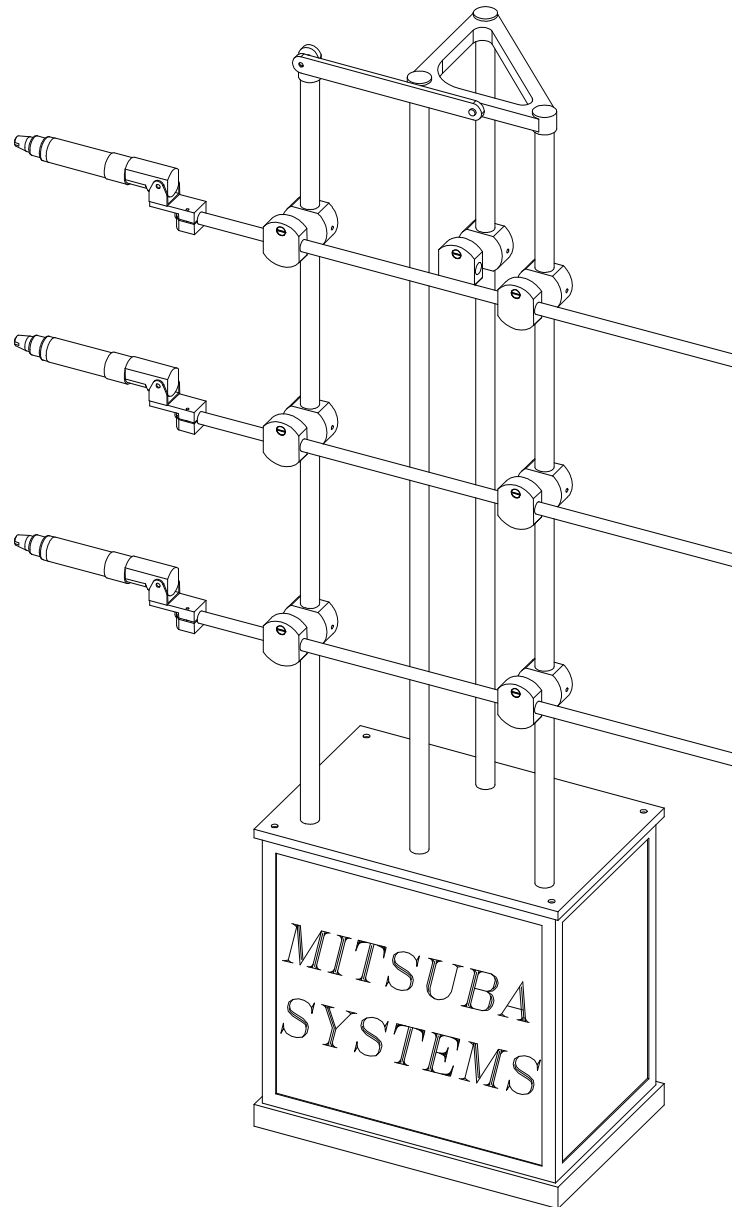


OSCILLATOR



ELECTRO-MECHANICAL OSCILLATOR
SCOPE OF SUPPLY

FEATURES

Multiple guns can be mounted on arms extended from the carriage which are capable of performing same or various motions. There is a facility to attach fixed guns which can be angled to access difficult coating areas. The carriage is programmed to move the vertical mounting bar at variable stroke and speeds. The carriage moves up and down through AC geared motor. The carriage is supported by a very sturdy frame structure. The entire oscillator is on castor wheels to facilitate easy movement during colour change.

CONTROL

The movement of the carriage is controlled by a most update A.C. frequency drive and an inbuilt analogue based controller to achieve the desired speed. The stroke can be varied mechanically.

SPECIFICATIONS

- STROKE SPEED : 0 - 28 cycles / minute (INFINITELY SELECTABLE)
- STROKE : 100 mm Min / 300 mm Max of vertical bar
- ANGLE OF SWING : Adjustable upto 90 deg.
- Max No.of Guns : To Suit Application
- CONTROL : VARIABLE FREQUENCY DRIVE
- MOTOR : GEARED ½ HP. AC MOTOR
- INPUT VOLTAGE : SINGLE PHASE 230 VAC (OTHER VOLTAGES ON REQUEST)
- POWER : 0.37 KW (1/2 HP)

