





















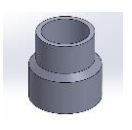




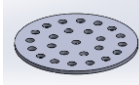



**BOM FOR OXYGEN GENERATOR UNIT (V5)**

Sl.No.	Description	Qty	Remarks	PROSPECTIVE SUPPLIERS	MAKE (USED IN PROTO)
1	<b>VALVES &amp; REGULATORS</b>				
	3/8" NPT 3/2-Way Solenoid Valve, 12 V DC	2		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s AEROFLEX (LOCAL MAKE)
	Direct Acting Solenoid 2/2 way Valve 1/4" ports 12 V DC	1			
	High Pressure Regulator 3/8" NPT 150PSI with gauge	1		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s AEROFLEX (LOCAL MAKE)
	Low Pressure Regulator 3 to 30PSI with gauge	1			
	Pressure Gauge 1/4" NPT Back, 0-60psi (Back Mount)50mm Axial iron shell integrated pressure gaugechroming shell, brass back connection, dia. 50 mm.NPT1/4, accuracy 2.5%.			M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	3-30LPM LZQ-7 Oxygen Air Gas Flowmeter	1		DESERTCART.IN	M/s BRIO


2	<b>FITTINGS</b>				
	3/8" Male NPT to 3/8" Push to Connect - Strait	3		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	3/8" Male NPT to 3/8" Push to Connect - 90 Elbow	12			
	3/8" Push to Connect to 3/8" Push to Connect to 3/8" Push to Connect - Tee	6			
	3/8" Push to Connect to 3/8" Push to Connect to 3/8" Push to Connect - Y	1		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	1/4" Male NPT to 3/8" Push to Connect - 90 Elbow	2			
	1/4" Male NPT to 3/8" Push to Connect - Strait	4		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	Brass/Stainless 3/8-Inch tube PTC x 1/4-Inch Male NPT - Coupler	2			
	Brass 1/4 NPT Female to 1/4" NPT Female - Coupling	3		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	Brass 1/2-in NPT Male to 1/4" NPT Female - Adapter Bushing	2			
	Brass 1/4" NPT male plug hex or square head	1		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)
	Air pressure safety relief valve 1/4" NPT male set to open at 50 psi	1			
	Non return valve	1		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s JANATIC (LOCAL MAKE)

3	<b>TUBING</b>				
	High Density Polyethylene (HDPE) Tubing, 1/4" ID, 3/8" per roll OD (10 Feet Per Machine Required- White)	1		M/s SMC / M/s FESTO / M/s LEGRIS / M/s PNEUMAX / M/s PARKER	M/s AMATIC (LOCAL MAKE)
	Clear Vinyl tube, 1/4" ID, 3/8" per roll OD (2 Feet Per Machine Required - Clear)	1			
	1.5 orifices	3		MANUFACTURED IN SHOP	
4	<b>ELECTRONIC COMPONENTS</b>				
	Electronic Circuit With Mounting Plate ( Arduino Uno Board With Mounting Plate )	1		FLIPKART / AMAZON / EBAY / ROBUJIN / ELECTRONICSCOMP.COM	FLIPKART
	Electronic circuit Relay Shield 4 relays ( Arduino Uno Board Relay Shield 4 relays )	1			
	12V 40 watt power supply	1		M/s MEAN WELL / M/s AMICKART / M/s MICRO POWER INDIA / M/s MRE-SMPS	M/s NHP (LOCAL MAKE)
	20 awg Electronics Wire	1		M/s POLLYCAB / M/s HAVELLS / M/s ANCHOR / M/s FINOLEX	LOCAL MAKE
5	<b>HEAT/HUMIDITY MANAGEMENT COMPONENTS</b>				
	3/8" OD Copper Tubing (Need around 20')	2		COIL MNUFACTURED IN SHOP	FOR COPPER TUBE - M/s RAJASTHAN HARDWARE, PUNE (LOCAL MAKE)
	12V DC 120mm High Speed Cooling Fan	5			M/s PUNE INDUSTRIAL SHOP, PUNE (LOCAL MAKE)
	Humidifier Water Bottle	1		M/s AMAZON / M/s FLIPKART / M/s EBAY	AMAZON
6	<b>COMPRESSOR</b>				
	Compressor 3 HP Free Air Compressor Motor - Oil Free - Quiet - 450 High Flow LPM (Total 3 compressir head of 1 HP each )	1		M/s GAJJAR COMPRESSORS / M/s ELGI / M/s ROOT MACHINERY / M/s ESSAR PNEUMATICS & EQUIPMENTS	M/s NIPB Industrial Brushes India Private Limited, Chakan, Pune (M/s GAHL) <b>Note: This is one of the make of compressor used in prototype.</b> <b>Ensure OIL Free compressor has rating of min 24 hours continuous operations without any heating issue. Small amount of pressure drop from compressor or overheating resulting into discharge of air at higher temperature may affect performance of the machine during continuous running</b>

