

Wroclaw, 13th September, 2017

HS Wrocław sp. z o.o.

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Request for quotation

Subject of inquiry:

Design and delivery of Hydraulic Power Pack for phosphate ester
(Skydrol®)

**DOKUMENT NIE ZAWIERA DANYCH
TECHNICZNYCH**

*DOCUMENT DOES NOT CONTAIN
TECHNICAL DATA*

HS Wrocław sp. z o.o.

Obrót z zagranicą niekontrolowany.

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1. QUOTATION INFORMATION

1.1. Purpose of the RFQ

Purpose of this RFQ is to find potential suppliers for the Hydraulic Power Pack for phosphate ester (Skydrol®). A detailed specification of the Hydraulic Power Pack is included in Section 2. The contract will be signed with the Tenderer that will provide most attractive offer.

1.2. Time of the offer submission

- a. The offers shall be submitted from 13th September 2017 to 29th September 2017, 14:00PM 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 18th September 2017.
- c. The Ordering Party will answer the questions from Tenderers until 22nd September 2017.

1.3. Ordering Party

HS Wroclaw Sp. z o.o.,

Bierutowska 65-67,

51-317 Wroclaw

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 HS Wroclaw. Correspondence should be addressed to Agnieszka Sliwka (Procurement Dept., phone: + 48 71 714 8162 ;agnieszka.sliwka@utas.utc.com).
- 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 Anieszka Sliwka via email: agnieszka.sliwka@utas.utc.com. Answer will be provided by the Ordering Party to Tenderers.
- 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 to design, deliver and service of Hydraulic Power Pack for phosphate ester (Skydrol®) with service ensuring that the Hydraulic Power Pack is functioning failure-free.

1.6. Place of delivery

Tenderer is obliged to install the subject of the order at HS Wrocław site, in place designated by the Ordering Party.

2. DESCRIPTION OF THE SUBJECT OF THE ORDER

2.1. Purpose of the order

The purpose of the order is to design and deliver the Hydraulic Power Pack for phosphate ester (Skydrol®) with service that will be used to carry out research tests on laboratory and technical scale. Service includes periodic inspections of the delivered Skydrol Hydraulic Power Pack with equipment, periodic calibration and other maintenance actions that assure long-lasting, continuous and failure-free operation.

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 HS Wrocław requirements concerning equipment and machinery (EMS100), machinery designing and purchasing and work safety regulations EHS, that are attached to this request for quotation.

2.2. Subject of the order

Subject of the order is design, deliver and service of the Hydraulic Power Pack for phosphate ester (Skydrol®) for testing of different aircraft components in accordance with the specification from Section 0.

CPV code and name are: 42121400-7 "Hydraulic power packs".

2.2.1. Hydraulic Power Pack specification

1. Hydraulic Power Pack will consist of one hydraulic circuit operating with Skydrol® LD-4.



2. Power pack couplings should be of type G.
3. Maximum operating pressure : 350bar.
4. Maximum flow rate: 170lpm (@ 350 bar).
5. Three operating modes:
 - a. no pressure – 0 bar
 - b. low pressure – test parameters adjustment (up to 20bar)
 - c. high pressure – normal test operation (350bar)
6. Set up change between modes should be done with simple manual switch control or by control system.
7. Maximum noise level 80dBA (in whole operating range).
8. Connector for taking sample of fluids to measurement of hydraulic fluid cleanliness.
9. Automatic controlled shutdown (with dissipation of all stored energy and isolation of the supply) covering :
 - a. Too low oil level
 - b. Too high temperature (oil and HPP itself)
 - c. Rapid pressure drop on the pressure line (symptom of the fluid leakage)
 - d. Filter blockage / contamination

There should be also start up prevention considering 4 above conditions.

