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Request for quotation

Subject of inquiry:

Delivery of control system of hydraulic test rig

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1. QUOTATION INFORMATION

1.1. Purpose of the RFQ

Purpose of this RFQ is to find potential suppliers for the control system of the hydraulic test rig. A detailed specification of the delivery scope is presented in this document. The contract will be signed with the Tenderer that will provide most attractive offer signed by authorized person.

1.2. Time of the offer submission

- a. The offers shall be submitted from 26th September 2017 to 04th October 2017, 14:00 (2:00 PM) at the latest. The offers submitted after this time will not be considered.
- b. The Tenderers can submit technical questions regarding the subject of the order or the tendering process until 29th September 2017.
- c. The Ordering Party will answer the questions from Tenderers until 02nd October 2017.

1.3. Ordering Party

UTC Aerospace Systems Wrocław Sp. z o.o.,

Bierutowska 65-67,

51-317 Wrocław

phone: + 48 71 714 8009

fax: + 48 71 714 8014

Tax : 701- 00- 46- 036 REGON: 140756442

1.4. Submission of the offers

- a. The offers shall be submitted via e-mail to agnieszka.sliwka@utas.utc.com or sent by post to the address of the Ordering Party or submitted personally in UTC Aerospace Systems Wrocław. Correspondence should be addressed to Mrs. Agnieszka Śliwka.
- b. All correspondence regarding the tendering process will be carried out via e-mail to agnieszka.sliwka@utas.utc.com.
- c. All technical questions regarding the subject of the order shall be delivered to Mrs. Agnieszka Śliwka via email to: agnieszka.sliwka@utas.utc.com.
- d. Offers submitted in the tendering process will be considered as confidential business information.

1.5.Short description of the subject of the order

Subject of the order is delivery of the control system of the hydraulic test rig.

1.6.Place of delivery

Tenderer is obliged to delivery the subject of the order to UTC Aerospace Systems Wroclaw site.

2. DESCRIPTION OF THE SUBJECT OF THE ORDER

2.1.Purpose of the order

The purpose of the order is delivery of the control system of hydraulic test rig. This tendering process is conducted in accordance with the competition rules described in the guidelines on the eligibility of expenditure under the European Regional Development Fund, the European Social Fund and Cohesion Fund 2014-2020. Offers shall fulfill internal UTC Aerospace Systems Wroclaw requirements concerning Supplier code of conduct, that is attached to this request for quotation.

2.2.Subject of the order

Subject of the order is delivery of the control system of hydraulic test rig. The scope of delivery include the control system with interface devices to the system and software only. Cables, servovalves, solenoid valves hydraulic blocks and any other elements of the test rig are not in the scope of delivery. The block diagram of the test rig with the scope of delivery marked in red is presented on Fig. 1 only for information purposes.

CPV code and name are: 38542000-6 "Servo-hydraulic testing equipment".

