

2020-03-12

## INQUIRY No: 130004423

Dear Sirs:

Please submit your best offer for new CCV line for rubber flat and round cables. The line will be installed at TFKable - Krakow plant, Wielicka 114 Poland

### General line specification:

1. Round cable final diameter range (after extrusion): 17 mm to 90 mm,
2. Flat cable final dimensions range (after extrusion): Width 30 mm to 90 mm, Height 7 mm to 30 mm  
Full cable types are given in Excel table in attachment.
3. Catenary line,
4. Saturated steam pressure up to 25 bar,
5. Building levels: Extruders level +15,38 m, pay-off accumulator level +6,0 m, clean room level +21,38 m, End Seal level 0,0 m (or +2,2 steel platform).
6. Main pay-offs 2 x 2400 mm, 10 tons, DIN standard,
7. Main accumulator ~200 m cable length,
8. Additional pay-offs 4 x 1600 mm, DIN standard,
9. Additional accumulators (4 pcs.) ~50 m cable length
10. Extruders: 150mm, 150mm and 60 mm for stripe or skin (The line is to be adapted for the production of double-layer insulation + the third smallest extruder for only extruding strip or skin). In the attachment a list of extrusion insulation e.g. skin.
  - temperature range: 35 °C to 120 °C (electrical heating, water cooling),
  - L/D = 20,
  - Rubber compound feeding system: strip and pellet (pellet from clean room on level (given by gravity) +21,38 m),
11. Extrusion crosshead: one layer with stripe or skin, two layers with stripe or skin,
  - manual centering for each layer,
  - easy dismantling extruder connectors,
  - hassle-free tool changing,
  - hassle-free crosshead cleaning,
  - rubber compounds:
    - rubber based on CR – viscosity 35 – 70 MU, hardness after vulcanization 40 – 75 ShA
    - rubber based on CPE (CM) – viscosity 105 MU, hardness after vulcanization 50 – 90 ShA
    - rubber based on CSM – viscosity 40 - 60 MU, hardness after vulcanization 50 – 80 ShA
    - rubber based on EPDM – viscosity 35 - 90 MU, hardness after vulcanization 50 – 90 ShA
    - rubber based on SBR – viscosity 45 - 70 MU, hardness after vulcanization 45 – 70 ShA
12. Vulcanization tube: ~ 150 m length,
13. Cooling through after vulcanization tube - maximum length as possible,
14. Accumulator ~200 m cable length,

#### ZARZĄD SPÓŁKI

**Monika Cupiał-Zgryzek**  
Prezes Zarządu

**Piotr Mirek**  
Członek Zarządu  
Dyrektor Zakładu Bydgoszcz

**Jarosław Romanowski**  
Wiceprezes Zarządu  
ds. Finansowych

**Bartłomiej Zgryzek**  
Wiceprezes Zarządu  
ds. Treasury, M&A,  
Investor Relations

**Wojciech Wiltowski**  
Wiceprezes Zarządu  
ds. Sprzedaży



15. Take-ups – 2 x 2800 mm, 15 tons, DIN standard,

**Additional equipment:**

16. Hot cable diameter measuring device with line speed control module,
17. Cooled cable diameter measuring head,
18. Spark tester,
19. Laser length counter,
20. Ink jet printer,
21. Embossing unit for cable marking,
22. Electrostatic talc applicator,
23. Electrostatic graphite applicator,
24. Conductor preheater (from 6 mm<sup>2</sup> to 50mm<sup>2</sup>),
25. Extrusion tools – 10 sets,
26. But welder for copper conductor (5 class) cross section 0,75 mm<sup>2</sup> to 10 mm<sup>2</sup>,
27. Longitudinal paper and/or estrofol tapes applicator before extrusion crosshead (Coil diameter 50 mm, Inner hole of the coil 75 mm. Overlapping about 25%). Two or one tape will be used, but the line should be prepared to connect them to the currently terminating ones. There must be four handles in total.
28. Software for process calculation for technologist specialists,
29. Computer and software for PLC programing for maintenance service,
30. Dedicated LED TV screen for visual presentation of the production process

The offer should include:

1. Technical details of the service or product offered.
2. Offer validity date not shorter than 6 months.
3. Net price broken down into individual components according to the scope of works, etc.
4. Delivery terms
5. Payment terms
6. Deadline for implementation
7. Warranty period and conditions.
8. Environmental parameters: if any.

The offer should be sent on e-mail, only to the address: [oferty@tfkable.com](mailto:oferty@tfkable.com) , no later than on two weeks after receiving the inquiry. Commercial offers sent to a different address than the one given above will be treated as invalid.

Please, sent the technical specification to the address: [grzegorz.lach@tfkable.com](mailto:grzegorz.lach@tfkable.com), also until two weeks. After the deadline, we reserve the right to refuse your offer. In the case of submitting an offer, please refer to the inquiry numer: **130004423** and maintain the continuity of correspondence.

