

Pneumofore

PRESSURE AND VACUUM

FOR IS MACHINES

Daniel Hilfiker
President of Pneumofore



GLASSMAN
EUROPE 2025

14 - 15 MAY, ISTANBUL

Daniel Hilfiker
President of Pneumofore

ROTARY VANE TECHNOLOGY



UV SERIES
VACUUM PUMPS



A SERIES - K SERIES
AIR AND GAS COMPRESSORS

SINCE
1923

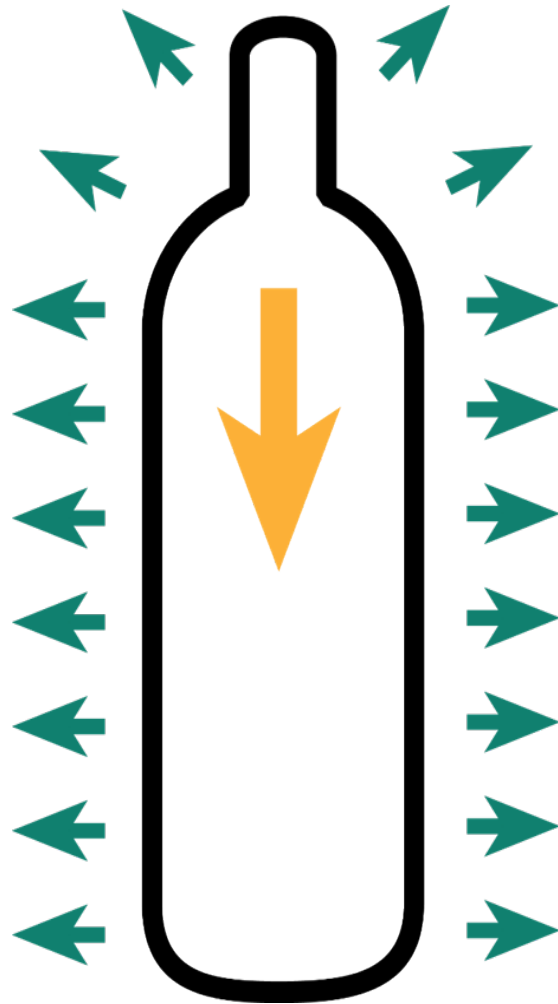
SWISS ENGINEERING
ITALIAN DESIGN
GLOBAL PRESENCE

COMPRESSED AIR and VACUUM in HOLLOW GLASS PRODUCTION





PNEUMATIC ENERGY IN GLASS MOULDING



Productivity

- Higher forming speed
- Less defects
- More bottles / day

Quality

- Better 3D engraving
- Sharp corners / shoulders
- Lower rejection rate
- Lighter bottle

Energy Saving

- Correct set-up of air- and vacuum-flow
- Exact pressure setting

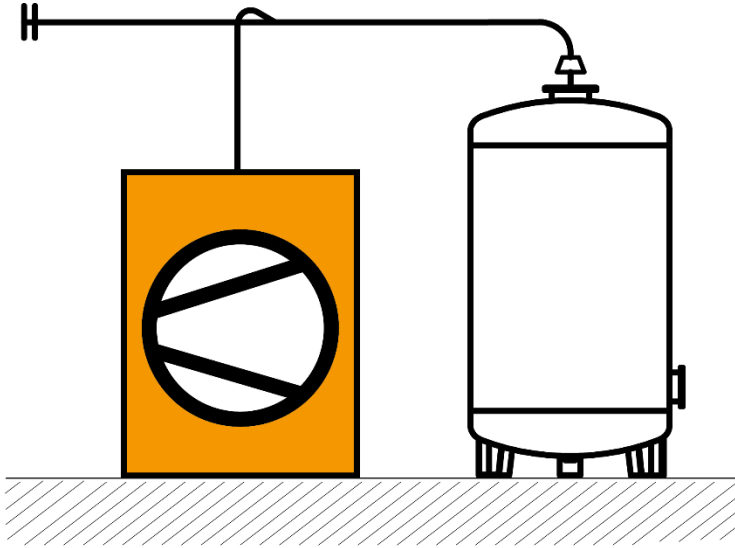
GLASS INDUSTRY REFERENCES



TOTAL COST OF OWNERSHIP

KEY FACTORS

CAPEX



MAINTENANCE



ENERGY



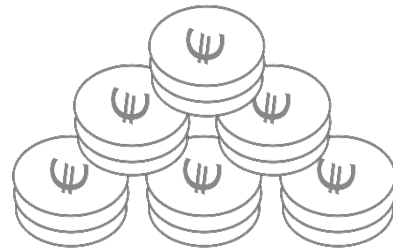
CAPEX vs OTHER FACTORS

IN A 15 YEAR ANALYSIS

CAPEX



MAINTENANCE



ENERGY



 **x 50 !**

COST OF A 250 kW AIR COMPRESSOR

considering capex and electricity only (early 2025 rates)

