

The Best Solutions
in LUBRICATION...



AN ISO 9001-2008 CO.



**Centralised Lubrication systems
for OIL & GREASE**

INTRODUCTION

S.P. Engineers established is a highly professionally small scale unit, looked after by qualified persons with long experience in manufacturing of lubrication systems for oil and grease since 1990.

Our experience is varied applications, make possible to give exact solution to any lubrication problems with quality and service backup. Customers satisfaction is our prime objective. We believe in ideology that customer is always right. This catalogue is cover grease, oil & mist lubrication, oil recirculating system for machine & plants. Besides this we are manufacturing tailor made pump and accessories product to meet costumer specific requirement .

QUALITY POLICY

S.P. Engineers has been accredited with ISO 9001-2008 quality system certification by Africert (pty) Ltd. Johawnesburg a world-renowned certifying agency for the quality standard.

S.P. Engineers has a motive to satisfy all customers said and unsaid implied needs through high motivated employees involvement and continuous improvement in product.

SALES & SERVICES

S.P. Engineers have an expert and experienced engineers team to cater the lead of our customer from design stage to execution and after sell service.

S.P. Engineers it can be conclude that dedication, quality, prompt service have been the main factors which have helped the company to stand apart.

APPLICATIONS

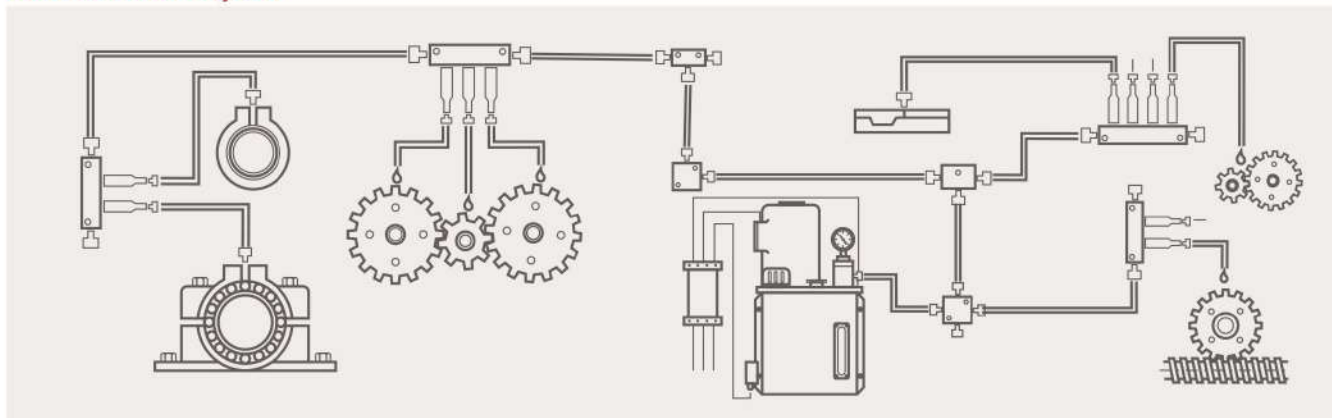
SINGLE SHORT LUBRICATION

Machine Tool
Printing Machine
Pharmaceuticals Machine
Pouch Packing Machine
Press & Hammers
Rubber Mixing Machine
Die-casting Machine
Textile Machine
Sheet Metal working Machine
Food processing Equipments
Stones processing Machine
Injection below molding M/c.
.....Etc

OIL/GREASE/MIST LUBRICATION

Cement Plants
Sugar Plants
Steels Plants
Hydro Turbine/wind Turbine
Stone processing Machine
Pulp & paper processing M/c.
Rubber mixing Machine Etc.
Spong Iron Plant
Forging Press/hammer
Die casting Machine
Mining Machine
Over head Cranes
.....Etc

Instructional Layout



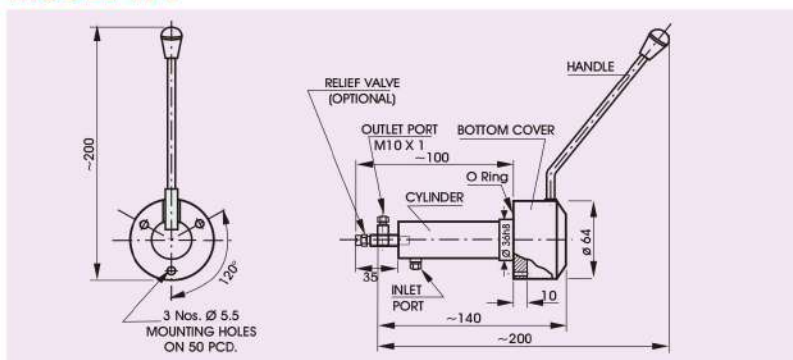
HAND OPERATED OIL PUMPS

These pumps are suitable for manual centralized lubrication system of light duty automatic machines such as small power presses, packing machines, milling machines, single spindle automats, looms, surface grinders, pouch fillings machines etc. Normally these pumps are suitable for 2-40 lubricant points. These pumps are very simple in construction. The construction is spring return piston type the piston is operated by pulling a cam handle. The other salient features are strainer at the inlet port, a pressure reducing system which is very important for proper operation of metering cartridges. Always fill clean oil to get better life and trouble free operation of these pumps. It is not recommended to operate dry pumps. Pumps are suitable for oil with viscosity range 40-1000cst.



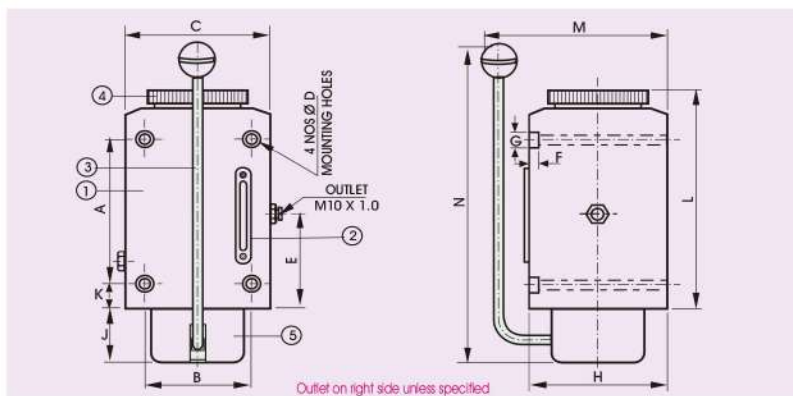
Hand operated oil pump (Without Reservoir)

MODEL H-7



MS reservoir

MODEL H-250-4, H-600-6, H-1700-10



Technical Specification

MODEL	Discharge	Reservoir	Pr. Setting
H-250-4	4cc per stroke	0.25 Ltr.	12Kg/Cm ²
H-600-6	6cc per stroke	0.60 Ltr.	12Kg/Cm ²
H-1700-10	10cc per stroke	1.70 Ltr.	12Kg/Cm ²

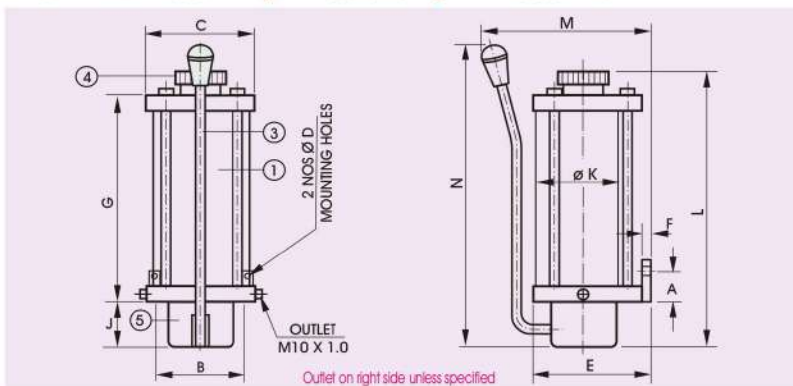
Dimensions in mm.

