# Annex 3 DRAFT CONTRACT FOR WORK

Tenderers shall only fill out the missing information marked yellow in the Contract for Work. No other modifications of the Contract for Work are allowed.

The Contracting Authority has the right to exclude from the competition any tenderer who makes any prohibited changes in the Contract for Work.

Contract for Work No. A\_06\_01\_01

**(Section 2586 et seq. of Act No. 89/2012 Coll., Civil Code, as amended)**

*On the day, month, and year specified below, the following Parties:*

Business name: **AL INVEST Břidličná, a.s.**

Registered office: Bruntálská 167

793 51 Břidličná, Czech Republic

Incorporation data: Regional Court in Ostrava, Section B, File 3040

ID No.: 273 76 184

TIN (VAT No.): CZ27376184, VAT payer in the Czech Republic

Represented by Ing. David Bečvář, Chairman of the Board of Directors

Hereinafter referred to as the **"Client"**

and

Business name: [●]

Registered office [●]

[●]

Incorporation data: [●]

ID No.: [●]

TIN (VAT No.): [●]

Represented by [●]

Hereinafter referred to as the **"Contractor"**

*in terms of Section 2586 et seq. of Act No. 89/2012 Coll., Civil Code, as amended, entered into this*

**Contract for Work** *(the* ***“Contract”****):*

for the“CNC Roll Grinder” Venture

as part of the “ALFAGEN” Project

**Article 1**

**Preamble**

* 1. The aforestated representatives of the Parties declare to be authorized to represent the Parties hereto and to enter into this Contract on their behalf.
  2. Furthermore, each of the representatives of the Parties declares that the entry into this Contract is compliant with the law and with internal regulations of the Party thereby represented.
  3. Furthermore, each of the representatives declares that, as at the day of entry into the Contract, thereby represented company is subject to no proceedings pursuant to Act No. 182/2006 Coll., on Bankruptcy and Settlement, as in effect (Insolvency Act), and undertakes to inform the Counterparty of any circumstances indicative of pending bankruptcy or declaration of bankruptcy against thereby represented company.
  4. Furthermore, the Contractor's representative declares that the Contractor possesses the requisite licenses to perform the work specified hereinafter, and is aware of no statutory or any other hindrance liable to prevent the Contractor from doing so.
  5. As concerns any business-technical negotiations, the operative technical management of any activities carried out in the place where the Work or the installation are being implemented, the signing of any certificates, records and lists of executed supplies and works, the following individuals act, represent and sign on behalf of the respective Parties (with the exception of the signing of any amendments and changes to this Contract):

- on behalf of the Client: Alfred Barsch office: Project manager

tel: +420 720 850 653

- on behalf of the Contractor: [●] office: [●]

tel: [●]

**Article 2**

**Purpose and Subject of Performance – Work**

* 1. The purpose of this Contract is the implementation of the subject matter of the contract in compliance with the Client’s tender documentation, as well as the determination of the method and conditions of such implementation by the Contractor for the Client.
  2. Under this Contract, the Contractor undertakes to perform the following work, subject to the terms and conditions laid down hereunder:

**“**CNC Roll Grinder**”**

The subject of the contract is the delivery of a high-precision CNC roll grinding machine for grinding casting rolls (TRC two-roll casting) and grinding rolls for cold rolling. The scope of supply includes transportation of the CNC roll grinding machine to the precise installation site, supervision of installation, commissioning, final handover to permanent operation and other works and services related to the implementation of the work.

The precise scope of the works is set forth in:

1. **Annex 1** – **Scope of Work**
2. **Tender documentation, including this Contract as an attachment enclosed therewith, in the tender procedure concerning the Project**

The supply and performance provided by the Contractor also include:

- Disposal of waste generated in the implementation of the work.

- The Contractor shall procure and present the Client with all necessary certificates and documents issued by the competent authorities of the Czech Republic and, as applicable, any competent EU authorities, which can be directly applied or recognized in the Czech Republic and which prove that the supplied Work complies with technical standards, occupational safety regulations and other regulations which are necessary for the Client to obtain the authorities’ consent with the operation of the Work.

(the **“Work”** or **“Equipment”**).

* 1. The Contractor hereby guarantees to the Client that the subject matter of the contract and all conditions and obligations arising therefrom according to the tender documentation will be implemented and fulfilled. The foregoing shall include, without limitation:
* if any uncertainty arises with respect to the interpretation of the provisions of this Contract, the provisions shall be interpreted in such manner as to reflect to the maximum extent the purpose of the contract according to the tender documentation that the Contractor had received from the Client,
* in the absence of any provisions in this Contract, the Parties shall use sufficiently specific provisions of the Client’s tender documentation and/or of the Contractor’s bid,
* the Contractor is bound by the Contractor’s bid presented to the Client in the procurement procedure; the bid shall be applied as a subsidiary source of rules regulating the Parties’ mutual relations arising from this Contract.
* the Contractor was duly informed of the circumstances attending the subsidized financing and conditions of the Work and undertakes to implement the Work in compliance with the requirements relating to the subsidy in order to fulfil the conditions of the subsidy and ensure that the subsidy is duly paid out, all of the above in connection with the EU subsidy program “*ALFAGEN – Modernizace technologie tavení a lití*” [ALFAGEN – Modernization of Smelting and Casting Technology], reg. no. 722 2200 001.
  1. Subject to the terms and conditions stipulated in this Contract, the Client hereby undertakes to pay to the Contractor the agreed price for due and proper implementation of the Work specified in Article 2.2 hereof and to accept (take over) fully completed Work, if free of any defects.
  2. The Contractor shall implement the Work with due observance of the applicable technical standards and any generally binding laws and regulations applicable in the Czech Republic and in the EU; the proposed design shall not involve the use of any material which is known, at the time of use thereof, to be harmful or not in compliance with the prescribed technical parameters for the purpose of proper implementation and/or use of the Work.
  3. The Equipment shall be designed, delivered and commissioned/put into operation in such manner as to meet the conditions stipulated by the generally binding laws and regulations and the relevant EU laws, especially (without limitation) (i) Act No. 22/1997 Coll., as amended, and Government Regulation No. 272/2011 Coll., on Protection of Health against Adverse Effects of Noise and Vibrations, and (ii) Act No. 90/2016 Coll., as amended.

**Article 3**

**Client's Assistance**

* 1. The Client shall assist the Contractor as follows:
     + 1. The Client shall allow the Contractor's staff to enter the place of performance of the Work every day from 6:00 a.m. to 6:00 a.m. (24/7) throughout the performance hereof.
       2. The Client shall provide electric power and drinking water.
       3. [●]
  2. Where applicable, while the Client is in default on providing assistance as per the above, the Contractor shall not be deemed in default, unless the Client's default is due to a fault on the part of the Contractor.

**Article 4**

**Time and Place of Performance, Delivery Terms**

* 1. The Contractor undertakes to deliver the Work to the Client in compliance with the schedule attached as **Annex 3** to this Contract which describes the binding schedule for delivery of the Work, commissioning and testing of the Work after assembly and completion; the following deadlines represent the individual binding milestones for the implementation of this Contract:

1. Delivery of documents for construction readiness and basic engineering

- no later than [●] days of signing this Contract

1. Delivery of documents for installation of the Equipment

- no later than [●]

1. Delivery of the Equipment to the place of performance

- no later than [●]

1. Successful completion of the Performance Tests, issuance of a Certificate of Delivery and Acceptance and handover of the equipment

- no later than [●].

* 1. The entire binding schedule is an integral part of the Contract as its **Annex 3**.
  2. The place of performance is the Client’s production site – Břidličná Premises.

**Article 5**

**Price for the Work and Payment Terms**

* 1. The price for proper implementation of the Work has been agreed in the amount of:

[●] **EUR**

**(in words:** [●] **Euros)**

The price for the Work stipulated above means the maximum price for properly implemented and delivered Work and shall not be increased due to inflation, fluctuations of the foreign exchange rates or any other adjustments based on macroeconomic conditions throughout the duration of the Contract. It is expressly agreed that if the goods or services are delivered to a lesser extent, the price invoiced by Contractor shall correspond only to the extent of services actually rendered and goods actually delivered. Additional works (if any) shall be priced separately according to actually evidenced costs, based on the Client’s written request. Additional works shall be implemented after the Client’s prior approval; otherwise the additional works shall be deemed to have been a component part of the Work.

The price is specified as excluding VAT.

VAT shall be billed at the statutory rate currently in effect.

The Contractor assumes the risk of a change in circumstances in terms of Section 2620(2) of Act No. 89/2012 Coll., Civil Code.

* 1. The Client shall pay the price for the Work as follows:

The Client shall pay the price for the Work to the Contractor based on individual tax invoices, issued by the Contractor on a step-by-step basis, after the completion of the following invoicing milestones; the invoices will be due and payable 30 days from the date of taxable supply.

1. first installment
   1. 15 % of the price for the Work
   2. due and payable if
      1. the Implementation BG is submitted in terms of par. 9.1 of Article 9 hereof
      2. the fulfilment of the obligations under par. 6.11 of Article 6 hereof is duly evidenced
      3. a proper tax invoice is submitted
2. second installment
   1. 10 % of the price for the Work
   2. due and payable if
      1. delivery of documents for construction readiness
      2. and basic engineering pursuant to clause 3.2 (a) and (b) of Annex 1 (Scope of Work)
      3. a proper tax invoice is submitted
3. third installment
   1. 10 % of the price for the Work
   2. due and payable if
      1. delivery of documents for installation of the equipment pursuant to clause 3.2 (c) of Annex 1 (Scope of Work)
      2. a proper tax invoice is submitted
4. fourth installment
   1. 55 % of the price for the Work
   2. due and payable if
      1. submission of transport documents (e.g. B/L or CMR) confirming that the equipment has been completely delivered to the place of performance in accordance with clause 4.3
      2. a proper tax invoice is submitted
5. fifth installment
   1. 10 % of the price for the Work
   2. due and payable if
      1. the Certificate of Delivery and Acceptance of the Work is drawn up
      2. the Warranty BG is submitted in terms of clause 9.3 of Article 9 hereof
      3. a proper tax invoice is submitted

Application of Section 2611 of Act No. 89/2012 Coll., Civil Code, as amended, is hereby excluded.