PURCHASING

Typical Capex: 130.000 €

ENERGY

Typical electricity cost: 0,20 € / kWh

Cost per hour: 250 kW @ 0,20 € / kWh = 50 € / h

Average working hours per year: 8.760 h

Cost per year: 8.760 h * 50 € / h = 438.000 €

15-YEAR COMPARISON

CAPEX

130.000 €

ELECTRICITY COST

6.570.000 €

50 TIMES MORE !

UV SERIES MAINTENANCE PLAN

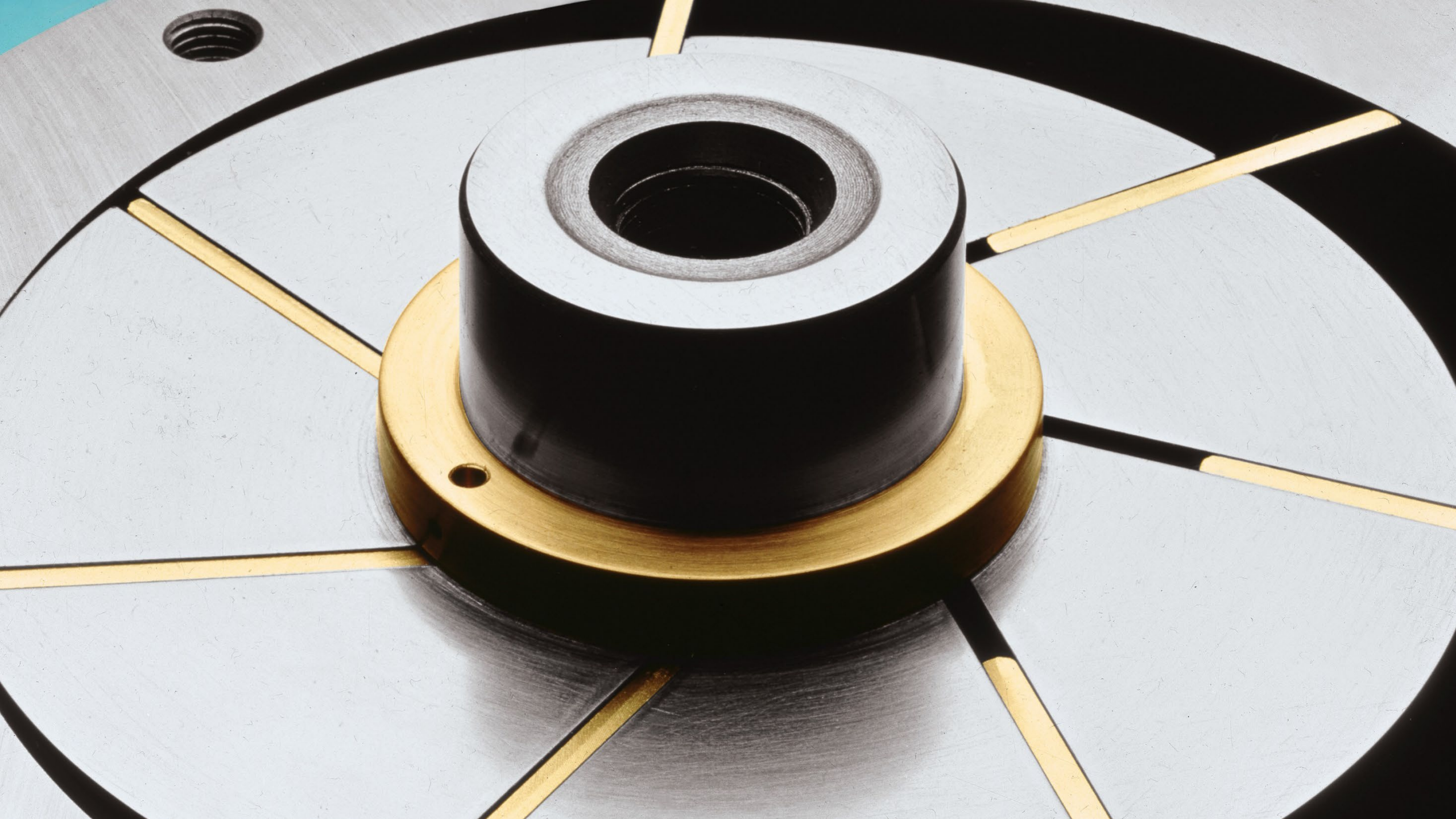
Year	Working Hours	Ordinary Maintenance	Periodic Maintenance	Annual Kit Price* (Euro)	Manpower (Hours)
1	8.000	@ 6.000	NO	3.641	4
2	16.000	@ 12.000	NO	3.641	4
3	24.000	@ 18.000 @ 24.000	@ 24.000	8.138	11
4	32.000	@ 30.000	NO	3.641	4
5	40.000	@ 36.000	NO	3.641	4
6	48.000	@ 42.000 @ 48.000	@ 48.000	8.138	11
7	56.000	@ 54.000	NO	3.641	4
8	64.000	@ 60.000	NO	3.641	4
9	72.000	@ 66.000 @ 72.000	@ 72.000	8.138	11
10	80.000	@ 78.000	NO	3.641	4
TOTAL				49.901	61

