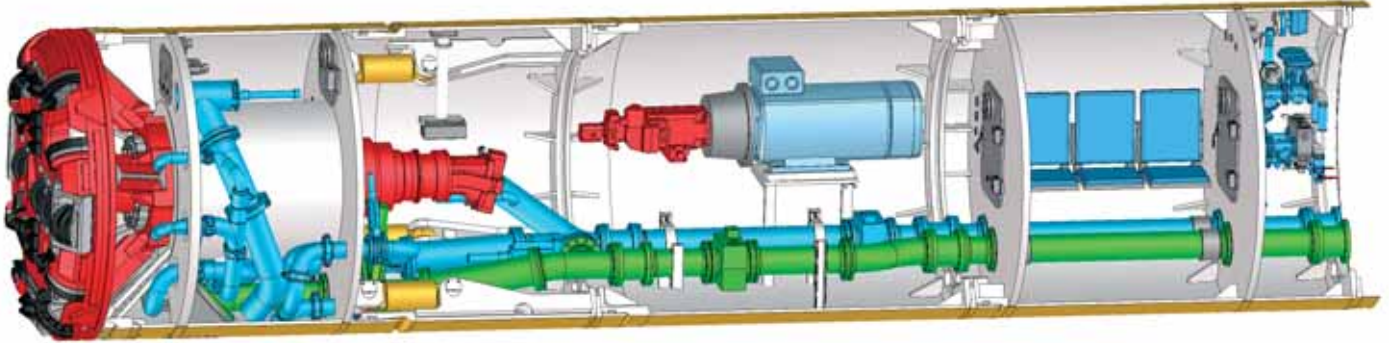


# AVND 1600 AB – AVND 3000 AB

## Pipe Jacking



### Special Features

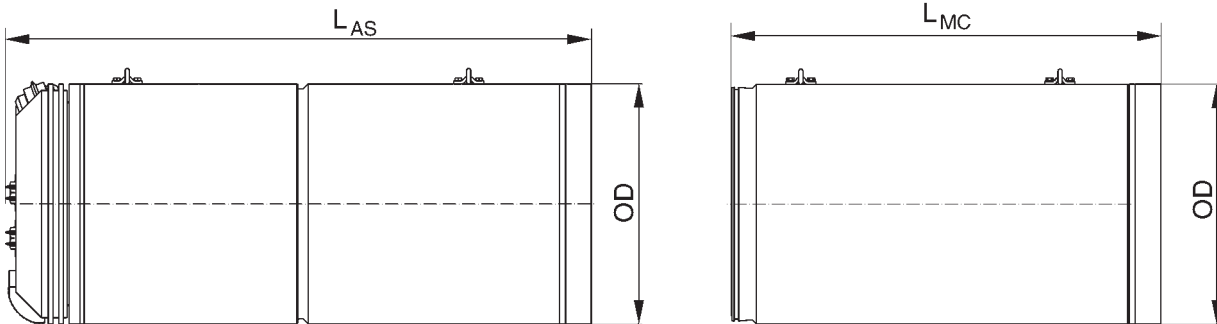
- Mixshield-mode for inhomogeneous soil conditions or low coverage.
- Alternatively: conventional Slurry-mode.
- Designed for soft ground, mixed ground and hard rock conditions by use of different cutting wheels (full face excavation).
- Access to cutting wheel for tool replacement (backloading system).
- Highly reliable steering operation due to inductive measuring system.
- Different (variable) flushing modes / jet systems to suit different ground conditions.
- High 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 to U.N.S. Guidance System.

Technical Data		AVND1600AB		AVND1800AB		AVND2000AB		AVND2200AB		AVND2400AB		AVND2600AB		AVND3000AB	
		Std*	Ext*	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext	Std	Ext
<b>1. Articulated Shield</b>															
Outer diameter	mm	1 970	2 150	2 150	2 425	2 425	3 025	2 725	3 025	3 025	3 625	3 125	3 625	3 625	4 225
Pipe OD	mm	1 940	2 120	2 120	2 400	2 400	3 000	2 700	3 000	3 000	3 600	3 100	3 600	3 600	4 200
Pipe ID	mm	1 600	1 800	1 800	2 000	2 000	2 400	2 200	2 200	2 400	3 000	2 600	3 000	3 000	3 600
<b>Main drive</b>															
Max. torque	kNm	360		520		780		780		1 200		1 200		1 600	
Revolution	LH / RH rpm	0-4.6		0-4.6		0-8.4		0-8.4		0-6.8		0-6.8		0-6.1	
Rated Power	kW	110		160		315		315		315		315		400	
Roll correction		✓		✓		✓		✓		✓		✓		✓	
<b>Steering</b>															
Steering cylinders		4		4		4		4		8		8		8	
Force per cyl. / oil pressure	kN/bar	1 005/500		1 005/500		1 272/500		1 272/500		770/500		770/500		1 005/500	
Stroke per cyl.	mm	100		100		100		100		150		150		150	
<b>Control</b>															
Computer data logging system		✓		✓		✓		✓		✓		✓		✓	
Fuzzy control (automatic steering)		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
Fully visualized process control		✓		✓		✓		✓		✓		✓		✓	
Active roll protection (el.-hydr.)		✓		✓		✓		✓		✓		✓		✓	
Suitability U.N.S.: ELS		✓		✓		✓		✓		✓		✓		✓	
ELS-HWL		✓		✓		✓		✓		✓		✓		✓	
GNS-P		✓		✓		✓		✓		✓		✓		✓	
<b>2. Machine Can</b>															
Lubrication System		✓		✓		✓		✓		✓		✓		✓	
<b>3. General Information</b>															
Pipe jacking		✓		✓		✓		✓		✓		✓		✓	
Drive length (recommended)	m	700		900		1 100		1 100		1 100		1 100		1 100	
Access to cutting wheel		✓		✓		✓		✓		✓		✓		✓	
Waterproofness	bar	3		3		3		3		3		3		3	
Airlock		✓		✓		✓		✓		✓		✓		✓	
Telescopic and interjacking station		opt.		opt.		opt.		opt.		opt.		opt.		opt.	
Slurry line diam.	mm	150		150		200		200		200		250		250	
High pressure water system		✓		✓		✓		✓		✓		✓		✓	
Telescopic and interjacking station		opt.		opt.		opt.		opt.		opt.		opt.		opt.	

