

the



NIPPLE SHOP

total lubrication supplies

A Business Dedicated

to Providing

Solutions to Industry

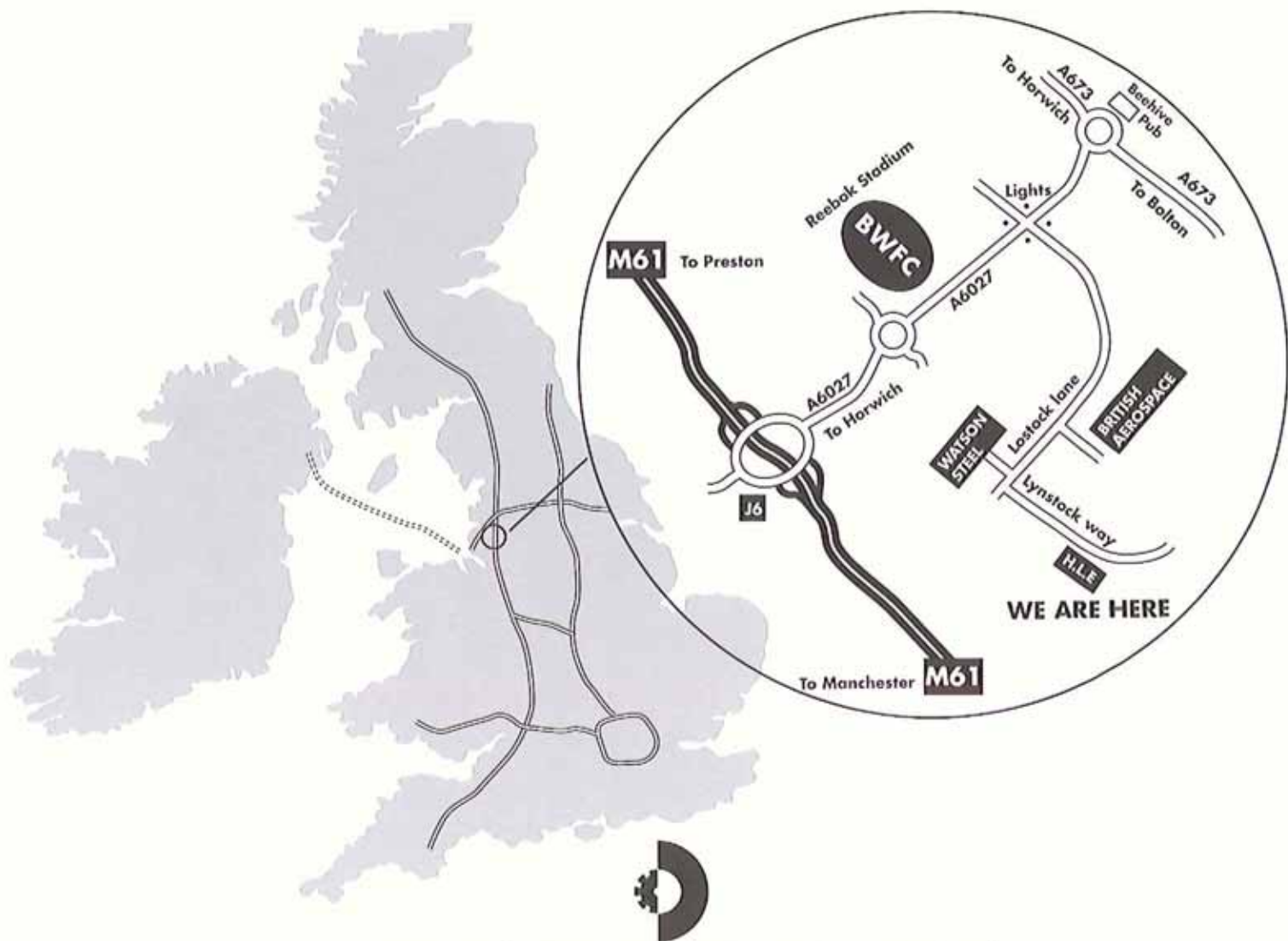
Products of Excellence




the 
NIPPLE SHOP
total lubrication supplies

With the combined purchasing power and comprehensive stocks of Harrison Lubrication Engineering, The Nipple Shop can supply Lubrication spare parts promptly and at competitive prices.

The "Nipple Shop" is a division of Harrison Lubrication Engineering.




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Steel Grease Nipples

All Nipples are of the highest specification and manufactured to BS 1486 or DIN 71412.

Finish - Zinc Plated and passivated

HYDRAULIC

2



STRAIGHT

| THREAD SIZE: | PART NO: |
|---------------------|------------|
| ● 1/8" BSP | H1-2-BP |
| 1/4" BSP | H1-4-BP |
| ● 1/4" BSF | H1-4-BF |
| ● 1/4" UNF | H1-4-UF |
| ● M6 x 1 | H1-6-2-M |
| M8 x 1 | H1-8-2-M |
| M8 x 1.25 | H1-8-3-M |
| 1/8" NPT | H1-2-NT |
| 1/4" BSW | H1-4-BW |
| 1/4" NPT | H1-4-NT |
| 5/16" BSF | H1-5-BF |
| 5/16" OD (drive in) | H1A-5 |
| M5 x 0.8 | H1-5-0.8-M |

| THREAD SIZE: | PART NO: |
|---------------------|-----------|
| M10 x 1 | H1-10-2-M |
| M10 x 1.5 | H1-10-4-M |
| 6mm OD (drive in) | H1A-6-M |
| 8mm OD (drive in) | H1A-8-M |
| 5/16" UNF | H1-5-UF |
| 5/16" BSW | H1-5-BW |
| M6 x 0.75 | H1-6-1-M |
| 3/8" BSF | H1-6-BF |
| 3/8" UNF | H1-6-UF |
| 1/4" OD (drive in) | H1A-4 |
| 3/16" OD (drive in) | H1A-3 |
| 10mm OD (drive in) | H1A-10-M |
| H1-6-BP 3/8" BSP | |



45° ANGLE

| THREAD SIZE: | PART NO: |
|--------------|----------|
| 1/8" BSP | H2-2-BP |
| 1/4" BSP | H2-4-BP |
| 1/4" BSF | H2-4-BF |
| 1/4" UNF | H2-4-UF |
| 1/8" NPT | H2-2-NT |
| 1/4" BSW | H2-4-BW |
| 5/16" BSW | H2-5-BW |
| 5/16" UNF | H2-5-UF |
| 5/16" BSF | H2-5-BF |

| THREAD SIZE: | PART NO: |
|-------------------|-----------|
| M6 x 1 | H2-6-2-M |
| M8 x 1 | H2-8-2-M |
| M8 x 1.25 | H2-8-3-M |
| M10 x 1 | H2-10-2-M |
| M10 x 1.5 | H2-10-4-M |
| M6 x 0.75 | H2-6-1-M |
| 3/8" BSF | H2-6-BF |
| 3/8" UNF | H2-6-UF |
| 6mm OD (drive in) | H2A-6 |
| 8mm OD (drive in) | H2A-8 |



67° ANGLE

| THREAD SIZE: | PART NO: |
|--------------|----------|
| 1/8" NPT | H67-2-NT |
| 1/8" BSP | H67-2-BP |
| 1/4" BSF | H67-4-BF |
| 1/4" BSP | H67-4-BP |

| THREAD SIZE: | PART NO: |
|--------------|-----------|
| 5/16" BSF | H67-5-BF |
| M8 x 1.25 | H67-8-3-M |



90° ANGLE

| THREAD SIZE: | PART NO: |
|--------------|----------|
| 1/8" BSP | H3-2-BP |
| 1/4" BSP | H3-4-BP |
| 1/4" BSF | H3-4-BF |
| 1/4" UNF | H3-4-UF |
| 1/8" NPT | H3-2-NT |
| 1/4" BSW | H3-4-BW |
| 5/16" BSF | H3-5-BF |
| 5/16" UNF | H3-5-UF |
| 5/16" BSW | H3-5-BW |

| THREAD SIZE: | PART NO: |
|-------------------|-----------|
| M6 x 1 | H3-6-2-M |
| M8 x 1 | H3-8-2-M |
| M8 x 1.25 | H3-8-3-M |
| M10 x 1 | H3-10-2-M |
| M10 x 1.5 | H3-10-4-M |
| 3/8" BSF | H3-6-BF |
| 3/8" UNF | H3-6-UF |
| M8 x 1.25 | H3-8-3-M |
| 6mm OD (drive in) | H3A-6 |
| 8mm OD (drive in) | H3A-8 |



180° ANGLE

| THREAD SIZE: | PART NO: |
|--------------|-------------|
| 1/8" BSP | H180-2-BP |
| M10 x 1 | H180-10-2-M |
| M8 x 1.25 | H180-8-3-M |

ADDITIONAL SIZES AND MATERIALS ARE AVAILABLE

● EXTENDED VERSIONS



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CONCAVE



STRAIGHT



| THREAD SIZE: | PART NO: |
|--------------------|----------|
| 1/8" BSP | D1-2-BP |
| 1/4" BSP | D1-4-BP |
| 4mm OD (drive in) | D1A-4-M |
| 6mm OD (drive in) | D1A-6-M |
| 1/4" OD (drive in) | D1A-4 |
| 10mm OD (drive in) | D1A-10-M |

| THREAD SIZE: | PART NO: |
|-------------------|-----------|
| 8mm OD (drive in) | D1A-8-M |
| M10 x 1 | D1-10-2-M |
| M6 x 1 | D1-6-2-M |
| M8 x 1 | D1-8-2-M |
| M8 x 1.25 | D1-8-3-M |



45°ANGLE



| THREAD SIZE: | PART NO: |
|--------------------|----------|
| 1/8" BSP | D2-2-BP |
| 1/4" BSP | D2-4-BP |
| 6mm OD (drive in) | D2A-6-M |
| 1/4" OD (drive in) | D2A-4 |

ADDITIONAL SIZES AND MATERIALS ARE AVAILABLE

SLIDE/HOOK ON NIPPLES



TAT-HEAD -(DOUBLE HEXAGON)

| THREAD SIZE: | PART NO: |
|--------------|-------------|
| 1/8" BSP | TIB-2-BP-BR |
| 1/4" BSP | TIB-4-BP-BR |
| 3/8" BSP | TIB-6-BP |
| 3/8" BSF | TIB-6-BF |
| 1/4" BSF | TIB-4-BF |
| 1/8" NPT | TIB-2-NT |

| THREAD SIZE: | PART NO: |
|--------------|------------|
| M6 x 1 | TIB-6-2-M |
| M8 x 1 | TIB-8-2-M |
| M8 x 1.25 | TIB-8-3-M |
| M10 x 1 | TIB-10-2M |
| M10 x 1.5 | TIB-10-4-M |



INDUSTRIAL BUTTON HEAD

| THREAD SIZE: | PART NO: |
|--------------|-----------|
| M10 x 1 | M1-10-2-M |
| 1/8" BSP | M1-2-BP |

| THREAD SIZE: | PART NO: |
|--------------|----------|
| 1/4" BSP | M1-4-BP |
| 3/8" BSP | M1-6-BP |



GIANT BUTTON HEAD

| THREAD SIZE: | PART NO: |
|--------------|------------|
| M16 x 1.5 | M22-16-4-M |
| 1/4" BSP | M22-4-BP |

| THREAD SIZE: | PART NO: |
|--------------|----------|
| 3/8" BSP | M22-6-BP |
| 1/2" BSP | M22-8-BP |

ADDITIONAL SIZES AVAILABLE ON REQUEST

LEAK PROOF NIPPLES



| THREAD SIZE: |
|--------------|
| 1/8" NPT |

| ANGLE: |
|--------|
| STR |

| PART NO: |
|----------|
| 5045 |

Leak Proof fittings are used when a positive seal is required. They withstand back pressures up to 5000 psi.

NOT SUITABLE AS A CHECK VALVE AGAINST HIGH SUSTAINED BACK PRESSURE.



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PUSH ON - K TYPE NIPPLE



| | |
|---------------------|-----------------|
| THREAD SIZE: | PART NO: |
| 1/8" BSP | K1-2-BP |
| 1/4" BSP | K1-4-BP |

BAYONET STYLE NIPPLE

4



| | |
|---------------------|-----------------|
| THREAD SIZE: | PART NO: |
| 1/8" BSP | B1-2-BP |

GREASE NIPPLE COVERS



| | |
|----------------|-----------------|
| COLOUR: | PART NO: |
| RED | H/P/C-R |
| GREEN | H/P/C-G |
| BLUE | H/P/C-B |
| YELLOW | H/P/C-Y |
| BLACK | H/P/C-BL |

Plastic coloured covers for hydraulic grease nipples to protect the nipple head and identify lubrication rate by colour code.

THREAD GAUGES



DESCRIPTION:
Metric thread gauge
Whitworth-BSP gauge
SAE-BSF- thread gauge

PART NO:
NS 070000
NS 070001
NS 070002



Stainless Steel Grease Nipples

All Nipples are of the highest specification and manufactured as standard in 304 grade stainless steel. (316 grade nipples are available in certain sizes only to order)

STRAIGHT HYDRAULIC



| THREAD SIZE: | PART NO: |
|--------------|---------------|
| 1/8" BSP | H1-2-BP-SS |
| 1/4" BSP | H1-4-BP-SS |
| 1/4" BSF | H1-4-BF-SS |
| 1/4" UNF | H1-4-UF-SS |
| M6 x 1 | H1-6-2-M-SS |
| M8 x 1 | H1-8-2-M-SS |
| M8 x 1.25 | H1-8-3-M-SS |
| 1/4" NPT | H1-4-NT-SS-LT |

| THREAD SIZE: | PART NO: |
|-------------------|--------------|
| 1/8" NPT | H1-2-NT-SS |
| M10 x 1 | H1-10-2-M-SS |
| M10 x 1.5 | H1-10-4-M-SS |
| 6mm OD (drive in) | H1A-6-M-SS |
| 8mm OD (drive in) | H1A-8-M-SS |
| 5/16" UNF | H1-5-UF-SS |
| 5/16" BSF | H1-5-BF-SS |

45° ANGLE HYDRAULIC



| THREAD SIZE: | PART NO: |
|--------------|------------|
| 1/8" BSP | H2-2-BP-SS |
| 1/4" BSP | H2-4-BP-SS |
| 1/4" BSF | H2-4-BF-SS |
| 1/4" UNF | H2-4-UF-SS |

| THREAD SIZE: | PART NO: |
|--------------|--------------|
| M6 x 1 | H2-6-2-M-SS |
| M8 x 1 | H2-8-2-M-SS |
| M8 x 1.25 | H2-8-3-M-SS |
| M10 x 1 | H2-10-2-M-SS |

90° ANGLE HYDRAULIC



| THREAD SIZE: | PART NO: |
|--------------|------------|
| 1/8" BSP | H3-2-BP-SS |
| 1/4" BSP | H3-4-BP-SS |
| 1/4" BSF | H3-4-BF-SS |
| 1/4" UNF | H3-4-UF-SS |

| THREAD SIZE: | PART NO: |
|--------------|--------------|
| M6 x 1 | H3-6-2-M-SS |
| M8 x 1 | H3-8-2-M-SS |
| M8 x 1.25 | H3-8-3-M-SS |
| M10 x 1 | H3-10-2-M-SS |

TAT-HEAD NIPPLE (DOUBLE HEXAGON)



| THREAD SIZE: | PART NO: |
|--------------|-------------|
| 1/8" BSP | T1B-2-BP-SS |
| 1/4" BSP | T1B-4-BP-SS |

BUTTON HEAD NIPPLE (ROUND HEAD)



| THREAD SIZE: | PART NO: |
|--------------|------------|
| 1/8" BSP | M1-2-BP-SS |
| 1/4" BSP | M1-4-BP-SS |

FLUSH TYPE NIPPLE



| THREAD SIZE: | PART NO: |
|--------------------|------------|
| 1/8" BSP | D1-2-BP-SS |
| 6mm O.D (drive in) | D1A-6-M-SS |



Selection Boxes of Nipples



Selection boxes are ideal for an engineers workshop or tool box.

- PART NO:** NSGNB-M **DESCRIPTION:** 45 Metric Nipples in 9 types plus connector
- PART NO:** NSGNB-1 **DESCRIPTION:** 60 Imperial Nipples in 12 types plus connector
- PART NO:** NSGNB-1 **DESCRIPTION:** 90 Metric Nipples in 9 types plus connector
- PART NO:** NSGNB-2 **DESCRIPTION:** 120 Imperial Nipples in 12 types plus connector
- PART NO:** NSGNB-3 **DESCRIPTION:** 110 Imperial & Metric Nipples in 11 types plus connector
- PART NO:** NSGNB-4 **DESCRIPTION:** 100 Tat Head Nipples in 10 types plus connector
- PART NO:** NSGNB-5 **DESCRIPTION:** 365 Various Nipples in 17 types

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ALL METRIC BOX: PART NO. NSGNB-M

| THREAD SIZE | STRAIGHT | 45° | 90° | HYDRAULIC CONNECTOR | BOX |
|--------------------|-----------|-----------|-----------|---------------------|-------|
| M10 X 1 | H1-10-2-M | H2-10-2-M | H3-10-2-M | NS4525 | NSGNB |
| M8 X 1 | H1-8-2-M | H2-8-2-M | H3-8-2-M | | |
| M6 X 1 | H1-6-2-M | H2-6-2-M | H3-6-2-M | | |
| NUMBER OFF OF EACH | 5 | 5 | 5 | 1 | 1 |
| TOTAL NIPPLES 45 | | | | | |

ALL IMPERIAL BOX: PART NO. NSGNB-1

| THREAD SIZE | STRAIGHT | 45° | 90° | HYDRAULIC CONNECTOR | BOX |
|--------------------|----------|---------|---------|---------------------|-------|
| 1/8" BSP | H1-2-BP | H2-2-BP | H3-2-BP | NS4525 | NSGNB |
| 1/4" BSP | H1-4-BP | H2-4-BP | H3-4-BP | | |
| 1/4" BSF | H1-4-BF | H2-4-BF | H3-4-BF | | |
| 1/4" UNF | H1-4-UF | H2-4-UF | H3-4-UF | | |
| NUMBER OFF OF EACH | 5 | 5 | 5 | 1 | 1 |
| TOTAL NIPPLES 60 | | | | | |

ALL METRIC BOX: PART NO. NSGNB-1

| THREAD SIZE | STRAIGHT | 45° | 90° | HYDRAULIC CONNECTOR | BOX |
|--------------------|-----------|-----------|-----------|---------------------|-------|
| M10 X 1 | H1-10-2-M | H2-10-2-M | H3-10-2-M | NS4525 | NSGNB |
| M8 X 1 | H1-8-2-M | H2-8-2-M | H3-8-2-M | | |
| M6 X 1 | H1-6-2-M | H2-6-2-M | H3-6-2-M | | |
| NUMBER OFF OF EACH | 10 | 10 | 10 | 1 | 1 |
| TOTAL NIPPLES 90 | | | | | |

ALL IMPERIAL BOX: PART NO. NSGNB-2

| THREAD SIZE | STRAIGHT | 45° | 90° | HYDRAULIC CONNECTOR | BOX |
|--------------------|----------|---------|---------|---------------------|-------|
| 1/8" BSP | H1-2-BP | H2-2-BP | H3-2-BP | NS4525 | NSGNB |
| 1/4" BSP | H1-4-BP | H2-4-BP | H3-4-BP | | |
| 1/4" BSF | H1-4-BF | H2-4-BF | H3-4-BF | | |
| 1/4" UNF | H1-4-UF | H2-4-UF | H3-4-UF | | |
| NUMBER OFF OF EACH | 10 | 10 | 10 | 1 | 1 |
| TOTAL NIPPLES 120 | | | | | |

MIXED BOX IMPERIAL AND METRIC: PART NO. NSGNB-3

| THREAD SIZE | STRAIGHT | 45° | TAT.HEAD | CONNECTOR | BOX |
|--------------------|----------|----------|-----------|-----------|-------|
| 1/8" BSP | H1-2-BP | H2-2-BP | TIB-2-BP | NS4523 | NSGNB |
| 1/4" BSP | H1-4-BP | H2-4-BP | TIB-4-BP | | |
| M6 X 1 | H1-6-2-M | H2-6-2-M | TIB-6-2-M | | |
| M8 X 1 | H1-8-2-M | H2-8-2-M | | NS4525 | |
| NUMBER OFF OF EACH | 10 | 10 | 10 | 1 | 1 |
| TOTAL NIPPLES 110 | | | | | |

METRIC AND IMPERIAL 'TAT.HEAD' PART NO. NSGNB-4

| THREAD SIZE | TAT-HEAD REF | HOOK ON CONNECTORS | BOX |
|--------------------|--------------|--------------------|-------|
| 1/8" BSP | TIB-2-BP | NS4523 | NSGNB |
| 1/8" BSP BRASS | TIB-2-BP-BR | | |
| 1/4" BSP | TIB-4-BP | | |
| 1/4" BSP BRASS | TIB-4-BP-BR | | |
| 1/4" BSF | TIB-4-BF | | |
| 3/8" BSP | TIB-6-BP | | |
| 3/8" BSF | TIB-6-BF | | |
| M6 X 1 | TIB-6-2-M | | |
| M8 X 1.5 | TIB-8-3-M | | |
| M10 X 1.5 | TIB-10-4-M | | |
| NUMBER OFF OF EACH | 10 | 1 | 1 |
| TOTAL NIPPLES 100 | | | |

METRIC AND IMPERIAL 'BOX' PART NO. NSGNB-5

| TYPE AND SIZE | NIPPLES | NUMBER PER COMPARTMENT |
|-----------------------------|----------|------------------------|
| 1/8" BSP -STRAIGHT | H1-2-BP | 20 |
| 1/4" BSP -STRAIGHT | H1-4-BP | 10 |
| 1/4" UNF -STRAIGHT | H1-4-UF | 45 |
| M8 X 1 -STRAIGHT | H1-8-2-M | 40 |
| M6 X 1 -STRAIGHT | H1-6-2-M | 40 |
| 1/8" BSP -TAT.HEAD | TIB-2-BP | 10 |
| 1/4" BSP -TAT.HEAD | TIB-4-BP | 10 |
| 1/8" BSP -45° | H2-2-BP | 15 |
| 1/4" BSP -45° | H2-4-BP | 10 |
| 1/4" UNF -45° | H2-4-UF | 20 |
| M8 X 1 -45° | H2-8-2-M | 20 |
| M6 X 1 -45° | H2-6-2-M | 20 |
| 1/8" BSP -90° | H3-2-BP | 15 |
| 1/4" BSP -90° | H3-4-BP | 10 |
| 1/4" UNF -90° | H3-4-UF | 20 |
| M8 X 1 -90° | H3-8-2-M | 20 |
| M6 X 1 -90° | H3-6-2-M | 20 |
| NIPPLE COVERS WITH RETAINER | H/P/C-Y | 20 |
| INDEXED BOX | NSGNB | |
| TOTAL NUMBER OF NIPPLES 365 | | |



Inaccessible Lubrication Kit

INACCESSIBLE BEARING KIT - ENABLES THE LUBRICATION OF BEARINGS TO BE CARRIED OUT IN SAFETY AND WHILST THE MACHINE IS IN OPERATION.

KIT COMPRISES OF:

- ① HIGH PRESSURE HYDRAULIC GREASE NIPPLE
- ② GREASE NIPPLE PROTECTION CAP
- ③ ANCHOR BLOCK AND CAP HEAD SCREW
- ④ HIGH PRESSURE COMPRESSION FITTINGS
- ⑤ PIPE CLIPS AND SELF TAPPING SCREWS
- ⑥ BEARING INLET FITTING
- ⑦ 3m OF HIGH PRESSURE LUBRICATION PIPE (TUBE 150 BAR BURST PRESSURE)

| | |
|---------------------|--|
| KIT PART NO: | FOR BEARINGS WITH INLET THREAD. |
| NS 9000 | 1/4" UNF & 1/4" BSF & M6 x 1 |
| NS 9024 | 1/8" BSP & 1/4" BSP |



IMPORTANT

WHEN PIPING OUT INACCESSIBLE

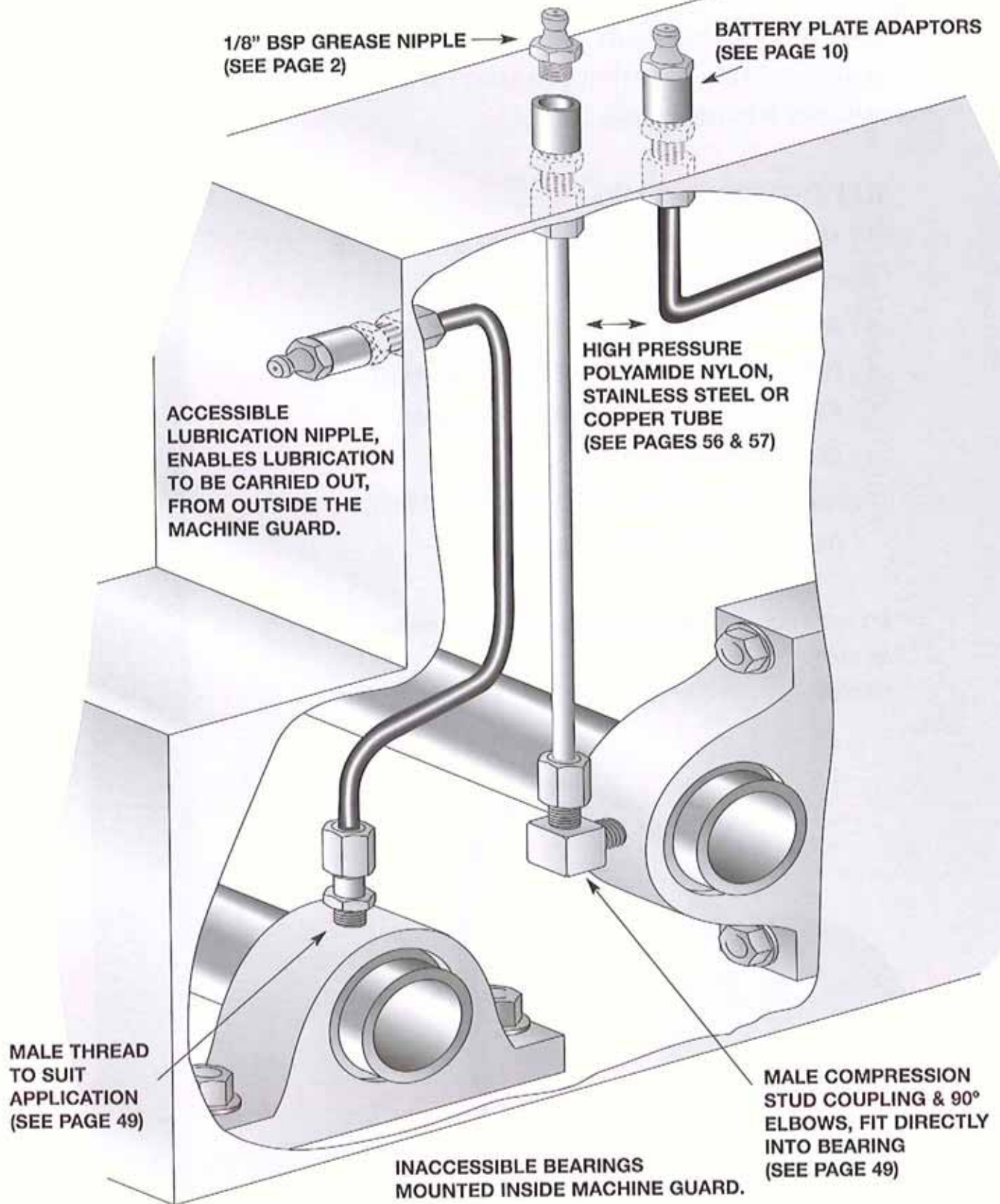
BEARINGS WITH NYLON TUBE, ALWAYS USE HIGH

PRESSURE SEMI RIGID TUBE TO PREVENT THE PIPE FROM BURSTING WHEN UNDER PRESSURE FROM A GREASE GUN (page56).