10. Visual fluid level indicator shall be available (e.g. transparent pipe).
11. Analog pressure gauge in the supply and return lines is required (or analog and digital).
12. Pressure and return filters should be able to achieve fluid cleanliness of $\beta_5 \geq 75$ (5 μ m absolute)
13. Recommended cleanliness fluid class 15/13/10 as per ISO 4406 (Range 4 according to NAS 1638).
14. Pouring and drain of the reservoir shall be realized in a simple method.
15. All power pack elements: connections, pipes cables and electrical wires shall be resistant to phosphate ester hydraulic fluid (Skydrol®).
16. All high pressure elements should be covered.
17. Wherever is possible metal to metal sealing is recommended.
18. All Skydrol® wetted elastomers shall be Ethylene Propylene (EPR) or others listed in phosphate ester (Skydrol®) Materials Compatibility chart.
19. Use of copper in contact with phosphate ester (Skydrol®) is prohibited.
20. All surfaces where contact with phosphate ester (Skydrol®) is possible shall be made with not painted stainless steel.
21. All elements of the Hydraulic Power Pack must be brand new.

22. At least 24 months warranty is required for the Hydraulic Power Pack from the date of commissioning.
23. All hydraulic installation if possible should be protected by the drip tray.
24. Hydraulic Power Pack should have cleanliness sensor that will visually indicate the need of exchanging the filters.
25. There should be provided hours run meter located on the Hydraulic Power Pack.

2.2.2. Required documents

The Hydraulic Power Pack Supplier shall provide:

1. Schedule for the task realization.
2. Declaration of Conformity (CE Mark).
3. Design Risk Assessment.
4. Detailed Hydraulic Circuit Diagram (including pressure and flow rating) with documentation of the safety circuits.
5. Equipment calibration certificates.
6. Noise limits proof.
7. Materials safety data sheets .
8. Warranty conditions (for 24 months minimum).
9. Specific Total Productive Maintenance schedule and instruction.
10. Hydraulic power pack operation manual instruction and training for Ordering Party's personnel to operate and maintain the equipment and its components in accordance with its specifications and operating conditions.
11. Instruction of unloading and installation.
12. Environment, Health & Safety statement.

HS Wroclaw site services available consist of:

- Cooling water (approximately 12°C, 75lpm)
- 3 phase electrical supply (380V)
- Single phase electrical supply (230V)
- Compressed air installation (8bar)



2.3. Service

It is required to provide maintenance services to ensure correct, continuous and failure-free operation of hydraulic power pack 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

Immediately upon completion of this request for quotation procedure and signature of the contract, but no later than 14th of February 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 Sliwka (agnieszka.sliwka@utas.utc.com) at the request of the Tenderer:

Appendix No. 1. Equipment and machinery general requirements EMS 100 - HS Wrocław.

Appendix No. 2. General requirements of the Operations Maintenance Department related to the design and procurement of machines at HS Wrocław.

Appendix No. 3. UTC general EHS requirements.

Appendix No. 4. Statement of the absence of interconnections between the entities cooperating.

Appendix No. 5. Contractors and Suppliers Selection Policy Accomplished by HSW

Appendix No 6. UTC Supplier Code of Conduct (available also on the website:

<http://www.utc.com/Suppliers/Documents/Code%20of%20Conduct/English.pdf>)

2.7. Additional conditions to participate in the tendering process

- a. No variant offer is allowed.



- b. Offer binding period shall be minimum 60 days.
- c. Delivery time must be specified, counted from the date of contract signing by both sides.
- 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 and experience in construction of at least one Hydraulic Power Pack operating with phosphate ester (Skydrol®).

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 reserves the right to exclude Tenderer from further process if the offer contains abnormally low price or abnormally high price in relation to the subject of the order. The Ordering Party will exclude Tenderer that did not explain the abnormal price reasons, or the explanations confirm that the price is abnormally low or high 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 provide completed and signed attachment no. 1 (Equipment and machinery general requirements EMS 100 - HS Wrocław).
- c. With the offer the Tenderer must certify agreement with attachment no. 2 (General requirements of the Operations Maintenance Department related to the design and procurement of machines at HS Wrocław).
- d. With the offer the Tenderer must certify agreement with attachment no. 3 (UTC general EHS requirements).
- e. With the offer the Tenderer must provide completed and signed attachment no. 4 (Statement of the absence of interconnections between the entities cooperating).
- f. With the offer the Tenderer must certify agreement with attachment no. 5 (Contractors and Suppliers Selection Policy by HSW).