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

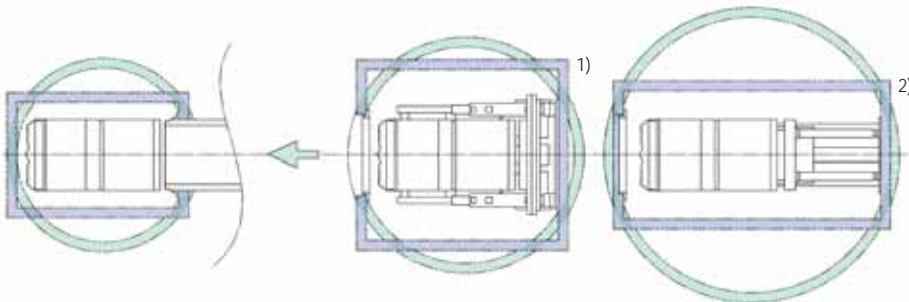
\* Std = standard; Ext = extension kit

# Machine dimensions



			AVND1600AB	AVND1800AB	AVND2000AB	AVND2200AB	AVND2400AB	AVND2600AB	AVND3000AB
Outer Diameter	OD	mm	1 970	2 150	2 425	2 725	3 025	3 125	3 625
Length artic. shield	$L_{AS}$	mm	4 200	4 400	4 700	4 800	4 800	6 900	6 900
Length machine can	$L_{MC}$	mm	3 200	3 200	3 200	3 200	3 200	–	–
Max. single weight	w	kg	24 000	27 000	38 000	42 000	45 000	60 000	70 000

# 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

			AVND1600AB	AVND1800AB	AVND2000AB	AVND2200AB	AVND2400AB	AVND2600AB	AVND3000AB
Launch Shaft Compact jacking rig	Pipe length 3 000 mm	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size	Shaft size
		$\varnothing = 7.0m$	$\varnothing = 7.5m$	$\varnothing = 7.5m$	–	–	–	–	–
		6.5m x 4.5m	7.0m x 4.5m	7.0m x 5.0m	–	–	–	–	–
Launch Shaft Main jacking station	3 000 mm	$\varnothing = 9.0m$	$\varnothing = 9.5m$	$\varnothing = 9.5m$	$\varnothing = 10.0m$	$\varnothing = 10.0m$	$\varnothing = 12.0m$	$\varnothing = 12.0m$	
		8.5m x 4.0 m	9.0m x 4.0m	9.5m x 4.5m	9.5m x 5.0 m	9.5m x 5.0m	11.5m x 5.5m	11.5m x 6.0m	
Reception Shaft	$L_{AS}$	4 200mm	4 400mm	4 700mm	4 800mm	4 800mm	6 900mm	6 900mm	
		Circular	$\varnothing = 5.5m$	$\varnothing = 5.5m$	$\varnothing = 6.0m$	$\varnothing = 6.5m$	$\varnothing = 6.5m$	$\varnothing = 8.5m$	$\varnothing = 8.5m$
		Rectangular	5.0m x 3.0m	5.0m x 3.0m	5.5m x 3.5m	5.5m x 4.0m	6.0m x 4.0m	8.0m x 4.5m	8.0m x 5.0m

All dimensions according to 15m shaft depth.

Machine type description e.g. AVN <sup>1)</sup> 1800 <sup>2)</sup> T <sup>3)</sup> B <sup>4)</sup>			
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	B = electric cable to machine, power pack in machine
		T = central door	C = hydraulic drive from container directly into machine
		A = door above main drive or in top of pressure wall	E = electric cable from container directly into machine
			H = medium voltage supply to machine (> 1000V)

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