10 year service plan for a Pneumofore UV50 vacuum pump
*2025 pricelist

A SERIES MAINTENANCE PLAN

Year	Working Hours	Ordinary Maintenance	Periodic Maintenance	Annual Kit Price* (Euro)	Manpower (Hours)	
1	8.000	@ 4.000 @ 8.000	NO	12.342	10	
2	16.000	@ 12.000 @ 16.000	@ 12.000	15.911	14	
3	24.000	@ 20.000 @ 24.000	@ 24.000	15.911	14	
4	32.000	@ 28.000 @ 32.000	NO	15.911	10	
5	40.000	@ 36.000 @ 40.000	@ 36.000	15.911	14	
6	48.000	@ 44.000 @ 48.000	@ 48.000	15.911	14	
7	56.000	@ 52.000 @ 56.000	NO	12.342	10	
8	64.000	@ 60.000 @ 64.000	@ 60.000	15.911	14	
9	72.000	@ 68.000 @ 72.000	@ 72.000	15.911	14	
10	80.000	@ 76.000 @ 80.000	NO	12.342	10	
				TOTAL	148.403	124

10 year service plan for a Pneumofore A520.8 vacuum pump
*2025 pricelist



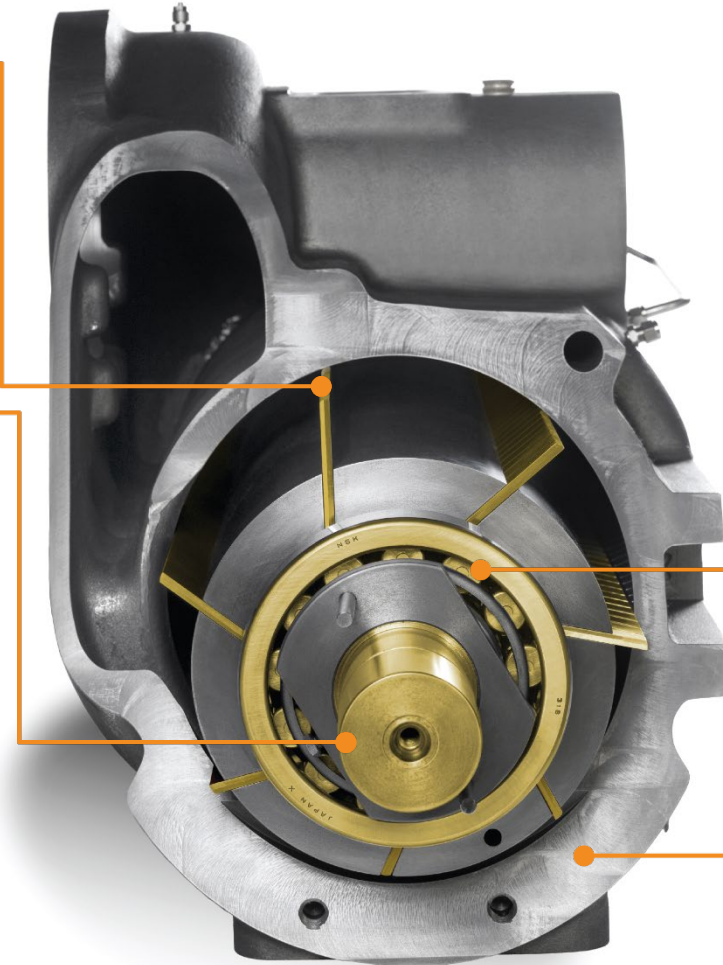
WHY ROTARY VANE

THE VANES

