Our expertise, your solution !

Technical Services and Solutions

- Building of pneumatic cabinets and plates
- Sizing, installation and after-sales service of compressors and dryers
- Maintenance of valves and cylinders
- Assembly of motorized valves
- Qualified technical team

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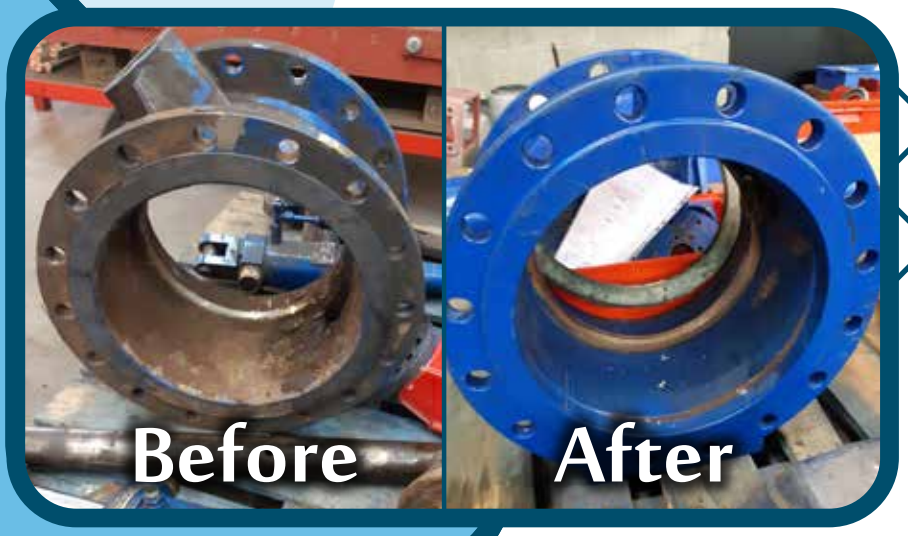
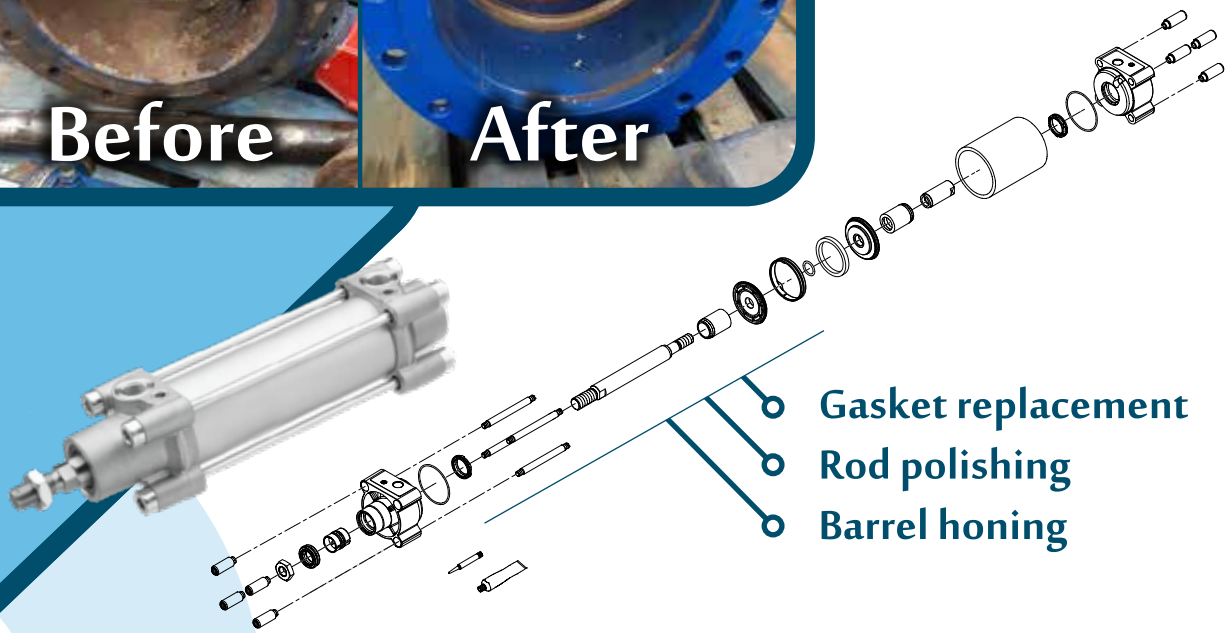
Maintenance of valves and cylinders

