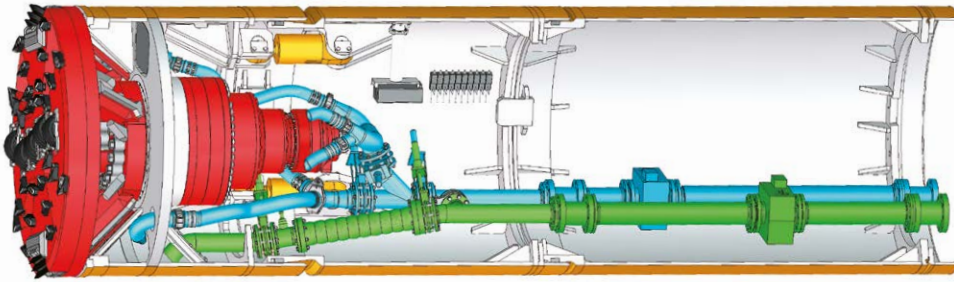


# AVN800XC – AVN2000AC

## PIPE JACKING



### Special Features

- › Designed for soft ground, mixed ground and hard rock conditions by use of different cutting wheels (full face excavation)
- › Most efficient use for short drives
- › Highly reliable steering operation due to inductive measuring system
- › Different (variable) flushing modes/jet systems to suit different ground conditions
- › High/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 control container, usable for a certain range of diameters
- › Completely remote-controlled
- › All machines compatible with TUNIS MT Navigation System

TECHNICAL DATA	AVN800XC		AVN800XC		AVN1000XC		AVN1200XC		AVN1400XC		AVN1500XC		AVN1600AC		AVN1800AC		AVN2000AC	
	Std*	Ext*	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext
<b>1. Articulated Shield</b>																		
› Outer diameter (mm)	975	1,110	1,110	1,295	1,295	1,505	1,505	1,740	1,740	1,810	1,810	1,970	1,970	2,150	2,150	2,425	2,425	3,025
› Pipe OD (mm)	960	1,090	1,090	1,280	1,280	1,490	1,490	1,720	1,720	1,780	1,780	1,940	1,940	2,120	2,120	2,400	2,400	3,000
› Pipe ID (mm)	700	800	800	1,000	1,000	1,200	1,200	1,400	1,400	1,500	1,500	1,600	1,600	1,800	1,800	2,000	2,000	2,400
<b>Main Drive</b>																		
› Max. torque	55kNm		90kNm		150kNm		195kNm		281kNm		310kNm		310kNm		445kNm		640kNm	
› Revolution (LH/RH)	0–7.4rpm		0–7.1rpm		0–5.4rpm		0–3.5rpm		0–3.2rpm		0–3.2rpm		0–3.2rpm		0–3.3rpm		0–2.0rpm	
› Rated power	55kW		75kW		75kW		75kW		90kW		110kW		110kW		32kW		132kW	
› Roll correction	x		x		x		x		x		x		–		–		x	
<b>Steering</b>																		
› Steering cylinders	3		3		3		3		3		4		4		4		4	
› Force per cyl./oil pressure (kN/bar)	329/420		329/420		558/420		646/420		646/420		844/420		844/420		844/420		1,068/420	
› Stroke per cylinder	50mm		50mm		60mm		60mm		60mm		60mm		100mm		100mm		100mm	
<b>Control</b>																		
› Computer data logging system	x		x		x		x		x		x		x		x		x	
› Fuzzy control (automatic steering)	opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
› Fully visualized process control	x		x		x		x		x		x		x		x		x	
› Active roll protection (el.-hydr.)	x		x		x		x		x		x		x		x		x	
› Suitability TUNIS MT Navigation:																		
› Laser	x		x		x		x		x		x		x		x		x	
› HydroLevel	x		x		x		x		x		x		x		x		x	
› Gyro	x		x		x		x		x		x		x		x		x	
› LaserTotalStation	–		–		–		–		–		–		x		x		x	
<b>2. Machine Can</b>																		
› Lubrication system	x		x		x		x		x		x		x		x		x	
<b>3. General Information</b>																		
› Pipe Jacking	x		x		x		x		x		x		–		–		x	
› Drive length (recommended)	150m		150m		150m		200m		250m		250m		300m		300m		300m	
› Access to cutting wheel	–		–		–		–		–		–		x		x		x	
› Waterproofness	3bar		3bar		3bar		3bar		3bar		3bar		3bar		3bar		3bar	
› Telescopic and interjacking station	opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
› Slurry line diam.	100mm		100mm		100mm		100mm		125mm		125mm		125mm		125mm		150mm	
› High pressure water system	x		x		x		x		–		–		–		–		–	
› Medium pressure jet system	–		–		–		x		x		x		x		x		x	