After the Work is completed, the Contractor shall issue the final invoice, billing the remaining duly completed works which were approved by the Client and have not yet been billed in the previous invoices. The final invoice shall be issued on the basis of the Certificate of Delivery and Acceptance of the Work. The invoice will be due and payable 30 days from the date of taxable supply.

* 1. The invoice shall conform to all of the requirements prescribed by the applicable laws and regulations. The invoice shall also specify the registration number of the Project (“7222200001”) and the title of the Project: “ALFAGEN – Modernizace technologií tavení a lití” [ALFAGEN – Modernization of Smelting and Casting Technology]; this information shall be provided to the Contractor by the Client. The Contractor is obliged to deliver the duly issued invoice to the Client in electronic form (PDF format) no later than 1 day of the day of issue, to the e-mail address: faktury@alinvest.cz.
  2. The Client is obliged to pay any and all financial amounts exclusively to the Contractor’s account published by the tax administration authority in a manner allowing for remote access and opened with a provider of payment services in the Czech Republic, as applicable. The Contractor is obliged to notify the Client of the account number that meets the above-mentioned criteria. Until the account number is notified, which is published by the tax administration authority by remote access, the Client is not in default with payment of the invoice; if the Contractor becomes an unreliable payer in terms of Act No. 235/2004 Coll., on Valued Added Tax, the Contractor agrees that the Client shall pay part of the Contractor’s invoices equal to the amount of the VAT directly to the account of the tax administration authority in terms of Section 109a of Act No. 235/2004 Coll., on Value Added Tax; the taxable amount will be paid to the Contractor’s account.

**Article 6**

**Installation Works outside the Client’s Premises**

**Supervision of the Contractor in the Client’s Premises**

* 1. The Contractor is fully responsible for making sure that the Equipment is prepared for delivery to the Client’s premises for installation.
  2. The Contractor is aware of any and all work risks arising from the nature of the implemented works as the subject matter of the contract, as well as the works and production carried out in the Client’s premises, including the risk of injuries and other health hazards, and undertakes to assume liability for the consequences arising therefrom – see the information on risks in AL INVEST Břidličná a.s. (Sections 101 and 103 of Act No. 262/2006 Coll., Labour Code) – **Annex 2** to this Contract.
  3. Any works on the Work outside the Client’s premises must be performed by the Contractor in such manner as to make sure that the purpose of this Contract is accomplished in full, without any defects and unfinished works, and complies with state-of-the-art technology and other knowledge at the time of implementation of the works.
  4. The Contractor shall keep an **installation logbook** throughout the implementation of any works outside the Client’s premises; the installation logbook shall contain daily entries regarding all facts relevant to the performance of the Contract. The Contractor is primarily obliged to enter, in chronological order, any information concerning the type and progress of the works, quality of the works, obstacles (if any) to the implementation of the Work, and all facts relevant to the proper performance of the Work.
  5. The Contractor is obliged to make sure that the documentation and the installation logbook are kept in the place where the Work is being implemented throughout the implementation of the installation works – unless the above is impossible or inefficient, in which case the Contractor shall keep the documents in such manner that they are available on request. The Contractor is obliged to present the installation logbook and the documentation to the Client on request. The Client has the right to enter the Client’s comments to the entries in the logbook and to receive a copy of the entry.
  6. The Client has the right to check, or hire a third party to check, the performance of this Contract whenever the Contractor implements works outside the Client’s premises, and the Contractor is obliged to enable such checks and provide full assistance. The above is without prejudice to the Contractor’s liability for the agreed quality of the Work.
  7. The Contractor is obliged to implement the work in such manner as to prevent any damage to the Client (especially, without limitation, properly secure the unfinished Work).
  8. The Contractor is obliged to procure, at own expense, any and all personal protective equipment and instruments prescribed for the works performed by the Contractor, properly use such equipment and maintain any work tools in a condition which complies with the applicable laws and regulations on health and safety at work, fire protection, waste economy and environmental protection.
  9. The Contractor is obliged to implement the work with the utmost care for the environment and protection of nature.
  10. If the Client discovers that the Work is being implemented by the Contractor contrary to the Contractor’s obligations, the Client has the right to request that the Contractor remedy any defects caused by the defective implementation of the Work. The Contractor is obliged to eliminate any discovered deficiencies and defects without undue delay and at own expense.
  11. The Contractor is fully responsible for proper insurance of the Work at own expense, at all stages of implementation of this Contract. The Contractor is obliged to negotiate and maintain valid Third-Party Liability Insurance, including cross-liability, or make sure that such insurance is negotiated and maintained valid, throughout the implementation of this Contract and at own expense; the insurance shall also cover liability for the Contractor’s subcontractors. This insurance shall cover any and all injury or death suffered by third parties (including the Client’s employees), as well as any losses, damage or harm to property (including the Client’s assets and any parts of the Work) which could occur in connection with the implementation, transportation or any other handling of the Work at any stage of implementation of the Work. The limit of the Contractor’s liability to third parties shall equal or exceed 6 000 000,‑ EUR. The Contractor is obliged to prove the fulfilment of this obligation to the Client anytime on request, by reliable evidence.
  12. The Contractor’s employees implementing the Work who are present in the Client’s premises must have visible company signs on their work clothes. The signs shall also be attached to any machines used by the Contractor. This also applies to any subcontractors’ employees and machines.
  13. The Contractor is obliged to familiarize itself with any information, data and other documents which form part of the Contract, or which were provided by the Client to the Contractor in connection with the Contract. If any information, data or figures supplied by the Client are insufficient or incomplete, thus hindering the implementation of the Work, the Contractor is obliged to procure any additional and/or missing information and data at own expense.
  14. The Client must at any time at the Contractor’s request enable the Contractor to inspect the place where the Equipment will be installed or to familiarize itself with the conditions thereof, and the Contractor is obliged to do so. When performing any activities or works in the Client’s premises, the Contractor undertakes to observe and fully comply with the laws and regulations on health and safety at work (“HSW”), fire protection (“FP”), environmental protection (“EP”) and waste disposal (“WD”), as well as any internal regulations applicable in the Client’s premises.
  15. The Parties have agreed on a contractual penalty of 1 000,- EUR payable to the Client for any individual and recurrent breach of any of the Contractor’s obligations relating to HSW, FP, EP and WD which are binding on the Contractor under the applicable laws and regulations or **Annex 2** to this Contract. Payment of the contractual penalty does not extinguish the Contractor’s obligation to compensate the Client for any damage caused by the breach of the obligation to which the contractual penalty relates. The contractual penalty is due and payable within 15 days of delivery of the written invoice billing the contractual penalty.
  16. The Contractor undertakes to fully adhere to the technical solution incorporated in the tender/project documentation specified in Article 2.2 and **Annex 1** to this Contract, with no possibility of any arbitrary substitutions of any material, unless such changes are approved by the Client’s representative by an entry in the installation logbook.
  17. If the Contractor breaches the provisions in **Annex 2** par. (k) of Article 3.1. concerning access to the workplace under the influence of alcohol and addictive substances, the Parties have agreed on a contractual penalty of 1 000,- EUR per each person who breaches this provision. Payment of the contractual penalty does not extinguish the Contractor’s obligation to compensate the Client for any damage caused by the breach of the obligation to which the contractual penalty relates.
  18. Assembly and installation
      + 1. The Equipment will be fully assembled and installed by the Client or the Client’s contracting partner; the Contractor shall arrange for a complete supervision over any and all works associated therewith as if the Contractor were performing it himself, being responsible for proper assembly and installation and shall assist the Client or the Client’s contracting partner to the necessary extent.
        2. The Client shall procure for the Contractor any relevant authorizations relating to the Client’s partner in connection with the supervision over the installation of the Equipment with the Contractor’s responsibility for it.
        3. The Contractor shall provide the Client with a detailed overview of the Equipment and any and all tools necessary for the assembly and installation of the Equipment which are to be performed by the Client and/or the Client’s contracting partner.
        4. All systems and equipment will be checked by the Contractor from the perspective of proper installation. The Contractor shall perform any and all required controls and tests and make records thereof; the latter will be presented to the Client without delay.
        5. The successful installation, compliance of the installation with the technical specifications, the Project and the Contract will be recorded in a certificate signed by the Contractor and the Client. This certificate shall be deemed the official confirmation of the Contractor that the Equipment was properly built, assembled and correctly installed. The Contractor shall then proceed to the performance under par. 6.19 et seq. of this Article.
  19. Cold commissioning
      + 1. Successful cold commissioning is a prerequisite for hot commissioning. The purpose of cold commissioning is to ensure, after the completion of no-load checks, that the Work is launched unconnected to any and all utilities, to confirm that the Work is complete in all respects before any utilities are connected. Cold commissioning verifies that the signals and functions will be implemented according to the stipulated requirements.
        2. During the cold commissioning:
           1. The Work and all of its components and parts will be tested for tightness.
           2. The Equipment will be filled with operating liquids.
           3. The Equipment will be checked from the perspective of proper setting and proper installation of all safety equipment.
           4. The Equipment will be cleaned so that it can be run without any soiling, mechanical damage to or contamination of the product.
           5. All mechanical equipment, instruments, control panels, electrical appliances and lifting and handling equipment, including auxiliary and control systems, including all firefighting and fire-safety equipment, shall be serviced, adjusted, calibrated and set for regular operation.
           6. The proper functioning of any safety units of the Equipment will be verified; this includes, in particular, the checking of emergency stops, safety detectors and sensors, protective barriers and enclosures, safety optical barriers and other safety features located on the Equipment.
           7. Accident and emergency simulations will be run in order to find out how the Equipment and the staff respond to such unexpected events.
           8. Records of any checks and tests performed during the cold commissioning shall be delivered to the Client.
        3. After the cold commissioning is finished, the Equipment will be deemed ready for hot commissioning. The completion of the cold commissioning will be recorded in a certificate which will stipulate that the Contractor considers the Equipment ready for hot commissioning.
  20. Hot commissioning
      + 1. Hot commissioning shall be deemed successfully completed if:
           1. Feedstock, process materials and utilities have been introduced into the Equipment at sustained flow conditions.
           2. All rotating or otherwise moving elements have been load tested both under manual and automatic control, at full operating conditions with process material in the systems, if applicable.
           3. All operating instruments, instrument and control panels have been tested for control/alarm functions, at minimum, normal and maximum operating conditions with process fluids in the systems.
           4. All shutdown, relief and emergency systems have been tested for proper functioning at the set values within the framework of a complete system test.
        2. The Contractor shall complete hot commissioning on the day when the Contractor and the Client sign the Certificate of Successful Completion of Hot Commissioning. The Contractor shall confirm in the Certificate that the Equipment is ready for performance tests.
        3. Any and all necessary inputs, such as utilities, packaging materials and a sufficient quantity of material for processing shall be provided by the Client to the Contractor sufficiently in advance, before the hot commissioning is launched.
  21. Performance tests
      + 1. The Contractor must subject the Equipment to performance tests.
        2. Performance tests shall be carried out under standard industrial conditions of commercial operation of the Equipment in standard working days. The purpose of the performance tests is to ascertain whether the Contractor has fulfilled its obligations under this Contract. Conditions of the performance tests, including operating conditions, measuring methods, evaluation procedure, etc., are specified in greater detail in **Annex 4**.
        3. The Contractor shall for the purposes of the performance tests provide the following information no later than seven (7) days before the performance tests:
           1. performance tests plan;
           2. full test data of each relevant part of the Equipment;
           3. list of operating resources, materials and products required for the operation of the Equipment during the performance tests;
           4. list of trained personnel to operate each part of the Equipment during testing.
        4. Each performance test will be deemed successful if (i) the parameters of the Equipment stipulated for the performance tests are met, and (ii) the Equipment has been operated in continuous uninterrupted operation subject to the conditions described in **Annex 4**. Unless these requirements are observed, the Contractor has failed the relevant performance tests.
        5. If any of the performance tests is unsuccessful, the Contractor is obliged to prepare an analysis summarizing and describing the reasons for failure of the relevant performance tests and the remedial measures which must be taken in order to meet the monitored parameters. The analysis must be submitted to and approved by the Client before any relevant remedial performance tests are launched.
        6. After the remedial measures are implemented, the Contractor shall perform repeated performance tests. Each performance test may only be repeated twice (2). All performance tests of the Equipment must be performed successfully in compliance with the schedule enclosed in **Annex 3**.
  22. After the Equipment is successfully commissioned, all performance tests successfully completed, the Client’s staff duly trained and any and all documents concerning the Work duly delivered, the Contractor shall submit a draft certificate of completion of the Project with the date of the proposed delivery of the Work.

