



Condition Based Monitoring (CBM)

Smint TIQ

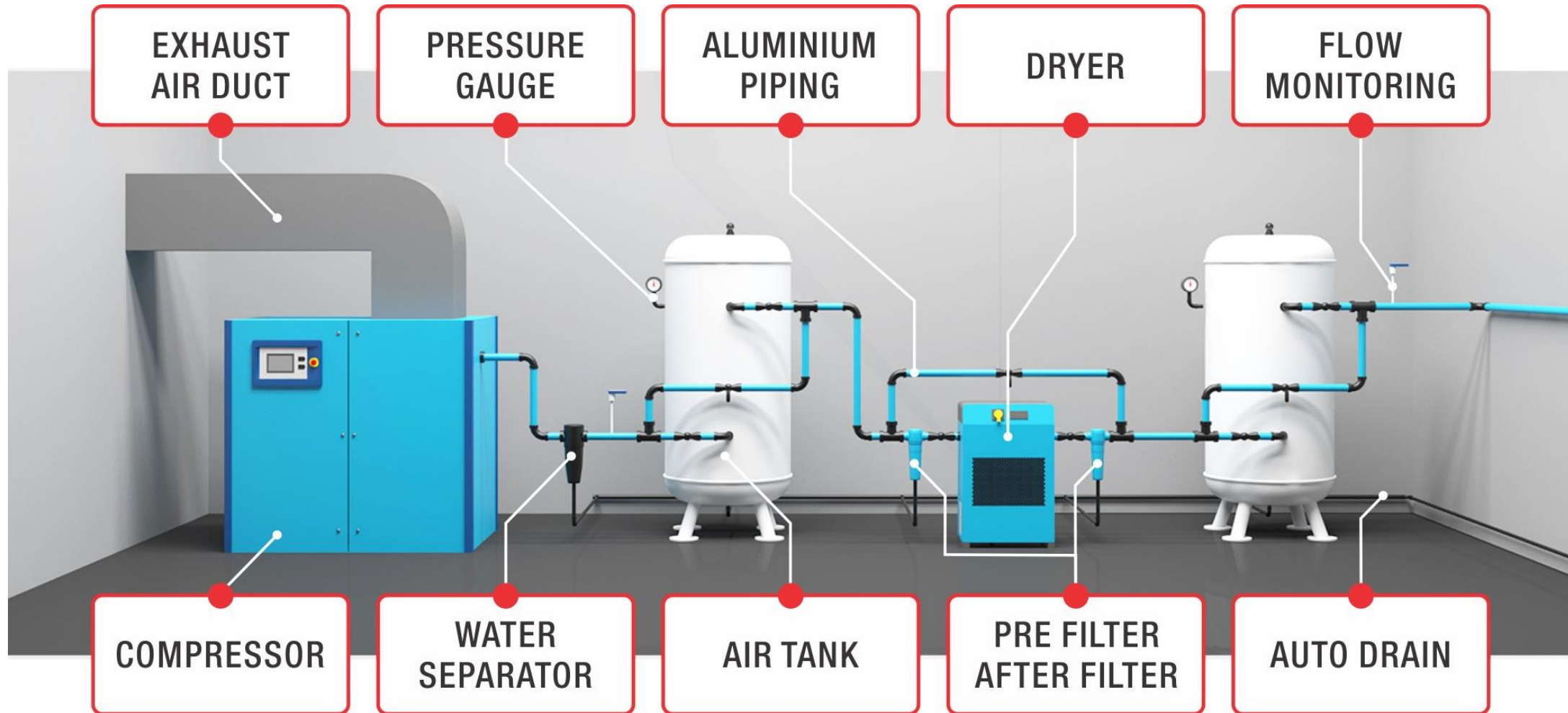
AIR COMPRESSOR

(Air Compressor Efficiency, Pressure,
Flow & performance improvement)

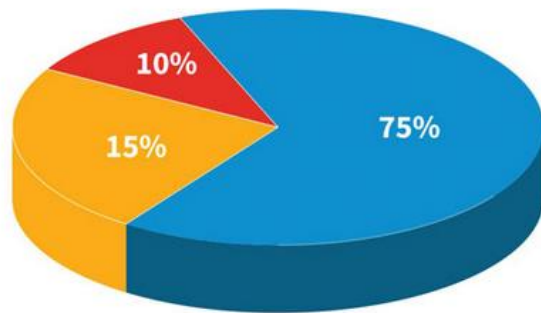


Energy Saving
Opportunities

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Compressor Lifecycle Cost Breakdown

