



 **Thorite**  2017 2018
AIR - FLUID - POWER - PERFORMANCE MOTION CONTROL
INDUSTRY AWARDS

UK Distributor of the year

GAST AIR MOTORS

GAST

Gast Air Motor Range

Air Motors Available:-

- Lubricated
- Non-lubricated
- Corrosion Resistant
- MVP – Modular Vane Power
- In-line gearbox options
- Optional Gearbox Assemblies – By Thorite Technical – Right Angle, Worm Drive & Planetary gear boxes are available dependant on application



Standard AM Range



- What Gast is known most for
- Oil Lubricated Motors
- 4 or 8 vane options
- Single direction – Single Acting
- Reversible – Double Acting
- Relatively easy to control

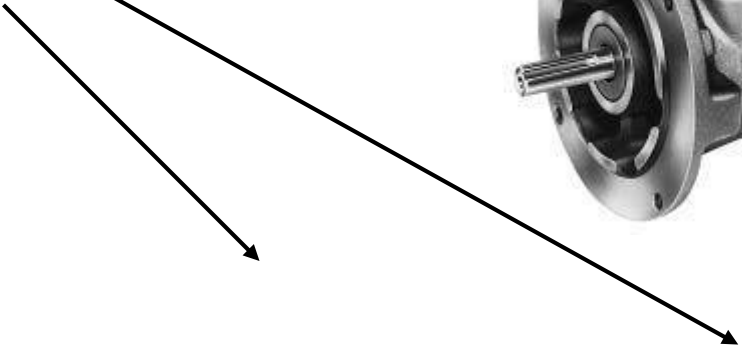
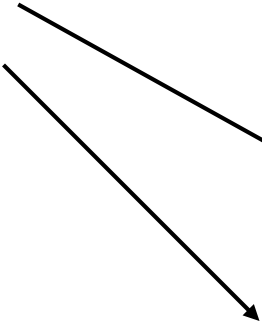
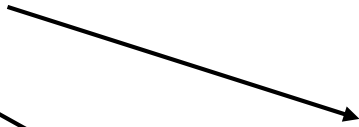


Best analogy to pneumatics is a pneumatic cylinder – speed/power can be controlled with flow controllers/pressure regulators or simple ball valve



Mounting options

- Metric D flange
- NEMA flange
- Foot mount
- Hub mount
- Face mount



Features & Benefits

- Up to 7.1 kW
- Variable speed
- Operates in all positions
- Torque up to 587 Nm
- Cool Running
- Single Rotation, CW/CCW or Reversible
- ATEX Approved
- Speed From 10 to 10,000 RPM
- No issue if stalled

Air Motor vs Electrical motor



Lighter, smaller, less costly

Easily variable speed control – Similar to pneumatic cylinders

Can be stalled out without harming motor

No electrical sparks possible (ATEX)

Cool running

Low maintenance

Long life

Gear Reducer

Used for low speed & high torque applications

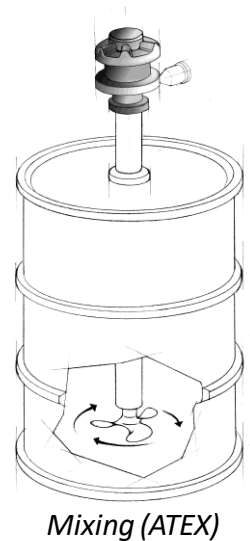
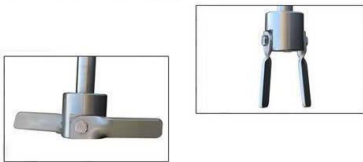


Gearbox mounted

- Currently now assembled by Thorite Technical Team - With support from Gast
- Gearboxes – in-line, right angled, planetary
- All options covered dependant on application
- Optional drive shaft configurations available
- Different ratios & speed options

Applications

- **Mixing equipment (50 % of the sales)**
- Pump drive
- Food pharmaceutical packaging
- Conveyor drives
- Hoists & winches
- Fiberglass choppers
- MVP – Does expand the applications



Applications

- **Mixing equipment (50 % of the sales)**
- Pump drive
- Food pharmaceutical packaging
- Conveyor drives
- Hoists & winches
- Fiberglass choppers
- Offshore
- MVP – Does expand the applications



Motor Selection Criteria

- Starting torque & power
 - Required output RPM
 - Available air supply
 - Environmental conditions
 - Rotation required CW/CCW I.e. mixer vs. hoist
 - ATEX Confirmation –Application based
 - Work under load
 - Commercial (target price if competition involved)
 - Application data is really key to helping specification
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- Good To Know.....for Mixing!
 - Liquid/Material – Viscosity – █
 - Type of paddle/impeller
 - Speed – will dictate resistance subject to liquid thickness
 - Could a torque wrench be used to get a good indication of torque required

