

FIRST COMPRESSOR
MANUFACTURER IN THE
WORLD ACCREDITED

ISO 50001
ENERGY MANAGEMENT



NITROGEN FOR TIRES

METALPLAN
AIRPOWER



METALPLAN IS NUMBER ONE IN ENERGY EFFICIENCY

As the absolute leader in screw compressors up to 25 hp in Brazil, Metalplan is the world's first* compressor manufacturer accredited in ISO 50001 - Energy Management, demonstrating its commitment to energy efficiency, the foundation for sustainability and competitiveness of companies.

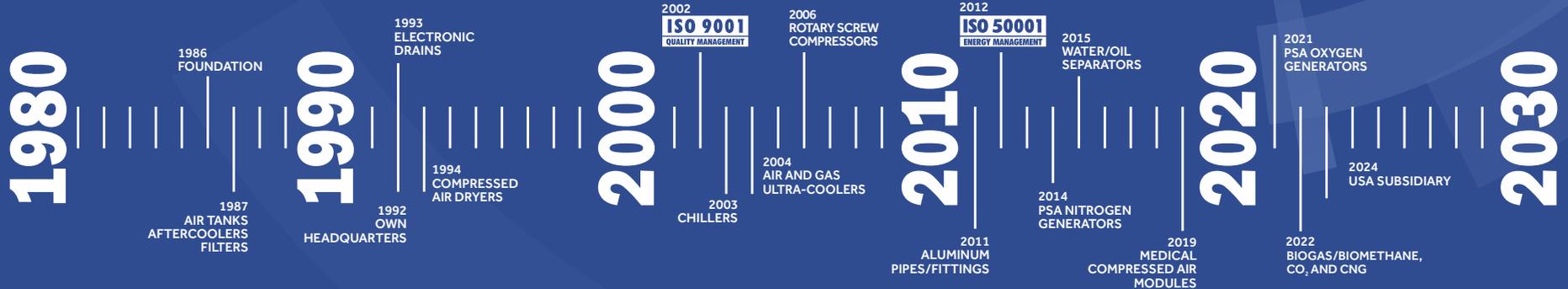
Founded in 1986, Metalplan has a production area of 6.000 m², developing innovative equipment with a high level of nationalization, exporting to over 20 countries.

Its network of authorized distributors and service centers includes over 300 highly specialized companies with extensive geographic coverage, capable of servicing over 100.000 operating equipment.

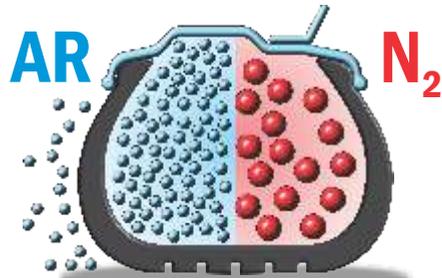
In recent years, Metalplan has been expanding its horizons to disruptive technologies in gases and renewable energies, such as on-site generation and compression of nitrogen, oxygen, biogas, biomethane, CO₂ and CNG.



*in the compressed air, gases and industrial refrigeration segment.



A QUALITY DIFFERENTIAL FOR YOUR CUSTOMERS



Portal Globo.com

Nitrogen is an inert, pure, environmentally friendly, and extremely dry gas. Its molecules do not permeate the chamber or tire, maintaining stable pressure for a longer period. Additionally, the absence of oxygen and moisture is essential for preventing chemical degradation and oxidation of rubber, wheels, and rims.

PSA (Pressure Swing Adsorption) technology has made local nitrogen production possible, enabling its application in light and passenger vehicles, as well as in its traditional use in heavy-duty vehicles, special vehicles, and aircraft.

Gas stations, automotive centers, small fleet owners, tire shops, and a wide range of establishments now have access to NitroMax Tyre, a simple and reliable solution for providing high-quality nitrogen to their customers at a cost like compressed air.



NITROMAX TYRE

NITROGEN FOR TIRES



SAFETY

- Maintains stable tire pressure and temperature, reducing the risk of accidents.
- Non-toxic.
- Does not support combustion.

COMFORT

- Reduces inflation intervals by up to 80%.
- Provides a smoother ride due to pressure stability.

ECONOMY

- Extends tire life by up to 20%.
- Reduces fuel consumption.
- Increases suspension and component durability by reducing exposure to oxygen and moisture in the air.

