

# Tunnel Arlberg, upgrade of safety system

NEWS  
- 42 - 2009

Part of the upgrade of the safety system was the lowering of the invert, creation of a water ditch and cable channel without interrupting the train traffic on the next lane.

## Tunnel Heading Machine Terex ITC 320 V45



The Tunnel Heading Machine model ITC 320 V45



The Heading Machine model ITC 320 while lowering the invert with the hammer V45



The Heading Machine model ITC 320 while loading with the bucket



General layout of the project

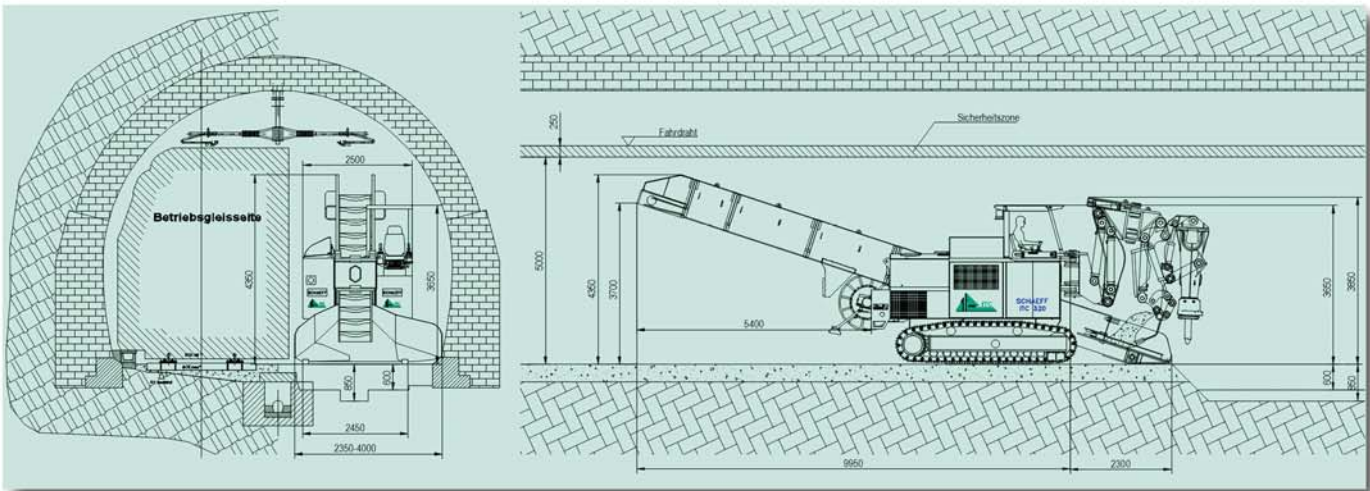


**INTER TECHNO COMMERCE SA**  
122, Rue de la Fusion Fax: +41-277 222 185  
CH - 1920 - MARTIGNY Tf: +41-277 222 191  
<http://www.itcsa.com> e-mail: [info@itcsa.com](mailto:info@itcsa.com)

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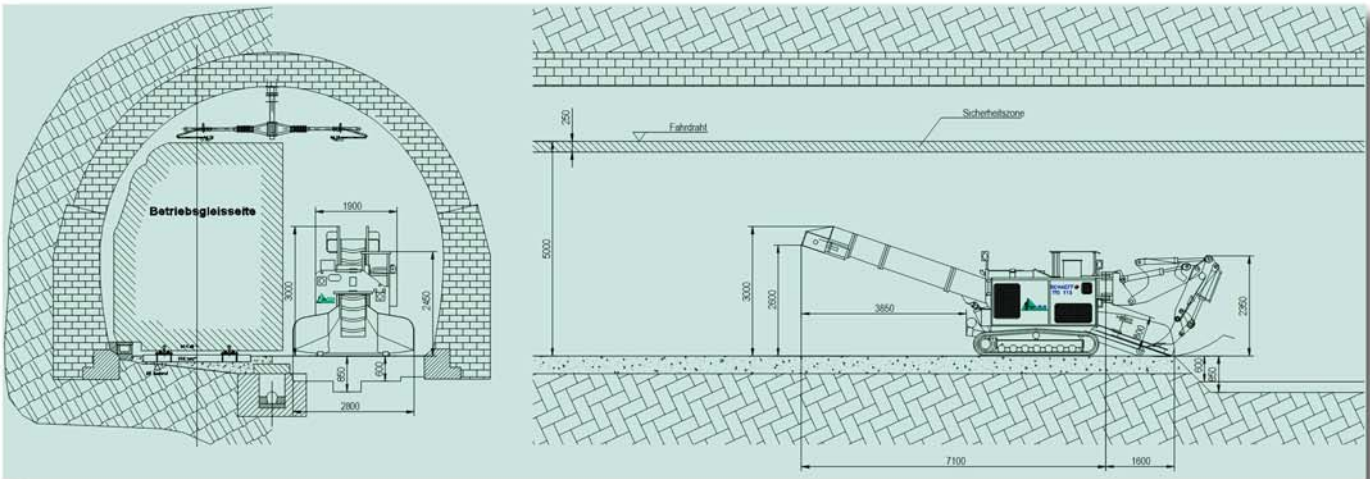
**MAIN DATA**

|                                  |                     |           |
|----------------------------------|---------------------|-----------|
| Base Machine: model              | ITC                 | 320       |
| Maximum chassis width:           | mm                  | 2500      |
| Apron throat width               | mm                  | 770       |
| Electric drive power (400V-50Hz) | kW                  | 110       |
| Diesel Engine                    | Deutz Typ           | BF4M 1013 |
| Power output                     | kW                  | 102       |
| Driving speed:                   | km/h                | 0-3,6     |
| Conveyor chain speed:            | m/s                 | 0.5       |
| Loading capacity                 | m <sup>3</sup> /min | 2-3       |
| Specific ground pressure:        | kp/cm <sup>2</sup>  | 1.0       |
| Traction power:                  | kN                  | 380       |
| Weight                           | t                   | 40        |



The Tunnel Heading Machine ITC 320 loading in a crusher

## Tunnel Loading Machine Terex ITC 112 E4



The Tunnel Loading Machine ITC 112 E4 with train crossing



The Tunnel Loading Machine ITC 112 E4 loading in a conveyor