

Application guide

- Ensure that the drill rig and the drill motor are mounted securely in order to avoid vibrations that could reduce the drilling speed and lead to increased wear and excessive load on the drill rig and the drill motor, resulting in higher costs for servicing and maintenance.
- Select the correct drive power and peripheral velocity (speed) of the drill motor according to the hole diameter:
 - Peripheral speed on concrete: 2 - 3 m/s
 - Peripheral speed on reinforcement: 1.2 - 1.8 m/s
 - For very abrasive materials increase the peripheral speed to 3.2 - 3.8 m/s
- For large drilling depths wider drilling segments should be used for pre-drilling in order to ensure proper guidance for exact drill holes over the entire drilling depth
- Check the water supply. The flushing water should be "milky". Adjust if necessary
- Once the desired drilling depth has been reached, withdraw the drill from the drill hole bit with the drill rotating. This prevents jamming of the drill bit



Guidelines for speed, drive power and coolant quantity

Diameter	Speed		Drive power		Coolant quantity
	Concrete (2 - 3 m/s)	Reinforcement (1.2 - 1.8 m/s)	kW		
mm	rpm	rpm			l/min
20	1900 - 2900	1150 - 1700	1	2	0.5 - 1
30	1300 - 1900	750 - 1150			1 - 2
40	950 - 1450	570 - 860			2 - 3
52	750 - 1100	440 - 660			3 - 4
62	620 - 950	370 - 550	3	6 - 8	4 - 5
72	550 - 800	320 - 480			6 - 8
82	475 - 700	280 - 420			8 - 12
107	360 - 550	220 - 340			
122	320 - 480	190 - 280			
142	270 - 700	160 - 240			
162	240 - 350	140 - 210			
182	210 - 320	120 - 190			
212	180 - 270	110 - 160			
250	150 - 230	100 - 140			
300	130 - 190	80 - 120			
400	100 - 140	60 - 90			
500	70 - 120	45 - 70			

Composition of a TYROLIT diamond core drill

General product features

Optimum centring characteristics

- High-precision centring through roof-shaped segments
- Minimum contact area during spot drilling = reduced machine stress
- No shifting of the drill bit = exact drill holes
- No vibration
- Low stress on drill rig and drill motor
- Low pipe friction due to exact guide = reduced drive power loss

Optimum feed characteristics

- High feed rate from the outset
- Exceptional performance when spot drilling and drilling from the solid
- Maximum feed over the entire service life
- Low contact pressure required
- Optimum performance during drilling of steel reinforcement

Seamless precision tubing

- Maximum concentricity
- Protection of the drill rig and drill motor through very low body friction
- Exact drill holes guaranteed

