

# Adams



**T**he Multi-Outlet Radial Pump is traditionally used for slow moving heavily loaded bearings. Widely used on Rolling Mills, Dockside Cranes, Water Treatment Plant. etc.

## □ Multi-Outlet Radial Pump

## Description

The design of the Radial lubrication pump has been used for many years as a simple means of providing a great mechanical advantage using the worm and wheel gear, together with the eccentric drive to the plungers.

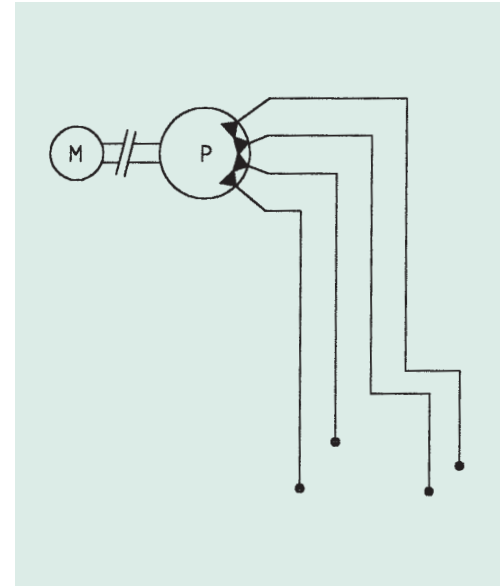
This principal can be varied to give precise volumes over extended periods with very little maintenance. Individual pumping units can be adjusted to accommodate lubrication point requirements. Pumps can be mechanically driven via the shaft or ratchet, as well as pneumatic or electric operation.

## Method of Operation

The Radial lubricator is driven via the horizontal drive shaft which is carried in 2 thrust bearings. The eccentric shaft is rotated by means of a worm gear drive. A grooved thrust collar, which is mounted in ball bearings on the eccentric shaft, drives the pumping units.

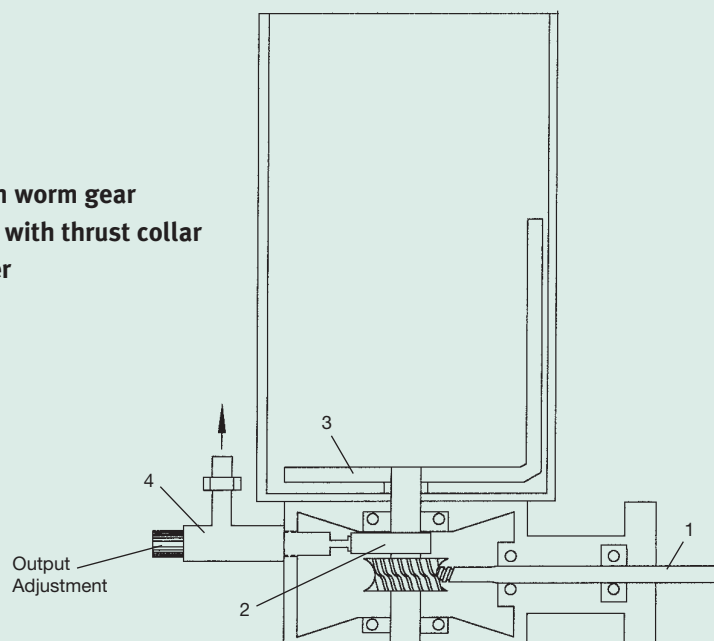
Thrust bearings on all driving parts guarantee excellent wear resistance and low torque.

The thrust collar drives the operating plunger in uniform strokes. A regulating plunger follows this operating plunger and seals the outlet bore. When the regulating plunger comes to a stop, vacuum is formed in the pressure chamber until the operating plunger moves beyond the inlet bore and draws in the lubricant. The regulating plunger pushes the lubricant forward during the down-stroke until the outlet bore is open and the operating plunger then pushes the lubricant from the pressure chamber into the point of lubrication. This design guarantees accuracy even at very low discharge settings.