7	MISCELLANEOUS				
	Cable Ties 40 pack	40			LOCAL MAKE
	2" Wheels	4			M/s PRIME DISTRIBUTOR, PUNE (LOCAL MAKE)
	M.S square tube and Al base plate	1			
	in-line HIPAA 0.2 micron Sanitary Air Filter	1		M/s PALL INDIA	M/s PALL INDIA
	Heat Shrink or Electrical Tape				LOCAL MAKE
	Solder or Twist Connectors				

8	SIEVE PVC PARTS				
	3" Schedule 40 PVC Female Adapter - Socket to FIPT	2		M/s FINOLEX / M/s ASTRAL / M/s BIRL HIL PIPES / M/s PRINCE PIPES / M/s APOLLO PIPES.	M/s SUPREME PIPES (LOCAL MAKE)
	3" Schedule 40 PVC Male Adapter - MIPT to Socket	2			
	Reducer 2" to 1.5"	2		M/s FINOLEX / M/s ASTRAL / M/s BIRL HIL PIPES / M/s PRINCE PIPES / M/s APOLLO PIPES.	M/s SUPREME PIPES (LOCAL MAKE)
	END CAP 3" SCH 40	8			
	3' PVC SCH 40 PIPE (3.5" LONG)	2		M/s FINOLEX / M/s ASTRAL / M/s BIRL HIL PIPES / M/s PRINCE PIPES / M/s APOLLO PIPES.	M/s SUPREME PIPES (LOCAL MAKE)
	3' PVC SCH 40 PIPE (0.6" LONG)	2			
	SPRING SUPPORT	4			MANUFACTURED IN SHOP
	SS PERFORATED PLATE	4			
	PVC 3" DIA 17" LONG	2		M/s FINOLEX / M/s ASTRAL / M/s BIRL HIL PIPES / M/s PRINCE PIPES / M/s APOLLO PIPES.	M/s SUPREME PIPES (LOCAL MAKE)
	PVC 3" DIA 15" LONG (SILICA GEL DRYER)	1			
	PVC 3" DIA 9" LONG (SURGE TANK)	1			

9	<b>SIEVE INTERNAL PARTS</b>				
	2" Diameter x 3" Tall - Compression Springs - 50 lb per inch tension	2		 Cooling coil connections	M/s SPRINGTECH, BHOSRI, PUNE (LOCAL MAKE)
	304 Stainless Steel Woven 100 Mesh 0.18mm Hole Disk 75mm	2			MNUFACTURED IN SHOP BY LASER CUTTING
	304 Stainless Steel Woven 100 Mesh 0.18mm Hole Disk 71mm	2			
	Non-woven Filter Material - Vent Register Filter 4" X 12"	1			M/s 3 M
	Gorilla PVC Cement 8 oz. R1584C Medium Body PrimaGlue, One-Step	1		M/s ABRO / M/s PIDILITE / M/s POLYFIX	M/s WELD ON (LOCAL MAKE)
	Rectorseal 25551 8-Ounce No. 5 Pipe Thread Sealant	1		M/s LOCTITE / M/s GASOILA / M/s BLUESIL	M/s FEVIBOND (LOCAL MAKE)

10	ZEOLITE Nitroxy 5 – Bead size 0.4 mm	3.5 kg			M/s Zeolites & Allied Products Pvt. Ltd., Mumbai <b>Zeolite must be 0.4 MM Sodium ZMS from reputed global firms (100% imported no Indian option)</b>
11	FR unit	1		M/s SMC / M/s FESTO / M/s LEGRIES / M/s PNEUMAX / M/s PARKER	M/s AEROFLEX (LOCAL MAKE)
12	Silica gel air dryer	1			M/s RAJESH HARDWARE (LOCAL MAKE)
13	Oxygen Analyser (for calibration)	1			SARVESH ANALYTICS, PUNE (LOCAL SERVICE PROVIDER)
14	Oxygen Medical Mask and required tubing (If required)	1			M/s ASTHA HOSPITAL