

# Minroc

Bohrausrüstungen GmbH



## ABOUT US

For almost 30 years, MINROC Bohrausrüstungen GmbH headquartered in Groß-Umstadt right in the heart of Germany has been your competent partner providing you with high-quality equipment for blasthole, anchor and overburden drilling.

MINROC Bohrausrüstungen GmbH is a market- and customer-oriented family business with special expertise in small and large hole drilling as well as overburden drilling and with references worldwide.

Thanks to the quality of our products and our expert advice on all kinds of drilling issues, we have been offering optimum service to our customers for more than 28 years.

Satisfaction of our customers is our top priority.

This is why we are continuously striving to deliver high-quality, state-of-the art products ensuring top performance and a long service life, and to offer you efficient support and reliable service.

## MINERAL EXTRACTION INDUSTRY



## GEOHERMAL AND WELL DRILLING



## TUNNELLING AND MINING



## SPECIAL FOUNDATION ENGINEERING, GEOTECHNICS, ROCK OPERATIONS AND FENCE BUILDING



## MINERAL EXTRACTION INDUSTRY

### DTH HAMMER EQUIPMENT

We supply a wide range of high-quality and powerful DTH hammers available in sizes from 3" to 24". Our equipment is used in the most diverse geological conditions.

Since 1987 we have been the official distributor of our partner MINCON International Ltd, one of the leading manufacturers worldwide with branch offices all over the globe and plants in Ireland, the United States and Australia.

All products are subject to stringent quality control procedures and are produced according to the international standard ISO 9001:2008.

Hammer	Hole Ø	Type	Outer Ø	Shank	Length mm	kg
3" DTH	3.375" (85mm) – 4.375" (110mm)	Mincon 3	77mm	IR3.5	865	22.3
		Mincon 3.5	85mm	IR3.5	805	24.5
		Mincon MP35	85mm	MD3.5	805	24.5
4" DTH	4.375" (110mm) – 5.375" (136mm)	Mincon 4HDS	97mm	MD4	956	38.6
		Mincon 4HR	97mm	DHD340	956	38.6
		Mincon 4HRTD	97mm	TD40	956	38.6
5" DTH	5.375" (136mm) – 6" (152mm)	Mincon 5DH	124mm	QL50/DHD350	1042	69.5
		Mincon MQ50	115mm	QL50	956	59.9
		Mincon MQ55	124mm	QL50	1042	72.6
6" DTH	6" (152mm) – 7.875 - 200mm	Mincon 6DH	140mm	QL60/DHD360	1033/1133	87/95
		Mincon MQ60	140mm	QL60	1139	98
		Mincon MQ65	146mm	QL60	1139	105
		Mincon MQ68	146mm	QL60	1002	87
8" DTH	7.875" (200mm) – 12" (305mm)	Mincon 8DH	181mm	DHD380	1205	174
		Mincon MP80	181mm	QL80	1186	173
12" DTH	12" (305mm) – 18" (457mm)	Mincon XP120	273mm	QL120	1437	567
		Mincon XP120SD	273mm	SD12	1437	567



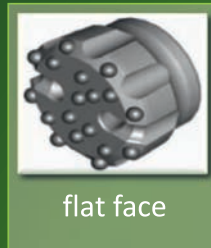
Official Distributor

# Mincon

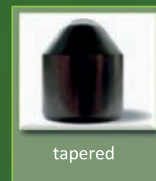
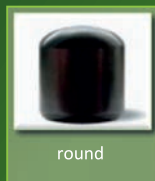
## DTH HAMMER EQUIPMENT

