

JY/CMS PSA Nitrogen Generator

JY/CMS Series PSA nitrogen generator, unique (carbon molecular sieve) compression technology, the cylinder used by our company consists of cylinder barrel, piston, transmission rod, guide rod and alarm device, etc. It has the following advantages:

1. The compaction force $F=PS$ is related to the adsorption pressure and the piston area of the cylinder. It has nothing to do with other factors. In the pressure swing adsorption process, the adsorption pressure is fixed, and the piston area is fixed after the manufacture is completed, so the cylinder is pressed tightly. The pressing force does not change with the stroke.
2. The stroke of the cylinder can be measured or sensed outside, and the alarm point can be set in advance.
3. The gas required by the cylinder is taken directly from the adsorption tower and can be synchronized with the adsorption tower at any time.



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PSA nitrogen generator working Principle

The raw material compressed air through the air pretreatment device to remove dust, oil and other solid impurities and water, through the air diffusion distributor into the dry molecular sieve and oxygen separation of molecular sieve adsorption tower, the depth of drying after the oxygen and nitrogen separation from the top of the adsorption tower. The gas is nitrogen with high purity. This process is completed by the two adsorption towers crossed, one work, one regeneration, and continuous preparation of nitrogen. This part of the nitrogen gas after high efficiency nitrogen dust collector into the nitrogen receive tank. Here, regeneration means, the adsorption tower gas will be discharged to the atmosphere and the pressure quickly reduced to atmospheric pressure, while the molecular sieve adsorption of oxygen, carbon dioxide and other release from the molecular sieve process.

Product Range

Nitrogen volume: 1-3000Nm³/h

Nitrogen purity: 97-99.9995%

Nitrogen dew point: ≤ -40° C

Nitrogen pressure: 0.15-1.0Mpa

Four Tower PSA Nitrogen Generator



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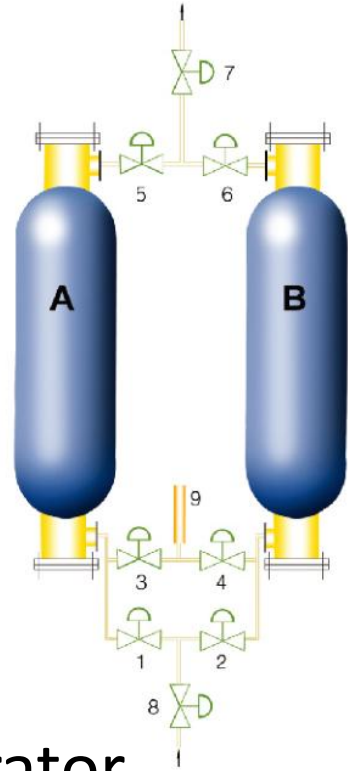
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1. Tower A gas inlet valve
2. Tower B gas inlet valve
3. Tower A gas outlet empty valve
4. Tower B gas outlet empty valve
5. Tower A gas outlet valve
6. Tower B gas outlet valve
7. N₂ gas exhaust valve
8. Air inlet valve
9. Gas outlet silencer

Flow process

after air pretreatment, clean compressed air through the 1# valve to the 8# valve into the A tower, after the A tower of the molecular sieve adsorption, through the 5# valve the 7# valve out of nitrogen, meanwhile the 4# valve open, B tower for regeneration. When the B tower regeneration is completed, switch to B tower adsorption, while A tower regeneration, followed by recycling.



Food grade nitrogen generator



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JY/CMS- 97 type (Nitrogen purity:97%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-10/97	10	0.4	15	15	850*420
JY/CMS-20/97	20	0.8	25	15	850*420
JY/CMS-30/97	30	1.2	25	15	1150*600
JY/CMS-40/97	40	1.6	25	25	1150*600
JY/CMS-50/97	50	2.0	32	25	1200*700
JY/CMS-60/97	60	2.4	32	25	1250*880
JY/CMS-80/97	80	3.2	40	25	1260*880
JY/CMS-100/97	100	4.0	40	25	1350*950
JY/CMS-150/97	150	6.0	50	32	1750*1000
JY/CMS-200/97	200	8.0	50	32	2150*1100
JY/CMS-300/97	300	12.0	65	40	2250*1140
JY/CMS-400/97	400	16.0	65	40	2500*1150
JY/CMS-500/97	500	20.0	80	50	2750*1450
JY/CMS-600/97	600	24.0	80	50	2850*1550
JY/CMS-800/97	800	32.0	100	65	3000*1650
JY/CMS-1000/97	1000	40.0	100	65	3100*1700
JY/CMS-1500/97	1500	60.0	125	80	3250*1820
JY/CMS-2000/97	2000	80.0	150	100	3500*2150
JY/CMS-3000/97	3000	120.0	200	100	4400*3150

JY/CMS- 99 type (Nitrogen purity:99%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-10/99	10	0.46	15	15	850*420
JY/CMS-20/99	20	0.95	25	15	1150*600
JY/CMS-30/99	30	1.4	25	15	1150*600
JY/CMS-40/99	40	1.9	25	25	1200*700
JY/CMS-50/99	50	2.4	32	25	1250*880
JY/CMS-60/99	60	2.8	32	25	1260*880
JY/CMS-80/99	80	3.7	40	25	1350*950
JY/CMS-100/99	100	4.6	40	25	1750*1000
JY/CMS-150/99	150	7.1	50	32	2150*1100
JY/CMS-200/99	200	9.4	50	32	2250*1140
JY/CMS-300/99	300	14.1	65	40	2500*1150
JY/CMS-400/99	400	19.0	65	40	2750*1450
JY/CMS-500/99	500	24.5	80	50	2850*1550
JY/CMS-600/99	600	28.0	80	50	3000*1650
JY/CMS-800/99	800	39.3	100	65	3100*1700
JY/CMS-1000/99	1000	49.1	100	65	3250*1820
JY/CMS-1500/99	1500	73.6	125	80	3500*2150
JY/CMS-2000/99	2000	93.4	150	100	3800*2450
JY/CMS-3000/99	3000	140.0	200	100	4400*3150

