20	0.79”	1 340	52.76”	1 544	60.79”	1 466	57.72”

*Large diameter system can be engineered based on the specific customer requirements.

FOREPOLING SYSTEM AKA TUBE UMBRELLA

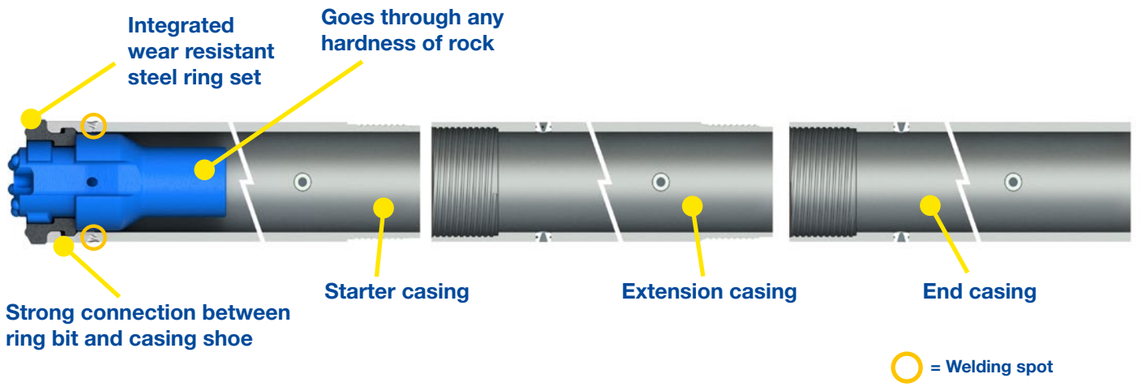
Forepoling ring bit system and casing tubes are designed to be drilled with top hammer or DTH in an umbrella shape as secondary support in the tunnel roof. Weak ground and overburden must be strengthened by grouting through the casing and grouting valves into the ground.

MAIN APPLICATIONS

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

Mincon™

FOREPOLING SYSTEM
76–219 mm



CASING OPTIONS

Steel casings

Steel casings are the most used casing option. Their main features are:

- Ring bit is welded to starter casing in our factory
- Heavy duty ring bit protects the pilot gauge buttons
- Optional one-way valves for grouting can be installed in our factory (3–10 bar)
- Rods and other accessories are available

GFRP casings

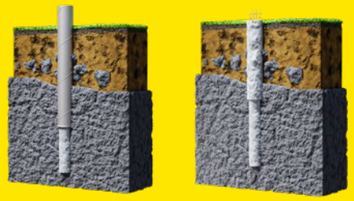
Glass fiber reinforced polymer casings are a special type of casings that are used in face stabilisation. Their main features are:

- Can be delivered with threaded extension casings
- Ring bits come with GFRP adapters
- Optional one-way valves for grouting can be installed in our factory (3–10 bar)
- Rods and other accessories are available

System is available from 76 to 219 mm casings and 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 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	Pilot bit thread
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
F159-10-120	159	6.26”	10	0.39”	118	4.65”	179	7.05”	133	5.24”	T45, T51
F168-10-128	168.3	6.63”	12.7	0.5”	125	4.92”	189	7.44”	140	5.51”	T45, T51
F219-12.7-171	219.1	8.63”	12.7	0.5”	171	6.73”	243	9.57”	188	7.40”	T45, T51

LARGE DIAMETER ROCK BITS



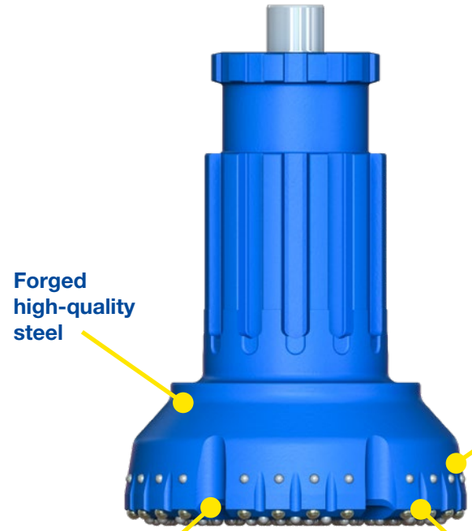
Mincon's rock bits are the trusty work horses of going through rock of any hardness.

