



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



PURCHASE CONTRACT

This purchase contract ("**Contract**") was concluded pursuant to section 2079 *et seq.* of the act no. 89/2012 Coll., Civil Code, as amended ("**Civil Code**"), on the day, month and year stated below by and between:

- (1) **Institute of Physics of the Academy of Sciences of the Czech Republic, a public research institution,**

with its registered office at: Na Slovance 2, Praha 8, PSČ: 182 21,

registration no.: 68378271,

represented by: RNDr. Michael Prouza, Ph.D. – director

("Buyer"); and

- (2) **PCS spol. s r.o.**

with its registered office at: Na Dvorcích 18/122, Praha 4, PSČ 140 00

registration no.: 00571024

represented by: Ing. Richard Eckstein, jednatel

enrolled in the commercial register kept by společnost je zapsána v obchodním rejstříku vedeném Městským soudem v Praze, oddíl C, vložka 527

("Seller").

(The Buyer and the Seller are hereinafter jointly referred to as "**Parties**" and individually as "**Party**".)

WHEREAS

- (A) The Buyer is a public contracting authority and the beneficiary of a grant of the Ministry of Education, Youth and Sports of the Czech Republic for a project "HiLASE Centre of Excellence", project reg.no. CZ.02.1.01/0.0/0.0/15_006/0000674 ("**Project**"), within the Operational Programme Research, Development and Education.
- (B) For the successful realization of the Project it is necessary to purchase the Object of Purchase (as defined below) in accordance with the Rules for the Selection of Suppliers within the Operational Programme Research, Development and Education.
- (C) The Seller wishes to provide the Object of Purchase to the Buyer for consideration.
- (D) The Seller's bid for the public procurement entitled "**Residual stress measurement device based on hole drilling method and electronic speckle pattern interferometry (ESPI)**",



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

whose purpose was to procure the Object of Purchase ("**Public Procurement**"), was selected by the Buyer as the most suitable.

- (E) The Seller acknowledges that the Buyer is not, in connection to the subject matter of this Contract, an entrepreneur, and also that the subject matter of this Contract is not related to any business activities of the Buyer.
- (F) The documentation necessary for the execution of the Contract is
- Technical Specifications, which forms an integral part hereof as its Annex 1 (hereinafter the "TS"); this TS also formed a part of the tender documentation for the Public Procurement in the form of Annex No.3,
 - The Seller's bid submitted for the Public Procurement, (hereinafter the "Sellers's Bid"); the Sellers's Bid forms form Annex 2 to this Contract and an integral part hereof.

IT WAS AGREED AS FOLLOWS:

1. BASIC PROVISIONS

- 1.1 Under this Contract the Seller shall deliver to the Buyer and install Hole Drilling machine and utilities that is described in Annex 1 (*Technical Specification*) to this Contract in the required quality, and with the properties and related performance described therein ("**Object of Purchase**") and shall transfer to the Buyer ownership right to the Object of Purchase, and the Buyer shall take over the Object of Purchase and shall pay the Seller the Purchase Price (as defined below), all under the terms and conditions stipulated in this Contract.
- 1.2 Under this Contract the Seller shall also carry out the following activities ("**Related Activities**"):
- a) Transport and delivery the Object of Purchase (including Certificate of Conformity, User/Maintanance manual) to the place of delivery;
 - b) Setup and installation of the Object of Purchase,
 - c) Provide training to the Buyer as specified in Annex 1 (*Technical Specification*) to this Contract; and
 - d) Cooperate with the Buyer during the performace of this Contract.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

2. THE TIME AND PLACE OF DELIVERY AND INSTALLATION

- 2.1 The Seller shall deliver the whole Object of Purchase and shall carry out Related Activities within **12 weeks** from the effectiveness of this Contract.
- 2.2 The place of delivery shall be Fyzikální ústav AV ČR v.v.i - HiLASE Centrum, Za Radnicí 828, 252 41 Dolní Břežany, Czech Republic or any other address in Dolní Břežany, Czech Republic, which the Buyer communicated to the Seller prior to the delivery of the Object of Purchase.
- 2.3 The Object of Purchase setup and installation shall not take longer than 30 working days from the day of delivery. The training under Art. 1.2.c of this Contract shall take place within 30 working days from the day of Object of Purchase setup and installation.
- 2.4 The Seller acknowledges that the deadlines stated in this Article are of essential importance to the Buyer with respect to the timeline of the HiLASE CoE Project with respect to the deadline by which the Project are to be implemented, and that the Buyer could incur damage as a result of failure to meet the above stipulated deadlines.

