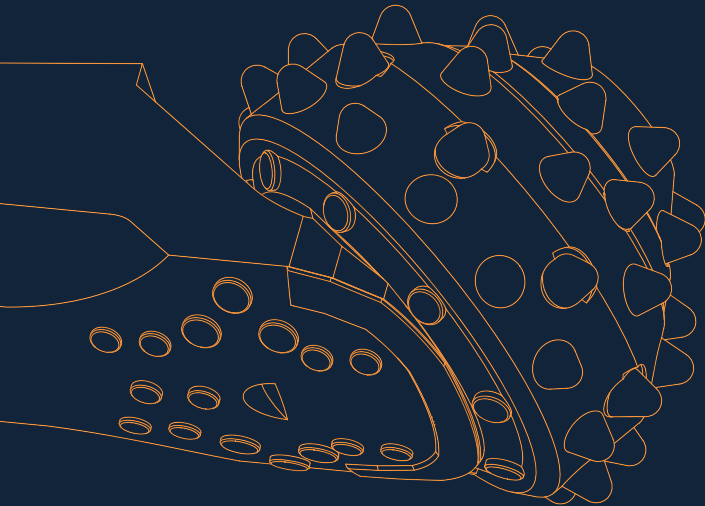




ROLLER BIT | PRODUCT LEAFLET



www.drillnova.com

MH-3

Premium Type

Roller bit MH-3 is DRILLNOVA latest and most promising design. It comes from long-time working with clients, deeply understanding the operational problem. It solves the quick welding and high torque drilling weight conflict demand at the same time.

Cominbed with the latest 3rd generation full-covered inserts. You can expect it will outperform any bit in the piling industry.

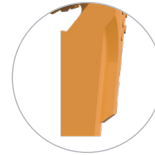
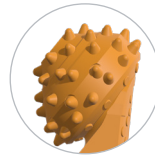
Cone Type : 3rd

Cone (Teeth Dia.×Qty-Dia.): 14×52-139

Body Type : 4th (Preloaded Welding Angle)

Connect : Welding

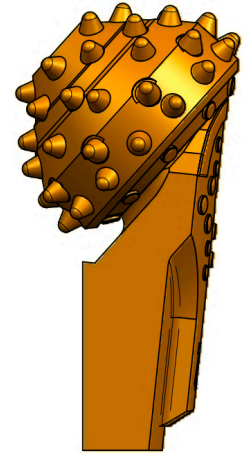
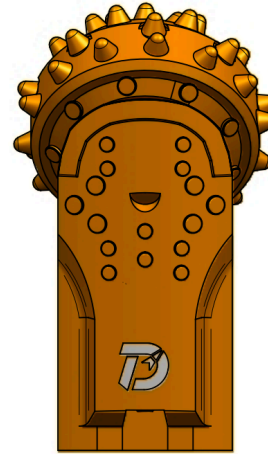
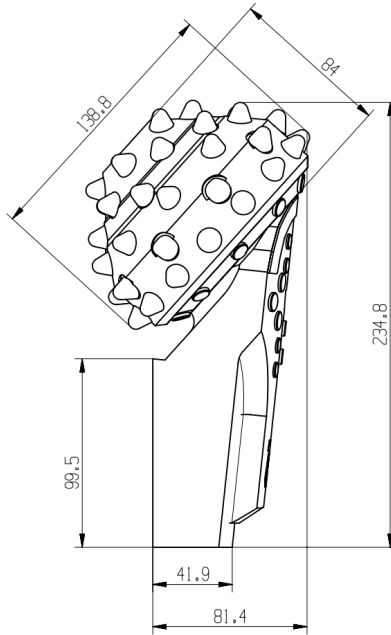
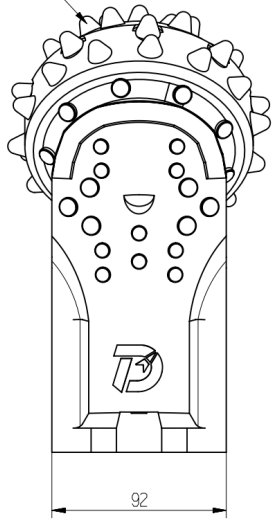
Selection Advice : For tough, abrasive rock; +20% faster drilling in field tests