3" drill bits (D= 86-101 mm)	4" drill bits (D= 101-136 mm)	5" drill bits (D= 121-146 mm)	6" drill bits (D= 150-216 mm)	8" drill bits (D= 200-305 mm)
<ul style="list-style-type: none"> <li>• Mincon MD 3.5</li> <li>• DHD 3.5/ IR 3.5</li> </ul>	<ul style="list-style-type: none"> <li>• Mincon MD4</li> <li>• DHD340/IR 340</li> <li>• SD4</li> <li>• TD40</li> </ul>	<ul style="list-style-type: none"> <li>• QL 50</li> <li>• SD5</li> <li>• DHD 350</li> </ul>	<ul style="list-style-type: none"> <li>• QL 60</li> <li>• SD6</li> <li>• DHD 360</li> </ul>	<ul style="list-style-type: none"> <li>• QL 80</li> <li>• DHD 380</li> <li>• SD8</li> </ul>

### DRILL BIT DESIGNS



### DRILL BIT BUTTONS

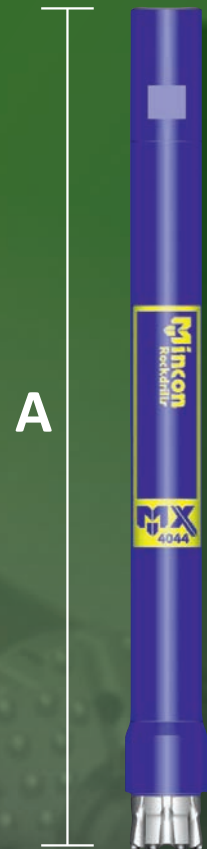


Mincon  
1 st for Durability,  
Reliability &  
Performance



## RC – REVERSE CIRCULATION HAMMER

RC-HAMMER	DIAMETER	LENGTH A	DRILL BIT Ø
MR109	109mm	1250mm	114 – 121mm
MR116	116mm	1143mm	121 – 127mm
MR120	120mm	1165mm	127 - 143mm
MR132	132mm	1165mm	137 – 142mm



## HDD - HORIZONTAL DIRECTIONAL DRILLING

RC-HAMMER	DIAMETER	LENGTH	DRILL BIT Ø
HDD30	77mm	1495mm	89mm
HDD40	85mm	1867mm	108mm
HDD50	103mm	2006.6mm	133mm
HDD60	124mm	2057mm	159mm
HDD70	146mm	1951mm	190mm



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## ROTARY DRILL BITS



Our rotary drill bits are available in sizes ranging from 85 mm (3 3/8") to 444.5 mm (17 1/2"), with different types of roller bearings to achieve optimum sealing and wear protection. You can choose between tungsten carbide (TC) and steel teeth (MT).

TYPE	IADC Code	RPM
AP4	4.1 – 4.4	50 – 140
AP5	5.1 – 5.4	50 – 120
AP6	6.1 – 6.4	50 – 110
AP7	7.1 – 7.4	50 – 80

## DRILL TUBES

We offer a large selection of drill tubes suitable for your DTC, RC, HDD, raise boring and rotary drilling equipment, with lengths ranging from 1,000 mm to 10,000 mm and with all common types of connecting threads.

All accessories required, such as transition, centering and connection pieces as well as check valves and shock absorbers are also included in our delivery range.



## WING BITS



## PDC BITS



## THREADED DRILL STEEL EQUIPMENT



## SHANKS

<b>SHANK</b>
ATLAS COPCO
SANDVIK / TAMROCK
MONTABERT
DOOFOR
FURUKAWA
BOART
INGERSOLL RAND

For more than 100 years, our partner PADLEY & VENABLES Ltd. in England has been a leading drill steel manufacturer for the mineral extraction, tunnelling and mining industries.

The company is of course certified according to BS EN ISO 9001. In its P&V plant in Sheffield, the company has one of the largest pit furnaces in Europe with a depth of 7.5 m.

The supply range includes shanks for all common hand-held and hydraulic rock drills.

We provide the corresponding drill rods made of round or hexagon bars, of various lengths, for anchor, exploration and face drilling.

