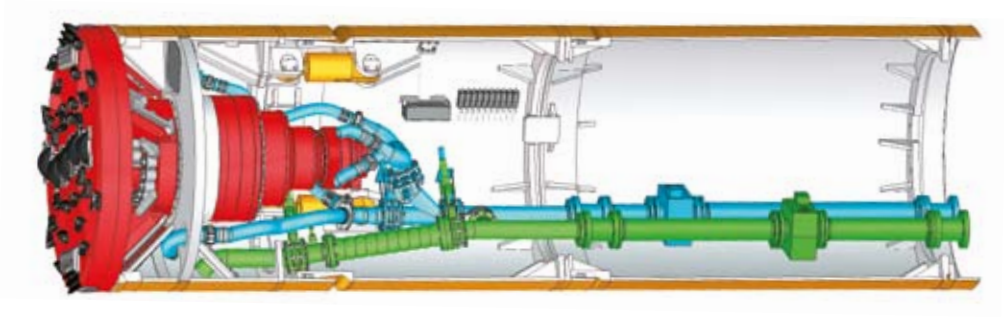
AVN800XC – AVN2000AC
PIPE JACKING



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 to U.N.S. Guidance 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
1. Articulated Shield																				
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
Main drive																				
Max. torque		kNm	55		90		150		195		281		310		310		445		640	
Revolution	LH/RH	rpm	0-7.4		0-7.1		0-5.4		0-3.5		0-3.2		0-3.2		0-3.2		0-3.3		0-2.0	
Rated Power		kW	55		75		75		75		90		110		110		132		132	
Roll correction			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Steering																				
Steering cylinders			3		3		3		3		3		3		4		4		4	
Force per cyl./oil pressure		kN/bar	393/500		393/500		664/500		752/500		1,005/500		1,005/500		1,005/500		1,272/500		1,272/500	
Stroke per cyl.		mm	50		50		60		60		60		60		100		100		100	
Control																				
Computer data logging system			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Fuzzy control (automatic steering)			opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
Fully visualized process control			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Active roll protection (el.-hydr.)			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Suitability U.N.S.:	ELS		✓		✓		✓		✓		✓		✓		✓		✓		✓	
	ELS-HWL		✓		✓		✓		✓		✓		✓		✓		✓		✓	
	GNS		✓		✓		✓		✓		✓		✓		✓		✓		✓	
2. Machine Can																				
Lubrication System			✓		✓		✓		✓		✓		✓		✓		✓		✓	
3. General Information																				
Pipe jacking			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Drive length (recommended)		m	150		150		150		200		250		250		300		300		300	
Access to cutting wheel			✓		✓		✓		✓		✓		✓		✓		✓		✓	
Waterproofness		bar	3		3		3		3		3		3		3		3		3	
Telescopic and interjacking station			opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
Slurry line diam.		mm	100		100		100		100		125		125		125		125		150	
High pressure water system			✓		✓		✓		✓		–		–		–		–		–	
Medium pressure jet system			–		–		–		✓		✓		✓		✓		✓		✓	

All measures and data represent the main feasibility of the machines. Individual solutions are possible. Errors excepted.

*Std = standard; Ext = extension kit

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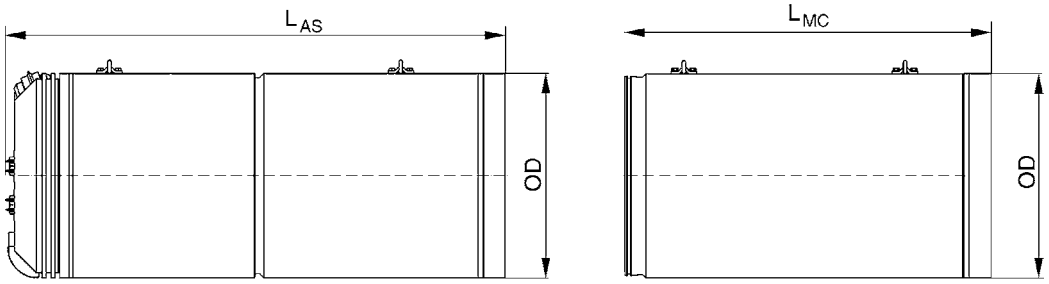
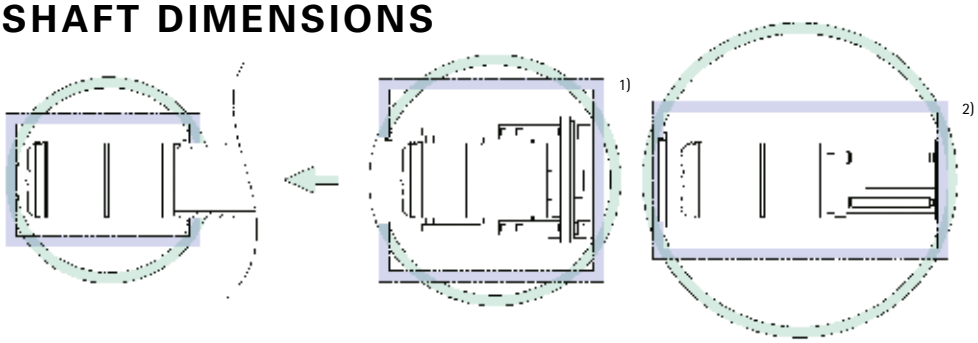
MACHINE DIMENSIONS



