

The list of instrument/equipment facilities in DSIR-IITGN Pilot Plant

Sr. No.	Instruments	Equipment ID	Brand / Model	Function
1.	For batch to continuous process overhead stirrer used	CRTDH/PILOT/EQP/01	Remi RQ-121/D, Mumbai	Use for large volume and viscous fluid for mixing properly
2.	Skid mounted RO membrane set up	CRTDH/PILOT/EQP/02	Tech in (Chennai)	TDS reduction, Flow rate 3 to 9 LPM after filter
3.	1100 L SS Reactor with agitator	CRTDH/PILOT/EQP/03	V. L. Sons and Engineering, Ahmedabad	Performing atmospheric reactions.
4.	50 L jacketed reactor with agitator	CRTDH/PILOT/EQP/04	Bioneds Scientific, Ahmedabad	Scale up reaction in 50 L with heating cooling arrangement
5.	5 L Borosilicate glass jacketed reactor	CRTDH/PILOT/EQP/05	Bioneds Scientific, Ahmedabad	For large volume reactions
6.	5L and 50 L Stirrer	CRTDH/PILOT/EQP/06	Remi RQ-121/D, Mumbai	To mixing of high viscous and large volume fluid
7.	SS316 Basket Centrifuge	CRTDH/PILOT/EQP/07	Apollo Machinery, Ahmedabad	Solid and liquid separator
8.	NI 9216 Spring, NI 9940 Backshell & Other 8 Nos. Items	CRTDH/PILOT/EQP/08	NI Systems India Pvt.Ltd, Bangalore	For control pH, TDS, TSS Level, Temperature and flow in process
9.	30 L Two stage SS reactors and separator for water treatment	CRTDH/PILOT/EQP/09	V. L. Sons and Engineering, Ahmedabad	Scale up in laboratory
10.	30 L Two stage SS reactors and vacuum separator for water treatment	CRTDH/PILOT/EQP/10	V. L. Sons and Engineering, Ahmedabad	Scale up in laboratory
11.	Skid mounted 1000 L STP plant	CRTDH/PILOT/EQP/11	Arun Industrial Products, Mahemdavad	For sewage water treatment
12.	4L RV 10 Digital V Rotary Evaporators	CRTDH/PILOT/EQP/12	IKA Laboratory Instruments, Germany	Removal of volatile solvents from mixture of different solvents through evaporation
13.	Compressor	CRTDH/PILOT/EQP/13	Gujjar compressors, Ahmedabad	To get pressurized gas by compressing it
14.	Lab Test skid Membrane Distillation	CRTDH/PILOT/EQP/14	Tech Inc, Chennai	Hydrophobic membrane separates two aqueous solutions at different temperatures
15.	Lab Test Skid Forward osmosis	CRTDH/PILOT/EQP/15	Tech Inc, Chennai	Separates water from dissolved solutes
16.	50 L SS316 Jacketed Close Vessel Stirrer Tank Reactor	CRTDH/PILOT/EQP/16	V. L. Sons and Engineering, Ahmedabad	For reaction purposes

17.	Pressure Sand filter	CRTDH/PILOT/EQP/17	Ken Engineers, Ahmedabad	Trapping solid particles and water present in the oil
18.	Activated Carbon Filter	CRTDH/PILOT/EQP/18	Ken Engineers, Ahmedabad	To remove organic chemicals from water
19.	2KL MBR Plant	CRTDH/PILOT/EQP/19	Green Pebble Technologies, Ahmedabad	Advanced level of organic and suspended solids removal
20.	1KL Skid Mounted STP Plant	CRTDH/PILOT/EQP/20	Shreenath sales & water solutions, Ahmedabad	To treat sewage water by using coagulant
21.	1000 L SS316 Tank	CRTDH/PILOT/EQP/21	V. L. Sons and Engineering, Ahmedabad	For flocculation and coagulation of 1KL effluent
22.	Lab Test Skid Reverse Osmosis	CRTDH/PILOT/EQP/22	Tech Inc, Chennai	Filtration process to remove different types of dissolved solids from solution by applying pressure
23.	50 L Jacketed Tank	CRTDH/PILOT/EQP/23	Bioneds Scientifics Corp, Ahmedabad	For reaction purpose
24.	Hot and cold water recirculation system	CRTDH/PILOT/EQP/24	Tech Inc, Chennai	To circulate different temperature water
25.	100 LPH Singe Stage Evaporator	CRTDH/PILOT/EQP/25	Under Process	To evaporate solvent from solution
26.	Gas absorption column	CRTDH/PILOT/EQP/26	Under Process	To transfer one or more component of gas phase to liquid phase
27.	20 L reactor and distillation unit combination made up of borosilicate glass	CRTDH/PILOT/EQP/02	Under process	Reaction followed by separation by distillation