



## **Diamond core drill**

### **Performance redefined**

- Maximum drilling speed
- Multi-purpose
- Straightforward core removal



# PREMIUM



High-performance tools for maximum profitability

## **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**

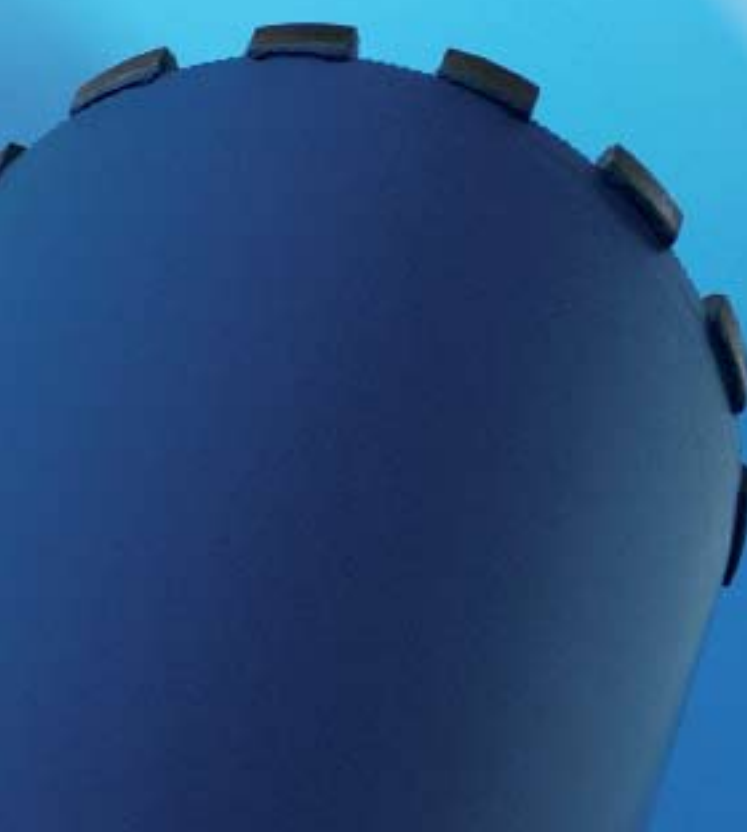
- Continuous checks of materials and production processes form the basis for reliable and safe tools

## **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



# 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



# 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 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)					
mm	rpm	rpm	kW				l/min
20	1900 – 2900	1150 – 1700	1	2			0.5 – 1
30	1300 – 1900	750 – 1150					
40	950 – 1450	570 – 860					
52	750 – 1100	440 – 660					
62	620 – 950	370 – 550	2	3			
72	550 – 800	320 – 480					2 – 3
82	475 – 700	280 – 420					
107	360 – 550	220 – 340					
122	320 – 480	190 – 280					
142	270 – 400	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	3	6 – 8			
400	100 – 140	60 – 90					6 – 8
500	70 – 120	45 – 70					8 – 12