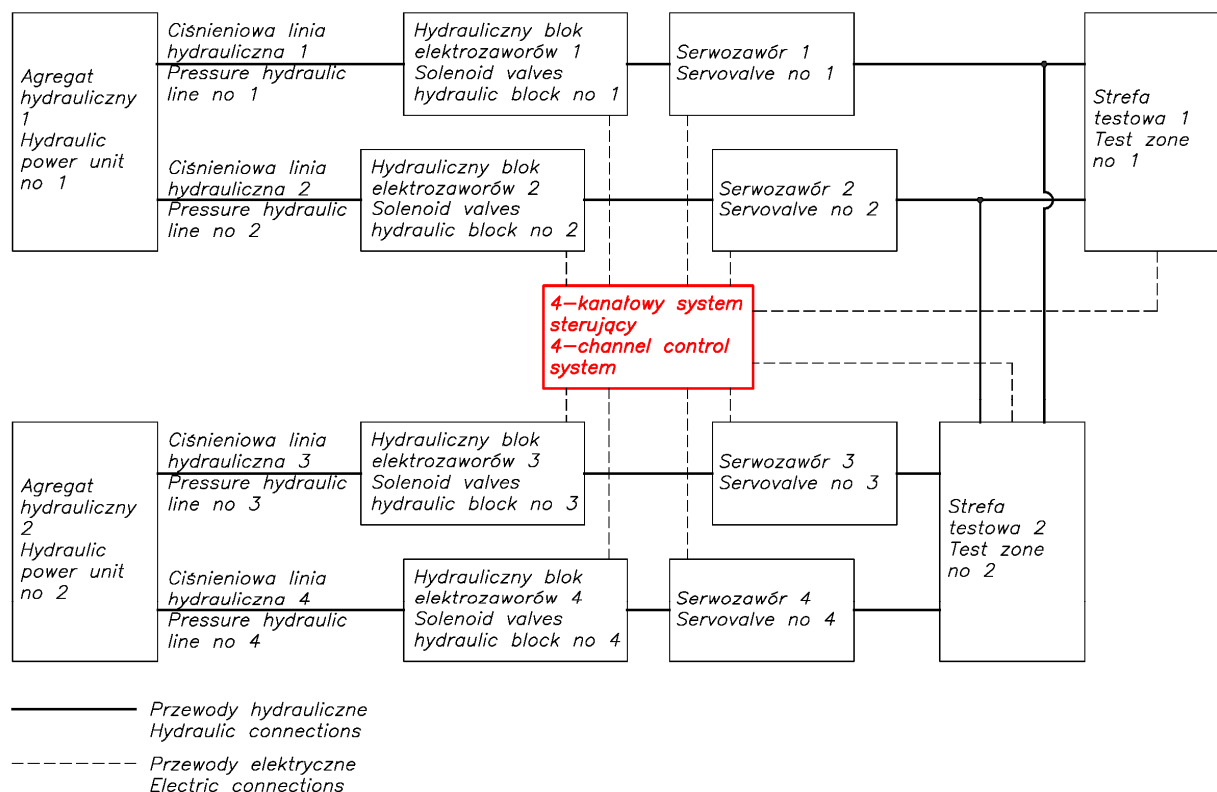


Fig. 1. Block diagram of the test rig.

The test rig is equipped with two hydraulic power packs. There are two outlet hydraulic pressure lines in each hydraulic power pack (4 controlled pressure lines in total). The power packs are controlled manually and not connected to the control system which is scope of delivery. Each hydraulic line has separate control, which consist of solenoid valves hydraulic block to switch on/off the pressure and 2-stage servovalve to control the hydraulic fluid parameters, which is transfer directly to the test zone. The tested unit and measuring transducers connected to closed control loops are mounting in test zone. All elements of the test rig excluding hydraulic power packs will be energize by 230VAC 1-phase voltage. The scope of delivery requirements are included in p.3.1.

2.3.Service

It is required to provide maintenance services of control system to ensure its correct, continuous and failure-free operation in the period of warranty.

2.4. Contractual penalties

The failure to meet the offered delivery date of the subject of the order to the Ordering Party, due to reasons attributable to the Supplier, will lead to a contractual penalty paid by the Supplier to the Ordering Party in the amount as indicated in the following table:

No. of working days	Contractual penalties for each subsequent working day of delay
1-15 days	0% net value of the order
16-30 days	0.1% net value of the order
31 days and more	0.5% net value of the order

2.5. Order delivery date

The order will be realized immediately upon completion of this request for quotation procedure and signature of the contract. The date of delivery realization is 31st of January 2018. Maintenance services are to be provided within the warranty period.

2.6. Attachments

Following attachments to this request for quotation will be sent to the Tenderers by Mrs. Agnieszka Śliwka (agnieszka.sliwka@utas.utc.com) at the request of the Tenderers:

Attachment no. 1 UTC Supplier code of conduct,

Attachment no. 2 Statement of the absence of interconnections between the entities cooperating,

Attachment no. 3 Contractors and Suppliers Selection Policy by UTC Aerospace Systems Wrocław.

2.7. Additional conditions to participate in the tendering process

- a. No variant offer is allowed.
- b. Offer validity period shall be minimum 60 days.
- c. Delivery time must be specified, counted from the date of contract signing.
- d. The offers can be submitted only by Tenderers who:
 - Are authorized to carry out particular activities that are part of the order, if such authorization is required by the law.



The Ordering Party will recognize the above condition as fulfilled if the Tenderer submits the offer with a declaration of fulfillment of this condition. Depending on the submitted statement, the above condition will be recognized as - fulfilled/ not-fulfilled.

- Are carrying out activities similar to the subject of the order for the time of at least 3 years before the deadline for submitting of the offer.