Battery Plate Adaptors

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IMPORTANT

WHEN PIPING OUT INACCESSIBLE BEARINGS WITH NYLON TUBE, ALWAYS USE HIGH PRESSURE SEMI RIGID TUBE TO PREVENT THE PIPE FROM BURSTING WHEN UNDER PRESSURE FROM A GREASE GUN (page 56).

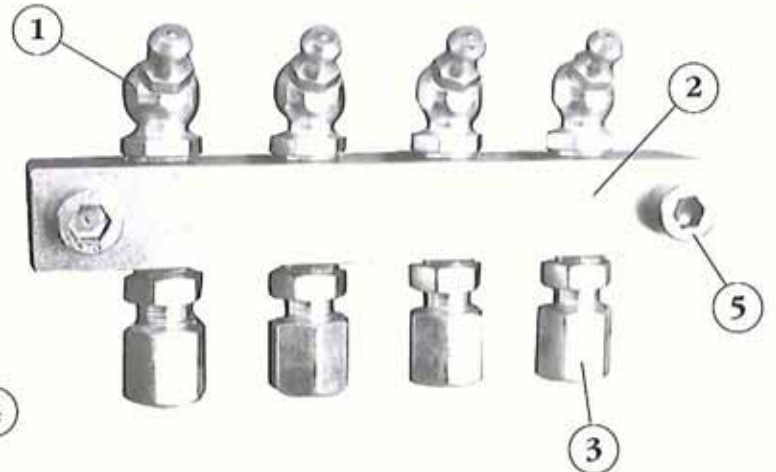


Multi Point Anchor Blocks

FOUR WAY MULTI POINT INSTALLATION



Multi-outlet anchor blocks are used when piping out more than one grease point and terminates the points in one easily accessible position. This enables quick, easy and safe lubrication of the machine



- ① 1/8" BSP 45° grease nipple (Page 3)
- ② Multi outlet anchor (Page 11)
- ③ Outlet fitting (Page 49)
- ④ High pressure tube (Pages 56 & 57)
- ⑤ M6x1 Cap head screw (Page 11)

UNIVERSAL ANCHOR BLOCK (81583)



Piping out inaccessible bearings

The (81583) anchor block (as detailed on page 11), gives flexibility in mounting options. For single point lubrication or single brush applications as detailed the block can be mounted parallel or perpendicular to the application for ease of lubrication.



Securely anchoring brush applications to chains



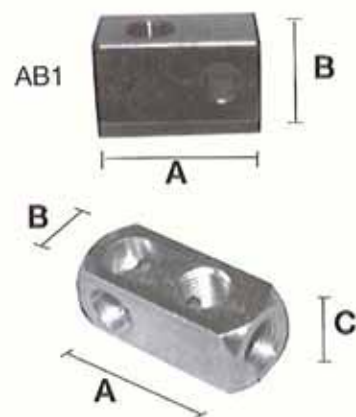
Anchor Blocks

SINGLE ANCHOR

| PART NO: | A | B | C | THREAD |
|----------|----|----|----|----------|
| AB1 | 30 | 15 | 15 | 1/8" BSP |
| 81583 | 38 | 15 | 15 | 1/8" NPT |

Material: STEEL

Finish: PLATED



PART NO: M6CS-30
M6x1 cap head screw (for use with anchor)

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MULTI POINT ANCHOR

| PART NO: | PORTS | L | THREAD |
|----------|-------|-----|----------|
| AB2 | 2 | 62 | 1/8" BSP |
| AB3 | 3 | 86 | 1/8" BSP |
| AB4 | 4 | 108 | 1/8" BSP |
| AB5 | 5 | 132 | 1/8" BSP |
| AB6 | 6 | 154 | 1/8" BSP |

Material: STEEL

Finish: PLATED



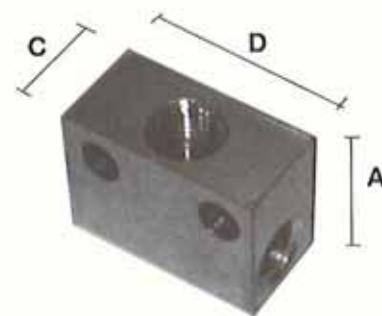
PART NO: M6CS-30
M6x1 cap head screw (for use with anchor)

3 WAY ANCHOR

| PART NO: | A | B Thread | C | D |
|----------|----|----------|----|----|
| 118205 | 25 | 1/8" BSP | 20 | 40 |
| 118203 | 30 | 1/4" BSP | 20 | 40 |
| 118216 | 40 | 3/8" BSP | 25 | 50 |

Material: STEEL

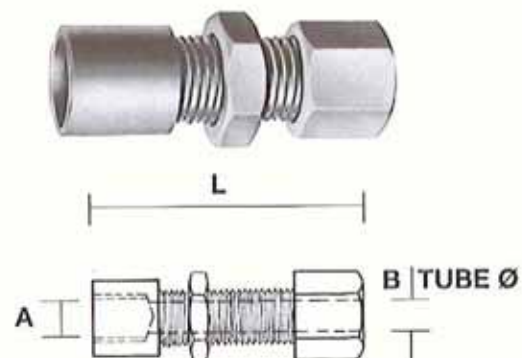
Finish: PLATED



BATTERY PLATE ADAPTOR

| PART NO: | L | MAX PLATE THICKNESS | A | B | CLEARANCE HOLE |
|----------|------|---------------------|----------|----------|----------------|
| BPA 6M/1 | 41 | 13 | 1/8" BSP | 6mm | 11.50 |
| BPA 6M/2 | 48 | 19 | " | 6mm | 11.50 |
| BPA 4M/1 | 35 | 5 | " | 4mm | 10.00 |
| BPA 4/1 | 41 | 13 | " | 1/4" OD | 11.50 |
| BPA 4/2 | 48 | 19 | " | 1/4" OD | 11.50 |
| BPA 3/1 | 38 | 8 | " | 3/16" OD | 10.00 |
| BPA 3/2 | 44 | 14 | " | 3/16" OD | 10.00 |
| 6M FBH2 | 47.9 | - | 1/8" BSP | 6mm | - |
| 6M FBH4 | 52.7 | - | 1/4" BSP | 6mm | - |

B = Brass



Dimensions in mm unless stated

Connectors & Accessories

INDUSTRIAL HOOK ON



For use with industrial button head nipples type M1.

PART NO: NS 4521

GIANT HOOK ON CONNECTOR



For use with giant buttonhead nipples type M22.

PART NO: NS 4522

HOOK ON & SLIDE ON CONNECTORS



For use with standard TAT HEAD nipples; T1B type.

SLIDE ON: NS 4526
HOOK ON: NS 4523

HEAVY DUTY KNUCKLE JOINTED CONNECTOR



For use with TAT HEAD nipples; T1B type.

PART NO: NS 4530

4 JAW HYDRAULIC CONNECTOR



For use with standard HI grease nipples.

PART NO: NS 4525

PUSH ON CONNECTOR

For use with push on nipples - Tecazerk grease nipples & K type nipples

PART NO: NS 4527



CONCAVE CONNECTOR

For use with concave grease nipples.

POINTED: NSCC1

LUB: NS 4529

ROUNDED: NS 4528



FILLER NIPPLE CONNECTOR

For converting Grease Gun to Bulk Fill direct from a keg of grease. Used in conjunction with filler pump - NS 5748



PART NO: NS GFNI

RIGID/FLEXIBLE DELIVERY TUBES

6" Bent Rigid
PART NO: NS 4110

6" Bent Rigid and Hydraulic Connector
PART NO: NS 4110G



PART NO:
11" Rubber NS 4160 LN
20" Rubber NS 4162 LN
8" Nylon NS 453
12" Nylon NS 456



All flexibles have 1/8" BSP Male ends. Specials and longer flexibles can be provided upon request.

SWIVEL FOR FLEXIBLES

To allow the connector to point in any desired direction with out having to turn the grease gun into an uncomfortable position.

PART NO: NS 140G-20
THREAD SIZE: 1/8" BSP



Hand Operated Grease Guns

ECONOMY SIDE LEVER GREASE GUN KIT



PART NO: NS 356PKE

Kit comprises of:-
400cc side lever grease gun
Rigid stem & hydraulic connector

Specification

Capacity: 400cc bulk fill or cartridge
Finish: Chrome plated
Net weight: 1.05kg
Working pressure: 2000psi

12

INDUSTRIAL SIDE LEVER GREASE GUN



Heavy duty industrial steel grease guns, fitted with air bleed valve capable of generating 7000 psi pressure. As special features the gun has two built in sealing elements to eliminate grease flowing back to the reservoir when lubricating at high pressures.

CAPACITY:

*500 cc Gun Body Only (Suitable for 400gm cartridges)
1000 cc Gun Body Only
*500 cc capacity Standard steel gun with bulk fill attachment
*(see page 59 for 400gm grease gun cartridges)

PART NO:

NS 356 PK
NS 355 LL
NS 356 PKB

HEAVY DUTY PRECISION GREASE GUN



PART NO: NS 37590

New pressure-cast aluminium head with precision-fit piston designed to operate at high pressures

Specification

Capacity: 400cc bulk fill or cartridge
Finish: Steel plated and painted body
Net weight: 1700g
Working pressure: 10,000psi

- Standard 400cc grease cartridges detailed on page 59
- Alternative grease guns are detailed on pages 13 & 14



Hand Operated Grease Guns

HIGH QUALITY HIGH PRESSURE GREASE GUN



All steel hand Grip Grease gun, complete with 6" Rigid tube and Hydraulic connector.

CAPACITY:

150 cc Ideal for small tool boxes
 *500 cc Ideal for one hand operation
 Multi-purpose grease cartridge to fit the NS 250 P (pack of three)

PART NO:

NS 250 P
 NS 3255
 1139

*(see page 59 for 400gm grease gun cartridges)

PUSH GUNS



PART NO:

▲ NS 3PG 1C 60cc
 ▲ NS 3PG 1H 60cc

CAPACITY:

■ NS 3PG 2H 150cc
 ■ NS 3PG 3H 300cc

DESCRIPTION:

Plastic push gun with conical connector
 Plastic push gun with push on connector
 { Steel push gun with conical connector
 Steel push gun with push on connector
 { Steel push gun with conical connector
 Steel push gun with push on connector

■ Available for oil and grease ▲ Grease only

HAND GRIP AIR ACTIVATED PUMP



Simple trigger operation Gun, supplied with rigid tube, hydraulic connector and air coupler.

CAPACITY:

*500 cc (Suitable for 400 cc grease cartridges)

PART NO:

NS 5305

*(see page 59 for 400gm grease gun cartridges)

HIGH PRESSURE SIDE LEVER GUN



Heavy duty steel gun fitted with pressure gauge and pressure release valve.

DESCRIPTION:

500 cc steel body fitted complete with gauge, release valve mechanism, hydraulic connector and extended handle for max output pressure.

PART NO:

NS 356PK-HP



Hand Operated Grease Pumps

BUCKET PUMPS



High Pressure Lubrication Pump

Fits a standard keg of grease and has a maximum output pressure of 350 bar. High pressure portable lubrication pump supplied complete with steel lid, follower plate, 1.5m high pressure flexible hose and 4 jaw hydraulic connector.

PART NO: NS5747

Pump Cover: 310mm dia

Keg size: 12.5-18kg

Out put per stroke: 2cc

(Ask for details on 12.5 kg kegs of grease)

14

GREASE GUN FILLER PUMP (12.5kg) (25kg) (50kg)



The grease gun filler pump is designed to fill grease guns with ease, no mess and without the ingress of dirt.

DESCRIPTION:

PART NO:

Pump, clamps, follower plate and gun filler nozzle. NS 5748

BULK FILL PUMP FOR LUBRICATION SYSTEM RESERVOIRS (12.5kg) (25kg)



The bulk fill pump is designed to re-fill centralised lubrication reservoirs. This unit is supplied complete with 1.5m flexible and quick release coupling.

DESCRIPTION:

PART NO:

Pump, clamps, follower plate, flexible and connector.

NS 5749



12 VOLT

Cordless Rechargeable Grease Gun

The new Lincoln PowerLuber® 12 Volt Cordless Rechargeable Grease Gun is the most advanced grease gun ever created. Its powerful 12 volt motor delivers a consistent grease flow at up to 6000 psi for faster, more effective lubrication than manual methods. Its fully rechargeable power pack gives you unrestricted mobility.

PowerLuber's balanced design makes lubing hard-to-reach fittings routine. And when you've got a lot of fittings to hit, the rechargeable 12 volt battery provides long-lasting performance. Three-way loading makes refilling a snap.

There are three PowerLuber models, with a full range of accessories, designed to meet the demands of any lube application—from the professional mechanic to the do-it-yourselfer.

Discover how easy lubrication can be with the new Lincoln PowerLuber Grease Gun. Because with PowerLuber, you really can *grease anything, anytime, anywhere.*



PowerLuber Pack and Accessories

Model 1242

The standard PowerLuber Model 1242 comes outfitted with a heavy-duty carrying case designed to withstand even the harshest punishment.

Comes complete with:

- 110 volt fast charger (Model 1210)
- One 12 volt NiCad rechargeable battery (Model 1201)
- 30" flex hose with spring guard (Model 1230)
- Custom carrying case designed to hold optional rechargeable battery and two optional grease cartridges (grease not included)
- Patent pending

Features & Benefits

- ◆ Powerful 12 volt motor
- ◆ Planetary gear drive
- ◆ High-capacity 12 volt NiCad battery
- ◆ Machined and hardened piston
- ◆ 2" final drive needle bearings
- ◆ Plated steel barrel with exclusive flip-over follower
- ◆ Locking follower rod
- ◆ Accessible check valve
- ◆ Bleeder valve
- ◆ Outlet opening 7/16" UNEF
- ◆ Threaded opening (1/8" NPT) for filler nipple (not included)

- ◆ New Pressure Relief Valve identifies proper grease flow and alerts user to blocked fittings
- ◆ Pressure Relief Valve prevents motor overload
- ◆ Redesigned Battery Clips secure battery

- ◆ to handle in even the most severe conditions
- ◆ New CE approved wiring design eliminates voltage and magnetic leakage
- ◆ CE approved assembly



Now also available in 220 volt models for Europe and Latin America (Models 1242E and 1244E)

Hand Operated Oil Dispensers

SIDE LEVER OIL GUN



Heavy duty steel oil gun, fitted complete with air relief valve.

CAPACITY: 500 cc **PART NO:** NS 356 PKO

SUCTION GUNS

16



Heavy duty steel suction guns complete with 300mm flexible hose end.

CAPACITY: 500 cc **PART NO:** NS 3206
1000 cc **PART NO:** NS 3207

(IDEAL FOR EMPTYING AND REFILLING GEAR BOXES).

SUCTION/DELIVERY GUN



Portable hand operated, self priming pump, complete with dual way discharging valve and two discharge hoses

CAPACITY: 500 cc **PART NO:** NS 3208
1000 cc **PART NO:** NS 3209

(USED FOR THE EASY TRANSFER OF FLUIDS).

OIL CANS



| CAPACITY: | TYPE: | PART NO: |
|------------------|------------------------------------|-----------------|
| 200 cc | Metal bodied with armoured spout | NS 3228 |
| 300 cc | Metal bodied with armoured spout | NS 3229 |
| 500 cc | Metal bodied with armoured spout | NS 3230 |
| 500 cc | Plastic bodied with armoured spout | NS 3234 |
| 750 cc | Plastic bodied with armoured spout | NS 3235 |



| CAPACITY: | TYPE: | PART NO: |
|------------------|---|-----------------|
| 125 cc | General purpose brush oiler with nylon pump unit and white heavy duty polythene body. Brush length 50mm (2") | NS 003600 |

(not recommended for water based solvents)



Hand Operated Oil Pumps

PORTABLE GEAR OIL DISPENSER



16.5 ltr Gear Oil Dispenser supplied complete with rotary pump, 1.5m hose and bent rigid tube.

PART NO: NS 3166 (Steel Container)

25 LTR MOBILE DISPENSER



Mobile piston pump and trolley unit to suit standard 25 ltr drum of oil. Supplied complete with 1.5m hose and bent rigid tube. (Drum not provided).

PART NO: NS 325P

25 LTR MOBILE DISPENSER



Mobile heavy duty lever pump supplied complete with trolley, 1.5m of delivery hose and bent tip. (Drum not provided).

PART NO: NS 325

(Special bung adaptors are available on request)

MOBILE OIL DISPENSERS



Mobile oil dispensers supplied complete with drum, trolley, 1.5m of delivery hose and bent tip nozzle.

CAPACITY:
90 litre

TYPE OF PUMP
Lever Action

PART NO:
NS 360 (with drum)



Hand Operated Drum Pumps

LEVER TYPE BARREL PUMP



Steel Pump

Fast transfer of lubricants, solvents, agricultural and industrial chemicals, additives and other non-corrosive liquids.

Equipped with a telescopic suction tube (to fit most sizes of drum from 50 to 205 litres), delivery spout and bung adaptor.

Output: 300cc per stroke

PART NO: NSL 205S

Polypropylene Pump

Fast transfer of light lubricants, solvents, agricultural chemicals, additives and volatile liquids.

Equipped with a telescopic suction tube (to fit most sizes of drum from 50 to 205 litres), delivery spout and bung adaptor.

Output: 300cc per stroke

PART NO: NSL 205P

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ROTARY TYPE



Rotary action pumps for continuous transfer of light to medium viscosity products

| PART NO: | DRUM SIZE: | TYPE: | DELIVERY/REVOLUTION: |
|----------|----------------|-----------------|----------------------|
| NSR 205S | 205 litre drum | (standard) | 0.3 litre |
| NSR 205Q | 205 litre drum | (heavy duty) | 0.5 litre |
| NSR 205P | 205 litre drum | (polypropylene) | 0.27 litre |

PISTON TYPE



Lift action pumps for the transfer of light to medium viscosity lubricants.

| PART NO: | DESCRIPTION: | DRUM SIZE: | |
|-----------|-----------------------------------|------------|---|
| NSP 025S | Steel downtube | 25 litre | All supplied with 2" BSP(F) Adaptor NS 317900 |
| NSP 025P | Polypropylene tube | 25 litre | |
| NSP 205S | Steel downtube | 205 litre | |
| NSP 205P | Polypropylene tube | 205 litre | |
| NS 317910 | Hose assembly for the above pumps | | |

Adaptors for non standard drums

| | |
|-----------|----------------------|
| NS 317901 | 2" BSP male adaptor |
| NS 317902 | Trisure male adaptor |
| NS 317903 | Mause (F) adaptor |
| NS 317904 | Rieke (F) adaptor |
| NS 317905 | Universal adaptor |
| NS 317906 | Berg adaptor |



Oil Funnels & Pourers

FUNNELS

TYPE:

Funnel 7cm dia
Funnel 9cm dia
Funnel 12cm dia
Funnel set

PART NO:

NS 3104-N
NS 3105-N
NS 3106-N
NS 3107-N

Low cost moulded plastic funnels for small volume discharge.

Funnel set comprises of: 5cm, 7cm, 9cm and 12cm diameter funnels



Funnel with Anti Splash rim and filter
19.5cm dia

NS 3101-N

Funnel with Anti Splash rim and filter
and flexible tube 19.5cm dia

NS 3102-N

Funnel with filter 22cm dia

NS 3103-N

No spill, no splash quick discharge funnel, with filter and flexible spout

POURERS

Plastic Oil Pourers

CAPACITY:

● 1/2 litre
● 1 litre
● 2 litre
● 5 litre

PART NO:

NS 3000
NS 3001
NS 3002
NS 3003

Measure Pourers moulded in high density polythene.

For lubricants, anti-freeze, brake fluid, battery acid, petrol, diesel etc.



*(stainless steel and tin Oil Pourers and funnels are available on request)



Portable Spray Units

STAINLESS STEEL PNEUMATIC SPRAYERS 5 AND 10 LITRES

| | |
|--|---|
| F5 | (Stainless steel tank) |
| Part No: | NS5-500SS |
| Working Capacity: | 5 litres |
| Weight empty: | 4kg (9lb) |
| Dimensions: | 53.3cm x 17.8cm (21" x 7") |
| Pressure: | Pressurises to 6 bar (85 psi) |
| Pump : | Brass with 'D' handle |
| Hose: | 114cm special plastic, braided |
| Lance: | Brass lance, SA04-243/23 with 45° bend. Brass trigger valve incorporating filter SA04-603. Length, lance trigger 71cm |
| Nozzle: | Brass variable spray pattern SA04-820 |
| Strap: | Single shoulder, plastic |
| Pressure gauge - Safety valve - Release valve | |



Suitable for light viscosity oils

INDUSTRIAL HIGH DENSITY POLYTHENE SPRAYERS 5 AND 8 LITRES

| | | |
|-------------------------|-----------------------|----------|
| Part No: | NS5-500P | NS5-800P |
| | 5 litres | 8 litres |
| Weight empty kg: | 2.18kg | 2.62kg |
| Hose length: | 1250mm | |
| Lance length: | 350mm | |
| Strap: | single shoulder strap | |

Pressure relief and safety valve fitted

* Not suitable for diesel

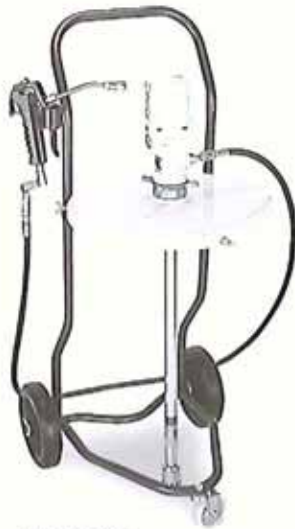


Air Operated Grease Pumps

MOBILE GREASE UNITS

Air operated pumps for high pressure greasing to be used with grease directly from its original container. Pumps can be used in mobile or stationary equipment. Double acting pump Ø 70mm air motor piston (approx. 3") and 35mm piston stroke (1,5"). Air inlet F1/4"G. Grease outlet F1/4"G. Max. air pressure: 10 bar. Fluid outlet pressure: 550 bar. Pump tube diameter: 26mm. Grease suction filter diameter: 38mm.

The 55:1 ratio pumps ensures the most stubborn nipples are lubricated.



PART NO:
NS 5267
50kg



PART NO:
NS 5282
12.5kg



PART NO:
NS 5282-H

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Mobile Units Comprise of:-

- 55:1 Ratio Grease Pump
- 2m Braided Flexible Hose (NS 5101)
- Hand Grip Trigger Valve (NS 5102)
- Z Swivel (NS 5103)
- Steel Drum Cover
- Adjustable Bung
- Trolley



(follower plates are recommended to prevent the ingress of dirt and reduce cavitation, when pumping)

| KEG SIZE: | MOBILE UNIT: | PUMP: | PUMP TUBE LENGTH: | FOLLOWER PLATE: |
|----------------------|--------------|---------|-------------------|-----------------|
| 12-18kg | NS 5282 | NS 5107 | 410mm | NS 5283 |
| 12-18kg (no trolley) | NS 5282-H | NS 5107 | 410mm | NS 5283 |
| 50kg | NS 5267 | NS 5108 | 725mm | NS 5274 |
| 180kg | NS 5328 | NS 5109 | 850mm | NS 5243 |



Air Operated Oil Pumps

OIL PUMP DATA

22



| PART NO: | DOWN TUBE LENGTH: | RATIO: | APPLICATION: |
|----------|-------------------|--------|----------------|
| NS 5114 | 235mm | 1:1 | Wall Mount |
| NS 5115 | 235mm | 3:1 | Wall Mount |
| NS 5116 | 235mm | 5:1 | Wall Mount |
| NS 5117 | 900mm | 1:1 | 205 Litre Drum |
| NS 5118 | 900mm | 3:1 | 205 Litre Drum |
| NS 5119 | 900mm | 5:1 | 205 Litre Drum |

Air Inlet: 1/4" BSP Lubricant Outlet: 3/4" BSP
ALL SUPPLIED WITH 2" BSP MALE BUNG.

- A) NS 360 102 Bracket for wall mounting pumps
*B) NS 361 100 Dispensing valve assembly and tray

MOBILE UNITS

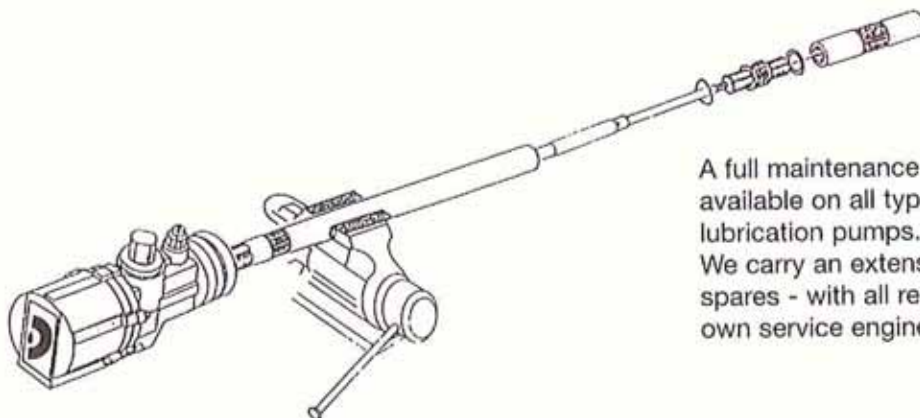


Air Operated Mobile Oil Dispensers comprising of:

- 4 Wheeled Trolley
- Air Operated Pump
- 3m Braided Flexible Delivery Hose
- On/Off hand held Trigger Operated Gun

| PART NO: | APPLICATION: |
|----------|--------------------------------------|
| NS 5123 | 60 Litre Mobile Unit (Drum included) |

MAINTENANCE AND OVERHAUL SERVICE ON AIR OPERATED LUBRICATION PUMPS



A full maintenance and overhaul service is available on all types of air operated lubrication pumps. We carry an extensive range of seal kits and spares - with all repairs carried out by our own service engineers.



