

0,017-18,667  
m<sup>3</sup>/min



## NITROGEN PURIFIER SYSTEMS

Hertz's brand new HDX Nitrogen Treatment System offers an extremely economic means of increasing the required nitrogen purity beyond 99.9% to 99.999%.

The HDX Series uses a specially designed catalyst with a large surface area to increase nitrogen purity. The oxygen left on the catalyst surface after the reaction is reduced to no more than 10 ppm.

HDX Nitrogen Treatment Devices when used in conjunction with Nitrogen Generator System use small amounts of hydrogen to prevent compressed air loss and deliver very pure nitrogen. This system delivers very pure nitrogen while keeping power consumption to a minimum.

### **Advantages**

- Short payback period
- Small footprint
- Long-lasting efficiency ( > 10 years)
- Best quality high-performance solutions
- Investing in a lower capacity HDX system instead of a higher capacity HNG system for the same purity of nitrogen reduces costs and saves on energy
- Up to 99.999% nitrogen purity with minimum space and energy requirements
- Low energy consumption
- Low CO<sub>2</sub> emissions
- Heavy-duty build designed for hard conditions and industrial use
- High-quality and durable components
- System produces minimum 99.999% pure nitrogen with a very low air/nitrogen ratio (3.0 instead of 8.4).
- Compact design, fully automated system
- 24/7 nitrogen production at the desired purity
- High energy savings
- Low-cost and special production
- Minimum maintenance costs





## Working Principle

Compared with existing applications, Hertz's compact designed Nitrogen Treatment System can take nitrogen produced at 99.9% purity and convert it to 99.999% pure nitrogen while delivering considerable energy savings in nitrogen production costs.

The system uses a catalytic reaction to remove the oxygen left over from the HNG generator from the PSA Nitrogen Generator outlet by utilizing the reaction between the residual oxygen and hydrogen to produce 99.999% pure nitrogen. The only by-product of this catalytic reaction is water.

The low cost of the hydrogen needed for the reaction results in considerable long-term savings. In fact, this newly developed nitrogen purifier lets you produce extremely pure nitrogen using lower capacity air compressors and equipment.

As the reaction increases the temperature of the nitrogen, the HDX Nitrogen Purifying System is integrated into a High-Temperature Air Dryer, combining two products in a single unit for a complete solution.

Model	N <sub>2</sub> Flow at 99.999% Purity (m <sup>3</sup> /min)
HDX 10	0,017
HDX 20	0,033
HDX 35	0,058
HDX 60	0,100
HDX 95	0,173
HDX 120	0,232
HDX 150	0,283
HDX 250	0,452
HDX 330	0,597
HDX 450	0,807
HDX 510	0,925
HDX 570	1,027
HDX 730	1,343
HDX 910	1,643
HDX 1110	1,998
HDX 1230	2,205
HDX 1370	2,443
HDX 1820	3,303
HDX 2050	3,852
HDX 2550	4,618
HDX 2950	5,697
HDX 3540	6,675
HDX 4160	7,698
HDX 5560	9,267
HDX 6050	11,438
HDX 7500	13,607
HDX 9170	15,283
HDX 11200	18,667

