

عطاء رقم ٢/ل/٢٠١٩
توريد وتركيب وتشغيل أجهزة / كلية الهندسة

رقم البند	الأجهزة و التجهيزات المطلوبة (Equipments needed)	الغرض من استخدامه (Purpose of use)	الكمية	مواصفات المواد المطلوبة
١	Ceramic Nanofiltration membrane	Separate ions from solution	4	Tubular ceramic nanofiltration membrane (ZrO ₂) Pore diameter is less than 1.0 nm
٢	Membrane rig	Membrane housing	1	The rig is made of stainless-steel (non reactive material)
٣	M-03S Hydracell Pump	To control the feed flow rate	1	
٤	Gast vacuum pump	The Gast vacuum pump maintains a continuous vacuum for filtration and can also be used as a positive pressure filtration pump	1	
٥	Pressure gauge	Pressure gauge with "T" Fitting (3/8" tube fittings)	4	
٦	Conical feed tank		1	Glass tank with "T" fitting
٧	Valve	Needle Valve with "T" Fitting (3/8" Tube Fittings)	3	Stainless-steel valve
٨	Pressure relief valve	Pressure relief bleed valve	2	Stainless-steel valve
٩	Flow meter		1	
١٠	Ion Selective Electrodes (ISE)	ISEs can be used to measure different ions concentrations in water	1	Ion selective electrode (ISE) used to measure concentration of Magnesium, potassium, sodium, bromide, chloride, sulphate, phosphate
١١	pH/conductivity/ion ISE meters		1	
١٢	Magnetic stirrer	Prepare solution	1	
١٣	Storage bottles	Amber storage bottles	30	Used to store solution samples, screw-cap, volume 240 mL
١٤	pH controller	pH/ORP controller (Oakton)	1	



	1		PVC-reinforced flexible piping	١٥
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