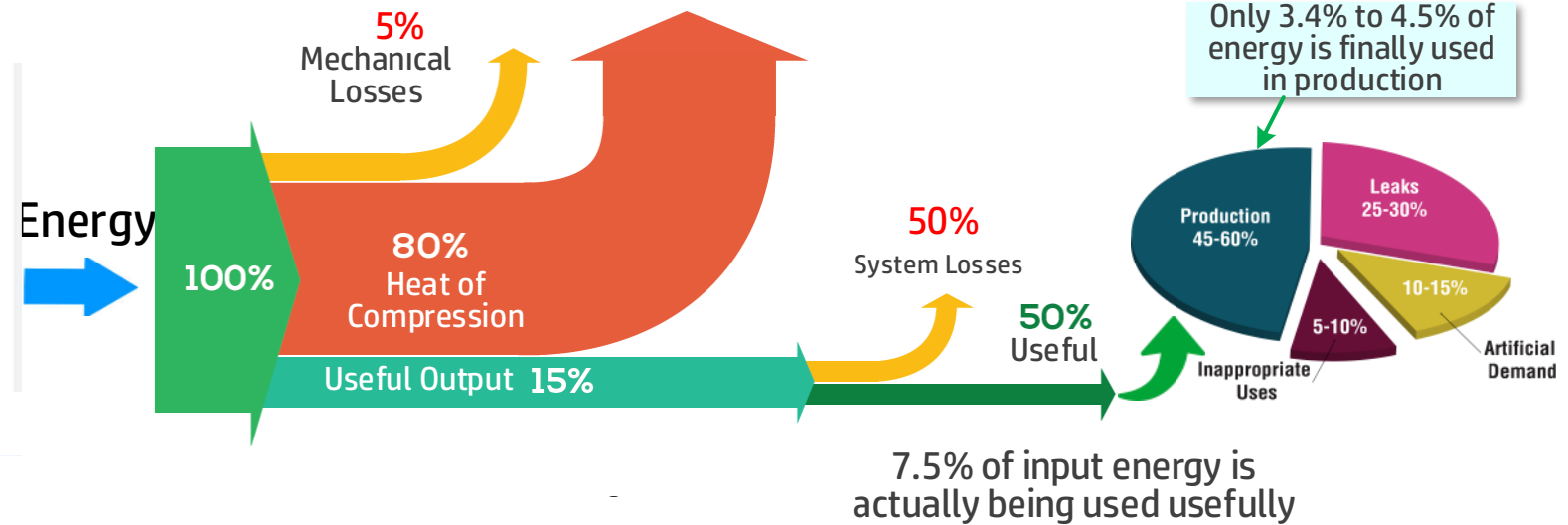


- Maintenance Cost
- Compressor Cost
- Energy Cost

Out of 100 % Electricity Input

- ☐ 5 % are mechanical losses
- ☐ 80 % are heat losses
- ☐ 7.5% is System Loss
- ☐ Finally, only 7.5% of air is used in the plant.