**Article 7**

**Delivery and Acceptance of the Work**

* 1. The Contractor undertakes to invite the Client in writing (by a letter and by an entry in the installation logbook), and no later than 3 days before the delivery of the Work, to take over the Work. The Client is obliged to participate in the procedure for taking over the Work and to take over the Work (under the conditions set out below) only if the certificate of completion of the Project is prepared.
  2. The Client and the Contractor shall record the delivery of the Work by means of a certificate (hereinafter referred to as the **"Certificate of Delivery and Acceptance"**). The Work is delivered as of the day when the Certificate of Delivery and Acceptance of the Work is signed by both Parties. The Client's authorized representative shall be present during the delivery of the Work.
  3. The Client may not refuse acceptance of the Work if the Work is free of defects.
  4. If the acceptance of the Work is unsuccessful or if any defects are discovered during the delivery and acceptance procedure, the delivery and acceptance procedure shall be repeated.
  5. The “as-built” files shall be delivered by the Contractor to the Client in the extent specified in Article 7.6 hereof:
     + 1. 3 x on paper
       2. 1 x in an electronic form (e.g. on a CD, USB disc)
       3. In the form of text reports as \*.doc, \*.docx, or \*.pdf documents, as applicable
       4. Drawings as \*.dwg and \*.pdf documents.
       5. The electricity section will be prepared in Eplan, including source codes.
  6. The documentation to be submitted by the Contractor at the delivery of the Work shall always include:
     + 1. Declaration of conformity for the entire subject matter of the Work
       2. Electrical inspection record
       3. Certificates concerning any materials used
       4. Documents evidencing disposal of waste
       5. Any other documents necessary for the final inspection proceedings, if applicable.
  7. The Contractor undertakes to provide active assistance in the final inspection proceedings, if applicable.

**Article 8**

**Transfer of (Ownership) Title and Risk of Damage**

* 1. The risk of damage to the Work is transferred to the Client as of the day of delivery of the Work, in accordance with Incoterms 2020, DDP unloaded Bruntálská 167, 793 51 Břidličná, Czech Republic.
  2. The Client is the owner of the Work since the beginning.

**Article 9**

**Liability for Defects and Guarantee of Quality**

* 1. The Work shall conform to this Contract, the regulations and standards applicable in the Czech Republic and in the EU, including the delivery of the declaration of conformity. Where applicable, the Contractor shall bear liability for damage incurred by tasks thereby performed or, as the case may be, by the fact that the Work is of substandard quality, incomplete, or otherwise deficient. In order to secure any obligation of the Contractor according to which the Contractor must indemnify the Client for any damage or losses sustained by the Client during the implementation of the Work, the Contractor undertakes to deliver to the Client no later than 14 days after signing this Contract, at the Contractor’s own expense and liability, an unconditional and irrevocable bank guarantee (the “***Implementation BG***”), payable at the Client’s first request, issued by a renowned bank with an EU-wide license, the wording of which will be acceptable for the Client, covering 15% of the price for the Work, VAT incl., in the currency of the price for the Work, valid from the date of issue to the first day following the delivery of the Warranty BG; any bank guarantee issued for a shorter term will have to be replaced with a newer one with longer validity no later than 30 days prior to the expiration of the original bank guarantee; this process shall be repeated, if necessary, to make sure that the entire required period of validity is covered.
  2. The Contractor guarantees that the Work will be implemented in compliance with the technical specifications of the Contract and that it has and continues to have, throughout the liability (guarantee) period, the properties/qualities agreed in this Contract and required by the applicable laws and technical standards. The Contractor also warrants that the Work will retain, throughout the duration of the guarantee of quality, its properties/qualities and technical parameters necessary to meet the performance tests, i.e. the ability to pass the tests at any moment and repeatedly.
  3. The guarantee of quality of the implemented Work is provided for [to be added by the Participant; MIN 24 and MAX 60 months] months of the day of delivery and acceptance of the Work by the Client. In order to secure any obligation of the Contractor according to which the Contractor must indemnify the Client for any damage or losses sustained by the Client throughout the duration of the guarantee of quality of the Work, the Contractor undertakes to deliver to the Client no later than 14 days after signing this Contract, at the Contractor’s own expense and liability, an unconditional and irrevocable bank guarantee (the “***Warranty BG***”), payable at the Client’s first request, issued by a renowned bank with an EU-wide license, the wording of which will be acceptable for the Client, covering 10% of the price for the Work, VAT incl., in the currency of the price for the Work, valid from the date of issue to the first day following the expiration of the guarantee of quality of the Work or, as applicable, elimination of the last guarantee defect; any bank guarantee issued for a shorter term will have to be replaced with a newer one with longer validity no later than 30 days prior to the expiration of the original bank guarantee; this process shall be repeated, if necessary, to make sure that the entire required period of validity is covered. After the Warranty BG is submitted, the Client shall return the Implementation BG to the Contractor; if the Warranty BG is still not issued 30 days after the original deadline, the Client has the right to request payment under the Implementation BG in the amount of 10% of the price for the Work, VAT incl., and keep this amount as a retainer until the Warranty BG is properly delivered, and to use the retainer as the Warranty BG at any time.
  4. The Client is obliged to claim any defects with the Contractor in writing without undue delay after such defects are discovered. The defects must be described in the claim.
  5. The Contractor is obliged to inform the Client in writing no later than two (2) business days after receiving the claim whether the Contractor acknowledges the claim, the reasonable deadline by which the defects will be remedied (without prejudice to Article 9.6 hereof), or why the Contractor refuses to acknowledge the claim.
  6. Throughout the liability (guarantee) period, the Contractor assumes liability for defects which the Client discovered and claimed in a timely manner and shall remedy such defects without undue delay and at own expense, using new components or parts which will be covered by a separate guarantee lasting [to be added by the Participant; MIN 24 and MAX 60 months] months from the day when the certificate evidencing the elimination of the defects is drawn up. If the Contractor fails to begin eliminating the guarantee defects within five (5) business days of receiving the claim and/or fails to eliminate the defects within a grace period stipulated by the Client in writing, the Client has the right to hire a third party to remedy the defects at the Contractor’s expense and responsibility. The Parties shall draw up and sign a certificate regarding the elimination of the defects.
  7. The Contractor assumes no liability for defects covered by the guarantee of quality if the defects were caused by improper handling by the Client (i.e. the guarantee especially does not cover any defects caused by a failure to comply with the applicable regulations, unauthorized interference, modifications or repairs carried out without the Contractor’s consent and use of the product in any manner other than the prescribed manner).
  8. If the Work cannot be used during the process of elimination of the guarantee defects, the guarantee of quality is prolonged by the period during which the Work could not be used due to the guarantee defect.
  9. The costs of a groundless claim shall be paid by the Client.
  10. The Contractor assumes full liability for any damage caused by the fact that the Work does not meet the requirements for quality, performance, safety or any other contractually agreed parameter of the Work, as stipulated in this Contract.
  11. To avoid any doubts, the Client and the Contractor have explicitly agreed that the damage or loss in terms of this Contract may include, as applicable, a full or partial denial of any envisaged subsidy under the subsidy program which is caused by the delay/default or any other breach of this Contract by the Contractor.
  12. The Contractor’s total maximum aggregate liability for any damage or losses sustained by the Client in direct or indirect connection with this Contract and/or arising from any generally binding laws and regulations applicable to the contractual relationship or under any other theory of law, whether in contract, tort (including but not limited to negligence), or whether under any guarantee or duty to indemnify, for breach of statutory duty, or otherwise, arising under this Contract shall not exceed one hundred percent (100%) of the price for the Work, VAT incl.; the said limit shall not include:
      + 1. indemnification for infringement of industrial property rights and any other intellectual property rights;
        2. indemnification paid to the Client from the insurance contracted by the Contractor on the basis of this Contract;
        3. liability for losses and damage caused by gross negligence or willful misconduct of the Contractor or the Contractor’s staff (to avoid any doubts, this includes the Contractor’s subcontractors and their staff or other persons controlled by the Contractor);
        4. third-party claims made in connection with loss of life or injury to individuals if and to the extent that they were demonstrably caused by the Contractor.

