

# Brunnenbau Conrad



- \* Well design and construction
- \* Dewatering systems
- \* Groundwater drawdown and monitoring
- \* Groundwater cleaning
- \* Technical drillings





Following a family tradition since 1965 our company was founded in 1995. In a short period of time we established ourselves as a flexible and competent partner. Our expertise is covering the categories drilling and water drawdown. Services we provide include:

▶ **Well Construction**

Wells 180 - 2000 mm in diameter  
Pumps and complete well equipments  
Construction of piezometers  
Water sampling / pump tests  
Rotary and bored drilling methods  
Hammer drilling up to a depth of 250 m  
Hydro-geological exploration

▶ **Soil Investigation Drilling and Reconnaissance Drilling**

Soil investigation with dry turn-, hit-, dry hit- and core drilling (wire line ram core drilling)  
Penetration test DPL and DPH, SPT- test  
Water permeability tests  
Soil stratifications, soil investigation and water test

▶ **Groundwater Drawdown / Dewatering**

Gravity or vacuum dewatering, horizontal drains  
Groundwater purification (strip installations, active coal filters, oil separator)  
Dry-up installation, infiltration  
Groundwater cleaning systems, decontamination with CO<sub>2</sub>  
Diversion as well as transition of canals up to 10,000 m<sup>3</sup>/h  
Planning, advice and design

▶ **Technical Drilling**

Pre drilling in preparation for piles (for example: jolt-, ram- or drill piles)  
Core drilling in rock, concrete, reinforced concrete and stonework (for example: for jet grouting, grouting work or rod pressure grouted piles)  
Core drilling with complete extraction of core for the assessment of jet grouting

▶ **Utilisation of Geothermal Energy**

Planning, installation and opening of energy supply plants by using geothermal energy (for example: deep borings, geothermal energy probe with brine cycle and heat exchanger or groundwater utilisation)

We work in close cooperation with companies of specialized heavy construction; together we coordinate the common workflow and procedures. (For example: preparation of excavation pits and foundations and other measures in connection with groundwater drawdown)

We plan, calculate quantities, organize, design and construct groundwater drawdown systems and obtain approvals of the responsible authorities. We supervise and maintain all our building sites.

The Company

**You have a Problem? We have the solution!**

**...BBC and it works!**



## ▶ Rostock, Warnow - Tunnel

**Client:** BOYGUEUS TRAVAUX P.S.A, France

**Project:** road tunnel below the Warnow

**Period:** 2000-2003

**Services:** groundwater drawdown relaxation, 130 wells dia 620 mm and 30 m deep, rain water recycling, decontamination, several times flooding and dewatering at the construction dock (4000 m<sup>3</sup>/h), equip the tunnel with stream-and light systems, lowering the tunnel segments in the Warnow, cross bulk head, water balancing during floating

## ▶ Airport Munich, Terminal 2

**Client:** Bauer Spezialtiefbau GmbH; Müller

Altvalter BU GmbH&Co, Walter Bau AG

**Project:** construction terminal 2; tunnel building site

**Period:** 2000-2003

**Services:** complete dewatering measures, groundwater drawdown with 900 m<sup>3</sup>/h, 37 wells dia 750 mm and 15 m deep, dewatering of 10 excavation pits with underwater concrete slab, decontamination station with CO<sub>2</sub>, seep-away-station



## ▶ Greece, Thessaloniki

**Client:** Schuster Consulting GmbH, Graz VA-Tech Hydro GmbH, Wien

**Project:** Combined Cycle Power Plant

**Period:** 2004-2005

**Services:** vacuum dewatering for excavation pits and a pipeline trenches (2km) with small drilled vacuum wells, 750 pieces up to a depth of 7,5 m

- Further references:
- Munich; Riem-Arcaden; groundwater drawdown for the biggest construction site in Europe
  - Hohenwarthe sluice; 60 relaxation wells and 14 water drawdown wells
  - Erfurt; Neubau Theater, groundwater pressure relaxation, clean up with strip- and active coal filter plant
  - Slovakia, Bratislava, Linde AG - Factory Slovnaft; vacuum dewatering with 200 permanent small vacuum wells
  - Unterföhringen; S-Bahn-Tunnel, 56 wells dia 900 mm, groundwater drawdown max. 1500 m<sup>3</sup>/h, tunnel in top-down construction



