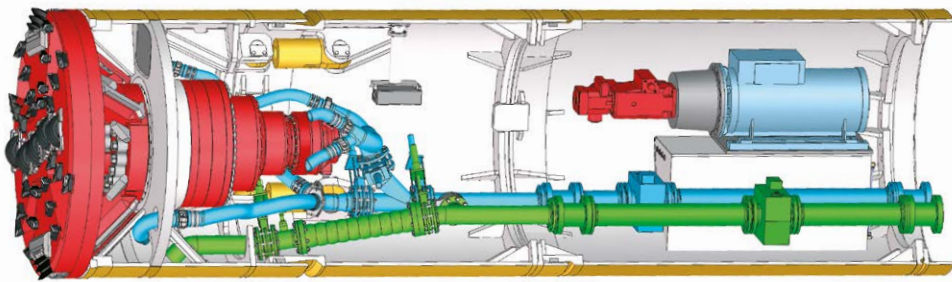


AVN1600AB – AVN2000AB PIPE JACKING



Special Features

- › Designed for soft ground, mixed ground and hard rock conditions by use of different cutting wheels (full face excavation)
- › Access to cutting wheel for tool replacement (backloading system)
- › Highly reliable steering operation due to inductive measuring system
- › Different (variable) flushing modes/jet systems to suit different ground conditions
- › Medium pressure water system for operation in cohesive soil
- › Providing highly effective cone crusher
- › Equipped with heavy duty long-life main bearing and high torque central drive
- › Hydraulic power pack in machine can
- › Completely remote-controlled
- › All machines compatible with TUnIS MT Navigation System

TECHNICAL DATA	AVN1600AB		AVN1800AB		AVN2000AB	
	Std*	Ext*	Std	Ext	Std	Ext
1. Articulated Shield						
› Outer diameter (mm)	1,970	2,150	2,150	2,425	2,425	3,025
› Pipe OD (mm)	1,940	2,120	2,120	2,400	2,400	3,000
› Pipe ID (mm)	1,600	1,800	1,800	2,000	2,000	2,400
Main Drive						
› Max. torque	360 kNm		520 kNm		780 kNm	
› Revolution (LH/RH)	0–4.6 rpm		0–4.6 rpm		0–4.9 rpm	
› Rated power	110 kW		160 kW		250 kW	
› Roll correction	x		x		x	
Steering						
› Steering cylinders	4		4		4	
› Force per cyl./oil pressure	844 kN/420 bar		844 kN/420 bar		1,068 kN/420 bar	
› Stroke per cylinder	100 mm		100 mm		100 mm	
Control						
› Computer data logging system	x		x		x	
› Fuzzy control (automatic steering)	opt.		opt.		opt.	
› Fully visualized process control	x		x		x	
› Active roll protection (el.-hydr.)	x		x		x	
› Suitability TUnIS MT Navigation System:						
› Laser	x		x		x	
› HydroLevel	x		x		x	
› Gyro	x		x		x	
› LaserTotalStation	x		x		x	
2. Machine Can						
› Lubrication system	x		x		x	
3. General Information						
› Pipe Jacking	x		x		x	
› Drive length (recommended)	900 m		900 m		1,100 m	
› Access to cutting wheel	x		x		x	
› Waterproofness	3 bar		3 bar		3 bar	
› Airlock	opt.		opt.		opt.	
› Telescopic and interjacking station	opt.		opt.		opt.	
› Slurry line diam.	150 mm		150 mm		200 mm	
› Medium pressure jet system	x		x		x	