3. THE OWNERSHIP RIGHT

The ownership right to the Object of Purchase shall be transferred to the Buyer upon the signature of the handover protocol (delivery note).

4. PRICE AND PAYMENT TERMS

- 4.1 The purchase price for the Object of Purchase is **99555 EUR** ("**Purchase Price**") without value added tax ("**VAT**"). VAT will be paid in accordance with the applicable legal regulations.
- 4.2 The Purchase Price cannot be exceeded and includes all costs and expenses of the Seller related to the performance of this Contract. The Purchase Price includes, among others, all expenses related to the handover of the Object of Purchase and execution of Related Activities, costs of copyright, insurance, customs, warranty service and any other costs and expenses connected with the performance of this Contract.
- 4.3 The Purchase Price for the Object of Purchase shall be paid on the basis of a tax document – invoice, to the account of the Seller designated in the invoice. The Purchase Price shall be paid after the signature of the handover protocol (delivery note).



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

- 4.4 The Buyer shall realize payments on the basis of duly issued invoice within 30 days from their receipt. The invoice shall be issued only after the handover protocol (delivery note) signature.
- 4.5 The invoice issued by the Seller as a tax document must contain all information required by the applicable laws of the Czech Republic. Invoices issued by the Seller in accordance with this Contract shall contain in particular following information:
- a) Name and registered office of the Buyer,
 - b) Tax identification number of the Buyer,
 - c) Name and registered office of the Seller,
 - d) Tax identification number of the Seller,
 - e) Registration number of the tax document,
 - f) Scope of the performance under this Contract (including the reference to this Contract),
 - g) Date of the issue of the tax document,
 - h) Date of the fulfilment of the Contract in line with Art. 1.1 and 1.2. of this Contract,
 - i) Purchase Price,
 - j) Registration number of this Contract, which the Buyer shall communicate to the Seller based on Seller's request before the issuance of the invoice,
 - k) Declaration that the performance of the Contract is for the purposes of Project „HiLASE Centre of Excellence”, project reg.no. CZ.02.1.01/0.0/0.0/15_006/0000674.
- and must also comply with any double taxation treaties applicable to the given case.
- 4.6 The last invoice in each calendar year must be delivered by the Seller to the Buyer's no later than by December 15 of the given calendar year. In case that the invoice shall not contain the above mentioned information or the invoice does not comply with the requirements stipulated by law or the invoice is delivered to the Buyer later than by December 15 of the given calendar year, the Buyer is entitled to return it to the Seller during its maturity period and this shall not be considered as a default. The new maturity period shall begin from the receipt of the supplemented or corrected invoice to the Buyer.
- 4.7 The Buyer's invoicing details are set out in provision (1) hereof.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

5. SELLER'S RIGHTS AND DUTIES

- 5.1 The Seller shall ensure that the Object of Purchase and Related Activities are in compliance with this Contract including all its annexes and applicable legal (e.g. safety), technical and quality norms.
- 5.2 During the performance of this Contract the Seller proceeds independently. If the Seller receives instructions from the Buyer, the Seller shall follow such instructions unless these are against the law or in contradiction to this Contract. If the Seller finds out or should have found out if professional care was exercised that the instructions are for any reason inappropriate or illegal or in contradiction to this Contract, then the Seller must notify the Buyer.
- 5.3 All things necessary for the performance of this Contract shall be procured by the Seller, unless this Contract stipulates otherwise.

6. HANDOVER OF THE OBJECT OF PURCHASE

- 6.1 Handover and takeover of the Object of Purchase shall be realized on the basis of a handover protocol (delivery note), which shall be signed during Object of Purchase setup and installation and which shall contain following information:
 - identification of the Seller, the Buyer and all subcontractors, if there are any,
 - description of the Object of Purchase,
 - the list of defects and deficiencies of the Object of Purchase, if there are any, and the deadlines for their removal,
 - the signature and the date of the handover.
- 6.2 Instructions and manuals shall be attached to the Handover protocol.
- 6.3 If the Seller fails to duly carry out all Related Activities or if the Object of Purchase does not meet requirements of this Contract, the Buyer is entitled to refuse the takeover of the Object of Purchase. In such a case the Seller shall remedy the deficiencies within fourteen (14) calendar days, unless Parties agree otherwise. The Buyer is entitled (but not obliged) take over the Object of Purchase despite the above mentioned deficiencies, in particular if such deficiencies do not prevent the Buyer in the proper operation of the Object of Purchase. In such a case the Seller and the Buyer shall list the deficiencies in the handover protocol, including the manner and the date of their removal (remedy). If the Parties do not reach agreement in the handover protocol regarding the date of the removal, the Seller shall remove the deficiencies within fourteen (14) calendar days.
- 6.4 Parties hereby exclude application of section 2126 of the Civil Code.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