Hose Reels

OPEN



CLOSED



PART NO:

- NS501 100
- NS501 200
- NS501 300

DESCRIPTION:

- Open hose reel with 10m of 3/8" Dia hose
- Open hose reel with 10m of 1/2" Dia hose
- Open hose reel with 10m of 1/4" Dia hose

APPLICATION:

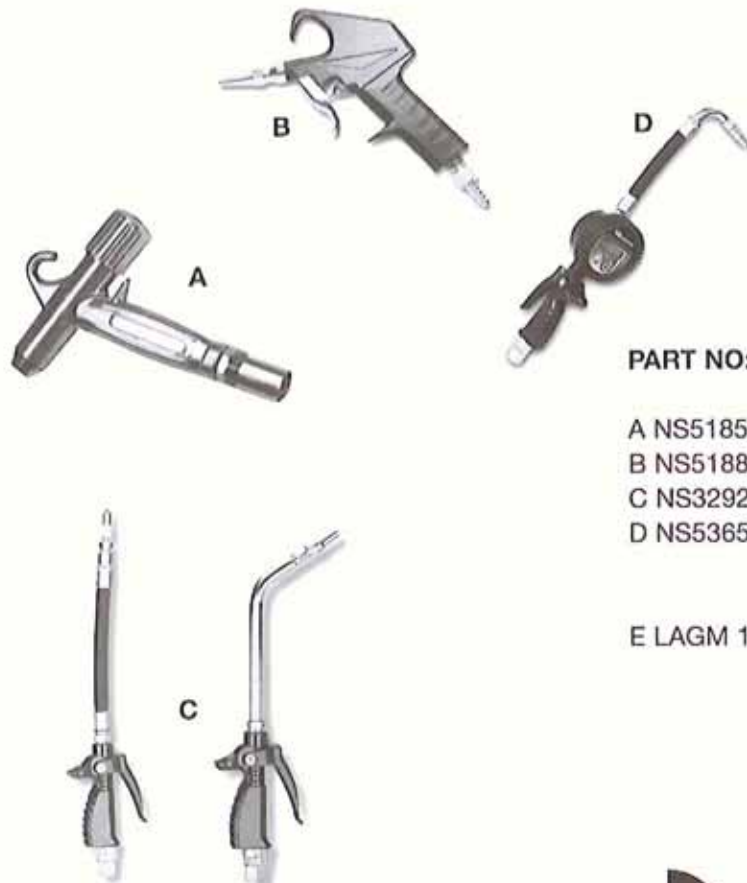
- (air/water)
- (oil/water)
- (grease)

- NS502 100
- NS502 200
- NS502 300

- Closed hose reel with 10m of 3/8" Dia hose
- Closed hose reel with 8m of 1/2" Dia hose
- Closed hose reel with 10m of 1/4" Dia hose

- (air/water)
- (oil/water)
- (grease)

CONTROL GUNS



NEW grease gun meter

PART NO:

- A NS5185 001
- B NS5188 000
- C NS3292
- D NS5365504
- E LAGM 1000

DESCRIPTION:

- Water spray gun 3/8" BSP
- Air blow gun
- Oil gun, rigid stem and swivel
- Digital pistol meter complete with accumulated digital readout button and 90° flexible connector.
- Digital grease meter to accurately measure the exact amount of grease applied to the application in (cm³).



Electrically Operated Drum Pump

D100 SERIES- DESIGNED FOR FACTORY USE

24



DESIGN FEATURES:

- Self aligning tubeset to motor coupling for easy pump assembly.
- Splashproof motors with overload protection for safety.
- AC motor has oversized ON/OFF rocker switch for easy operation while wearing gloves.
- Will handle viscosities up to 750 cp at reduced flow.
- Tubesets designed for easy and inexpensive maintenance.



D100 STANDARD ELECTRIC MOTORS (Not Explosion Proof)

NS516420-0115 110v AC 600W 1ph 50Hz

NS516420-0220 220/240v AC 600W 1ph 50Hz



D100 TUBESETS

NS516400-1270 700mm Polypropylene

NS516400-1400 1000mm Polypropylene

NS516400-1470 1200mm Polypropylene

DRUM ADAPTORS

(To keep pump upright in drum)

NS523505-0000B Polypropylene

WALL BRACKET

(For easy and convenient storage of Pump)

NS523500-0000B Painted mild steel

STRAINERS

(Screw onto bottom of pump tube)

NS516490-1000 Polypropylene for 16400 PP Tubes



Electric Transfer Pump

NEW UTILITY PUMP



25

Features:-

- Built to run dry for up to 20 minutes
- Up to 4m suction lift
- Will handle hard / soft solids
- Flow rate upto 35ltr/min depending on viscosity and head
- Self priming
- Maximum pumping viscosity is 500cst
- Bronze body suitable for pumping oils and water
- Fitted with manual reset thermal trip

Typical Uses

This portable unit is used for many applications:-
Sump emptying, Product transfer, Reservoir emptying,
or re-filling.

| Pump Part No: | Voltage: | Weight |
|------------------|-------------------------|--------|
| NS 53040 - 2003 | 220/240v - 50Hz 1360rpm | 9.5kg |
| NS 53040 - 2103 | 110v - 50Hz | |
| NS 14281 - 0003B | Spare Impellor | |



Drum Handling Equipment

26



A



B



C



D

A) Drum stand to suit 40/50 gallons (205 litre) drums

PART NO: NS DC1

B) Mobile drum stand to suit 40/50 gallons (205 litre) drums

PART NO: NS DC1W

C) Drum cradle to enable the controlled pouring of fluids with ease and prevents accidents/mess. (to suit standard 25 litre drums).

PART NO: NS DC5G

D) Mobile drum lifting tool to handle large 205 litre drums of oil.

PART NO: NS DC2

BARREL TAPS

| SIZE: | DESCRIPTION: | PART NO: |
|----------|--|-----------|
| 3/4" BSP | 1 Plastic Barrel Tap | NS 318100 |
| 2" BSP | 2 Plastic Barrel Tap | NS 318200 |
| 3/4" BSP | 3 Metal Bodied Barrel Tap Self Closing & Lockable | NS 318000 |
| 2" BSP | 4 Cast Iron Barrel Tap Lockable Type | NS 318300 |



Purpose Built Equipment

BARREL RACKS

Purpose built racks to suit different drum sizes and combinations.
These racks can be designed, built and installed on site to customer requirements.



DISPENSING STATION



This station was designed and built to house two standard 205 litre drums of oil. The units were positioned in accessible places around the factory, which made the filling of oil pourers quick, easy and simple.
The oil stations protect the drums from contamination, damage and also keeps the areas neat and tidy around the plant.

MOBILE LUBRICATION TROLLEY

Mobile lubrication trolleys can be supplied and in this case, built with lockable steel enclosures.
These trolleys were supplied with grease guns, oil cans, suction guns, grease nipple selection box, various connectors and oil pourers.



Purpose Built Lubrication

ELECTRICALLY OPERATED GREASE DISPENSER

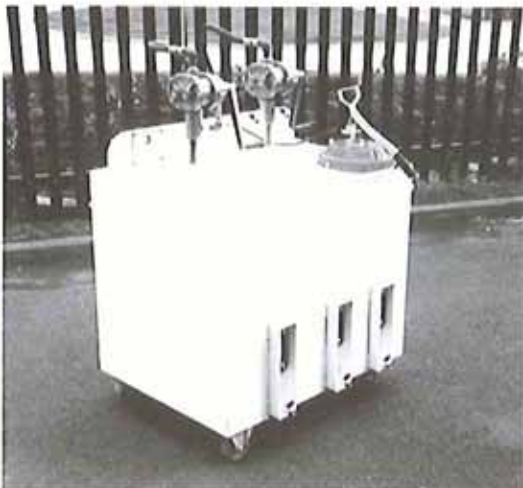
Electrically operated grease dispenser designed to lubricate lubrication points around a plant where there is no, or minimal air connections.

The pump was supplied to suit a standard 50 kg drum of grease and was fitted with a 3m high pressure flexible tube, Z swivel and hand held trigger valve.



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MOBILE LUBRICATION UNIT



Mobile lubrication units are specifically designed to suit the on site applications.

This unit was designed to dispense two types of oil through two high pressure rotary drum pumps. The unit was also used to collect and hold a volume of waste oil. A high pressure 12.5 kg grease dispenser was neatly fitted onto the unit and used to hand lubricate grease points around the plant, as and when gear boxes and oil lubrication system reservoirs were routinely refilled

SUMP SUKKA

Electrically operated compact mobile pump unit complete with 10m electrical cable, trolley, thermal overload, 1.5m of delivery/suction hose and on/off electrical push button switch. For easy transfer of oil around the plant applications such as: the draining and refilling of gearboxes, hydraulic reservoirs, drains etc.



Oil Breathers and Drain Plugs

MAGNETIC DRAIN PLUGS

| PART NO: | TREAD SIZE: | |
|----------|-------------|-----------------------|
| MDF14 | 1/4" BSP | } BRASS NICKEL PLATED |
| MDF38 | 3/8" BSP | |
| MDF12 | 1/2" BSP | |
| MDF34 | 3/4" BSP | |
| MDF10 | 1" BSP | |
| MDF114 | 1 1/4" BSP | } STEEL PLATED |
| MDF112 | 1 1/2" BSP | |
| MDF20 | 2" BSP | |



OIL BREATHERS

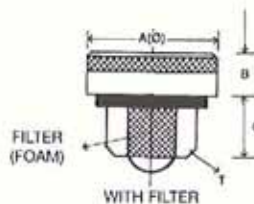
| PART NO: | THREAD SIZE: | CAP SIZE DIA: | |
|----------|--------------|---------------|--------------|
| FH 2610 | 1/8" BSP | - | STEEL PLATED |
| FH 2611 | 1/4" BSP | 47 | STEEL PLATED |
| FH 2612 | 3/8" BSP | 47 | STEEL PLATED |
| FH 2619 | 1/2" BSP | 47 | STEEL PLATED |
| FH 2620 | 3/4" BSP | 80 | STEEL PLATED |
| FH 2621 | 1" BSP | 80 | STEEL PLATED |



29

BREATHER PLUG

| PRODUCT CODE: | PRODUCT CODE: | Size "T" BSP | A | B | C |
|---------------|---------------|--------------|-------|----|------|
| BF14 | B14 | 1/4" | 25.4 | 14 | 12.5 |
| BF38 | B38 | 3/8" | 25.4 | 14 | 12.5 |
| BF12 | B12 | 1/2" | 31.75 | 15 | 20 |
| BF34 | B34 | 3/4" | 44.45 | 15 | 20 |
| BF10 | B10 | 1" | 44.45 | 15 | 20 |



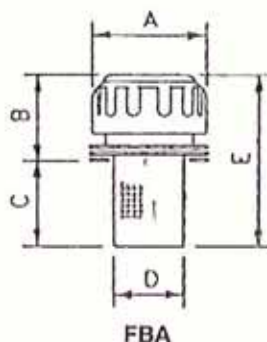
TANK FILLER BREATHER

FILLER BREATHER

| PART NO: | A | B | C | D |
|----------|----|----|----|----|
| FBA25M | 80 | 53 | 80 | 50 |
| FBA5M | 47 | 45 | 65 | 28 |

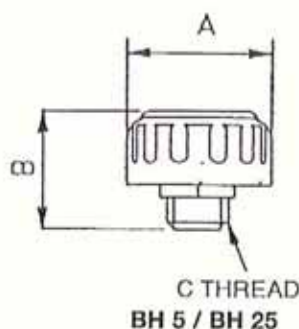
TANK BREATHER

| PART NO: | A | B | C | D |
|----------|----|----|----------|---|
| BH5 | 47 | 51 | 1/4" BSP | - |
| BH25 | 80 | 51 | 3/4" BSP | - |



TECHNICAL DETAILS

- Chrome plated steel body
- Ready to install hardware kit
- Filtration: 40 microns



Automatic Single Point Lubricators

30



Automatic grease lubrication of slideways and bearings where the lubricators are remotely mounted.



Automatic oil lubrication of sliding guideways with a rail oiler/brush applicator

Automatic lubrication of duplex chains.



ADDITIONAL DETAILS ON SINGLE POINT LUBRICATORS ON PAGES 30 TO 35

Gas Operated Automatic Single point Lubricators

perma CLASSIC

perma CLASSIC - the classic among the lubricators

- metal casing
- gas charged
- fully automatic, maintenance-free, reliable
- operates in any position, even under water
- application temperature from 0 °C/32 °F to +40 °C/104 °F
- builds up pressure up to 4 bar max.
- explosion-proof
- liquid electrolyte: environmentally safe citric acid
- end of lubrication period visible
- 120 cm³ of lubricant
- activating screws in various colours with black sealing for the different discharge periods:*
yellow = 1 month, green = 3 months, red = 6 months, grey = 12 months
(SF01 at +20 °C/68 °F reference temperature - under lab conditions)



red = 6 months

perma FUTURA

perma FUTURA - the transparent lubricator

- transparent plastic casing
- gas charged
- corrosion-proof and recyclable
- constant control of the amount of lubricant discharged
- fully automatic, maintenance-free, reliable
- operates in any position, even under water
- application temperature from 0 °C/32 °F to +40 °C/104 °F
- builds up pressure up to 4 bar max.
- explosion-proof
- liquid electrolyte: environmentally safe citric acid
- 100 cm³ of lubricant
- activating screws in various colours with pink sealing for the different discharge periods:
yellow= 1 month, green = 3 months, red = 6 months
(SF01 at +20 °C/68 °F reference temperature - under lab conditions)



red = 6 months

perma FROST

perma FROST - the low temperature lubricator

- metal casing
- gas charged
- builds up pressure up to 4 bar max.
- fully automatic, maintenance-free, reliable
- operates in any position, even under water
- liquid electrolyte: environmentally safe acetic acid
- end of lubrication period visible
- 120 cm³ of lubricant
- application temperature from -25 °C/-13 °F to +10 °C/50 °F
- black activating screw
- perfect for very low ambient temperatures e.g. in cold stores, on cooling machines and aggregates



Gas Operated Automatic Single point Lubricators

- for single-point lubrication of roller and sliding bearings, chains, open gears, sliding guideways etc.



grey = 12 months

green = 3 months



32 yellow = 1 month

L 99 mm · ø 59 mm/cap ring ø 70 mm · weight with SF01 approx. 260 g

- for single point lubrication of roller and sliding bearings, chains, open gears, sliding guideways etc.

- perfect for hygienically clean fields of application

- ideal for corrosion-causing humid regions



yellow = 1 month

green = 3 months



L 104 mm · ø 63 mm/cap ø 74 mm · weight with SF01 approx. 230 g

- for single point lubrication of roller and sliding bearings, chains, open gears, sliding guideways etc.

| Temperature | discharge period |
|-----------------|------------------|
| +10 °C / +50 °F | 1 week |
| ± 0 °C / +32 °F | 2 weeks |
| -10 °C / +14 °F | 6 weeks |
| -20 °C / -4 °F | 14 weeks |
| -25 °C / -13 °F | 26 weeks |



L 99 mm · ø 59 mm/cap ring ø 70 mm · weight with SF01 approx. 260 g



Electro-Mechanical Automatic Lubricators

perma VARIO



- Precise Discharge
- temperature independent
- The drive unit is electromechanical and does not produce gases

This drive unit is reusable making the perma Star economical and environmentally friendly.



(After the end of the discharge period the cartridge and battery set only will be replaced).

Size
Length= 155mm

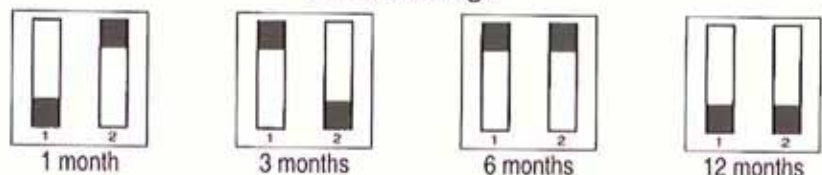
Diameter of the
motor/body=63.5mm

Diameter of the screwed
joint=71mm

Fully adjustable discharge settings with on/off switch

| Setting | Discharge per day |
|----------|-------------------|
| 1 month | 4.00cc |
| 3 month | 1.3cc |
| 6 month | 0.67cc |
| 12 month | 0.33cc |

Time Settings



The discharge period may be set by changing the position of the switches in the drive unit (e.g. with a ballpoint pen)

Visual control

- green blinking signal (every 15 sec)
- red blinking signal (every 8 sec)
- green/red blinking signal (every 3 sec)
- steady red signal

perma Star LED display

- = unit OK
- = Error
- = Empty
- = Unit operating and delivering lubrication



Electro-Mechanical Automatic Lubricators

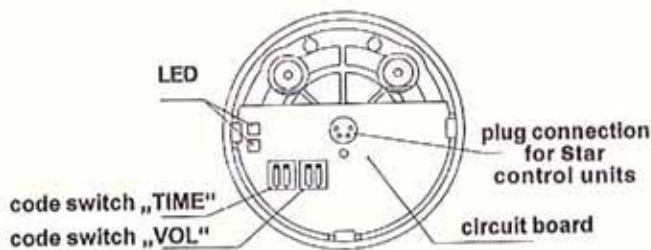
perma STAR VARIO

The perma Star Vario has three grease cartridge size options, 60cc, 120cc and 250cc.

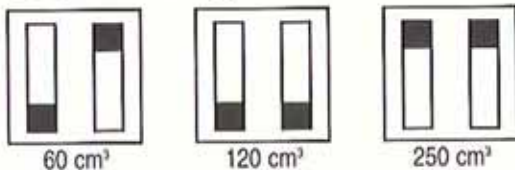
As detailed, the circuit board has an additional dip-switch "VOL" to determine the size of grease cartridge attached.

The discharge time for the grease is set by the "TIME" dip-switch.

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Volume Settings



perma STAR CONTROL

The perma Star Control is an automatic lubricator designed to discharge lubricants at pre-set intervals, only when the machine is operating.

An on/off power supply of 7-25V DC is connected to each unit on the machine and a performance indicator of the perma unit (eg ok, malfunction or empty) can be relayed back to the controller.

Benefits

- More than one lubricant can be applied to the machine
- All lubricators can operate at different rates
- All lubricators are self monitoring

A din plug and 3 metres of cable is supplied with each unit, however longer cables are available on request.



Perma Accessories

PROTECTORS



Part No: A617
Description: Aluminium protector
 * A618 Brass thread protector



Part No: A619
Description: Plastic cap for protection in hostile environments

BRACKETS



Part No: A100
Description: Steel clamp for perma Classic



Part No: A105
Description: Plastic clamp for perma Star



Part No: A150
Description: Standard plastic bracket for all permas

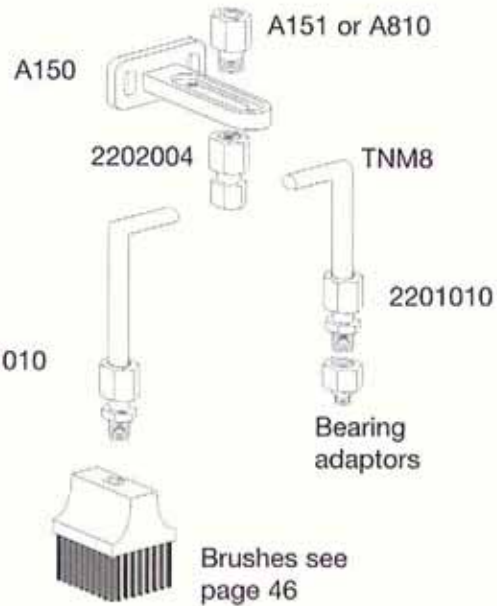
EXTENSIONS



Part No: **Description:**
 A700 1/4" BSP M/F ext 30mm long
 A701 1/4" BSP M/F ext 45mm long
 A702 1/4" BSP M/F ext 75mm long
 A705 1/4" BSP M/F ext 115mm long

A600 TEE 1/4" BSP
 A350 90° ELBOW 1/4" BSP
 A300 45° 1/4" BSP

Lubricators



ADAPTORS/FITTINGS

Part No: **Description:**
 A151 1/4" BSP M/F Adaptor
 A810 1/4" BSP M/F Oil throttle
 2202004 8mm ODX1/4" BSP (F) connector
 2201005 8mm ODX1/4" BSP (M) connector
 2201004 8mm ODX1/8" BSP (M) connector
 TNM8 8mm OD nylon (for less than 1m lengths)

Adaptors

Part No: **Description:**
 A500 1/4" BSP (F) x 1/2" BSP (M)
 A501 1/4" BSP (F) x 1/8" BSP (M)
 A504 1/4" BSP (F) x 3/4" BSP (M)
 A505 1/4" BSP (F) x 3/8" BSP (M)
 A511 1/4" BSP (F) x M6X1 (M)
 A514 1/4" BSP (F) x M8X1 (M)
 A518 1/4" BSP (F) x M10X1 (M)
 A520 1/4" BSP (F) x M10X1.5 (M)
 A524 1/4" BSP (F) x M12X1 (M)
 A526 1/4" BSP (F) x M12X1.5
 A528 1/4" BSP (F) x M14X1.5
 A529 1/4" BSP (F) x M14X2
 A531 1/4" BSP (F) x M16X1.5

Spring Operated And Automatic Grease Feeders

AUTOMATIC SPRING FEED GREASERS

| Part No: | Thread | Body Diameter | Length | Capacity |
|-------------|----------|---------------|--------|----------|
| SBK 1501* | 1/8" BSP | 50mm | 125mm | 50cc |
| SBK 1502** | OR | | | |
| SBK 1503*** | 1/4" BSP | | | |

- * Fixed flow rate
- ** Adjustable flow rate
- *** Adjustable with On/Off facility (Please state thread size when ordering)



SBK 1503

SPRING GREASERS - STEEL RESERVOIR

| Part No: | Thread | Body Diameter | Length Empty | Length Full | Capacity |
|----------|----------|---------------|--------------|-------------|----------|
| SGS 280 | 1/4" BSP | 60mm | 120mm | 130mm | 80cc |

Material - STEEL
Finish - ZINC PLATED



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LUBESITES

| Model | Dome | Material Base | Capacity |
|-------|----------------|-----------------------------------|----------|
| 202 | Poly-carbonate | Poly-carbonate | 1oz |
| 205 | Poly-carbonate | | |
| 302 | Poly-carbonate | Light Weight Anodised Metal Alloy | 1oz |
| 305 | Poly-carbonate | | |
| 360 | Poly-carbonate | | 6oz |



202 & 205 For use in static operations, minimal shock or vibration.
302,305 & 360 for use on applications where shock and vibration is involved.

SCREW DOWN LUBRICATORS

| Part No: | Thread: | Body Ø | Capacity |
|----------|----------|---------|----------|
| SDL 1 | 1/8" BSP | 3/4" | 4.5cc |
| SDL2-2 | 1/8" BSP | 15/16" | 7cc |
| SDL2-4 | 1/4" BSP | 15/16" | 7cc |
| SDL3-2 | 1/8" BSP | 1 1/4" | 14cc |
| SDL3-4 | 1/4" BSP | 1 1/4" | 14cc |
| SDL4-2 | 1/8" BSP | 1 9/16" | 30cc |
| SDL4-4 | 1/4" BSP | 1 9/16" | 30cc |
| SDL5 | 1/4" BSP | 2" | 53cc |
| SDL6 | 1/4" BSP | 2 1/4" | 88cc |
| SDL7 | 3/8" BSP | 2 7/8" | 128cc |
| SDL8 | 3/8" BSP | 3 1/2" | 200cc |



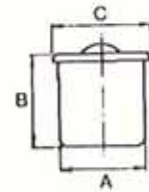
Material - STEEL PLATED



Oil Hole Covers & Cups

BALL VALVE

| Part No | Hole Diameter | A | B | C |
|---------|---------------|-------------|--------|--------|
| A1401 | 3/16" | 0.190-0.192 | 3/16" | 7/32" |
| A1402 | 1/4" | 0.253-0.255 | 7/32" | 9/32" |
| A1403 | 5/16" | 0.315-0.317 | 3/8" | 11/32" |
| A1404 | 3/8" | 0.378-0.380 | 11/32" | 13/32" |

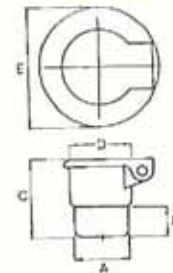


Material - STEEL

Finish - ZINC PLATED

SHOULDER DRIVE

| Part No | Hole Diameter | A | B | C | D | E |
|---------|---------------|-------------|--------|---------|--------|--------|
| BS 1511 | 1/4" | 0.253-0.255 | 7/32" | 15/32" | 9/32" | 5/8" |
| BS 1512 | 3/16" | 0.190-0.192 | 7/32" | 15/32" | 9/32" | 5/8" |
| BS 1513 | 6mm | 6mm Taper | 7/32" | 15/32" | 9/32" | 5/8" |
| BS 1516 | 5/16" | 0.315-0.317 | 1/4" | 17/32" | 0.350" | 3/4" |
| BS 1518 | 7mm | 7mm Taper | 1/4" | 17/32" | 0.350" | 3/4" |
| BS 1521 | 3/8" | 0.378-0.380 | 9/32" | 19/32" | 0.415" | 13/16" |
| BS 1523 | 8mm | 8mm Taper | 9/32" | 19/32" | 0.415" | 13/16" |
| BS 1536 | 10mm | 10mm Taper | 9/32" | 23/32" | 1/2" | 1" |
| BS 1549 | 5/8" | 0.628-0.630 | 3/8" | 15/16" | 3/4" | 13/8" |
| BS 1555 | 3/4" | 0.753-0.755 | 7/16" | 11/16" | 1" | 15/8" |
| BS 1556 | 7/8" | 0.878-0.880 | 1/2" | 11/8" | 1" | 15/8" |
| BS 1560 | 1" | 1.003-1.005 | 9/16" | 115/16" | 11/4" | 17/8" |
| BS 1573 | 1 1/4" | 1.253-1.256 | 11/16" | 1 1/2" | 15/8" | 2 1/2" |
| BS 1574 | 1 1/2" | 1.503-1.507 | 11/16" | 1 1/2" | 15/8" | 2 1/2" |



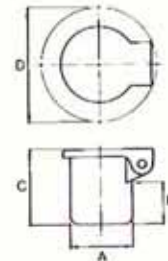
Material - STEEL

Finish - NICKEL PLATED

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DRIVE IN

| Part No | Hole Diameter | A | B | C | D |
|---------|---------------|-------------|--------|---------|--------|
| B 1604 | 1/4" | 0.253-0.255 | 17/16" | 15/8" | 5/8" |
| B 1614 | 1/2" | 0.503-0.505 | 3/8" | 21/32" | 1" |
| B 1620 | 5/8" | 0.628-0.630 | 13/32" | 3/4" | 1 1/4" |
| B 1623 | 3/4" | 0.753-0.755 | 17/32" | 15/16" | 13/8" |
| B 1625 | 1" | 1.003-1.005 | 9/16" | 1" | 15/8" |
| B 1628 | 1 1/4" | 1.253-1.256 | 5/8" | 1 1/16" | 17/8" |
| B 1640 | 1 3/4" | 1.753-1.757 | 9/16" | 1" | 2 3/4" |
| B 1650 | 2 1/4" | 2.253-2.258 | 13/16" | 1 1/4" | 3 1/8" |



