



## Technical Data

**TBM2270**

Tunnel Boring Machine

## 1. Technical Data

| GENERAL               | DATA          |
|-----------------------|---------------|
| Machine type          | TBM2200       |
| Total tunnel length   | -             |
| Installed power       | 75 kW         |
| Length TBM + CONVEYOR | 6.7 approx. m |
| Weight TBM + CONVEYOR | 14.3 approx.t |

Table 1: General

| SHIELD                         | DATA    |
|--------------------------------|---------|
| Front shield (diameter)        | 2230 mm |
| Front shield (length)          | 2190 mm |
| Primery shield (diameter)      | 2230 mm |
| Primery Centre shield (length) | 2780 mm |

Table 2: Shield

| CUTTING WHEEL              | DATA          |
|----------------------------|---------------|
| Bore diameter              | 2270 mm       |
| Weight (with tools)        | approx. 1.5 t |
| Disc cutters (double ring) | 0             |
| Disc cutter diameter       | -             |
| Cutting Bits               | 62            |
| Centre tool                | 10            |
| Buckets                    | 4             |
| Wear protection            | yes           |

Table 3: Cutting wheel

| DRIVE              | DATA        |
|--------------------|-------------|
| Type               | hydraulic   |
| Motors             | 1           |
| Power              | 65kW        |
| Speed              | 0 - 8 1/min |
| Torque (nominal)   | 80 kNm      |
| Breakaway torque   | 90kNm       |
| Maindrive diameter | 700 mm      |
| Thrust force max   | 300kN       |

Table 4: Drive

| THRUST CYLINDER                                 | DATA     |
|---|----------|
| number steering cylinders                       | 4        |
| Stroke  | 300 mm   |
| Steering power per cylinder at 80 bar push/pull | 98/41 kN |

Table 5: Thrust cylinder

| MOVE CYLINDER                                   | DATA      |
|---|-----------|
| number steering cylinders                       | 2         |
| Stroke  | 300 mm    |
| Steering power per cylinder at 80 bar push/pull | 118/75 kN |

Table 6: Move cylinder

| ANTI ROOL CYLINDER                              | DATA      |
|---|-----------|
| number steering cylinders                       | 2         |
| Stroke  | 50 mm     |
| Steering power per cylinder at 80 bar push/pull | 184/75 kN |

Table 7: Anti rool cylinder

| HYDRAULICS  | DATA  |
|-------------|-------|
| Total power | 75 kW |
| Tank volume | 250 l |

Table 8: Hydraulics

| BELT CONVEYOR   | DATA     |
|-----------------|----------|
| Length          | 5700 mm  |
| Width           | 400 mm   |
| Power           | 4.5 kW   |
| Belt speed      | 1 m/s    |
| Conveyance rate | 28 ton/h |

Table 9: Back-up belt conveyor

| GAS MEASUREMENT | DATA |
|-----------------|------|
| Measured gases  | no   |

Table 10: Gas measurement

| FIRE PROTECTION          | DATA |
|--------------------------|------|
| Fire extinguisher        | no   |
| Smoke and heat detectors | no   |
| Water curtain            | no   |

Table 11: Fire protection

| Winch Carry Wagon | DATA |
|-------------------|------|
| Type              | -    |
| Motors            | -    |
| Power             | -    |
| Speed             | -    |

Table 12: winch