Product Specifications

Product Specifications	
Cone & Body Material	Leg 15MnNi4Mo & Cone 15CrNiMo (Upgraded Material)
Cone Size	139mm
Tooth	Tungsten carbide
Tooth Qty.&Size	52-14mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available

14*21-52PCS



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DESIGN	SDC	2026.03.27	PROPORTION	MH-3
CHECK			1:2	DRAWING NO.
ADUIT			SHEET 1 OF 1	D260327B
RATIFY			A3	REVISION

MH-1

Entrance-level

Basic Type

The MH-1 is DRILLNOVA's most cost-effective roller bit, designed for budget-conscious projects without compromising on performance. 4th generation leg and 2nd generation cone design, it provides reliable drilling efficiency.

Its vacuum grease system extends bearing life, and the flat body allows for quick and easy welding, making it an ideal choice for those new to roller bits or seeking an affordable solution for piling projects up to 2500 mm.

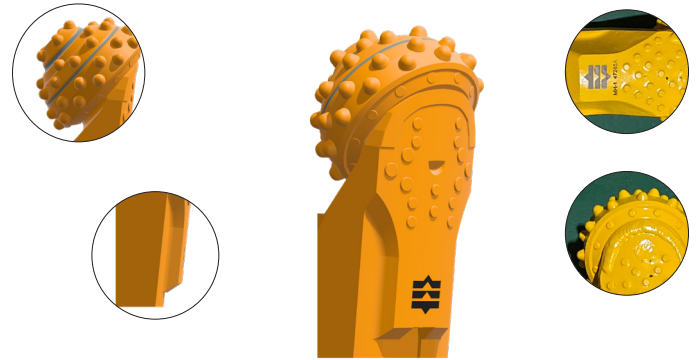
Cone Type: 2nd

Cone (Teeth Dia.×Qty-Dia.): 13×45-132

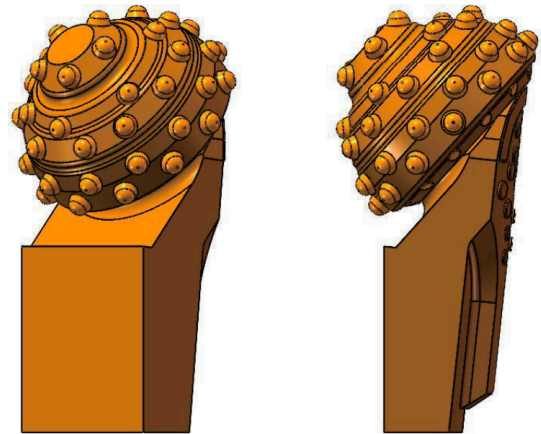
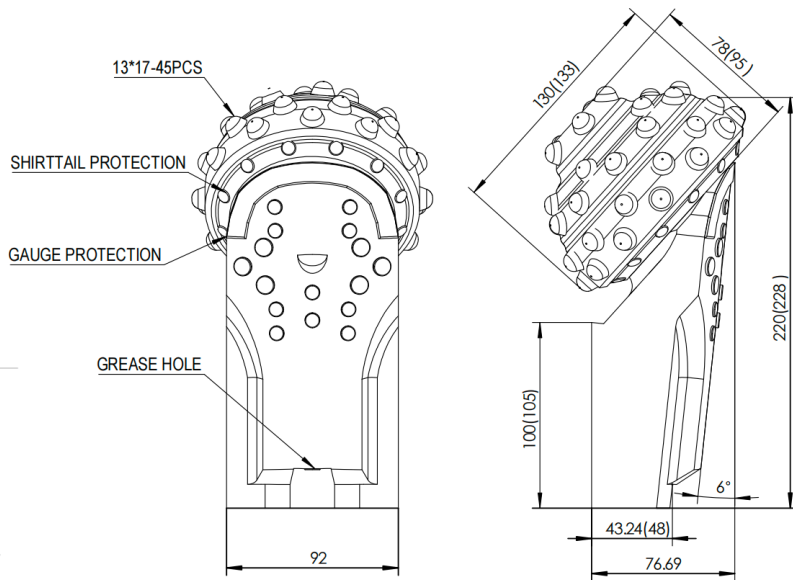
Body Type: 4th (Preloaded Welding Angle)