## THREADED DRILL STEEL

THREADED DRILL STEEL	THREAD	BODY	LENGTHS
INTEGRAL RODS	108 x 22mm	22mm HEX	400 – 5,600mm
TAPERED RODS	108 x 22 a. 25mm	22 / 25mm HEX	600 – 4,800mm
DRIFTING RODS	R25/R28/R32/T35/T38	25/28/32/35mm HEX	3090 – 6440mm
EXTENSION RODS	R32/T38/T45/T51	32/38/45/51mm round	1220 - 7315mm
MF-EXTENSION RODS	R32/T35/T38/T45/T51/ ST58/GT60	32/39/45/51/61/ 64mm round	1220 – 7315mm
GUIDING RODS	R32/T38/T45/T51/ ST58/GT60	44/55/64/76/87mm round	915 – 5300mm

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## THREADED DRILL STEEL EQUIPMENT



### DRILL BITS

THREAD	DIAMETER
R25	35 / 38 / 41mm
R28	38mm / 41mm
R32	41 / 43 / 45 / 48 / 51 / 57 / 64 / 76mm
R35	48 / 51 / 54mm
T38	60 / 64 / 70 / 76 / 89mm
T45	70 / 76 / 83 / 89 / 102mm
T51	83 / 89 / 102 / 115 / 127mm
ST58	92 / 102 / 115 / 127mm
GT60	95 / 102 / 115 / 127 / 140 / 152mm

**Robit**<sup>®</sup>  
**ROCKTOOLS**

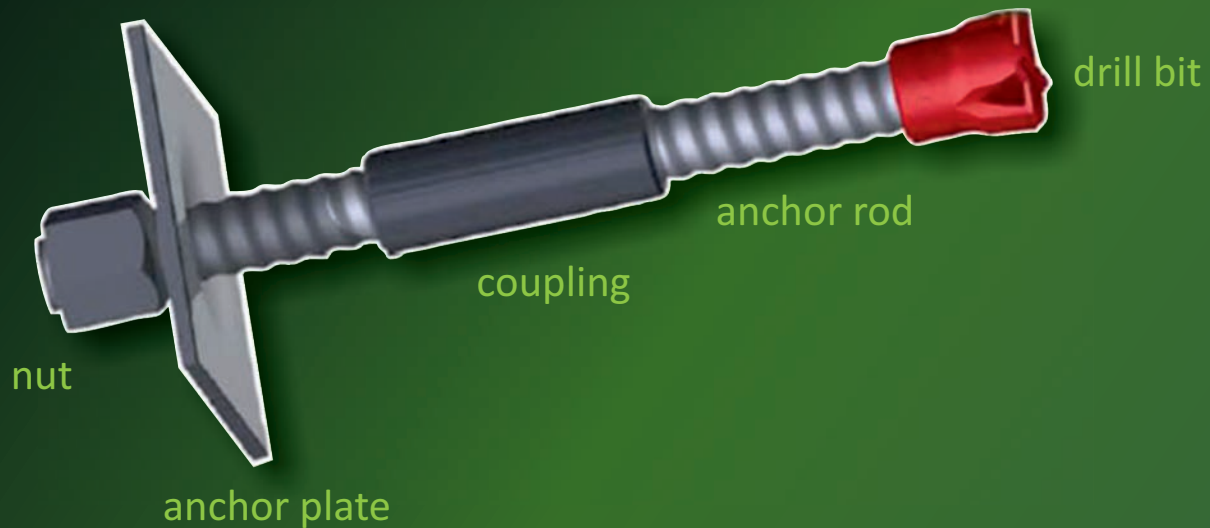
Our partner ROBIT Rocktools Ltd. in Finland has been manufacturing drill bits and drilling systems for over 30 years in known Scandinavian quality and according to the quality standard ISO 9001:2008.

Our range of supplies coming from Finland includes, among others, tapered and threaded button bits; these can be supplied with or without retrac. Diameters are available from 33 mm to 152 mm for anchor, exploration and face drilling.