7. WARRANTY

- 7.1 The Seller hereby provides a warranty of quality of the Object of Purchase for the period of 24 months. If the warranty list or other warranty document provides for the warranty period of longer duration, then this longer warranty period shall have priority over the period stated in this Contract.
- 7.2 The warranty period shall commence on the day of the signature of the handover protocol by both Parties. However, if the Object of Purchase is taken over with defects or deficiencies, the warranty period shall commence on the date of the removal of the last defect or deficiency by the Seller.
- 7.3 The Seller shall remove defects that occur during the warranty period free of charge.
- 7.4 If the Buyer ascertains a defect of the Object of Purchase during the warranty period, the Buyer shall notify such defect without undue delay to the Seller ("**Warranty Claim**"). Defects may be notified on the last day of warranty period, at the latest; an email is considered to be an adequate way to initiate a Warranty Claim. Warranty Claim sent by the Buyer on the last day of the warranty period shall be deemed to have been made in time.
- 7.5 The Buyer notifies defects in writing via e-mail. The Seller shall accept notifications of defects on the following e-mail address: analytika@pcs.cz.
- 7.6 In the Warranty Claim the Buyer shall describe the defect and the manner of removal of the defect. The Parties shall agree on the manner of defect's removal. If the Parties do not reach the agreement, the Buyer has the right to:
- a) request removal of the defect by the delivery of Object of Purchase or its individual parts, or
 - b) request removal of the defect by repair, or
 - c) request adequate discount from the Purchase Price.

The choice among the above mentioned rights shall be made by the Buyer. However, in case of a removable defect that occurs for the first time the Buyer shall not request removal of the defect by delivery of new Object of Purchase or its individual parts.

- 7.7 The Seller shall remove the defect within fourteen (14) calendar days from the date on which the Warranty Claim was notified to the Seller, at the latest, unless the Buyer and the Seller agree otherwise.
- 7.8 The Seller shall remove defects of the Device within periods stated in the Contract also in the instances when the Seller is of the opinion that he is not liable



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

for such defects. In cases when the Seller will not recognize the defect and the Buyer will not agree with such conclusion, the validity of the Warranty Claim shall be ascertained by an expert, which is to be commissioned by the Buyer but with whom the Supplier also must agree. In the event the expert declares the Warranty Claim as justified, the Seller shall bear the costs of the expert's assessment. If the Warranty Claim is raised unjustly according to expert's assessment, the Buyer shall reimburse the Seller all reasonably incurred costs associated with removing the defect.

- 7.9 Parties shall execute a protocol on the removal of the defect, which shall contain the description of the defect and the confirmation that the defect was removed. The warranty period shall be extended by the time that expires from the date of exercising the Warranty Claim until the defect is removed in cases where the Buyer was prevented from using the Object of Purchase for its intended purpose.
- 7.10 In case that the Seller fails to remove the defect within time stipulated in this Contract or if the Seller refuses to remove the defect, then the Buyer is entitled to remove the defect at his own costs and the Seller shall reimburse these costs within thirty (30) calendar days after the Buyer's request to do so.
- 7.11 The warranty does not cover defects caused by unprofessional handling or by the failure to follow Seller's instructions for the operation and maintenance of the Object of Purchase.
- 7.12 Parties exclude application of the section 1925 (the sentence behind semi-colon) of the Civil Code.
- 7.13 The Seller shall provide to the Buyer technical support (consultation of operational, maintenance and other issues regarding the Device) free of charge on the phone no.: +420 603 773 357.