However, the Contractor’s total liability in respect of its obligation to indemnify the Client shall not exceed EUR 20 000 000,-.

**Article 10**

**Penalties, Rescission of the Contract**

* 1. If the Client defaults on the payment of the price for the Work, the Client shall pay the Contractor default interest at the rate of 0.01% of the balance due for every day payment is past due.
  2. If the Contractor defaults on:
     + 1. the continual implementation of the Work according to the schedule in the periods between the individual milestones (Article 4.1 hereof), the Contractor is obliged to pay the Client a contractual penalty at the rate of 0.25% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay;
       2. the fulfilment of the schedule of the Work with respect to the individual milestones (Article 4.1 hereof), save for the final milestone (delivery of the Work), the Contractor is obliged to pay the Client a contractual penalty at the rate of 0.5% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay with the fulfilment of the individual milestones, save for the final milestone (delivery of the Work);
       3. delivery of the Work to the Client according to the schedule (Article 4.1 hereof), the Contractor is obliged to pay the Client a contractual penalty at the rate of 1% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay;

the aggregate amount of the contractual penalties under this provision shall not exceed 5% of the price for the Work (VAT incl.).

The Client undertakes to make and, if applicable, enforce any claims for contractual penalties under this paragraph with due regard for the Contractor’s actions undertaken to remedy the Contractor’s continual delay (if any) on condition that (a) the Contractor meets the relevant individual milestone despite the continual delay (Article 4.1 hereof) and/or meets the next individual milestone (Article 4.1 hereof) and the failure to meet the preceding milestone did not cause any damage or losses to the Client.

* 1. The Contractor undertakes to pay the Client a contractual penalty for each and every futile/unsuccessful performance test of the Work at the rate of 1% of the price for the Work, VAT incl.; the aggregate amount of the contractual penalties under this provision shall not exceed 4% of the price for the Work (VAT incl.).
  2. If the Contractor defaults on:
     + 1. initiating the process of remedying any guarantee defects of the Work, the Contractor shall pay the Client a contractual penalty at the rate of 0.25% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay;
       2. eliminating any guarantee defects as a result of which the Work cannot be used and/or the parameters of the Work cannot be attained which are necessary to meet the performance tests, the Contractor shall pay the Client a contractual penalty at the rate of 0.5% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay;
       3. eliminating any guarantee defects which do not prevent the use of the Work and, at the same time, do not prevent the attainment of the parameters of the Work which are necessary to meet the performance tests, the Contractor shall pay the Client a contractual penalty at the rate of 0.1% of the price for the Work (VAT incl.) for the second and each subsequent full week of delay;

the aggregate amount of the contractual penalties under this provision shall not exceed 3% of the price for the Work (VAT incl.).

* 1. The Contractor undertakes to pay the Client a contractual penalty of 5 000,- EUR for each and every breach of any generally binding laws and regulations concerning HSW, FP and WD in the course of implementation of the Work; the aggregate amount of the contractual penalties under this provision shall not exceed 1% of the price for the Work (VAT incl.).
  2. The maximum aggregate liability of the Contractor for all contractual penalties under this Contract shall not exceed 10% of the price for the Work (VAT incl.). It is hereby explicitly allowed to offset the Client’s claim for a contractual penalty against the Contractor’s claim of the price for the Work.
  3. The parties exclude, to the maximum extent allowed by the Civil Code, any and all rights of rescission or termination of this Contract for reasons other than those which are explicitly specified as grounds for rescission or termination in this Contract; rescission of this Contract is without prejudice to the duration of the rights and obligations of the Parties the nature of which requires that they survive any such rescission or termination, especially (without limitation) any claims arising from penalties, claims arising from the guarantee and a claim of the injured party for damages.
  4. The Client has the right to rescind this Contract for Work with such effects as the Client shall deem fit in the case of a material breach of the Contract by the Contractor; a material breach of the Contract shall be interpreted primarily as:
     + 1. the Contractor’s default on any commitment under this Contract which exceeds 30 days;
       2. despite repeated warnings by the Client, the Contractor hinders or otherwise frustrates any inspections and tests relating to the Work or any part thereof, or hinders or otherwise frustrates the connection of the Work to the Client’s equipment or the equipment of the Client’s suppliers;
       3. the Contractor repeatedly or in an exceptionally gross manner breaches any HSW, FP, WD regulations or any Annex 2 rules, as applicable, in the place of performance or in the Client’s premises, or the Contractor’s actions threaten to cause damage to the Client’s assets;
       4. the Contractor repeatedly fails to comply with technological procedures prescribed by any applicable standards, this Contract or any generally binding laws and regulations;
       5. the Contractor discontinued working on the Work or unreasonably refuses to continue with the works despite the Client’s written warning;
       6. third futile/unsuccessful round of the performance tests;
       7. reaching any of the limits of aggregate contractual penalties under this Contract.
  5. The Contractor has the right to rescind this Contract in the case of a material breach of the Contract by the Client; a material breach of the Contract shall be interpreted as a default on payment of a debt under this Contract which exceeds 60 days despite the Contractor's written notice sent to the Contractor after 30 days of delay in paying the financial obligation under this Contract.
  6. The Parties expressly agree that if a Party commits a material breach of this Contract, the Counterparty may rescind this Contract, even if the Counterparty does not do so without unnecessary delay after ascertaining such a breach of this Contract.
  7. The Parties have agreed that the Contractor is not allowed to hire or employ (whether for a consideration or not) any of the Client’s employees for the implementation of the performance under this Contract or any other performance (if any) which may be implemented in the Client’s premises. Exceptions to this prohibition are allowed only on the basis of the Client’s written consent. The prohibition applies to both active soliciting (offering participation/work/temporary job/etc.) and to accepting an offer made by the Client’s employee, i.e. the Contractor is not allowed to accept such an offer made by the Client’s employee. If this provision is breached, the Client has the right to rescind this Contract with such effects as the Client shall deem fit and claim a contractual penalty of 5 000,- EUR for each individual person with respect to whom the prohibition is breached by the Contractor.
  8. Claims for or payment of any contractual penalty are without prejudice to the Contractor’s other obligations arising from the Contract, especially as concerns the obligation to remedy the defects of the Work or the Contractor’s delay with the performance of obligations under this Contract, and without prejudice to the Client’s right to claim damages in full.

**Article 11**

**Non-Disclosure Clause**

* 1. Both of the Parties shall conform to the principles of protection of confidential information, where confidential information shall include:

1. the content of this Contract and enclosures and annexes hereto,
2. other items of information designated as confidential by either of the Parties.
   1. The Parties shall act so as to prevent any unauthorized person from unauthorized or accidental access to confidential information as well as any unauthorized transmission, unauthorized processing, and misuse of confidential information.
   2. Neither of the Parties shall disclose or transmit confidential information to a third party without the Counterparty's consent.
   3. Information already known to the recipient or available in the public domain may not be designated as confidential information.

**Article 12**

**Force Majeure, Circumstances Preventing Performance**

* 1. The Parties shall be released from liability to discharge, in full or in part, obligations arising under this Contract if the failure to discharge such obligations is caused by force majeure, where the circumstances prevent the performance of this Contract. Unless force majeure and its consequences last longer than one month, the Contractor and the Client shall be required to perform this Contract, where delivery deadlines and other time limits shall be extended by the duration of force majeure and its consequences.
  2. Force majeure shall be interpreted as meaning any extraordinary circumstances which temporarily or permanently obstruct the performance of contractual obligations, providing they occurred due to no fault of the Parties after the Contract was entered into and could not be anticipated or averted by any of the Parties (such as, without limitation, floods and other natural disasters, the Covid pandemic, war, utilities supplies).
  3. The Party that is prevented by force majeure from discharging its contractual duties must notify the Counterparty in writing without unnecessary delay after the circumstances arise, and present relevant evidence proving that the circumstances affect the discharge of contractual obligations. If force majeure prevents the performance of this Contract during a period exceeding one month, the Parties shall attempt to renegotiate this Contract so as to allow obligations arising hereunder to be fulfilled. If an agreement to that effect cannot be reached, the Party invoking force majeure shall have the right to rescind the Contract. Rescission shall enter into force on the day of delivery of a notice of rescission from the Contract on the grounds of force majeure.
  4. In the event this Contract is rescinded on the grounds of force majeure, both of the Parties shall return to one another thereby provided supply or, as the case may be, agree to the settlement of already provided supply.
  5. Each of the Parties shall without delay inform the Counterparty of circumstances preventing the Party from performing this Contract and thus being liable to result in a failure to discharge duties arising hereunder, as well as of the fact that such circumstances have been rectified.

