

Suggested Process Lab Equipment for PTEC Programs

EQUIPMENT	Oil & Gas	Chemical/Refinery
Simulator Software	Phase 1	Phase 1
Lubrication Trainer (practice the skill)	Phase 2	Phase 2
Pump Demonstration Trainer	Phase 1	Phase 1
Cooling Tower Model	Optional	Phase 2
Portable Distillation Trainer	Optional	Optional
Glass Distillation Unit	Optional	Phase 1
Fluid Catalytic Cracker Trainer		Optional
Three Phase Separator	Phase 1	Phase 1
Crude Oil Desalter	Phase 1	Phase 2
Portable Valve Rack w/ Cut-a-way Valves	Phase 1	Phase 1
Flow and Level Process Trainer	Phase 1	Phase 1
Pressure and Temperature Process Trainer	Phase 1	Phase 1
Parallel Pump Trainer	Optional	Optional
Steam Generator	Optional	Phase 2
Bio-diesel Generation Trainer	Optional	Optional
Ethanol Trainer	Optional	Optional
Hydrogen Cell Trainer	Optional	Optional
Wind and Solar Trainer	Optional	Optional
Acrylic Reboiler model, Thermo-siphon	Optional	Phase 1
Acrylic Reboiler model, Kettle	Optional	Phase 1
Acrylic Heat Exchanger models	Optional	Phase 1
Acrylic column models	Phase 1	Phase 1
Centrifugal Pump model or Cut-a-way	Phase 1	Phase 1
Positive Displacement Pump model or Cut-a-way	Phase 1	Phase 1
Turbine model or Cut-a-way	Optional	Phase 1
Basic Hand Tools	Phase 1	Phase 1
Basic Piping and fittings	Phase 1	Phase 1
Basic flanges, blinds,	Phase 1	Phase 1
Basic instrumentation such as pressure gauges, dial temperature gauges, thermocouples, thermo-well, orifices, D/P Transmitter, etc. (These can come from industry or vendors.)	Phase 1	Phase 1
Hydrologic/Pneumatic Trainer	Phase 1	Optional
Dehydration Trainer	Phase 2	Optional
Instrumentation Trainer	Phase 1	Phase 1
PLC Trainer	Phase 1	Optional
Well-head/Blowout Preventer Trainer	Phase 2	

NOTE: Phase 1 or 2 indicates order of acquisition, relative to significance in program focus, and depends on local industry processes.