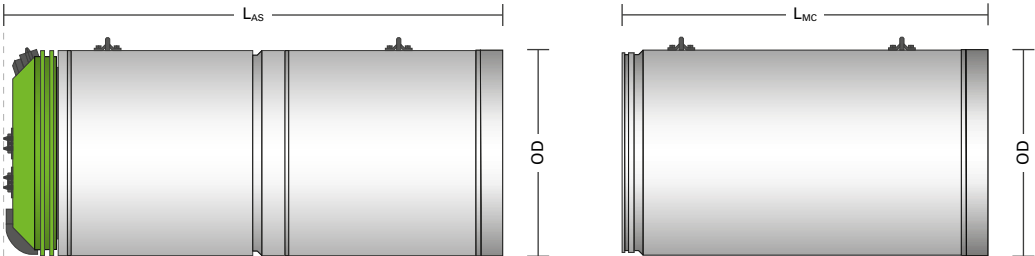
* Std = standard; Ext = extension kit

**PIONEERING
UNDERGROUND
TECHNOLOGIES**



Machine dimensions

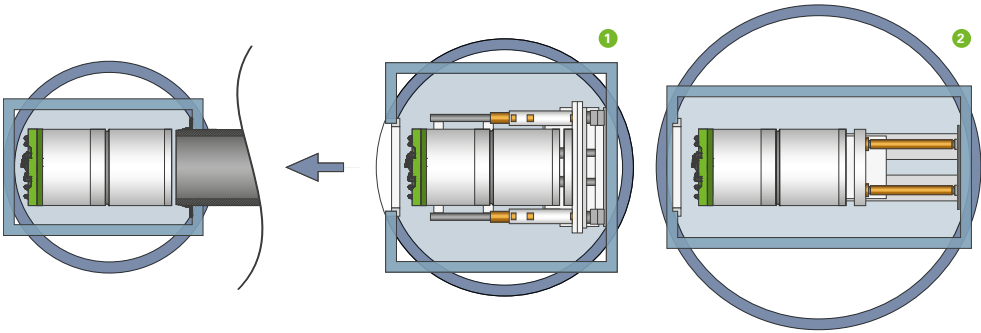
TECHNICAL DATA	AVN1600AB	AVN1800AB	AVN2000AB
› Outer diameter (OD)	1,970 mm	2,150 mm	2,425 mm
› Length artic. shield (L _{AS})	3,900 mm	4,200 mm	4,400 mm
› Length machine can (L _{MC})	3,200 mm	3,200 mm	3,250 mm
› Max. single weight	22,000 kg	25,000 kg	32,000 kg



Shaft dimensions

TECHNICAL DATA		AVN1600AB	AVN1800AB	AVN2000AB
Launch Shaft	Pipe length	Shaft size	Shaft size	Shaft size
› Compact jacking rig				
	2,500 mm	Ø = 6.5 m 6.5 m x 4.5 m	Ø = 7.0 m 6.5 m x 4.5 m	Ø = 7.5 m 7.0 m x 5.0 m
	3,000 mm	Ø = 6.5 m 6.5 m x 4.5 m	Ø = 7.0 m 6.5 m x 4.5 m	Ø = 7.5 m 7.0 m x 5.0 m
Launch Shaft	2,500 mm	Ø = 8.5 m 8.5 m x 4.0 m	Ø = 9.0 m 8.5 m x 4.0 m	Ø = 9.0 m 9.0 m x 4.5 m
› Main jacking station				
	3,000 mm	Ø = 8.5 m 8.5 m x 4.0 m	Ø = 9.0 m 8.5 m x 4.0 m	Ø = 9.0 m 9.0 m x 4.5 m
Reception Shaft (L _{AS})				
› Circular		3,900 mm Ø = 5.0 m	4,200 mm Ø = 5.5 m	4,400 mm Ø = 6.0 m
› Rectangular		5.0 m x 3.0 m	5.5 m x 3.0 m	5.5 m x 3.5 m

All dimensions according to 15m shaft depth.



- 1 Compact jacking rig:
 - › Smaller launch shaft needed
- 2 Main jacking station:
 - › Continuous push with telescopic cylinders (time advantage)
 - › Higher thrust capacity possible by adding of main jacks

Machine type description e.g. **AVN¹⁾ 1600²⁾ A³⁾ B⁴⁾**

- 1) Machine type
- 2) ID of jacking pipe
- 3) Access to cutting wheel
 - X = no access
 - T = central door
 - A = door above main drive or in top of pressure wall
- 4) Type of container, power transfer from container to machine
 - B = electric cable to machine, power pack in machine power pack in machine
 - C = hydraulic drive from container directly into machine
 - E = electric cable from container directly into machine
 - H = medium voltage supply to machine (> 1,000 V)

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HERRENKNECHT AG
77963 Schwanau
Germany
Phone +49 7824 302-0
Fax +49 7824 302-3640
utility@herrenknecht.com
www.herrenknecht.com