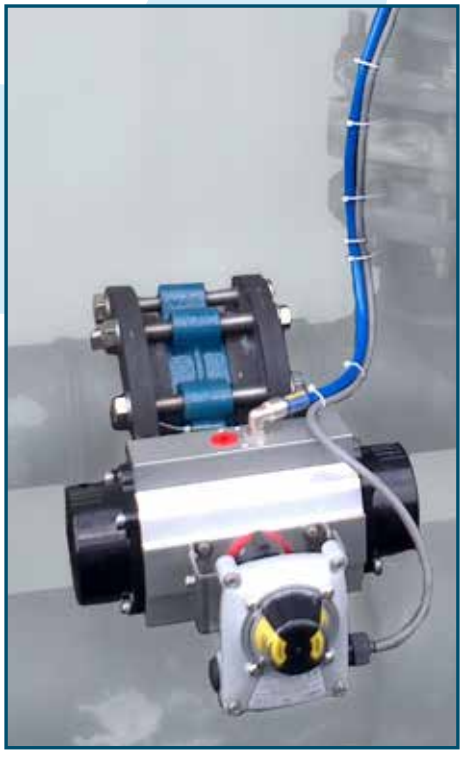


- Seat lapping
- Axis machining
- Paint job
- Gasket replacement



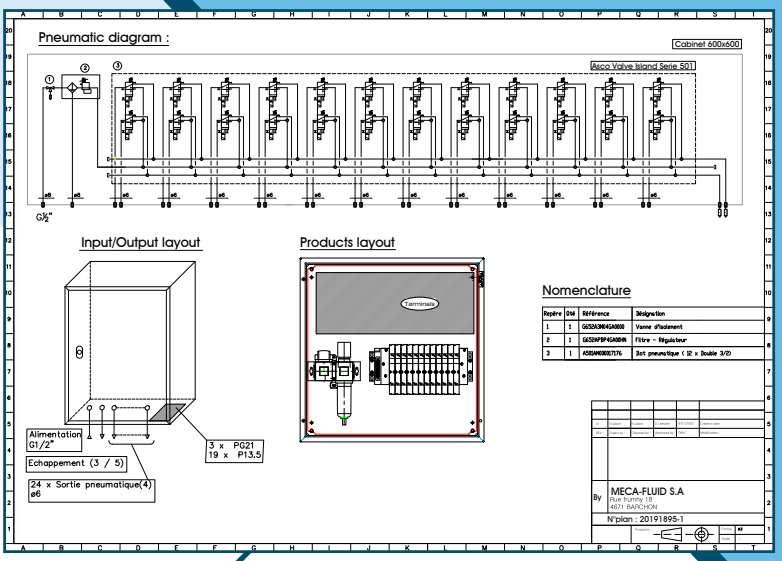
- Gasket replacement
- Rod polishing
- Barrel honing