Connect: Welding


Selection Advice: Moderate rock; cost-effective in construction



Product Specifications	
Cone & Body Material	20CrNiMo
Cone Size	132mm
Tooth	Tungsten carbide
Tooth Qty.&Size	45*13mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



NOTES:
THE DATE IN PARENTHESES ARE FOR C133

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NAME	DATE	WEIGHT:kg	PRODUCT NAME: MH-1		
DESIGN	DTR	2026.01.27	PROPORTION	1:1	DRAWING NO. D260126C-1
CHECK			SHEET OF		REVISION
ADUIT			A3		
RATIFY					

MH-3C

Qui-Change Type

Replaceable Type Roller Bit

MH-3C series is designed for contractors requiring flexibility and convenience in bored piling operations. It utilizes a dual assurance design combining mechanical bolt connections with welding, ensuring the reliability of connections while allowing for the onsite replacement of roller bits.

The roller bits are derived from the advanced FIRMTECH Pro model MH-3, inheriting its advantages and further featuring convenient replacement and precise welding positioning capabilities.

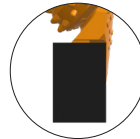
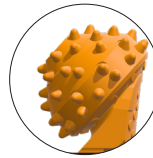
Cone Type: 3rd

Cone (Teeth Dia.×Qty-Dia.): 14×52-139

Body Type: 4th (Preloaded Welding Angle)

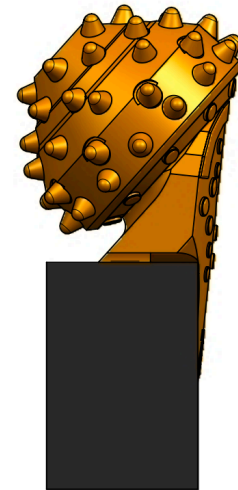
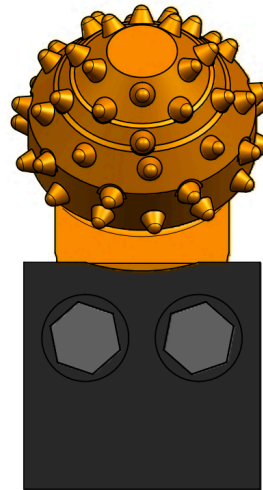
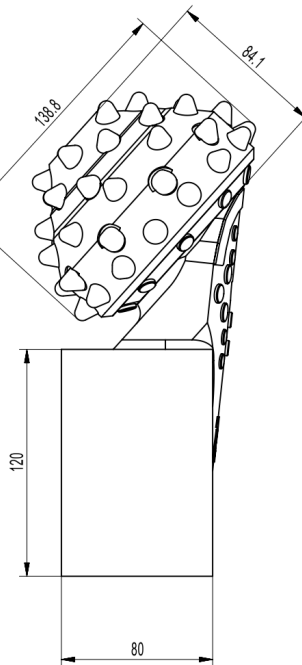
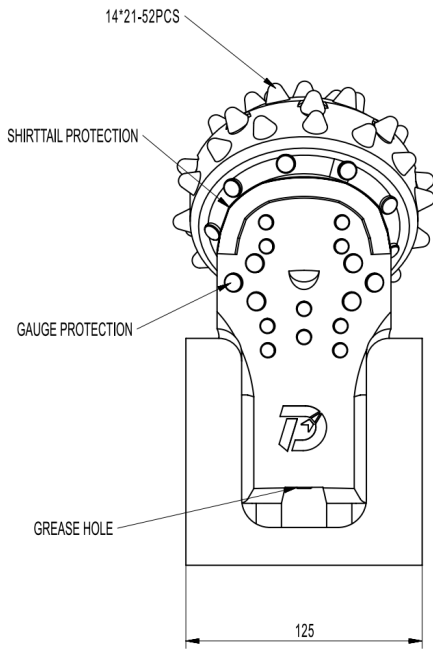
Connect: Qui-Change