Schematic of 4 outlet radial pump

1. Drive shaft with worm gear
2. Eccentric shaft with thrust collar
3. Grease impeller
4. Pumping unit



## Radial Pumps For Oil and Grease - up to Grade 3 (NLGI)

**Note:**

Pumping Units must be ordered as required - see 'Method of Ordering'

**Motorized Pump VVM**

Reservoir Capacities 5kg, 7.5kg, 10kg& 30kg

Delivery Pressure - up to 350 bar

No. of Pumping Units - 1 Row 1 to 10 - 2 Row 1 to 20

**Mechanical Pumps**

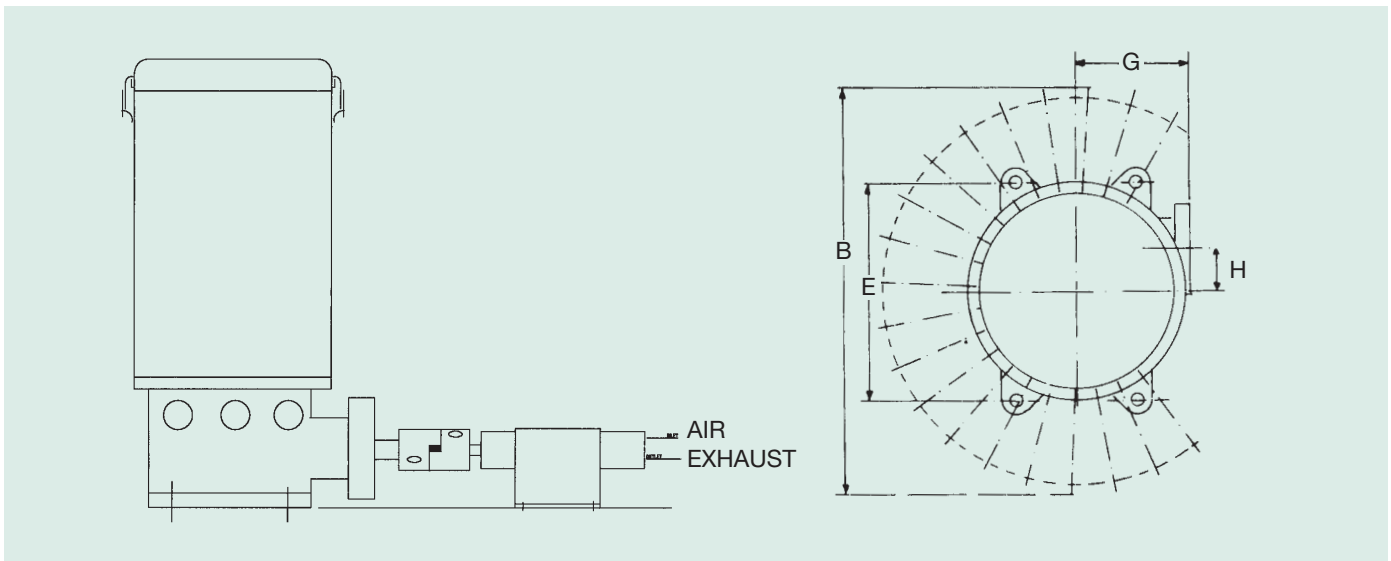
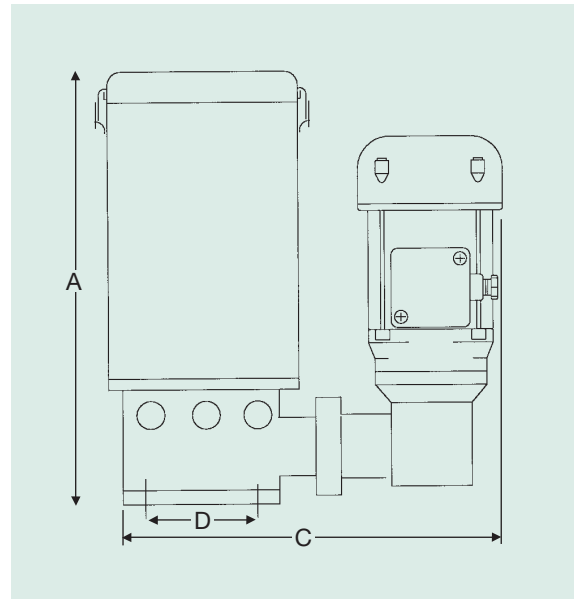
VR Rotary Drive

VO Ratchet Drive

VV with Gearbox

**Pneumatically Driven Pump**

Air Pressure - 4.5 to 6 bar



Capacity kg.	A	B	C	D	E	F	G	H
5	325	340	330	100	180	70	94.5	35
7.5	435							
10	540							
30	595							