non-consumable parts

DIRECT DRIVE

no transmission loss
low running speed
[900 - 1880 rpm]



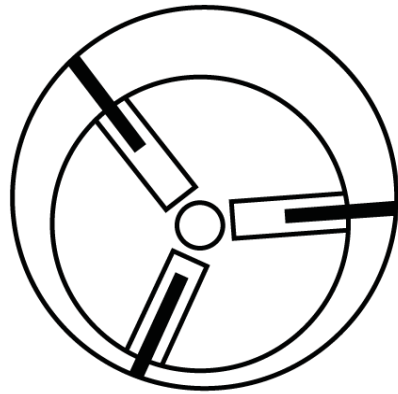
ONLY 2 BEARINGS

120.000 h of operation

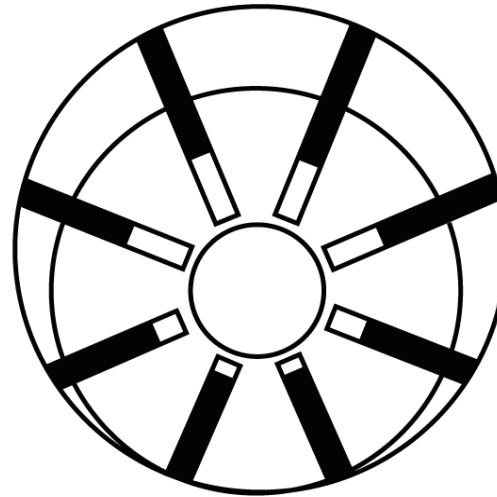
NO OVERHAULING

constant efficiency
extended warranty

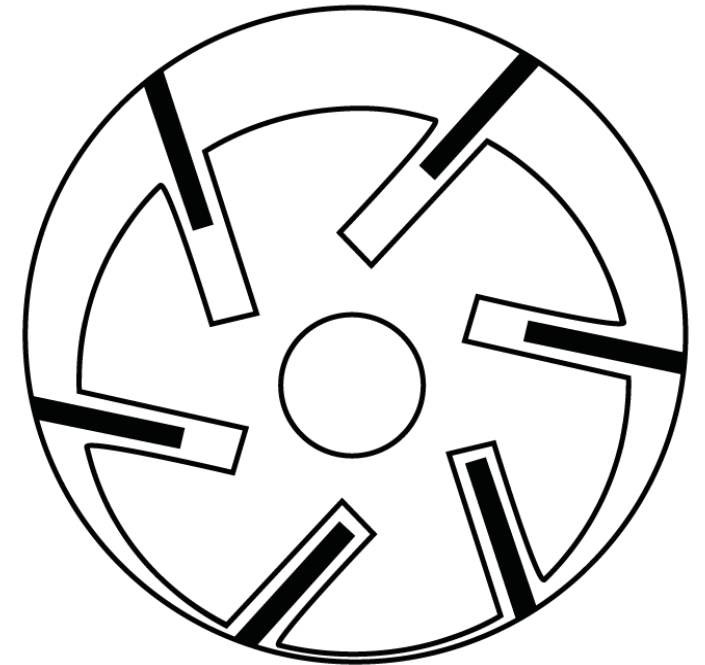
ROTARY VANE COMPARISON



- 3 cuts only
- Cheapest version
- For small pumps



- Radial cuts
- Fibers or cast iron vanes
- For compressors and pumps



- Tangential cuts
- Non-consumable aluminium vanes
- For compressors and pumps

A SERIES

AIR COMPRESSORS



- Between 70 and 4.160 m³/h
- From 9 to 400 kW (installed power)
- From 2,5 to 10 bar(g)
- Air cooling up to 55°C, no water waste
- Maintenance intervals extended to 5.000 Hours
- Up to 5-year warranty on the Air-End
- Fix Speed or VSD (35 to 60 Hz)

