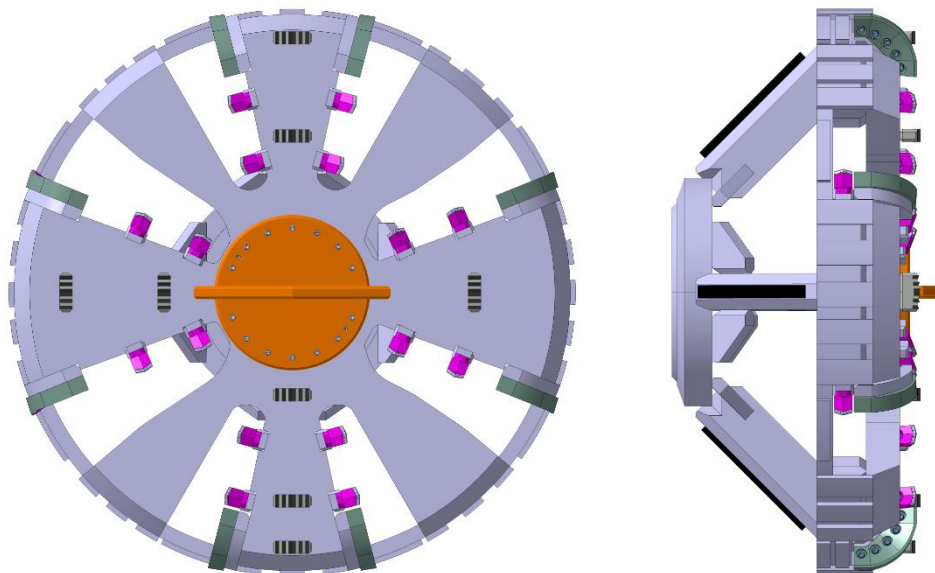


ASM 1800

Technical Specifications Catalog



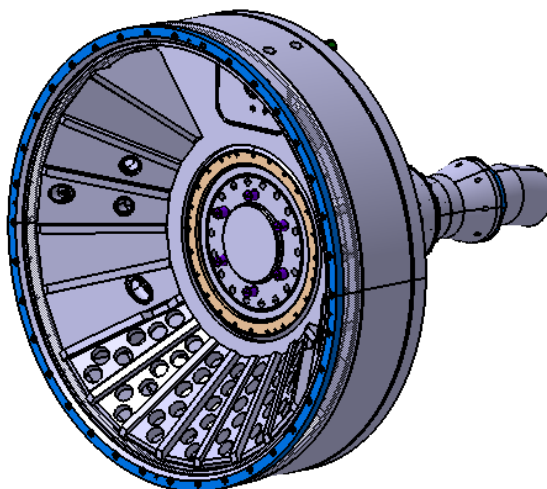
TECHNICAL SPECIFICATIONS



Excavation Diameter	2225	mm
Bucket Diameter	2225	mm
Length Inclusive Tools	1050	mm
Weight	4550	kgs
Knives	20	Nos.
Buckets (Right + Left)	8	Nos.
Wear Plate	Yes	

STEERING HEAD (FRONT SHIELD)

Diameter D	2190	mm
Length L	1840	mm
Weight G	7044	mm



The crusher chamber is used to reduce the size of drilled material to the size suitable for conveying through the slurry circuit. The feed nozzles inject water into the crusher to prevent the agglomeration of the material into the water circuit.

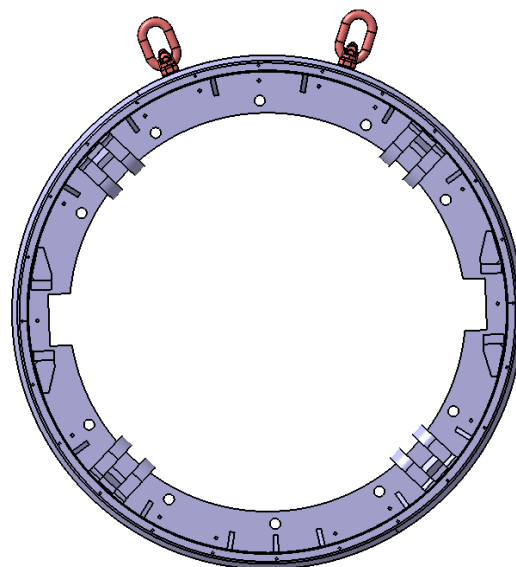
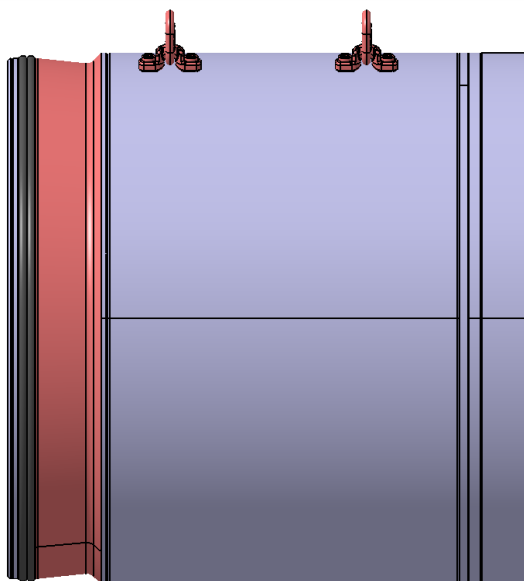
Rollstar G32.62.81B gearbox with a nominal and break out torque of 230 kN.m and 310 kN.m, respectively, is installed in ASM 1800.