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

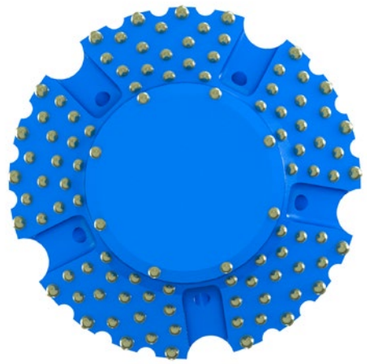
- Air ventilation for tunnels
- Shafts for utility lines
- Rescue shafts for mining
- Rock sockets

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.

3–40” HAMMER SPECIFICATIONS

For more hammer models and additional information, please visit mincon.com.

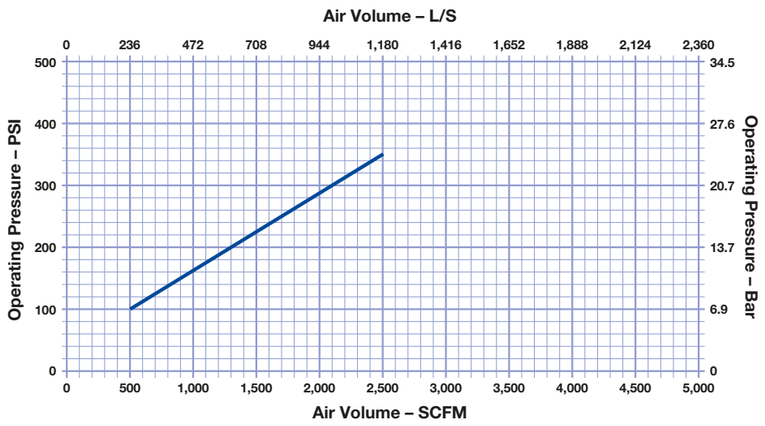
Range	Hammer product name	Shank	Footvalve	Hammer OD mm	Hammer OD inch	Tool length mm	Tool length inch	Piston weight kg	Piston weight lb	Weight kg	Weight lb	Std. backhead
3”	MP30-DH	DHD3.5	YES	77	3.05”	858	33.78”	4.1	9.0	22.3	49.2	2 3/8” API Reg Pin
	MP35-DH	DHD3.5	YES	85	3.35”	805	31.69”	3.9	8.6	24.5	54.0	2 3/8” API Reg Pin
4”	MP4H-MQ	MQ40	-	98	3.86”	1 021	40.20”	7.9	17.5	40.1	88.5	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-DH	DHD340	YES	98	3.86”	955	37.61”	7.3	16.1	38.5	84.9	2 3/8” API Reg Pin
5”	MP56-MQ	MQ50	-	124	4.88”	1 019	40.12”	15.3	33.8	69.0	152.1	3 ½” API Reg Pin
	MP56-DH	DHD350	YES	124	4.88”	1 040	40.93”	15.3	33.8	67.0	147.7	3 ½” API Reg Pin
	MP50-QL	QL50	YES	115	4.53”	994	39.12”	12.5	27.6	55.4	122.2	3 ½” API Reg Pin
6”	MP60-QL	QL60	YES	141	5.55"	1 002	39.45”	21.6	47.6	83.7	184.6	3 ½” API Reg Pin
	MP60-MQ	MQ60	-	141	5.55"	1 002	39.45”	19.3	42.5	85.0	187.4	3 ½” API Reg Pin
	MP6H-DH	DHD360	YES	140	5.51"	1 134	44.65”	20	44.1	95.3	210.1	3 ½” API Reg Pin
7”	MP70-MC-D160	MC71	-	160	6.30”	1 114	43.86”	30.3	66.8	157	346.0	4 ½” API Reg Pin
8”	MP80-QL	QL80	YES	182	7.15"	1 186	46.69"	39	86.0	173	381.8	4 ½” API Reg Pin
	MP80-MQ	QL80	-	182	7.15”	1 306	51.42”	46.3	102.1	193	425.5	4 ½” API Reg Pin
	MP8H-DH	DHD380	YES	182	7.15"	1 205	47.44"	39	86.0	176	388.0	4 ½” 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
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
15”	MP150-MC	MC150	-	340	13.39”	1 662	65.43”	206	454.2	857	1 889	8 5/8” API Reg Pin
18”	MP180-N180	N180	YES	400	15.75"	1 695	66.73"	282	621.7	1 194	2 632	8 5/8” API Reg Pin
	MP180-QL	QL200	YES	400	15.75"	1 673	65.87”	284	626.1	1 215	2 679	8 5/8” API Reg Pin
	MP180-MQ	MQ180	-	400	15.75"	1 781	70.12”	320	705.5	1 249	2 754	8 5/8” API Reg Pin
24”	MP240-N240	N240	YES	525	20.67"	1 925	75.79"	550	1 213	2 585	5 699	HEX275 Pin
	MP240-MQ	MQ240	-	525	20.67"	1 780	70.08"	544	1 199	2 772	6 111	HEX275 Pin
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 HAMMER
SPECIFICATIONS