Material - STEEL

Finish - NICKEL PLATED

RELIEF VALVES

PART NO:

DESCRIPTION:

STD55/2/B
STD55/2
STD55/3B

Brass Relief Valve 1/8" BSPT 1-5 psi Vent Pressure



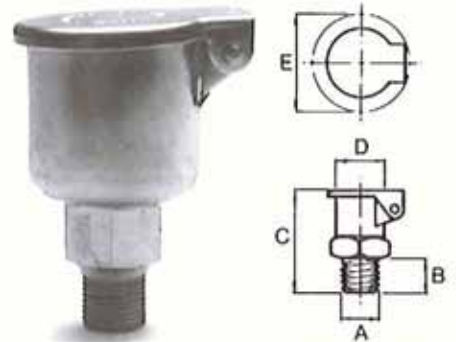
Dimensions in mm unless stated



Oil Hole Covers & Cups

THREADED

| NO: | A | B | C | D | E | Hex A/Flats |
|---------|-------------|-------|-------|------|-------|-------------|
| C 1730 | 3/16-32 TPI | 3/16 | 9/16 | 1/4 | 5/8 | 5/16 |
| C 1732 | 1/4-32 TPI | 3/16 | 9/16 | 1/4 | 5/8 | 5/16 |
| C 1733 | 1/4-26 TPI | 3/16 | 9/16 | 1/4 | 5/8 | 5/16 |
| C 1735 | 10-32 TPI | 3/16 | 9/16 | 1/4 | 5/8 | 5/16 |
| C 1736 | 2 BA | 3/16 | 9/16 | 1/4 | 5/8 | 5/16 |
| C 1740 | 1/4-20 TPI | 7/32 | 5/8 | 5/16 | 3/4 | 3/8 |
| C 1743 | 5/16-18 TPI | 7/32 | 5/8 | 5/16 | 3/4 | 3/8 |
| C 1748 | 3/8-24 TPI | 1/4 | 11/16 | 3/8 | 13/16 | 7/16 |
| C 1749 | 1/8-BSP | 1/4 | 11/16 | 3/8 | 13/16 | 7/16 |
| C 1752 | 7/16-24 TPI | 9/32 | 23/32 | 7/16 | 15/16 | 1/2 |
| C 1763 | 1/4 BSP | 7/16 | 11/32 | 5/8 | 1 1/4 | 0.710 |
| C 1787 | 1/8 BSP | 1 1/2 | 2 | 3/8 | 15/16 | 7/16 |
| *C 2141 | 1/8 BSP | 3/8 | 1 1/4 | 5/8 | 1 1/4 | 0.710 |



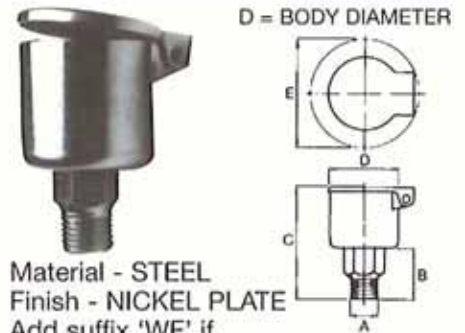
Finish - NICKEL PLATE

*Add suffix 'WF' if syphon tube and wick is required

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THREADED

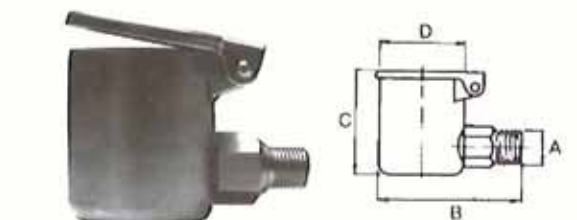
| NO: | A | B | C | D | E | Hex A/Flats |
|--------|---------|-------|---------|-------|-------|-------------|
| D 1914 | 1/8 BSP | 11/16 | 17/16 | 5/8 | 1 1/4 | 7/16 |
| D 1920 | 1/8 BSP | 11/16 | 19/32 | 3/4 | 13/8 | 7/16 |
| D 1927 | 1/8 BSP | 13/16 | 17/8 | 1 | 15/8 | 9/16 |
| D 1928 | 1/4 BSP | 13/16 | 17/8 | 1 | 15/8 | 9/16 |
| D 1937 | 1/8 BSP | 13/16 | 23/16 | 1 1/4 | 17/8 | 9/16 |
| D 1938 | 1/4 BSP | 13/16 | 23/16 | 1 1/4 | 17/8 | 9/16 |
| D 1952 | 1/4 BSP | 15/16 | 2 11/16 | 15/8 | 2 1/2 | 1 1/16 |
| D 1958 | 1/4 BSP | 1 1/8 | 33/8 | 2 1/4 | 3 1/8 | 1 1/16 |
| D 1959 | 3/8 BSP | 15/32 | 33/8 | 2 1/4 | 3 1/8 | 1 1/16 |
| D 1960 | 1/2 BSP | 1 1/4 | 3 1/2 | 2 1/4 | 3 1/8 | 7/8 |



Material - STEEL
Finish - NICKEL PLATE
Add suffix 'WF' if syphon tube and wick is required

90° THREADED

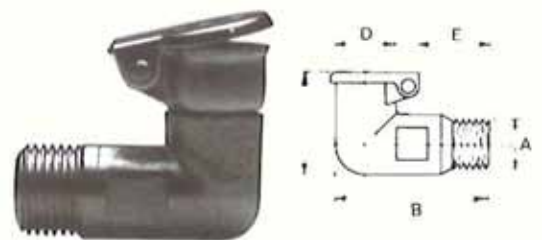
| PART NO: | A | B | C | D | Hex A/Flats |
|----------|---------|---------|---------|-------|-------------|
| M 3011 | 1/8 BSP | 15/16 | 1 1/32 | 5/8 | 7/16 |
| M 3017 | 1/8 BSP | 17/16 | 13/16 | 3/4 | 7/16 |
| M 3024 | 1/8 BSP | 1 13/16 | 1 13/32 | 1 | 9/16 |
| M 3025 | 1/4 BSP | 1 13/16 | 1 13/32 | 1 | 9/16 |
| M 3031 | 1/8 BSP | 2 1/16 | 1 19/32 | 1 1/4 | 9/16 |
| M 3032 | 1/4 BSP | 2 1/16 | 1 19/32 | 1 1/4 | 9/16 |
| M 3041 | 1/4 BSP | 2 9/16 | 2 1/16 | 15/8 | 1 1/16 |
| M 3042 | 3/8 BSP | 2 9/16 | 2 1/16 | 15/8 | 1 1/16 |
| M 3064 | 1/4 BSP | 33/8 | 25/16 | 2 1/4 | 1 1/16 |
| M 3065 | 3/8 BSP | 33/8 | 25/16 | 2 1/4 | 1 1/16 |
| M 3066 | 1/2 BSP | 3 1/2 | 25/16 | 2 1/4 | 7/8 |



Material - STEEL Finish - NICKEL PLATE

Add suffix 'WF' if syphon tube and wick is required (except M 3011)

| PART NO: | A | B | C | D | E |
|----------|-------------|--------|-------|------|--------|
| LS 2601 | 3/16-32 TPI | 3/4 | 5/8 | 1/4 | 1 1/32 |
| LS 2602 | 1/4-32 TPI | 3/4 | 5/8 | 1/4 | 1 1/32 |
| LS 2603 | 1/4-26 TPI | 3/4 | 5/8 | 1/4 | 1 1/32 |
| LS 2604 | 10-32 TPI | 3/4 | 5/8 | 1/4 | 1 1/32 |
| LS 2616 | 5/16-32 TPI | 15/16 | 5/8 | 5/16 | 13/32 |
| LS 2630 | 1/8 BSP | 1 | 13/16 | 3/8 | 15/32 |
| LS 2633 | 3/8-24 TPI | 1 | 13/16 | 3/8 | 15/32 |
| LS 2680 | 1/8 ANPT | 13/8 | 1 | 5/8 | 9/16 |
| LS 2681 | 1/8 BSP | 13/8 | 1 | 5/8 | 9/16 |
| *L2511 | 0.253-0.255 | 3/4 | 9/16 | 1/4 | 1 1/32 |
| *L2531 | 0.378-0.380 | 1 1/16 | 1 | 5/8 | 9/16 |



*DRIVE IN TYPE

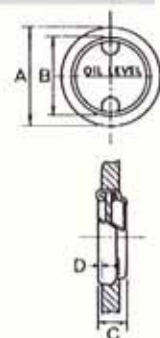
Dimensions in inches unless stated



Oil Levels & Windows

DRIVE IN

| PART NO: | HOLE DIAMETER | A | B | C | D |
|----------|---------------|-------|---------|--------|-------|
| DW 4061 | 1.250 | 1.253 | 1" | 11/32" | 1/64" |
| | 1.252 | 1.255 | | | |
| DW 4062 | 1.500 | 1.503 | 1 1/4" | 3/8" | 1/64" |
| | 1.502 | 1.505 | | | |
| DW 4063 | 2.000 | 2.003 | 1 3/4" | 5/8" | 1/64" |
| | 2.002 | 2.005 | | | |
| DW 4064A | 0.875 | 0.878 | 1 1/16" | 9/32" | 1/64" |
| | 0.877 | 0.880 | | | |



Add suffix 'A' to Part No. if window required engraved 'Oil Level'.
 Material - STEEL
 PERSPEX
 Finish - NICKEL PLATED

Maximum working pressure 0.7 bar
 Maximum working temperature 70°C with 0.2 bar pressure.

STEEL THREADED

| PART NO: | A | B | C | D | E |
|----------|------------|---------|--------|--------|------|
| BWS 4042 | 3/4" BSP | 1/2" | 1" | 3/4" | 1.3 |
| BWS 4052 | 3/4" NPT | 13/16" | | | |
| BWS 4043 | 1" BSP | 5/8" | 1 1/4" | 1" | 1.67 |
| BWS 4053 | 1" NPT | 7/8" | | | |
| BWS 4044 | 1 1/4" BSP | 5/8" | 1 1/4" | 1 1/4" | 2.05 |
| BWS 4045 | 1 1/2" BSP | 5/8" | | | |
| BWS 4055 | 1 1/2" NPT | 1" | 1 1/4" | 1 1/2" | 2.41 |
| BWS 4046 | 2" BSP | 1 1/16" | 1 3/8" | 2" | 2.75 |



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Add suffix 'R' to Part No. if reflector is required.
 Material - STEEL
 GLASS
 Finish - ZINC PLATED

Maximum working pressure 10 bar
 Maximum working temperature 0-100 C.

BRASS THREADED (Fitted with perspex window)

| PART NO: | A | B | C | D | E |
|----------|----------|--------|--------|-------|------|
| BW 4040P | 3/8" BSP | 7/16" | 3/4" | 7/16" | 0.75 |
| BW 4041P | 1/2" BSP | 17/32" | 15/16" | 9/16" | 0.92 |

Material - STEEL / PERSPEX
 Finish - NATURAL



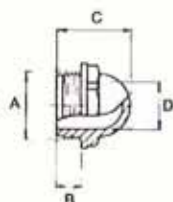
BRASS THREADED (Fitted with toughened glass window)

| PART NO: | A | B | C | D | E |
|-----------|----------|--------|--------|-------|------|
| BW 4040TG | 3/8" BSP | 7/16" | 3/4" | 7/16" | 0.75 |
| BW 4041TG | 1/2" BSP | 17/32" | 15/16" | 9/16" | 0.92 |

Material - STEEL / GLASS
 Finish - NATURAL

Maximum working pressure 7 bar
 Maximum working temperature 0 - 70°C Perspex
 0 - 100°C Glass

PLASTIC DOME THREADED



| PART NO: | A | B | C | D | E |
|----------|----------|----|----|----|----|
| PR 4300 | 1/2" BSP | 10 | 30 | 14 | 24 |
| PR 4301 | 3/4" BSP | 12 | 34 | 20 | 30 |
| PR 4302 | 1" BSP | 12 | 36 | 23 | 36 |

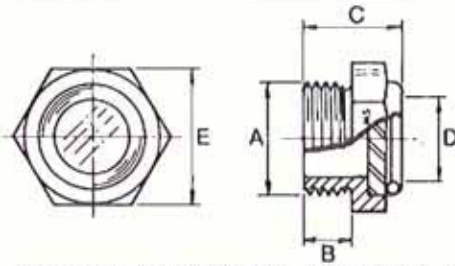
Material: PLASTIC
 Maximum working pressure 3 bar
 Maximum working temperature 70° C

Dimensions in mm unless stated



Oil Levels & Windows

ALUMINIUM THREADED



| PART NO: | A | B | C | D | E |
|----------|------------|----|------|----|----|
| AW 4220 | 1/4" BSP | 8 | 13.5 | 8 | 17 |
| AW 4221 | 3/8" BSP | 8 | 13.8 | 11 | 22 |
| AW 4222 | 1/2" BSP | 9 | 15 | 15 | 27 |
| AW 4223 | 3/4" BSP | 10 | 17 | 20 | 32 |
| AW 4224 | 1" BSP | 14 | 22.5 | 25 | 41 |
| AW 4225 | 1 1/4" BSP | 14 | 22.5 | 33 | 50 |
| AW 4226 | 1 1/2" BSP | 14 | 22.5 | 38 | 55 |
| AW 4227 | 2" BSP | 14 | 22.5 | 46 | 70 |

Material: ALUMINIUM - ACRYLIC Maximum working pressure 3 bar Maximum working temperature 70°C

ALUMINIUM THREADED WITH REFLECTOR

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PART NO: SIZE METRIC

| PART NO: | A | B | C | D | E |
|----------|--------|-----|------|------|----|
| FM14 | 14x1.5 | 6.5 | 12.0 | 9.5 | 19 |
| FM16 | 16x1.5 | 7.0 | 12.0 | 10 | 22 |
| FM22 | 22x1.5 | 7.0 | 13.0 | 15 | 27 |
| FM24 | 24x1.5 | 7.5 | 12.5 | 17.5 | 32 |
| FM27 | 27x1.5 | 7.5 | 12.5 | 17.5 | 32 |
| FM30 | 30x1.5 | 7.5 | 12.5 | 22.5 | 38 |
| FM33 | 33x1.5 | 7.5 | 12.5 | 22.5 | 38 |
| FM36 | 36x1.5 | 7.5 | 12.5 | 22.5 | 38 |
| FM42 | 42x1.5 | 7.5 | 12.5 | 32.5 | 48 |

PART NO: SIZE BSP

| PART NO: | A | B | C | D | E |
|----------|--------|------|------|------|------|
| FK14 | 1/4" | 12.0 | 21.5 | 10.0 | 19.0 |
| FK38 | 3/8" | 12.5 | 23.5 | 10.0 | 22.5 |
| FK12 | 1/2" | 13.0 | 24.0 | 15.0 | 27.0 |
| FK34 | 3/4" | 12.0 | 24.0 | 17.5 | 32.0 |
| FK10 | 1" | 13.0 | 24.0 | 22.5 | 38.0 |
| FK114 | 1 1/4" | 12.5 | 25.5 | 32.5 | 48.0 |
| FK144R | 1 1/4" | 12.5 | 25.5 | 32.5 | Ø=51 |
| FK112 | 1 1/2" | 13.0 | 26.5 | 41.5 | 55.0 |
| FK20R | 2" | 13.5 | 26.5 | 51.0 | Ø=76 |

Material of construction

- Aluminium for body & screen
Glass-Borosilicate with Nitrile Rubber Seal

Seal Pressure

- 4 kg/cm² (60 psi)

Working temperature

- 150°C

Media

- All petroleum based liquid lubrication oil & water

PLASTIC THREADED

Dimensions in mm

| PART NO: | A | B | C | D | E |
|----------|------------|------|------|----|----|
| PW 4200 | 1/4" BSP | 8.2 | 13.2 | 6 | 17 |
| PW 4201 | 3/8" BSP | 9.2 | 15.7 | 9 | 22 |
| PW 4202 | 1/2" BSP | 10 | 18 | 12 | 24 |
| PW 4203 | 3/4" BSP | 12.2 | 21.2 | 16 | 30 |
| PW 4204 | 1" BSP | 11.6 | 20.6 | 22 | 36 |
| PW 4205 | 1 1/4" BSP | 12.8 | 22.3 | 28 | 46 |
| PW 4206 | 1 1/2" BSP | 13.8 | 25 | 33 | 50 |
| PW 4207 | 2" BSP | 13.8 | 26 | 43 | 60 |



PLASTIC THREADED WITH REFLECTOR

| PART NO: | A | B | C | D | E |
|----------|------------|------|------|----|----|
| PW 4210 | 1/4" BSP | 8.2 | 13.2 | 6 | 17 |
| PW 4211 | 3/8" BSP | 9.2 | 15.7 | 9 | 22 |
| PW 4212 | 1/2" BSP | 10 | 18 | 12 | 24 |
| PW 4213 | 3/4" BSP | 12.2 | 21.2 | 16 | 30 |
| PW 4214 | 1" BSP | 11.6 | 20.6 | 22 | 36 |
| PW 4215 | 1 1/4" BSP | 12.8 | 22.3 | 28 | 46 |
| PW 4216 | 1 1/2" BSP | 13.8 | 25 | 33 | 50 |
| PW 4217 | 2" BSP | 13.8 | 26 | 43 | 60 |

Material: PLASTIC

Maximum working pressure 3 bar

Maximum working temperature 70°C



Oil Tank Accessories

TANK LEVEL GAUGE

| PART NO: | L ₂ | L ₃ | L |
|----------|----------------|----------------|-----|
| FLP 3 | 75 | M10 | 108 |
| FLP 5 | 127 | M12 | 159 |
| FLP 10 | 254 | M12 | 285 |
| FLP 3T | 76 | M10 | 108 |
| FLP 5T | 127 | M12 | 159 |
| FLP 10T | 254 | M12 | 285 |

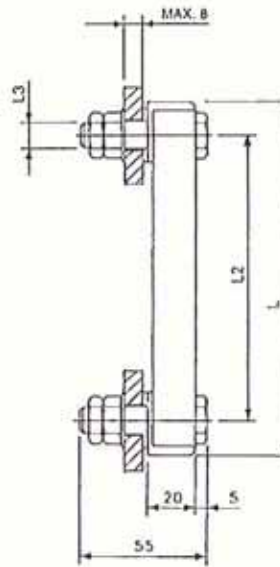
Model Parts Nos. which end in "T" have temperature reading.

Application::

Level gauges are used for visual level indication in the tank. They are fitted on side of the at the minimum or maximum level required

TECHNICAL DETAILS

- Max. Pressure: 1 bar
- Temperature: Range 0°C - 100°C



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IN-LINE NON-RETURN VALVES

| PART NO: | THREAD SIZE: | SPRING PRESSURE: | MAX FLOW LPM: |
|----------|--------------|------------------|---------------|
| 203001 | 1/8" BSP | 0.35 bar | 10 |
| 203002 | 1/4" BSP | 0.35 bar | 15 |
| 203003 | 3/8" BSP | 0.35 bar | 30 |
| 203004 | 1/2" BSP | 0.35 bar | 55 |
| 203005 | 3/4" BSP | 0.35 bar | 88 |

- Body- steel plated
- Maximum pressure 350 bar
- Temperature range: -20°C to +100°C

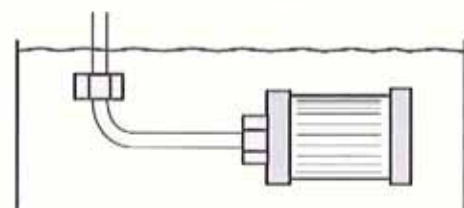


SUCTION STRAINER

| PART NO: | FLOW LPM | THREAD IN BSP | OVERALL LENGTH | | DIA. |
|----------|----------|---------------|----------------|-----|------|
| | | A | B | C | |
| FSS-003 | 15 | 1/2" | 102 | 50 | 50 |
| FSS-005 | 25 | 3/4" | 105 | 50 | 50 |
| FSS-010 | 50 | 1" | 140 | 68 | 68 |
| FSS-015 | 65 | 1 1/4" | 140 | 88 | 88 |
| FSS-020 | 95 | 1 1/2" | 140 | 88 | 88 |
| FSS-030 | 200 | 1 1/2" | 102 | 100 | 100 |
| FSS-040 | 260 | 2" | 102 | 100 | 100 |
| FSS-075 | 300 | 2 1/2" | 212 | 131 | 131 |
| FSS-100 | 400 | 3" | 272 | 131 | 131 |

TECHNICAL DETAILS

- Material: SS304 of 125 micron filtration
- Temperature range: -20°C to +100°C



Installation:

Install the strainer in a horizontal position. Tighten only with the hexagon nut and not by any other means.



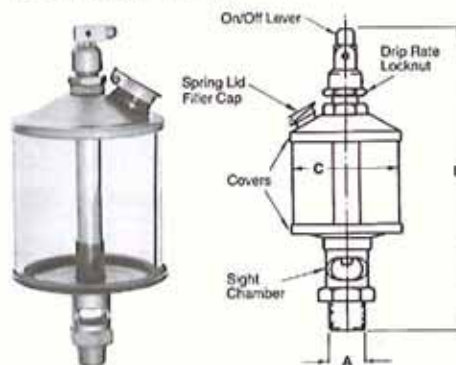
Drip Feed Lubricators

ADJUSTABLE - ON/OFF LUBRICATOR

PSF BRASS - PLEXIGLASS BOTTLE

GSF BRASS - GLASS BOTTLE Dimensions in mm

| Part No: | Part No: | A | B | C | Capacity |
|----------|----------|----------|-----|-----|----------|
| PSF 130 | GSF 130 | 1/8" BSP | 108 | 30 | 14ml |
| PSF 230 | GSF 230 | 1/4" BSP | | | |
| PSF 240 | GSF 240 | 1/4" BSP | 121 | 40 | 36ml |
| PSF 340 | GSF 340 | 3/8" BSP | | | |
| PSF 250 | GSF 250 | 1/4" BSP | 137 | 50 | 78ml |
| PSF 350 | GSF 350 | 3/8" BSP | | | |
| PSF 260 | GSF 260 | 1/4" BSP | 151 | 60 | 140ml |
| PSF 360 | GSF 360 | 3/8" BSP | | | |
| PSF 268 | GSF 268 | 1/4" BSP | 171 | 60 | 200ml |
| PSF 368 | GSF 368 | 3/8" BSP | | | |
| PSF 380 | GSF 380 | 3/8" BSP | 199 | 80 | 500ml |
| PSF 480 | GSF 480 | 1/2" BSP | | | |
| PSF 4100 | GSF 4100 | 1/2" BSP | 224 | 100 | 1000ml |
| PSF 5100 | GSF 5100 | 3/4" BSP | | | |



These oilers have shut off and needle valve oil feed adjustment. A sight chamber is provided to check the oil flow drip rate.

C = Diameter of Body

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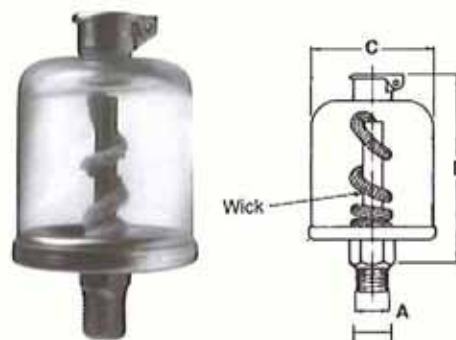
PLASTIC BOTTLE - WICK FEED

| PART NO: | A | B | C | Capacity |
|----------|----------|----------|--------|----------|
| SWF 7701 | 1/8" BSP | 27/16" | 1 1/4" | 17ml |
| SWF 7706 | 1/8" BSP | 2 13/16" | 1 1/2" | 35ml |
| SWF 7712 | 1/4" BSP | 3 1/2" | 1 3/4" | 63ml |
| SWF 7717 | 1/4" BSP | 3 11/16" | 2" | 84ml |

Dimensions in inches

Material - STEEL BASE

Finish - ZINC PLATED



SINGLE DRIP FEED

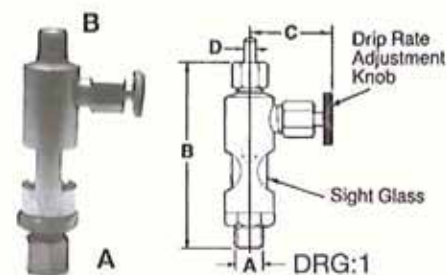
| Part No: | A | B | C | D |
|----------|---------------------|----|------|---------------------|
| LV 10078 | 1/8" BSP or 4mm o/d | 76 | 28.6 | 1/8" BSP or 4mm o/d |
| OS 3471 | 3/16" OD | 76 | 28.6 | 1/8" BSP |
| OS 3472 | 1/4" OD | 76 | 28.6 | 1/8" BSP |

Dimensions in mm

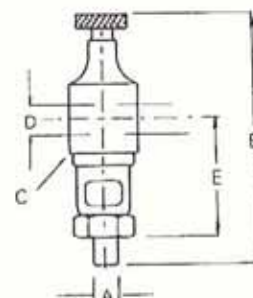
Material - BRASS

Finish - NATURAL

DRG:1 INDICATES LV10078 - WITH 4mm O-D TUBE OIL FEED



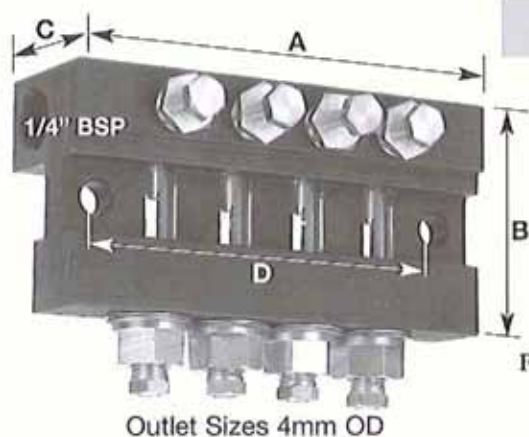
| Part No: | A | B | C | D | E |
|-----------|--------------|----|----|----------|----|
| ETR 10491 | 1/8" BSP (M) | 78 | 22 | 1/8" BSP | 38 |
| ETR 10490 | 1/8" BSP (F) | 70 | 22 | 1/8" BSP | 38 |



Dimensions in mm unless stated



Multi Drip Feed Lubricators and Oil Levels



Outlet Sizes 4mm OD

MULTI DRIP FEED LUBRICATOR

| Part No: | No. of Outlets | A | B | C | D |
|----------|----------------|-----|------|------|-----|
| LV 10026 | 4 | 97 | 49.6 | 30.2 | 81 |
| LV 10027 | 6 | 132 | 49.6 | 30.2 | 116 |