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
H-250-4	—	55	70	7	60	7	11	70	42	20	120	115	160
H-600-6	120	80	100	7	70	7	11	90	50	15	165	140	160
H-1700-10	170	100	130	9	70	10	14	115	60	15	265	165	325



*Transparent reservoir

MODEL H-250-4A, H-600-6A, H-1000-10A



Technical Specification

MODEL	Discharge	Reservoir	Pr. Setting
H-250-4A	4cc per stroke	0.25 Ltr.	12Kg/Cm ²
H-600-6A	6cc per stroke	0.60 Ltr.	12Kg/Cm ²
H-1000-10A	8cc per stroke	1.00 Ltr.	12Kg/Cm ²

Dimensions in mm.

MODEL	A	B	C	D	E	F	G	J	K	L	M	N
H-250-4A	28	67	90	7	110	10	132	45	75	185	145	200
H-600-6A	44	105	110	7	120	8	190	50	90	260	175	245
H-1000-10A	35	85	100	9	120	8	240	50	90	310	175	355

Parts Name : 1. Reservoir 2. Oil window 3. Handle 4. Top cover 5. Bottom cover

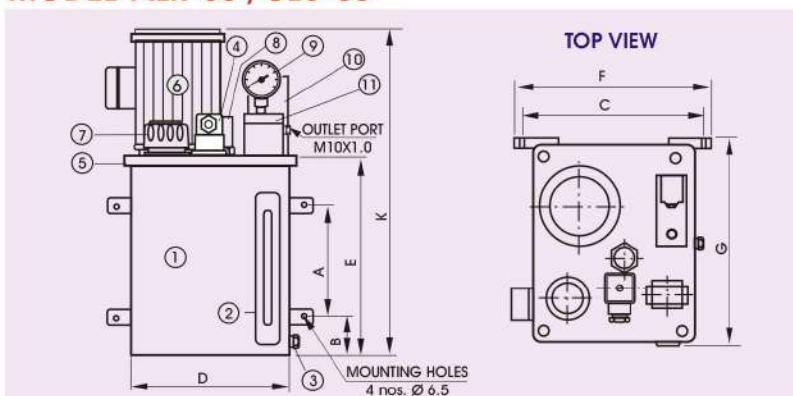
MOTORISED LUBRICATION UNIT

Motorised lubrication units are electric motor driven pumps along with reservoir, oil filler, suction stainer, pressure relief valve, bleed valve etc. And are suitable for single shot automatic oil lubrication. These motorised lubrication units are to be run intermittently.

During motor 'ON' period (normally 5 sec) all metering cartridges eject out required amount of oil at various points of the machine. And during motor 'OFF' period (decided by lubrication frequency min.1 minute) these metering cartridges get recharged for next lubrication cycle. These units do not require any return line connection as metered amount of oil is lost in normal running of the machine.



MODEL-ALR-03 / CLU-03



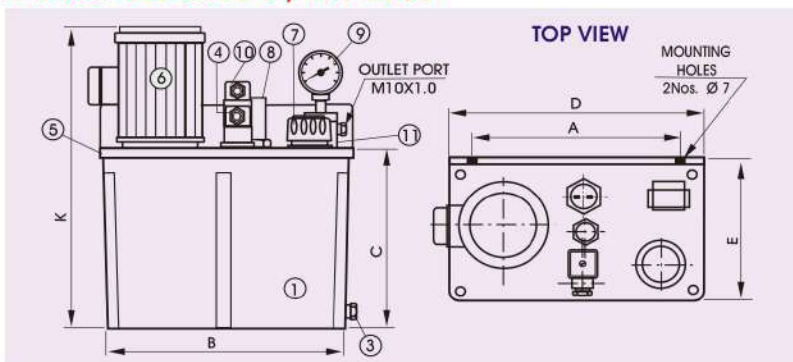
Dimensions in mm.

MODEL	Reservoir Cap.	A	B	C	D	E	F	G	K
ALR - 02	2 Litres	100	20	170	145	150	195	140	300
ALR - 03	3 Litres	100	40	170	150	190	195	180	320
CLU - 03	3 Litres	100	40	170	150	190	195	190	325



*Transparent reservoir

MODEL- SLU-2700-S / SLU-2700

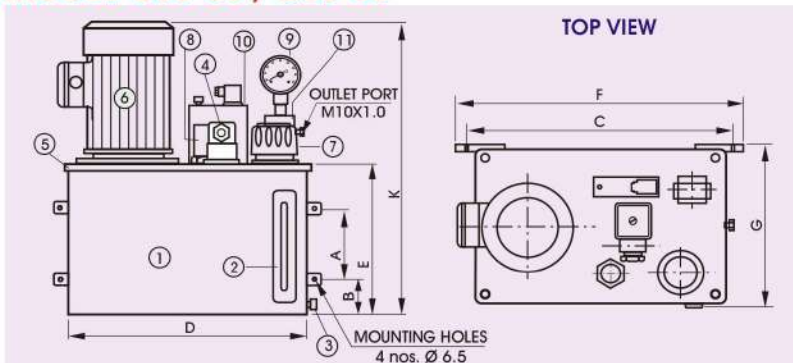


Dimensions in mm.

MODEL	Reservoir Cap.	A	B	C	D	E	K
SLU - 2700A*	2.7 Litres	175	200	155	215	145	285
CLU - 2700*	2.7 Litres	175	200	155	215	145	290



MODEL-CLU-05 / CLU-08



Dimensions in mm.

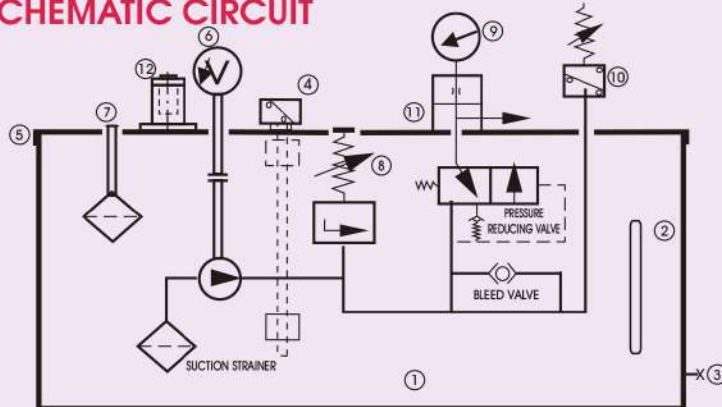
MODEL	Reservoir Cap.	A	B	C	D	E	F	G	K
CLU - 05	5 Litres	100	40	310	285	185	310	170	375
CLU - 08	8 Litres	100	50	330	300	200	355	200	385

MOTORISED LUBRICATION UNIT

MODEL-CLU-20 / 30



SCHEMATIC CIRCUIT



Technical Specifications :-

MODEL	Reservoir	Discharge	Motor Rpm1500 (syn)	Pressure Setting	Pressure Switch	Float Switch
ALR-02	2Ltrs.	0.5 LPM	0.10 Kw, 230V AC. Single Phase	12 kg/Cm ²	NA	NA
ALR-03	3 Ltrs.	1.0 LPM	0.10 Kw, 230V AC. Single Phase	12 kg/Cm ²		
CLU-03	3 Ltrs.	1.0 LPM	0.09 Kw, 415V AC. 4Pole, 3 Phase	12 kg/Cm ²		
SLU-2700-S*	2.7 Ltrs.	1.0 LPM	0.10 Kw, 230V AC. Single Phase	12 kg/Cm ²	(Optional) 24V/220 V, With 1 NO+1NC/NO or NC Contacts, Pressure preset	(Optional) 24V/220 V, With NO or NC contacts
SLU-2700*	2.7 Ltrs.	0.9 LPM	0.09 Kw, 415V AC. 4Pole, 3 Phase	12 kg/Cm ²		
CLU-05	5 Ltrs.	1.0 LPM	0.18 Kw, 415V AC. 4Pole, 3 Phase	15 kg/Cm ²		
CLU-08	8 Ltrs.	2.0 LPM	0.18 Kw, 415V AC. 4Pole, 3 Phase	15 kg/Cm ²		
CLU-20	20 Ltrs.	3.0 LPM	0.18 Kw, 415V AC. 4Pole, 3 Phase.	20 kg/Cm ²		
CLU-30	30 Ltrs.	6.0 LPM	0.37 Kw, 415V AC. 4Pole, 3 Phase.	20 kg/Cm ²		

NOTE : All these unit suitable for oil with viscosity range 50-1000 cst. Unit with vertical float switch is also available on customer request. *Transparent reservoir

Parts Name

1 Reservoir	2 Oil Level Gauge	3 Drain Plug	4 Float Switch
5 Top Plate	6 Motor	7 Oil Filler Cum Breather	8 Relief Valve
9 Pressure Gauge	10 Pressure Switch	11 Junction Block	12 Return Line Filter

ELECTRONIC CONTROLLERS

These are used in the lubrication systems where pressure switch/ float switch are provided for sensing the pressure and low oil level. In the controllers indicator for Pressure & Low oil level sensing are provided. ON time is 5 sec. Fixed and OFF Time is 2 to 240 min. Adjustable.

