

## Jobsite Report

# World's first pedestrian tunnel built with an injection umbrella in the UAE / Abu Dhabi.

**Project:**

Construction of 20 pedestrian tunnels in cooperation with company Bauer International

**Equipment:**

Chassis of a "Klemm drilling rig", the HDD carriage is a 6t drilling rig from TractoTechnik.

**Measuring technology:**

Standard walk over measurement technology mark III, Radio probe with inclinometer, 0.1%.

**Customer:**

Al Muharry (16 tunnels), Al Mureccy (1 tunnel), ADMAC (3 tunnels)

**Quantity:**

Injection umbrella, 508 bore holes, length from 30 m to 81 m, total drilling of 21.906 m,

**Soil conditions:**

Lose sand, layer of sandstone, clay, shell

**Period:**

September 2001 up to May 2004

**Pictures:**

*for the tunnels, special self-built drilling rig*



*Joerg Seeliger, with walk over measuring system Mark III*

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all 508 bores with a measurement tolerance of less than 3 cm at a depth of up to 8 m

Tunnel	Abu Dhabi	length m	drill holes	drill m	date
PC4	Hamdan St.	35	19	665	04.09.01-26.09.01
PC7	Hamdan St.	36	23	828	09.10.01-25.10.01
PC25	Al Maktoum St.	55	28	1540	10.11.01-15.12.01
PC6		35	19	665	07.01.02-19.01.02
PC11		37	23	851	04.02.02-18.02.02
PC9		29	21	609	02.04.02-11.04.02
PC5		34	23	782	21.04.02-04.05.02
PC19		36	25	900	25.05.02-15.06.02
PC14		29	30	870	25.06.02-09.07.02
PC13		34	30	1020	29.09.02-13.10.02
PC3		40	20	800	08.01.03-19.01.03
PC10		39	37	1443	27.01.03-12.02.03
PC12		55	25	1375	17.02.03-03.03.03
PC20		32	34	1088	26.03.03-09.04.03
PC8		40	25	1000	03.05.03-15.05.03
PC13a		35	36	1260	08.03.03-22.03.03
Al Mureccy					
PU3	Mussafah Road	71	30	2130	01.01.04-20.02.04
PU2	Mussafah Road	68	30	2040	21.02.04-15.04.04
PU1	Mussafah Road	68	30	2040	16.04.04-31.05.04

508 bore holes, total drilling of 21.906 m,



Pump container for grouting the injection pipes



after grouting, excavation with a JCB



due to the limited space between high-rise buildings and the street, there was no alternative to our tunnel construction



a completed tunnel