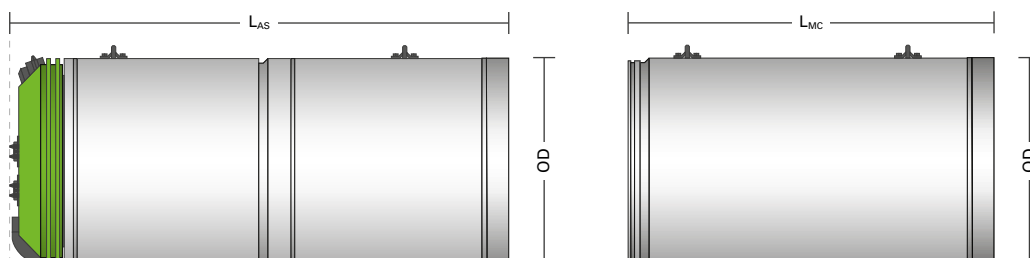
\* Std = standard; Ext = extension kit

**PIONEERING  
UNDERGROUND  
TECHNOLOGIES**



## Machine dimensions

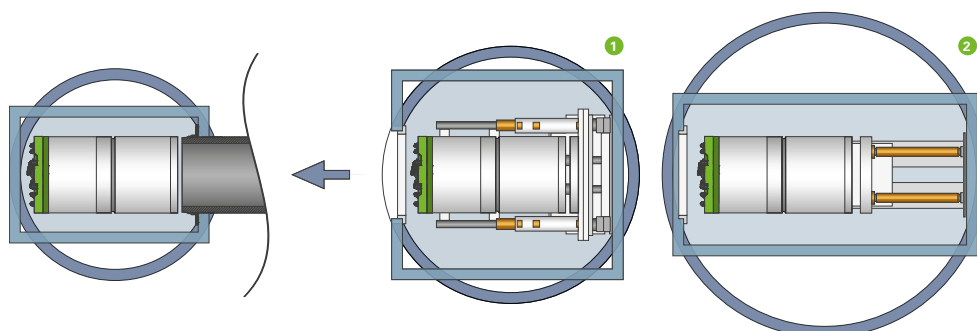
TECHNICAL DATA	AVN800XC	AVN800XC	AVN1000XC	AVN1200XC	AVN1400XC	AVN1500XC	AVN1600AC	AVN1800AC	AVN2000AC
› Outer diameter (OD)	975 mm	1,110 mm	1,295 mm	1,505 mm	1,740 mm	1,810 mm	1,970 mm	2,150 mm	2,425 mm
› Length artic. shield (L <sub>AS</sub> )	2,400 mm	2,900 mm	3,000 mm	3,200 mm	3,400 mm	3,400 mm	3,900 mm	4,200 mm	4,400 mm
› Length machine can (L <sub>MC</sub> )	2,200 mm	2,700 mm	2,700 mm	2,700 mm	2,700 mm	2,700 mm	3,200 mm	3,200 mm	3,200 mm
› Max. single weight	4,500 kg	6,200 kg	7,600 kg	10,500 kg	13,000 kg	17,000 kg	22,000 kg	25,000 kg	32,000 kg



## Shaft dimensions

TECHNICAL DATA		AVN800XC	AVN800XC	AVN1000XC	AVN1200XC	AVN1400XC	AVN1500XC	AVN1600AC	AVN1800AC	AVN2000AC
Launch Shaft	Pipe length	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size
› Compact jacking rig										
	2,000 mm	Ø = 3.2m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	– –	– –	– –	– –	– –	– –
	2,000 mm	Ø = 3.5m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	Ø = 4.87m 5.5m x 4.5m	Ø = 5.27m 5.5m x 4.5m	Ø = 5.27m 5.5m x 4.5m	Ø = 6.5m 6.5m x 4.5m	Ø = 7.0m 6.5m x 4.5m	Ø = 7.5m 7.0m x 5.0m
	3,000 mm	Ø = 4.57m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	Ø = 4.57m 4.5m x 3.5m	Ø = 4.87m 5.5m x 4.5m	Ø = 6.5m 5.5m x 4.5m	Ø = 6.5m 5.5m x 4.5m	Ø = 6.5m 6.5m x 4.5m	Ø = 7.0m 6.5m x 4.5m	Ø = 7.5m 7.0m x 5.0m
Launch Shaft	2,500 mm	–	–	–	–	Ø = 8.5m 8.0m x 4.5m	Ø = 8.5m 8.0m x 4.5m	Ø = 8.5m 8.0m x 4.5m	Ø = 9.0m 8.5m x 4.5m	Ø = 9.0m 9.0m x 4.5m
› Main jacking station	3,000 mm	–	–	–	–	Ø = 8.5m 8.0m x 4.5m	Ø = 8.5m 8.0m x 4.5m	Ø = 8.5m 8.0m x 4.5m	Ø = 9.0m 8.0m x 4.5m	Ø = 9.0m 9.0m x 4.5m
Reception Shaft (L <sub>AS</sub> )										
› Circular	2,600 mm	Ø = 3.0m	Ø = 3.4m	Ø = 3.6m	Ø = 4.5m	Ø = 4.5m	Ø = 5.0m	Ø = 5.0m	Ø = 5.5m	Ø = 6.0m
› Rectangular	2,900 mm	2.9m x 2.0m	3.2m x 2.0m	3.4m x 2.5m	4.5m x 2.5m	4.5m x 2.5m	4.5m x 2.5m	5.0m x 3.0m	5.0m x 3.0m	5.5m x 3.5m

All dimensions according to 10m 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. **AVN<sup>1)</sup> 800<sup>2)</sup> X<sup>3)</sup> C<sup>4)</sup>**

- 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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All dimensions and data refer to customizable basic product features.

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