Material - Body ALUMINIUM
Finish - BLACK ANODISED

FOR TYPICAL DRIP FEED APPLICATIONS SEE PAGE 44

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OIL RESERVOIR



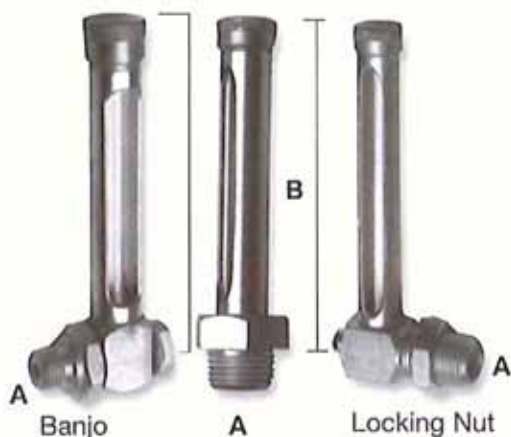
| Part No: | A | B | C | Capacity |
|----------|----------|----|----|----------|
| OR 7708 | 1/4" BSP | 62 | 38 | 35ml |
| OR 7714 | 1/4" BSP | 74 | 44 | 63ml |
| OR 7724 | 1/4" BSP | 86 | 57 | 127ml |
| OR 7730 | 1/4" BSP | 93 | 64 | 170ml |

Material - STEEL BASE PLASTIC BOTTLE

Finish - ZINC PLATED

Dimensions in mm unless stated

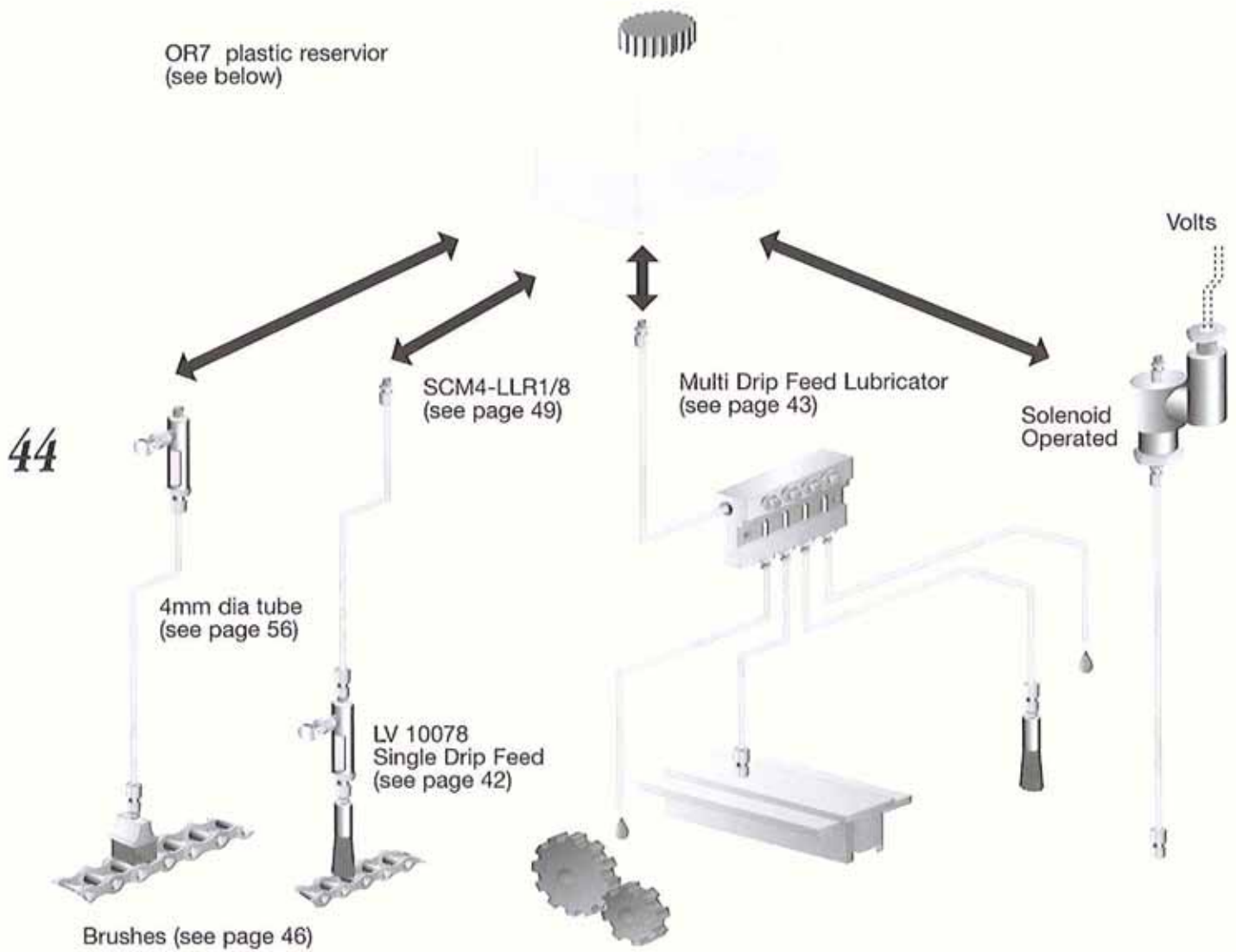
OIL LEVELS



| Part No: | Part No: | Part No: | A | B |
|----------|----------|----------|-------------|-----|
| OL2B 14 | FGV 250 | FGM 250 | | 50 |
| OL3B 14 | FGV 260 | FGM 260 | | 60 |
| OL4B 14 | FGV 280 | FGM 280 | | 80 |
| OL5B 14 | FGV 2100 | FGM 2100 | | 100 |
| OL6B 14 | FGV 2125 | FGM 2125 | | 125 |
| OL7B 14 | FGV 2150 | FGM 2150 | 1/4" BSP | 150 |
| OL8B 14 | FGV 2175 | FGM 2175 | | 175 |
| OL9B 14 | FGV 2200 | FGM 2200 | | 200 |
| OL10B 14 | FGV 2250 | FGM 2250 | | 250 |
| OL11B 14 | FGV 2300 | FGM 2300 | | 300 |
| | | FGM 350 | | 50 |
| | | FGM 360 | | 60 |
| | | FGM 380 | | 80 |
| | | FGM 3100 | | 100 |
| | | FGM 3125 | | 125 |
| | | FGM 3150 | 3/8" BSP | 150 |
| | | FGM 3175 | | 175 |
| | | FGM 3200 | | 200 |
| | | FGM 3250 | | 250 |
| | | FGM 3300 | | 300 |

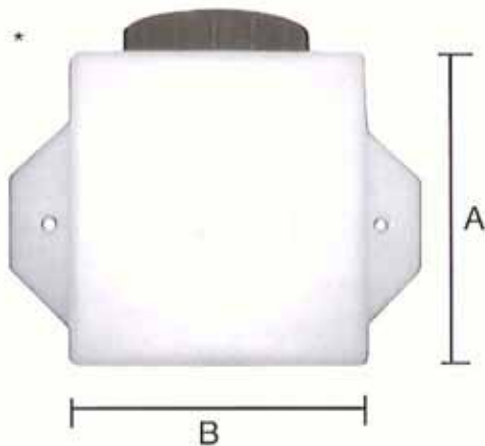


Drip Feed Applications



OR OIL RESERVOIR

Reservoir moulded in high density polythene, extremely robust



| Part No: | Reservoir size: | A | B | Depth |
|----------|-----------------|-----|-----|-------|
| * OR3 | 3ltr (3000cc) | 160 | 250 | 150 |
| OR7 | 7ltr (7000cc) | 166 | 345 | 150 |

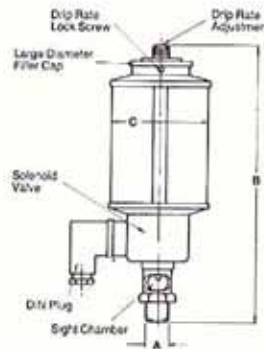
Filters available on request

Installations

For the installation of OR Reservoirs the base of the units are normally drilled and fitted with a bulkhead connector BPA6M/1 (see page 11)

Solenoid Operated Lubricators

SOLENOID OPERATED DRIP FEED



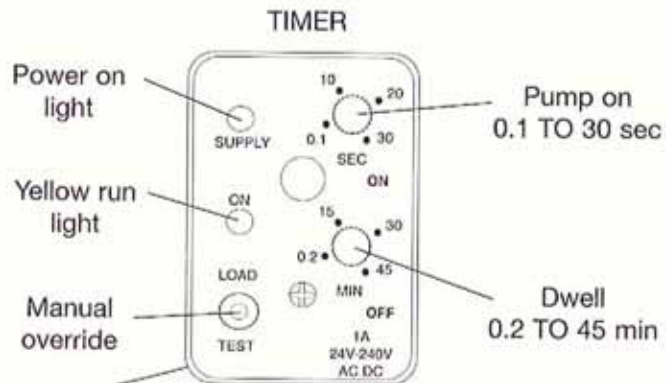
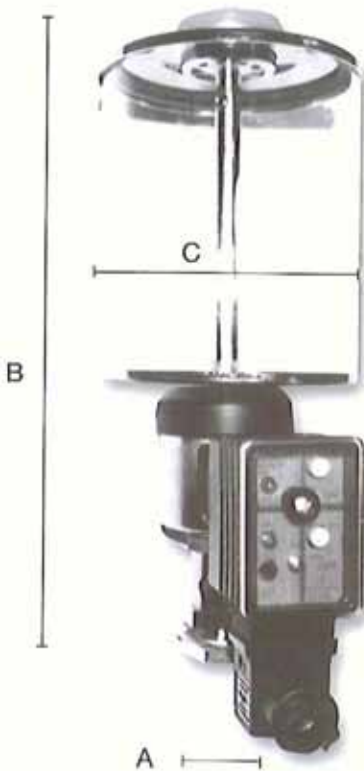
| Part No: | A | B | C | Capacity |
|----------|--------------|-----|-----|----------|
| PSD 460 | 1/2" BSP (M) | 162 | 60 | 140ml |
| PSD 480 | | 212 | 80 | 500ml |
| PSD 4100 | 1/4" BSP (F) | 252 | 100 | 1000ml |
| PSD 4133 | | 297 | 133 | 2000ml |

Plexiglass Reservoir

VOLTAGES: 12V DC, 24V DC, 110V 240V, 415V

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SOLENOID OPERATED LUBRICATORS WITH IN-BUILT TIMER



| Part No: | A | B | C | Capacity |
|---------------|--------------|-----|-----|----------|
| PSD 460-R592 | 1/2" BSP (M) | 162 | 60 | 140ml |
| PSD 480-R592 | | 212 | 80 | 500ml |
| PSD 4100-R592 | 1/4" BSP (F) | 252 | 100 | 1000ml |
| PSD 4133-R592 | | 297 | 133 | 2000ml |

VOLTAGES: 110V, 240V, 415V

Electrically operated solenoid drip feed lubricator with in-built fully adjustable control timer. The timer settings are adjustable from 0.1 sec to 30 secs on and 0.2 to 45 min off. This method of drip feed control is ideal for preventing over lubrication.



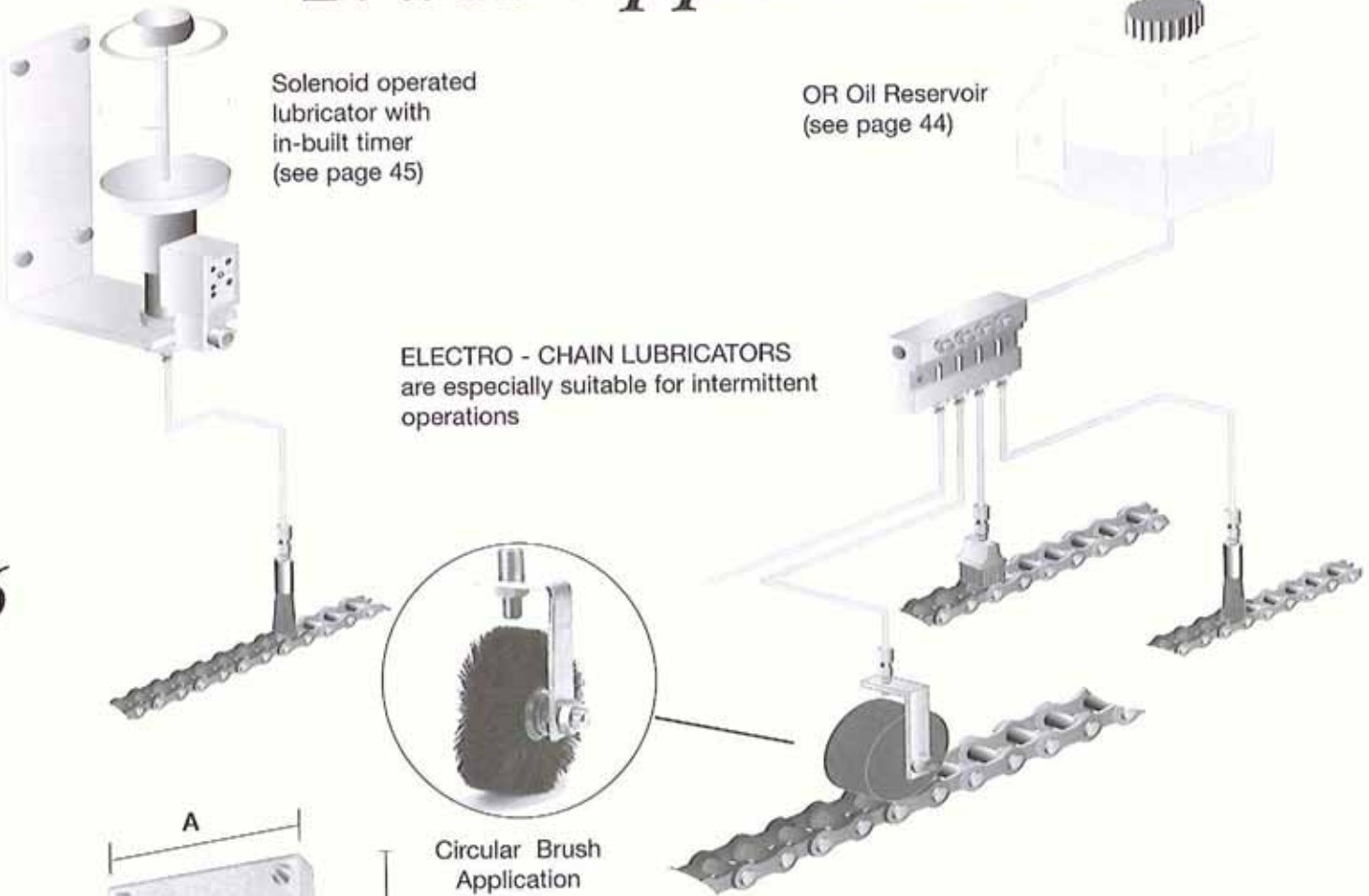
Brush Applications

Solenoid operated lubricator with in-built timer (see page 45)

OR Oil Reservoir (see page 44)

ELECTRO - CHAIN LUBRICATORS are especially suitable for intermittent operations

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Circular Brush Application

Brushes

Flat Brush

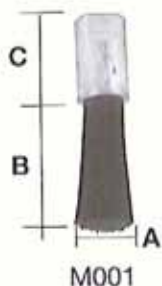
| Part No: | A | B | C | Brush | Body | Inlet |
|----------|-----|----|----|-------|-----------|--------------|
| SPFN 57 | 57 | 30 | 50 | Nylon | Aluminium | 1/8" BSP (F) |
| SPFB 57 | | | | Steel | | 1/8" BSP (F) |
| A410 | 40 | 20 | 45 | Nylon | Nylon | 1/4" BSP (F) |
| A411 | 60 | 20 | 45 | Nylon | Nylon | 1/4" BSP (F) |
| A412 | 100 | 20 | 45 | Nylon | Nylon | 1/4" BSP (F) |

Circular Brush

| Part No: | A | B | Width | Brush | Bracket | Inlet |
|----------|----|-----|-------|-------|---------|----------|
| RSMN 80 | 80 | 112 | 25 | Nylon | Steel | 1/8" BSP |
| RSMS 80 | 80 | 112 | 30 | Steel | Steel | (male) |

Round Brush

| Part No: | A | B | C | Brush | Body | Inlet |
|----------|------|----|----|-------|-------------|----------|
| M 001 | 12.5 | 35 | 25 | Nylon | Aluminium | 1/8" BSP |
| A400 | 30 | 40 | 35 | Nylon | Nylon/steel | 1/4" BSP |



Dimensions in mm unless stated



Low Cost - Automatic Chain Lubrication Kit

(This kit is suitable for automatically lubricating 1, 2 or 3 chains)

KIT COMPRISES OF:

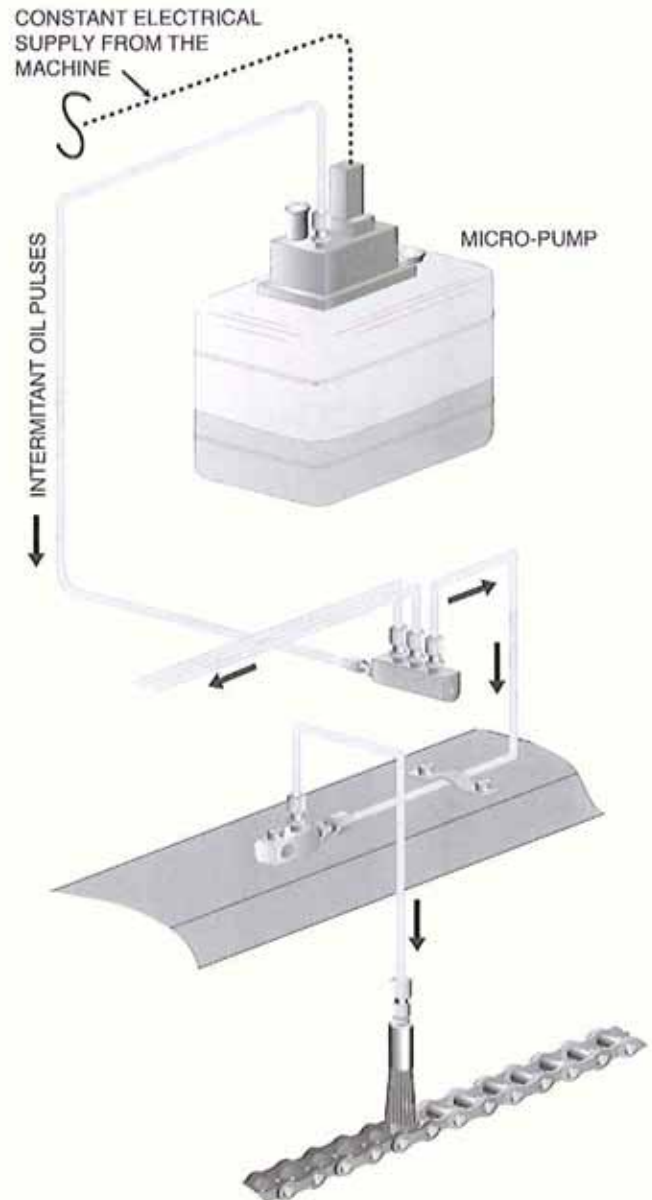
- Cyclic Electric Pump x 1
- Meter Valve Manifold x 1
- Meter Valves x 3
- Brushes x 3
- 4mm O. D. Nylon x 5m
- 6mm O. D. Rigid Tube x 1m
- Anchor Blocks x 3
- 4mm and 6mm O. D. Fittings
- 4mm and 6mm O. D. Clips
- Self Tapping Screws

BRIEF DESCRIPTION

The kit enables metered amounts of oil to be dispensed to 1 - 3 chains. The pump will have a 1.7 litre perspex reservoir and will be permanently connected to the machine's electrical supply. The pumps are cyclic and are pre-set to operate every 30 or 60 minutes. During each operation the pump dispenses lubricant through small metre valves, which would allow a calculated amount of oil to wet the brush. This operation would be continuously repeated until the electrical supply to the pump is isolated.

RESERVOIR CAPACITY
= 1.7 LITRES

MAXIMUM VISCOSITY OF OIL = 250 cst



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| KIT NO. | CYCLE TIME | VOLTAGE |
|-----------|------------|---------|
| CK3417038 | 30 min | 240V |
| CK3417039 | 60 min | 240V |
| CK3417044 | 30 min | 110V |
| CK3417045 | 60 min | 110V |

Suitable for small compact installations. please ask for technical advice with these systems.

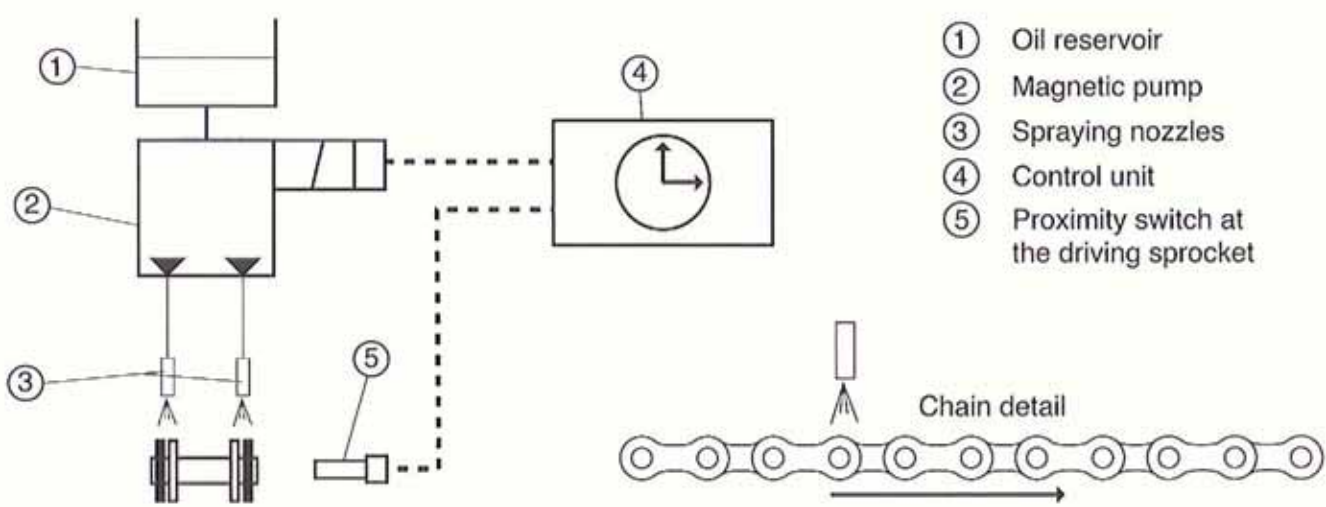
(For large industrial roller chain type systems see page 48)



Automatic Chain Lubrication

ACCURATE AND PRECISE LUBRICATION SYSTEMS FOR INDUSTRIAL CHAIN APPLICATIONS

48



Harrison Lubrication have developed unique chain lubrication systems that apply lubricant for maximum effectiveness. These systems are custom designed for each industrial application to suit the customers requirements.



Main benefits

- Up to 90% decrease in lubricant use
- Decrease in house keeping costs
- Increase chain life

Design features

- Capable of lubricating chains at various speeds
- Delivers accurate amount of lubricant to each point
- Dispenses lubricant exactly where needed
- Accurate control of system operation

For further information please contact technical sales



Compression Fittings

STRAIGHT MALE CONNECTORS



| STAINLESS STEEL: | STEEL: | TUBE SIZE: | THREAD SIZE: |
|--------------------------|--------------------------------|------------|------------------|
| PART NO: 4MMC2 | PART NO: SCM4-LLR1/8 | 4mm OD | 1/8" BSP Taper |
| N/A | SCM4-LLM6x1 | 4mm OD | M6x1 Taper |
| N/A | SCM4-LLM8x1 | 4mm OD | M8x1 Taper |
| 6MMC2 | SCM6-LLR1/8 | 6mm OD | 1/8" BSP Taper |
| N/A | SCM6-LLM6x1 | 6mm OD | M6x1 Taper |
| N/A | SCM6-LLM8x1 | 6mm OD | M8x1 Taper |
| N/A | SCM6-LLM10x1 | 6mm OD | M10x1 (parallel) |
| 6MMC4 | SCM6-LLR1/4 | 6mm OD | 1/4" BSPT |
| 10MMC4 | SCM10-LLR1/4 | 10mm OD | 1/4" BSPT |
| 10MMC6 | SCM10-LLR3/8 | 10mm OD | 3/8" BSPT |
| 12MMC4 | SCM12-LLR1/4 | 12mm OD | 1/4" BSPT |
| 12MMC6 | SCM12-LLR3/8 | 12mm OD | 3/8" BSPT |
| 12MMC8 | SCM12-LLR1/2 | 12mm OD | 1/2" BSPT |

ADAPTOR

| | | | |
|-----------|-----------|-------------|-------------|
| NP2-UF4SS | 20024 | 1/8" BSP(F) | 1/4" UNF(M) |
| NP2-M6SS | 20024-M6 | 1/8" BSP(F) | M6X1(M) |
| NP2-M8SS | NP2-M8-55 | 1/8" BSP(F) | M8X1(M) |

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90° COMPRESSION



| STAINLESS STEEL: | STEEL: | TUBE SIZE: | THREAD SIZE: |
|--------------------------|--------------------------------|------------|------------------|
| PART NO: 4MME2 | PART NO: ECM4-LLR1/8 | 4mm OD | 1/8" BSP Taper |
| N/A | ECM4-LLM6x1 | 4mm OD | M6x1 Taper |
| N/A | ECM4-LLM8x1 | 4mm OD | M8x1 Taper |
| 6MME2 | ECM6-LLR1/8 | 6mm OD | 1/8" BSP Taper |
| N/A | ECM6-LLM6x1 | 6mm OD | M6x1 Taper |
| N/A | ECM6-LLM8x1 | 6mm OD | M8x1 Taper |
| N/A | ECM6-LLM10x1 | 6mm OD | M10x1 (parallel) |
| 6MME4 | ECM6-LLR1/4 | 6mm OD | 1/4" BSPT |
| 10MME4 | ECM10-LLR1/4 | 10mm OD | 1/4" BSPT |
| 10MME6 | ECM10-LLR3/8 | 10mm OD | 3/8" BSPT |
| 12MME4 | ECM12-LLR1/4 | 12mm OD | 1/4" BSPT |
| 12MME6 | ECM12-LLR3/8 | 12mm OD | 3/8" BSPT |
| 12MME8 | ECM12-LLR1/2 | 12mm OD | 1/2" BSPT |

STRAIGHT COUPLINGS



| STAINLESS STEEL: | STEEL: | TUBE SIZE: |
|------------------------|----------------------------|------------|
| PART NO: 4MU | PART NO: SC4-LLC | 4mm O/D |
| 6MU | SC6-LLC | 6mm O/D |
| 10MU | SC10-LLC | 10mm O/D |
| 12MU | SC12-LLC | 12mm O/D |

TEE CONNECTORS

| STAINLESS STEEL: | STEEL: | TUBE SIZE: |
|-------------------------|----------------------------|------------|
| PART NO: 4MTT | PART NO: TC4-LLC | 4mm OD |
| 6MTT | TC6-LLC | 6mm OD |
| 10MTT | TC10-LLC | 10mm OD |
| 12MTT | TC12-LLC | 12mm OD |



Note: all stainless steel fittings are 316 grade and all are twin ferrule

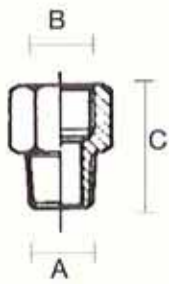


Nipple Adaptors

All nipple adaptors are brass nickel plated unless prefixed

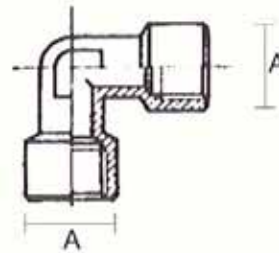
* = Steel Zinc Plated

TAPERED EXTENSION M/F



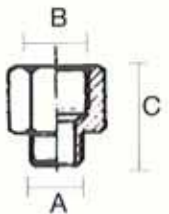
| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2105001 | 1/8" BSP | 1/8" BSP | 20 |
| 2105002 | 1/8" BSP | 1/4" BSP | 22.5 |
| 2105003 | 1/4" BSP | 1/4" BSP | 25 |
| 2105004 | 1/4" BSP | 3/8" BSP | 28.5 |
| 2105005 | 3/8" BSP | 3/8" BSP | 28.5 |
| 2105006 | 3/8" BSP | 1/2" BSP | 32 |
| 2105007 | 1/2" BSP | 1/2" BSP | 34 |

ELBOW F/F



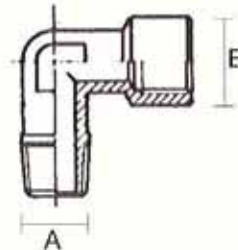
| PART NO: | A: |
|----------|----------|
| 2109001 | 1/8" BSP |
| 2109002 | 1/4" BSP |
| 2109003 | 3/8" BSP |
| 2109004 | 1/2" BSP |

PARALLEL EXTENSION M/F



| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2152001 | M5x0-8 | 1/8" BSP | 17 |
| 2152002 | 1/8" BSP | 1/8" BSP | 18.5 |
| 2152003 | 1/8" BSP | 1/4" BSP | 21.5 |
| 2152004 | 1/4" BSP | 1/4" BSP | 22.5 |
| 2152005 | 1/4" BSP | 3/8" BSP | 26 |
| 2152006 | 3/8" BSP | 3/8" BSP | 26.5 |
| 2152007 | 3/8" BSP | 1/2" BSP | 29.5 |
| 2152008 | 1/2" BSP | 1/2" BSP | 29.5 |
| * 20024 | 1/4" UNF | 1/8" NPT | |

ELBOW M/F

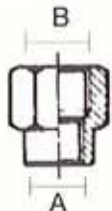


| PART NO: | A: | B: |
|----------|----------|----------|
| 2110001 | 1/8" BSP | 1/8" BSP |
| 2110002 | 1/4" BSP | 1/4" BSP |
| 2110003 | 3/8" BSP | 3/8" BSP |
| 2110004 | 1/2" BSP | 1/2" BSP |
| 2110005 | 3/4" BSP | 3/4" BSP |
| 2110011 | 1" BSP | 1" BSP |

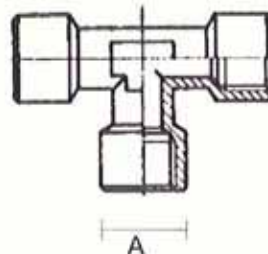
50

TEE F.F.F.

