

PSA Type Nitrogen Gas generator

BELLSWING

N₂-PSA SYSTEM



AW High-performance MSC and system technology provide a low-cost supply of nitrogen gas

AW PSA Feature

- High-performance design
 - Supplies 97 to 99.99% pure nitrogen at low cost

- Compact design(package type)
 - Small installation area
 - Operation possible simply by connecting the power supply and piping.(cooling water not required)

- Excellent operation
 - Fully automatic unmanned operation
 - Quick startup
 - Weekly operation programming(option)

Main PSA applications

- Electronics
 - Oxygen-free soldering (N₂ flow, Reflow), bonding of semiconductors and electronic parts, etc., drying and sealing of flon substitute cleansers, other oxidation inhibition.

- Foods processing
 - Gas-filled packing of nuts, tea, coffee and other foods, preservation of dried articles, oxidation inhibitor for oils and fats, storage of wine and beer, CA storage of fruits, etc.

- Chemical industries
 - Heat treatment and backing of metals and ceramics, etc., tank, reaction tank, explosion-proof sealing and purging gas for general chemical industries

- Research and development
 - Analysis and experimental gas (sealing and carrier gas), pilot plant gas.

Standard Specification

99% ~ 99.99% N₂ Series Package CP-Type

Model	N ₂ Gas Generation Volume (Nm ³ /H)	N ₂ Gas Pressure (Mpa)	Compressor Power (kW)	Size W(m) × D(m) × H(m)	Weight (t)
KN2-04CP	3.5	0.5	1.5	635 × 630 × 1460	0.3
KN2-06CP	5.5	0.5	2.2	635 × 630 × 1760	0.4
KN2-10CP	9.5	0.5	3.7	730 × 680 × 1800	0.6
KN2-14CP	13.5	0.5	5.5	900 × 730 × 1800	0.8
KN2-22CP	22.0	0.5	7.5	1055 × 795 × 1800	1.0
KN3-03CP	2.4	0.5	1.5	635 × 630 × 1460	0.3
KN3-04CP	3.5	0.5	2.2	635 × 630 × 1760	0.4
KN3-07CP	6.4	0.5	3.7	730 × 680 × 1800	0.6
KN3-09CP	9.0	0.5	5.5	900 × 730 × 1800	0.8
KN3-15CP	15.0	0.5	7.5	1055 × 795 × 1800	1.0
KN4-02CP	1.7	0.5	1.5	635 × 630 × 1460	0.3
KN4-03CP	2.5	0.5	2.2	635 × 630 × 1760	0.4
KN4-05CP	4.2	0.5	3.7	730 × 680 × 1800	0.6
KN4-07CP	6.5	0.5	5.5	900 × 730 × 1800	0.8
KN4-10CP	10.0	0.5	7.5	1055 × 795 × 1800	1.0

99% ~ 99.99% N₂ Series Non Package C-Type

Model	N ₂ Gas Generation Volume (Nm ³ /H)	N ₂ Gas Pressure (Mpa)	Compressor Power (kW)	Size W(m) × D(m) × H(m)	Weight (t)
KN2-04C	3.5	0.5	1.5	635 × 600 × 1310	0.2
KN2-06C	5.5	0.5	2.2	635 × 600 × 1570	0.2
KN2-10C	9.5	0.5	3.7	730 × 650 × 1630	0.5
KN2-14C	13.5	0.5	5.5	900 × 700 × 1540	0.6
KN2-22C	22.0	0.5	7.5	1055 × 765 × 1560	0.9
KN3-03C	2.4	0.5	1.5	635 × 600 × 1310	0.2
KN3-04C	3.5	0.5	2.2	635 × 600 × 1740	0.2
KN3-07C	6.4	0.5	3.7	730 × 650 × 1780	0.5
KN3-09C	9.0	0.5	5.5	900 × 700 × 1770	0.6
KN3-15C	15.0	0.5	7.5	1055 × 765 × 1800	0.9
KN4-02C	1.7	0.5	1.5	635 × 600 × 1310	0.2
KN4-03C	2.5	0.5	2.2	635 × 600 × 1740	0.2
KN4-05C	4.2	0.5	3.7	730 × 650 × 1780	0.5
KN4-07C	6.5	0.5	5.5	900 × 700 × 1770	0.6
KN4-10C	10.0	0.5	7.5	1055 × 765 × 1800	0.9

99.9% ~ 99.99%**N₂ Series Package P-Type**

Model	N ₂ Gas Generation Volume (Nm ³ /H)	N ₂ Gas Pressure (Mpa)	Compressor Power (kW)	Size W(m) × D(m) × H(m)	Weight (t)
KN2-30P	30	0.5	11	1000 × 980 × 1800	1.2
KN2-40P	40	0.5	15	1100 × 990 × 1900	1.4
KN2-60P	60	0.45	22	1220 × 1240 × 1900	1.6
KN2-90P	90	0.45	30	1490 × 1500 × 2100	2.6
KN2-110P	110	0.45	37	1590 × 1560 × 2200	2.8
KN2-130P	130	0.45	45	1590 × 1560 × 2430	3.0
KN3-20P	20	0.5	11	1000 × 980 × 1800	1.2
KN3-30P	30	0.5	15	1100 × 990 × 1900	1.4
KN3-40P	40	0.45	22	1220 × 1240 × 1900	1.6
KN3-60P	60	0.45	30	1490 × 1500 × 2100	2.6
KN3-75P	75	0.45	37	1590 × 1560 × 2200	2.8
KN3-90P	90	0.45	45	1590 × 1560 × 2430	3.0
KN4-15P	15	0.5	11	1000 × 980 × 1800	1.2
KN4-20P	20	0.5	15	1100 × 990 × 1900	1.4
KN4-30P	30	0.5	22	1220 × 1240 × 1900	1.6
KN4-40P	40	0.5	30	1490 × 1500 × 2100	2.6
KN4-50P	50	0.5	37	1590 × 1560 × 2200	2.8
KN4-60P	60	0.5	45	1590 × 1560 × 2430	3.0