Assembly of motorized valves

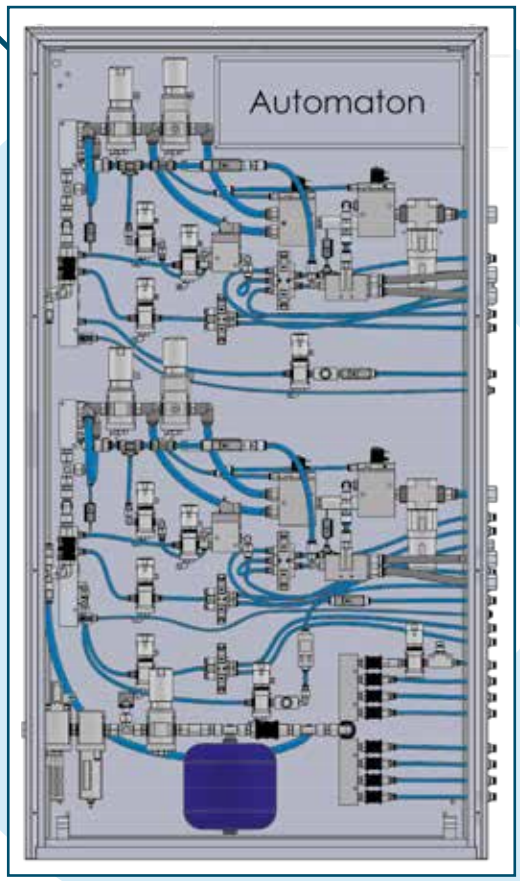


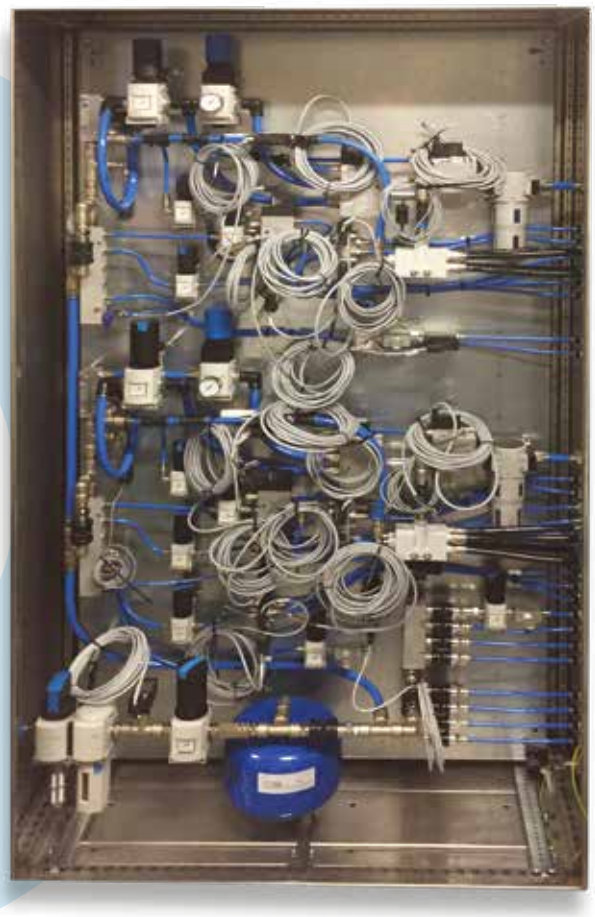
- Pneumatic actuators
- Servomotors
- Positioners
- Limit switches

