

FIRST COMPRESSOR
MANUFACTURER IN THE
WORLD ACCREDITED

ISO 50001
ENERGY MANAGEMENT



**VERTICAL
RESERVOIRS**

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.

1980

1986 FOUNDATION
1987 AIR TANKS AFTERCOOLERS FILTERS

1990

1992 OWN HEADQUARTERS
1993 ELECTRONIC DRAINS
1994 COMPRESSED AIR DRYERS

2000

2002 ISO 9001 QUALITY MANAGEMENT
2003 CHILLERS
2004 AIR AND GAS ULTRA-COOLERS
2006 ROTARY SCREW COMPRESSORS


2010

2011 ALUMINUM PIPES/FITTINGS
2012 ISO 50001 ENERGY MANAGEMENT
2014 PSA NITROGEN GENERATORS
2015 WATER/OIL SEPARATORS
2019 MEDICAL COMPRESSED AIR MODULES

2020

2021 PSA OXYGEN GENERATORS
2022 BIOGAS/BIOMETHANE, CO₂ AND CNG
2024 USA SUBSIDIARY

2030



*In 1993, Metalplan provided 600 m³ of **compressed air reservoirs** for the Segredo and Salto Santiago hydroelectric power plants (COPEL).*

Over 250 tons of ASTM-A-285-C steel were used, distributed in 22 reservoirs of up to 130 m³ each, with 100% radiographed welds.

Photo: Secret Hydroelectric Power Plant - Iguaçu River - PR





SVA

VERTICAL RESERVOIRS



COMPRESSED AIR WITH STABLE PRESSURE

A properly sized compressed air reservoir serves to supply the system during momentary consumption peaks and stabilize the network pressure, avoiding the oscillations that impair the operation of machines and tools.

For a more sophisticated calculation of the reservoir volume, a formula is adopted that considers the air flow required by the system over a certain interval, based on the maximum acceptable pressure decay in that interval. For a quicker calculation, we adopt the following formula, applicable to rotary compressors:

Volume (m³) = 0.1 x Total System Flow Rate (m³/min)

SAFETY AND RESPONSIBILITY

Due to the risk of serious accidents, compressed air reservoirs are regulated by national and international safety standards.

- Mandatory accessories - pressure gauge and safety valve
- Design and construction standard: ASME, sec. VIII, div. 1
- Ministry of Labor safety standard: NR-13
- Anti-corrosive treatment
- Operating pressures: up to 42 bar(g)

TECHNICAL DATA

Model	Volume	Pressure Work	Height	Diameter	Connections	Weight
	m³	bar(e)	mm	mm	(pol)	kg
SVA 300	0,300	14,0	1970	480	2", Luva NPT	111
SVA 300	0,300	20,0	1530	616	2", Luva NPT	148
SVA-500	0,425	12,1	2007	559	2", Luva NPT	137
SVA-1000	1,0	11,0	2767	763	2", Luva NPT	290
SVA-1000	1,0	15,0	2780	766	2", Luva NPT	371
SVA-2000	2,0	11,0	3335	953	2", Luva NPT	451
SVA-2000	2,0	15,0	3342	919	2", Luva NPT	650
SVA-3000	2,85	11,0	3439	1136	4", FL #150	756
SVA-3000	2,85	15,0	3453	1139	4", FL #150	884
SVA-4000	4,051	11,0	3542	1336	4", FL #150	944
SVA-4000	4,0	15,0	3500	1345	4", FL #150	1420
SVA-5000	5,0	11,0	3605	1470	4", FL #150	1182
SVA-5000	5,0	15,0	3670	1475	4", FL #150	1525
SVA-6000	6,1	11,0	3674	1610	6", FL #150	1366
SVA-6000	6,05	14,0	3665	1615	6", FL #150	1739
SVA-8000	8,10	11,0	6030	1396	6", FL #150	1660
SVA-8000	8,107	14,0	6013	1396	6", FL #150	1711
SVA-10000	9,6	11,0	6070	1519	6", FL #150	2116
SVA-10000	10,0	15,0	6133	1525	6", FL #150	2981

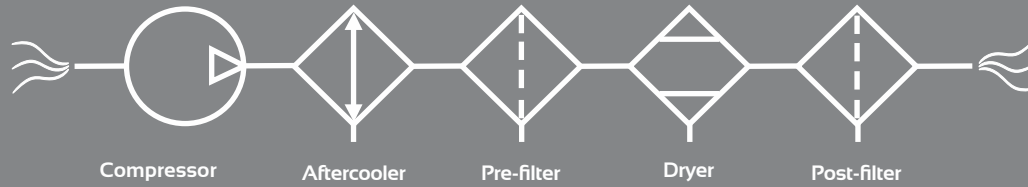
NPT Sleeve FL= ANSI B 16.5 # 150 flange

Subject to change without prior notice. Request drawing and data sheet at the time of proposal.

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

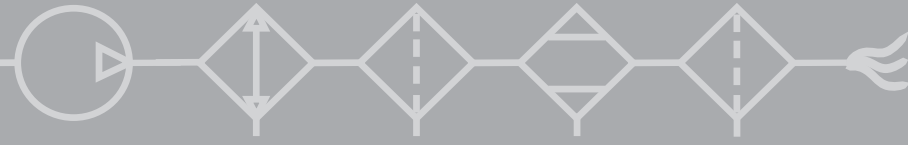
ISO 8573 is the international reference for compressed air systems, focusing on contamination levels.

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

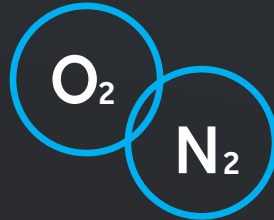
200 SPECIALIZED
TECHNICIANS

OUR SOLUTIONS



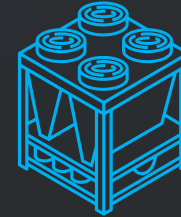
COMPRESSED AIR

- 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

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