FEMALE EXTENSION F/F



| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2106001 | 1/8" BSP | 1/4" BSP | 21.5 |
| 2106002 | 1/8" BSP | 3/8" BSP | 23.5 |
| 2106003 | 1/4" BSP | 3/8" BSP | 25.5 |
| 2106004 | 1/4" BSP | 1/2" BSP | 28.5 |
| 2106005 | 3/8" BSP | 1/2" BSP | 29.5 |



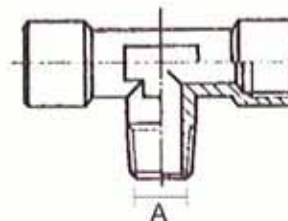
| PART NO: | A: |
|----------|----------|
| 2111001 | 1/8" BSP |
| 2111002 | 1/4" BSP |
| 2111003 | 3/8" BSP |
| 2111004 | 1/2" BSP |

MALE PLUG WITH "O" RING SEAL



| PART NO: | A: |
|----------|----------|
| 2107000 | M5x0-8 |
| 2107001 | 1/8" BSP |
| 2107002 | 1/4" BSP |
| 2107003 | 3/8" BSP |
| 2107004 | 1/2" BSP |

TEE F.M.F.



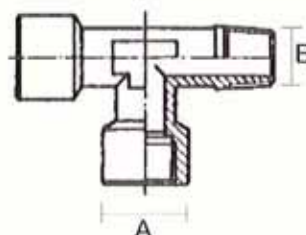
| PART NO: | A: | B: |
|----------|----------|----------|
| 2112001 | 1/8" BSP | 1/8" BSP |
| 2112002 | 1/4" BSP | 1/4" BSP |
| 2112003 | 3/8" BSP | 3/8" BSP |
| 2112004 | 1/2" BSP | 1/2" BSP |

FEMALE PLUG



| PART NO: | A: |
|----------|----------|
| 2108001 | 1/8" BSP |
| 2108002 | 1/4" BSP |
| 2108003 | 3/8" BSP |
| 2108004 | 1/2" BSP |

TEE F.F.M



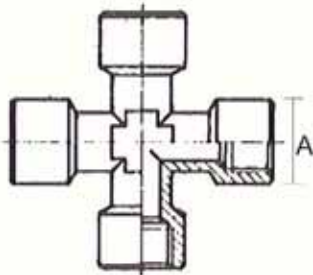
| PART NO: | A: | B: |
|----------|----------|----------|
| 2113001 | 1/8" BSP | 1/8" BSP |
| 2113002 | 1/4" BSP | 1/4" BSP |
| 2113003 | 3/8" BSP | 3/8" BSP |
| 2113004 | 1/2" BSP | 1/2" BSP |

Nipple Adaptors

All nipple adaptors are brass nickel plated unless prefixed

* = Steel Zinc Plated

FEMALE CROSS



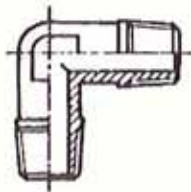
| PART NO: | A: |
|----------|----------|
| 2114001 | 1/8" BSP |
| 2114002 | 1/4" BSP |
| 2114003 | 3/8" BSP |
| 2114004 | 1/2" BSP |

FEMALE ADAPTOR



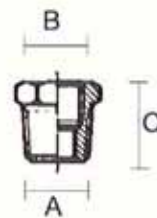
| PART NO: | A: | C: |
|----------|----------|----|
| 2103001 | 1/8" BSP | 14 |
| 2103002 | 1/4" BSP | 17 |
| 2103003 | 3/8" BSP | 22 |
| 2103004 | 1/2" BSP | 27 |

ELBOW M.M.



| PART NO: | A: |
|----------|----------|
| 2115001 | 1/8" BSP |
| 2115002 | 1/4" BSP |
| 2115003 | 3/8" BSP |
| 2115004 | 1/2" BSP |

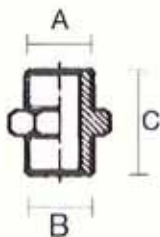
TAPERED REDUCER M/F



| PART NO: | A: | B: | C: |
|----------|----------|----------|----|
| 2104001 | 1/4" BSP | 1/8" BSP | 16 |
| 2104002 | 3/8" BSP | 1/8" BSP | 17 |
| 2104003 | 3/8" BSP | 1/4" BSP | 17 |
| 2104004 | 1/2" BSP | 1/4" BSP | 20 |
| 2104005 | 1/2" BSP | 3/8" BSP | 20 |
| 2104006 | 3/4" BSP | 1/2" BSP | |

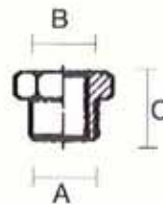
51

MALE PARALLEL NIPPLE



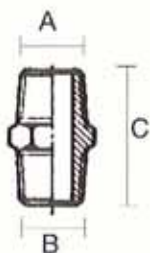
| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2101A00 | M5x0-8 | M5x0-8 | 11.5 |
| 2101000 | M5x0-8 | 1/8" BSP | 14.5 |
| 2101001 | 1/8" BSP | 1/8" BSP | 17 |
| 2101002 | 1/8" BSP | 1/4" BSP | 19 |
| 2101003 | 1/8" BSP | 3/8" BSP | 20 |
| 2101004 | 1/4" BSP | 1/4" BSP | 21 |
| 2101005 | 1/4" BSP | 3/8" BSP | 22 |
| 2101006 | 1/4" BSP | 1/2" BSP | 24 |
| 2101007 | 3/8" BSP | 3/8" BSP | 24 |
| 2101008 | 3/8" BSP | 1/2" BSP | 25.5 |
| 2101009 | 1/2" BSP | 1/2" BSP | 26.5 |
| 2101010 | 1/2" BSP | 3/4" BSP | 27 |
| 2101011 | 3/4" BSP | 3/4" BSP | 28 |

PARALLEL REDUCER M/F



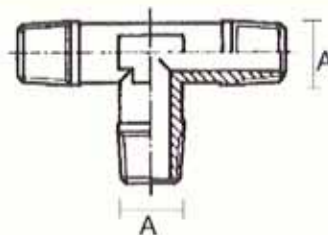
| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2151001 | 1/4" BSP | 1/8" BSP | 13 |
| 2151002 | 3/8" BSP | 1/8" BSP | 14 |
| 2151003 | 3/8" BSP | 1/4" BSP | 14 |
| 2151004 | 1/2" BSP | 1/4" BSP | 15.5 |
| 2151005 | 1/2" BSP | 3/8" BSP | 15.5 |

MALE TAPERED NIPPLE



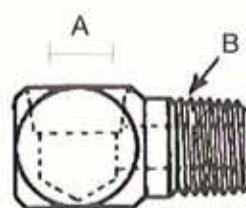
| PART NO: | A: | B: | C: |
|----------|----------|----------|------|
| 2102001 | 1/8" BSP | 1/8" BSP | 21 |
| 2102002 | 1/8" BSP | 1/4" BSP | 24 |
| 2102003 | 1/8" BSP | 3/8" BSP | 25 |
| 2102004 | 1/4" BSP | 1/4" BSP | 27 |
| 2102005 | 1/4" BSP | 3/8" BSP | 28 |
| 2102006 | 1/4" BSP | 1/2" BSP | 32 |
| 2102007 | 3/8" BSP | 3/8" BSP | 29 |
| 2102008 | 3/8" BSP | 1/2" BSP | 32.5 |
| 2102009 | 1/2" BSP | 1/2" BSP | 35 |
| 2102010 | 1/2" BSP | 3/4" BSP | 37.5 |
| 2102011 | 3/4" BSP | 3/4" BSP | 40 |

TEE M.M.M.



| PART NO: | A: |
|----------|----------|
| 2116001 | 1/8" BSP |
| 2116002 | 1/4" BSP |
| 2116003 | 3/8" BSP |
| 2116004 | 1/2" BSP |

90° STREET ELBOW



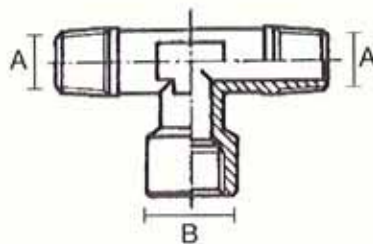
| PART NO: | A: | B: |
|----------|----------|-----------------|
| *20031 | 1/8" NPT | 1/8" NPT- SHORT |
| *20029 | 1/8" NPT | 1/8" NPT- LONG |
| *20026 | 1/8" NPT | 1/4" UNF |
| *51-2001 | 1/8" BSP | 1/8" BSP |

Nipple Adaptors

All nipple adaptors are brass nickel plated unless prefixed

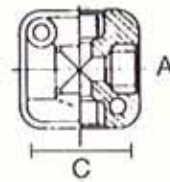
* = Steel Zinc Plated

TEE M.F.M.



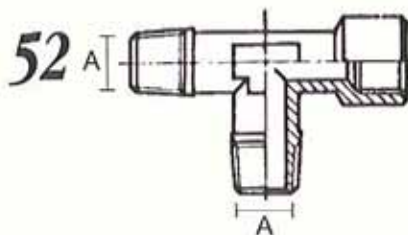
| PART NO: | A: | B: |
|----------|----------|----------|
| 2117002 | 1/8" BSP | 1/8" BSP |
| 2117001 | 1/4" BSP | 1/4" BSP |
| 2117003 | 3/8" BSP | 3/8" BSP |
| 2117004 | 1/2" BSP | 1/2" BSP |

MANIFOLD



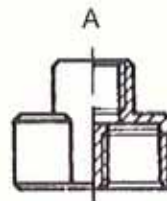
| PART NO: | A: | C: |
|----------|----------|----|
| 2121001 | 1/8" BSP | 31 |
| 2121002 | 1/4" BSP | 40 |
| 2121003 | 3/8" BSP | 50 |
| 2121004 | 1/2" BSP | 50 |

TEE M.M.F



| PART NO: | A: | B: |
|----------|----------|----------|
| 2118000 | 1/4" BSP | 1/4" BSP |
| 2118001 | 1/8" BSP | 1/8" BSP |
| 2118003 | 3/8" BSP | 3/8" BSP |
| 2118004 | 1/2" BSP | 1/2" BSP |

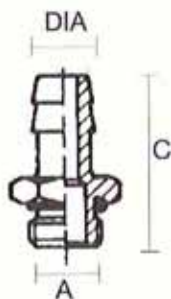
MANIFOLD



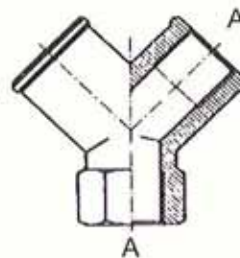
| PART NO: | A: |
|----------|----------|
| 2122001 | M5x0-8 |
| 2122002 | 1/8" BSP |
| 2122003 | 1/4" BSP |

Y F.F.F.

RUBBER HOSE CONNECTOR (WITH "O" RING SEAL)

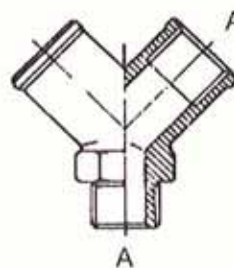


| PART NO: | DIA: | B: | C: |
|----------|------|----------|----|
| 2119001 | 7 | 1/8" BSP | 31 |
| 2119002 | 7 | 1/4" BSP | 33 |
| 2119003 | 8 | 1/8" BSP | 31 |
| 2119004 | 9 | 1/8" BSP | 31 |
| 2119005 | 9 | 1/4" BSP | 33 |
| 2119006 | 9 | 3/8" BSP | 34 |
| 2119007 | 12 | 1/4" BSP | 33 |
| 2119008 | 12 | 3/8" BSP | 34 |
| 2119009 | 12 | 1/2" BSP | 36 |
| 2119010 | 17 | 3/8" BSP | 34 |
| 2119011 | 17 | 1/2" BSP | 36 |



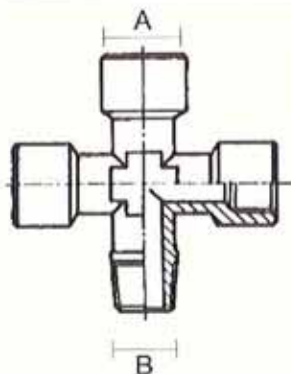
| PART NO: | A: |
|----------|----------|
| 2123001 | 1/8" BSP |
| 2123002 | 1/4" BSP |
| 2123003 | 3/8" BSP |
| 2123004 | 1/2" BSP |

Y F.M.F.



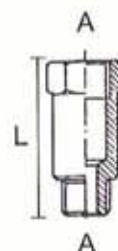
| PART NO: | A: |
|----------|----------|
| 2124001 | 1/8" BSP |
| 2124002 | 1/4" BSP |
| 2124003 | 3/8" BSP |
| 2124004 | 1/2" BSP |

CROSS M.F.F.F.



| PART NO: | A: | B: |
|----------|----------|----------|
| 2120001 | 1/8" BSP | 1/8" BSP |
| 2120002 | 1/4" BSP | 1/4" BSP |

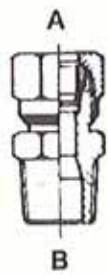
LONG EXTENSION PIECES



| PART NO: | A: |
|----------|-----------------------|
| 2150003 | 1/8" BSP L=22 EXT2-16 |
| 2150004 | 1/8" BSP L=42 |
| 2150005 | 1/8" BSP L=51 |
| 2150006 | 1/4" BSP L=35 |
| 2150007 | 1/4" BSP L=51 |
| *EXT2-8 | 1/8" BSP L=19 |

Brass Compression Fittings

MALE STUD



| PART NO: | A | B |
|----------|---------|------------------|
| 2201001 | 4 OD | 1/8" BSP |
| 2201002 | 6 OD | 1/8" BSP |
| 2201003 | 6 OD | 1/4" BSP |
| 2201004 | 8 OD | 1/8" BSP |
| 2201005 | 8 OD | 1/4" BSP |
| 2201006 | 8 OD | 3/8" BSP |
| 2201007 | 10 OD | 1/4" BSP |
| 2201008 | 10 OD | 3/8" BSP |
| 2201009 | 10 OD | 1/2" BSP |
| 2201010 | 12 OD | 3/8" BSP |
| 2201011 | 12 OD | 1/2" BSP |
| 2201012 | 15 OD | 1/2" BSP |
| IMPERIAL | MC2-2-B | 1/8"OD 1/8"BSPT |
| | MC3-2-B | 3/16"OD 1/8"BSPT |
| | MC4-2-B | 1/4"OD 1/8"BSPT |

IMPERIAL

FEMALE STUD



| PART NO: | A | B |
|----------|-------|-------------|
| 2202001 | 6 OD | 1/8" BSP(F) |
| 2202002 | 6 OD | 1/4" BSP(F) |
| 2202003 | 8 OD | 1/8" BSP(F) |
| 2202004 | 8 OD | 1/4" BSP(F) |
| 2202005 | 8 OD | 3/8" BSP(F) |
| 2202006 | 10 OD | 1/4" BSP(F) |
| 2202007 | 10 OD | 3/8" BSP(F) |

STRAIGHT CONNECTOR



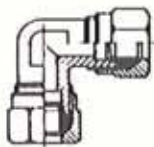
| PART NO: | A |
|----------|-------|
| 2203001 | 4 OD |
| 2203002 | 6 OD |
| 2203003 | 8 OD |
| 2203004 | 10 OD |
| 2203005 | 12 OD |
| 2203006 | 15 OD |

BULKHEAD



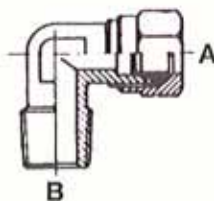
| PART NO: | A |
|----------|-------|
| 2204001 | 6 OD |
| 2204002 | 8 OD |
| 2204003 | 10 OD |
| 2204004 | 12 OD |
| 2204005 | 15 OD |

ELBOW



| PART NO: | A |
|----------|-------|
| 2206001 | 4 OD |
| 2206002 | 6 OD |
| 2206003 | 8 OD |
| 2206004 | 10 OD |
| 2206005 | 12 OD |
| 2206006 | 15 OD |

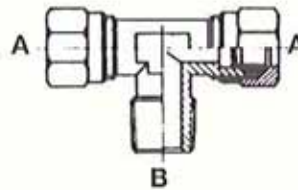
MALE STUD ELBOW



| PART NO: | A | B |
|----------|--------|------------------|
| 2205001 | 4 OD | 1/8" BSP |
| 2205002 | 6 OD | 1/8" BSP |
| 2205003 | 6 OD | 1/4" BSP |
| 2205004 | 8 OD | 1/8" BSP |
| 2205005 | 8 OD | 1/4" BSP |
| 2205006 | 8 OD | 3/8" BSP |
| 2205007 | 10 OD | 1/4" BSP |
| 2205008 | 10 OD | 3/8" BSP |
| 2205009 | 10 OD | 1/2" BSP |
| 2205010 | 12 OD | 3/8" BSP |
| 2205011 | 12 OD | 1/2" BSP |
| 2205012 | 15 OD | 1/2" BSP |
| IMPERIAL | ME2- 2 | 1/8"OD 1/8"BSPT |
| | ME3- 2 | 3/16"OD 1/8"BSPT |
| | ME4- 2 | 1/4"OD 1/8"BSPT |

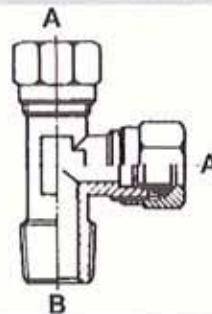
IMPERIAL

BRANCH TEE



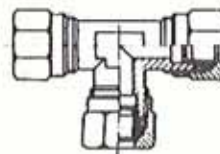
| PART NO: | A | B |
|----------|-------|----------|
| 2207001 | 4 OD | 1/8" BSP |
| 2207002 | 6 OD | 1/8" BSP |
| 2207003 | 6 OD | 1/4" BSP |
| 2207004 | 8 OD | 1/8" BSP |
| 2207005 | 8 OD | 1/4" BSP |
| 2207006 | 8 OD | 3/8" BSP |
| 2207007 | 10 OD | 1/4" BSP |
| 2207008 | 10 OD | 3/8" BSP |
| 2207010 | 12 OD | 3/8" BSP |
| 2207011 | 12 OD | 1/2" BSP |
| 2207012 | 15 OD | 1/2" BSP |

RUNNING TEE



| PART NO: | A | B |
|----------|-------|----------|
| 2208001 | 6 OD | 1/8" BSP |
| 2208002 | 6 OD | 1/4" BSP |
| 2208003 | 8 OD | 1/8" BSP |
| 2208004 | 8 OD | 1/4" BSP |
| 2208005 | 8 OD | 3/8" BSP |
| 2208006 | 10 OD | 1/4" BSP |
| 2208007 | 10 OD | 3/8" BSP |
| 2208009 | 12 OD | 3/8" BSP |
| 2208010 | 12 OD | 1/2" BSP |
| 2208011 | 15 OD | 1/2" BSP |

TEE



| PART NO: | A |
|----------|-------|
| 2209001 | 4 OD |
| 2209002 | 6 OD |
| 2209003 | 8 OD |
| 2209004 | 10 OD |
| 2209005 | 12 OD |
| 2209006 | 15 OD |

NUT



| PART NO: | A |
|----------|-------|
| 2210001 | 4 OD |
| 2210002 | 6 OD |
| 2210003 | 8 OD |
| 2210004 | 10 OD |
| 2210005 | 12 OD |
| 2210006 | 15 OD |

OLIVE



| PART NO: | A |
|----------|-------|
| 2211001 | 4 OD |
| 2211002 | 6 OD |
| 2211003 | 8 OD |
| 2211004 | 10 OD |
| 2211005 | 12 OD |
| 2211006 | 15 OD |

INSERT



| PART NO: | A | B |
|----------|-------|------------|
| 2212001 | 6 OD | 4 ID Tube |
| 2212002 | 8 OD | 6 ID Tube |
| 2212003 | 10 OD | 8 ID Tube |
| 2212004 | 12 OD | 10 ID Tube |
| 2212005 | 15 OD | 12 ID Tube |

Push In Fittings

NB These fittings are only recommended for air-lines

MALE STUD WITH "O" RING SEAL



| PART NO: | A | B |
|----------|-------|-----------|
| 2001001 | 4 OD | M5 x 1 |
| 2001002 | 4 OD | 1/8" BSP |
| 2001003 | 4 OD | 1/4" BSP |
| 2001004 | 5 OD | M5 x 1 |
| 2001005 | 5 OD | 1/8" BSP |
| 2001006 | 5 OD | 1/4" BSP |
| 2001000 | 6 OD | M5 x 1 |
| 2001007 | 6 OD | 1/8" BSP |
| 2001008 | 6 OD | 1/4" BSP |
| 2001009 | 8 OD | 1/8" BSP |
| 2001010 | 8 OD | 1/4" BSP |
| 2001011 | 8 OD | 3/8" BSP |
| 2001012 | 10 OD | 1/4" BSP |
| 2001019 | 10 OD | 3/8" BSP |
| 2001013 | 12 OD | 1/4" BSP |
| 2001014 | 12 OD | 3/8" BSP |
| 2001015 | 12 OD | 1/2" BSP |
| 2001016 | 14 OD | 3/8" BSP |
| 2001017 | 14 OD | 1/2" BSP |
| 2001101 | 6 OD | M12 x 1.5 |
| 2001102 | 8 OD | M12 x 1.5 |

STEM ADAPTOR WITH "O" RING SEAL



| PART NO: | A | B |
|----------|-------|-----------|
| 2006001 | 4 OD | M5 x 1 |
| 2006002 | 4 OD | 1/8" BSP |
| 2006003 | 4 OD | 1/4" BSP |
| 2006004 | 5 OD | M5 x 1 |
| 2006005 | 5 OD | 1/8" BSP |
| 2006006 | 5 OD | 1/4" BSP |
| 2006000 | 6 OD | M5 x 1 |
| 2006007 | 6 OD | 1/8" BSP |
| 2006008 | 6 OD | 1/4" BSP |
| 2006009 | 8 OD | 1/8" BSP |
| 2006010 | 8 OD | 1/4" BSP |
| 2006011 | 8 OD | 3/8" BSP |
| 2006012 | 10 OD | 1/4" BSP |
| 2006019 | 10 OD | 3/8" BSP |
| 2006013 | 12 OD | 1/4" BSP |
| 2006014 | 12 OD | 3/8" BSP |
| 2006015 | 12 OD | 1/2" BSP |
| 2006016 | 14 OD | 3/8" BSP |
| 2006017 | 14 OD | 1/2" BSP |
| 2006101 | 6 OD | M12 x 1.5 |
| 2006102 | 8 OD | M12 x 1.5 |

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FEMALE STUD



| PART NO: | A | B |
|----------|------|----------|
| 2002001 | 4 OD | 1/8" BSP |
| 2002002 | 4 OD | 1/4" BSP |
| 2002003 | 5 OD | 1/8" BSP |
| 2002004 | 5 OD | 1/4" BSP |
| 2002005 | 6 OD | 1/8" BSP |
| 2002006 | 6 OD | 1/4" BSP |
| 2002007 | 8 OD | 1/4" BSP |
| 2002008 | 8 OD | 3/8" BSP |

EXTENSION



| PART NO: | A |
|----------|-------|
| 2007001 | 4 OD |
| 2007002 | 5 OD |
| 2007003 | 6 OD |
| 2007004 | 8 OD |
| 2007005 | 10 OD |
| 2007006 | 12 OD |
| 2007007 | 14 OD |

STRAIGHT CONNECTOR



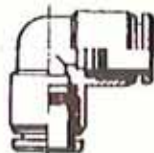
| PART NO: | A |
|----------|-------|
| 2003001 | 4 OD |
| 2003002 | 5 OD |
| 2003003 | 6 OD |
| 2003004 | 8 OD |
| 2003005 | 10 OD |
| 2003006 | 12 OD |
| 2003007 | 14 OD |