UV SERIES VACUUM PUMPS

- 7 models
- 250 - 6.610 m³/h capacity
- Vacuum 0,5 - 450 mbar(a)
- Single-stage
- Low rotation speed
(1.450 rpm @ 50Hz)
- Fully automatic operation
- Air cooling up to 55°C,
no water waste



TAILORED SOLUTIONS FOR CENTRALIZED VACUUM AND COMPRESSED AIR



2 x UV50 VS90, 1 x A180.8 and 2 x A180.8 VS160 - INDONESIA

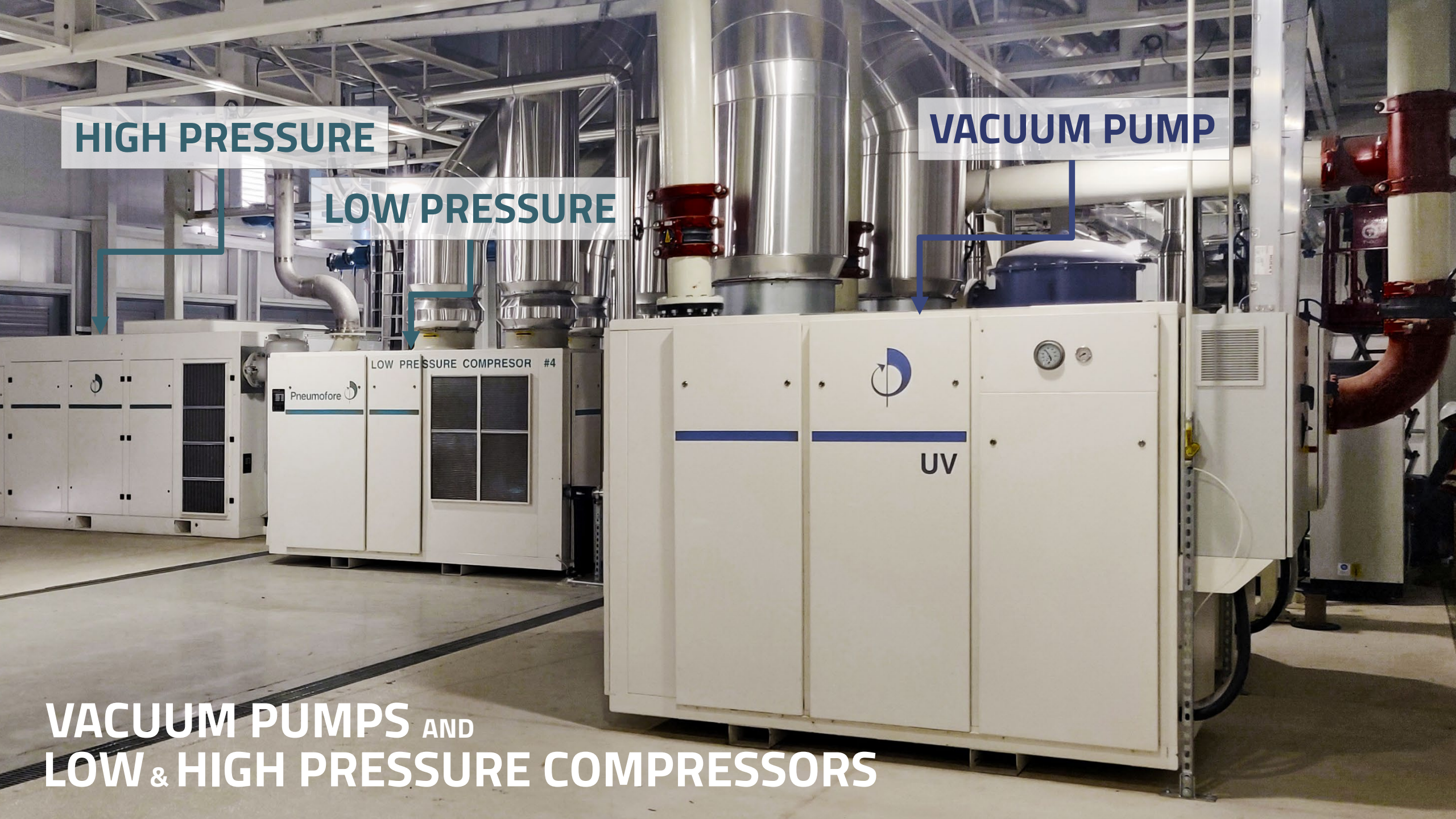


THAILAND

HIGH PRESSURE

LOW PRESSURE

