Liquid
O2,N2 &Ar
Production line
Model: KgAgar2
Technical Specification

Name	Standard
1. Recycled air:	
Pressure MPa (kgf/cm2) - gaseous mode - liquid mode	10 (100) 20 (200)
Volume flow rate m3/s (m3/h)	0,315 (1140)
The brand of the compressor used	7ВП-20/220
2. The capacity	
Mode I –production of liquid nitrogen kg/s (kg/h)	0,0695 (250)
Mode II – production of gaseous oxygen, m3/s (m3/h)	0,0515 (185)
Mode III – production of liquid oxygen, kg/s (kg/h)	0,0695 (250)
Mode IV – production of gaseous oxygen, m3/s (m3/h) - production of liquid nitrogen, kg/s (kg/h)	0,014 (50) 0,055 (200)
Mode V – production of liquid oxygen, kg/s (kg/h) – production of gaseous oxygen, m3/s (m3/h)	0,055 (200) 0,014 (50)
Mode VI – production of liquid oxygen, kg/s (kg/h)	0,07 (250)
3. Purity of separation products	
Liquid and gaseous oxygen, not less than	99,7
Liquid nitrogen, no more with argon content %, no more	0,0003 0,0030
Waste nitrogen in modes II and III , no more	3

4. The pressure of the resulting separation products, no more	
Mode I	0,5 (5)
Mode II	20 (200)
Mode III	0,04 (0,4)
Mode IV	20(200) 0,5(5)
Mode V	20 (200) 0,04 (0,4)
Mode VI	2 (20)
5. Installed capacity, kW, no more, including:	445
Compressor electric motor	315
Electric motors of freon compressors	26
Electric heater of the air purification unit	30
Electric motor of the turbodetander oil pump	1,5
Liquid oxygen evaporator	54
Liquid Oxygen Pump	5,5
Valve actuators	0,4
Exciter drives	22
Cabinets and control panels	3
Compressor cabinets	4,6
6. Power consumption, kW, no more	
Mode I , III , VI	271
Mode I	238
Mode IV , V	272,75

7. Specific power consumption	
Mode I , kWh/kg	1,08
Mode II , kWh/m3	1,29
Mode III, kWh/kg	1,08
Mode IV - liquid nitrogen, kWh/kg - gaseous oxygen, kWh/m3	 1,1525 0,987
Mode V - liquid oxygen, kWh/kg - gaseous oxygen, kWh/m3	 1,1525 1,029
Mode VI , kWh/kg	1,08
8. Duration of the working campaign before the shutdown	4320
9. Duration of the start-up period, h. no more	6
10. Duration of warming up, h no more	5
11. Duration of liquid discharge into the evaporator, s (h), no more	3600 (1)
12. Total weight of the unit (without compressor), kg	102000

The composition

№			
1	Separation Unit	КК 0220.00.000	1
2	Turbo expander unit	РТ 0,8/200	1
3	Cleaning unit	КК 0931.000	1
4	Control panel	КК 8656.00.000	1
5	Liquefier	КК 3145.000	1
6	Liquid Oxygen Evaporator	КК 6720.000	1
7	Moisture separator	КК 3803.000	1
8	Air compressor	7ВП-20/220	1
9	Compressor and condenser unit	ФМ-22	2
10	Heat exchanger	ТФ5-50-000А	
11	Filter Dryer	ОФФ2-25	1
12	Freon heat exchanger	КК 3240.000	1
13	Sensor rack	КК 1535	1
14	Shield with gas analyzer "Zircon"	КК 8620	1
15	Fittings and instrumentation	КК 0023.000	1
16	Frion refrigeration compressor	Bitzer HSK 6461-40	1
17	Cryogenic gasifier	ГХК-8/1,6	3
18	cryogenic tank	ТРЖК-3м	3