► **Austria, Vienna,  
Subway Tunnel  
Expansion, U 2/3**

**Client:** ARGE U2/3 Praterstern (Swietelsky, Max Bögl, Swietelsky Tunnelbau, Bauer)  
**Project:** subway station Praterstern and running tunnels 700 m  
**Period:** 2003-2006  
**Services:** complete dewatering system, 170 wells dia 600 mm and 300 mm and 35 m deep by using the vacuum dewatering system, groundwater monitoring

► **ICE Railroad  
Construction  
Nürnberg - Ingolstadt**

**Client:** ARGE ICE construction NIn, lot South  
**Project:** Tunnel Denkendorf, railroad construction  
**Period:** 2002-2004  
**Services:** approx. 600 wells: 391 relaxation wells (temporary, dia 300-600 mm, depth 25 m), 12 water drawdown wells (temporary, dia 600 mm, depth 25 m), 176 spill way wells (permanent, dia 400 mm, depth 15 m), 9 drain wells (dia 1800 mm, depth 65 m)



► **Munich,  
World of BMW**

**Client:** Bauer Spezialtiefbau GmbH  
**Project:** World of BMW as delivery- and experience center  
**Period:** 2004-2005  
**Services:** complete dewatering system, 19 drawdown wells and seep away wells (dia 880 mm, depth 20 m), 5 piezometers (dia 300 mm, depth 15 m)



Further references:

- A99 Munich, Tunnel Aubing, 290 wells dia 300 mm, 45 wells dia 600 mm
- Munich- Riem, Wappenhalle, 5 wells dia 880 mm and depth of 18 m for ventilation, complete pumping equipment, refined steel filter
- Halle, Süßer See, 3 piezometer drillings up to 295 m depth for hydrological investigation
- Dresden, Coselpalais, Frauenkirche, flood protection well dia 900 mm, depth 18 m
- every year approx. 800 wells for farmers, industry and private use (water and geothermal energy)



## ► Pullach, Geothermal Drilling

**Client:** Bernegger Bau GmbH Austria  
**Project:** pilot drilling for geothermal drilling in a depth up to 3800 m  
**Period:** 2004  
**Services:** construction of 2 borings dia 880 mm and depths 50 m and steel shell installation DN 500 with filled out annular space, tolerance measurements (deviation from the perpendicular less than 0,5%)  
**Drill rig:** BG 40

## ► Austria, Innsbruck, Brenner Railroad

**Client:** ARGE Bilfinger Berger AG/PORR AG  
**Project:** Test pits in preparation for the railroad tunnel  
**Period:** 2002-2003  
**Services:** 20 core drillings dia 150 mm; depth 254 m, quality assessment for a jet grouting, partly under 45° inclined, piezometers and well points for dewatering test.



## ► Hainich National Park

**Client:** City of Bad Langensalza  
**Project:** deep foundation for lookout tower of a treetop excitement path in the biggest coherent "jungle" in Germany  
**Period:** 2004  
**Services:** construction of 4 concrete piles depth 104 m, drill diameter 195 mm, GEWI 63,5 mm



Further references:

- Versetalsperre Lüdenscheid, 280 core drillings for injection seal veil, depth 60 m
- Würzburg AOK, 150 drillings for concrete piles in rock dia 300 mm (Down to the hole hammer)
- Schwerin Castle, core drillings for assessment of jet grouting
- Erfurt, drilling of a start shaft for a groundwater bypass pipe, depth 15 m, dia 2200 mm in rock
- Hannover, main railway station, 200 drillings dia 300 mm, secant pile wall for platform extension, 4 drill rigs simultaneously



**Head office**

Brunnenbau Conrad GmbH  
Thamsbrücker Straße 10  
D-99947 Merxleben - Germany

phone: +49 (0) 36 03 / 39 06 - 0  
fax: +49 (0) 36 03 / 39 06 - 29

**Bavaria - Germany**

Brunnenbau Conrad GmbH  
Göttschlag 16  
D-85391 Allershausen - Germany

phone: +49 (0) 81 66 / 99 58 39  
fax: +49 (0) 81 66 / 99 17 93

**Vienna - Austria**

Brunnenbau Conrad GmbH  
Warnecke Straße 1  
A-1110 Vienna

phone: +43 1 72 95 244 55  
fax: +43 1 72 95 244 17

eMail: [info@brunnenbau-conrad.de](mailto:info@brunnenbau-conrad.de)

always up to date/references/pictures  
[www.brunnenbau-conrad.de](http://www.brunnenbau-conrad.de)

ZERTIFIZIERUNG  
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VEREINIGUNG ÖSTERREICHISCHER  
BOHR-, BRUNNENBAU-, UND  
SPEZIALTIEFBAUUNTERNEHMUNGEN