Colour code

- = low power
- = medium power

Diameter

Machine capacity

Product name

CDM*** = Core Drill Medium Power Premium Line

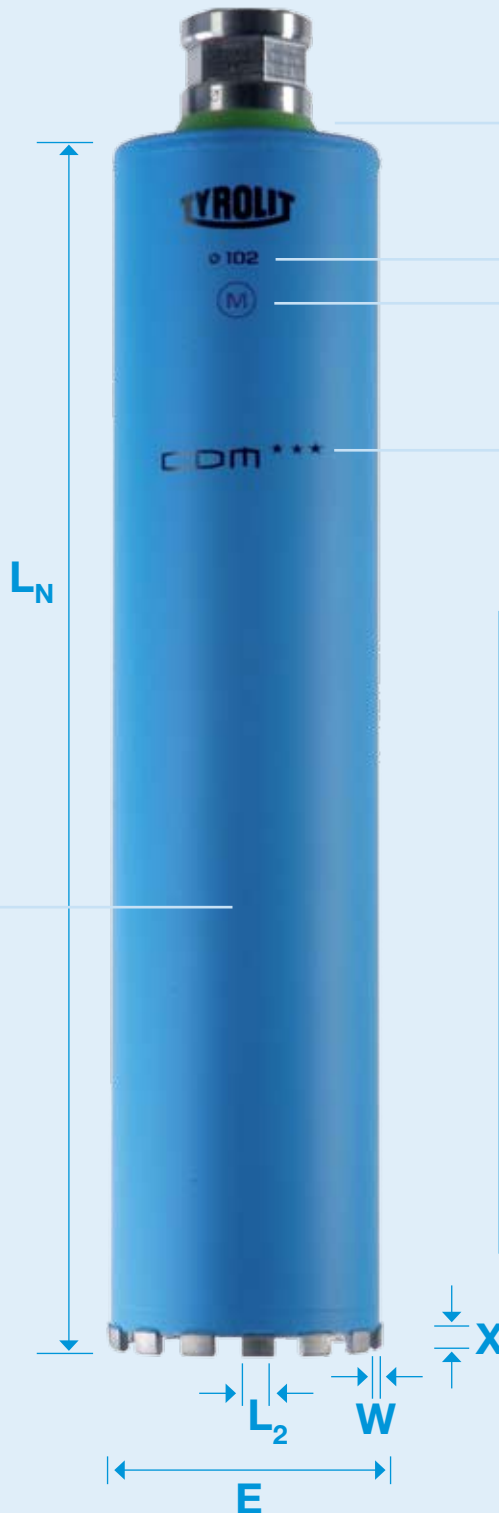
Connection technology

Laser welding

- For all drills with ring design
- No segment loss through overheating - temperature-insensitive
- Maximum protection against detachment of the cutting layer

Resistance arc welding

- For segmented drills in design HOHL1D up to dia. 202 mm
- High protection against segment loss - temperature-insensitive
- Segments inserted approx. 1.2 mm into support tube = additional protection against segment loss in the event of the drill bit jamming



Legend

- D = Outer drill diameter
- L_N = Usable length
- L₂ = Segment length
- W = Segment width
- X = Segment height

PREMIUM



High-performance tools for maximum economy

Up to 40% performance increase or more

- See for yourself and experience the performance of the new core drill generation from TYROLIT

Universal use

- Unproblematic processing of high reinforcement ratios from 2 kW drive power
- Only two types for any challenge - reduced purchase and storage costs

Design is function

12 mm long segments for

- Maximum drilling speed
- Straightforward core removal
- Consistent performance across all diameter ranges

Consistent quality for reliability and safety

- Continuous checks of materials and production processes form the basis for reliable and safe tools

Options

- Special diameters and useful lengths
- Non-standard connecting threads
- Products for concrete, asphalt, masonry, steel and special applications
- Comprehensive range of accessories

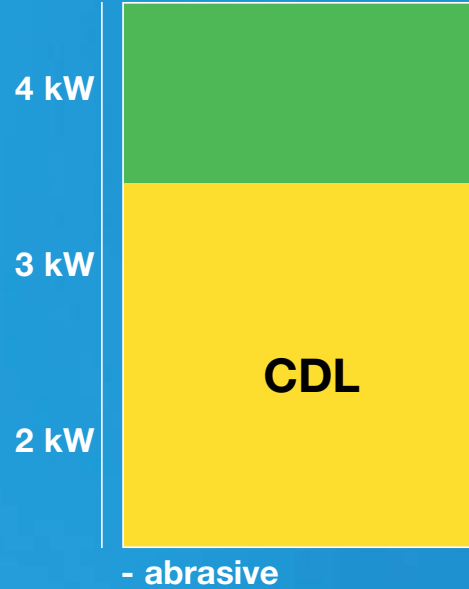
Benefit from decades of Tyrolit experience

- Project management at home and abroad
- Special machines and support for large construction sites
- Application support on site
- Personal contacts