The Ordering Party will recognize the above condition as fulfilled if the Tenderer submits the offer with a declaration of fulfillment of this condition. Depending on the submitted statement, the above condition will be recognized as - fulfilled/ not-fulfilled.

- Possess and agree to maintain for the entire period of validity the offer, commercial liability insurance - not less than 3,000,000.00 PLN Polish Zloty.

The Ordering Party will recognize the above condition as fulfilled if the Tenderer submits the offer with a copy of the insurance policy.

- Possess ISO 9001 certification

The Ordering Party will recognize the above condition as fulfilled if the Tenderer submits the offer with a portfolio presenting the experience of the Tenderer and a copy of ISO 9001 certificate. Depending on the submitted documents, the above condition will be recognized as - fulfilled/ not-fulfilled.

- e. Each Tenderer may submit only one offer.
- f. The offer must be signed by persons who have the authority to act on behalf of the Tenderer. It means, that in case the documents stating the legal status of the Tenderer or the power of attorney provided indicate that the Tenderer is legally represented by several persons, the offer shall be signed by all of them.
- g. The authorization of the persons signing the offer must arise explicitly from the documents attached to the offer. If such authorization does not arise explicitly from the document stating the legal status of the Tenderer (a copy of the relevant register or a certificate of entry in the business register), the offer must be accompanied with the original or certified copy of the relevant power of attorney issued by persons authorized to do so.
- h. The templates of documents attached to this request for quotation must be completed and attached to the offer by the Tenderer.
- i. The cost of preparation and delivery of the offer is covered by the Tenderer.



- j. The Ordering party allows for meetings and teleconferences with Tenders during the period of the offer submission to detail requirements. After the meeting or teleconference there will be summary prepared.

2.8. Offer form

- a. The complete offer should be submitted in a form that prevents from being accidentally disassembled.
- b. It is desirable to number all pages of the offer and it is required to sign them all separately by the authorized person(s) signing the offer. Pages containing information not required by the Ordering Party (e.g. brochures about the company, its activities, etc.) do neither require the numeration nor the signature.
- c. Offer should be as detailed as possible.
- d. All deletions and changes made by the Tenderer to the pre-typed text must be initialed by the person(s) signing the offer; date shall be included.
- e. Documents may be presented in the form of originals or certified by the Tenderer as a true copy of the original. Statements submitted using attachments to this RFQ should be submitted in the original form. Certification to be a true copy of all recorded pages of copies of documents included in the offer must be confirmed by the authorized person(s) signing the offer.
- f. The Ordering Party may request presentation of the original or a notarized certified copy of the document only if the copy of the document delivered by the Tenderer is illegible or the Ordering Party has reasonable doubts regarding its authenticity, or cannot verify its authenticity otherwise.

2.9. Processing of the offers

- a. The Ordering Party Tender Committee investigates whether the offers meet formal requirements. Offers that do not meet formal requirements will be rejected and will not be evaluated.
- b. The Ordering Party may ask Tenderer for explanation about offer content to clearly state if requirements are achieved. It can be organized as a meeting or teleconference or via e-mails and after the meeting or teleconference summary will be prepared.



- c. The Ordering Party Tender Committee evaluates offers that were not rejected for formal reasons. Offers will be reviewed by the Ordering Party and the supplier selection protocol will be prepared.
- d. The Ordering Party will be turned to the Tenderer within specified date about clarification of the quotation elements which has influence for price level to determine if offer includes abnormally low price or abnormally high price in relation to the subject of the order. The Ordering Party reserves the right to exclude Tenderer from further process if the Tenderer will not submit explanations or if the prepared evaluation of explanations confirms that offer contains abnormally low price or abnormally high price in relation to the subject of the order.

2.10. List of documents/statements required from the Tenderer

- a. Letter of authority to represent the Tenderer and/or to conclude the contract on behalf of the Tenderer should be attached to the offer in case the documents are signed by the Tenderer's Representative other than mentioned in Tenderer's registration form. Original letter of authority should be delivered. It is allowed to deliver certified copy of letter of authority, as long as it is signed by the authorized Representative of Tenderer, also in case the offer is sent electronically.
- b. With the offer the Tenderer must certify agreement with attachment no. 1 (Supplier code of conduct).
- c. With the offer the Tenderer must provide completed and signed attachment no. 2 (Statement of the absence of interconnections between the entities cooperating).
- d. With the offer the Tenderer must certify agreement with attachment no. 3 (Contractors and Suppliers Selection Policy by UTC Aerospace Systems Wrocław).
- e. Documents mentioned in point "d" in section 2.7.
- f. Fulfilled table no 1 included in section 3.1.

