



# Rock Reamer

Metric sizes



## Rock reamer specifications

Body				Cutters			
Body	Min pilot hole (mm)	Connections	No of cutters	Opening range (mm)			
RR4	114	2 7/8" IF B x B	3	216	254	305	-
				AA	BB	CC	DD
RR6	159	3 1/2" IF B x B	3	305	356	406	457

Body				Cutters					
Body	Min pilot hole (mm)	Connections	No of cutters	Opening range (mm)					
				A	B	C	D	E	F
RR8	216	4 1/2" IF B x B	3	406	457	508	559	610	660
RR17	445	7 5/8" Reg. B x B	3, 4	609	660	711	762	813	864
RR26	660	7 5/8" Reg. B x B	3, 5	813	864	914	965	102	1067
RR36	914	7 5/8" Reg. B x B	3, 4, 5	1067	1118	1168	1219	1270	1321
RR42	1067	7 5/8" Reg. B x B	4, 5, 7	1219	1270	1321	1372	1422	1473
RR48	1220	7 5/8" Reg. B x B	4, 5, 7	1372	1422	1473	1524	1575	1626

\* Thread connections mentioned are in standard sizes. Other connections are available upon request.

## Cutter specifications



### Milled Tooth

Alluvial formations, clays, soft rock.  
3–21 Mpa (500–3,000 PSI) compressive strength formations.

**Formation types:** Sandstone, shale, mudstone, clays, gravels and conglomerate.

Teeth are milled directly from the hard cone steel and tungsten hardfacing applied on the trailing edge to maintain sharpness of the blade. TCI gauge row MT cutters available on special order.



### TCI Chisel

Medium rock  
21–103 Mpa (3,000–15,000 PSI) compressive strength rock.

**Formation types:** Limestone, sandstone and shale.

TCI teeth are aggressive conical shaped for aggressive penetration rates in medium type rock.



### TCI Type 5

Medium – hard rock  
83–172 Mpa (12,000–25,000 PSI) compressive strength formations.

**Formation types:** Granite, marble, and dolomite.

TCI teeth have moderate extensions. Gage area has all dome type cutters to maximize cutter gauge life.



### TCI Type 7

Hard rock  
172–310 Mpa (25,000–45,000 PSI) compressive strength formations.

**Formation types:** Quartz, Basalt and Quartzite.

TCI teeth are all hemispherical shape, providing a longer cutter life in extremely hard rock.

## Body, cutter and arm weights – in kg

Body	RR4 – 61	RR6 – 157	RR8 – 331	RR17 – 869	RR26 – 1210	RR36 – 1770	RR42 – 2150	RR48					
Body	R4-8.5	R4-10	R4-12	R6-12	R6-14	R6-16	R6-18	A	B	C	D	E	F
MT	1.8	3.6	5.4	6.8	10.4	14.0	18.6	14.4	21.2	28.8	36.0	45.9	57.6
TCI	2.7	4.5	7.2	9.5	13.5	18.9	24.9	18.5	27.5	35.6	45.0	56.7	69.8
FRA	2.3	3.2	4.1	9.0	10.8	12.6	15.9	22.5	24.8	30.6	33.8	39.6	45.5

\* Weight in kg per cutter

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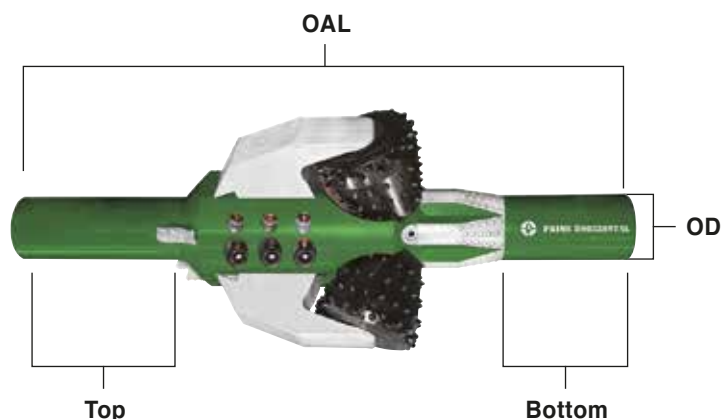
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# Rock Reamer

Operating specifications– Metric sizes



Tool series	Pilot hole (mm)	Thread B x B	No. of cutters	Opening size (mm)	Mill Tooth		TCI		Body OD (mm)	OAL* (mm)	Top* (mm)	Bottom* (mm)
					WOB (000's kg)	RPM's	WOB (000's kg)	RPM's				
RR4	114	2 7/8" IF	3	216 – 305	3.5 – 4.5	50 – 80	3.5 – 5.5	40 – 80	89	1054	381	305
RR6	159	3 1/2" IF	3	305 – 457	4.5 – 7.0	40 – 100	7.0 – 9.0	35 – 80	120	1320	305	381
RR8	216	4 1/2" IF	3	406 – 660	7.0 – 9.0	40 – 80	7.0 – 18.0	35 – 70	165	1549	318	406
RR17	445	7 5/8" Reg.	3	609 – 864	7.0 – 11.5	40 – 65	9.0 – 18.0	40 – 65	241	1638	305	356
RR26	660	7 5/8" Reg.	3	813 – 1067	7.0 – 13.5	35 – 60	9.0 – 22.5	35 – 55	241	1638	305	305
RR36	914	7 5/8" Reg.	4	1067 – 1321	7.0 – 13.5	35 – 55	9.0 – 22.5	35 – 50	241	1638	305	305
RR42	1067	7 5/8" Reg.	4	1219 – 1473	7.0 – 13.5	35 – 50	9.0 – 22.5	30 – 45	241	1638	305	305
RR48	1220	7 5/8" Reg.	5	1372 – 1626	7.0 – 16.0	35 – 45	9.0 – 27.0	25 – 40	241	1638	305	305

\* Lengths apply for new bodies only.

The suggested weights and RPM's are only a recommended guide. Weights and RPM's should be adjusted to maximum penetration rates modified by expected cutter life. They will vary with formation and rig power. Recommended weights assume minimum pilot hole sizes. As the cutting shoulder is reduced, less weight is needed.

**Tips:**

- Softer formations will normally respond to lighter weights and higher RPM's. Harder formations require more weight and slower RPM's
- Adjust weight and RPM to achieve optimum torque. Avoid uneven rotation of hole opener.
- Use sufficient fluid volume to obtain optimum hole cleaning.
- Proper centralisation will enhance tool performance and increase downhole life.

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