**Article 13**

**Closing Provisions**

* 1. The Contract enters into force and takes effect on the day it is signed by the Parties.
  2. The rights and duties of the Parties are governed by this Contract, including its Annexes. In the event of any discrepancy between the text of this Contract and the text of the Annexes hereto, the provisions of this Contract shall apply. Any terms which are not regulated hereunder shall be governed by the generally applicable laws and regulations, primarily Act No. 89/2012 Coll., Civil Code, as amended, to the exclusion of any conflict-of-laws rules as well as the Vienna Convention on Contracts for the International Sale of Goods and any Czech or international standards of business terms (such as FIDIC, etc.). Any disputes arising from or relating to this Contract in any manner whatsoever shall be submitted to competent courts of the Czech Republic, the territorial jurisdiction of which shall be determined according to the registered office of the Client.
  3. Any amendments to the originally printed text of the Contract, notes, deletions, handwritten or machine modifications of the text are valid only if accompanied by signatures of the individuals authorized to sign this Contract. The signatures certifying such an addition, insertion, or deletion in the text shall be subscribed in a manner ruling out any doubt regarding the fact that such a subsequent amendment to the original text was effected with the agreement and approval of both Parties. A signature or initials at the bottom of the page containing the original text of this Contract shall not be sufficient to certify the validity of such an amendment.
  4. The Parties have explicitly agreed that no change of circumstances or impossibility of performance affecting any of the Parties constitute grounds for termination of this Contract (other than as stipulated in Article 12.3 hereof).
  5. The individual provisions of this Contract are severable, meaning that if any of the provisions is ineffective or invalid, such invalidity or ineffectiveness shall not render the Contract invalid or ineffective in its entirety. At the request of any Party, the Parties undertake to replace the invalid or unenforceable provision without undue delay with a valid and enforceable provision the content whereof shall be as close as possible to the purpose of the invalid or unenforceable provision.
  6. No acts or actions of the Client may be deemed to be a promise of entering into the Contract or any amendment hereof. The Parties exclude the application of Section 1740(3) of the Civil Code and Section 1751(2) of the Civil Code which stipulate that the Contract is entered into whether or not the expressed wills of the Parties are completely identical. By signing this Contract, the Parties also exclude any regard for trade usages in the legal transactions between the Parties, i.e. trade usages do not take precedence over statutory provisions pursuant to Section 558(2) of the Civil Code. The Parties have also agreed that Section 582(2) of the Civil Code shall not apply; consequently, the invalidity of legal acts which must be executed in writing according to the Parties’ agreement can be invoked anytime.
  7. This Contract has been prepared in two counterparts, of which each Party shall receive one.
  8. This Contract can be modified only by written amendments agreed by both Parties.
  9. The Contractor is obliged to participate in the financial control pursuant to Section 2e of Act No. 320/2001 Coll., on Financial Control in Public Administration.

Annexes:

Annex 1 – Scope of Work

Annex 2 – Information on Risks

Annex 3 – Schedule

Annex 4 – Performance Tests Parameters

Done in Břidličná on [●]

Client: Contractor:

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AL INVEST Břidličná, a.s. [●]

Ing. David Bečvář [●]

Chairman of the Board of Directors [●]

**Annex 1 – Scope of Work**

**GENERAL**

* 1. Under this Contract the Contractor shall perform and/or provide including, but not limited to, the following:

1. design, delivery, assembly, supervision of installation, commissioning and acceptance of the Equipment, fully compliant and fulfilling all requirements, properties, parameters and functions as set forth in the Contract and its Annexes, including its Annex 4 (*Performance Tests Parameters*);
2. putting into operation the Equipment, performing the Cold Commissioning and the Hot Commissioning;
3. performance of the Performance Tests;
4. performance of other tests and inspections to the extent specified in the Contract;
5. procurement and delivery of the Materials;
6. co-ordination of its works performed on off-sites with the Client;
7. providing of care for and custody of the Work until the issuance of the Certificate of Delivery and Acceptance by the Client;
8. providing of a warranty, the performance warranty including the consequences of their non-fulfilment (e.g. contractual penalty, liability for damages);
9. granting of know-how, licenses, software and all intellectual property or other protected rights needed for proper operation, maintenance, repairs and reconstruction of the Equipment;
10. training of the Client’s personnel (operation and maintenance of the Equipment);
11. managing and co-ordination and administration of the Work performance;
12. input data verification, data collection;
13. control of schedules and procedures, reporting;
14. quality assurance and quality control according to the internationally acknowledged standards;
15. co-operation in the long-term keeping of the Equipment in operation; to this extent, since the Performance Tests are started, the Contractor shall use all reasonable efforts to provide assistance and cooperation to the Client in relation to Equipment’s productivity improvement, general technical support and improvement in quality and production speed;
16. provision of other works, services, activities and deliveries as stipulated elsewhere in the Contract and its Annexes as well as provision of other services, activities and deliveries not explicitly specified in this Contract but indispensable for achieving the purpose of this Contract, i.e. proper and timely installation and handover to the Client for permanent operation of the subject of the Work which constitutes the complete, tested and properly functioning Equipment, achieving continuous, reliable and safe operation and in all operating modes the parameters, defined under the Contract, and which is in compliance with the valid legal provisions and other official regulations of the Czech Republic, the technical and health standards, including labour safety, environmental protection and waste disposal regulations of the Czech Republic;
17. to the extent specified under the Contract, under the terms agreed in this Contract, provision of all data and coordination to the full extent of the Work.

**TECHNOLOGY AND ENGINEERING**

* 1. The Contractor shall execute the technological part of the Work, including procurement delivery of all materials, tools (if relevant), machines and equipment and the like to the Site, tie-ins, testing in the extent agreed upon, performing the Cold Commissioning and the Hot Commissioning, putting into operation, operation until the Certificate of Delivery and Acceptance of the Equipment, as stipulated in this Contract and in accordance with the design and engineering documentation.
  2. The Contractor shall carry out the Performance Tests, to the extent and under the conditions specified in Annex 4 (*Performance Tests Parameters*) and other parts of the Contract, to prove the quality of the executed Work and achievement of the technical parameters as specified in the Contract.
  3. Under this Contract, the Contractor shall further provide namely the following engineering and incidental services:

1. supervision on performance of construction, erection, tie-ins;
2. performance of the Cold Commissioning, the Hot Commissioning, putting the Equipment into industrial operation, as well as its operation based on the approval of the Client in accordance with the conditions of the Contract until the date of the Certificate of Delivery and Acceptance, including the Performance Tests;
3. performance and supervision of maintenance and/or repair of the Work until issuance of the Certificate of Delivery and Acceptance;
4. services related to the transfer of know-how, patents, trademarks, industrial designs, software and other rights to intellectual property related to the Work, ***if applicable***, pursuant to the Contract;
5. other services necessary for timely and proper performance of the Work.
   1. The Contractor shall keep the control system (Hardware and Software) of the supplied equipment up to date in accordance with the following rules:
6. contractor undertakes to keep the control system (Hardware and Software) of the equipment, including the Windows operating system (if applicable) and all related software necessary for the proper operation of the equipment, up-to-date by means of regular updates for a period of 15 years from the signing of Certificate of Delivery and Acceptance;
7. updates include, but are not limited to, security patches, service packs and other fixes issued by the software manufacturer that affect the stability, security or functionality of the device;
8. contractor is obliged to perform updates in accordance with the software manufacturer's recommendations within 5 working days of their official release, provided that such updates do not compromise system stability or compatibility with the equipment;
9. if the updates require configuration or intervention in the equipment, the contractor is obliged to inform the client in writing before the update is performed and to propose a suitable solution;
10. client undertakes to allow the contractor access to the equipment for the purpose of carrying out updates, at the previously agreed dates, unless otherwise specified;
11. in the event of the Contractor's failure to comply with the obligation to update, the Client is entitled to demand rectification within 5 working days and if this is not done, the Client is entitled to claim contractual penalties according to Article 10.4 or to arrange for updates at the Contractor's expense;
12. after the expiry of this 15-year period, the client may conclude a separate service contract with the contractor for the provision of software updates.

**DOCUMENTATION**

* 1. Unless expressly provided otherwise, all documents, sets of documents and records specified in this Clause 3 (*Documentation*) shall be handed over by the Contractor to the Client:

1. electronically in PDF format; mechanical drawings in DWG and PDF format drawings in PDF and DWG format; electronic drawings in E-Plan format, version 2.9 or later and in PDF format;
2. if requested by the Client, other form enabling easy registration and filing of the appropriate type of documents (e.g. in file binders etc.), and the Contractor shall hand over to the Client a register of all such documents on an agreed data carrier permitting easy and fast orientation and identification of individual documents;
3. if requested by the Client, in the paper form, unless otherwise specified in the Contract.
   1. The project documentation prepared by the Contractor shall include:
4. **Documents for construction readiness**

Engineering and design documentation, and documents for the purposes of construction permit obtaining, including:

1. equipment layout and basic data output;
2. side views;
3. basic information for compressed air system, cooling water, hydraulic system, other required media;
4. loading conditions and final load data;
5. consumption of all operating media and their quality requirements and conduits/channels for media/electric dimensions to be connected to civil works, as required by the Client for building engineering;
6. emissions arising from the Equipment (if relevant) – characteristics, amount, location of the chimney (exhaust), height and diameter of the chimney (exhaust), amount of air, operating hours;
7. noise, its sources, amount of emissions (technical data), proposal of a possible method of limitation.
8. **Documents for basic engineering**

Engineering and design documentation, and documents for the purposes of construction readiness, including:

1. equipment layout containing connection points and all utility output data;
2. side views containing connection points;
3. foundation plan with load data (static and dynamic) including the Equipment ground connection;
4. anchor plans of the Equipment;
5. drawings and requirements for compressed air system – power, flow, pressure, connection dimensions, piping plans etc.;
6. drawings and requirements for cooling water system – power, flow, pressure, connection dimensions, piping plans etc.;
7. drawings and requirements for hydraulic system – power, flow, pressure, piping plans etc.;
8. drawings and requirements for air extraction – power, flow, connection dimensions, piping plans etc.;
9. emissions arising from the Equipment (if relevant) – characteristics, amount, removal method – cleaning, location of the chimney (exhaust), height and diameter of the chimney (exhaust), amount of air, operating hours;
10. documents for electrical equipment containing:

* electric switchboard dimensions;
* electric design drawings;
* required cable routes.