Technical Specification



MODEL	DESCRIPTION
ECW 2-240 (Wall mounting)	ON time-5 sec (fixed) OFF time 2, 4, 8, 15, 30, 60, 120, 240 min. (Adj.) with lubrication fault & low oil level sensing
ECP 2-240 (Panel mounting)	ON time-5 sec (fixed) OFF time 2, 4, 8, 15, 30, 60, 120, 240 min. (Adj.) with lubrication fault & low oil level sensing
ECP 2-240+C (Panel mounting)	controller-built in contactor

ELECTRONIC TIMER

The Electronic Timer are used for time controlling of lubrication systems. There are different models used for different applications. Following models are under our regular production.



ON / OFF Time Variable

ON Time Fixed
OFF Time Variable

Technical Specification

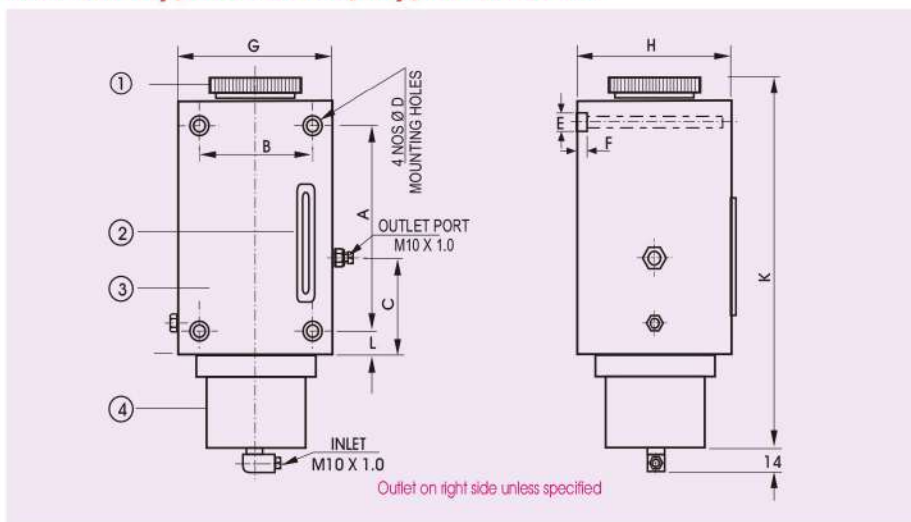
MODEL	DESCRIPTION
ET-5-120	ON time-5 sec. (Fixed) OFF time 2-128 min (Adjustable) (Wall / Panel mounting type)
ET-30-60	ON time-2-30 sec. (Adjustable) OFF time 2-60 min (Adjustable) (Wall / Panel mounting type)

Note : ON, OFF time are also available as per requirement.

HYDRAULIC / PNEUMATICALLY OPERATED PUMP

These are piston type pump and used for automatic lubrication with the help of hydraulic / pneumatic pressure. It is similar to hand operated piston pumps. In this system the piston is actuated by hydraulic / pneumatic pressure. The recommended Input pressure in case of Hydraulic system is 15-20 bar and in pneumatic system it is 5-7 bars.

MODEL Hy/Pn-600-10 / Hy/Pn-1700-10



PART NAME

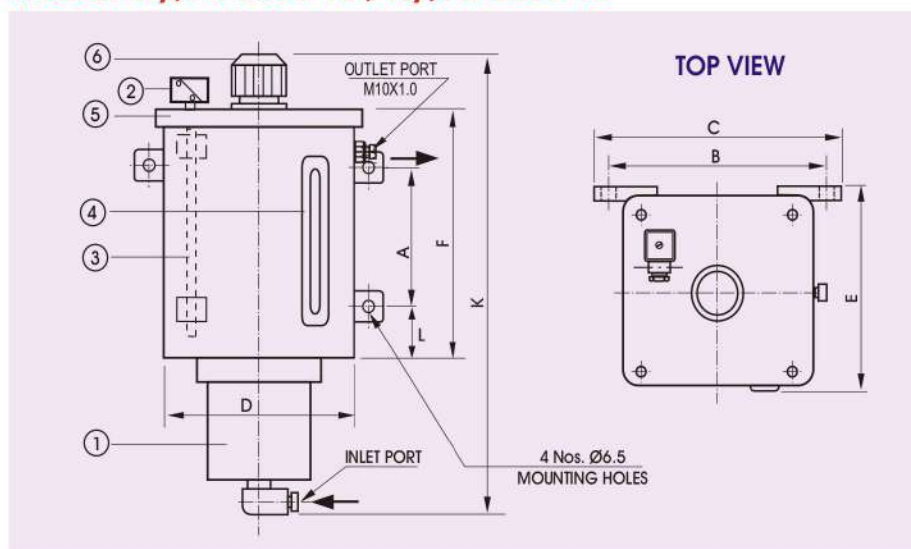
1. OIL FILLER CUM AIR BREATHER
2. OIL LEVEL GAUGE
3. RESERVOIR
4. PNEUMATIC CYLINDER

Dimensions in mm.

MODEL	A	B	C	D	E	F	G	H	K	L
Hy/Pn -600-10	120	80	70	7	11	7	100	90	260	15
Hy/Pn -1700-10	170	100	70	9	14	9	130	115	305	15



MODEL Hy/Pn-2000-10 / Hy/Pn-3000-10



PART NAME

1. PNEUMATIC CYLINDER
2. FLOAT SWITCH (Optional)
3. RESERVOIR
4. OIL LEVEL GAUGE
5. TOP PLATE
6. OIL FILLER CUM AIR BREATHER

Dimensions in mm.

MODEL	A	B	C	D	E	F	K	L
Hy/Pn -2000-10	100	170	195	145	140	150	265	20
Hy/Pn -3000-10	100	170	195	150	180	190	305	40

Technical Specification

MODEL	Reservoir cap.	Discharge	Input Pneumatic pr.	Input Hydraulic pr.	Output pr. Setting
Hy/Pn -600-10	0.5 Ltrs.	10cc /stroke.	5-7Kg/cm ²	15Kg/cm ²	12Kg/cm ²
Hy/Pn -1700-10	1.7 Ltrs.	10cc /stroke.	5-7Kg/cm ²	15Kg/cm ²	12Kg/cm ²
Hy/Pn -2000-10	2 Ltrs.	10cc /stroke.	5-7Kg/cm ²	15Kg/cm ²	12Kg/cm ²
Hy/Pn -3000-10	3 Ltrs.	10cc /stroke.	5-7Kg/cm ²	15Kg/cm ²	12Kg/cm ²

Hy = Hydraulically operated, Pn = Pneumatically operated.

