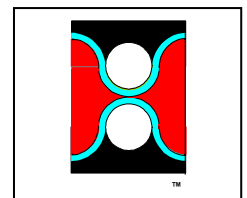
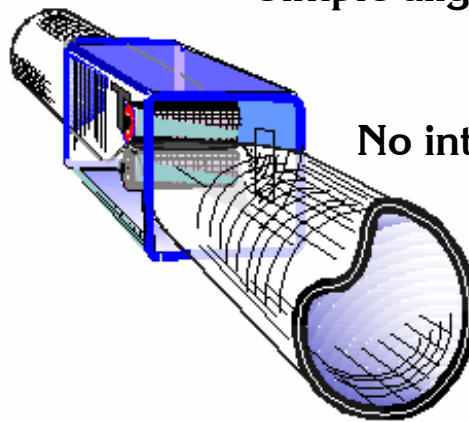


LONG STROKE LINEAR DRIVE

- ◆ Virtually unlimited stroke
- ◆ High Speed
- ◆ No piston rod
- ◆ Simple alignment
- ◆ Compact
- ◆ No internal seals
- ◆ High efficiency
- ◆ Flexible
- ◆ Simple maintenance
- ◆ No mechanical linkages
- ◆ No lubrication
- ◆ The cost effective solution for long strokes
- ◆ No magnetic or flexible couplings
- ◆ Equal thrust in both directions.



PERISTALTICS

What is a "Rol-Air-Mota" ?

Just tube, 2 rollers & compressed air.

The Rol-Air-Mota® Piston clamps the two rollers across the Tube, (No air passes between the rollers). The Tube is sealed at both ends by plugs with ported connections and pulled tight using the tensioner. Static guides stop the tube wearing against the Rol-Air-Mota® side.

Air then pushes the rollers backwards & forwards. Both ends of the tube are then static and the load to be moved is connected to the piston.

In its basic concept, the Rol-Air-Mota® can be used in similar manner to a conventional "Piston" or "Rod less" air cylinder. Careful examination however, will reveal very special qualities, which carry the era of pneumatics into a whole new field of linear propulsion.

* Length of stroke *

Rol-Air-Mota® starts where other types of air actuation stop. Stroke is standard up to 30 metres and can be changed "on site".

* Alignment *

Is NOT critical, because only the flexible tube links to the driven part.

* Service / downtime *

Significantly reduced...because the tube only wears "per cycle" and is not affected by the stroke like "Piston or Rod less" cylinders. An added benefit is the Rol-Air-Mota® tube change takes only minutes without needing major surgery.

* Speed *

Is increased because the Rol-Air-Mota® has no "Stiction" as normal air cylinders. Some clients claim speeds up to 10 mts per sec.

* Thrust *

Is equal in both directions allowing "Double Inflation" to stop the Rol-Air-Mota® at any point along its travel.

* Air quality * & Filtration - Lubrication

Almost any quality of air is perfectly acceptable, the Rol-Air-Mota® will even run "water powered"

* Tube * and how long it last.

A295 45mm dia.

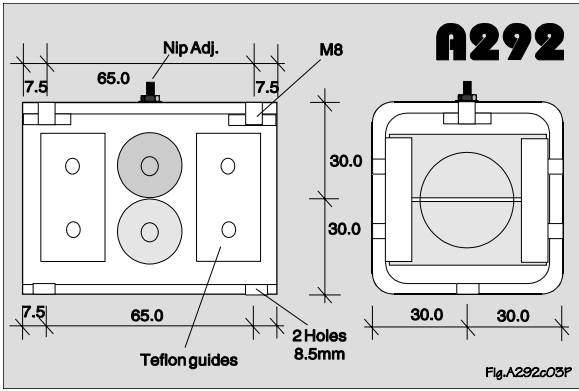
A293 25mm dia.

Tube for long life and high speed.

All tubes operational life depends on the work they have to do. Load, Speed, Snatch, Inertia & Rolling resistance all contribute to tube wear, Because of the **lack of mechanical linkage** Rol-Air-Motas® are frequently under specified for the job (*no problems with the piston rod deflecting or the chain stretching*).

A295 Drive Tube regularly achieves over 60,000 cycles (operations, out and back).

Please Note ! Rol-Air-Motas quote life in cycles (out & back) irrespective of stroke length.Air & Hydraulic cylinders have internal seals on which wear increases relative to the length of stroke.



Larger diameter models are under development, but, in the meanwhile, it is normal to connect Rol-Air-Motas in parallel when greater thrusts are required.