REDUCER



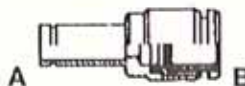
| PART NO: | A | B |
|----------|-------|-------|
| 2008001 | 5 OD | 4 OD |
| 2008002 | 6 OD | 4 OD |
| 2008003 | 6 OD | 5 OD |
| 2008004 | 8 OD | 4 OD |
| 2008005 | 8 OD | 5 OD |
| 2008006 | 8 OD | 5 OD |
| 2008007 | 10 OD | 6 OD |
| 2008008 | 10 OD | 8 OD |
| 2008015 | 12 OD | 10 OD |
| 2008009 | 12 OD | 4 OD |
| 2008010 | 12 OD | 6 OD |
| 2008011 | 12 OD | 8 OD |
| 2008014 | 14 OD | 8 OD |
| 2008017 | 14 OD | 10 OD |
| 2008018 | 14 OD | 12 OD |

ELBOW



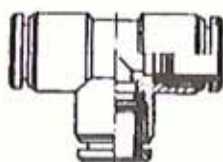
| PART NO: | A |
|----------|-------|
| 2004001 | 4 OD |
| 2004002 | 5 OD |
| 2004003 | 6 OD |
| 2004004 | 8 OD |
| 2004005 | 10 OD |
| 2004006 | 12 OD |
| 2004007 | 14 OD |

ENLARGER



| PART NO: | A | B |
|----------|------|------|
| 2009001 | 4 OD | 6 OD |

TEE



| PART NO: | A |
|----------|-------|
| 2005001 | 4 OD |
| 2005002 | 5 OD |
| 2005003 | 6 OD |
| 2005004 | 8 OD |
| 2005005 | 10 OD |
| 2005006 | 12 OD |
| 2005007 | 14 OD |

PLUG



| PART NO: | A |
|----------|-------|
| 2010001 | 4 OD |
| 2010002 | 5 OD |
| 2010003 | 6 OD |
| 2010004 | 8 OD |
| 2010005 | 10 OD |
| 2010006 | 12 OD |
| 2010007 | 14 OD |

Tube Clamp & Fasteners

PIPE CLIPS

| STAINLESS PART NO: | STEEL PART NO: | DIAMETER PIPE | NUMBER OF PIPES TO SECURE |
|-----------------------|-------------------|------------------|------------------------------|
| J001-SS | J001 | 4mm OD | 1 |
| J002-SS | J002 | 4mm OD | 2 |
| J002-3-SS | J002-3 | 4mm OD | 3 |
| J002-4-SS | J002-4 | 4mm OD | 4 |
| J003-SS | J003 | 6mm OD | 1 |
| J004-SS | J004 | 6mm OD | 2 |
| J005-SS | J005 | 6mm OD | 3 |
| J006-SS | J006 | 6mm OD | 4 |
| J007-SS | J007 | 6mm OD | 5 |
| PCL M8/1-SS | PCL M8/1 | 8mm OD | 1 |
| PCL M8/2-SS | PCL M8/2 | 8mm OD | 2 |
| PCL M8/3-SS | PCL M8/3 | 8mm OD | 3 |
| PCL M10/1-SS | PCL M10/1 | 10mm OD | 1 |
| PCL M10/2-SS | PCL M10/2 | 10mm OD | 2 |
| PCL M10/3-SS | PCL M10/3 | 10mm OD | 3 |
| PCL M10/4-SS | PCL M10/4 | 10mm OD | 4 |
| PCL M12/1-SS | PCL M12/1 | 12mm OD | 1 |
| PCL M12/2-SS | PCL M12/2 | 12mm OD | 2 |
| PCL M12/3-SS | PCL M12/3 | 12mm OD | 3 |



SELF TAPPING SCREW

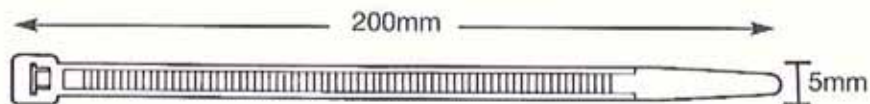
PART NO: 14355
DRILL HOLE: Diameter M4

CAP HEAD SCREW

PART NO: M410
DRILL HOLE: M4 STAINLESS STEEL
CAP HEAD 10MM LONG

Material: STEEL PLATED OR STAINLESS STEEL

CABLE TIES



One piece all plastic cable ties - used to securely fasten pipework during installation.

PART NO: TW-200-4.8

PROTECTIVE HELIX (30M COIL)



PART NO: 3-NFP

Helix is a versatile protection of nylon feed lines installed. It also makes an installation look very neat if a large number of pipes are being installed.

Flexible Tube

(Tube supplied in coil lengths only)

LOW PRESSURE NYLON

Applications ● Pneumatic

| Size OD | Part No: | ID | Coil | Burst pressure |
|---------|----------|-------|------|----------------|
| 4mm | TNM4 | 2.5mm | 30m | 10 Bar |
| 6mm | TNM6 | 4mm | 30m | 10 Bar |
| 8mm | TNM8 | 6mm | 30m | 10 Bar |
| 10mm | TNM10 | 8mm | 30m | 10 Bar |
| 12mm | TNM12 | 10mm | 30m | 10 Bar |



HIGH PRESSURE NYLON

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Applications ● Automatic lubrication systems
● Piping out inaccessible grease points

| Size OD | Part No: | Wall | Coil | Burst pressure |
|---------|-----------|-------|------|----------------|
| 3/16" | HPN3 | - | 30m | 150 Bar |
| 1/4" | HPN4 | 1mm | 30m | 150 Bar |
| 4mm | HPP4-1 | 1mm | 25m | 150 Bar |
| 6mm | HPP6-1.5 | 1.5mm | 25m | 150 Bar |
| *6mm | HPP6-1.5F | 1.5mm | 25m | 150 Bar |



* = Grease filled

HIGH PRESSURE BRAIDED FLEXIBLE PIPE

Description:

- 1 - High Pressure Hose (Supplied in 25m Coils)
- 2 - Re-usable sleeve (Two Per Hose Req'd.)
- 3 - Re-usable stud (Two Per Hose Req'd.)

Applications

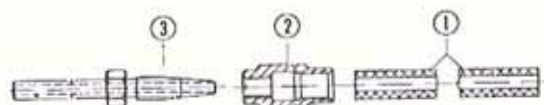
- For main feed lines in lubrication systems
- For moving points

Part No:

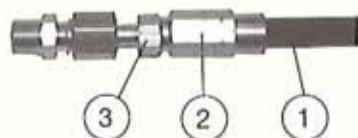
- 111-35114-1
- 432-23030-1
- 432-23031-1
- 432-23675-1
- 432-23676-1
- 532-30739-1

Description:

- High pressure flexible hose
- Re-usable stud (steel plated)
- Re-usable sleeve (steel plated)
- Re-usable stud (stainless steel)
- Re-usable sleeve (stainless steel)
- Re-usable 90° stud (steel plated)



8.4mm OD (550 BAR BURST PRESSURE)



Designed to facilitate on-the-job assembly of any desired length of flexible. Hose end connections are easily assembled to the flexible with standard spanners.



Rigid Tube

ANNEALED COPPER

| Size OD | Part No: | ID | Coil | Working pressure |
|---------|----------|-------|------|------------------|
| 1/8" | Cu2 | - | 10m | 126 Bar |
| 3/16" | Cu3 | 0.131 | 10m | 126 Bar |
| 1/4" | Cu4 | 0.178 | 10m | 120 Bar |
| 3/8" | Cu5 | 0.303 | 10m | 77 Bar |
| 4mm | CuM4 | 2.8 | 10m | 128 Bar |
| 6mm | CuM6 | 4.4 | 10m | 112 Bar |
| 8mm | CuM8 | 4.4 | 10m | 112 Bar |
| 10mm | CuM10 | 8.4 | 10m | 64 Bar |
| 12mm | CuM12 | 9.6 | 10m | 81 Bar |

HALF HARD COPPER

| Size OD | Part No: | ID | Straight Lengths | Working pressure |
|---------|----------|-----|------------------|------------------|
| 4mm | CuM4H | 2.8 | 3m | 193 Bar |
| 6mm | CuM6H | 4.0 | 3m | 218 Bar |
| 8mm | CuM8H | 7.6 | 3m | 150 Bar |
| 10mm | CuM10H | 7.6 | 3m | 150 Bar |
| 12mm | CuM12H | 9.6 | 3m | 122 Bar |

STEEL BUNDY TUBE

| Size OD | Part No: | Wall | Length | Working pressure |
|---------|----------|------|--------|------------------|
| 4mm | TBM4 | 0.7 | 3m | 300 Bar |
| 6mm | TBM6 | 0.7 | 3m | 300 Bar |
| 8mm | TBM8 | 0.7 | 3m | 250 Bar |
| 10mm | TBM10 | 0.7 | 3m | 195 Bar |
| 12mm | TBM12 | 0.7 | 3m | 160 Bar |

STAINLESS TUBE

| Size OD | Part No: | Wall | Length | Working pressure |
|----------|------------|--------|--------|------------------|
| 1/8" | TSS-2 | 0.55mm | 3m | 537 Bar |
| 1/4" | TSS-4 | 1.30mm | 3m | 809 Bar |
| 3/8" | TSS-5 | 1.30mm | 3m | 537 Bar |
| 6mm | TSSM6-1 | 0.6mm | 3m | 330 Bar |
| 8mm | TSSM8 | 1.5mm | 3m | 420 Bar |
| 10mm-1.5 | TSSM10-1 | 1mm | 3m | 420 Bar |
| 12mm | TSSM12-1.5 | 1.5mm | 3m | 420 Bar |

Dimensions in mm unless stated



Lubricants

INDUSTRIAL AEROSOLS

FOOD GRADE LUBRICANTS

Direct or incidental food grade lubricants. Meeting the requirements of the Food Safety Act 1990

(Please specify application)

EXPOSED GEAR & WIRE ROPE LUBRICANT

A bitumen reinforced lubricant which is specially designed to lubricate and protect open gears, heavy duty wire ropes and any other moving parts. this lubricant will not be thrown off during use and has an excellent water wash resistance which makes the spray ideal for applications exposed to the elements

Part No: GPL 400-1



ANTI-CORROSIVE DE- WATERING FILM

Multi purpose - high performance fluid with many uses

- Excellent de watering fluid
- General lubricating properties
- Stops Squeaks
- Used on electrical and electronic mechanisms
- Frees rusted parts and frozen doors
- Cleans and protects surfaces from rust

Part No: GPL 400-2

CLEAR CHAIN AND BEARING LUBRICANT

Clear chain and bearing lubricant is intended for lubricating chains where a high tenacious lubricant is required or where a black bitumastic product is undesirable.

Part No: GPL 400-3

ABSORBENT CHIPS

- Non-Mudding
- Non-Flammable
- Non-Slip
- High-Absorbency

Specifically designed to absorb oil spills or leaks. It eliminates the oil spillage spreading and makes the removal of liquid spills simple.

PART NO:

- GRA- 30 30 Litre Bag of Absorbent Chips
- GRA- S Absorbent sock, 1m in length



Lubricants

SPECIALISED GREASES

ALL PURPOSE II

For use in all anti-friction and plain bearings subjected to extreme pressures. This grease is formulated for general purpose lubrication and is manufactured with additives to combat corrosion and oxidation at extreme temperatures.

Suitable for industrial applications only. Please see materials data sheet.

WATER GUARD II

For use in all anti-friction and plain bearings subjected to high load and extreme water or saturated conditions (can be applied direct onto wet surfaces).

FOOD PLUS II

For use in all anti-friction and plain bearings found in the food processing environments. The grease is FDA listed in guidance with USDA regulations and is for incidental contact applications only.

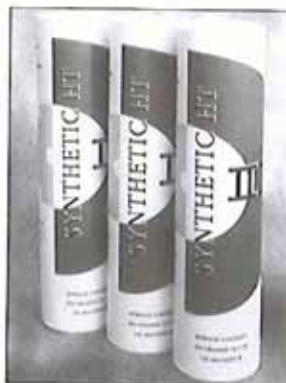
SYNTHETIC HT II

For use on plain and anti-friction bearings operating at high temperatures over extended periods. Specifically designed not to leave dry residues associated with conventional types of thickeners used in high temperature greases.

HIGH SPEED II

For use with very high speed anti-friction bearings, particularly suited for high speed spindles on CNC machines and wood turning equipment. This grease can be an economical replacement to oil mist lubrication.

*(All 400gm cartridges and supplied in boxes of 12)

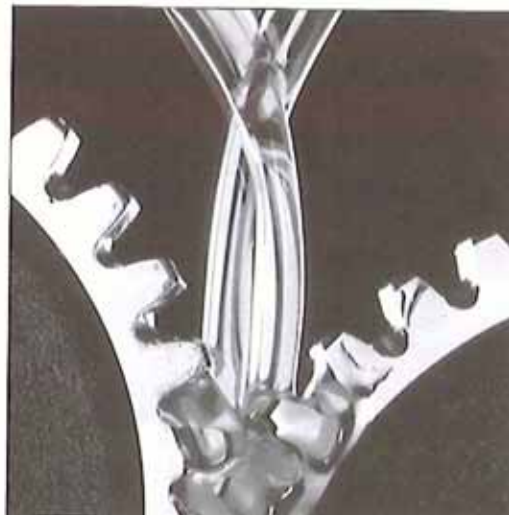


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TECHNICAL ADVISE ON LUBRICANTS

The choice of lubricant for each individual requirement is of paramount importance, please contact our experienced technical sales team for advise on the correct choice of lubricants.

- Lubricating oils
- Gear oils
- Hydraulic oils
- Slideway oils
- Compressor oils
- Air line oils



Meter Valve Systems for Small Machines and Low Viscosity Oils

ONE SHOT HAND PUMP



OPERATION:

This range of Piston Pump is designed for small meter valve systems only. The pump should be centrally mounted and has two outlets. One outlet may be plugged off if required. Pull handle to activate discharge

Minimum Viscosity: 15cst Maximum: 250cst

| Part No: | Res.Cap | Delv/Stroke | Pressure | Outlet Thread |
|----------|---------|-------------|----------|---------------|
| * 12105 | 400cc | 15 | 3 Bar | 1/8" BSP |
| 216040 | 200cc | 2 | 5 Bar | 1/8" BSP |

The above pump has a relative value of 90

ELECTRIC MICRO-PUMP



OPERATION:

The pump would be connected to a constant electrical supply and will operate at pre-set intervals as indicated above. The system should be primed via the pump handle after installation.

Minimum Viscosity: 15cst Maximum: 250cst

(Micro-pump system detailed on page 47)

| Part No: | Voltage | Res. Cap | Lubrication Interval | Delv/Stroke | Pressure |
|----------|---------|----------|----------------------|-------------|----------|
| 3417045 | 110V | 1.7 ltr | 60 mins | 1-5cc | 4 Bar |
| 3417038 | 240V | 1.7 ltr | 30 mins | 1-5cc | |
| 3417044 | 110V | 1.7 ltr | 30 mins | 1-5cc | |
| 3417039 | 240V | 1.7 ltr | 60 mins | 1-5cc | |
| 3417046 | 110V | 1.7 ltr | 120 mins | 1-5cc | |

ELECTROMECHANICAL PUMP



| Model: | Part No: |
|-----------------|----------|
| 110V manual | 3600100 |
| 230V manual | 3600101 |
| 110V controller | 3600102 |
| 230V controller | 3600103 |

Design Details:

Discharge 90cc per min
 Maximum Pressure: 15 bar
 Reservoir Size: 3 litres
 Maximum Viscosity: 250cst

The pumps are fitted as standard with in-built pressure switch, low level switch and pressure gauge. The pumps are also available with integral timer or manual push button facility.

Features:

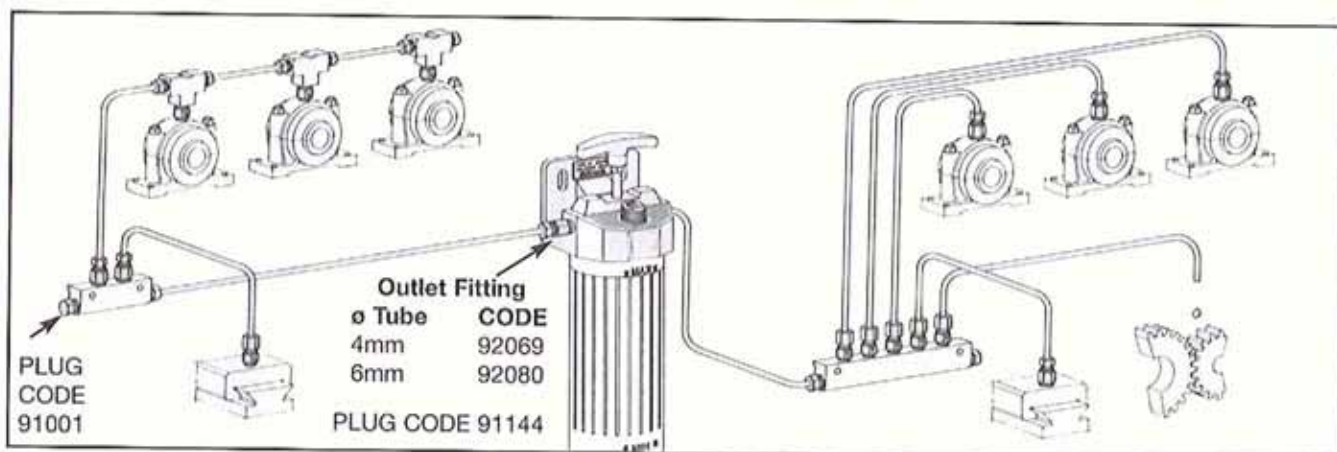
Cycle time: 10 seconds to 5 mins (in 10 second increments)
 Pause time: 1 minute to 60 hours (in 1 minute increments)

A smooth electrical supply is required to these pumps, transformers are recommended.

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Meter Valve Systems for Small Machines and Low Viscosity Oils



| METER UNIT | | Symbol | Type | Part No: | Relative Value | Flow |
|---------------|--|--------|------|----------|----------------|------|
| FOR BEARINGS | | D0 | aa | 31200 | 0.75 | |
| | | | a | 31201 | 1 | |
| | | | b | 31202 | 2 | |
| | | | c | 31203 | 4 | |
| | | | d | 31204 | 8 | |
| | | | e | 31205 | 16 | |
| | | | f | 31206 | 32 | |
| FOR MANIFOLDS | | D21 | aa | 31400 | 0.75 | |
| | | | a | 31401 | 1 | |
| | | | b | 31402 | 2 | |
| | | | c | 31403 | 4 | |
| | | | d | 31404 | 8 | |
| | | | e | 31405 | 16 | |
| | | | f | 31406 | 32 | |

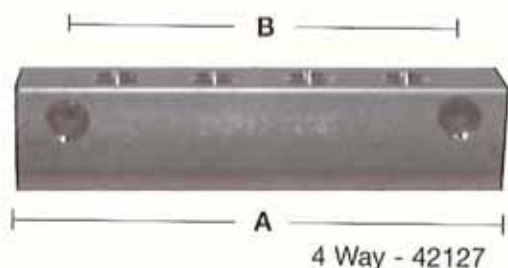
4mm OD Olive
PART NO: 93004

4mm OD Nut
PART NO: 94007

The relative value corresponds to the number of drops delivered per minute (1 Drop = 33mm³)

SINGLE ROW MANIFOLDS

Sizes are in mm if not differently specified

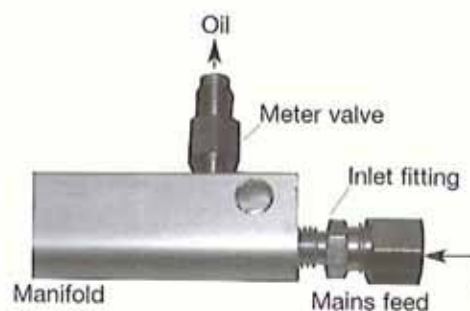


| Way | Weight gr. | Part No | A | B | Inlet/Outlet Thread |
|-----|------------|---------|-------|-------|---------------------|
| 2 | 28 | 42125 | 50.3 | 33.3 | 5/16" X 24 |
| 3 | 37 | 42126 | 66.2 | 49.2 | |
| 4 | 45 | 42127 | 82 | 65 | |
| 5 | 54 | 42128 | 98 | 81 | |
| 6 | 64 | 42129 | 113.8 | 96.8 | |
| 8 | 85 | 42130 | 149 | 132 | |
| 10 | 98 | 42131 | 177.2 | 160.2 | |

MANIFOLD INLET FITTINGS



4mm ϕ Fitting 94886
6mm ϕ Fitting 94892



Positive Displacement Systems For Medium Sized Machinery

These systems are to operate with oils and low viscosity fluid greases.

HAND OPERATED PUMPS

SINGLE STROKE PUMPS

Pumps of sturdy construction with small dimensions and die cast light alloy reservoir. The version for grease comes complete with a follower plate and level indicating rod.

TECHNICAL INFORMATION

| | |
|-----------------------------|----------------------------------|
| Max pressure: | For oil pump only - 20Bar |
| Delivery per stroke: | 7.5 cm ³ (.45 cu.in.) |
| Lubricant outlet: | M10x1 |

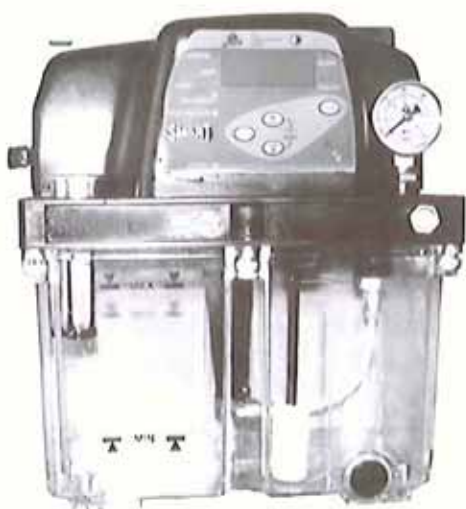
| | |
|------------------|-----------|
| Reservoir | 0.8 Litre |
| Part No: | 3105009 |



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ELECTROMECHANICAL PUMP

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| Model: | Part No: |
|-----------------|----------|
| 110V manual | 3600200 |
| 230V manual | 3600201 |
| 110V controller | 3600202 |
| 230V controller | 3600203 |

Design Details:

| | |
|--------------------|---------------|
| Discharge | 100cc per min |
| Maximum Pressure: | 35 bar |
| Reservoir Size: | 3 litres |
| Maximum Viscosity: | 250cSt |

The pumps are fitted as standard with in-built pressure switch, low level switch and pressure gauge. The pumps are also available with integral timer or manual push button facility.

Features:

Cycle time: 10 seconds to 5 mins (in 10 second increments)
Pause time: 1 minute to 60 hours (in 1 minute increments)

A smooth electrical supply is required to these pumps, transformers are recommended.



We Design Build Install Maintain

Positive Displacement Systems For Medium Sized Machinery

MANUAL

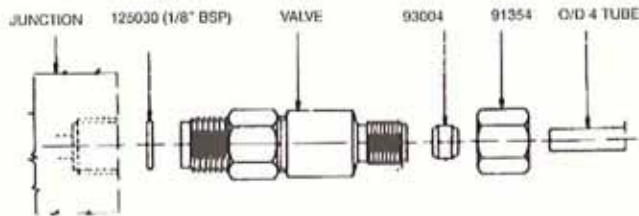


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POSITIVE DISPLACEMENT UNITS

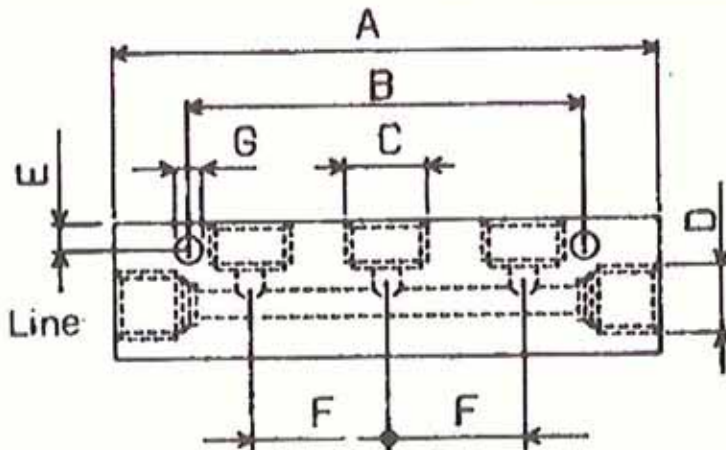


| Part No: | Output/Shot | Operating pressures, Bar | |
|-----------|-------------|--------------------------|-----|
| | | Min | Max |
| 33VIM5006 | 0.05cc | 18 | 70 |
| 33VIM5010 | 0.10cc | 18 | 70 |
| 33VIM5016 | 0.15cc | 18 | 70 |

- 91354 4mm OD coupling nut
- 93004 4mm OD brass olive

Minimum operation pressure 18 Bar
 Maximum operation pressure 70 Bar
 Minimum time to charge valves = 4 secs

SINGLE ROW MANIFOLD



| Way | Part No: | A(mm) | Inlet/outlet |
|-----|----------|-------|--------------|
| 1 | 6256 | 40 | 1/8" BSP |
| 2 | 6266 | 61 | 1/8" BSP |
| 3 | 6267 | 82 | 1/8" BSP |
| 4 | 6268 | 103 | 1/8" BSP |
| 5 | 6269 | 124 | 1/8" BSP |
| 6 | 6274 | 145 | 1/8" BSP |
| 7 | 6276 | 166 | 1/8" BSP |
| 8 | 6239 | 187 | 1/8" BSP |

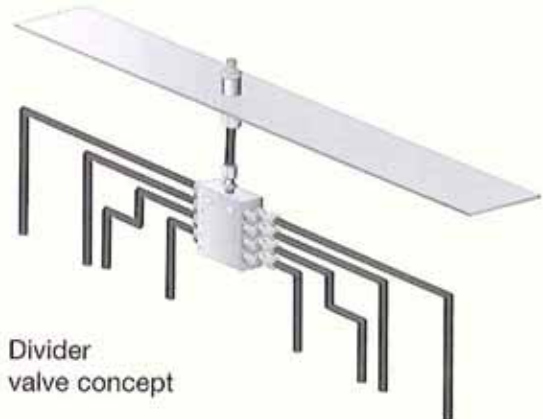
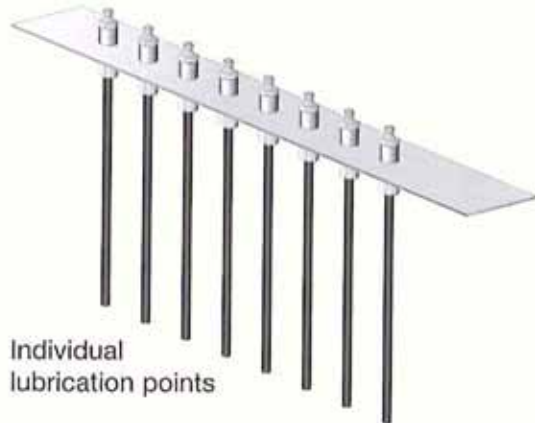
THE ABOVE MANIFOLD IS PART NO: 6267

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Progressive Lubrication Systems

These systems are designed to operate with all oils and greases upto and including NLGI 2



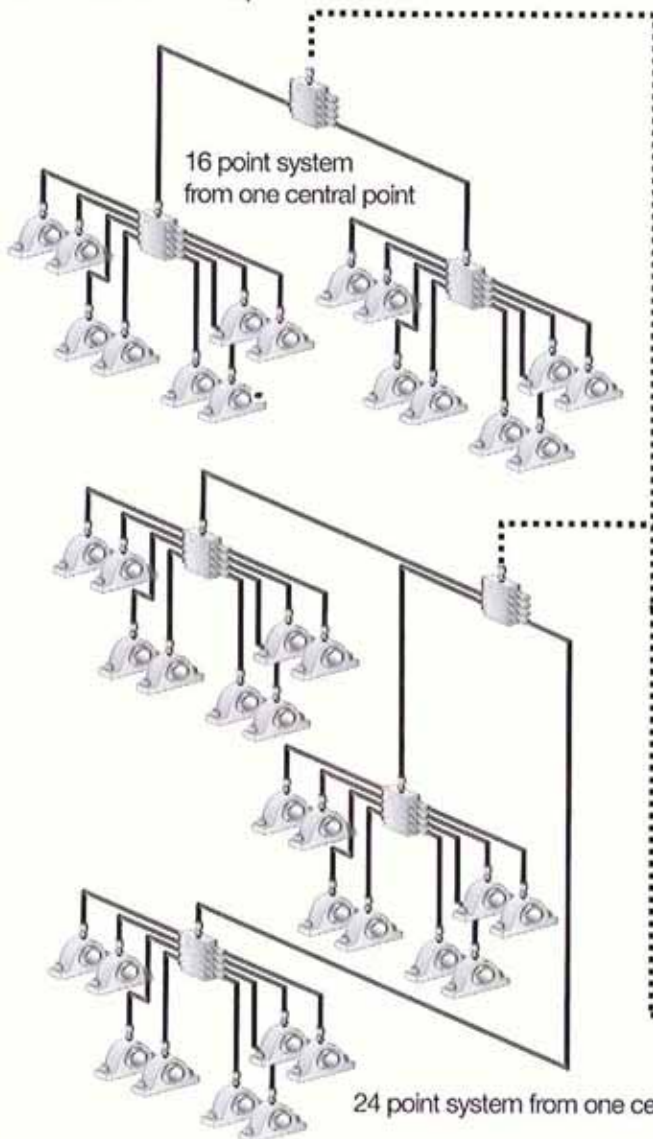
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This simple concept now allows lubrication to be done from one single grease nipple. The progressive distributor shown above will split the lubricant into equal amounts and feed each connect point in turn on operation.