3. EVALUATION OF THE OFFERS

3.1. Criteria for evaluation of bids and description of the method of awarding points

Formal assessment will be made based on fulfilled Table no 1 by the Tenderer. The table contains the requirements concerning control system which has been divided to 4 groups:

- A. General requirements – in this section of the table it is necessary to mark fulfilment or not specified requirements by mark of corresponding field.



- B. Closed technical requirements – in this section of the table it is necessary to mark fulfilment or not specified requirements by mark of corresponding field.
- C. Open technical requirements – in this section of the table it is necessary to write down the specific values concerning offered control system.
- D. Price – in this section of the table it is necessary to write down the price of offered control system

The formal assessment consists of two stages. The section A of the Table no 1 will be evaluate in first stage. Fulfilment of all requirements of section A qualifies the Tenderer to second stage, in which determined number of points will be attribute to Tenderers based on fulfilment or not the requirements given in section B and C and based on price given in section D. Each requirement of section B has specified number of points. The number of points in section C and D will be calculate on the basis of equations specified in Table no 1.

The offer, among all the offers, that meet the conditions set out in the request for quotation, which obtains the highest sum of points, from criteria described above, specified up to 2 decimal places, will be considered as the most advantageous one. UTC Aerospace Systems Wrocław reserves the right to verify the data provided by the Tenderers.

Additionally, the technical documentation which confirms fulfilment requirements specified in Table no 1 should be enclosed to fulfilled Table no 1 (eg. informative brochures, technical specifications).

Table 1. General and technical requirements of the control system.

A. General requirements		Fulfilled*	Not fulfilled*	Comments
A.1.	System dedicated to aviation and space technology applications			
A.2.	System dedicated to serwo-hydraulic strength tests			
A.3.	Include the control software to servo-hydraulic system in the offer which is off-the-shelf and validated on the time of offer presentation			
A.4.	All elements of control system must be brand-new			
A.5.	Delivery the control system only, without servovalves, solenoid valve hydraulic blocks, and cables connecting these elements			
A.6.	Delivery the declaration of conformity (CE certificate)			
A.7.	Delivery the instruction of unloading and installation			
A.8.	Delivery the manual instruction			
A.9.	Delivery the electrical diagram of the system which allows installation of the controller on the test rig (eg. connectors pinouts opis, description of input/output signals, electrical diagrams)			
A.10.	Use dedicated software to offered control system devices.			
A.11.	Include in quotation the licenses for each delivered software.			
A.12.	Provide the warranty for the delivery control system for minimum 24 months dating from the technical commissioning			
A.13.	Specify in quotation the warranty conditions.			
A.14.	Include in quotation the training for the Ordering Party's personnel to operate and maintenance of the system according to its specification and operation conditions.			

B. Closed technical requirements		Fulfilled*	Points	Not fulfilled*	Points	Comments
B.1.	Control channels based on closed loops of feedback signal		1		0	
B.2.	Delivery of complete control system with interface devices to control devices and software		1		0	
B.3.	4 servo-hydraulic control channels placed in one control cabinet		1		0	
B.4.	Possibility of configuration of two 2-channels separate tests which are carrying out at the same time in both test zones		1		0	
B.5.	Possibility of configuration of two separate tests which are carrying out at the same time in both test zones with 1- and 3-channels configuration		1		0	
B.6.	Possibility of configuration of one 4-channel test		1		0	
B.7.	Possibility of simultaneous connection to each control channel 3 transducers in specified configuration: 2x strain gauge transducer and 1x inductive or LVDT transducer		4		0	
B.8.	Possibility of simultaneous connection to each control channel 3 transducers in specified configuration: 2x transducer with +/-10V voltage output and 1x inductive or LVDT transducer		4		0	
B.9.	Possibility of connection to control channels strain gauge transducers made in full- and half-bridge technology		1		0	
B.10.	Possibility of connection to control channels strain gauge transducers made of 120 Ohm and 350 Ohm strain gauges		3		0	
B.11.	Possibility of connection to control channels strain gauge transducers made in 6-wires connection technology for full strain gauge bridge		4		0	
B.12.	Presence of the +/-10V analog auxiliary input on each control channel		1		0	
B.13.	Possibility of use +/-10V analog auxiliary input as command signal		4		0	
B.14.	Possibility to remote control of the system to control the test parameters, monitoring and shut off the tests		1		0	