MP120 SPECIFICATIONS

Technical specifications:		MP120-QL		MP120-N125	
Outside diameter		273 mm	10.75"	273 mm	10.75"
Length shoulder to shoulder		1 454 mm	57.24"	1 451 mm	57.13"
Weight without bit		457 kg	1 008 lb	455 kg	1 003 lb
Piston weight		138.5 kg	305.3 lb	137.4 kg	302.9 lb
Stroke		100 mm	4"	100 mm	4"
Beats per minute		1 286 $^{1}/_{min}$ @ 300 psi			
Connections:					
Backhead		6 $^{5}/_{8}$" API Reg Pin			
Shank		QL120		N125	
Drill bit diameters:					
Minimum size	Overburden	406 mm		16"	
	Rock	304.8 mm		12"	
Maximum size	Overburden	457 mm		18"	
	Rock	381 mm		15"	

Air consumption:



Disclaimer:
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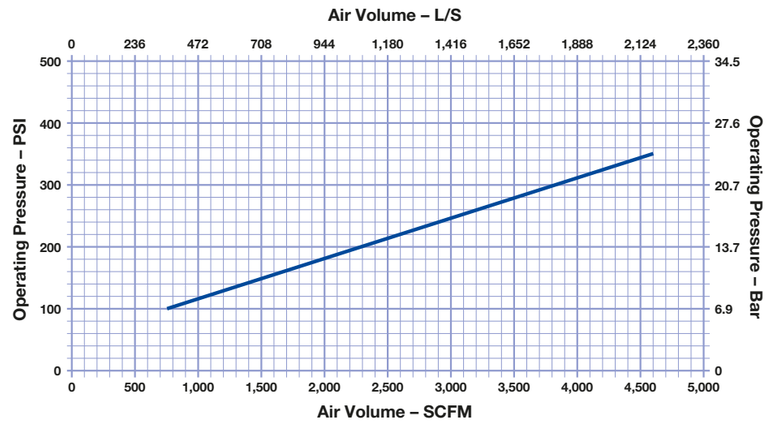
2. All air charts are based on normal temperature and atmospheric pressure: 20ºC and 101.325 kPa (68ºF and 14.696 psi).
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.

MP150 HAMMER
SPECIFICATIONS

MP150 SPECIFICATIONS

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

Air consumption:



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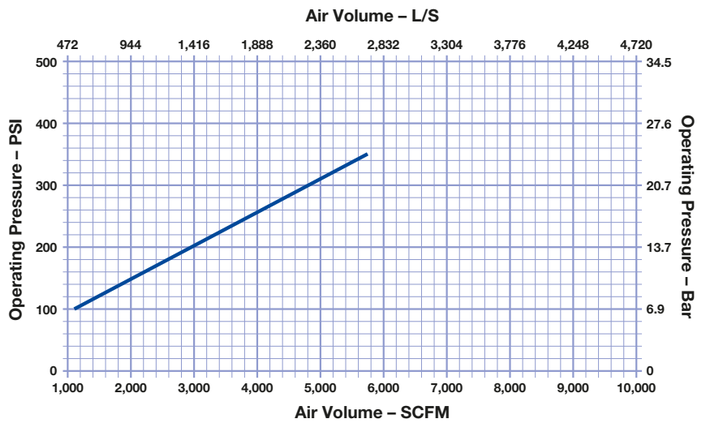
MP180 HAMMER
SPECIFICATIONS