8. **TERMINATION, RIGHT OF WITHDRAWAL, CONTRACTUAL PENALTIES**

- 8.1 This Contract may be terminated by completing the performance required hereunder, by agreement of the Parties or by withdrawal from the Contract on the grounds stipulated by law or in the Contract.
- 8.2 The Buyer is entitled to withdraw from this Contract, if any of the following circumstances occur:



- (a) the Seller has materially breached obligations imposed by the Contract, specifically by being in delay with the fulfilment of this Contract and such delay lasts more than 6 weeks; or
- (b) the Seller has materially breached obligations imposed by the Contract, specifically Object of Purchase fails to meet technical parameters and qualities or other requirements defined in the Annex 1 (Technical Specification);
- (c) the insolvency proceeding is initiated against the Seller's assets;
- (d) the funding body providing finances for the Project ("Financial subsidy") or any other control body determines that the expenditures or part of the expenditures incurred on the basis of this Contract are ineligible;
- (e) the Financial subsidy for implementation of the Project is withdrawn from the Buyer; or

should it become apparent that the Seller provided information or documents in the Seller's bid, which were not true and which could, therefore, influence the outcome of the Procurement Procedure leading to the conclusion of this Contract (Section 223(2)(b) of the Act No. 134/2016 Coll., on public procurement).

- 8.3 The Seller is entitled to withdraw from the Contract in the event of material breach of the Contract by the Buyer and in case of events outside the control of the Seller (e.g. natural disasters, etc.).
- 8.4 In the event the Seller is in delay with term of delivery as stipulated in Art. 2 herein, the Seller shall pay to the Buyer the contractual penalty in the amount of 0.1% of the Purchase Price for each, even commenced calendar day of delay.
- 8.5 In the case where the Seller fails to remove defects within the periods stipulated in the Contract, the Seller shall pay to the Buyer a contractual penalty in the amount of 500.00 CZK for each defect and for each calendar day of delay.
- 8.6 If the Buyer fails to pay the Purchase Price or the Price for Services within the deadlines set out in this Contract, the Buyer shall pay the Seller interest on delay in the amount set forth by the law for each day of delay unless the Buyer proves that the delay with the payment of the Purchase Price was caused by late release of the Financial subsidy for the Project by the funding body.
- 8.7 The obliged party must pay any contractual penalties to the entitled party not later than within fifteen (15) calendar days of the date of receipt of the relevant claim from the other party.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

8.8 Payment of the contractual penalties pursuant to this Article shall in no way prejudice the Buyer's right to claim compensation for damage incurred by the Buyer as a result of the Seller's breach of obligations to which the penalty applies.

8.9 The Parties have agreed that the maximal amount of contractual penalties shall be limited to 10% of the Purchase Price.

9. SPECIAL PROVISIONS

By signing this Contract, the Seller becomes a person that must cooperate during the finance control within the Act no. 320/2001 Coll., on finance control in the public administration, and shall provide to the Directing Body of the Operational Programme Research, Development and Education or other control bodies (such as, but not only, European Commission, European Court of Auditors) access to all parts of the bid, Contract or other documents that are related to the legal relationship formed by this Contract. This duty also covers documents that are subject to the protection in accordance with other acts (business secrets, secret information, etc.) provided that control bodies fulfil requirements stipulated by these acts. The Seller shall secure that all its subcontractors are also obliged to cooperate with control bodies in the above stipulated extent. The Seller shall secure that all its subcontractors are also obliged to cooperate with control bodies in the above stipulated extent. The Seller is obliged to duly archive all written material prepared in connection with the execution of this Contract and to provide access to the Buyer to these archived documents until 2027; any finance control may also be carried out until year 2027.

10. FINAL PROVISIONS

10.1 This Contract is governed by the laws of the Czech Republic, especially by the Civil Code.

10.2 All disputes arising out of this Contract or out of legal relations connected with this Contract shall be preferably settled by a mutual negotiation. In case that the dispute is not settled within sixty (60) calendar days, such dispute shall be decided by courts of the Czech Republic in the procedure initiated by one of the Parties.

10.3 All modifications and supplements of this Contract must be in writing.

10.4 In the event that any of the provisions of this contract shall later be shown or determined to be invalid, putative, ineffective or unenforceable, then such invalidity, putativeness, ineffectiveness or unenforceability shall not cause invalidity, putativeness, ineffectiveness or unenforceability of the Contract as a whole. In such event the Parties undertake without undue delay to subsequently clarify any such provision using Sec 553(2) of the Civil Code, or to replace after



mutual agreement such invalid, putative, ineffective or unenforceable provision of the Contract by a new provision, that in the extent permitted by the laws and regulations of the Czech Republic, relates as closely as possible to the intentions of the Parties to the Contract at the time of creation hereof.