Rexroth A6VM 500 hydro motor with the maximum power of 583 kW is mounted in ASM 1800. The main features of the machine drive are given in the table below.

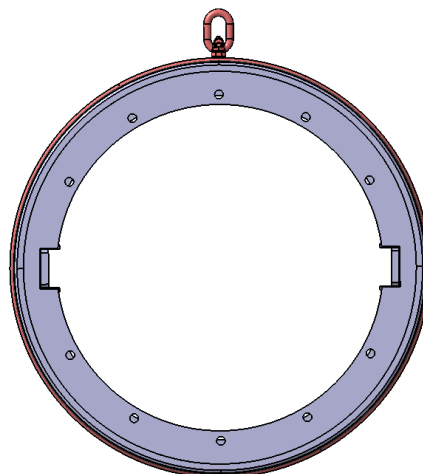
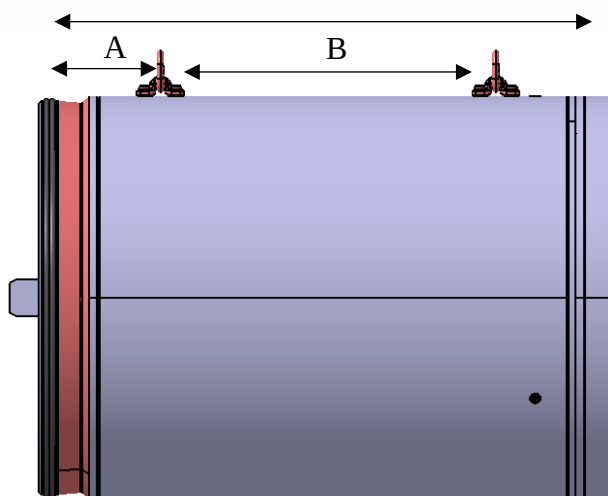
Type	Hydraulic	
Motors	1	No.
Power	132	kW
Speed	0-14.5	rpm
Nominal Torque (Max.)	250	kN.m
Break Out Torque	310	kN.m

MACHINE CAN AND TRAILING TUBE

Laser target and bypass are mounted to the machine can. The steering head is attached to the machine can by four hydraulic steering cylinders. These are used to direct the steering head and cutting wheel in the direction while pipe jacking.



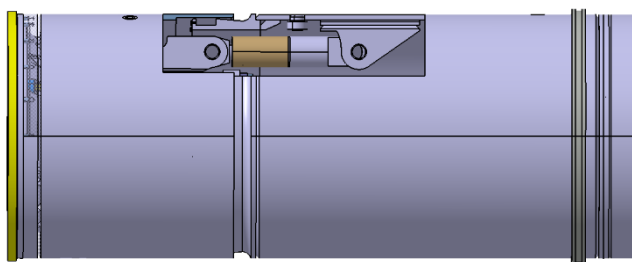
Diameter D	2185	mm
Length L	2128	mm
Length A	667	mm
Length B	1475	mm
Weight G	4261	kgs



Diameter D	2180	mm
Length L	3099	mm
Length A	657	mm
Length B	1818	mm
Weight G	4747	kgs

STEERING CYLINDERS

Steering cylinders are mounted between steering head and machine can. This allows exact steering of the steering head.



No. of Steering Cylinders	4	Nos.
Stroke	65	mm
Piston Diameter	140	mm
Rod Diameter	90	mm
Working Pressure	414	Bar
Max. Pressure	420	Bar
Max. Force per Cylinder	637	kN
Max. Force per Cylinder	646	kN

JACKING FRAME



Dimension (L × W × H)	5465 * 4083 * 2738	mm
Number of Lifting Points	8	Nos.
Max Working Pressure	450	Bar
Thrust Capacity at 430 Bar	900	ton
No. of Thrust Cylinders	2	Nos.
Stroke in Step 1	1690	mm
Stroke in Step 2	1830	mm
Diameter of Thrust Cylinders (Piston/Rod)	350 / 280	mm
Total Weight	33000	kgs

OPERATION CONTAINER



Cabin Type	C-ASM1800-PE	
Diameter (L × W × H)	6058 × 2438 × 2591	mm
Control System	Siemens S7	1500
Total Power	449	kW
Power for Invertors	(1×90)+(2×75)	kW
Attachments	Air Compressor	Air Conditioner
Launch Shaft Assets	Shaft box	Switch boxes
Cabin Weight	~ 10000	kgs

POWER PACK (MACHINE)

Cutting wheel and steering Cylinders Hydraulic Circuit	132	kW
Main Pump Flow Rate	362	Litre/min
Main Pump Max. Pressure	320	Bar
Steering Hydraulic Pump Flow Rate	2.6	Litre/min
Jacking Frame Hydraulic Pump Max Pressure	420	Bar
Cooling Pump Flow Rate	58	Litre/min
Hydraulic Tank Capacity	600	Litres

Table below shows the relation between the hydraulic pump pressure and the output torque in cutting wheel.

Relationship between the output torque and the working pressure

Hydraulic Pump Pressure (Bar)	Feed Pump Pressure (Bar)	Output Torque in Hydraulic motor (kN.m)	Output Torque in Cutting Wheel (Bar)
50	26	0.19	24.7
70	26	0.35	45.5
90	26	0.508	66
110	26	0.668	86.84
140	26	0.9	117
170	26	1.14	148.2
200	26	1.4	182
250	26	1.78	231.4