1. drawings and requirements for other required media – power, flow, pressure, connection dimensions, piping plans, etc.;
2. 3D model, drawings and technical documentation of the water coolant tank
3. noise, its sources, amount of emissions (technical data), proposal of a possible method of limitation;
4. 3D model (may be simplified) of the Equipment for the possibility of creating an overall model in the hall and thereby eliminating the crossing of distribution lines;
5. technology requirements for other professions – lifting equipment, platforms, camera systems, special lighting.
6. **Documents for installation of the Equipment**

Engineering and design documentation, and documents for the purposes of installation of the Equipment, including:

1. all documentation needed for proper construction, installation, erection, commissioning, operation, maintenance and repairs of the Equipment;
2. detailed assembly, installation, erection, commissioning, operation and maintenance manuals for each appropriate unit of the Equipment; and
3. implementation documentation to the extent necessary for the needs of the tender procedure under the Subsidy Program (including measuring technology, preparations for assembly, requirements for measurement accuracy, etc.) and assembly.
4. **Contractor’s and vendor’s documentation**

No later that the commencement of the performance tests of the Equipment by the Client, the Contractor undertakes to furnish, the Contractor’s and vendor’s documentation and documents, in particular:

1. “as built“ documentation of the actually performed Work in one three (3) copies, including electronic version;
2. accompanying contractor’s documentation for the individual parts of the Equipment;
3. itemized list of equipment which is part of the Work, with attestations, inspection books and certificates of quality, origin and certificates of compliance, and, as the case may be, other documents prescribed by the applicable regulations and standards or by this Contract;
4. accompanying technical documentation, including the subcontractor’s file, erection manuals, Cold Commissioning and Hot Commissioning manuals in compliance with the Contract;
5. manuals necessary for testing of the Equipment during the Work implementation and operation;
6. documents needed for negotiations with the competent Czech authorities, support to the Client during its negotiation with the competent bodies with respect to the building permit modifications (if any), Start-up approval, permanent operation permit (in Czech: *kolaudace*);
7. certificates and inspection books enabling the approval of the Equipment, its operation, maintenance, repairs and reconstruction, including the conformity certificates according to Act No. 22/1997 Sb. and certificates according to the Section 47 of the Building Act (Act No. 183/2006 Sb., as amended) for all Materials used for construction; and
8. documentation required for successful completion of Client’s operators training including training of safe operation system, training and operation manuals.
9. **Final documentation**

No later that upon signature of the Certificate of Delivery and Acceptance by the Client, the Contractor shall submit the following minimum documentation [3× in paper form, 1× in electronic form (e.g. on CD, USB disk); text messages in \*.doc, \*.docx, or \*.pdf format, drawing documentation in \*.dwg and \*.pdf format.]:

1. drawing documentation of parts, subassemblies, assemblies and of the actual execution of the Equipment in \*.PDF and \*.DWG format;
2. 3D model of the actual performance of the Equipment in \*.stp format;
3. 3D models in \*.stp format and complete manufacturing drawings in \*.dwg and \*.pdf format for all driving collars and interchangeable false jaws / bearing shoes for rolls specified in Table 1 (Annex\_3\_TD\_Technical\_specificatins)
4. Operation manual and instructions for service and maintenance of the Equipment printed (in the number of three (3) pieces) and in electronic form in the Czech language;
5. bill of materials (BOM) of spare parts in \*.PDF and \*.xls format (in scope: type designation, order number, manufacturer, standard, size, etc.);
6. BOM of consumable parts in \*.PDF and \*.xls format (in scope: name, order number, manufacturer, reference to drawing, standard, dimension, etc.);
7. maintenance, control and revision plan of the Equipment – according to Section 2(e) of the Government Regulation No. 378/2001 Sb., on setting out more detailed requirements for the safe operation and use of machines, technical equipment, devices and tools;
8. records and documentation of the course and evaluation of tests, inspection reports, measuring records (to be handed over always upon completion of the corresponding parts of individual works and tests) in compliance with the provisions of this Contract;
9. calibration sheets and recommended frequency of calibration;
10. certificates, declaration of conformity (CE Conformity Declaration, if relevant);
11. default revision;
12. data sheets and certificates of Materials used;
13. assembly log;
14. software backup (source codes must be supplied for the PLC control system, visualization e.g. WinCC, control of frequency converters, hydraulics, etc.), source codes must be in English;
15. other documents necessary for the operation of the Equipment; and
16. other documentation and drawings according of Annex 3 to the Client’s tender documentation (Annex\_3\_TD\_Technical\_Specification).

**CLIENT'S STAFF TRAINING**

* 1. The Contractor shall conduct training of the Client’s personnel on-Site and/or manufacturing site of the Contractor, in assembly of operational parts required for production (moulds etc.), commissioning, operation, maintenance and/or repair of the Work.
  2. More detailed requirements on training hereunder are specified in Annex 3 to the Client’s tender documentation (Annex\_3\_TD\_Technical\_Specification) and its annexes.

**PERMITTING**

* 1. The Contractor shall provide the Contractor with complete documentation and necessary data and shall furnish the Client with the explanations and support necessary for dealing with the Czech Authorities by Client related to approval of the Equipment.

**COMPONENTS AND PARTS**

1. 1. Under this Contract, the Contractor shall provide to the Client the following:
2. accessories, parts and components necessary for the Cold Commissioning, Hot Commissioning, Performance Tests and operation of the Equipment until the moment of the Certificate of Delivery and Acceptance. Such accessories, parts and components are included in the Contract Price and shall be supplied along with delivery of the Equipment.
3. spare parts, including wear and tear parts, for the period of warranty operation when the warranty is applicable to the entire Work, and for 6 months of normal operation of the Equipment starting on the date following the day of termination of the warranty Equipment. Such spare parts shall be deemed as the Contractor’s recommendation and the final scope, amount of, and the date of order for such spare parts to be delivered by the Contractor, shall be of the Client’s responsibility and any and all costs related to such spare parts shall be borne by the Client. The offered prices of the spare parts should be “competitive”, which means they shall be usual market prices. The spare part book shall be prepared in such a way to enable simple filling in the number of ordered pieces of spare parts and be submitted on a data carrier in the software approved by the Client.
   1. Any component/spare part book and/or list, submitted by the Contractor to the Client pursuant to Clause 6.1, shall include all necessary detail information such as, but not limited to:
4. equipment tag no. description;
5. manufacturer, address, phone, FAX;
6. assembly drawing;
7. amount;
8. unit price;
9. instruction; etc.
   1. Within 10 years after of termination of the warranty Equipment the Contractor is further obliged in the event of termination of production of the spare parts under Clause 6.1 (b) of this Annex 1 to:
10. advance notification to the Client of the intended termination, in sufficient time to permit the Client to procure needed spare parts; and
11. following such termination, to furnish at no cost to the Client, the blueprints, drawings and specifications of the spare parts enabling their fabrication, if and when requested.

**Annex 2 – Information on Risks**

# GENERAL

* 1. Information about risks from AL INVEST Břidličná, a.s. - area of occupational safety (Act No. 262/2006 Sb., Labor Code) - §101
  2. **CONTRACTOR:** [●]
  3. **SCOPE OF WORK:** This is a delivery of a high-precision CNC roll grinding machine for grinding. The scope of supply includes transportation of the CNC roll grinding machine to the precise installation site, supervision of installation, commissioning and final handover to permanent operation.
  4. **WORKPLACE:** VaZ Hall, Grinding Plant workplace
  5. **PARKING:** only at a designated car park; if there is no capacity, then in a place agreed with the Client’s representatives.
  6. Use of mechanization (own or Client’s), operating staff (own or Client’s), method of acceptance:

1. TO BE DEFINED
   1. Duration of work from **xx/xx/202x to xx/xx/202x** team of employees from [●] and their subcontractors.
   2. When fulfilling business relationships, the following subcontractors of the Contractor will move in the workplace of the building of operation/division on the Client’s premises within access roads to the workplace:
2. **From xx/xx/202x to xx/xx/202x** TO BE DEFINED : supervisor: TO BE DEFINED

**Site progress meetings \*):**

**Duration of work on the day of work \*):**

**Keeping site/assembly log: YES-NO \*\*)**

**Fire-hazard activity will be performed (work with open fire): YES – NO \*\*)**

For the fulfilment of OHS conditions: Mr. Luboš Rochovanský, tel. +420 606 723 089;

For the fulfilment of FP conditions: Mr. Pavel Švan, tel. +420 602 402 897;

For the fulfilment of ecology conditions: Mr. Lubomír Klajban, tel. +420 603 580 707.

\*) information required for longer projects

\*\*) cross out as appropriate

# CREATED RISKS

* 1. Basic range of risks created by the Client (e.g. when executing contracts, work orders, during visits, tours etc.):

1. Risk arising from exposure to noise – see the current list of hazardous workplaces, or the job categorization overview by the Client;
2. See: F:\DIVIZE\BOZP,PO,Ekologie\RIZIKA\_provoz AIB;
3. Risk arising from the use of chemical substances – see the current list of hazardous workplaces, or the job categorization overview by the Client;
4. See: F:\DIVIZE\BOZP,PO,Ekologie\RIZIKA\_provoz AIB;
5. Risk arising from the use of roads, transport facilities, motor trucks, motor forklift trucks, non-motor and motor vehicles (including rail vehicles on industry tracks) – location of informative, prohibition and instructional signage, obligation to move on marked roads;
6. Risk of fire, risk of explosion of combustible gases and vapours – location of informative, prohibition and instructional signage, fire extinguisher locations, obligations according to the Order to Welding with Increased Risk prior to the commencement of welding;
7. Risk arising from moving parts of machines and mechanical equipment – prohibition of unauthorized operation, working clothes without any loose parts;
8. Always ask the operator before entering a hazardous space and only enter upon a clear and straightforward instruction. When entering repeatedly, coordinate the procedure with an authorized person of the Client;
9. Risk arising from crane transport – prohibition of entry under hanging and transported loads (SBP workstation OS 04-06);
10. Risk arising from processed and used materials (hot metal, hot substances) – prohibition of unauthorized manipulation;
11. Ecological consequences – prohibition of activities leading to potential pollution of air and waterways;
12. Risk of electric shock - electrical installations and wiring in buildings and on buildings, transformer stations and electrical substations, charging, e.g. electrical control of the crane, damage to electrical wiring cables, unwanted contact during material handling, lighting;
13. Risk due to the cooperation of several works, the movement of persons at the place of work, handling work, or the occurrence of another contractor outside this event;
14. Risk of impact to the head - crane operation, access and spaces with insufficient height to erect the figure, protruding objects;
15. Risk of entering the workspace of the work process;
16. Risk of injury to the supplier's persons during the Client's activities;
17. Risk of tripping, falling due to unevenness, obstacles, floor level changes;
18. Risk of slipping when moving on roads, structures, unpaved surfaces. Influence of working environment, in outdoor areas influence of microclimatic conditions (rain, leaves, slippery grass, mud, ice,);
19. Risk of slipping on wet or greasy floors;
20. Risk of not ensuring sufficient working / handling space (release of the workplace, removal of obstacles to the required or necessary distance, etc.);
21. Risk of falling into depth (e.g. technological uncovered depressions, etc.). Marked on the floor yellow;
22. Risk of reduced visibility;
23. Additional hazard statements:
24. various technological devices are located on the site, which are not allowed to be manipulated and interfered with outside the agreed scope of work;
25. in case of various manipulations with loads, tools, etc. it is necessary to take increased emphasis on non-violation technological equipment and distribution.