			AVN800XC	AVN800XC	AVN1000XC	AVN1200XC	AVN1400XC	AVN1500XC	AVN1600AC	AVN1800AC	AVN2000AC
Outer Diameter	OD	mm	975	1,110	1,295	1,505	1,740	1,810	1,970	2,150	2,425
Length artic. shield	L_{AS}	mm	2,600	2,900	3,000	3,200	3,400	3,400	3,900	4,200	4,400
Length machine can	L_{MC}	mm	2,200	2,700	2,700	2,700	2,700	2,700	3,200	3,200	3,200
Max. single weight	W	kg	4,500	6,200	7,600	10,500	13,000	17,000	22,000	25,000	32,000

SHAFT DIMENSIONS



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

		AVN800XC	AVN800XC	AVN1000XC	AVN1200XC	AVN1400XC	AVN1500XC	AVN1600AC	AVN1800AC	AVN2000AC
Launch Shaft Compact jacking rig	Pipe length	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size
	2,000mm	Ø = 3.2m	Ø = 4.57m	Ø = 4.57m	–	–	–	–	–	–
		4.5m x 3.5m	4.5m x 3.5m	4.5m x 3.5m	–	–	–	–	–	–
	2,500mm	Ø = 3.2m	Ø = 4.57m	Ø = 4.57m	Ø = 4.87m	Ø = 5.27m	Ø = 5.27m	Ø = 6.5m	Ø = 7.0m	Ø = 7.5m
		4.5m x 3.5m	4.5m x 3.5m	4.5m x 3.5m	5.5m x 4.5m	5.5m x 4.5m	5.5m x 4.5m	6.5m x 4.5m	6.5m x 4.5m	7.0m x 5.0m
	3,000mm	Ø = 4.57m	Ø = 4.57m	Ø = 4.57m	Ø = 4.87m	Ø = 6.5m	Ø = 6.5m	Ø = 6.5m	Ø = 7.0m	Ø = 7.5m
		4.5m x 3.5m	4.5m x 3.5m	4.5m x 3.5m	5.5m x 4.5m	5.5m x 4.5m	5.5m x 4.5m	6.5m x 4.5m	6.5m x 4.5m	7.0m x 5.0m
Launch Shaft	2,500mm	–	–	–	–	Ø = 8.5m	Ø = 8.5m	Ø = 8.5m	Ø = 9.0m	Ø = 9.0m
Main jacking station		–	–	–	–	8.0m x 4.5m	8.0m x 4.5m	8.0m x 4.5m	8.5m x 4.5m	9.0m x 4.5m
	3,000mm	–	–	–	–	Ø = 8.5m	Ø = 8.5m	Ø = 8.5m	Ø = 9.0m	Ø = 9.0m
		–	–	–	–	8.0m x 4.5m	8.0m x 4.5m	8.0m x 4.5m	8.5m x 4.5m	9.0m x 4.5m
Reception Shaft	L_{AS}	2,600mm	2,900mm	3,000mm	3,200mm	3,400mm	3,400mm	3,900mm	4,200mm	4,400mm
Circular		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		2.9m 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.

Machine type description e.g. AVN [1] 1800 [2] T [3] B [4]

[1] Machine type	[2] ID of jacking pipe	[3] Access to cutting wheel	[4] Type of container, power transfer from container to machine
		X = no access T = central door A = door above main drive or in top of pressure wall	B = electric cable to 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 (> 1000V)

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