Rol-Air-Mota is a reg Trademark.
UK Pat 1358361 ...Worldwide patents apply

Order Table

There are 2 models in current production;

A292 25mm Kit
A300 45mm Kit

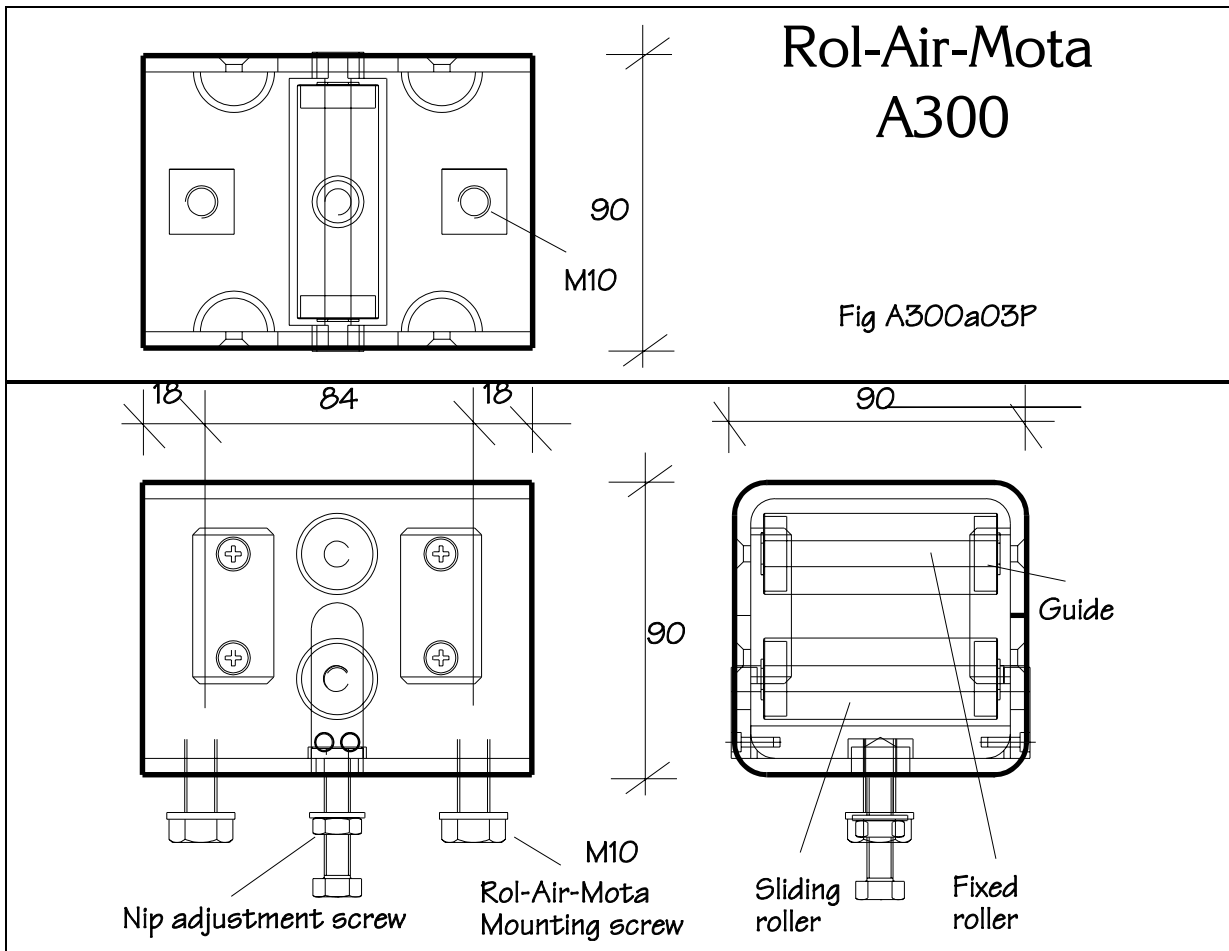
The A300 is the standard with the 25mm A292 available for low thrust applications.

The Drive Tubes are;

A293 25mm
A295 45mm

Technical Data.....

	A292	A300
Maximum pressure	10 Bar	10 Bar
Max.ambient temp.	60C	60C
Min.ambient temp.	-40C	-40C
Weight of piston.	675g	2200G
Thrust dev. @ 2 Bar	105N	320N
Thrust dev. @ 4 Bar	210N	640N
Thrust dev. @ 7 Bar	350N	1070N
Thrust dev @10 Bar	525N	1605N
Lubrication	None	None
Consumption/mtr.7 Bar	10cu.dm	25cu.dm.



A300M40E