Selection Advice: Holder-based quick-change; easy on-site swaps, minimal downtime



Product Specifications

Cone & Body Material	Leg 15MnNi4Mo & Cone 15CrNiMo (Upgraded Material)
Cone Size	139mm
Tooth	Tungsten carbide
Tooth Qty.&Size	52-14mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



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	NAME	DATE	WEIGHT:kg	PRODUCT NAME: MH-3C
DESIGN	SDC	2026.03.18	PROPORTION 1:2	
CHECK			DRAWING NO. D260318B-2	
ADUIT			REVISION	
RATIFY			A3	
SHEET 1 OF 1				

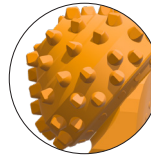
MH-3R

Qui-Change Type

Replaceable Type Roller Bit

Drillnova Bott-on cutter is engineered for high-efficiency field maintenance in HDD and Microtunneling reaming projects.

Each cutter uses a refined insert layout, tailored for directional drilling—minimizing vibration, enhancing steering precision, and increasing ROP across soft to hard formations.



Cone Type: 3rd

Cone (Teeth Dia.×Qty-Dia.): 14×52-139

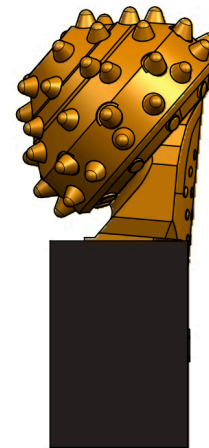
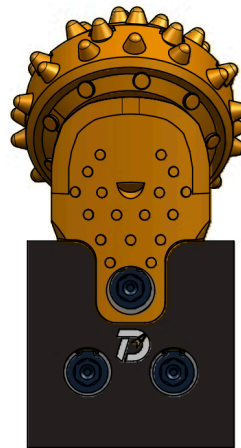
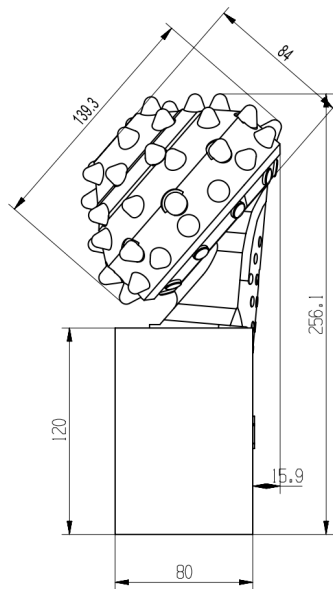
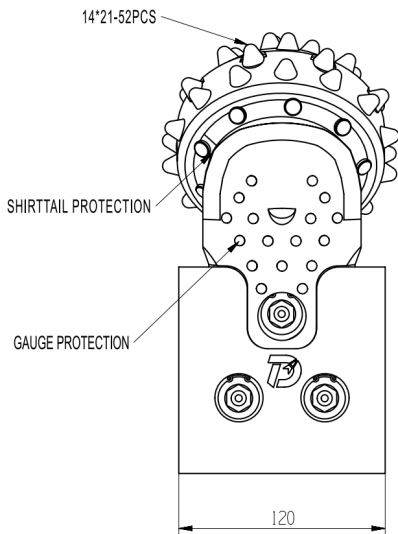
Body Type: 4th (Preloaded Welding Angle)


Connect: Qui-Change

Selection Advice: Holder-based quick-change; easy on-site swaps, minimal downtime

