# Annex No. 5 to the Tender Documentation – Technical Conditions

**“Billet casting equipment”**

Under these Technical Conditions, the Contracting Authority specifies the characteristics of the requested subject of fulfilment, i.e. the **minimum** technical requirements that the contractor’s subject of fulfilment needs to meet. If a contractor offers a subject of fulfilment that does not meet any of the technical conditions, it shall be excluded from the tender on account of not meeting the tender conditions.

In the forms of the “Technical Conditions” below, the participant shall specify whether the subject of fulfilment offered by the contractor meets the requirements specified in the columns – in the “Compliant” column, the contractor shall tick off the applicable option: “Yes” if the fulfilment meets the requirement, “No” if the fulfilment does not meet the requirement. If the participant selects “No” in the “Technical Conditions” at least in one case, they shall be excluded from the procurement procedure on account of non-compliance. If the participant specifies “Yes” but the tender evaluation reveals that the fulfilment does not meet the requirement, the participant may be excluded on account of non-compliance and a breach of the tender conditions. If the participant does not specify “Yes” nor “No”, they may be excluded for non-compliance with the tender conditions. In the “Contractor’s offer” column, the contractor shall specify via the Word fill-in forms the particular parameter value (in the same units as those of the requirement) or a more detailed specification of the fulfilment offered by the Contractor in relation to the requirement. If the participant does not fill in the “Contractor’s offer” column and indicates “Yes” in the “Compliant” column, the fulfilment offered by the participant shall be deemed to be compliant with the Contracting Authority’s requirement specified in the “Parameters” column. The participant shall fill in the “Technical Conditions” according to the instructions specified therein, including the kind and type of fulfilment, if any. The contractor is obliged to fill in the kinds and types of fulfilment and include it as an annex to the Contract for Work, i.e. the contractor shall be obliged to deliver the exact same fulfilment it made a commitment to deliver in its tender.

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| **Metal distribution system** | |  |
|  | **Compliant** | **Contractor’s offer** |
| Melt differential temp. at furnace TOP and at tundish is max. 20 °C | YES / NO |  |
| Melt differential temp. in all locations in tundish is max 5°C | YES / NO |  |
| Velocity of melt in launder is within the range 7-9,8 m/min | YES / NO |  |

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| **Grain refining system** | |  |
|  | **Compliant** | **Contractor’s offer** |
| Rod feed speed 0,15 – 3 m/min | YES / NO |  |
| Tolerance of rod feed speed ±0,01 m/min | YES / NO |  |

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| **Deggassing** | |  |
|  | **Compliant** | **Contractor’s offer** |
| 0,003 – 0,020 kg of HCL per ton of Al processed | YES / NO |  |
| Max. of 0,004 kg dust per ton of Al processed | YES / NO |  |
| 0,3 - 0,4 liters of Argon per kg of Al processed | YES / NO |  |
| Possibility of using Chlorine instead of Argon | YES / NO |  |
| Maintain the temperature of melt ± 3°C | YES / NO |  |
| Min. efficienty of hydrogen removal - 75% or absolute amount of 0,13 cm3/100 g Al | YES / NO |  |

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| **High performance filter** | |  |
|  | **Compliant** | **Contractor’s offer** |
| 98 % reduction of 20 µ inclusions | YES / NO |  |
| 85 % reduction of 10 µ inclusions | YES / NO |  |

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| **Casting system** | |  |
|  | **Compliant** | **Contractor’s offer** |
| The billet casting technology is horizontal | YES / NO |  |
| Estimated annual capacity – 25,000 t/year | YES / NO |  |
| Casting of billets with a diameter of at least 45–125 mm,  required diameter: 54 mm; 64 ±2,5 mm; 100 ±2,5 mm | YES / NO |  |
| Estimated capacity of casting 3–5t/hour | YES / NO |  |
| Temperature of liquid metal during the casting process 680–790°C (depending on the alloy) | YES / NO |  |
| Cast billets according to Annex\_3\_1\_TS\_guaranteed\_parameters\_of\_billets | YES / NO |  |
| The required length of cut billets is 4500–6000 mm with a tolerance of +6/-0 mm | YES / NO |  |
| The required perpendicularity of the cut 90° with a tolerance of ± 0,5° | YES / NO |  |
| Crushing + briquetting equipment (including extraction) | YES / NO |  |

