



# EVERYTHING ABOUT COMPRESSED AIR INSTALLATIONS

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# GETTING TO YOUR REAL NEEDS

# ENGINEERING

- VOLUME OF COMPRESSED AIR NEEDED AT POINT OF USE
- PRESSURE OF AIR NEEDED AT POINT OF USE
- INSTRUMENTATION
  - METERING
  - AUTOMATION & CONTROLS
  - DATA LOGGING FOR COST CONTROL
- PURITY OF AIR NEEDED AT EACH POINT OF USE
  - MOISTURE
  - OIL
  - DUST/PARTICULATE MATTER



# INSTALLATION



# Energy Efficient Pipework System

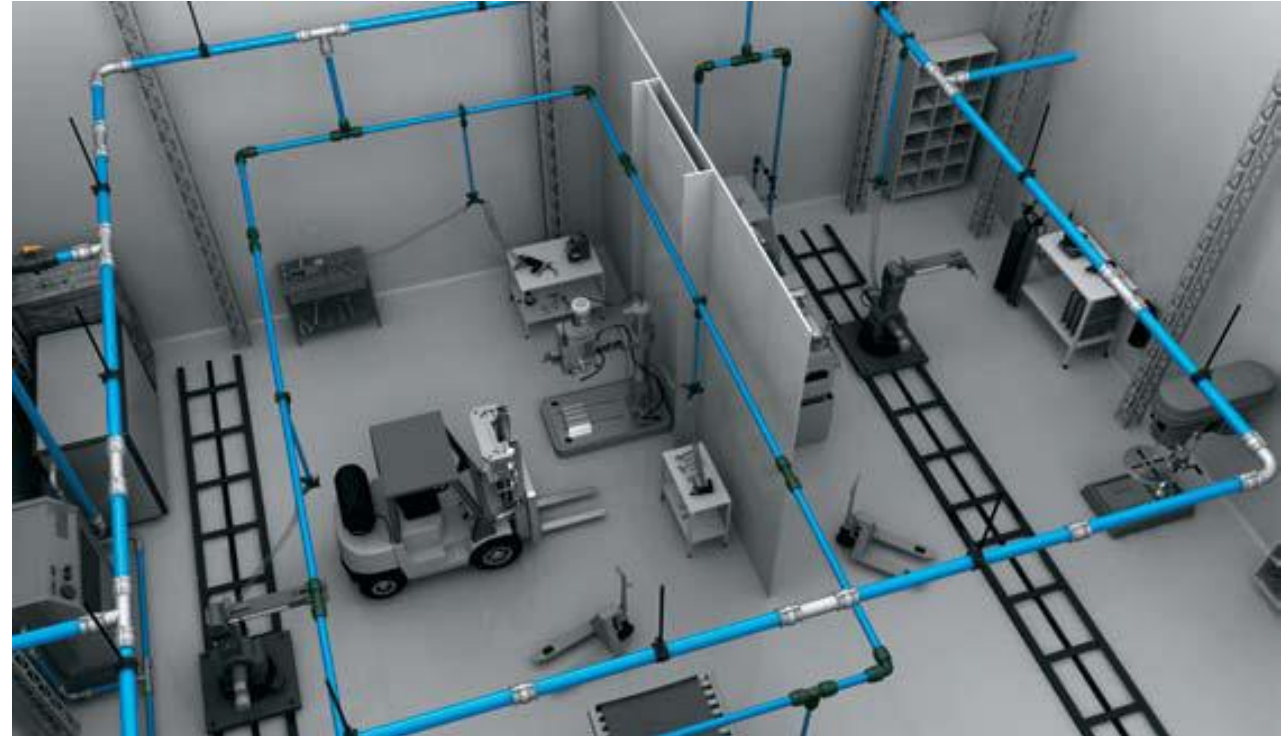
## ALUMINUM PIPING



# A COMPLETE RANGE FROM ENERGY SOURCE TO POINT OF USE



- Air compressors
- Air Receivers
- Dryers & Filter
- Pipework
- Drains
- Metering
- Automation
- Turnkey Installation





# INTRODUCTION TO AIRPRO

## SIZES TO SUIT MOST INDUSTRIAL APPLICATIONS



**16.5mm**

Primary Systems up to 1.5kW (29cfm)  
Secondary Systems Branch Lines & Drops

**25mm**

Primary Systems up to 1.5 – 7.5kW (88cfm)  
Secondary Systems Branch Lines & Drops

**40mm**

Primary Systems up to 7.5 - 30kW (441cfm)  
Secondary Systems Sub-Ring Main & Branch Lines