- 10.5 The Parties agree that the Seller shall not be entitled to set off any part of its receivable, or receivable of its sub-debtor against the Buyer or any of his receivables, unless this Contract stipulates otherwise. The Seller shall not be entitled to assign any receivable arising in connection herewith to a third party. The Seller shall not be entitled to assign any rights or obligations arising to him hereunder or any of its parts to third parties.
- 10.6 The Parties declare that they accept the “risk of changed circumstances” within the meaning of Sec 1765(2) of the Civil Code.
- 10.7 The Parties declare that they shall maintain confidentiality with respect to all facts and information they learned in connection with the Contract or during the performance of the Contract, and the disclosure of such facts or information could cause damage to the other Party. This confidentiality provision does not affect duties of Parties with respect to applicable legislation.
- 10.8 This Contract is executed in four (4) counterparts and every Party shall receive two (2) counterparts.
- 10.9 The following Annexes form an integral part of the Contract:
- **Annex No. 1:** Technical Specifications Document (If Annex 1 uses the term “Contracting Authority” or “contracting authority” it means Buyer. If Annex 1 uses the term “Supplier” or “supplier”, it means Seller);
 - **Annex No. 2:** The Seller’s Bid.

In case of any discrepancies between this Contract and its annexes, the provisions of this Contract shall prevail. In case of any discrepancies between Annex No. 1 and the other annexes of this Contract, the provisions of Annex No. 1 shall prevail.

- 10.10 This Contract shall be valid and effective on the date of the signature of both Parties.
- 10.11 The Parties agree to publish the full text of this Contract, including its annexes, in the Register of Contracts pursuant to Act No. 340/2015 Coll., on Special Conditions for the Effectiveness of Certain Contracts, the Disclosure of These



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

Contracts and the Register of Contracts, as amended (Act on the Register of Contracts).

IN WITNESS WHEREOF attach Parties their handwritten signatures:

Buyer

Signature: _____

Name: RNDr. Michael Prouza, Ph.D.

Position: director

Date: _____

Seller

Signature: _____

Name: Ing. Richard Eckstein

Position: jednatel

Date: _____



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



ANNEX 1

TECHNICAL SPECIFICATION

(NOTE: Annex No 3 to the Invitation to bid for the Public Procurement shall be attached hereto by the Contracting Authority before signature hereof by the Contracting Authority after the Public Procurement procedure is finished)



Annex 3 – Technical Specifications

No.	The subject of the procurement	RESIDUAL STRESS MEASUREMENT DEVICE BASED ON HOLE DRILLING AND ELECTRONIC SPECKLE PATTERN INTERFEROMETRY (ESPI)	Qty.
1.	Description	A device for the residual stress measurements which is based on hole drilling method and electronic speckle pattern interferometry measurement of the released stress. The system has to enable measurement of residual stress in a contactless way – without applying strain gauges. Drilling process shall be fully automated with a drill which speed can be controlled from 5.000 – 50.000 rpm. In offer shall be included a light source, a camera for the detection, sample clamp, fiber optic cables coupling laser to illumination and video heads. Warrenty period shall be at least two years.	1
	Additional items	Description of additional items	
2.	Software	Software shall enable the calculation of the residual stress, generation of graphs for individual measurements and comparisons, controlling the	1



		drill, stage and chip removal air. Software shall be windows based, operation under the Windows 7 or higher version.	
3.	Breadboard	Large-sized breadboard with dimensions not exceeding 600mm x 1200mm	1
4.	Isolation table	Isolation table for absorbing the vibration in order to avoid influence of vibration on the measurement	1
5.	LED bulb	LED light with a swan neck, continuous brightness control	1
6.	Bend test fixture	Generation of stresses in samples in aluminum and steel samples	1
7.	Setup and installation of the system	Setup and installation of the system on site, including calibration and test measurements. Duration of the installation – 0.5 days	1
8.	Training	Training of 3 operators in basic of measurements, handling of the system, operation with the software. Duration of the training – 3 days.	1
		The measurement of the residual stress up to 2 mm depth, material under testing Aluminum and Aluminum alloys	100
		The measurement of the residual stress up to 2 mm depth, material under testing Titanium and Titanium alloys, Stainless steel	100



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



		The measurement of the residual stress up to 1 mm depth, material under testing Aluminum and Aluminum alloys	200
		The measurement of the residual stress up to 1 mm depth, material under testing Titanium and Titanium alloys, Stainless steel	200