99.99%**N₂ Series Package SP-Type**

Model	N ₂ Gas Generation Volume (Nm ³ /H)	N ₂ Gas Pressure (Mpa)	Compressor Power(kW)	Size W(m) × D(m) × H(m)	Weight (t)
KN4-15SP	15	0.5	11	1080 × 600 × 1450	1.0
KN4-20SP	20	0.5	15	1200 × 700 × 1650	1.1
KN4-30SP	30	0.5	22	1320 × 750 × 1800	1.2
KN4-40SP	40	0.5	30	1600 × 870 × 1850	1.4
KN4-50SP	50	0.5	37	1700 × 965 × 1900	1.6
KN4-60SP	60	0.5	45	1700 × 965 × 2000	1.8

AW MSC Features

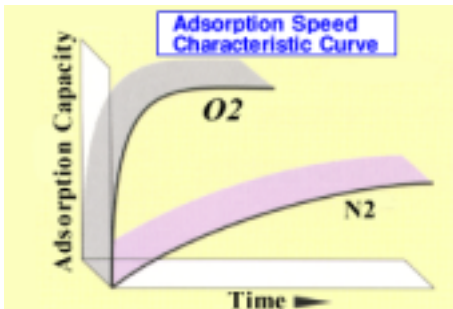


MSC is made from synthetic polymers and has superior homogeneity.

MSC has a high oxygen adsorption capacity and excellent oxygen/ nitrogen separation capability.

MSC is extremely strong and resistant to wear, and is highly durable.

AW PSA Principle

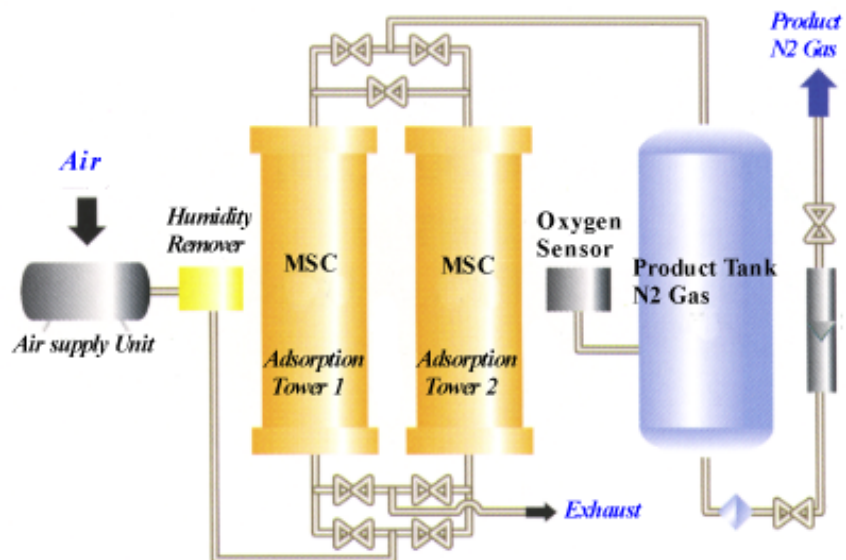


AW MSC (Molecular Sieving Carbon, see photograph) has a high oxygen adsorption capacity and large difference in oxygen and nitrogen adsorption speeds. This allows MSC to separate nitrogen from air by adsorbing the oxygen first in a short time under a pressurized environment. In addition, the adsorbed oxygen is easily desorbed and the MSC recycled by returning to normal pressure.

AW PSA (Pressure Swing Adsorption) consist of filling two adsorption towers with MSC and alternately repeating adsorption and desorption at a cycle which matches the MSC properties to continuously obtain

high purity nitrogen.

Flow Sheet



99% ~ 99.9%

N₂ Series Non-package Type

Model	N2 Gas Generation Volume(Nm ³ /H)	N2 Gas Pressure (Mpa)	Compressor Power(kW)	Voltage (V)	Size W(m) × D(m) × H(m)
KN2-310	310	0.5	90	3 -400	3.7 × 2.2 × 3.7
KN3-210	210				
KN4-140	140				
KN2-480	480		150	3 -400	4.3 × 2.5 × 4.2
KN3-330	330				
KN4-230	230				

Purity of nitrogen gas is capacity percentage of nitrogen and argon.

Size mentioned above are not included air compressor.

Specification shown here in are subject to change without notice.

(please inform following subject for inquiry)

purpose of N2 gas application		
N2 gas purity		%
N2 gas dew point(Humidity % of N2 gas)	Minus	C
N2 gas maximum volume		Nm ³ /H
N2 gas pressure		Mpa
Time of N2 gas use	Time/day	Day/year
Place of PSA installation	indoor	outdoor

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