OSCILLATOR SPEED CONTROL FEATURE

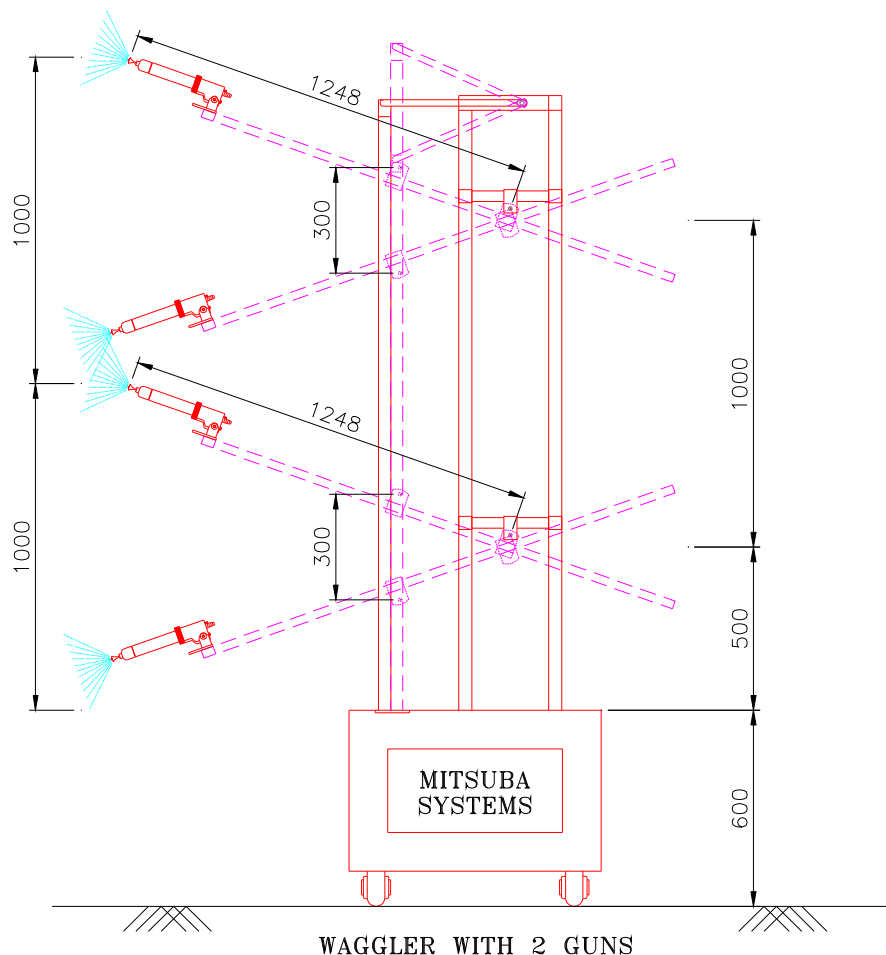
Speed of the moving arm and thus the guns can be varied very easily by the adjustment of a multi-turn speed adjuster at the rear of the oscillator. This step less control in turn gives a signal to a most update A.C. frequency drive and an inbuilt analogue based controller to achieve the desired speed. The speed of the moving arm of the oscillator can be varied from 0 – 28 cycles per minute.

OSCILLATOR STROKE CONTROL FEATURE

The movement stroke of the oscillator carriage is achieved by physical variation of the stroke control mechanism on the oscillator.

Stroke of each of the mounted guns can be varied in the following manner.

Vary the gun mounting rod distance from fulcrum. By increasing the distance of the gun from the fulcrum, the resultant arc (movement height) of each gun can be increased. Thus in the below drawing you can observe that to achieve a total stroke of 2000mm, the moving rod distance from the fulcrum is ~1250mm and the resultant stroke of each gun is 1000mm. Two guns shall be required to achieve the desired stroke. Even in this mode you can observe that the fulcrum can be moved front to rear to further achieve a variation of 300mm in the set 1000mm stroke for each gun. This larger gun stroke coupled with lesser number of guns is an ideal combination for conveyor line speeds of about 0.6mtr/min to about 1.5 mtr/min.



By reducing the moving rod distance from the fulcrum you can achieve a lesser stroke but can increase the linear speed of each of the guns. Thus in the below drawing you can observe that to achieve a total stroke of 2000mm, each gun is kept at a shorter distance of around 600mm from the fulcrum and each gun achieves a stroke of 500mm. Four guns are required at this combination to achieve the desired 2000 stroke. Thus in this option we can reduce stroke of each gun to increase number of guns on the oscillator to achieve higher conveyor speeds. Even in this mode you can observe that the fulcrum can be moved front to rear to further achieve a variation of 300mm in the set 500mm stroke for each gun. This lesser gun stroke coupled with higher number of guns is an ideal combination for conveyor line speeds of about 1.8mtr/min to about 3.0mtr/min. A similar concept can be applied to this option and much higher line speeds can be achieved by increasing number of guns on the oscillator at their appropriate stroke adjustment.