Building of pneumatic cabinets and plates



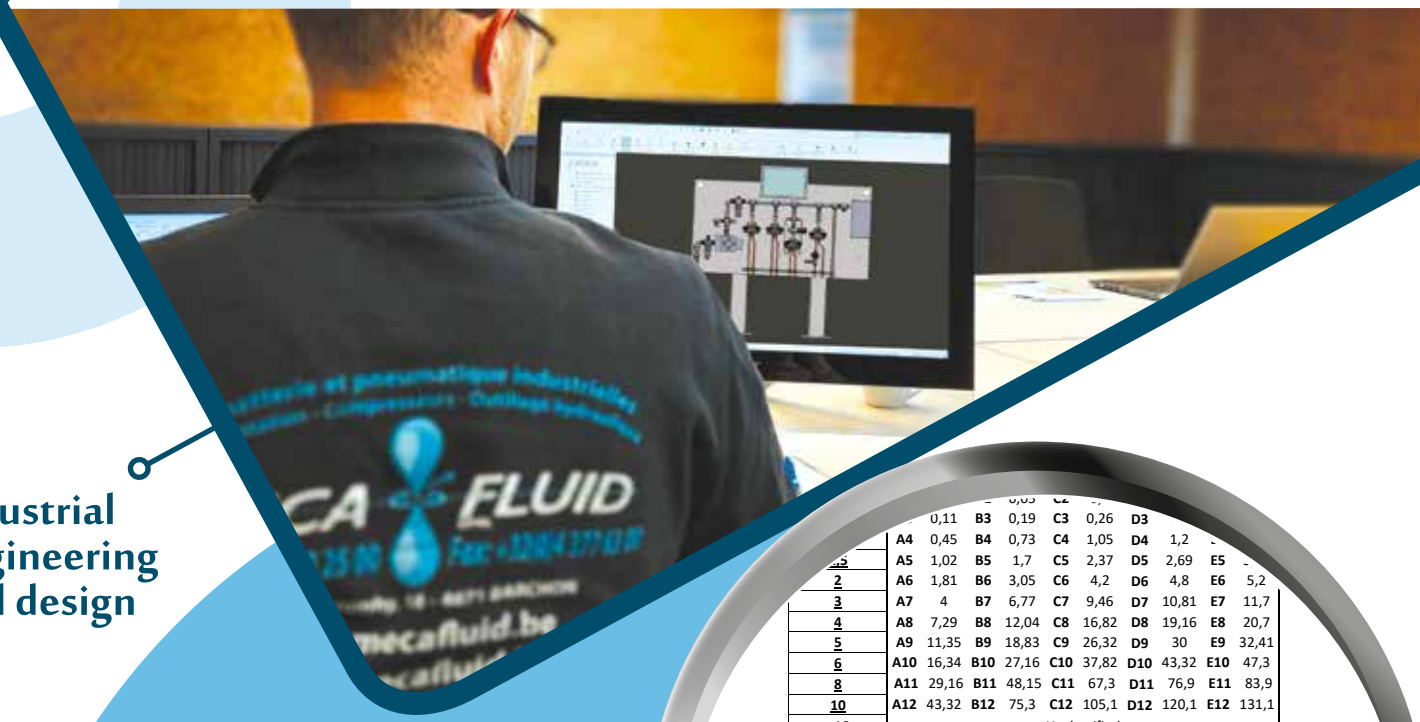
From the diagram to the on-site installation





Process Automation Integrator

Qualified technical team



Industrial engineering and design

Audits of compressed air network (energetic, qualitative and quantitative)

	0,11	**B3**	0,19	**C3**	0,26	**D3**			
A4	0,45	**B4**	0,73	**C4**	1,05	**D4**	1,2		
A5	1,02	**B5**	1,7	**C5**	2,37	**D5**	2,69	**E5**	
A6	1,81	**B6**	3,05	**C6**	4,2	**D6**	4,8	**E6**	5,2
A7	4	**B7**	6,77	**C7**	9,46	**D7**	10,81	**E7**	11,7
A8	7,29	**B8**	12,04	**C8**	16,82	**D8**	19,16	**E8**	20,7
A9	11,35	**B9**	18,83	**C9**	26,32	**D9**	30	**E9**	32,41
A10	16,34	**B10**	27,16	**C10**	37,82	**D10**	43,32	**E10**	47,3
A11	29,16	**B11**	48,15	**C11**	67,3	**D11**	76,9	**E11**	83,9
A12	43,32	**B12**	75,3	**C12**	105,1	**D12**	120,1	**E12**	131,1
				Unclassified					

Number of leaks detected : 64x

Classification : - D1 = 24x
- D2 = 33x
- D4 = 7x

Total flow of leaks : (24x0.05) + (33x0.11) + (7x1.2) => 1,25 + 3,63 + 8,4 =13,28 l/sec