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

ANNEX 2
SELLER'S BID



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



Mr. Michael Prouza

director

Institute of Physics

Na Slovance 2

Prague July 18th 2017

QUOTATION Z40-2017 ESPI HOLE DRILLING SYSTEM

- 1. General:** Residual stress measurements with Prism hole drilling method is the new way to measure stresses. Traditionally hole drilling needs the sample preparation for strain gages. With the Prism laser interferometer method the samples preparation is not needed. Residual stress can be calculated in every directions, which makes the accuracy much better. The measurements are fast, it just takes some minutes to make a stress profile. Prism system is a laboratory unit and the measurements can be made on the flat surfaces.

This product is based on Stresstech specifications. The components are according to Stresstech's standard procedures.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

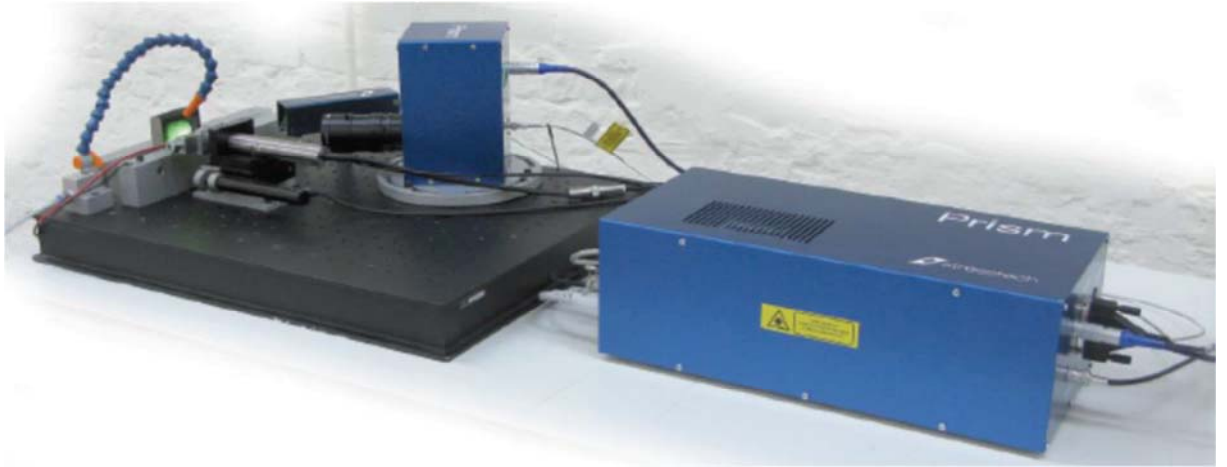


Fig. 1: PRISM ESPI system

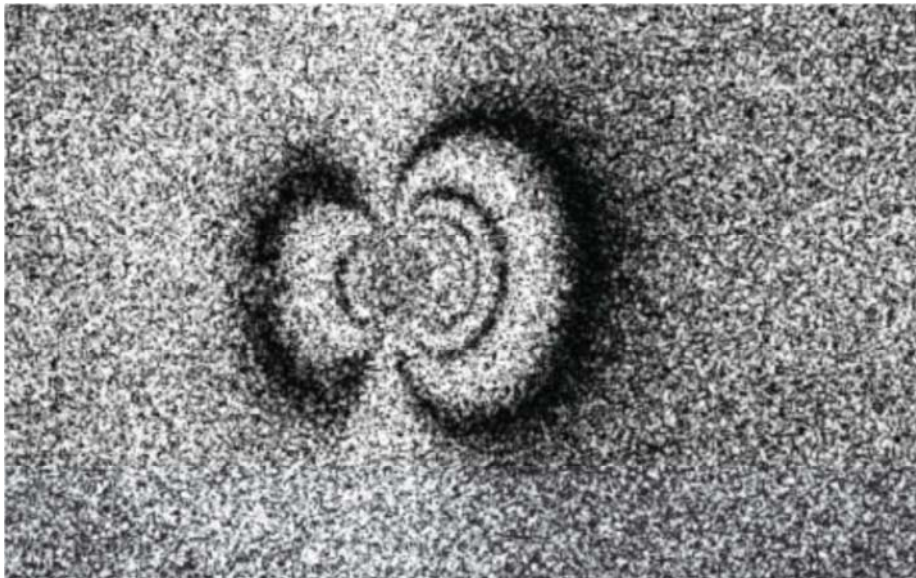


Fig. 2: Speckle pattern around bore hole at a
sample with residual stresses

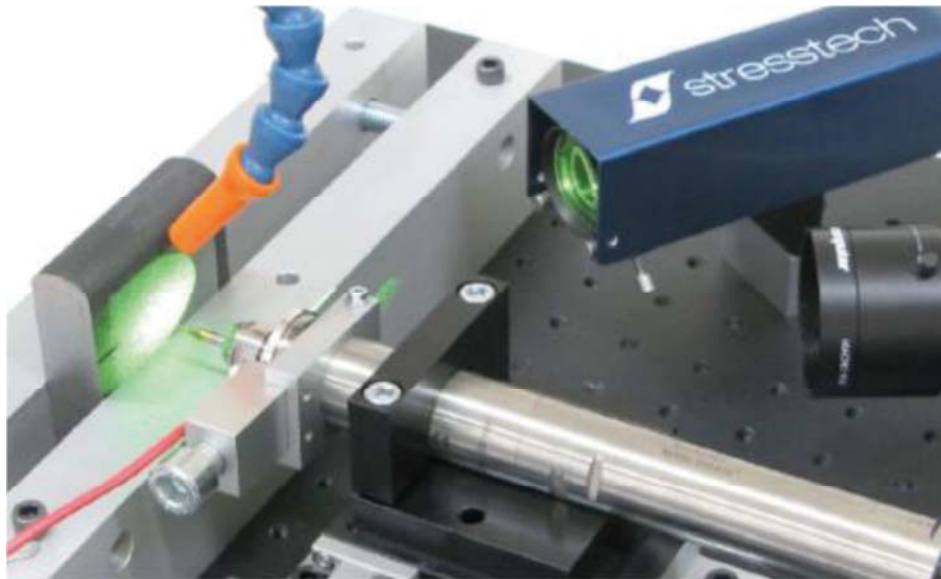


Fig. 3: PRISM ESPI System, illuminated probe

2. PRISM: PRISM system with Ethernet interface and software for data evaluation.

The system consists of the following components:

2.1 Prism ESPI Residual Stress System

- Light source with 25 mW DPSS green laser and controller
- Video Head with 256K CCD camera, imaging optics and mounting base
- Illumination head and collimation optical lenses, mounting base
- Fiber optic cables coupling laser to illumination and video heads, armored
- Electric drill with variable speed control (5-50,000 rpm), electric feedback to maintain constant speed during drilling, low run out head for accurate diameter drilling
- Sample clamp



- Pressurized air box