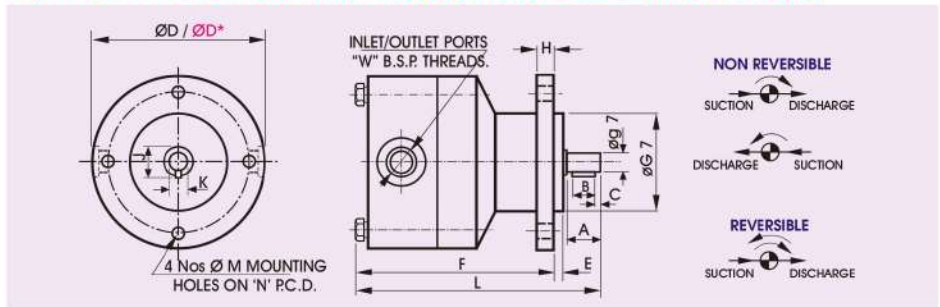
ROTARY PUMP

ROTARY PUMPS are gerotor type pumps with positive displacement of oil. On the basis of construction they are of two types, flange type and insert type. Function wise these pumps can be classified into two types non reversible and reversible. Non reversible pumps are rotates only on one direction indicated by an arrow where as the reversible pumps are rotates on either direction, clock-wise and anti-clock-wise.

FLANGE TYPE ROTARY PUMPS (Non Reversible / Reversible)



Dimension 'ØD*' for reversible pumps



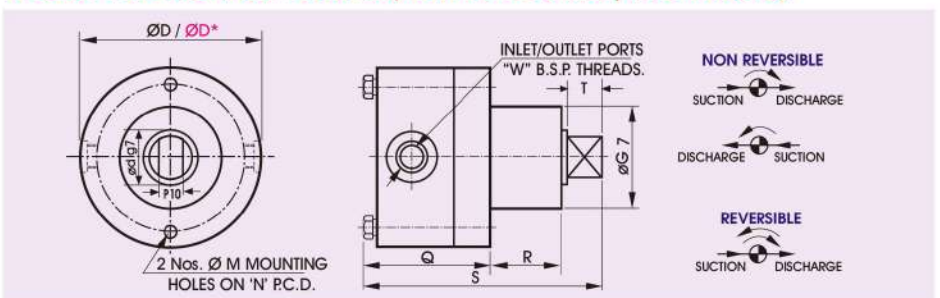
Dimensions in mm

MODEL	Discharge at 1500 RPM	A	B	C	ØD / ØD*	Ød	E	F	ØG	H	J	K	L	M	N	"W" in BSP
PP-0.5	0.5 LPM	16	12	2	50 / 60	7	2	55	30	5	9	2	71	5	39	1/8
PP-1	1 LPM	22	16	3	60 / 70	10	2	70	35	7	11.5	3	95	6.5	47.5	1/4
PP-3	3 LPM	22	16	3	60 / 70	10	2	75	35	7	11.5	3	100	6.5	47.5	1/4
PP-6	6 LPM	30	18	6	80 / 92	12	3	95	45	10	14	4	130	8.5	65	1/4-3/8
PP-10	10 LPM	30	18	6	80 / 92	12	3	105	45	10	14	4	140	8.5	65	1/4-3/8
PP-16	16 LPM	40	25	7	115 / 135	14	4	120	65	14	16	5	150	9	95	1/2"



Dimension 'ØD*' for reversible pumps

INSERT TYPE ROTARY PUMPS (Non Reversible / Reversible)



Dimensions in mm

MODEL	Discharge at 1500 RPM	ØD / ØD*	Ød	ØG	M	N	P	Q	R	S	T	"W" in BSP
PP-1	1 LPM	60 / 70	10	35	6.5	47.5	6	48	24	83	10	1/4
PP-3	3 LPM	60 / 70	10	35	6.5	47.5	6	53	24	88	10	1/4
PP-6	6 LPM	80 / 92	12	45	8.5	65	7	65	33	103	12	1/4-3/8
PP-10	10 LPM	80 / 92	12	45	8.5	65	7	75	33	122	12	1/4-3/8

MOTOR PUMP ASSEMBLY

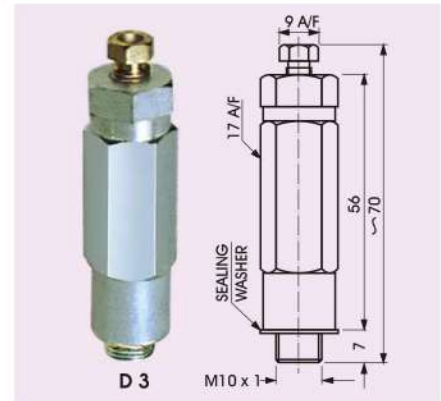
Motor pump assembly is used for oil lubrication especially where continuous and high dosage of oil is required. It is also applied under oil circulation systems. It is used almost in all machines where free flow of oil is required. The different specification is available with different model. It can suck the oil from 2 ft. downwards and circulate the oil up to 10 ft. Height. The rotation of motor pump assembly is indicated on the label. Four mounting holes are provided to mount the system. An electrical terminal box on the surface of the motor is provided for connection.



Technical Specification

MODELS	Discharge	Max. Pressure	MOTOR Flange Mounted
MPA - 1	1 Litres per minute	15Kg/Cm ²	0.25 HP, 415V. AC1500rpm.
MPA - 3	3 Litres per minute	15Kg/Cm ²	0.25 HP, 415V. AC1500rpm.
MPA - 6	6 Litres per minute	10Kg/Cm ²	0.50 HP, 415V. AC1500rpm.
MPA - 10	10 Litres per minute	10Kg/Cm ²	0.50 HP, 415V. AC1500rpm.

METERING CARTRIDGES



These are valve which eject metered amount of oil to the each lubrication point. It requires recharging time of minimum 1 minute between two cycles. An individual oil distributor is required for individual lubrication point. In order to ensure that correct amount of lubrication point, oil distributor of correct dosage should be selected.

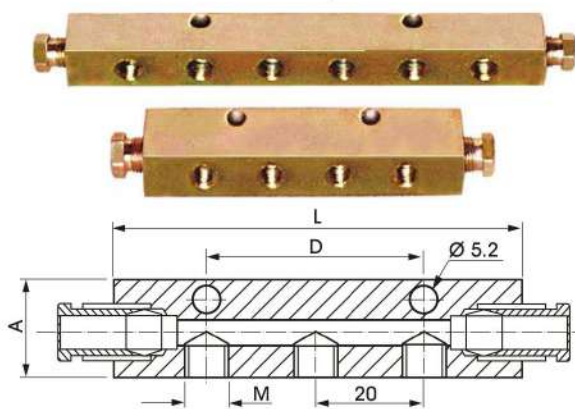
Technical Specification

D-1	Dosage 0.01cc, 0.03 cc, 0.05 cc, 0.10 cc, 0.16 cc per stroke.
D-2	Dosage 0.25 cc, 0.40 cc per stroke.
D-3	Dosage 1.0 cc, 1.60 cc, Per stroke

Note : We are manufacturing injectors in both BRASS and M.S.

MANIFOLDS

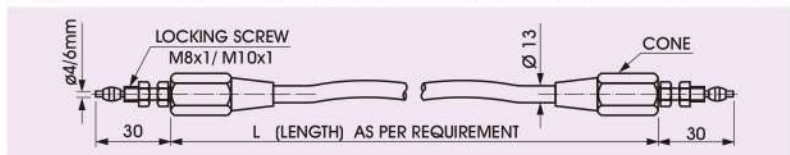
Manifold are required for mounting of oil distributors. These having two ports of 6mm OD tube and few side outlets. Oil distributors are screwed directly on side outlets of manifolds.



MODEL	L mm	A mm	Thickness mm	M mm	D mm	Mounting Holes
M-1	35	18	15	M8X1	-	1
M-2	55	18	15	M8X1	-	1
M-3	75	18	15	M8X1	40	2
M-4	95	18	15	M8X1	40	2
M-5	115	18	15	M8X1	40	2
M-6	135	18	15	M8X1	60	2
M-7	155	18	15	M8X1	60	2
M-8	175	18	15	M8X1	60	2
M-1A	40	22	22	M10X1	-	1
M-2A	65	22	22	M10X1	-	1
M-3A	90	22	22	M10X1	50	2
M-4A	115	22	22	M10X1	50	2

HOSES

Hoses are used to connect points where flexibility is a must and also mechanical strength required. These hoses are available with 4mm and 6mm steel end fittings with working pressure of 28 Kg/cm² to 200 Kg/cm². OD of these hoses is 13mm and ID of 6.3 mm. The length of hose pipes can be supplied as per customer requirement.



