

Call for Offers

Buyer:

Faculty of Chemical and Food Technology STU in Bratislava
Radlinského 9, 812 37 Bratislava,
Contact person: doc. Ing. Juma Haydary, PhD., phone No.: ++421 2 59325 252 ,
e-mail: juma.haydary@stuba.sk, www.stuba.sk

Subject of Order:

Laboratory set-ups for the educational process in chemical technology specified in the attached table is desired. Five sets of laboratory equipment are required. Individual equipment sets have to be delivered as compact units. Delivery of all equipment sets from one supplier is preferred. The equipment is procured in the framework of official development aid of SR to Afghanistan. The shipment and operation destination of the equipment is Kabul in Afghanistan; the offered price has to include the shipment charges to Kabul (DAT, delivery at the terminal in Kabul). The offered price has also to include the expense on the training of at least two persons at the place of supply (at the manufacturer), excluding travel expense, accommodation and boarding of the trainees.

Offer Submission Place, Time and Manner:

Write your offer for the individual equipment sets DAT Kabul directly into the corresponding column of the attached table. Include also the catalogue number of your product and the internet page, where the characteristics of the offered equipment set can be found.
Send the signed and scanned table as an e-mail attachment to the address: juma.haydary@stuba.sk by 28.03.2014, 16:00 (time the e-mail was sent).

Delivery Place and Time:

The delivery place is the airport in Kabul, Afghanistan. The supplier covers the shipment and insurance charges. The supplier does not cover the charges connected with the customs procedure in Afghanistan and the transport of the equipment from airport to the final destination.
The delivery time must not exceed six months from the contract signature or the submission of an official order.

Evaluation Criteria and Method:

In the first step, technical requirements of the offered equipment will be evaluated in all offers. The offers not meeting the technical requirements specified will be excluded. In the second step, the delivery place and personnel training requirements will be considered. Offers omitting the shipment to the delivery place and the personnel training will be excluded. Applications meeting the above stated requirements will be arranged in the ascending order of the price offered, and the winning offer will be that on the first place of the applications list. The winning applicant will be then addressed by the Buyer on the equipment delivery.

Total Price for All Entries in the Following Table in EUR	
Date:	Signature of Responsible Person and Stamp

No.	1
Name of the device	LABORATORY SET-UP "PROCESS CONTROL SYSTEM"
Specifications of the device	<p>A set of computer controlled devices for the laboratory study of control of processes in the chemical and food technology. The devices set should include a computer controlled module to control various parameters such as water level, flow, temperature and pressure. The device should allow the measurement and control of these variables and also simultaneous visualization of processes in real and on computer. The set should include:</p> <ul style="list-style-type: none"> ✓ Main metal construction with accessories, transparent main tank divided into two parts with the capacity of min. 2x25 l and transparent dual working tank with the capacity of min. 2x10 l, ✓ Two centrifugal pumps with the capacity of 0-10 l / min, ✓ Two flow meters with the range of 0.2 to 2.0 l / min. and from 0.2 to 10 l / min, ✓ A series of control solinoid outlet valves and proportional valves, ✓ System for measuring and control of liquid level, ✓ System for temperature measurement and control, ✓ System for measuring and control of pressure, ✓ System for measuring and control of the flow, ✓ Computer module (interface) allowing the collection of signals of all sensors and their transmission via a communication card into the computer and the control of parameters, ✓ Communication card to the computer enabling communication between the device and the computer; installed and tested, ✓ Computer software for controlling and measuring of processes and for data recording; installed and tested. Software should allow simultaneous visualization of parameter changing in the device. <p>Furthermore, the device should include a computer assembly meeting the following min. requirements: Processor: min two HDD: min. 500 gigabytes (7200 RPM), Memory: min. 4 GB DVD mechanics, Ethernet minthernet: min. 100 Mbps, Microsoft Windows 7 Professional 64bit or higher, keyboard, mouse, monitor min. 21", connector DVI, HDM</p>
Your catalogue name of the device and web link to the device description	
Your price DAT Kabul (EUR)	

No.	2
Name of the device	LABORATORY SET-UP,,COOLING TOWER"
Specifications of the device	A laboratory set-up for the study of the principle of cooling water in cooling towers. The device should allow demonstration and measurement of the basic parameters of the

	<p>water cooling process in cooling towers. The equipment should consist of:</p> <ul style="list-style-type: none"> ✓ Main metal structure with accessories, ✓ Column with min. 8 levels with the filling height of min. 600 mm and the total surface area of min. 1 m², ✓ Heated water tank with a minimum capacity of min. 12 l, and the capacity of heating water to min. 50°C, ✓ Pump for transport of water with the capacity of min. 120 l / h, ✓ Air fan with the transport capacity of min. 140 m³ / h and the speed of up to 3000 min⁻¹, ✓ Two differential pressure gauges, ✓ At least 12 thermocouples for temperature measurement, ✓ Computer module allowing the collection of signals of all sensors and their transmission through a communication card into the computer, ✓ Communication card to the computer enabling communication between the device and the computer; installed and tested, ✓ Computer software for controlling and measuring of processes and for data recording; installed and tested. <p>Furthermore, the device should include a computer assembly meeting the following min. requirements: Processor: min. two HDD: min. 500 gigabytes (7200 RPM), Memory: min. 4 GB DVD mechanics, Ethernet min. 100 Mbps, Microsoft Windows 7 Professional 64bit or higher, keyboard, mouse, monitor min. 21", connector DVI, HDM</p>
Your catalogue name of the device and web link to the device description	
Your price DAT Kabul (EUR)	