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## SELF-DRILLING ANCHOR

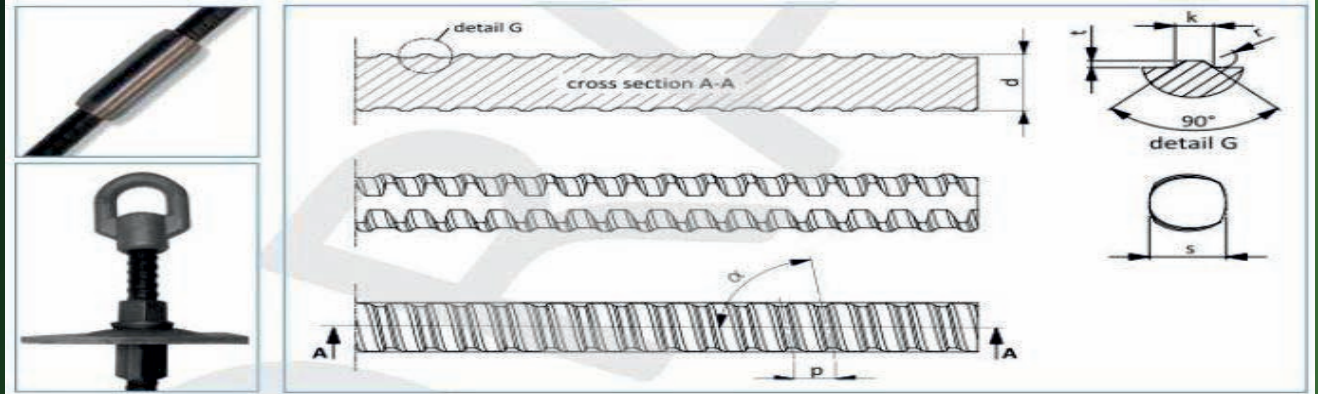


Self-drilling anchors are injection piles with a continuous external thread. The system is based on the normal R32, R38 and R51 drill rod threads. The threads of the anchor rods are cold rolled over the entire rod length. This cold forming process does not only harden and temper the steel and improve the yield point, it also ensures that each rod is subjected to a mechanical material test. The continuous external thread of the anchor rod guarantees an effective transport of cuttings and the anchor rod's large internal diameter ensures trouble-free injection even for very long holes.

ANCHOR TYPE	YIELD POINT	Ultimate load	Weight (kg/m)	A (mm <sup>2</sup> )
R32 - 210	160 kN	210 kN	2.65	340
R32 - 250	190 kN	250 kN	2.90	370
R32 - 280	220 kN	280 kN	3.20	410
R32 - 320	250 kN	320 kN	3.70	470
R32 - 360	280 kN	360 kN	4.00	510
R32 - 400	330 kN	400 kN	4.40	560
R38 - 500	400 kN	500 kN	5.85	750
R51 - 550	450 kN	550 kN	6.95	890
R51 - 800	640 kN	800 kN	9.00	1150

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## MINROC FULL THREADED BARS



### FULL THREADED BAR B500B

D mm	Yield point	Ultimate load	Weight (kg/m)	A (mm <sup>2</sup> )
20	157 kN	173 kN	2.47	314
25	246 kN	270 kN	3.85	491
28	308 kN	388 kN	4.83	616
32	402 kN	442 kN	6.31	804
40	628 kN	690 kN	9.87	1256
50	981 kN	1080 kN	15.41	1963
63.5	1757 kN	2217 kN	24.90	3167

### FULL THREADED BAR 680

D mm	Yield point	Ultimate load	Weight (kg/m)	A (mm <sup>2</sup> )
20	213 kN	251 kN	2.47	314
25	333 kN	392 kN	3.85	491
28	418 kN	492 kN	4.83	616
32	546 kN	643 kN	6.31	804
40	854 kN	1004 kN	9.87	1256
50	1316 kN	1548 kN	15.41	1963
63.5	2153 kN	2533 kN	24.90	3167

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## SN ANCHORS AND MORTAR ANCHORS



D mm	Yield point	Ultimate load	Weight (kg/m)	A (mm <sup>2</sup> )	Thread
20	160 kN	173 kN	2.5	314	M20
25	245 kN	270 kN	3.9	491	M24
28	310 kN	340 kN	4.8	616	M27
32	405 kN	440 kN	6.3	804	M32
40	630 kN	690 kN	9.9	1256	M42
50	980 kN	1080 kN	15.4	1963	M52

Steel grade BSt500S



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## FRICTION BOLTS

**Friction bolts** have a profiled steel pipe with welded-on bushings at both ends. They can be quickly installed and provide for immediate rock reinforcement.