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| **Peeling, testing device(s) and tracking system** | |  |
|  | **Compliant** | **Contractor’s offer** |
| 100% inspection of surface and internal defects and dimensions | YES / NO |  |
| Minimum required inspection speed = casting capacity (3–5 t/hour) | YES / NO |  |
| For the requirements for inspection, see Annex\_3\_1\_TS\_guaranteed\_parameters\_of\_billets | YES / NO |  |

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| **Packaging line** | |  |
|  | **Compliant** | **Contractor’s offer** |
| Minimum required packaging capacity = casting capacity (3–5 t/hour) | YES / NO |  |
| For the packaging of billets according to the packaging instructions, see Annex\_3\_2\_TS\_Packing\_instructions.pdf | YES / NO |  |

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| **Qualitative requirements for the final product** | |  |
|  | **Compliant** | **Contractor’s offer** |
| According to Annex\_3\_1\_TS\_guaranteed\_parameters\_of\_billets | YES / NO |  |

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| **Control system** | |  |
|  | **Compliant** | **Contractor’s offer** |
| At least 30% of free CPU resources | YES / NO |  |
| Remote control | YES / NO |  |
| History of trends for a period of 3 months | YES / NO |  |
| History of alarms for a period of 3 months | YES / NO |  |
| Uniform graphical visualisation of all control panels | YES / NO |  |
| Integration of furnaces | YES / NO |  |
| Compatibility with master systems and following technologies | YES / NO |  |

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| **Other** | |  |
|  | **Compliant** | **Contractor’s offer** |
| Number of casting line operators – max. 5 operators, including preparation of moulds | YES / NO |  |
| Time required for adjustment to another diameter max. 90 minutes | YES / NO |  |
| The total area of all the pieces of equipment complies with the space requirements – see Annex\_3\_CD\_Technical\_specifications.docx | YES / NO |  |
| The equipment complies with all the technical conditions specified in Annex\_3\_CD\_Technical\_specifications.docx and Annex No. 3\_1\_TS\_guaranteed\_parametrs\_of\_billets | YES / NO |  |
| CE declaration of conformity | YES / NO |  |

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| **Scored sub-criteria of the partial evaluation criterion “Technical Parameters”** | |  |
|  | **To be added** | **Contractor’s offer** |
| The deadline for providing construction readiness documentation from the contract conclusion | less than 2 months inclusive – 70 p.  more than 2 months but less than 3 months inclusive – 30 p.  more than 3 months but less than 4 months inclusive – 5 p.  more than 4 months – 0 p. | …………. months |
| In order to evaluate the tenders in connection with this sub-criterion, the Contracting Authority shall use a scoring scale of 0, 5, 30, 70 points as specified above. Each individual tender shall be awarded a score as per the above table. The most favourable tender under the given sub-criterion shall mean the tender with the shortest term of delivery of the construction readiness documents from the conclusion of the contract.  In the event a shorter binding milestone is set in the Project schedule, it shall prevail over the Participant’s tender (i.e. Participant will be obliged to complete construction readiness documentation within the timeframe stipulated by the Contracting Authority). | | |
| The manufacturer guarantees technical support for discontinued components for at least (alternatives for obsolete components) | less than 5 years inclusive – 0 p.  more than 5 years but less than 10 years inclusive – 5 p.  more than 10 years – 15 p. | …………. years |
| In order to evaluate the tenders in connection with this sub-criterion, the Contracting Authority shall use a scoring scale of 0, 5, 15 points as specified above. Each individual tender shall be awarded a score as per the above table. The most favourable tender under the given sub-criterion shall mean the tender with the longest guaranteed technical support for discontinued components (alternatives to obsolete components). | | |
| The manufacturer guarantees availability of spare parts for all components for at least | less than 5 years inclusive – 0 p.  more than 5 years but less than 10 years inclusive – 5 p.  more than 10 years – 15 p. | …………. years |
| In order to evaluate the tenders in connection with this sub-criterion, the Contracting Authority shall use a scoring scale of 0, 5, 15 points as specified above. Each individual tender shall be awarded a score as per the above table. The most favourable tender under the given sub-criterion shall mean the tender with the longest guaranteed availability of spare parts for all components. | | |
| **TOTAL SCORE** |  | |

I/We, the undersigned,       declare upon my/our honour that the aforementioned data are correct and that the contractor      , if selected by the Contracting Authority for the Public Contract, shall deliver the goods exactly according to the technical and business conditions set out in its tender.

In     date

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Name and position of the contractor’s authorized person

Stamp and signature of the contractor’s authorized person