- Hard-sided suitcase for storing and shipping the Prism ESPI system

2.2. PRISM-RS software package

- PrismS software package for Stress analysis: calculates stress depth profiles using the Integral Method; generates graphs for Individual measurements and comparisons. Works with any illumination and observation angle. Controls drill, stage and chip removal air. Fully automatic drilling option
- The software is a Windows based Stresstech product, including documentation. operating system is Windows 7 or higher version.
- Including operating instructions for software and hardware *in english language.*

PRISM system

Basic system 78.780,-€

3. Options: Options are available for Prism system as specified

3.1 Big breadboard

Large-sized breadboard, dimensions
approx. . 600mm x 1.200mm, metrical
thread, surface of stainless steel

1.420,-€

3.2 Isolation table



Solid steel frame construction with
granite plate, approx. 120mm thick,
Isolation by using air spring elements

2.875,-€

3.3 LED bulb

LED light bulb with swan neck,
continuous brightness control

210,-€

3.4 Bend test fixture

Generate stresses in samples of various materials
Includes aluminum (2) and steel samples (2)

2.190,-€

3.5 Computer and electronic system

Current basic laptop model Lenovo

1.600,-€

4. Consumables

4.1 **End mill tap** 1/32", 2-flute TIN coated, 400 pcs.

24,50 € each 9.800,-€

4.2 **End mill tap** 1/16", 2-flute TIN coated, 200 pcs.

22,60 € each 4.520,-€

5. Laser safety:

Used laser light has 25mW output; therefore it is classified as 3B laser.

Maximum visible output is under 5mW.

While locally installation laser output will be controlled with a calibrated laser
light measurement system.



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



Safety instructions after class 3R laser are valid for PRISM system. A certificate about 3R laser measurement system will also be delivered.