92.5 % Electrical Energy is wasted



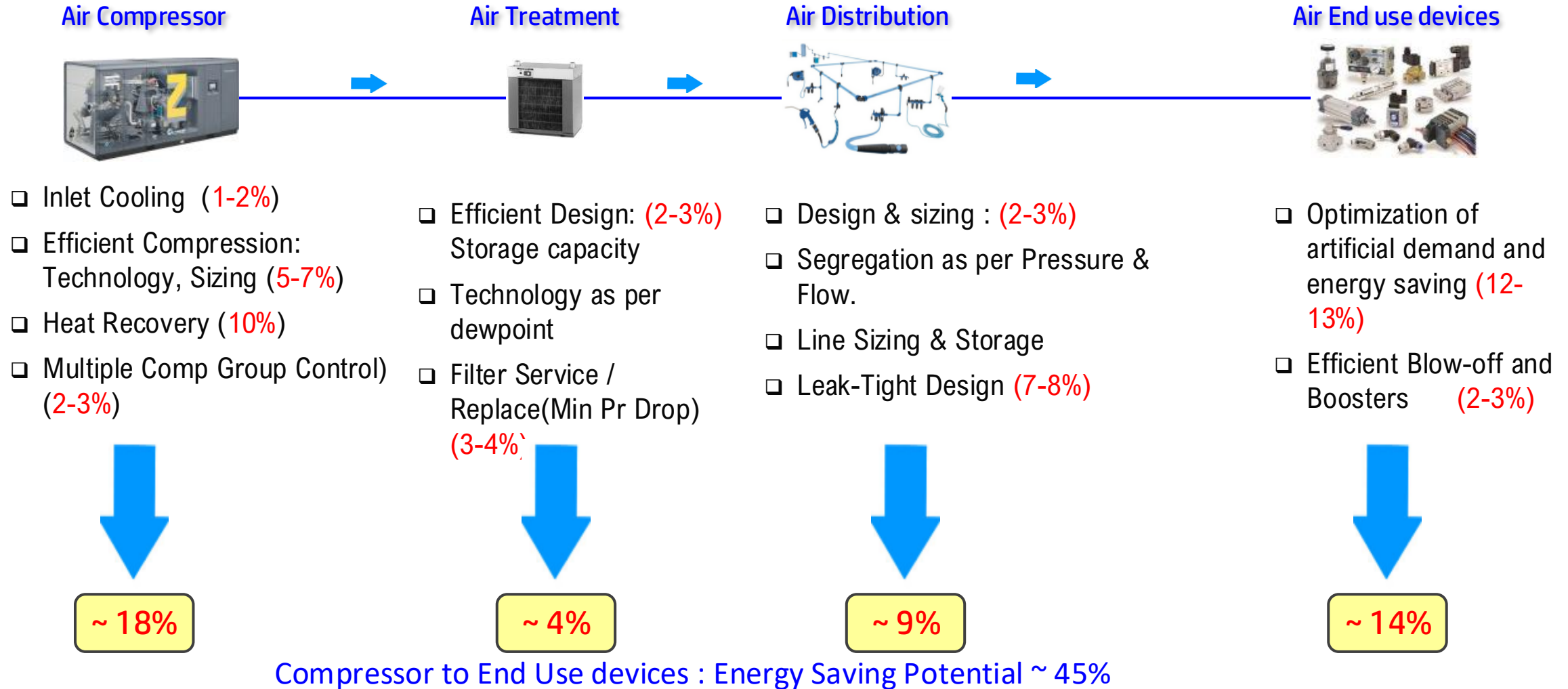
7.5% of input energy is actually being used usefully