TUBES

Steel Tube :- These are copper coated welded with thickness of 0.7mm. 6mm OD tube used as a main line & 4mm OD tube used as a secondary line.

Nylon Tube :- These are semi transparent flexible tube of material nylon 6. These tube use where lubrication point is movable.

STEEL TUBES



NYLON TUBES



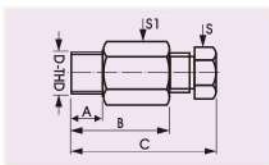
MECHANICAL PROTECTION SPRING



FITTINGS

STRAIGHT CONNECTORS

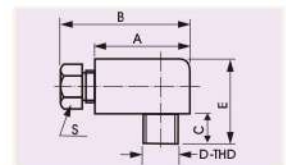
*TAPER



MODEL	Suitable for tube	D	A	B	C	S	S1
FSC-4/M6X1	4 mm. 'OD'	M6X1	7	17	25	9	11
*FSC-4T/M8X1	4 mm. 'OD'	M8X1	7	17	25	9	11
FSC-4/M10X1	4 mm. 'OD'	M10X1	7	17	25	9	11
*FSC-4T/1/8"BSP	4 mm. 'OD'	1/8"BSP	7	17	25	9	11
*FSC-4T/1/4"BSP	4 mm. 'OD'	1/4"BSP	7	26	25	9	19
FSC-6/M6X1	6 mm. 'OD'	M6X1	7	22	29	11	13
FSC-6/M8X1	6 mm. 'OD'	M8X1	7	22	29	11	13
*FSC-6T/M10X1	6 mm. 'OD'	M10X1	7	22	29	11	13
FSC-6/1/8"BSP	6 mm. 'OD'	1/8"BSP	7	22	29	11	13
FSC-6/1/4"BSP	6 mm. 'OD'	1/4"BSP	7	26	29	11	19

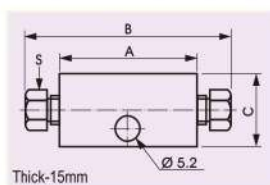
ELBOWS

*TAPER



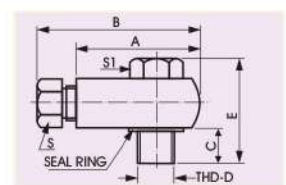
MODEL	Suitable for tube	D	A	B	C	E	S
*FE-4T/M6X1	4 mm 'OD'	M6X1	22	30	10	21	9
*FE-4T/M8X1	4 mm 'OD'	M8X1	22	30	10	21	9
*FE-4T/M10X1	4 mm 'OD'	M10X1	22	30	10	24	9
*FE-4T/1/8"BSP	4 mm 'OD'	1/8"BSP	22	30	10	24	9
*FE-4T/1/4"BSP	4 mm 'OD'	1/4"BSP	25	30	12	26	9
*FE-6T/M6X1	6 mm 'OD'	M6X1	22	30	10	21	11
*FE-6T/M8X1	6 mm 'OD'	M8X1	22	30	10	21	11
*FE-6T/M10X1	6 mm 'OD'	M10X1	22	30	10	24	11
*FE-6T/1/8"BSP	6 mm 'OD'	1/8"BSP	22	30	10	24	11
*FE-6T/1/4"BSP	6 mm 'OD'	1/4"BSP	25	30	12	26	11

CONNECTOR BLOCKS



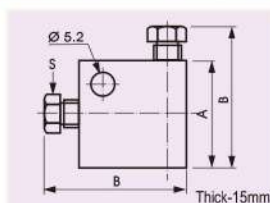
MODEL	Suitable for tube	C	A	B	S
FCB-4	4 mm 'OD'	18	35	45	9
FCB-6	6 mm 'OD'	18	35	55	11

BANJO (4mm)



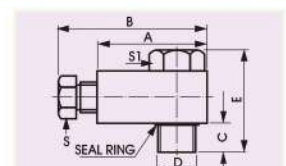
MODEL	Suitable for tube	D	A	B	C	E	S	S1
FB-4/M6X1	4 mm 'OD'	M6X1	25	33	7	22	9	9
FB-4/M8X1	4 mm 'OD'	M8X1	25	33	7	22	9	11
FB-4/M10X1	4 mm 'OD'	M10X1	27	35	7	26	9	13
FB-4/1/8"BSP	4 mm 'OD'	1/8"BSP	27	35	7	22	9	13

ELBOW BLOCKS



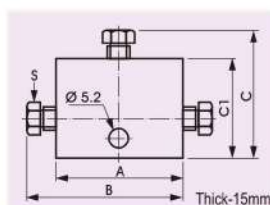
MODEL	Suitable for tube	A	B	S
FEB-4	4 mm 'OD'	25	33	9
FEB-6	6 mm 'OD'	25	35	11

BANJO (6mm)



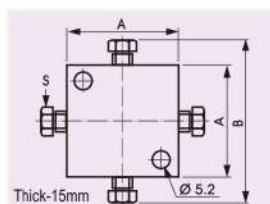
MODEL	Suitable for tube	D	A	B	C	E	S	S1
FB-6/M6X1	6 mm. 'OD'	M6X1	27	35	7	22	11	13
FB-6/M10X1	6 mm. 'OD'	M10X1	27	35	7	26	11	13
FB-6/1/8"BSP	6 mm. 'OD'	1/8"BSP	27	35	7	22	11	13
FB-6/1/4"BSP	6 mm. 'OD'	1/4"BSP	30	38	8	33	11	17

TEE BLOCKS



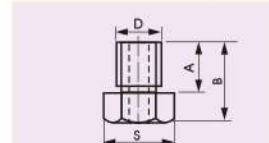
MODEL	Suitable for tube	C1	C	A	B	S
FT-4	4 mm 'OD'	27	37	35	45	9
FT-6	6 mm 'OD'	27	37	35	45	11

CROSS BLOCKS



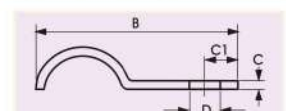
MODEL	Suitable for tube	A	B	S
FCR-4	4 mm 'OD'	35	50	9
FCR-6	6 mm 'OD'	35	55	11

LOCKING SCREW



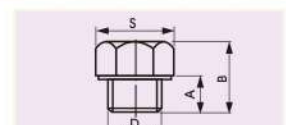
MODEL	Suitable for tube	D	A	B	S
LS-4	4 mm 'OD'	M8X1	8.5	12.5	11
LS-6	6 mm 'OD'	M10X1	11	15	13

CLAMPS



MODEL	Suitable for tube	Suitable for	D	C1	B	C
C-4-1	4 mm 'OD'	1 Tube	5.5	6	20	1.5
C-4-2	4 mm 'OD'	2 Tube	5.5	6	23	1.5
C-4-3	4 mm 'OD'	3 Tube	5.5	6	26	1.5
C-6-1	6 mm 'OD'	1 Tube	5.5	6	20	1.5
C-6-2	6 mm 'OD'	2 Tube	5.5	6	26	1.5
C-10-1	10 mm 'OD'	1 Tube	6.5	7	28	1.5

PLUGS



MODEL	Sealing Washer	D	A	B	S
P-8	SW-8 mm 'OD'	M8X1	5	10	11
P-10	SW-10 mm 'OD'	M10X1	5	10	13
P-1/4"BSP	SW-1/4"BSP 'OD'	1/4"BSP	9	15	17
P-1/2"BSP	SW-1/2"BSP 'OD'	1/2"BSP	12	19	22

LOCKING CONE (Ferule)



MODEL	Suitable for tube	
LC-4 Brass	4 mm	Material brass ID-4mm
LC-6 Brass	6 mm	Material brass ID-6mm
LC-10 All.	10 mm	Material All./M.S. ID-10mm

MANUAL GREASE PUMPS

APPLICATION

This pump meant for feeding grease to bearing & other moving part of machines & other lightly machines having 1 to 20 lubrication point.