All Pumps are available with Low Level Switch

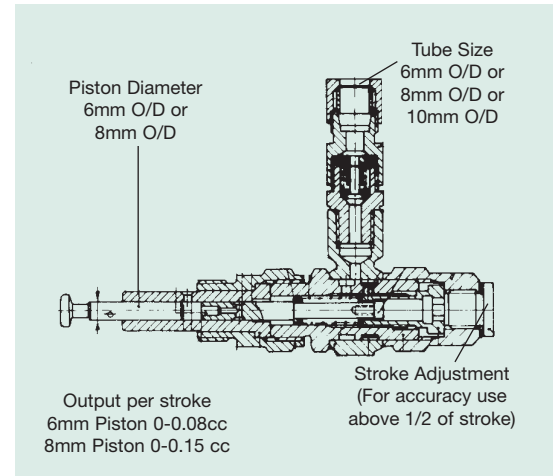
## Pumping Units for Radial Pump

### Internal Reduction

In the Lubricator as well as in the gearbox there is the choice between the following reductions: 3:1 - 5:1 - 7:1 - 12:1 - 25:1 - 40:1 - 50:1

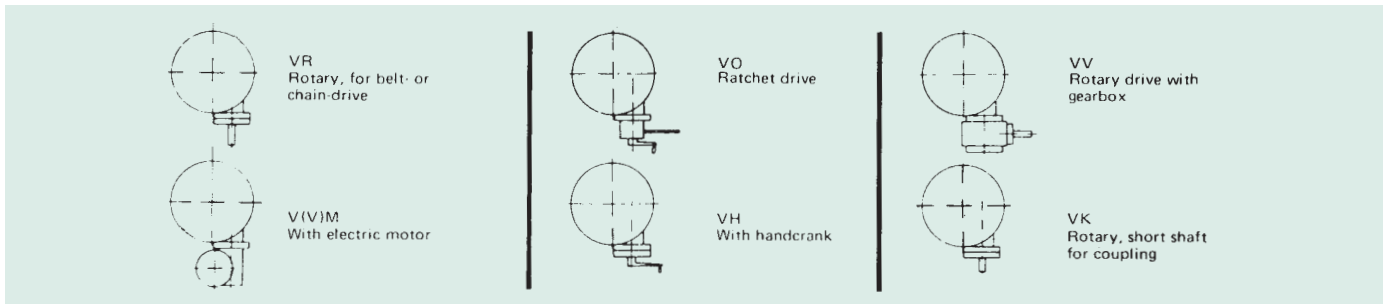
### Total Reduction Including Gearbox (with or without electric motor)

Ratio	3:1	5:1	7:1	12:1	25:1	40:1	50:1
3:1	9:1	15:1	21:1	36:1	75:1	120:1	150:1
5:1		25:1	35:1	60:1	125:1	200:1	250:1
7:1			49:1	84:1	175:1	280:1	350:1
12:1				144:1	300:1	480:1	600:1
25:1					625:1	1000:1	1250:1
40:1						1600:1	2000:1
50:1							2500:1



### Drive Arrangements

Rotary, ratchet, rotary with flanged-on gearbox, with flanged-on gearbox and electric motor or with flanged-on electric motor reductor (see information leaflet electric drive)



### Method of Ordering

Example:- Motorised Drive 230 - 400 Volt 3 ph 50 Hz  
Two outlets with 6mm diameter plungers  
Pipe connections 8mm outside diameter

Pump ratio 250:1  
Reservoir capacity 5kg

The following 'Call Off' method should be adopted  
**Type/Outlets/Reservoir/Ratio/Plunger/Tubing/Electrical**

The Part Number would therefore be as follows:-  
**VVM / 2 / 5 / 250 / 6 / 8 / 400-3-50**

Please ensure that the above sequence is followed, and advise whether oil or grease is to be used.

### Electric Drive

	On Reduction Gearbox	Reduction Motor		Reduction Motors for Direct Current		
Voltage	230/400 V - 50 Hz	230/400 V - 50 Hz	230 V - 1 phase	110 V - 1.2A	24 V - 4.2A	12 V - 6.5A
Type	814 (Din 63)	9N 5 F	9N 5 F	GBN 60/28		
Output	0.18 kW	0.12 kW	0.12 kW	73 Watt		
Number of reductions	1380	1400	1400	2800		
Protection	IP 54	IP 44	IP 44	IP 44		