

# Speed Torque and Position Control

Constant Speed Control	Metric	Imperial
<b>Dynatork 1</b>		
Ports	3/8" BSP(T)	3/8" BSP(T)
Weight	1.71 kg	3.8 lb
<b>Dynatork 3 &amp; 7</b>		
Ports	1/2" BSP(T)	1/2" BSP(T)
Weight	2.54 kg	5.6 lb

## Dual Mode Pneumatic Regulator System

### System Description

The Dual Mode Regulator is a process control device that controls both air pressure and flow to the motor. The Regulator is designed to eliminate problems associated with transferring energy utilizing pressurized air and pressure controlled regulators.

The Dual mode Regulator incorporates a combination of a pressure regulator, flow regulator, and pneumatic flow switch

to accomplish the control. During a stopped or stalled condition the Regulator output pressure is automatically set to an adjustable level. When a change in energy is required an air flow change is sensed switching the control of the Regulator from pressure to flow modulation. During modulation mode the output pressure of the Regulator is adjusted to maintain a specific flow rate and torque to the work.



**Order Code :**  
**Dynatork 1**  
**926.3076-51-00A**



**Order Code :**  
**Dynatork 3**  
**926.3076-63-00A**  
**Order Code :**  
**Dynatork 7**  
**926.3076-67-00A**

### Standard Features

- Automatically controls air pressure and flow rate.
- Dynamic control during working cycle.
- Independent adjustment of pressure and flow rate.
- Minimises effect of pressure drop in air supply.

## Dynatork Motor Control

### Electrical Option

Dynatork Motors use three cylinders with alternative reciprocating pistons, this motion easily allows the incorporation of a Inductive Proximity Sensor. These can be fitted to one or all three Cylinders depending on the required accuracy. The principle of operation:



- **Dynatork Air motors adapted to accept M8 proximity sensors to each Cylinder cap.**
- **When each piston reaches top dead centre the Proximity Sensor passes a “1” signal to the Programming/Computer device.**
- **The Programmer/Computer counts the pulses, either 3 pulses or 1 pulse per revolution.**
- **After “X” number of pulses the programming unit changes the Air Motor mode of operation, from Stop - Reverse - Delay and/or start another function.**

### Pneumatic option

By replacing the Proximity Sensor with a Pressure Sensor the basic Motor operation pressurises each cylinder in turn to drive the pistons, alternating condition on each cylinder will give an output signal to be used in the same way, the advantage of this method over the Proximity Sensor is that special pistons are not required.

#### HOW TO ORDER

All Dynatork motors can be produced with fittings to accept Proximity Sensors, due to the wide variety of sensors we supply the motors with special pistons, and the cylinder cap filled with a blanking bolt.

Motors with sensors are treated as special applications due to the wide variations.