



CSIR-NATIONAL PHYSICAL LABORATORY

(Council of Scientific & Industrial Research)

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From : Director
CSIR-National Physical Laboratory
No. 14-VII/TKM(2717)19-PB/T-16

Dated : 09.09.2019

CORRIGENDUM

Sub : Amendment in Specification

With reference to NPL Tender of even number dated 05.09.2019, which was published on CPP Portal under e.Publish System (Govt. of India) vide Tender ID reference No. 2019_CSIR_472997_1 for the Supply, installation and commissioning of ROTAVAPOR.

In regard to above, detailed specification as given at page 44 of tender documents is hereby replaced with correct description sheet (copy enclosed). Hence, earlier detailed specification as given at page 44 of captioned tender may kindly be ignored.

All other specifications, terms & conditions of said tender will remain the same. The copy of said Corrigendum is also available on our website <http://www.nplindia.org> [under link of "Tenders/Pre-Indent" "Tender Notification"].

Stores &Purchase Officer

Encl : Detailed specification Sheet of ROTAVAPOR

Specification of Rotavapor

S. No	NPL Specification	
1	Scope and Applicability	
	The specification covers minimum requirements for the procurement of Rotavapor system used for the vaporising the efficient and gentle removal of solvents from samples by evaporation. User-friendly operation with integrated system including a central interface, vacuum pump, recirculating chiller, different glass assemblies, safety shield, lid for heating bath, automatic distillation.	
2	General	
2.1	The system shall be complete in all respect and ready for operation as per specifications.	
2.2	The system shall be new and of latest model from current serial production range of manufacturer. Customized or One off manufactured Model will not be accepted. Offer should be supported with printed catalogue /depiction on company website	
2.3	The installation requirement and environment required for installation and operation of Rotavapor should be clearly specified by the bidder/supplier.	
2.4	Complete set of operational and technical manual should be provided.	
2.5	Equipment operational training to be provided to minimum 2 persons at our lab where the systems will be installed.	
2.6	Instrument must have electrical compatibility with the Indian power outlet in terms of voltage, phase and current	
2.7	If UPS is required to run machine smoothly without electrical disturbance, vendors should specify the UPS specifications in terms of power, load and backup times etc	
2.8	Machine should be quoted with 3 years warranty	
3	Essential Accessories	
	The vendor should provide all the essential accessories required to make it a self sufficient, independent unit and to meet all the functionality of the analysis	
4	Spare Parts	
	The vendor should quote all the spare parts of the same manufacturer required for smooth functioning of the equipment at least for 2 years after the warranty period. The vendor should also clearly mention spare part number, its description and unit price.	
5	Technical Specifications	
5.1	Rotavapor	Motorized lift with provisions for automatic lifting of the flask in case of power failure.
5.2		Vertical Glass Assembly with Plastic coated Glassware
5.3		Cooling surface area of 1500 cm ² with extra-large top hole on top of condenser for easy cleaning.
5.4		Adjustable immersion angle enabling use of different flask sizes
5.5		Digital bath temperature display of both set and actual temperature simultaneously with microprocessor control ranging from ambient to 210 deg C or better.
5.6		Bath temperature limit fixation to prevent accidental change of set temperature
5.7		Digital indication of rotation speed, bath temperature and vapor temperature
5.8		Push Button Interface for Single Centralized control of chiller, water bath, vacuum pump & rotary evaporator.
5.9		Mechanical and Electronic over temperature control
5.10		Integrated carry handles for easy re-filling and emptying of the water bath
5.11		Evaporating flask from 50-5000 ml can be used on the same joint adapter without additional connections.
5.12		Protection Class IP20/IP21
5.13		Approvals CE / CSA
5.14		Vacuum Controller
5.15	Centralized control of vacuum pump, rotary evaporator and re-circulating chiller	
5.16	Automatic aeration in case the pressure is above 1400 mbar.	
5.17	Timer function for process termination after pre-specified time	
5.18	Set and actual cooling temperature display, working pressure display, rotation speed and lift position display on vacuum controller.	
5.19	Wouff bottle included	
5.20	Protection Class IP20/21	
5.21	Approvals CE / CSA	
5.22	Vacuum Pump	Speed control/RPM Regulated vacuum pump (oil free) with a vacuum capacity of 1.7 m ³ /h. or better
5.23		Final vacuum of 5 mbar or better
5.24		Approvals CE / CSA
5.25	Re-circulating Chiller	Compact and Robust Re-circulating Chiller with a cooling capacity of 550 Watts at 15 deg C or better
5.26		Temperature Range: -10C to Ambient
5.27		Coolant: CFC Free
5.28	Automatic distillation	Automatic multistage distillation must be quoted
5.29		Vapor temperature sensor and auto accurate sensor for automatic multistage distillation must be quoted