The beam axis will not cause any health on eyes. Laser protection glasses are not necessary.

The warnings required by law are indicated in the manual and as warning signs on the PRISM system. If necessary, please contact us regarding your valid laser safety regulations.

6. Installation and training:

Setup and installation of PRISM systems, including calibration, test measurements. training for up to 3 operators in: Basics of measurement method, justification of the device, handling of the systems, operating with the software. Duration usually approx. 3,5 days.

Installation and training on site, approx. 3,5 days.

4.800,- €

7. Warranty: 24 months for all Stresstech devices.

8. Validity: This quotation is valid up to 18.09.2017.

9. Pricing term:

All prices net without VAT and non-binding FCA, Stresstech Oy, Vaajakoski, Finland. Incoterms 2010. Costs for insurance and shipping are offered optionally. We quote and deliver exclusively for the conditions mentioned in this quotation.

10. Packing: Package in solid Pelicase for the standard system
Pelicase hard-top case inclusive



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



11. Shipment Insured shipment to CZ

Shipment CIP, Incoterms 2010

360,- €1

12. Order acceptance:

The order is only accepted by a written acknowledgement of PCS,
if needed based on a specification sheet signed together by PCS
and customer.

13. Terms of payment:

Within 14 days net. All delivered items will stay property of PCS
until complete payment.

14. Delivery time:

After receipt of order and technical clearness approx- 12 to 16 weeks.

For queries and further information, please do not hesitate to contact us..

15. Special discount:

Special discount for Institute of Physics

-7.000,-€

Total price for complete system in Břežany without VAT

99.555 EUR

Yours Sincerely

Jiří Malec, PCS representative



EUROPEAN UNION
European Structural and Investing Funds
Operational Programme Research,
Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

Appendix:

Specification of similar systems delivered by PCS in CZ/SK in the past:

1. Robotized residual stress determinator X-Stress Robot for Bonatrans a.s., CZ735 94 Bohumín in value over 250000EUR; installed in 2015. Contact person Mr. Bohuslav Řeha, tel. 607220944, breha@bonatrans.cz
2. Residual stress determinator X-Stress 3000 for Schaeffler Kysuce a.s. SK 024 01 Kysucké Nové Město in the level over 180000EUR installed 2014 and 15, contact person Mr. Rastislav Mintách, +421(41)420 6692, mintarst@schaeffler.com

no.	Title	Pieces	Description of item	Price per piece (EUR excl. VAT)	Total price (EUR excl. VAT)
1	A device for the residual stress measurements which is based on hole drilling method and electronic speckle pattern interferometry (ESPI) measurement of the released stress.	1	A system for the measurements of the residual stress based on hole drilling machine and electronic speckle pattern interferometry. System shall consist of drilling machine with all accessories which is necessary for the operation of the system and the detection system based on electronic speckle pattern interferometry (ESPI) with all necessary accessories which is necessary for the operation of the system.	78780	78780
2	Software	1	Software which enables the calculation of residual stress, generation of graphs for individual measurements and comparisons, controlling the drill, stage and chip removal air.	0	0
3	Breadboard	1	Large-sized breadboard with dimensions not exceeding 600mm x 1200mm	1420	1420
4	Isolation table	1	Isolation table for absorbing the vibration in order to avoid influence of vibration on the measurement	2875	2875
5	LED bulb	1	LED light with a swan neck, continuous brightness control	210	210
6	Bend test fixture	1	Generation of stresses in samples in aluminum and steel samples	2190	2190
7	Setup and installation of the system	1	Setup and installation of the system on site, including calibration and test measurements. Duration of the installation – 0.5 days	600	600
8	Training	1	Training of 3 operators in basic of measurements, handling of the system, operation with the software. Duration of the training – 3 days.	4200	4200
9	Drills	100	Drills for the measurement of the residual stress up to 2 mm depth, material under testing Aluminum and Aluminum alloys	22,6	2260
		100	Drills for the measurement of the residual stress up to 2 mm depth, material under testing Titanium and Titanium alloys, Stainless steel	22,6	2260
		200	Drills for the measurement of the residual stress up to 1 mm depth, material under testing Aluminum and Aluminum alloys	24,5	4900
		200	Drills for the measurement of the residual stress up to 1 mm depth, material under testing Titanium and Titanium alloys, Stainless steel	24,5	4900
Total					104595

Additional items for 1960EUR add and special discount -7000EUR used!

Total price quoted 99555EUR.