Product Specifications

Cone & Body Material	Leg 15MnNi4Mo & Cone 15CrNiMo (Upgraded Material)
Cone Size	139mm
Tooth	Tungsten carbide
Tooth Qty.&Size	52-14mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



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	NAME	DATE	WEIGHT:kg	PRODUCT NAME:		
DESIGN	SDC	2026.03.18	PROPORTION	1:2	MH-3R	
CHECK			SHEET 1 OF 1		DRAWING NO. D260318B-3	
ADUIT					REVISION	
RATIFY			A3			

MH-2

Classic Type

Classic Type

The MH-2 roller bit is one of DRILLNOVA's most trusted products, featuring over 2.3 kg of inserts in each cone. With its legacy as a benchmark in the industry, the MH-2 has garnered widespread acclaim from clients around the globe.

This classic first-generation leg design has been in use for over 100 years, originating from the tricone bit design. Our latest third-generation cone incorporates fully covered inserts, ensuring exceptional performance.

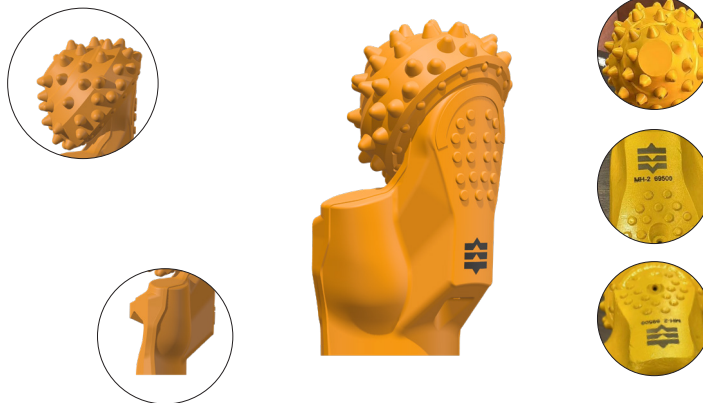
Cone Type: 3rd

Cone (Teeth Dia.×Qty-Dia.): 14×52-139

Body Type: 1st

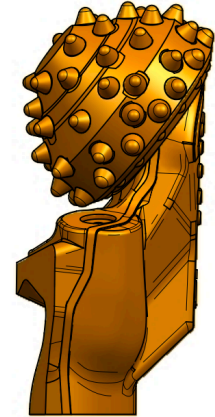
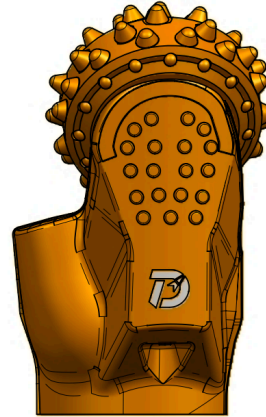
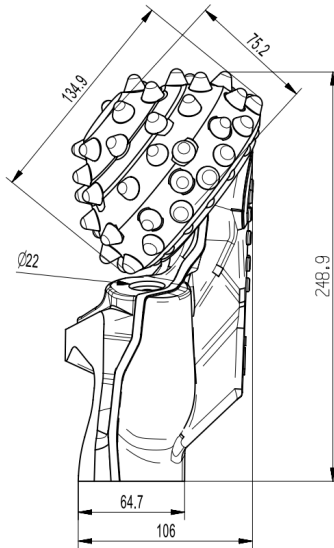
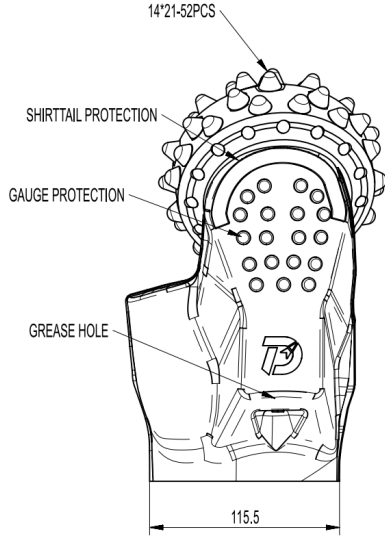
Connect: Welding