WORKING

On pulling the handle of pump, grease are sucked through suction port on pushing handle of pump grease comes out under pressure through check value. Spring pressure through follower plate exerted over the top surface of the grease further helps to push the grease in suction port.

EQUIPMENT

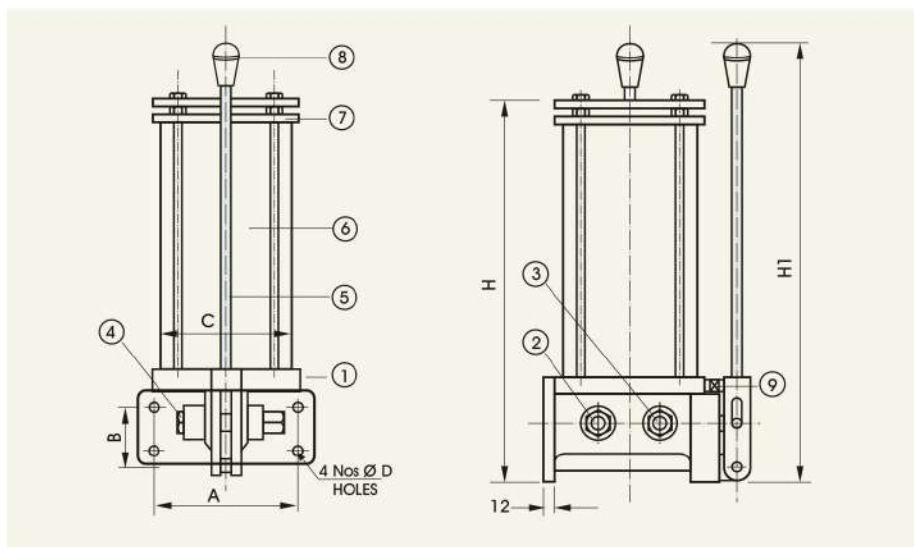
Pump is made up of purely transparent acrylic reservoir for storage of grease. For sensing the Grease level a tell tale rod is provide and follower plate assembly for help in positive suction of grease. It contains two outlet part of 1/4" BSP right and left side in which one is used as air bleed valve and second port used as a outlet. To check reverse flow of grease, a non return valve is provide in the system at the outlet port.

FILLING OF GREASE

Grease can be filled manually or with another pump. Filling from pump 1/4" BSP port is provide. Manually, we have to remove follower plate, spring, top cover and fill the grease from the top of the reservoir and to fit all the components by pressure. For air removing unscrew the bleed plug pull the handle maximum out and press the follower plate by knob till grease comes out from bleed plug.

DISTRIBUTION SYSTEM

A Progressive block is used to distribute the grease to the available lubrication points in sequence one after another. Progressive Blocks are added as per requirement.



TECHNICAL SPECIFICATIONS

MODEL	RESERVOIR CAP.	DISCHARGE	MAX. PRESSURE	A	B	C	ØD	H	H1
MGP - 500 - 3	0.5 Kg.	3gms / STROKE	70 Kg. / Cm ²	70	30	70	7	240	285
MGP - 1000 - 4	1.0 Kg.	4gms / STROKE	100 Kg. / Cm ²	85	30	85	7	310	325
MGP - 1500 - 6	1.5 Kg.	6gms / STROKE	120 Kg. / Cm ²	85	50	85	9	360	360

Dimensions in mm.

PART NAME

- | | | |
|-------------------------|--------------|-----------------------|
| 1 PUMP BODY | 4 BLEED PLUG | 7 TOP COVER |
| 2 OUTLET PORT-1/4" BSP | 5 LEVER | 8 TELL TALE ROD ASSY. |
| 3 GREASE FILLING NIPPLE | 6 RESERVOIR | 9 CATCHER |

PROGRESSIVE DISTRIBUTOR BLOCKS



S. P. introduce progressive distributor blocks of PB-4555 / PB-6080 series are meant for distribution of grease/oil delivered by a pump. From this progressive block we get lubricant in sequently one after another. Any one outlet is blocked then the progressive block will stop functioning. with suitable monitoring devices, this blockages is sensed and suitable warning is given to avoid running the machine without proper lubrication. These blocks can be used for intermittent / continuous lubrication. This block has three type of elements- 1. Starting block 2. Middle block 3. End block

Each middle block has two outlet & min. 03 middle block are required in progressive block we can add other middle blocks as per requirement.

MULTILINE RADIAL LUBRICATOR

APPLICATION

Multiline radial lubricator is best suited for machine /plant where lubrication is required with high pressure continuously / intermittently for individual point. This lubricator are used for machine / plant like rolling mill, sugar plant, cement plant, rubber mixing machine, forging hammer, stone crusher, sponge iron plant etc.

CONSTRUCTION

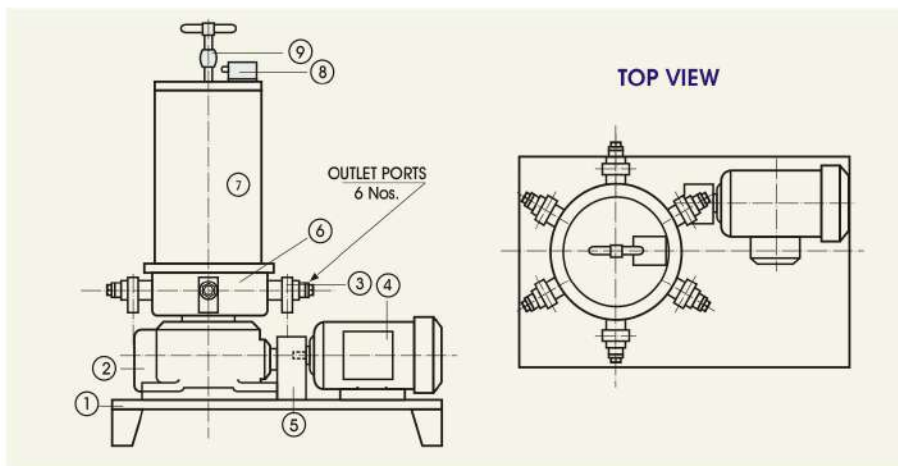
This lubricator comprise of a single pumping station having a number of plunger pump placed radically and fitted on to the outer periphery of the housing. Each plunger unit is given a reciprocating motion with the help of a cam. The cam rotates with the help of an electric motor and speed reduction gear box. The dose per plunger pump / cycle is 0.05 to 0.25cc (adjustable) with maximum pressure 200 Kg/cm². These all plunger pump are connected to the lubrication point directly / progressive block by mean of tube, rubber hose, compression type fitting, clamping etc.

FILLING OF LUBRICANTS

Grease filling in the reservoir can be done manually as well as with the help of other pump. For pump 1/4" BSP port is provided on reservoir.

INSTRUCTIONS

1. Always use proper & clean lubricants. Avoid foreign particles in the pump. The foreign particles or dust items are the main responsible factor to damage physical components of the pump and chocking in the plunger body.
2. Always fill the lubricants before it is empty to avoid air in the pump. The presence of air may be resulted in improper quantity of discharge.
3. Should always careful with regular maintenance of plungers and reservoir for its long life.
4. Do not plug out put of any pumping unit..