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JY/CMS- 295 type (Nitrogen purity:99.5%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-10/295	10	0.5	15	15	850*420
JY/CMS-20/295	20	1.0	25	15	1150*600
JY/CMS-30/295	30	1.5	25	15	1200*700
JY/CMS-40/295	40	2.0	25	25	1250*880
JY/CMS-50/295	50	2.5	32	25	1260*880
JY/CMS-60/295	60	3.0	32	25	1350*950
JY/CMS-80/295	80	4.0	40	25	1750*1000
JY/CMS-100/295	100	5.0	40	25	2150*1100
JY/CMS-150/295	150	7.5	50	32	2250*1140
JY/CMS-200/295	200	10.0	50	32	2500*1150
JY/CMS-300/295	300	15.0	65	40	2750*1450
JY/CMS-400/295	400	20.0	65	40	2850*1550
JY/CMS-500/295	500	25.0	80	50	3000*1650
JY/CMS-600/295	600	30.0	80	50	3100*1700
JY/CMS-800/295	800	40.0	100	65	3250*1820
JY/CMS-1000/295	1000	50.0	125	65	3500*2150
JY/CMS-1500/295	1500	75.0	150	80	3800*2450
JY/CMS-2000/295	2000	100.0	200	100	4400*3150
JY/CMS-3000/295	3000	150.0	250	125	5100*3300

JY/CMS- 39 type (Nitrogen purity:99.9%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-10/39	10	0.56	15	15	1150*600
JY/CMS-20/39	20	1.1	25	15	1200*700
JY/CMS-30/39	30	1.8	25	15	1250*880
JY/CMS-40/39	40	2.3	25	25	1350*950
JY/CMS-50/39	50	2.9	32	25	1750*1000
JY/CMS-60/39	60	3.5	32	25	2150*1100
JY/CMS-80/39	80	4.5	40	25	2250*1140
JY/CMS-100/39	100	5.5	40	32	2500*1150
JY/CMS-150/39	150	8.3	50	32	2750*1450
JY/CMS-200/39	200	11.1	50	32	2850*1550
JY/CMS-300/39	300	17.5	65	40	3000*1650
JY/CMS-400/39	400	23.2	80	50	3100*1700
JY/CMS-500/39	500	29.2	80	50	3250*1820
JY/CMS-600/39	600	35.5	100	65	3500*2150
JY/CMS-800/39	800	47.0	125	65	3500*2150
JY/CMS-1000/39	1000	58.0	150	65	3800*2450
JY/CMS-1500/39	1500	87.0	150	80	4400*3150
JY/CMS-2000/39	2000	116.0	200	100	5100*3300
JY/CMS-3000/39	3000	240.0	300	200	4400*4400

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JY/CMS- 49 type (Nitrogen purity:99.99%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-5/49	5	0.5	15	15	1150*600
JY/CMS-10/49	10	1.0	15	15	1150*600
JY/CMS-20/49	20	2.0	25	15	1260*880
JY/CMS-30/49	30	3.0	32	15	1750*1000
JY/CMS-40/49	40	4.0	40	20	1750*1000
JY/CMS-50/49	50	5.0	40	20	2150*1100
JY/CMS-60/49	60	6.0	50	20	2250*1140
JY/CMS-80/49	80	8.0	50	25	2250*1140
JY/CMS-100/49	100	10.0	50	25	2500*1150
JY/CMS-150/49	150	15.0	65	25	2750*1450
JY/CMS-200/49	200	20.0	80	30	2850*1550
JY/CMS-300/49	300	30.0	80	40	3100*1700
JY/CMS-400/49	400	40.0	100	50	3250*1820
JY/CMS-500/49	500	50.0	125	50	3500*2150
JY/CMS-600/49	600	60.0	125	65	3800*2450
JY/CMS-800/49	800	80.0	150	65	3800*2450
JY/CMS-1000/49	1000	100.0	200	80	4400*3150

JY/CMS- 59 type (Nitrogen purity:99.999%)					
Specification model	Nitrogen production (Nm ³ /h)	Effective gas consumption (Nm ³ /h)	Inlet diameter (mm)	Outlet diameter (mm)	Host length*width (mm)
JY/CMS-5/59	5	0.6	25	15	1150*600
JY/CMS-10/59	10	1.1	25	15	1250*880
JY/CMS-20/59	20	2.2	40	15	1750*1000
JY/CMS-30/59	30	3.3	40	25	2150*1100
JY/CMS-40/59	40	4.4	50	25	2250*1140
JY/CMS-50/59	50	5.5	50	25	2500*1150
JY/CMS-60/59	60	7.1	50	25	2750*1450
JY/CMS-80/59	80	8.8	65	32	2750*1450
JY/CMS-100/59	100	11	65	32	2850*1550
JY/CMS-200/59	200	22	65	32	3250*1820
JY/CMS-300/59	300	43	80	40	3500*2150

NOTE: This table lists data feed air to 0.8Mpa(gauge), 20°C ambient temperature, 0 meters elevation and 80% relative humidity for design basis. When choosing the air compressor, should pay attention to the actual volume of gas production and load rate of air compressor, generally in accordance with the standard 120% to do the selection. The sample provided data for reference only, the Company reserves the right, in its sole right to change product design. Details to provide design drawings shall prevail for more information, please contact our sales department.

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