Note: It is required to provide advice on the risks and health hazards according to the character of the assigned activity and the character of operation or place where the contractually assigned activity is to be performed. E.g., the risk of presence of another supplier within another order of the Client.

# BASIC INFORMATION FOR SUPPLIERS (OR VISITORS, TOURS ETC.) ON THE ELIMINATION OF DEFINED RISKS

* 1. In addition to generally valid regulations on occupational safety, the following specific requirements concerning occupational safety apply to persons from other organizations performing jobs on the premises of the Client:

1. The persons shall observe all signs (including road signs) on the premises of the Client and on other premises that the Client uses or leases. Prior to the commencement of activities, the persons shall report to the responsible managing employee of the Client.
2. The persons shall observe safety and fire signs posted in the individual workshops and premises of the Client where they perform their jobs.
3. The persons shall only use designated roads, entrances and exits assigned to the persons on the premises of the Client.
4. Pedestrians shall use the pavement and walk on the right. When there is no pavement, pedestrians shall walk on the left shoulder. Pedestrians must not limit the free flow of traffic, particularly by unreasonable grouping.
5. Pedestrians shall use designated access roads when moving in the workplaces and designated pedestrian crossings when crossing roads. It is only possible to crossroads vertically facing the traffic outside marked crossings. Pedestrians must check that is it safe to cross before entering the road. Climbing the protective railing is prohibited. Hold onto the railing when using staircases.
6. Pedestrians may walk on the road shoulder in a group of two provided that they do not compromise or limit traffic, especially under reduced visibility or increased traffic.
7. A person pushing or pulling a hand truck with the overall width exceeding sixty (60) cm shall walk on the right shoulder.
8. The Contractor is not permitted to ride a bicycle in the Client’s premises. Bicycles can be parked and locked in the cycle room at the gatehouse.
9. With regard to the risks arising from the work environment, the use of mobile phones, tablets and headphones (MP3 players etc.) is prohibited on all production and operation premises. Service calls are allowed provided that they are executed outside the areas with the risk of explosion and from a safe place.
10. The persons shall keep the workplaces in order.
11. The persons who are under the influence of alcohol or psychotropic and addictive substances are prohibited from entering the workplace of the Client and from performing any jobs for the Client. Bringing alcoholic beverages and consuming them on the premises of the Client is also prohibited. That also applies to psychotropic and addictive substances. The persons shall undergo a detection of alcohol or other addictive influence at the direction of an authorized employee of the Client (that is a managing employee listed in the employment regulations).
12. Smoking is prohibited on the entire premises of the Client except for designated places that meet the terms and conditions stipulated by the internal regulation of the Client and that are properly marked.
13. Any occurrence of an injury that would be related to the liability of the Client or in relation to another person in connection with activities of the Client and which will take place in the premises of the Client the employee, the responsible representative of the Contractor and the third party are obliged to immediately notify the responsible person of the Client. The Contractor is obliged to train and notify its employees and other persons in connection with the activities of the Client of the obligation to immediately and immediately report the occurrence of an injury (accident). Subsequently, the injuries should be registered at the workplace or at the relevant gatehouse of the Client. Injuries can be treated from the first aid kit at the workplace or called the Client’s firefighters on the phone +420 554 22 2222.
14. In case of a serious accident, need medical help, call 155.
15. In case of fire, accident etc., call the telephone numbers provided below:

Doctor, office 2304

And Fire brigade of AL INVEST Břidličná, a.s. 2222

Switching off power 2344, 2433

Closing gas supply 2302, 2306, for shifts see the Company’s directory

Public Lines

Medical emergency service 155

Police 158

Fire service 150

Water authority 554 711 051

Karlov Water Treatment Plant 554 273 141

The Client 554 221 111, 554 222 xxx

1. The persons shall not compromise the individual elements of the environment (water, air, soil) by their activity, especially with emphasis in the vicinity of waterways.
2. The persons shall dispose of wastes, chemicals and harmful substances in designated places. In case of lack of information, the persons shall enquire with an authorized employee of the Client. Wastes must be removed in accordance with the contractual arrangements and not thrown away into the Client’s containers.
3. Pouring liquids into the canals is prohibited. When working, proceed in a manner that avoids the occurrence of ecological accidents (e.g., spilling oil, fuels, gas leaks etc.). In case of an accident, call the responsible person of the Client or the Client’s fire brigade directly.
4. The persons may only perform an activity that is the subject of a contract or agreement on the delivery of work orders. Any other activity may only be performed with the knowledge and consent of an authorized employee of the Client.
5. The persons may only enter such workplaces of the Client where they are to perform the contractually arranged jobs, loading or unloading. Furthermore, they may enter sanitary facilities (WC, changing rooms, showers, bathrooms, lunchrooms, break rooms, potable water sources etc.) designated within the delivery of works and activities. Any other places may only be entered with the knowledge and consent of an authorized employee of the Client. Use personal protective equipment (safety shoes, high-visibility vest, an industrial hard hat in halls).
6. The persons shall follow any and all instructions from an authorized employee of the Client, as well as from an accompanying employee of the Client during tours, visits etc.
7. The Contractor and their subcontractors are prohibited from operating and interfering with the Client’s machinery, from using various aids, tools, handling equipment etc., unless they are indicated in the construction/assembly journal and properly handed over for use.
8. In case of necessity and ambiguity, always ask the Client’s responsible employee beforehand. The Client’s and the Contractor’s responsible persons must resolve any issues addressed during the work that affect safety in advance.
9. Persons of the Contractor or subcontractor may not leave the workplace upon interruption or termination of work activities without securing or securing the workplace against the occurrence of an accident, perform cleaning.
10. Upon interrupting or completing their work activity, the Contractor’s or subcontractor’s persons may only leave the workplace provided it is secured against the occurrence of injuries, cleaned and all the stored loads are stable.
11. Work with open fire may only be performed on the basis of a previously issued written authorization.
12. Prior to the commencement of work, the Contractor and the Clients shall examine and check the safe condition of the workplace. The same applies to the movement of third parties. If the Contractor has any comments, they shall be presented during training. Later on, according to the procedure in Clause (f) of this Annex 7 (Risks at Site).
13. No work will be requested or tolerated by the Contractor to be performed by the Client’s employees or third-party persons that would be beyond the scope of their obligations and the determined scope of work of the Contractor under the contractual terms and conditions.
14. It is prohibited to use slings of the required load capacity and configuration without a written permission of a responsible employee of the Client.
15. Prohibition of access to the crane.
16. The persons must adhere to and must not remove or damage the installed warning signs, light or acoustic signaling, protections, covers, barriers etc. Do not modify the workplace or its safety equipment in any way. The safety elements were explained at the specific workplaces and operating halls.
17. At the time of opening the furnace, it is FORBIDDEN to approach or walk around the furnace. The movement is possible only after the end of work and closing of the furnace and it is out of reach of the furnace.

Note: It is required to provide advice on the risks and health hazards according to the character of the assigned activity and the character of operation or place where the contractually assigned activity is to be performed.

# LIABILITIES OF THE CONTRACTOR (WHEN PERFORMING CONTRACTUAL WORKS)

1. The Contractor is responsible for demonstrable familiarization with this document (incl. verification of knowledge) of all their employees assigned to fulfil tasks in relation to the Client.
2. The Contractor may only delegate the provision of tasks for the Client to persons and employees towards whom the Contractor has fulfilled their liabilities arising from valid legislation, particularly the Labour Code, as amended (e.g. provision of qualification, medical examinations, training and verification of knowledge based on regulations related to the performed activities, provision of appropriate personal protective equipment and washing agents, recording working hours, including any potential overtime, night work, recording rest periods, or safety breaks and other recording obligations related to the pattern of work, paid time off, recording any potential hazardous jobs etc.).
3. The Contractor hereby acknowledges all occupational hazards arising from the character of the production and operating activity on the premises of the Client and the performed jobs as the subject of the work, including the risk of injuries and other injury to health and undertakes to bear the consequences.
4. When providing tasks, activities and deliveries of work for the Client, the Contractor guarantees strict observance of all provisions arising from the valid legislation, safety regulations and procedures on their part for the entire duration of delivery.
5. The Contractor shall define a safe work procedure with regard to the provision of occupational health protection and safety. The Contractor shall pay special attention to the provision of safety when working with machines and mechanical equipment, with electric appliances, in areas with the risk of explosion, in areas with prohibition of smoking and use of open fire. The Contractor shall cooperate with the Client’s employees on the provision of necessary coordination – definition of the workplace and areas with any potential prohibition of entry and activity, securing objects against fall and undesirable movement and providing safety of work at heights (specification of coordination in the allocation of anchoring places, professional and medical capability to perform work at heights).
6. If the Contractor does not know the correct methods of ensuring occupational safety when providing tasks, activities and deliveries of work for the Client or such methods are not possible, or the Contractor has doubts about the scope and method of ensuring occupational safety (in relation to the Contractor’s employees as well as employees of the Client), the Contractor shall suspend the work and immediately notify a competent employee of the Client.
7. If the Contractor invites other subcontractors within the Contractor’s performance of activities for the Client, the Contractor shall be responsible for the coordination of their activities and the transfer of these Written Information on Risks. The Contractor shall also inform a competent employee of the Client of this fact in advance.
8. Within the meaning of the valid Labour Code, the Contractor shall also notify the Client in writing of the risks arising from the activities performed by the Contractor (see below) and cooperate in the provision of occupational health protection and safety. If the Contractor does not submit a written notification of risks as of the date of the commencement of the performance of the Contractor’s activities, it is deemed that the risk value of the Contractor’s activity is “zero” and no cooperation in the provision of occupational health protection and safety is required from the Client.
9. Risks arising from the Contractor’s work or activities on the premises of the Client: Note: To be completed by the Contractor when the Contractor has not provided any other form of notification of risks arising from the Contractor’s activity on the Client’s premises; when there are no risks, the Contractor shall state that.
10. Defined safety measures in the place of work and in its vicinity, placement of loads, transport, etc., in terms of OHS, Fire Prevention, and ecology.
11. By agreement between the Parties, the Client represented by [to be edited] coordinates the performance of measures to protect the safety and health of employees, and procedures for their provision.
12. The Contractor’s managing employee is responsible for labour safety, work organization in all activities according to the scope of the contract (scope of work) / order, including giving instructions, issuing orders, checking them, and for mutual consideration. The subcontractor, their employees, or third parties, and the Client’s employees shall respect that. They shall also pay attention to their own safety.