MP180 SPECIFICATIONS

Technical specifications:	MP180-N180		MP180-QL		MP180-MQ	
Outside diameter	400 mm	15.75"	400 mm	15.75"	400 mm	15.75"
Length shoulder to shoulder	1 695 mm	66.73"	1 673 mm	65.87"	1 781 mm	70.12”
Weight without bit	1 194 kg	2 632 lb	1 215 kg	2 679 lb	1 249 kg	2 754 lb
Piston weight	282 kg	621.7 lb	284 kg	626.1 lb	320 kg	705.5 lb
Stroke	127 mm	5"	127 mm	5"	108 mm	4.25”
Beats per minute	1 025 $^{1}/_{min}$ @ 250 psi				945 $^{1}/_{min}$ @ 250 psi	
Connections:						
Backhead	8 $^{5}/_{8}$” API Reg Pin / HEX275 Pin					
Shank	N180		QL200		MQ180	
Drill bit diameters:						
Minimum size Overburden	559 mm		22”			
Minimum size Rock	457 mm		18”			
Maximum size Overburden	711 mm		28”			
Maximum size Rock	609.6 mm		24”			

Air consumption:



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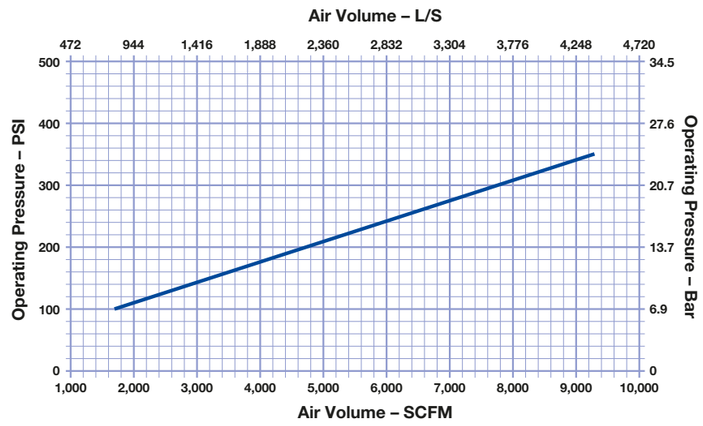
MP240 HAMMER
SPECIFICATIONS

MP240 SPECIFICATIONS

Technical specifications:	MP240-N240		MP240-MQ	
Outside diameter	525 mm	20.67”	525 mm	20.67”
Length shoulder to shoulder	1 925 mm	75.79”	1 780 mm	70.08”
Weight without bit	2 585 kg	5 699 lb	2 772 kg	6 111 lb
Piston weight	550 kg	1 213 lb	544 kg	1 199 lb
Stroke	140 mm	5.5”	140 mm	5.5”
Beats per minute	860 $^{1}/_{min}$ @ 200 psi			
Connections:				
Backhead - Hexagonal (double pin)	HEX275 mm		10.83”	
Shank	N240		MQ240	
Drill bit diameters:				
Minimum size Overburden	711 mm		28”	
Minimum size Rock	609.6 mm		24”	
Maximum size Overburden	914.4 mm		36”	
Maximum size Rock	863.6 mm		34”	

Air consumption:



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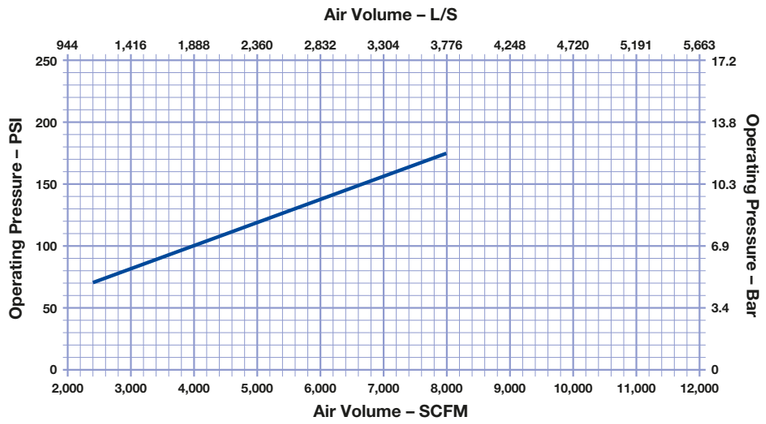
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.