VACUUM PUMP



**VACUUM PUMPS AND
LOW & HIGH PRESSURE COMPRESSORS**

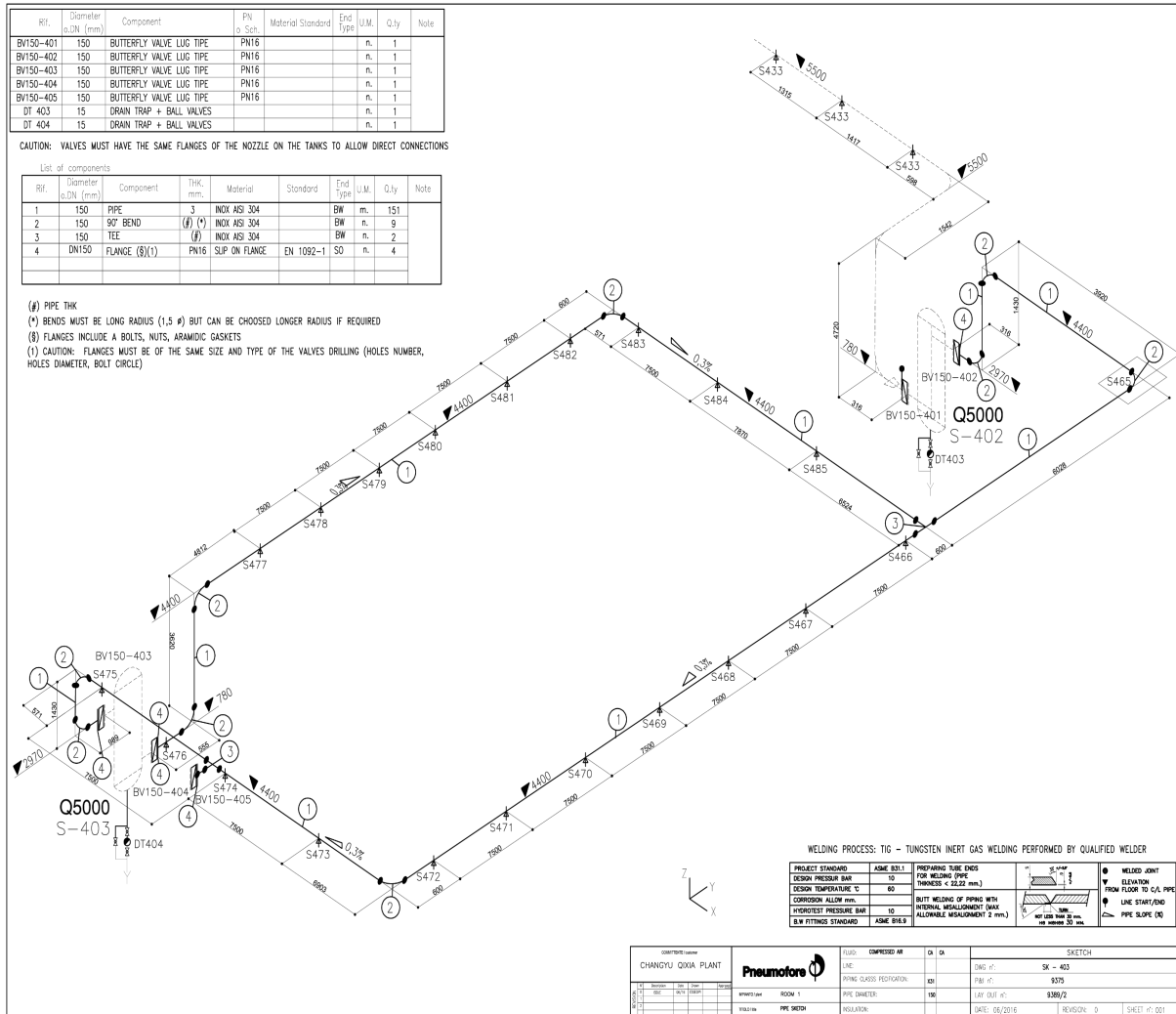
RENTAL CONTRACT

4 x UV50 VACUUM PUMPS

- Rental contract over 5 years
- All spare parts and service included
- Lowest monthly fee by Pneumofore
- Vacuum 380 mbar(a)
- All units are equipped with VSD
- Air-Cooled System
- VacMan System
- Fully automatic operation
- O-I Alloa and O-I Harlow in UK