PARTS NAME	1 BASE PLATE	4 MOTOR	7 RESERVOIR
	2 GEAR BOX	5 GEAR BOX	8 LIMIT SWITCH (OPTIONAL)
	3 PLUNGER PUMP	6 PUMP HOUSING	9 TELL TALE ROD (OPTIONAL)

Technical Specifications

MODEL	RL-1.5-4	RL-5-6	RL-15-12	RL-30-20	RL70-30
Reservoir Capacity in Kg.	1.5	5	15	30	70
No. of Outlets (Pump-Elements)	4	6	12	20	30
Motor 3Phase, 415V.AC, 4 Pole	0.25 HP	0.25 HP	0.50 HP	1.00 HP	1.50 HP
Delivery pressure	200kg/cm ² maximum				
Dose of Pump / Cycle (Adjustable)	0.05cc to 0.25cc/ Stroke/ Pump (max. 5gm/min.)				
Reduction Ratio of Drive	70 : 1				

In this lubricator outlets and reservoir is ment as per customer requirement. SP manufactured this type of radial lubricator with the controls also like level sensing, flow indication, lube fault, electronic controller etc., as per customer requirement.



PLUNGER PUMPS (PUMPING UNIT)

Plunger pump is a compact pump that gives metered amount of lubricant in every stroke. We can adjust the discharge by adjusting screw. Output can vary from 0.05cc to 0.25cc/stroke & delivery pressure 200 Kg/cm² max. The stroke of the plunger remains always same. The mounting threads of the plunger is M22 x 1.5. Plunger pump is also available in 0.50cc/stroke, 0.70cc/stroke & 1.6cc/stroke (Non adjustable).

12/24V DC RADIAL LUBRICATOR

MODEL-DCRL-2-3, 5-3

Reservoir Capacity 5 Ltrs,
number of plunger pump - 3,
Discharge 0 to 0.25cc per
stroke/ Element (Adj.), Max.
Pressure 100 Kg/Cm², 12V
DC / 24V DC input supply.



PNEUMATIC PUMP

APPLICATION

The pneumatic grease pump is suitable for dispensing of grease & automatic feeding of grease to bearing and other moving parts of machines. Such as milling machine, rolling machine, presses & hammers, rubber processing machine, dye casting machine, furnaces etc. This pump is suitable for grease upto NLG-2. For distribution we used progressive blocks through this pump.

WORKING

Pneumatic grease pump are operated through pneumatic line, connected to the ports of pneumatic cylinder. The cylinder is built in with the pump housing. During on period of the pneumatic line a piston inside the cylinder is pushed ejecting out grease from the outlet port of the pump housing. During the reverse flow of pneumatic line grease is sucked through the suction port. In the pump spring force through follower plate exerted on the top surface of the grease make the suction of the grease positive & easier. Pneumatic pump is available in adjustable discharge & multiport with adjustable discharge in each port. Discharge & reservoir of pump is available as per customer requirement.



AIR REMOVING

For air removing, unscrew the bleed plug apply compressed air & press the grease pusher by knob till grease come out from bleed port and plug the bleed port. The pump is ready for operation.

CONSTRUCTION

There is a reservoir mounted on the pump body for storage of grease. A tell tale rod connected for sensing grease level.

- Check valve is fitted on the outlet port of the pump to stop reverse flow of grease into the pump through outlet port.
- To bleed air entrapped in the system, there is a plug on the pump body which is to be opened till continuous flow of grease starts coming.
- The adjusting screw is provided in order to vary in output of the grease by tightening the screw the output of grease decreases and vice versa.
- It is must to put filter regulator unit in the pneumatic line fed to the pump. This will ensure that pneumatic line going to the pump is dust and moisture free.

FILLING

Grease filling in the reservoir can be done manually as well as with the help of other pump. For those who wants to fill grease by another pump, a 1/4" BSP ports is provided on front side of the pump. This port is normally plugged.

OIL MIST LUBRICATION SYSTEMS

The OIL MIST LUBRICATION SYSTEM is specially designed to cope with the requirement where oiling is to be supplied in the form of Fog/mist. It is available both on intermittent/continuous discharge.

APPLICATION

The Oil Mist Lubricator is best suitable for Conveyors, Sliding chains, Spindles, Stripes, Drives of Power Presses and Shearing Machines, Textile Machines etc.

OPERATIONAL FUNCTION

The Oil Mist Lubricator consists with an imported acrylic reservoir which is joined with a single or multi outlet block.

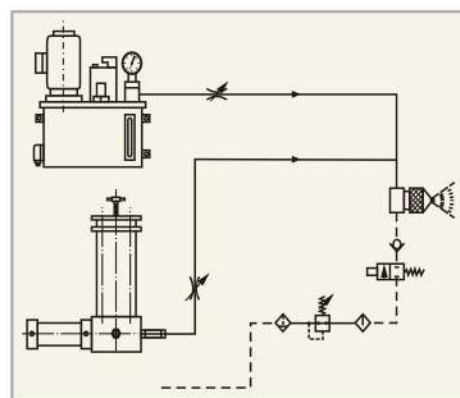
The oil block is primarily a metering block in which oil discharge corresponds to stroke of small pistons provided inside the block. The pistons which are of spring return type moves with the pressurised air connected to air inlet point of the block. With the movement of pistons, oil is sucked from the reservoir and the sucked quantity is controlled /adjusted by adjusting stroke of piston by an adjusting screw.

DEVICE

The system is a combination of a acrylic reservoir tank, Vertical float switch, Oil Block, Air Regulator, Solenoid Valve, FRL Unit, Nozzle for Mist, Timer (for intermittent). Four nos. mounting brackets are provided on the back wall of Mist unit to mount the unit on to any vertical surface.

INSTALLATION

The systems are suggested to install at some convenient place preferably very nearer to the lubrication points. The mounting dimension are given in the drawing. Mostly 4mm and 10mm Nylon Tube is required to connect from block with the lubrication point.



DUAL LINE GREASE LUBRICATION SYSTEM

APPLICATIONS

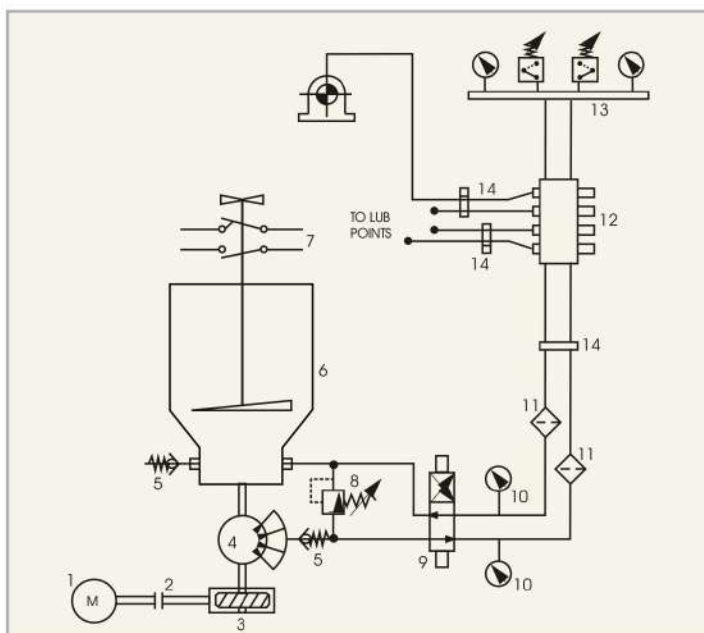
Dual line system is used where large distance in lubrication points. This is high pressure pump and used in steel plants, cement plants, Turbine generator, furnaces, sugar plants, sponge iron plants etc.

CONSTRUCTION

Dual line lubrication system comprising of a single pumping station having pumping elements and fitted on the outer periphery of the housing. Reservoir also mounted on housing and fitted on base plate with motor, gear box, change over valve, pressure gauge etc.

WORKING

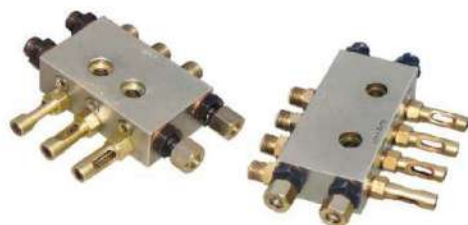
Dual line grease lubrication system can be installed with a decided scheme by using main pumping station, end pressure relay, relief valve, change over valve, dose feeder, in line filter, tubing & fitting and electronic control panel. When pump starts, then grease will deliver to main line and it will finally reach to connected lubrication points through dose feeder (Blocks). Once grease has delivered to all points connected with one line, the pressure will rise in the corresponding line as pump is still supplying grease. As soon as pressure crosses set pressure value pressure reversing valve, through control panel actuates. Grease starts flowing into second line. Delivery of grease to lubricating points take place and pressure rises again. When it crosses set pressure of end relay, the system will stop. Cycle is over and it confirm lubrication to all points. Now after preset 'OFF' time system starts again and repeats the same process.