Other points to consider

4 vanes:

- Standard option
- Higher horsepower at running speed

8 vanes:

- Allows better control (eg. Hoist)
- Allows a smoother operation at lower speeds – more surface area to work on
- Decreasing horsepower at running speed

Air Motor Range Additions

NLP Motor



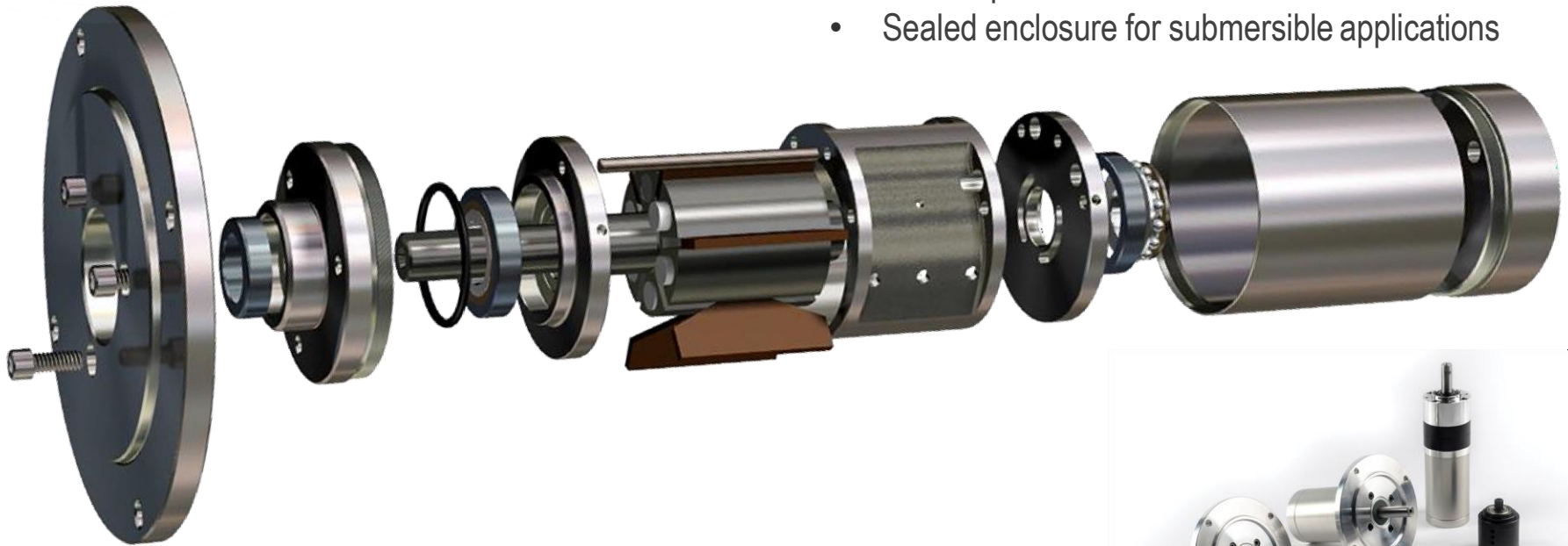
The LubeFree AM Series motors are available in two styles:

- The “LL” option offers the new vanes with light oil and minimal rust protection; ideal for applications where motors rarely get oiled or maintained or need to eliminate lubricators completely – look like a regular motor
- The “NLP” is a fully oil-free construction with complete corrosion protection for harsh or damp conditions; a truly oil less option when the slightest contamination cannot be tolerated
- All wetted part parts coated/finished
- Traditionally when using an air motor you would require an FRL unit
- Similar to any type of pneumatic system
- No need for external lubrication
- Same Gearbox options as regular motors
- 2AM & 4AM versions availbale

**NEW
PRODUCT**

Modular Vane Power (MVP)

- High efficiency/ torque output in small package
 - 10-25% performance improvement over competition
- Weight reduction up to 30% improvement
- 1Hp up to 4Hp designs (0.75kw – 3kw)
- Fully Modular for Easy Customizing
 - Shaft lengths & configurations
 - Integrated gearing options
 - Use with lubrication or without
 - Patented corrosion protection
 - Optional materials
- Sealed enclosure for submersible applications



Summary

- *Over 50% of GAST Air motor sales are sold into mixing applications*
 - *Paint*
 - *Food*
 - *Chemical*
 - *Anything that may need stirring, agitating or mixing*
- *ATEX Approved*
- *Stalling an air motor is not an issue*
- *Single or bidirectional*
- *4 Vane – Standard*
- *8 Vane - More control*
- *Complex controls not required*
- *Cool running*
- *Lubrication Free options available*
- *Stainless options available*