	120	160	240
Min. ultimate load	120 kN	160 kN	240 kN
Diameter	27mm	36mm	36mm
Hole Ø	32 – 38mm	43 – 52mm	43 – 52mm
Filling pressure	300 bar	240 bar	300 bar

## MR DRAINAGE DRILLING SYSTEM

The **MR drainage drilling system** is a perfect draining solution with or without the use of vacuum for tunnelling or geotechnical applications.

Thanks to its self-drilling installation capability, i.e. simultaneous drilling and piping operations, considerable time is saved.



## EXPANSION SHELL ROCK BOLTS

## TUBE SPILES

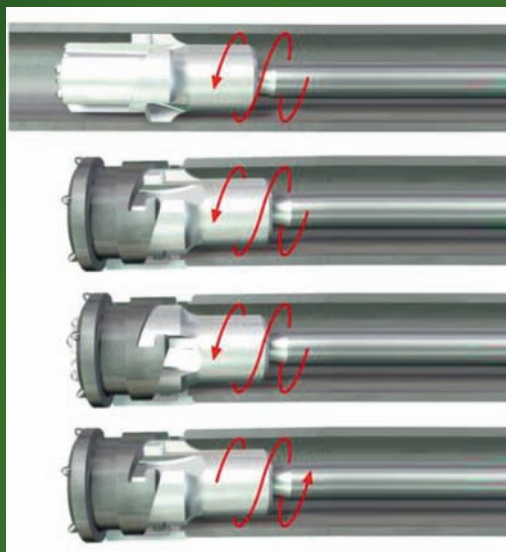
## CASING SYSTEM



Our casing systems are available for a wide variety of applications:

- pre-reinforcement support systems for tunnelling, pipe umbrella systems
- piling
- well and geothermal drilling
- anchor drilling
- horizontal drilling

### Functioning principle:



1. The pilot is connected to an extension rod or DTH hammer.

2 + 3. The pilot is guided through the outer tube and locked to the ring bit.

The RoX system is ready for use. During the drilling process, the outer tube does not rotate!

4. When the final depth is reached, the pilot is detached from the ring by turning it in the opposite direction and withdrawn.

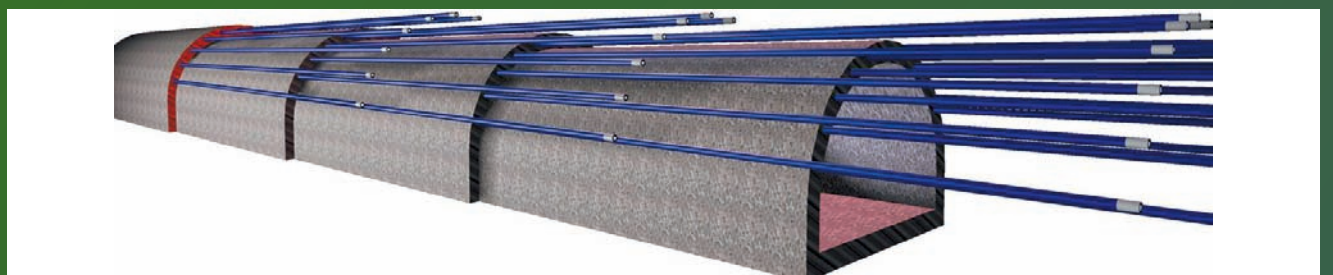
## TUNNELLING AND MINING

### PIPE UMBRELLA SYSTEM



The MINROC pipe umbrella system has been used as a safe and reliable drilling system on a large number of construction sites. Since the introduction of our equipment in 2000 we have been able to build up a long reference list of projects worldwide. Special features of our system are simple handling and fast drilling progress. It can be used both for top hammer and DTH hammer drilling processes in very different geological conditions.