TECHNICAL DATA

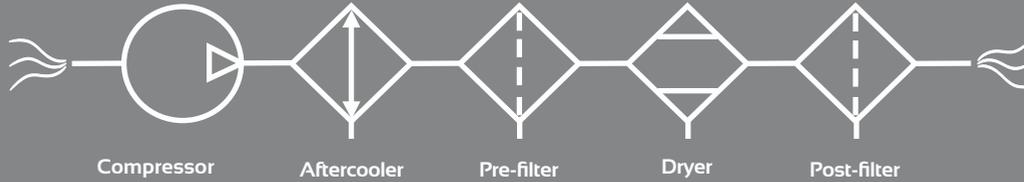
N ₂ Flow Rate	1,2 pcm @ 8,0 bar
Compressed Air Flow Rate	2,5 pcm @ 8,8 bar
N ₂ Purity	96%
Inlet/Outlet Connections	+1/4"
Height x Width x Depth	850 X 650 X 365 mm
N ₂ Reservoir (ASME/NR-13)	67 liters
Electricity	220V/mono/120W
Technology	PSA



COMPRESSED AIR FUNDAMENTALS



ISO 8573 STANDARD INSTALLATION



Compressor

Aftercooler

Pre-filter

Dryer

Post-filter

CONTAMINANTS & QUALITY CLASSES

class	SOLID PARTICLES maximum number of particles per m ³ (d = particle size)			class	WATER moisture dew point (°C)	class	OIL - total concentration (liquid/aerosol/vapor) (mg/m ³)
	0,1µm < d ≤ 0,5µm	0,5µm < d ≤ 1µm	1µm < d ≤ 5µm				
0	CLASS ZERO - as specified by the user or equipment supplier and stricter than Class 1						
1	≤ 20.000	≤ 400	≤ 10	1	-70	1	≤ 0,01
2	≤ 400.000	≤ 6.000	≤ 100	2	-40	2	≤ 0,1
3	-	≤ 90.000	≤ 1.000	3	-20	3	≤ 1
4	-	-	≤ 10.000	4	+3	4	≤ 5
5	-	-	≤ 100.000	5	+7	5	-
	Mass concentration - C _p (mg/m ³)	6	+10	6	-		
		Liquid Water C _w g/m ³)					
6	0 < C _p ≤ 5	7	C _w ≤ 0,5	7	-		
7	5 < C _p ≤ 10	8	0,5 < C _w ≤ 5	8	-		
8	-	9	5 < C _w ≤ 10	9	-		
9	-	X	C _w > 10	X	> 5		
X	C _p > 10						

ISO 8573 COMPRESSED AIR FOR GENERAL USE

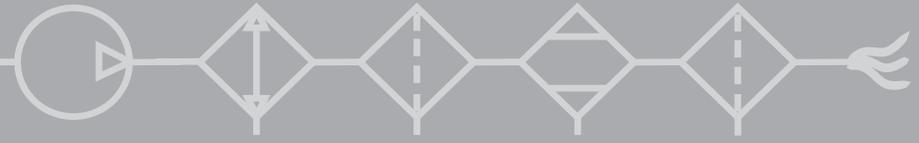
ISO 8573 is the international reference for compressed air systems, focusing on contamination levels.

The standard has various quality classes that serve multiple applications in industry and services, excluding human breathing and medicinal use.

Published in 1991, it was translated by Metalplan in 1992, positioning Brazil at the forefront of its utilization.

Its 3rd edition is from 2010, when Class Zero was introduced, with purity levels stricter than those found in Class One.