**63mm**

Primary Systems up to 30 – 75kW (1480cfm)  
Secondary Systems Sub-Ring Main & Branch Lines



**76mm**

Primary Systems up to 75 - 315kW (2943cfm)  
Secondary Systems Sub-Ring Main & Branch Lines

**100mm**

Primary Systems up to 315kW (3531cfm)

**168mm**

Primary Systems > to 315kW (14124cfm)



# Case Study in Pakistan

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# THREE JOINTING TECHNOLOGIES



Ø 16.5, 25 & 40mm PUSH IN FITTING

Ø 63mm DOUBLE CLAMP RING



Ø 76, 100 & 168mm CLAMP & CARTRIDGE

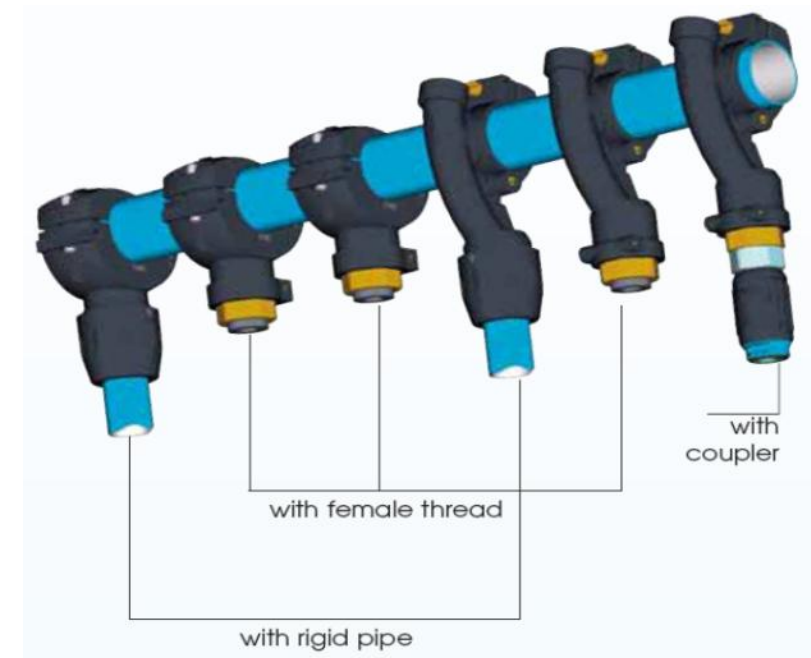
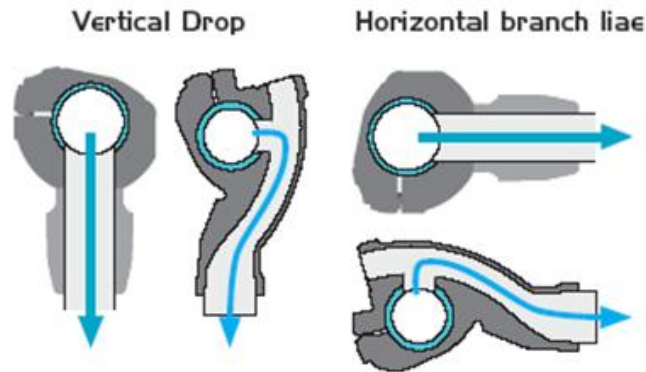


**EACH DESIGN OPTIMISED FOR SPECIFIC DIAMETER**

## QUICK ASSEMBLY BRACKETS

Advantages compared with traditional 'tee'

- > A 'swans neck' built into the brackets retains condensate water in the main line
- > Can be used for connecting horizontal branch line and vertical drops
- > No need to cut pipe, quick installation even under pressure
- > Adding a drop under pressure becomes possible
- > Only one component to make a drop



# FEATURES AND BENEFITS

## Easy to assemble

- > No in depth training required
- > Lightweight, easy to cut pipe material
- > Easier working on site

## Easy to install

- > Pipes and fittings are supplied for immediate installation
- > No preparation required



# FEATURES AND BENEFITS



## ENERGY WINNING

- \*smooth piping material,
- \*laminar flow,
- \*full flow components,
- \*no diameter reduction because corrosion
- \*low pressure drops