Total flow of fleaks in m^3/h= 47,808 m^3/h

Then, knowing that 1 m^3 / h is equal to 0.03 €, we can conclude that all the leaks detected in this report will cost you 1.43 € / h

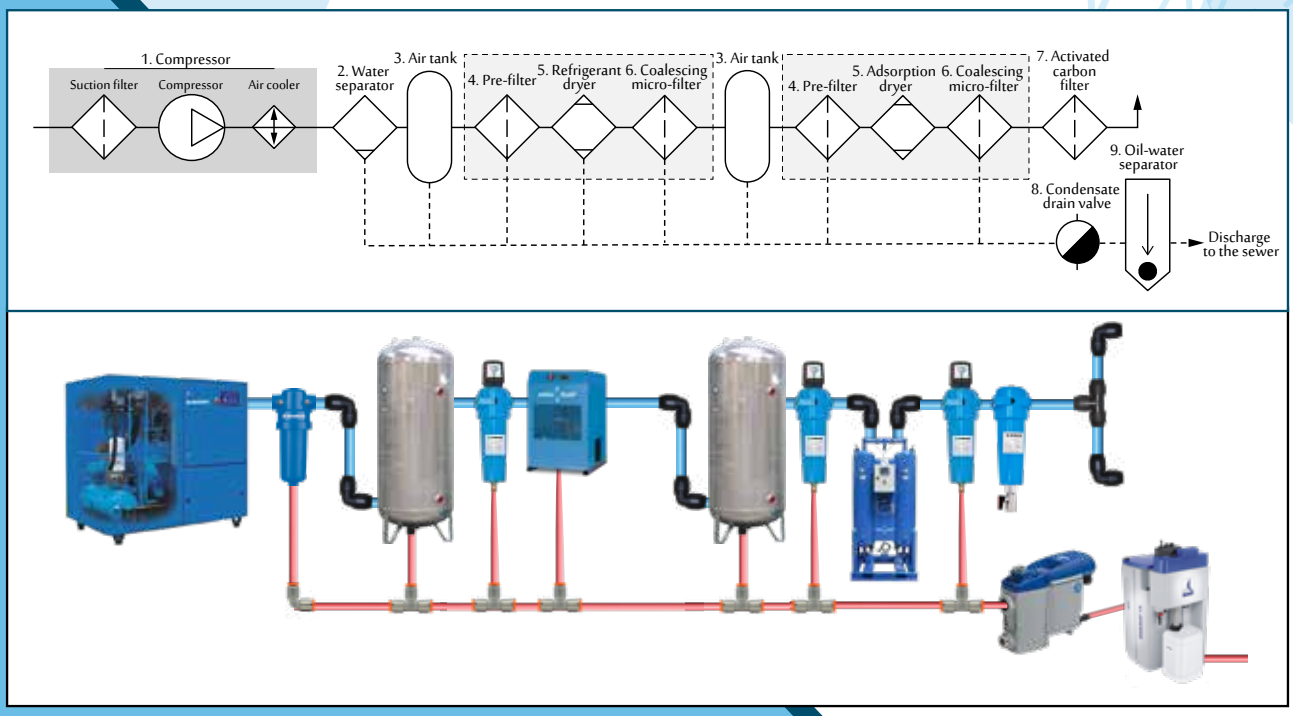
With our audit, you will save 34,32 €/day

That is 12 526,80 €/year

Specific tools

Bespoke design

Sizing, installation and after-sales service of compressors and dryers



Rotary screw compressors

Piston compressors

Design and installation of your entire compressed air network

Technical cases

1. Band tensioner for steel coils

Status :

In order to unwind its steel coils, **a major company in the Liège metallurgy industry** used a mechanical system for tensioning the unwinding bands. By tightening or loosening a nut on a threaded rod, the maintenance technician applies a certain tension to the system. The customer has two such systems.