Any deficiencies on the part of the subcontractor shall be resolved through the Contractor’s responsible person.

In Břidličná on: …………………

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

AL INVEST Břidličná, a.s., Contractor

Name, surname, signature, mobile Name, surname, signature, mobile

Note: In the case of several persons of the Contractor excursions, group visits, etc., it is necessary to provide a Attendance List.

**Annex 3 – Schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | **Activity** | **Milestone deadline**  **(date)** | **From day “0” (in months)** | |
|  | | | Start | Stop |
|  | Conclusion of the Contract. | 16.05.2025  *(At the conclusion of the contract it will be adjusted according to reality.)* | 0 | |
|  | Delivery of the original Implementation BG to the Client. | 14 days after 1 | 0 | 0,5 |
|  | Delivery of documents for construction readiness and basic engineering by the Contractor to the Client. | 31. 05. 2025 | 0,5 | |
|  | Delivery of documents for installation of the Equipment by the Contractor to the Client. | 30. 09. 2025 | 4,5 | |
|  | Delivery of the Equipment to the place of performance. | 10. 06. 2026 | 13 | |
|  | Successful completion of the Cold Commissioning by the Contractor; completion of a record of the successful completion of this Cold Commissioning. | 07.08.2026 | 14,75 | |
|  | Successful completion of the Hot Commissioning by the Contractor; completion of a report on the successful completion of this Hot Commissioning. | 14. 08. 2026 | 15 | |
|  | Successful completion of the Performance Tests by the Contractor; signing of Certificate of Delivery and Acceptance and handover of all Equipment to the Client. | 31. 08. 2026  (Contractual Completion Date) | 15,5 | |
|  | Delivery of the original Warranty BG to the Client. | 31. 08. 2026 | 15,5 | |

**Annex 4 – Performance Tests Parameters**

**GENERAL**

* 1. The Contractor must conduct on-site acceptance tests to verify grinding efficiency, quality, and compliance with the defined specifications.
  2. The acceptance tests shall take place at Alinvest’s facility, immediately after the completion of installation (erection and commissioning).
  3. The acceptance tests shall take place at Alinvest’s facility, immediately after the completion of installation (erection and commissioning).
  4. The Contractor shall carry out those tests by grinding two rolls from three types specified in Table 1 below. The possibility to repeat the tests is defined in the contract clause 6.21. The Contractor shall guarantee compliance with the required production tolerances, ensuring that the finished surfaces are free of chatter marks, feed lines, scratches, patterns, snowflowers and other surface defects. The accuracy of the roll and the roll’s area where it is supported shall be within the tolerances to be guaranteed.
  5. The test is considered successful if all defined acceptance criteria, including specified time limits, are met
  6. Upon successful completion of the test, the Client and Contractor shall sign the Certificate of Delivery and Acceptance, marking the beginning of the Warranty Period

Table 1 – Grinding parameters of rolls

|  |  |  |  |
| --- | --- | --- | --- |
| Roll Drawing no. | 60-10-33x-xxx | Q1 - 1459 | Q1 - 106AA |
| Material | according drawing | according drawing | according drawing |
| Max. diameter [mm] | 980 | 980 | 390 |
| Ground Length [mm] | 1598 | 1500 | 1500 |
| Hardness | 440 HB | 69-73 HSh "D" | 93 - 96 HSh "D" |
| Crown height [mm] | +0,25 | 0 | +0,03 |
| Requirements |  |  |  |
| Roughness Ra [μm] | 0,8-1 | 0,4-0,6 | 0,12-0,16 |
| Stock removal [mm] | 2 | 1 | 0,5 |
| Cambering [μm] | +/-3 | +/-3 | +/-3 |
| Ovality [μm] | +/-5 | +/-5 | +/-5 |
| Cycle time [min] | [to be added by the Participant] | ≤92 | ≤80 |
| Time for roll replacement [min] | ≤5 | | |
| Setup time [min] | [to be added by the Participant] | | |

**Note:**

*Stock removal and grinding tolerances are referred to diameter.*

*All of the following actions must be performed by a single operator.*

**Definitions**

* 1. **The cycle time includes**

Ultrasonic scanning, machining time, approach time, profile measurement, and Eddy Current inspection on the fly. The finished ground roll must fulfill the acceptance criteria. Roll loading and unloading time is excluded.

* 1. **Time for roll replacement includes**

Replacing a roll of the same type, measured from the completion of the grinding cycle of the previous roll to the start of the grinding cycle of the next roll. This time excludes the handling time required for securing the rolls onto the crane, crane operation and positioning of the driving collar. Grinding wheel: Neither replacement nor dressing and/or balancing is required. Alignment of the roll grinder is not necessary unless unforeseen events necessitate it (e.g., improper crane operation or similar incidents).

* 1. **Setup time includes**

Replacing roll „A“ with roll „B“, measured from the completion of the grinding cycle of the roll „A“ to the start of the grinding cycle of the roll „B“. The finished ground roll „B“ must meet the acceptance criteria, including cycle time. Setup time also includes the reconfiguration of interchangeable false jaws / bearing shoes, replacement of the grinding wheel, and all operations as per the procedure described in the machine manual. Handling time required for securing the rolls to the crane, positioning the driving collar, positioning the bearing shoes with the crane, and, in general, all crane operations, as well as the grinding cycle time of grinding roll „B“ is excluded.

**Tests Procedure**

* 1. **Test Preparation**

1. All necessary data is uploaded to the grinding machine.
2. The grinding technology is clearly defined and approved.
3. The grinding wheels are properly prepared and installed.
4. The **60-10-33x-xxx** roll is set up and clamped in the grinding machine.
   1. **Tests Execution**
5. **1st Test**

**Cycle Time 60-10-33x-xxx**

1. Start of measurement, initiation of grinding for the first roll 60-10-33x-xxx, according to the description in "Cycle time includes"
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
4. The roll remains clamped for the next test step.
5. **2nd Test**

**Time for Roll Replacement 60-10-33x-xxx**

1. Start of measurement, initiation of roll replacement to the second roll 60-10-33x-xxx, according to the description in "Time for roll replacement includes"
2. Upon completion of the replacement (the roll is ready for grinding), the measurement of time for roll replacement stops.

**Cycle Time 60-10-33x-**xxx (Immediately follows the previous part without any time delay)

1. Start of measurement, initiation of grinding for the second roll 60-10-33x-xxx, according to the description in "Cycle time includes"
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
4. The roll remains clamped for the next test step.
5. **3rd Test**

**Setup Time for Q1-106AA**

1. Start of measurement, initiation of roll replacement from 60-10-33x-xxx to Q1-106AA, according to the description in "Setup time includes"
2. Upon completion of the setup (the roll is set up for grinding), the measurement of time for setup time stops.

**Cycle Time Q1-106AA** (Immediately follows the previous part without any time delay)

1. Start of measurement, initiation of grinding for the first roll Q1-106AA, according to the description in "Cycle time includes"
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
4. The roll remains clamped for the next test step.
5. **4th Test**

**Time for Roll Replacement for Q1-106AA**

1. Start of measurement, initiation of roll replacement to the second roll Q1-106AA, according to the description in "Time for roll replacement includes."
2. Upon completion of the replacement (the roll is ready for grinding), the measurement of time for roll replacement stops.

**Cycle Time for Q1-106AA** (Immediately follows the previous part without any time delay)

1. Start of measurement, initiation of grinding for the second roll Q1-106AA, according to the description in "Cycle time includes"
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
4. The roll remains clamped for the next test step.
5. **5th Test**

**Setup Time for Q1-1459**

1. Start of measurement, initiation of roll replacement from Q1-106AA to Q1-1459, according to the description in "Setup time includes."
2. Upon completion of the setup (the roll is set up for grinding), the measurement of time for setup time stops.

**Cycle Time for Q1-1459** (Immediately follows the previous part without any time delay)

1. Start of measurement, initiation of grinding for the first roll Q1-1459, according to the description in "Cycle time includes"
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
4. The roll remains clamped for the next test step.
5. **6th Test**

**Time for Roll Replacement for Second Q1-1459**

1. Start of measurement, initiation of roll replacement to the second roll Q1-1459, according to the description in "Time for roll replacement includes."
2. Upon completion of the replacement (the roll is ready for grinding), the measurement of time for roll replacement stops.

**Cycle Time for Second Q1-1459** (Immediately follows the previous part without any time delay)

1. Start of measurement, initiation of grinding for the second roll Q1-1459, according to the description in "Cycle time includes."
2. Upon completion of grinding, the measurement of cycle time stops.
3. Followed by a quality inspection of the ground roll.
   1. **Test Conclusion**
4. Upon completion of each test, the results are evaluated.
5. The output consists of measured times and the quality of the ground surfaces.
6. If any metric does not meet the requirements, a root cause analysis and potential corrective actions are performed.
7. Upon successful completion of the tests, the finalization and approval process begin.