PIPELINE RING DESIGN

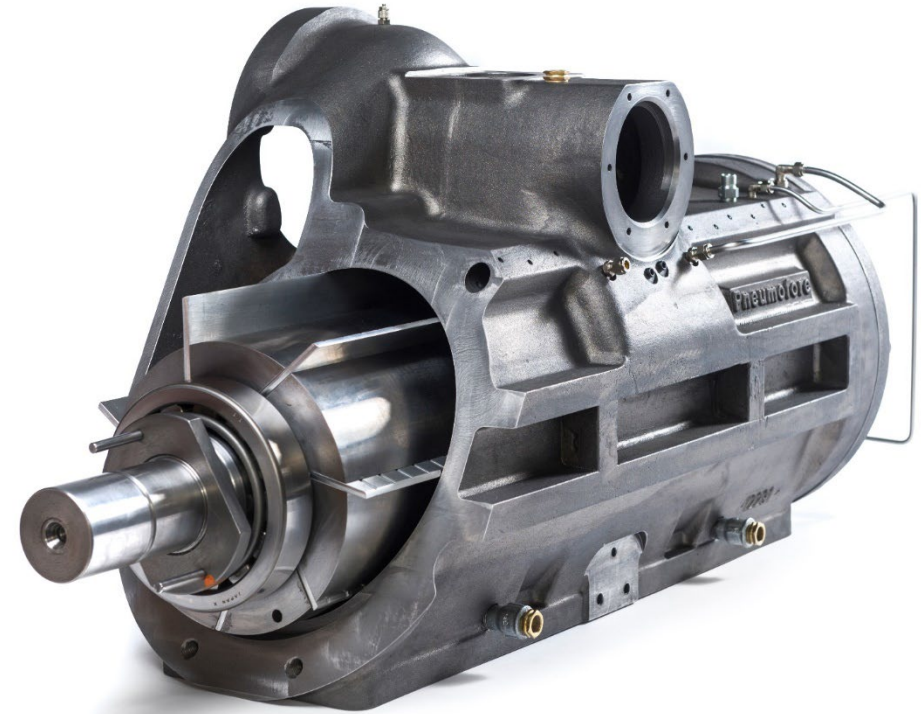


- Ring loop design for balance
- Air receivers at correct point
- No pressure loss
- Calculated pipeline layout

EXTENDED WARRANTY

UP TO 10 YEARS

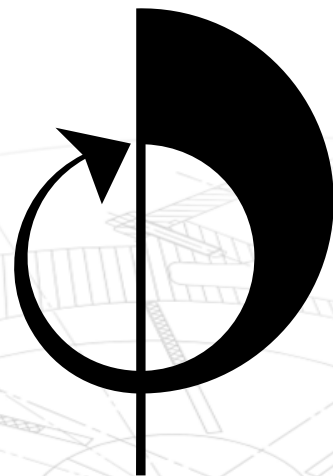
Pneumofore Air End access* the extended warranty on constant efficiency and functionality: 10 years for vacuum pumps, 5 years for compressors, also in case of 24/7 operation



** Provided the customer signs a Preventive Maintenance Contract with a Certified Service Centre, using exclusively genuine Pneumofore consumable spare parts and coolant, according to the instruction manual indications.*

CONCLUSION

- Ask for extended warranty
- Ask for performance warranty: 5 or 10 years
- Ask for references, verify testimonials and case studies
- Verify expected costs for spare parts and service
- Check adsorbed power, not just nominal power
- Calculate the Total Cost of Ownership (TCO)
- Compare various technologies and suppliers
- Choose a solution for the future
- Refrain from low purchase cost machines
- Refer to long-term experience, talk to other glassworks



Pneumofore

**PRESSURE AND VACUUM
FOR IS MACHINES**

Thank you for your attention !