Selection Advice: Widely used in oil & gas; stable penetration in medium-hard formations



Product Specifications

Cone & Body Material	20CrNiMo
Cone Size	139mm
Tooth	Tungsten carbide
Tooth Qty.&Size	52-14mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



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	NAME	DATE	WEIGHT:kg	PRODUCT NAME: MH-2	
DESIGN	SDC	2026.03.18	PROPORTION	1:2	
CHECK			SHEET 3 OF 3		DRAWING NO. D260318B-4
ADUIT					REVISION
RATIFY			A3		

MH-3B

Qui-Change Bolts

Replaceable Type Roller Bit

The MH-3B Bolted Roller is designed for contractors seeking speed, precision, and reliability in various drilling applications.

Unlike traditional welding methods, the MH-3B uses a high-strength bolt and locknut system to secure the roller into the core barrel. This innovative design allows for fast roller replacement, reducing downtime from days to just 1-2 hours.

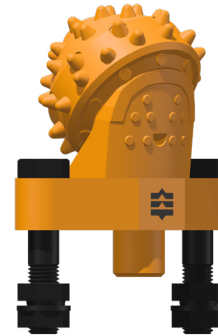
Cone Type: 3rd

Cone (Teeth Dia.×Qty-Dia.): 14×52-139

Body Type: Bolts

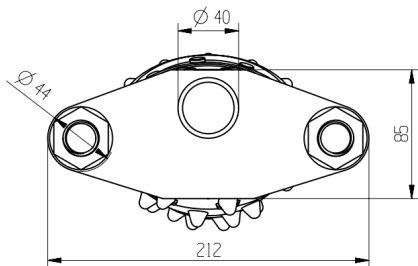
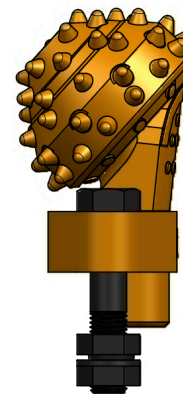
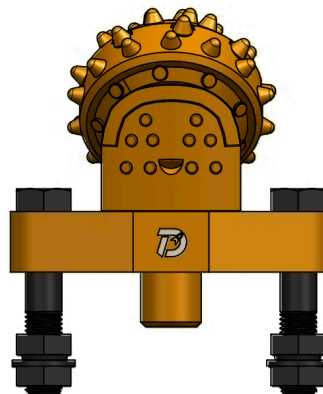
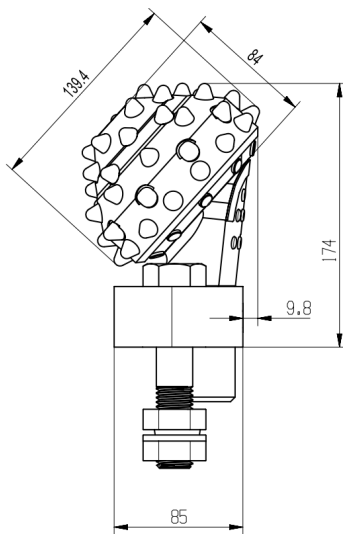
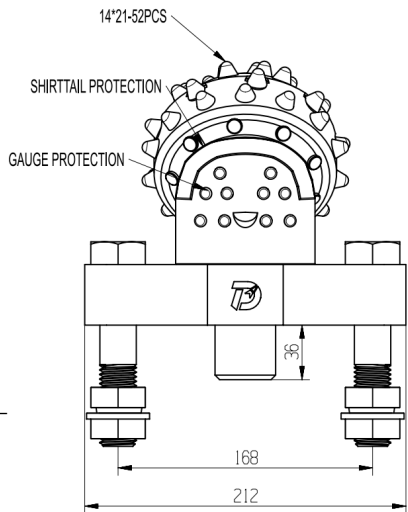
Connect: Qui-Change

Selection Advice: Bolt-type quick replacement; extra stability for specialized core barrels