PREMIUM***			
Dimensions	Segment dimensions	CDL***	CDM***
15 x 400	15 - 2.5 - 7		
16 x 400	16 - 2.5 - 7		
18 x 400	18 - 2.5 - 7		
20 x 400	20 - 2.5 - 7		
22 x 400	22 - 2.5 - 7		
24 x 400	24 - 2.5 - 7		
25 x 400	25 - 2.5 - 7		
28 x 400	28 - 2.5 - 7		
30 x 400	30 - 2.5 - 7		
32 x 400	32 - 2.5 - 7		
37 x 450	37 - 3.0 - 7		
40 x 450	40 - 3.0 - 7		
42 x 450	42 - 3.0 - 7		
47 x 450	12 - 3.5 - 9		
52 x 450	12 - 3.5 - 9		
57 x 450	12 - 3.5 - 9		
62 x 450	12 - 3.5 - 9		
67 x 450	12 - 3.5 - 9		
72 x 450	12 - 3.5 - 9		
82 x 450	12 - 3.5 - 9		
92 x 450	12 - 3.5 - 9		
102 x 450	12 - 3.5 - 9		
107 x 450	12 - 3.5 - 9		
112 x 450	12 - 3.5 - 9		
122 x 450	12 - 3.5 - 9		
127 x 450	12 - 3.5 - 9		
132 x 450	12 - 4.0 - 9		
142 x 450	12 - 4.0 - 9		
152 x 450	12 - 4.0 - 9		
162 x 450	12 - 4.0 - 9		
172 x 450	12 - 4.0 - 9		
182 x 450	12 - 4.0 - 9		
202 x 450	12 - 4.0 - 9		
212 x 450	12 - 4.0 - 9		
250 x 450	12 - 4.0 - 9		
300 x 450	12 - 5.0 - 9		
350 x 450	12 - 5.0 - 9		
400 x 450	12 - 5.0 - 9		
450 x 450	12 - 5.0 - 9		
500 x 450	12 - 5.0 - 9		

Segments ★ ★ ★

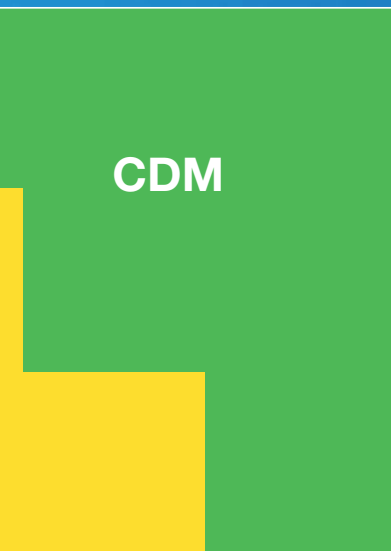
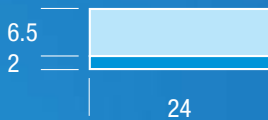


Standard connecting thread ≤ 42 mm = R 1/2"

Standard connecting thread ≥ 47 mm = 1 1/4" UNC



Segments ★ ★



CDM

abrasive +

STANDARD**			
Dimensions	Segment dimensions	CDL**	CDM**
32 x 400	15 - 2.5 - 7		
42 x 450	16 - 2.5 - 7		
52 x 450	18 - 2.5 - 7		
62 x 450	20 - 2.5 - 7		
72 x 450	22 - 2.5 - 7		
82 x 450	24 - 2.5 - 7		
92 x 450	25 - 2.5 - 7		
102 x 450	28 - 2.5 - 7		
107 x 450	30 - 2.5 - 7		
112 x 450	32 - 2.5 - 7		
122 x 450	37 - 3.0 - 7		
127 x 450	40 - 3.0 - 7		
132 x 450	42 - 3.0 - 7		
152 x 450	24 - 3.5 - 8.5		
162 x 450	24 - 3.5 - 8.5		
182 x 450	24 - 3.5 - 8.5		
202 x 450	24 - 3.5 - 8.5		
250 x 450	24 - 3.5 - 8.5		

Standard connecting thread ≤ 42 mm = R 1/2"

Standard connecting thread ≥ 47 mm = 1 1/4" UNC

STANDARD



Quality tools for everyday use

Convincing performance

- Designed for the requirements of routine application
- Convincing speed / service life ratio

Universal use

- Only two products for routine application - reduced purchase and storage costs

Consistent quality for reliability and safety

- Highest quality standards create safety and form the basis for a reliable product

TYROLIT