MP340 HAMMER
SPECIFICATIONS

MP340 SPECIFICATIONS

Technical specifications:			
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 $^{1}/_{min}$ @ 150 psi	
Connections:			
Backhead - Hexagonal (double pin)		HEX370 mm	14.57”
Shank		MF34	
Drill bit diameters:			
Minimum size	**Overburden**	1 016 mm	40”
	Rock	850 mm	33”
Maximum size	**Overburden**	1 220 mm	48”
	Rock	1 000 mm	39”

Air consumption:



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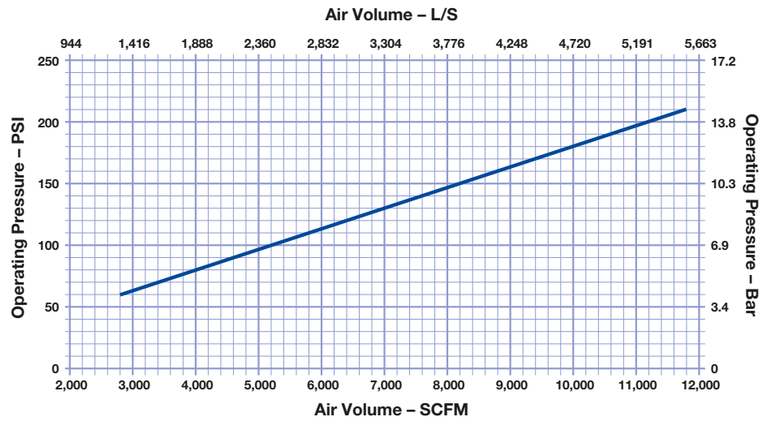
MP400 HAMMER
SPECIFICATIONS

MP400 SPECIFICATIONS

Technical specifications:			
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 $^{1}/_{min}$ @ 150 psi	
Connections:			
Backhead - Hexagonal (double pin)		HEX370 mm	14.57”
Shank		MF34	
Drill bit diameters:			
Minimum size	**Overburden**	1 220 mm	48”
	Rock	1 000 mm	39”
Maximum size	**Overburden**	1 524 mm	60”
	Rock	1 450 mm	57”

Air consumption:



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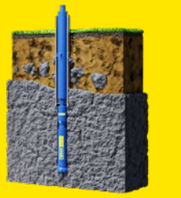
3. Air density decreases with altitude, which will increase air consumption. Please consult the Mincon technical implementation team for exact air package requirements that take account for altitude and ground conditions.

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 ABSORBER SPECIFICATIONS

System product code	OD mm	OD inch	Length mm	Length inch	Tool length mm	Tool length inch	Weight kg	Weight lb	Connections* bottom	Connections* top	Drive pins	Dampers both directions
MSA40	95	3.76"	566	22.28"	489	19.25"	22	47.8	2 3/8" API Reg	2 3/8" API Reg	-	-
MSA50	114	4.49"	626	24.65"	527	20.75"	34	75.0	3 ½" API Reg	3 ½" API Reg	-	-
MSA60	140	5.50"	680	26.77"	584	23.00"	55	120.8	3 ½" API Reg	3 ½" API Reg	-	-
SA8	182	7.15"	798	31.42"	690	27.17"	102	224.9	4 ½" API Reg	4 ½" API Reg	-	YES
SA10	219	8.62"	936	36.85"	809	31.85"	173	381.4	6 5/8" API Reg	6 5/8" API Reg	-	YES
SA12	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*	340	13.39"	1 054	41.50"	723	28.46"	463	1 021	INTG1518	8 5/8" API Reg	YES	YES
SA18*	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
SA24*	507	19.96"	1 211	47.68"	1 001	39.41"	1 079	2 379	275 mm hex	200 mm hex	YES	YES
SA34*	607	23.90"	1 398	55.04"	1 118	44.02"	1 846	4 070	370 mm hex	275 mm hex	YES	YES

*Connections according to the requirements.

DRILL PIPES & ACCESSORIES

Drill pipes

- Friction welding 48–140 mm
- Large-diameter pipes up from 140 mm
- Cold-drawn seamless pipes
- High-strength, straight pipes with no scale
- API certified testing after production
- eX-Flow® pipes reduce noise and fuel consumption

Reverse circulation (RC)

- Friction-welded dual wall pipes
- Pipes up to 140 mm
- RC accessories
- Complete RC conversion kits

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

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

DRICONEQ

Driconeq is a part of Mincon group.
For more infomation please visit

www.driconeq.com