- g. With the offer the Tenderer must certify agreement with attachment no. 6 (UTC Supplier Code of Conduct).

3. EVALUATION OF THE OFFERS

3.1. Criteria of bids evaluation

Formal assessment will be made based on a review of attachments, documents and statements provided by the Tenderer and based on the fulfillment of the conditions of participation in this tendering process that are specified in this RFQ and the Hydraulic Power Pack specification (Section 2.2 confirmed by Table 1 filled by Tenderer). Tenders that do not meet at least one of the described conditions will be excluded from the proceeding.

The offer, among all the offers, that meet the conditions set out in the request for quotation and specification, which obtains the lowest price will be considered as the most advantageous one. HS Wrocław reserves the right to verify the data provided by the Tenderers.

Table 1 : Specification fulfillment declaration table

Hydraulic Power Pack Specification	Filled	Not Filled	Comments
1. Hydraulic Power Pack will consist of one hydraulic circuit operating with Skydrol® LD-4.			
2. Power pack couplings should be of type G.			
3. Maximum operating pressure : 350bar.			
4. Maximum flow rate: 170lpm @ 350bar.			
5. Three operating modes:			
5a.no pressure – 0 bar			
5b.low pressure – test parameters adjustment (up to 20bar)			
5c. high pressure – normal test operation (up to 350bar)			
6. Set up change between modes should be done with simple manual switch control or by control system.			
7. Maximum noise level 80dBA (in whole operating range).			
8. Connector for taking sample of fluids to measurement of hydraulic fluid cleanliness.			
9. Automatic controlled shutdown (with dissipation of all stored energy and isolation of the supply) covering :			
9a. Too low oil level.			
9b. Too high temperature (oil and HPP itself).			
9c. Rapid pressure drop on the pressure line (symptom of the fluid leakage).			
9d. Filter blockage / contamination.			
Startup prevention considering above conditions 9a-9d.			
10. Visual fluid level indicator shall be available (e.g. transparent pipe).			
11. Analog pressure gauge in the supply and return lines is required (or manual and digital).			
12. Pressure and return filters should be able to achieve fluid cleanliness of $\beta_5 \geq 75$ (5 μ m absolute).			
13. Recommended cleanliness fluid class 15/13/10 as per ISO 4406 (Range 4 according to NAS 1638).			
14. Pouring and drain of the reservoir shall be realized in a simple method.			
15. All power pack elements: connections, pipes cables and electrical wires shall be resistant to phosphate ester hydraulic fluid (Skydrol®).			
16. All high pressure elements should be covered			
17. All Skydrol wetted elastomers shall be Ethylene Propylene (EPR) or others listed in phosphate ester (Skydrol®) Materials Compatibility chart			
18. Use of copper in contact with phosphate ester (Skydrol®) is prohibited			
19. All surfaces where contact with phosphate ester (Skydrol®) is possible shall be made with not painted stainless steel.			
20. All elements of the Hydraulic Power Pack must be brand new.			
21. At least 24 months warranty is required for the Hydraulic Power Pack from the date of commissioning.			
22. All hydraulic installation if possible should be protected by the drip tray			
23. Hydraulic power pack should have a cleanliness sensor that will visually indicate the need of exchanging the filter.			
24. There should be provided hours run meter located on the Hydraulic Power Pack.			
Required documents	Filled	Not Filled	Comments
1. Schedule for the task realization			
2. Declaration of Conformity (CE Mark)			

3. Design Risk Assessment			
4. Detailed Hydraulic Circuit Diagram (including pressure and flow rating) with documentation of the safety circuit.			
5. Equipment calibration certificates.			
6. Noise limits proof.			
7. Materials safety data sheets .			
8. Warranty conditions (minimum for 24 months).			
9. Specific Total Productive Maintenance schedule and instruction.			
10. Hydraulic Power Pack operation manual instruction and training for Ordering Party's personnel to operate and maintain the equipment and its components in accordance with its specifications and operating conditions.			
11. Instruction of unloading and installation			
12. Environment, Health & Safety statement.			
Price	Value		Comments

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, 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 HS 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.