

# Marti Technics Ltd.

Plant Engineering Stone & Earthworks  
Gravel processing plant «Lenzhard» – new water treatment plant



# Gravel processing plant «Lenzhard»

## New water treatment plant

Client	Municipality of Lenzburg, CH-5600 Lenzburg
Contractor	Marti Technics Ltd. Plant Engineering Stone & Earthworks
Value of order	CHF 0.6 mn
Drawn up	2009 / 2010

### Services provided by Marti Technics Ltd. Plant Engineering Stone & Earthworks

Design, planning and execution of the total water treatment plant.

### The plant consists of the following main components

- Pumping shaft
- Vertical clarifier with flocculation agent dosing station
- Process water tank with pump

### Technical Data

#### Water treatment plant

- |                                     |                       |
|-------------------------------------|-----------------------|
| ■ Water circuit                     | 100 m <sup>3</sup> /h |
| ■ Process water tank                | 65 m <sup>3</sup>     |
| ■ Flocculation agent dosing station | 1700 liters           |

### Plant description

#### Pump shaft

The washing water accumulating in the gravel processing plant is conveyed to the pump well of the water treatment plant. Constant circulation in the pump well is ensured by passive control of the level. If the water treatment plant is not in operation, the washing water is directed into the sludge pond by automatic locking.

#### Vertical clarifier with flocculation agent dosing station

The washing water is conveyed by means of a vertical pump into the statical vertical clarifier. Two injection points are installed in the pressure line for adding flocculation agent to the washing water. The floccula-



tion agent accelerates the sedimentation process: the solids settle in the vertical clarifier and the clarified water flows into the process water tank.

Once it is sufficiently thickened, the settled sludge is drained off into a sludge buffer vessel or sludge mixing tank and conveyed by a massive submerged pump to the sludge pond of the plant.

#### Process water tank with pump

The clarified process water is collected in the process water tank. The pump now supplies clarified water to the washing process of the gravel processing plant, ensuring a closed water circuit of the plant.



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