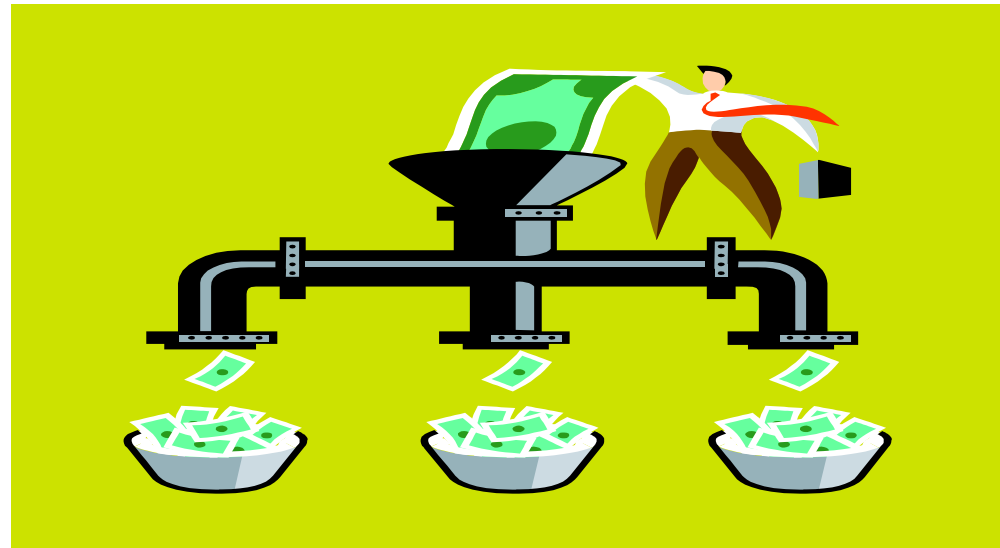


# ENERGY EFFICIENT

Nonetheless, the energy efficiency of many compressed air systems is low:

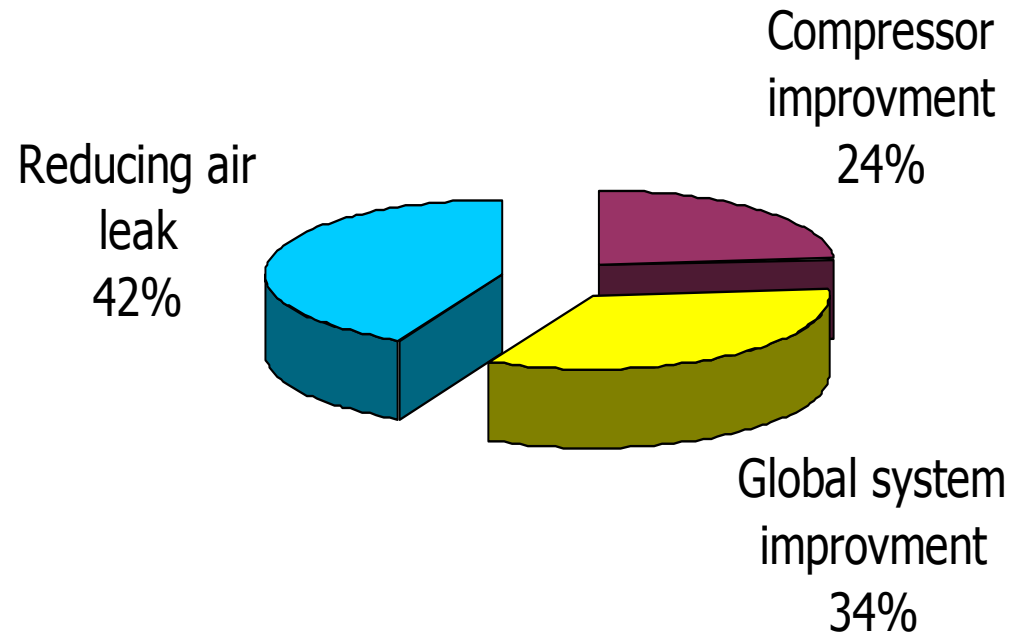
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Case studies show that savings in the range  
from 36 to 50 % are possible.



*Furthermore , most of the savings are achievable with  
modest investments compare to total costs .*

The potential savings (payback time of less than 36 months\*) can be summarize in **3 main categories** in term of potential contribution :



The largest contributor to energy efficiency is to reduce air leaks  
Reducing air leaks + part of system improvement  
=> up to 52 % of potential savings



# ENERGY EFFICIENT

## And what really causes leaks?

- Pipe corrosion
- Expansion & contraction stress on joints
- Bad sealing of the fitting/pipe connection
- Defective valves



## Leakage main consequences:

- Fluctuating pressure drop resulting in poor performance & reduced service life of pneumatic tools & frequent breakdowns
- Excess load on compressor to compensate for the leakage losses and surge of the costs





**Thank You**  
**For Your Time And Attention !**