Product Specifications

Product Specifications	
Cone & Body Material	Leg 15MnNi4Mo & Cone 15CrNiMo (Upgraded Material)
Cone Size	139mm
Tooth	Tungsten carbide
Tooth Qty.&Size	52-14mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



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	NAME	DATE	WEIGHT:kg		PRODUCT NAME:
DESIGN	SDC	2026.03.18	PROPORTION	1:2	MH-3B
CHECK			SHEET 1 OF 1		DRAWING NO. D260318B-5
ADUIT			A3		REVISION
RATIFY					

MH-3H

Large Pile Dia.

Large Type Roller Bit

Roller Bit MH-3H features a larger cone diameter and enhanced size for higher cutting efficiency, perfect for pile diameters over 2500mm and deep foundations. With improved bearings to withstand greater drilling weight, reinforced Tungsten Carbide teeth, and factory pre-set welding angles, it's built for durability and efficient performance in challenging geological conditions.

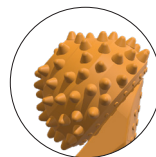
Cone Type: 3rd

Cone (Teeth Dia.×Qty-Dia.): 17×75-191

Body Type: 4th (Preloaded Welding Angle)

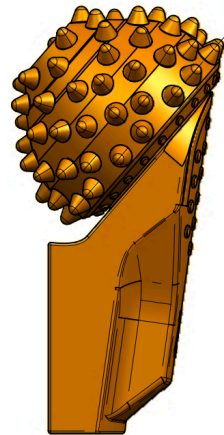
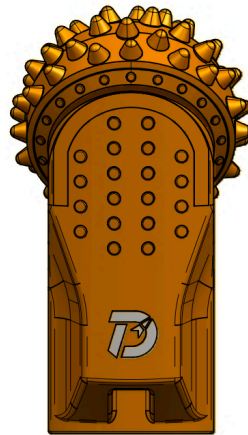
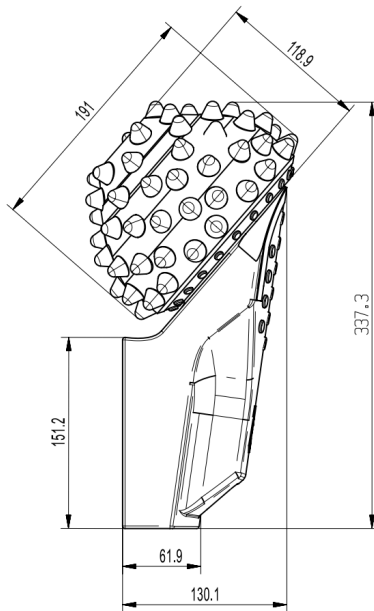
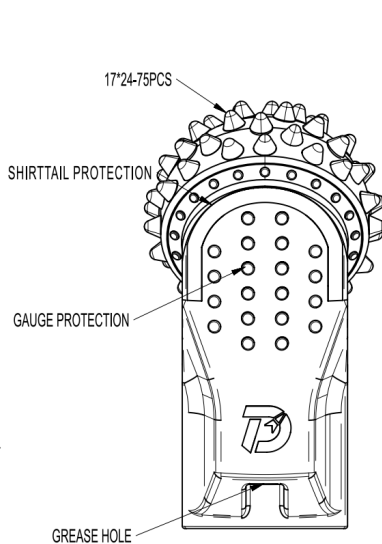
Connect: Welding


Selection Advice: Large-diameter boreholes (OD>2000mm); robust torque capacity



Product Specifications

Product Specifications	
Cone & Body Material	20CrNiMo
Cone Size	191mm
Tooth	Tungsten carbide
Tooth Qty.&Size	75-17mm
Bear method	O-ring Seal (Rubber Seal)
Grease system	Vacuum Grease System
Gauge Protection	Available
Shirt-tail Protection	Available



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CHECK			SHEET 1 OF 1		REVISION	
ADUIT					A3	
RATIFY						

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