B.15.	Simultaneous presence in the control system: 16 analog inputs, 16 analog outputs, 16 digital inputs, 16 digital outputs		10		0	
B.16.	Presence of UPS with anti-noise filters for all devices of control system		1		0	
B.17.	Possibility of connection external device to control system and provide synchronize communication between devices (so-called third party devices, eg. DAQ)		4		0	
B.18.	Software which allows multi-level preparation of the control signals (multi-level looping of test sequences)		1		0	
B.19.	Possibility of control by current signal of 2-stage servovalve which is not equipped with on board electronics		3		0	
B.20.	Possibility of control by voltage signal of 2-stage servovalve which is not equipped with on board electronics and without additional conditioners between servovalve and controller		3		0	
C. Open technical requirements		Value			Weight	Points**
C.1.	Extension the test capabilities of the control system by additional control channels (maximal allowable number of channels operating in one test)				30	$C1 = \frac{a}{b} * 30$
C.2	Sampling rate of the control signal in the controller loop of the control channel				20	$C2 = \frac{c}{d} * 20$
D. Price		Value			Weight	Points**
D.1.	Price				200	$D1 = \frac{e}{f} * 200$

* It is necessary to write down the „x” mark in corresponding field, depending on fulfilment or not of the function in offered control system

** a – value of the parameter of investigated offer

b – the highest value of the parameter among all investigated offers

c - value of the parameter of investigated offer

d - the highest value of the parameter among all investigated offers

e – the lowest price among all investigated offers

f – the price of investigated offer

3.2. Exclusions

- a. The Ordering Party reserves the right to reject the offer if:
 - The content of the offer does not correspond to the content of this request for quotation and specification, is incomplete or misleading, ambiguous or impossible to evaluate,
 - Its submission constitutes an act of unfair competition within the meaning of the provisions of unfair competition,
 - Contains an abnormally low or high price in relation to the object of the contract, that is defined as a price that is least 40% lower or higher than the arithmetical average of prices of all offers. The Ordering Party rejects the offer of the Tenderer, that has not provided required explanations, or if the assessment of the explanation confirms that the offer contains an abnormally low or high price in relation to the subject of the order.
 - Was submitted by the Tender excluded from the tendering process.
- b. Tenderers are excluded from the tendering process when they:
 - Have submitted untrue information affecting or likely to affect the outcome of the tendering process,
 - Have not demonstrated compliance with the conditions for participation in the tendering process,
 - Are affiliated or are subsidiaries, jointly controlled or dominant in relation to the Ordering Party,
 - Are connected with the Ordering Party in personal way or with capital ties. The connections in personal way or with capital ties are understood as interconnections between the Ordering Party, or persons authorized to make commitments on behalf of the Ordering Party or persons acting on behalf of the Ordering Party that evaluate the tendering process, with the Tenderer specified particularly as:
 - i. Participation in the company as the company partner or in the form of partnership,
 - ii. Possession of at least 10% of shares of the company unless lower level is specified by the law or was defined by the managing authority of the Programme on the eligibility of expenditure under European Regional Development Fund, the European Social Fund and Cohesion Fund 2014-2020,
 - iii. Acting as member of the supervisory or managing body, attorney or representative of the company,



- iv. Arising from marriage, family relationship or lineal affinity or second-degree relationship or affinity.
- c. The Ordering Party reserves the right to cancel this tendering process if:
 - All the offers were rejected,
 - The price of the most attractive offer or the lowest price of the offers exceeds the amount of money that the Ordering Party intends to spend to finance the order,
 - The tendering process is defective in some way what results in the inability to sign the contract in agreement with Regional Operational Programme or internal UTC Aerospace Systems Wrocław requirements.

The Ordering Party shall simultaneously notify the Tenderers that were excluded from tendering process, stating factual reasons. The offer of a Tenderer that was excluded is considered as rejected. In case of cancellation of the tendering process, the Tenderers are not entitled to receive any reimbursement of the costs of participation in the tendering process, in particular of the costs of the offer preparation.