Technical Data

of the

WIRTH

DUAL MODE Tunnel Boring Machine

TB 1024 E-ES

Main Data:

Excavation Diameter	: 10,242 mm
Front Shield Diameter	: 10,182 mm
Length of Shield	: 10,860 mm
Weight of Shield Machine	: 1,000 t
Number of B/U Gantries	: 5
Total Length of TBM	: 100 m
Total Weight of TBM	: 1,250 t
Tunnel Lining / Previous Project:	
Segment Inner Diameter	: 9,000 mm
Segment Outer Diameter	: 9,900 mm
Number of Segments	: 8 + 0 / big key
Length of Segment	: 2,000 mm
Curve Radius, min	: 750 m
Correction Radius	: 700 m
Total Power, installed	: 5,275 kW

Main Data:

Cutter Head Drive	:	electric, f-controlled, both directions
Max. Torque	:	28,000kNm @ 0.1 U/min
Torque @ High Speed (Open Mode)	:	6,800 kNm @ 4.5 U/min
Torque @ Low Speed (EPB Mode)	:	20,300 kNm @ 1.5 U/min
Total Power Installed	:	3,360 kW (12 x 280 kW)
Thrust (Mode)	:	17,750 kN (Open) / 24,800 kN (EPB)
Maximum / Exceptional Thrust	:	89,280 kN / 102,000 kN
Number of Thrust Rams	:	2 x 24 = 48
Max. Advance Speed with 48 Thrust Rams	:	85 mm/min
Diameter of Screw Conveyor	:	1,100 mm
Max. Discharge Capacity	:	1,030 m3/h
Max. Speed	:	23 U/min (control, both directions of drive)
Power installed	:	2 x 315 kW, hydraulic drive
Belt Conveyor	:	1,200 mm
Max. Discharge Capacity	:	2,000 t/h
	:	0 bis 3.2 m/sec (control)
Power Installed	:	45 kW, hydraulic drive
Capacity of Segment Erector	:	9,0 t / Vacuum

Cutter Head

- operation in both directions

- 30% of surface open

- 71 Disc Cutters,17”
&
268 Cutting Teeth

- 64 Scraper Teeth for Open Mode

- 6 Foam Nozzles

- Wear Protection Plates

- Gauge- and Copy Cutter