No.	3
Name of the device	LABORATORY SET-UP „MASS TRANSFER“
Specifications of the device	<p>A set-up for the study of mass transfer in the liquid phase. The device should allow the determination of the diffusion coefficient for the transfer of substances in the liquid phase, and the effect of temperature and the effect of concentration on the diffusion.</p> <p>Main components of the device should be:</p> <ul style="list-style-type: none"> ✓ Supporting metal structure, ✓ Transparent tank for liquid with the capacity of min. 2 l, ✓ Computer controlled magnetic stirrer with the range of 0-300 rpm, ✓ Conductivity meter with the range of 0.2-20 mS, ✓ Diffusion cell with a defined number of capillaries of defined size, ✓ Thermocouple for temperature measurement, ✓ Thermostat with the capacity of min. 8 l, ✓ Computer module allowing the collection of signals of all sensors and their transmission through a communication card into the computer, ✓ Communication card to the computer enabling communication between the device and the computer; installed and tested, ✓ Computer software for controlling and measuring of processes and for data recording; installed and tested. <p>Furthermore, the device should include a computer assembly meeting the following min. requirements: Processor: min. two HDD: min. 500 gigabytes (7200 RPM), Memory: min. 4 GB DVD mechanics, Ethernet min. 100 Mbps, Microsoft Windows 7 Professional 64bit or higher, keyboard, mouse, monitor min. 21", connector DVI, HDM</p>
Your catalogue	

name of the device and web link to the device description	
Your price DAT Kabul (EUR)	

No.	4
Name of the device	LABORATORY SET-UP „DISTILLATION“
Specifications of the device	<p>A laboratory set-up for the study of the process of continuous distillation of liquid mixtures in plate columns. This device should allow the study of the process of continuous and batch distillation in tray columns. Basic components of the configuration should be:</p> <ul style="list-style-type: none"> ✓ Main metal structure ensuring attachment of the device components, ✓ A tray column with min. 8 plates, diameter of min. 50 mm and length of min. 1000 mm, with double transparent glass, ✓ A system for condensation and cooling of vapours from the top of the column, measuring and control of temperature, pressure and reflux ratio and a vessel to collect the distillate, ✓ A reboiler with the capacity of min. 2l with controllable heating and the possibility of product removal, ✓ A feeding system with the possibility of raw materials preheating, with a reservoir with the capacity of min. 10 l and a pump for material transport into the column, ✓ A vacuum pump enabling the reduction of pressure in the column up to 0.8 bar, ✓ A differential pressure sensor for measuring the pressure drop in the column, ✓ Temperature sensors placed on each tray and also in the boiler and condenser, ✓ Sampling should be possible from each tray, ✓ Computer module allowing the collection of signals of all sensors and their transmission through a communication card into the computer, ✓ Communication card to the computer enabling communication between the device and the computer; installed and tested. The whole system has to be controlled by a computer with the possibility of data collection, ✓ Computer software for controlling and measuring of processes and for data recording; installed and tested. <p>Furthermore, the device should include a computer assembly meeting the following min. requirements: Processor: min two HDD: min. 500 gigabytes (7200 RPM), Memory: min. 4 GB DVD mechanics, Ethernet min: min. 100 Mbps, Microsoft Windows 7 Professional 64bit or higher, keyboard, mouse, monitor min. 21", connector DVI, HDM</p>
Your catalogue name of the device and web link to the device description	
Your price DAT Kabul (EUR)	

No.	5
Name of the device	LABORATORY SET-UP „DRYING“

Specifications of the device	<p>A laboratory set-up used to study the process of drying of solid materials in the tray dryers. This device should enable the study of material and enthalpy balances of the drying process of solid materials under different conditions and various properties of air. Basic components of the set-up should be:</p> <ul style="list-style-type: none"> ✓ Main supporting metal structure, ✓ A drying chamber with min. 4 stages and a transparent window, ✓ A system for monitoring changes in the weight during drying of solid materials in the range of 0-5 kg, ✓ A computer-controlled system to transport air via the system with a fan, ✓ Temperature sensors for measuring the temperature and humidity in min. 3 places. ✓ A air flow sensor ✓ Computer module allowing the collection of signals of all sensors and their transmission through a communication card into the computer, ✓ Communication card to the computer enabling communication between the device and the computer; installed and tested. The whole system has to be controlled by a computer with the possibility of data collection, ✓ Computer software for controlling and measuring of processes and for data recording; installed and tested. <p>Furthermore, the device should include a computer assembly meeting the following min. requirements: Processor: min. two HDD: min. 500 gigabytes (7200 RPM), Memory: min. 4 GB DVD mechanics, Ethernet min. 100 Mbps, Microsoft Windows 7 Professional 64bit or higher, keyboard, mouse, monitor min. 21", connector DVI, HDM</p>
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