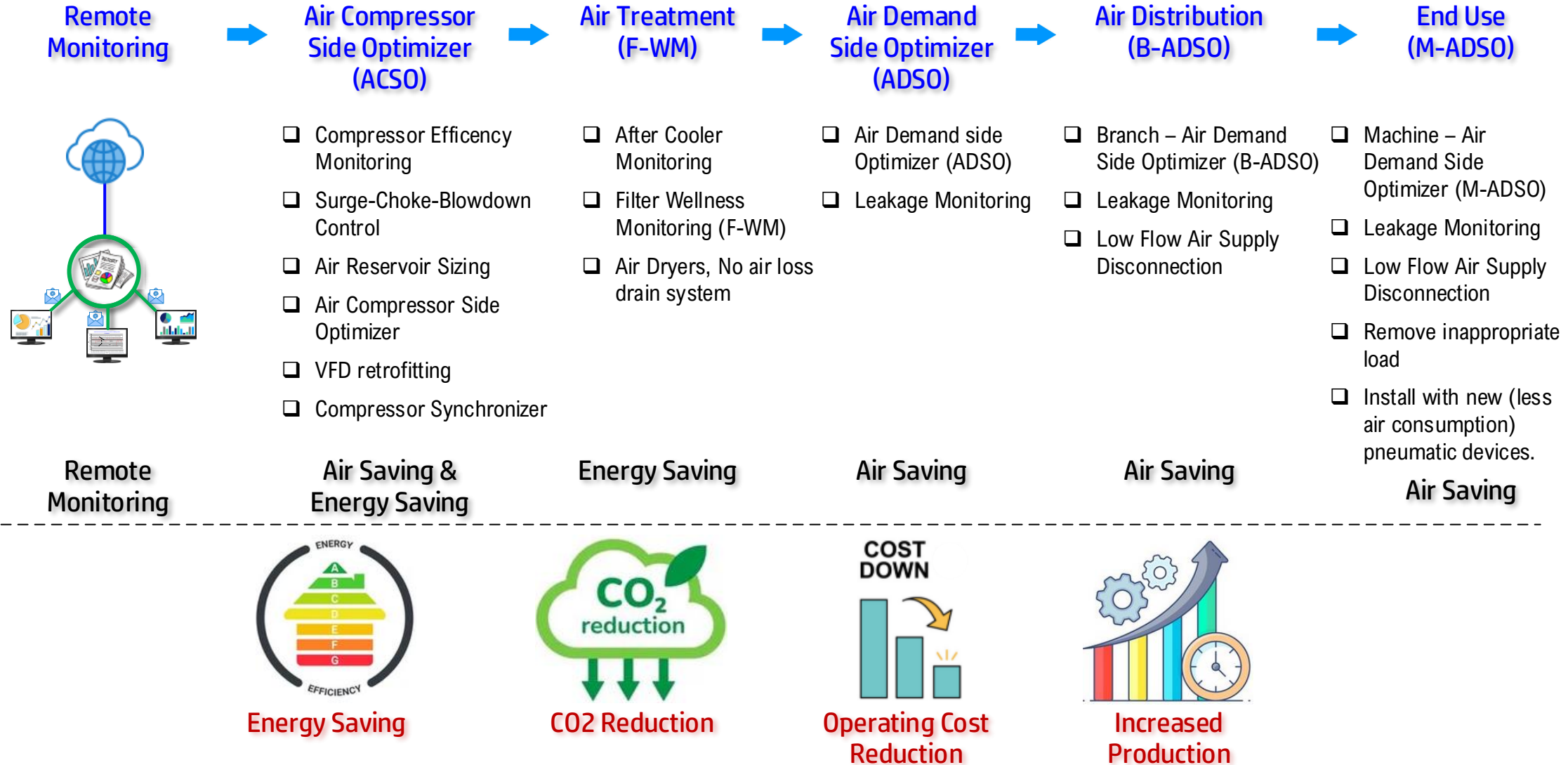
- Production Usage (45-65%)
- Leaks (25 to 30%)
- Artificial Demand (0 to 15%)
- Inappropriate Uses (5 to 10%)



Energy Efficiency in Compressed Air Systems



AIR COMPRESSOR: Effective energy saving approach





Save up to

18 to 24% with Smint Demand Side Optimizer



Increase your uptime with

3% increase in the availability of your compressor (8 days increased uptime per compressor per year)



Operating Efficiency

8% flow efficiency increase an average per compressor. (Ensure optimization of your compressor)



Reduce M&S time

75 fewer trips to reduce windscreen time, maintenance and repair time.



Save up to

During unloading of compressor – **26% energy Wasted.**



Best Efficiency Point

Running compressor - best efficiency point – improves of energy saving and prevents surge & choke – due to this compressor – vane, bearing, vibration damage is eliminated.



Intake Temperature Reduction

Intake temperature reduction reduces the moisture content by more than 50%



AIR Pipeline

Optimizing under sized compressor air pipeline to bigger size reduces the pressure loss, resulted into energy saving.



Air Pressure

High pressure – air requirement of few devices by utilizing air pressure booster to eliminating the overall compressor air pipeline pressure increase. This leads to saving of energy. This shall reduce 30% air consumption.



High Volume

High Volume air requirement devices suddenly creates the air pressure drop in the entire air distribution pipeline – this shall be eliminated by providing local air storage unit – to supply the local volume requirement.



Pneumatic Components

Big volume air cylinder shall be replaced with 3 piston cylinder – return air consumption is zero due to return air circuit. 40% air consumption is reduced.



Air Blow Gun

Replacing existing air blow gun with efficient one will reduce 85% air consumption and increase the peak air pressure by 3 times or more, and 90% less labor time reduction.



AIR & Energy Saving Man Power Reduction



Compressor Optimization M&S Cost Optimization





Information Retrieval System

Smint TIQ



Save Air



Reduce
Air
Leakage

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