PARTS NAME	1. ELECTRIC MOTOR	5. NRV	9. DIRECTION CON. VALVE	13. END Pr. RELAY
	2. COUPLING	6. RESERVOIR	10. PRESSURE GAUGE	14. CLAMP
	3. GEAR BOX	7. LIMIT SWITCH	11. INLINE FILTER	
	4. PUMPING ELEMENT	8. RELIEVE VALVE	12. DISTRIBUTION BLOCK	

Technical specification

MODELS	DGL-30	DGL-50	DGL-70	DGL-100
Reservoir capacity	30 Kg.	50 Kg.	70 Kg.	100 Kg.
Max. Discharge	250 gm/min.	250 gm/min.	250 gm/min.	250 gm/min.
Delivery Pressure Max.	250 Kg/cm ²	250 Kg/cm ²	250 Kg/cm ²	250 Kg/cm ²
Grease grade	NLGI - I / II	NLGI - I / II	NLGI - I / II	NLGI - I / II



DOSE FEEDER (DUAL LINE BLOCKS)

Dual line grease feeder is made of steel having two input ports connected with two outlet lines of pumping station. Outlet ports of dose feeder are connected to lubrication points by means of tubing (pipelines). The connection of dose feeders have been shown in the flow diagram. At the another side of dose feeder an adjusting screw has been provided for adjusting the quantity of grease as per requirement. Functioning of each dose feeder can be noticed by the movement of indicating pin. Dose feeder is available in discharge range of 0.5 to 5 gm/cycle (adjustable). It comes with different number of outlets i.e. 1/ 2/ 3 and 4.

OIL CIRCULATING SYSTEM



APPLICATION

S. P. introduce O. C. S. (oil circulating system.) which is best suited for paper industry, steel plant, sugar plant... Etc.

WORKING

In O. C. S. oil is sucked from reservoir with the help of pump and ejected on lubrication point. Through filter and cooler, oil is returned in the reservoir by returning line. Before pushing the oil again it should be clean with normal temperature.

CONSTRUCTION

In O. C. S. we use the gear pump /screw pump discharge up to 500 LPM driven by electric motor. Pump is connected with reservoir. Reservoir capacity is depend on pump discharge. In line filter, cooler and other control with the gauge fitted by standard tubing and fitting on strid.

Features

- System are custom built, tailor made, packaged unit skid mounted, ready for installation and piping to parent machine, in simplex as well as duplex arrangements. Fabricated oil tank to hold required quantity of oil with accessories i.e. Mahole, breather cum filler, oil level indicators, level switches for level control, baffles, drain valve, heater etc.
- Rotary gear, screw or centrifugal type pumps with built in relief valve, connected with electric motor. Filters of basket, self cleaning type, micron rating 10 micron onward depend on application. Material of element S.S wiremesh, paper, felt, fibre etc.
- Oil cooler to cool oil, horizontal or vertical, shell and tube type, plate type etc.
- Instrument panel consisting of pressure gauges, pressure switches, temperature gauges, temperature switches, RTD, flow switch, level switches, etc to keep control of the different parameters.
- Control panel is designed for higher degree of sophistications to control above, parameters and automatic changeover of pump, oil coolers, filters, change of flow path.
- Various valve are incorporated, check valve, gate, globe, ball, plug, relief valve, pressure control valve etc.



HAND OPERATED MOBILE GREASE FILLING SYSTEM

HGS-5	(Reservoir Cap.-5 Kg.) Discharge-8 gms per stroke, Max. Pr.-100Kg/Cm ² , with Rubber hose & grease adopter.
HGS-10	(Reservoir Cap.-10 Kg.) Discharge-10 gms per stroke, Max. Pr.-125Kg/Cm ² , with Rubber hose & grease adopter.
HGS-20	(Reservoir Cap.-20 Kg.) Discharge-10 gms per stroke, Max. Pr.-150Kg/Cm ² , with Rubber hose & grease adopter.

All above mentioned models are mobile type. The pressure plate or dead weight has been provided in all the models to avoid the air gap. These pumps are suitable for pressurised greasing of machine parts.

NOTE: Remove the pressure plate or dead weight from the bottom of reservoir before filling the grease in the reservoir. Insert the pressure plate or dead weight in reservoir after filling the grease in the reservoir.



AIR OPERATED MOBILE GREASE FILLING SYSTEM

GFS-25 (Mobile)	Reservoir Cap.-25 Kg. Discharge-300 to 400 gms per minute, Max. Pr.-125 Kg/Cm ² , with rubber hose, Grease gun & Trolley mounted.
GFS-50 (Mobile)	Reservoir Cap.-50 Kg. Discharge-300 to 400 gms per minute, Max. Pr.-125 Kg/Cm ² , with rubber hose, Grease gun & Trolley mounted.
GFS-200	Suitable for drum Cap.-200 Kg, Discharge-300 to 400gms per minute, Max. Pr.-150Kg/Cm ² , Air input pressure 5-7 Kg/Cm ² . With rubber hose & grease gun. This pump is suitable for transfer the grease with greater discharge.

NOTE:-*Drum shown in the figure is not the part of item.

SPARES

FLOAT SWITCH



MODEL	DESCRIPTION
FSH	For motorised lub. unit, for electrically oil level sensing NC / NO contact
FSH +	For motorised lub. unit, for electrically oil level sensing NO + NC contact
FSV	For motorised lub. unit, for electrically oil level sensing NC / NO contact
FSV +	For motorised lub. unit, for electrically oil level sensing NO + NC contact



PRESSURE SWITCH

MODEL	DESCRIPTION
PS-830	Pressure switch used in motorised unit for Sensing pressure.
PS-020	Pressure switch used in motorised unit for Sensing pressure.



PRESSURE GAUGE

MODEL	DESCRIPTION
PG	For measure the working pressure of lubrication systems. Range 0 - 28 Kg/Cm ² .



OIL FILLER CUM AIR BREATHER

MODEL	DESCRIPTION
B-03	Used for CLU-03 / ALR-03 / SLU-2700 Motorised unit.
B-05/08	Used for CLU-05 / CLU-08 / CLU-20 Motorised unit.



SUCTION STRAINER

MODEL	DESCRIPTION
SS-08	For CLU-03 Motorised lubrication unit.
SS-30	For CLU-05 / CLU-08 Motorised lubrication unit.
SS-55	For pump PP-08 & PP-10



RELIEF VALVE

MODEL	DESCRIPTION
RV-030-A	Use for pressure setting in Motorised Units.
RV-030-B	Use for pressure setting in Hyd. / Lub. Units.



BLEAD VALVE

MODEL	DESCRIPTION
RV-030-A	Use for pressure setting in Motorised Units.
RV-030-B	Use for pressure setting in Hyd. / Lub. Units.



IN LINE FILTER

MODEL	DESCRIPTION
IF-13	Inline filter for Oil & Grease upto 149 micron filtration Inlet & outlet port 1/4" & 1/2" BSP.
IF-05	Inline filter for Oil Brounz filtration Inlet & outlet port 1/4" BSP.



SIGHT GLASS

MODEL	DESCRIPTION
SG-25	Tube dia 25mm. OD, Inlet & Outlet port 1/8" BSP.
SG-38	Tube dia 38mm. OD, Inlet & Outlet port 1/8" BSP.



OIL LEVEL GAUGE

MODEL	DESCRIPTION
OLG-120U	To use in Lub. Units / Hyd. Tanks.
OLG-75P	To use in Pump & Small Tanks.

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