Drilling system	Piping outer Ø mm	Wall mm	RING inner Ø mm	RING outer Ø	PILOT outer Ø mm	Thread
RoX+ 76.1/8	76.1	8	47	90	59	R32
RoX+ 88.9/4	88.9	4	71	99	80	T38
RoX+ 88.9/8	88.9	8	50.8	94.9	70	T38
RoX+ 101.6/10	101.6	10	65	110	79	T38
RoX+ 114.3/5	114.3	5	91	128	102	T38
RoX+ 114.3/10	114.3	10	73.5	120.3	92.5	T38
RoX+ 139.7/10	139.7	10	94	145.7	117.5	T45
RoX+159/10	159.0	10	119	169	137	T45
RoX+ 168.3/10	168.3	10	127	182.3	147	T45



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## VENTILATION DUCTS

### Definition

Flexible and PVC-coated fabric specially designed for forced ventilation that can be used for high-pressure ventilation in severe mining and tunnelling conditions.



Connection types:

- patented Easy-Joint system
- velcro fastening
- zip fastening
- and a lot more



## VENTILATION DUCTS

### PRESSURE TABLE LAYFLAT DUCTS

Diameter (mm)	GG600	GG650	GG650 AA	GG650 AA CL1	GG850
500	12.000	20.000	20.000	20.000	32.000
600	10.000	16.667	16.667	16.667	26.667
700	8.571	14.286	14.286	14.286	22.857
800	7.500	12.500	12.500	12.500	20.000
900	6.667	11.111	11.111	11.111	17.778
1000	5.455	9.091	9.091	9.091	16.000
1200	5.000	8.333	8.333	8.333	13.333
1400	4.286	7.143	7.143	7.143	11.429
1500	4.000	6.667	6.667	6.667	10.667
1700	3.529	5.882	5.882	5.882	9.412
1800	3.333	5.556	5.556	5.556	8.889
1900	3.158	5.263	5.263	5.263	8.421
2000	3.000	5.000	5.000	5.000	8.000
2200	2.727	4.545	4.545	4.545	7.273
2300	2.609	4.348	4.348	4.348	6.957
2400	2.500	4.167	4.167	4.167	6.667
2500	2.400	4.000	4.000	4.000	6.400
2800	2.143	3.571	3.571	3.571	5.741
3000	2.000	3.333	3.333	3.333	5.333

- measured in Pascal
- further diameters available

## OFFICIAL DISTRIBUTOR




MINE AND TUNNEL VENTILATION PRODUCTS



## MACHINERY

### MINLIFTER



#### Technical data:

- 93 kw Deutz TCD 4.1 (Tier 4 f)
- ROPS/FOPS cabin
- articulated steering
- four-wheel drive
- LED headlights
- LS axial piston pump for working hydraulics

#### Optional:

- 22 kW powerpack
- central lubrication system
- rear-view camera system
- automatic fire extinguishing system
- protective covers for the working basket

The MinLifter 795 T *Evolution* is a four-wheel drive, two-arm aerial work platform with articulated steering, each arm having a lifting capacity of 750 kg and with a basket height above ground of 9.5 m.

The two-arm lift-kit module 795 T has been designed for installing light arches, for charging holes at the face, for mounting various anchors and for putting wire mesh mats into place. Each arm can be controlled independently so as to guarantee safe and comfortable working conditions at any time.



## RENTAL PARK

Tunnelling is tough work and very demanding on equipment and machinery.

With tunnelling times becoming ever shorter, companies are struggling to use their machines profitably, since special-purpose machines require a utilization rate of 75 % in order to be economical.

Our Minroc rental park with its large choice of special-purpose tunnelling equipment offers a true alternative.



A wide range of modular platforms is available for all types of operations, meeting all kinds of short-term customer requirements.

Our rental park includes:

- aerial work platforms
- steel arch installation equipment
- concrete wet-spraying machines
- concrete transport vehicles up to 5 m<sup>3</sup>
- dumpers up to 7 m<sup>3</sup>

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CONTACT DATA



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