COMPRESSED AIR FUNDAMENTALS



ISO 8573 TYPICAL SYSTEMS	quality class	APPLICATIONS
	[1:6:1] ²	Dry air, with dew point between 5°C and 15°C. Ideal for low flows and protection of valves, cylinders, pneumatic tools, automation, blasting, painting, etc.
	[1:6:1] ² [1:6:0] ²	Activated carbon filter eliminates odors, with residual oil of 0.003 mg/m ³ , suitable for dental clinics and similar applications, except for human breathing.
	[1:4:1]	This is the most used treatment system in the industry. Its level of protection meets various sectors such as automotive, plastic, textile, paper, mechanical, metallurgical, etc.
	[1:4:0]	Quality similar to the previous system, with odor elimination and lower residual oil (0.003 mg/m ³), important in N ₂ and O ₂ generation and in the food, chemical, pharmaceutical industries, etc.
	[1:4:0]	Quality similar to the two previous systems, in terms of "water" and "solid particles". Meets Class Zero for the "oil" contaminant with total safety.
	[1:2:1]	Prevents vapor absorption when air comes into direct contact with hygroscopic materials (cement, resins, powdered or freeze-dried foods and pharmaceuticals). Prevents freezing when air is subjected to negative temperatures. Applied in the generation of gases of very high purity.
	[1:2:1] [1:1:1]	Low dew point and maximum particle retention are essential in the manufacture of optical fibers, chips, critical instrumentation, steelmaking, nuclear reactors, etc.
	[1:2:0] [1:1:0]	Quality similar to the two previous systems, in terms of "water" and "solid particles". Meets Class Zero for the "oil" contaminant with total safety.

1 Energy Plus and Titan Plus dryers have integrated pre and post-filters
2 only if the compressed air inlet temperature is < 25°C

Install an AQUA + condensate treatment system.

IMPRINTS OF OUR HISTORY





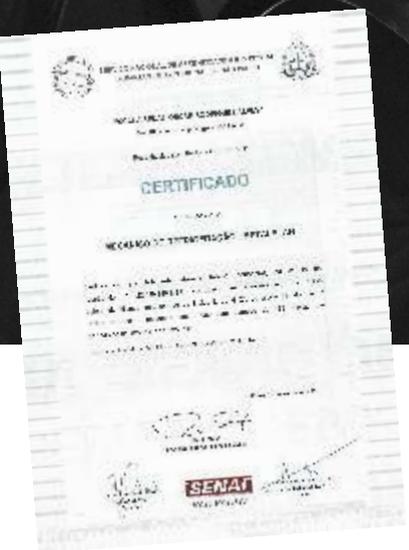
AFTER-SALE SERVICES



96% OF CUSTOMERS FULLY SATISFIED

In an Annual ISO 9001 Audited Survey, we achieved a 96% customer satisfaction rate for Technical Assistance. This percentage corresponds to the evaluations above 7 (seven), on a scale of 0 (zero) to 10 (ten).

This success is due to over 70 authorized workshops and 200 accredited technicians throughout American continent, supported by an exclusive partnership with National Service for Industrial Training for mechanic training, making our After-Sales Service the most acclaimed in the market.



Typical facade

COMPREHENSIVE INVENTORY OF ORIGINAL PARTS



MAXIMUM EFFICIENCY IN AFTER-SALES SERVICE



70 WORKSHOPS CERTIFIED

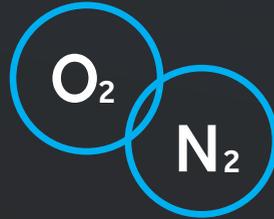
200 SPECIALIZED TECHNICIANS

OUR SOLUTIONS



COMPRESSED AIR

- COMPRESSORS
- DRYERS AND FILTERS
- RESERVOIRS
- 100% ALUMINUM PIPING



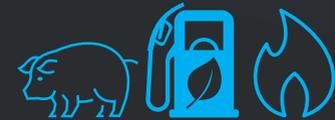
OXYGEN & NITROGEN

- OXYGEN GENERATORS
PSA / VSA ON SITE
- NITROGEN GENERATORS
PSA ON SITE



INDUSTRIAL REFRIGERATION

- WATER CHILLERS
- ULTRA AIR AND GAS COOLERS (-35°C)
- THERMOCHILLERS
- DRY COOLERS



BIOGAS & CNG

- COMPRESSORS FOR BIOGAS, BIOMETHANE AND CNG
- BOOSTERS
- CHILLERS
- DISPENSERS

e-line

ROTARY SCREW COMPRESSORS



4 to 25 hp

REFRIGERATION DRYERS



20 to 250 pcm

ABSORPTION DRYERS



6 to 32 pcm

COALESCING FILTERS



25 to 300 pcm

AUTOMATIC DRAIN VALVES



electronic & magnetic

METALPLAN

www.metalplan.com.br
metalplan@metalplan.com.br
55 11 4448-6900 |

FIRST COMPRESSOR
MANUFACTURER IN THE
WORLD ACCREDITED

ISO 50001
ENERGY MANAGEMENT