# 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

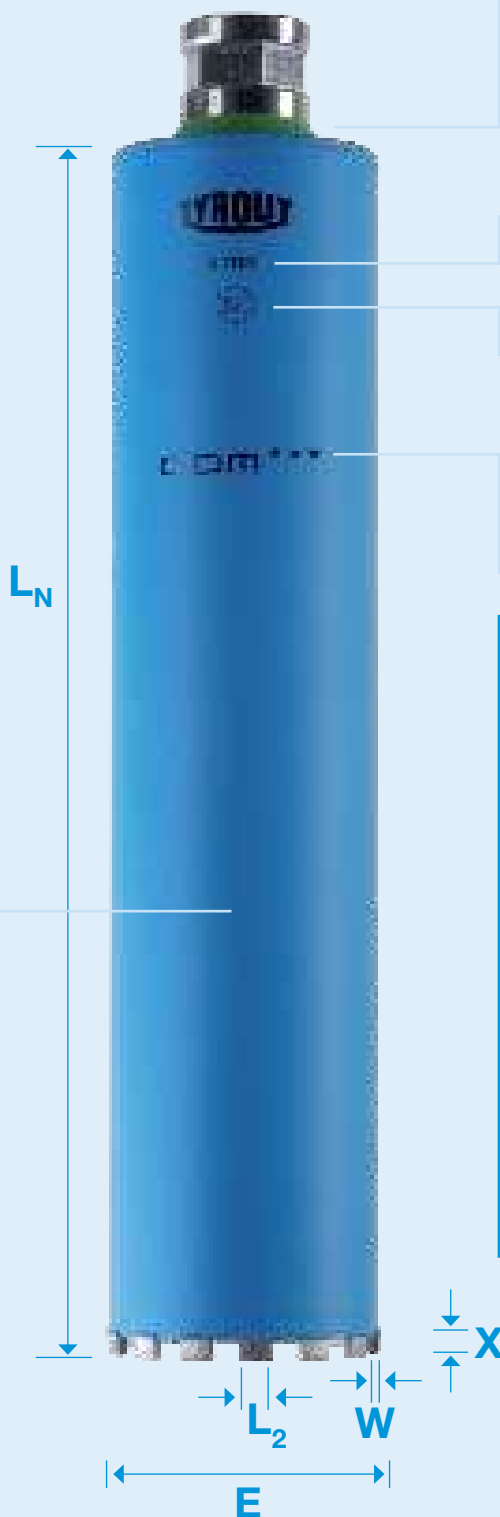
## Connection technology

### 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

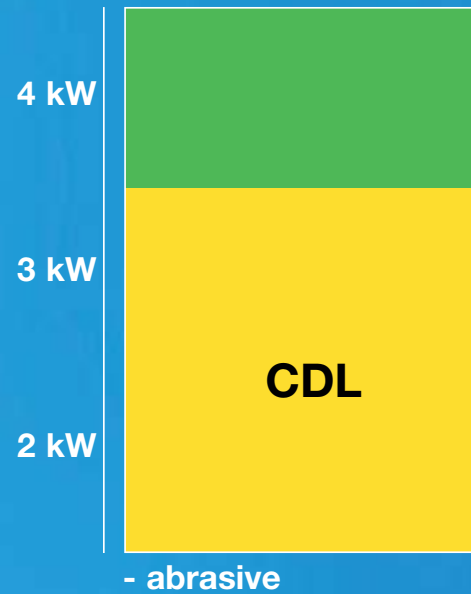
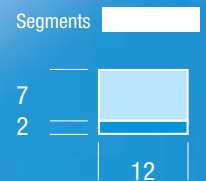


## Legend

- D = Outer drill diameter
- L<sub>N</sub> = Usable length
- L<sub>2</sub> = Segment length
- W = Segment width
- X = Segment height



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		



Standard connecting thread  $\leq 42 \text{ mm} = \text{R } 1/2''$

Standard connecting thread  $\geq 47 \text{ mm} = 1 \frac{1}{4}'' \text{ UNC}$



Segments 



**CDM**

**abrasive +**

STANDARD**			
Dimensions	Segment dimensions	CDL**	CDM**
32 x 400	32 - 2,5 - 7		
42 x 450	42 - 3,0 - 7		
52 x 450	24 - 3,5 - 8,5		
62 x 450	24 - 3,5 - 8,5		
72 x 450	24 - 3,5 - 8,5		
82 x 450	24 - 3,5 - 8,5		
92 x 450	24 - 3,5 - 8,5		
102 x 450	24 - 3,5 - 8,5		
107 x 450	24 - 3,5 - 8,5		
112 x 450	24 - 3,5 - 8,5		
122 x 450	24 - 3,5 - 8,5		
127 x 450	24 - 3,5 - 8,5		
132 x 450	24 - 4,0 - 8,5		
152 x 450	24 - 4,0 - 8,5		
162 x 450	24 - 4,0 - 8,5		
182 x 450	24 - 4,0 - 8,5		
202 x 450	24 - 4,0 - 8,5		
250 x 450	24 - 4,0 - 8,5		

Standard connecting thread  $\leq 42$  mm = R 1/2"

Standard connecting thread  $\geq 47$  mm = 1 1/4" UNC



ISO 9001:2000 Nr. 265/1  
VDA 6.4 Nr. 004/1  
ISO 14001 Nr. 162/1