This operating principle has 3 major disadvantages :

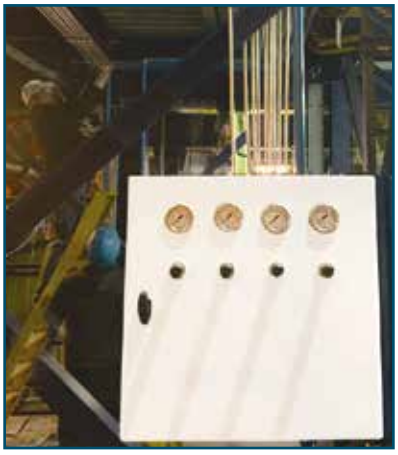
- Compulsory stoppage of the production line to adjust the tension **(loss of time)**.
- Belt wear is not controlled because the **manual intervention performed is less precise**.
- The presence of technicians so close to the line increases the **risk of accidents**.

Solutions :

Our client first asked us to study the replacement of the threaded rod with pneumatic cylinders. After the study carried out by our Technical Services and Solutions Department, we installed pneumatic cylinders on the first system, continuously adjusting the tension of the belts.

Challenges :

- **Sizing the Aventics cylinders** so that they apply the necessary tension (neither too high nor too low).
- The **space** available for installing the cylinders being quite **small**, we had to minimize their sizes while maximizing their efforts so that they could exert sufficient tension.
- From a safety point of view, we recommended the customer to **use a rod lock** because, in the event of a possible loss of pressure in the customer's compressed air system, the cylinders must remain in place and continue to hold the tape.



- **Machining** also had to be **necessary** in order to integrate the cylinders into the customer's installation.
- The customer asked us to **intervene quickly** because any stoppage of his production entails significant costs.

Results :

Following the implementation of this test solution, **the client was delighted with the tailor-made system we provided**. Therefore, this test solution has been permanently implemented on the first part of the system. We then implemented this solution on the second part of his installation.

Our customer can therefore adjust the tension of the belt by adapting the pressure of the cylinders. This therefore allows him **a simpler, more efficient, more profitable and more secure control**.

2. Sizing and installation of a new compressor

Status :

A company producing insulation materials called on our Department of Technical Services and Solutions to **solve a problem of recurring breakdowns and overheating of its existing compressor**. Each stoppage of the compressor leads to dead financial losses due to plant shutdown.

In addition, the company has to increase its global production capacity and therefore its compressed air consumption.

Solutions :

Following our intervention and the resolution of the breakdowns, we suggested to our client to:

1. replace the existing compressor with a **new one**, much more suited to its current production ;
2. **anticipate future additional compressed air needs** by sizing the compressor ;
3. **improve the quality of its air** by installing an air dryer and a water separator ;
4. install a buffer tank allowing **better management of the working hours of the compressor** ;
5. **limit compressor overheating** by improving room ventilation ;
6. establish an **upkeep and maintenance contract** in order to offer him a quality service.

Challenges :

- Any stoppage of the compressor entailing costs for the customer, the latter asked us **to intervene as quickly as possible**.
- **Evaluate the required flow rate** of the customer's installation in order to be able to select the right compressor.

- It was necessary to **drill a bay in the wall** to bring the compressor into the room because, although correctly sized, it is more cumbersome than the previous one. In addition, a fire door was installed at the entrance to the premises, which did not allow it to be removed or expanded.
- **Avoid overheating of the room** by installing (1) a duct on the discharge part of the compressor as well as (2) the installation of a ventilation grille to bring cold air into the room and allow the correct suction flow rate of the compressor.

Results :

Thanks to these adaptations, the new compressor no longer overheats and is now adapted to the customer's compressed air consumption. This therefore results in a **guaranteed longevity** and **less increased wear of the compressor** as well as **a reduction in production stoppages**. Finally, thanks to the maintenance and servicing contract, the customer no longer has to worry about his compressor: we plan shutdowns sufficiently in advance to carry out maintenance at the appropriate time (planned production shutdown, period out of production, etc.).