Typical flow diagram of progressive lubrication systems

Combinations examples

Methods of application



Grease Guns (see page 13)



Hand Pumps (see page 65)



Electric Pumps (see page 66)

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Progressive Lubrication Systems

PROGRESSIVE DIVIDER VALVES

There are two types of divider valves SSV and SMX.

The modular SMX valves are more flexible for onsite installations where additional points are to be added or when any output to a bearing requires alteration.

The SSV fixed type are a solid, compact valve and do not contain seals. This valve is also available in stainless steel.

Both types of valve will dispense calculated amounts of lubricant to each connection point. The measured amounts of lubricant are distributed to the bearing irrespective of pipe lengths or back pressure.

The valves can be fitted with indicator pins or monitoring switches which indicate electrically or visually the correct flow of lubricant during operation.



SMX MODULAR TYPE



SSV FIXED TYPE

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HAND PUMPS

| | |
|---------------------------|--|
| Part No: PB 500 | Description: Wall mounted hand pump Lubricant per outlet = 1.5cc/stroke Max operating pressure = 300 bar Reservoir capacity = 500cc |
|---------------------------|--|

| | |
|--------------------------------|---|
| Part No: 603-40558-3 | Description: Heavy duty hand pump for large systems. Pump delivers on both forward and reverse strokes. |
|--------------------------------|---|

Lubricant outlet = 2cc/stroke
Max operating pressure = 300 bar
Reservoir capacity = 3000cc



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Progressive Lubrication Systems

ELECTRIC PUMP WITH IN-BUILT TIMER



A compact self contained lubrication pump with in-built control panel, capable of feeding directly upto 18 lubrication points. The pump will deliver a set amount of lubricant from each outlet and the integral timer will monitor the correct flow of grease and alarm at no flow, or low level situation.

Technical:

Possible outlets: min 2 - max 18
 Maximum output pressure: max 210 bar
 Pause times: min 20 mins - max 100 hrs
 Output: 0.2cc per cycle per point
 Reservoir size: 1000cc

Please specify the application and the voltage requirement

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203 INDUSTRIAL ELECTRICAL PUMP



The 203 pump is designed to operate at very high pressures and therefore allows large numbers of bearings to be lubricated from one unit. All 203 pumps are fitted with one fixed pump element.

| Pump: | Motor: | Reservoir: | Part No: |
|-------------|--------|-------------------|---------------|
| Grease pump | 24V DC | 2kg | 644-40613-1 |
| Grease pump | 24V DC | 4kg | 644-40581-8 |
| Oil pump | 24V DC | 2ltr | 644-40613-1-0 |
| Oil pump | 24V DC | 4ltr | 644-40581-8-0 |
| Grease pump | 24V DC | 2kg with bulkfill | 644-40613-1GF |

Accessories:

| | Part No: |
|---------------------------------------|---------------|
| Replacement fixed pump element | 600-26876-2 |
| Replacement adjustment pump element | 655-28716-1 |
| Inline pump relief valve | 624-27158-1 |
| Bulk fill gun | 888 fill |
| Inline pressure gauge (high pressure) | PG-4-5000-P63 |
| Inline pressure gauge (low pressure) | PG-4-1000-P63 |

Technical:

Possible outlets: 1-3
 Maximum pressure: 250 bar
 Output: 0.2cc per minute
 Motor: 24V DC, 2amp

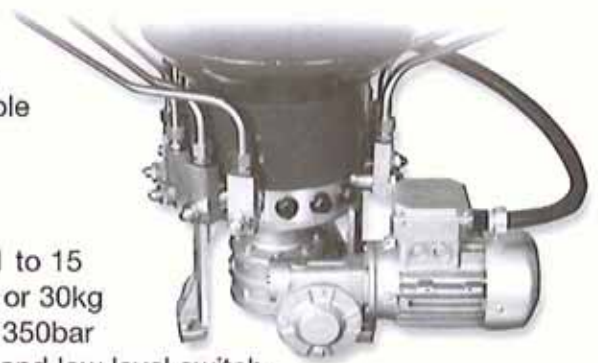
MULTI OUTLET INDUSTRIAL PUMP



Pump elements are fully adjustable

Features:

- Total number of outlets= 1 to 15
- Reservoir capacity= 10kg or 30kg
- Max output per element= 350bar
- New ultrasonic style high and low level switch



(see page 69 for a typical setup)

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Progressive Lubrication Systems Control Panels

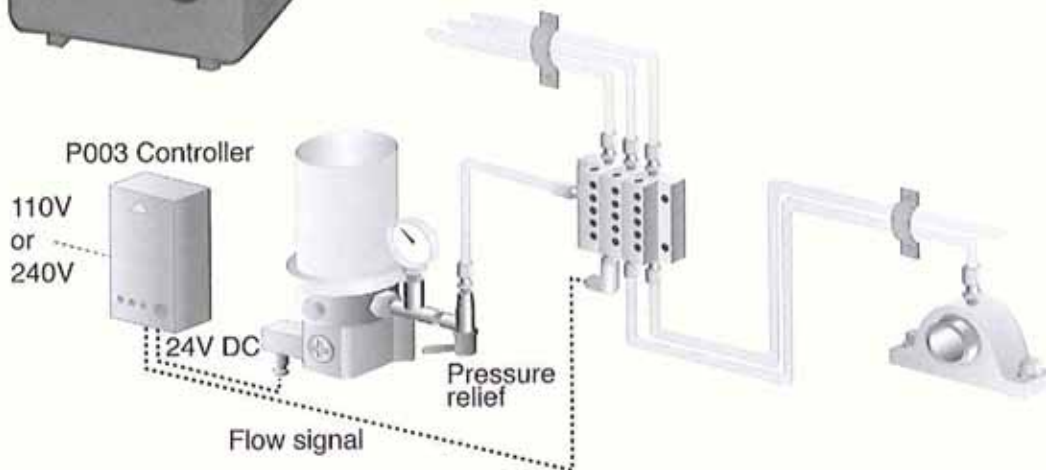
P003 CONTROL PANEL

The P003 Controller has been specifically designed to operate in conjunction with the 203 Pump.



Technical Details:

- P003 Controller will accept 110v or 240V input with controlled 24V DC output
- Dwell Time: 15 mins to 15 Hrs 45 mins in steps of 15 mins
- Pump Run Time: 15 secs to 15 mins 45 secs in steps of 15 secs
- Back up Facility: If the input voltage is turned off the dwell timer will remember the time already accumulated.
- Fast Run Facility: to test the operation of the controller.
- Manual Over-ride facility: to test operation of the system.
- Fault Alarm Circuit can be activated when wired to a divider valve with micro-switch. This will monitor the systems operation at all times, signalling faults visually and electrically.



DIVIDER VALVES

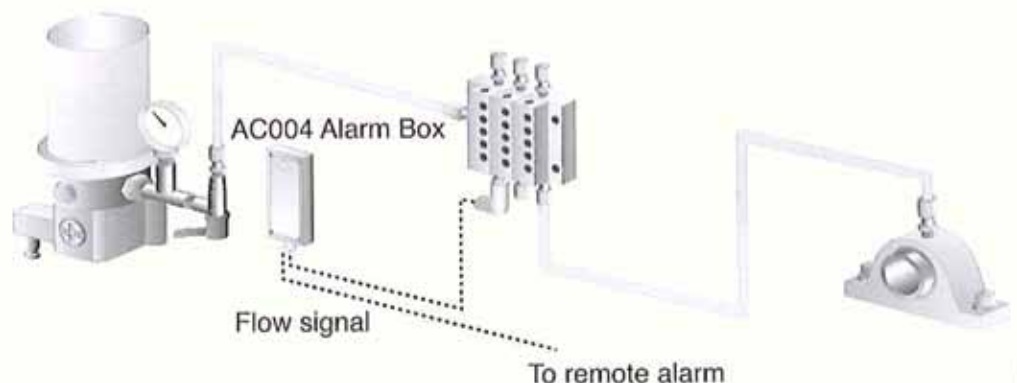
These valves will split the lubricant into calculated amounts and feed each connection point in turn.

Each valve is specifically selected with the correct number of outlets required for the application

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NO/LOW FLOW ALARM BOX

The AC004 no flow alarm has been specifically designed to receive flow signals from a progressive divider valve during a system that operates continuously. A green L.E.D. will indicate pulses from the valve and indicate the system is healthy. If the unit stops counting pulses, a red L.E.D. fault light will come on. A fault will only occur if the unit stops receiving pulses in a pre-set fault time, which is adjustable between 15- 30 seconds. The alarm box is fitted with a relay output for any external device or monitors VOLTAGE = 240V AC.



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Progressive lubrication Systems

Progressive systems designed and built to suit many different applications. These systems can be supplied as parts only, neatly and securely mounted on backplates or fitted inside enclosures as detailed below.

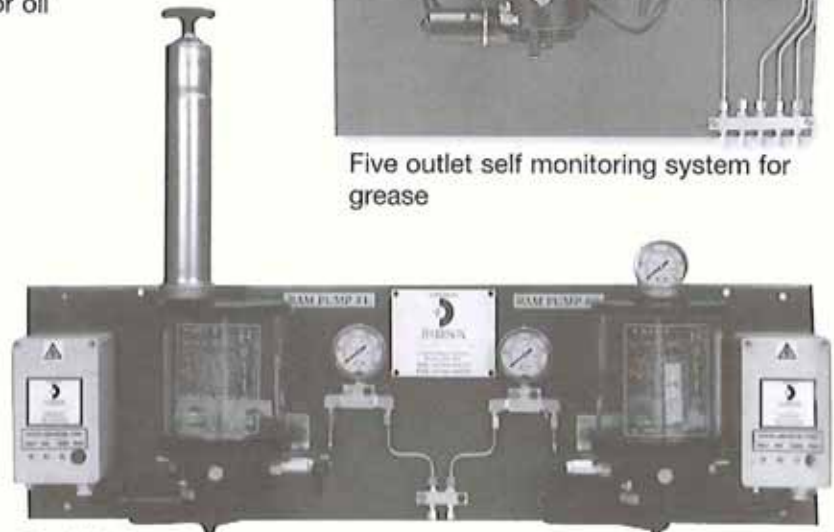


Six outlet self monitoring system for oil

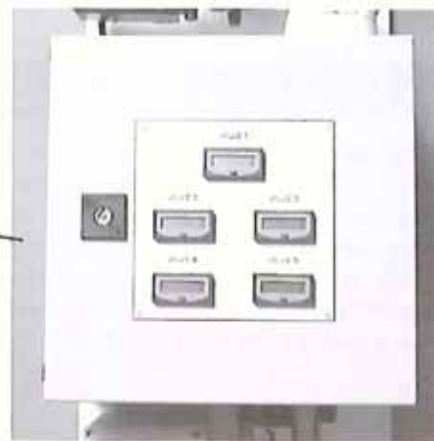


Five outlet self monitoring system for grease

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Dual lubrication system designed to lubricate bearings with grease and chains with oil



Grease system designed to lubricate and monitor the correct lubrication to five critical points on a machine. The application of lubricant to each point is counted digitally and the panel would alarm if any one point was not lubricated correctly

Equipment mounted inside a stainless steel enclosure for installation into a food factory

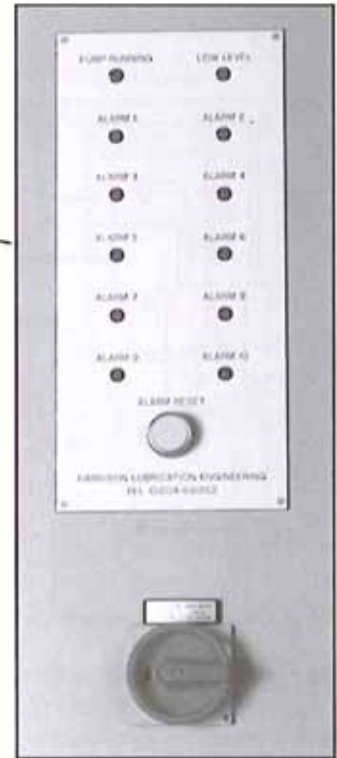


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Large Industrial Grease Lubrication Systems

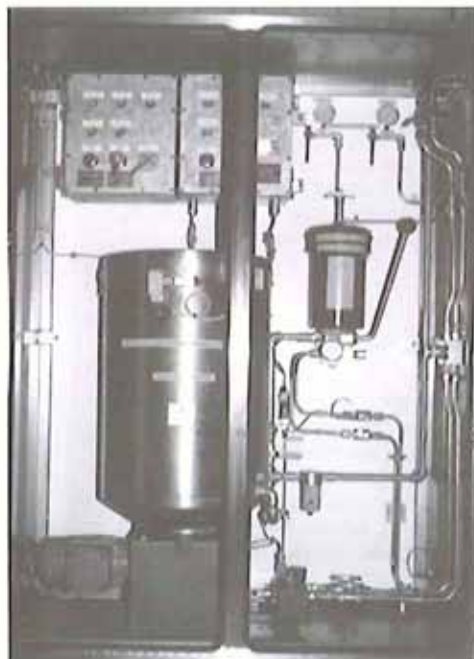


Individual grease filtration and monitoring of each individual grease feed line



Control panel

Multi-outlet progressive lubrication system. This system was installed to the wet end of a paper making machine

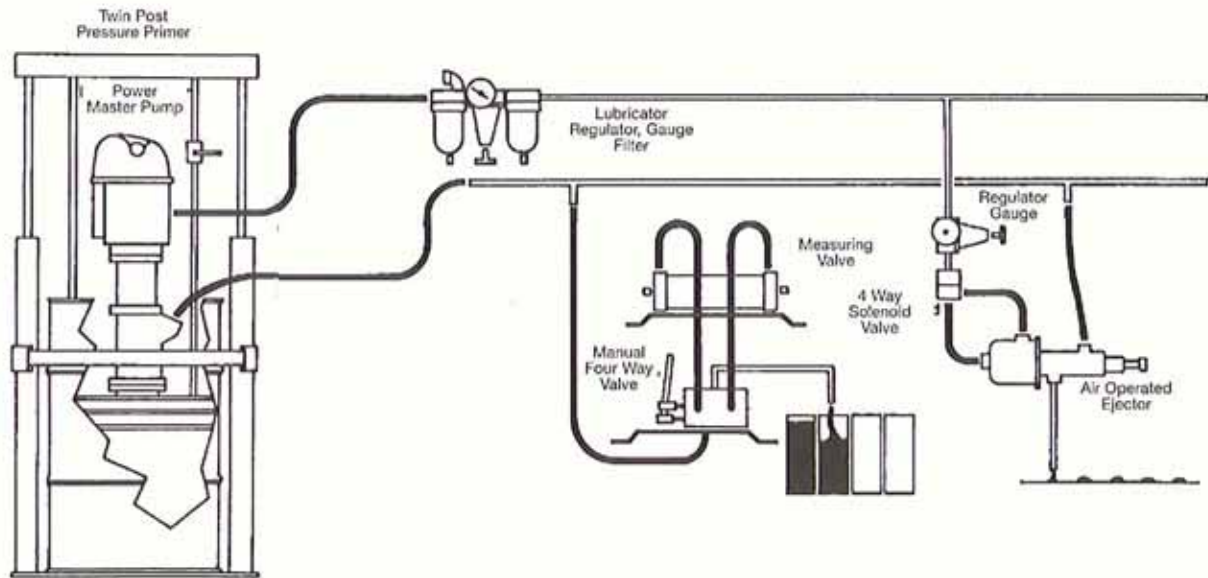


Typical dual-line centralised lubrication system modules, designed to automatically lubricate and monitor the correct lubrication of hundreds of bearings throughout a plant



Grease Dispensing Systems

MEASURE SYSTEM



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In a measure system, material is pumped from original containers through the supply lines to measuring valves or ejectors, which in turn meter precise amounts of material to a workpiece.

Typical measure systems include:

- Cartridge filling lines
- Small appliance manufacturing where measured amounts of lubricant are applied to small electric motors
- Single shot applications of adhesives or sealants used in manufacturing
- Multiple shots in patterns of adhesives used to bond substrates, such as automobile hoods and doors

AIR-OPERATED MATERIAL EJECTORS



Model 83664

Pressure ratio 27:1, operating air pressure 80-100 psi (5.5-7 bar), priming pressure 1000 psi maximum (68 bar), output per cycle .005 in³-.045 in³ (.08cc-.74cc), air inlet 1/8" NPT female, material inlet 1/4" NPT female, material outlet 1/8" NPT female



Model 85250

Pressure ratio 23:1, operating air pressure 80-100 psi (5.5-7 bar), priming pressure 1000 psi maximum (68 bar), output per cycle .015 in³-.2 in³ (.25cc-.3.3cc), air inlet 1/4" NPT female, material inlet 1/4" NPT female, material outlet 1/4" NPT female



Model 84564

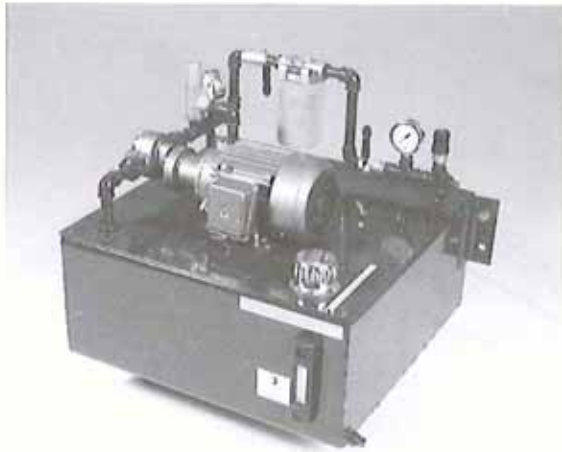
Pressure ratio 36:1, operating air pressure 100 psi maximum (7 bar), priming pressure 2000 psi maximum (138 bar), output per cycle 0.1 in³-1 in³ (1.6cc-16cc), air inlet 3/8" NPT female, material inlet 3/8" NPT female, material outlet 3/8" NPT female



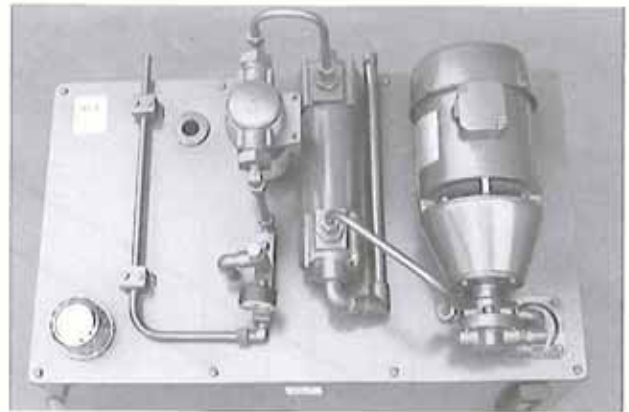
Model 84540

Pressure ratio 35:1, operating air pressure 100 psi maximum (7 bar), priming pressure 2000 psi maximum (138 bar), output per cycle 0.5 in³-2.5 in³ (8cc-41cc), air inlet 1/2" NPT female, material inlet 1/2" NPT female, material outlet 1/2" NPT female

Oil Re-circulation Systems

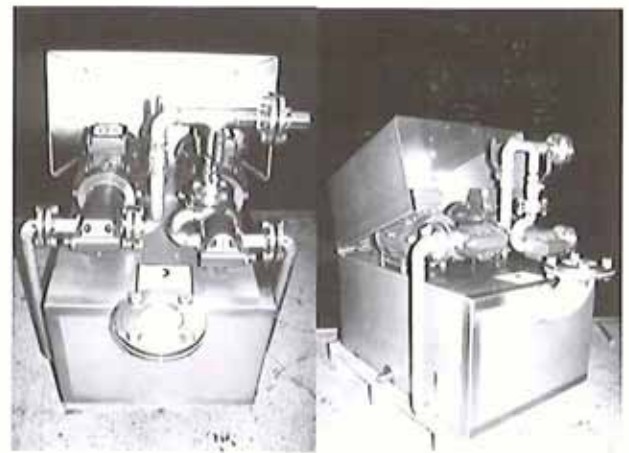


Oil re-circulation system designed to lubricate a gear box



Oil cooler system

Stainless steel sump tank designed for pumping oil from the basement of a paper machine

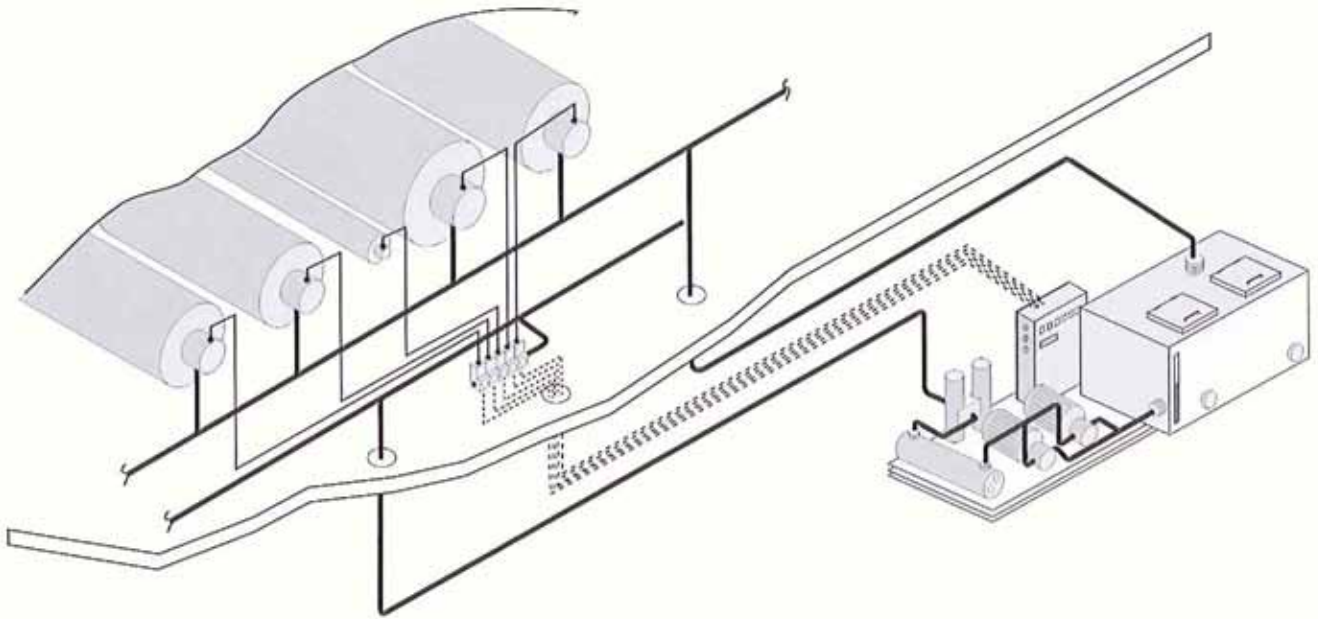


Oil module designed to lubricate, filter and monitor large volumes of oil flow, whilst maintaining the lubricant at a constant temperature.



Flowmaster Systems

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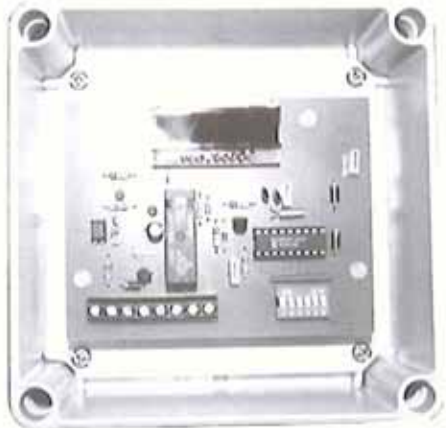


FLOW MASTER VALVES

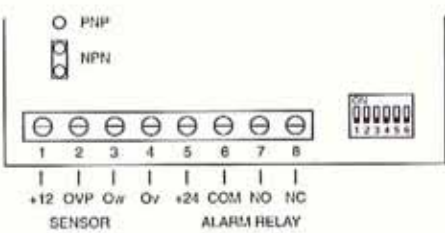
Flow master valves are installed in lubrication systems that demand extremely efficient lubrication and where there is a need for constant monitoring. Delivery from these units can be adjusted manually or automatically by a motorised regulating valve fitted to the base.

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DC 004 CONTROL MONITOR



The Flowmaster monitor is 24V DC microprocessor based controller. The number of pulses received per second is compared to the set point. If the number of pulses is greater than or equal to the set point then the alarm relay is energised. If the pulse rate is less than the set point then the relay de-energises.

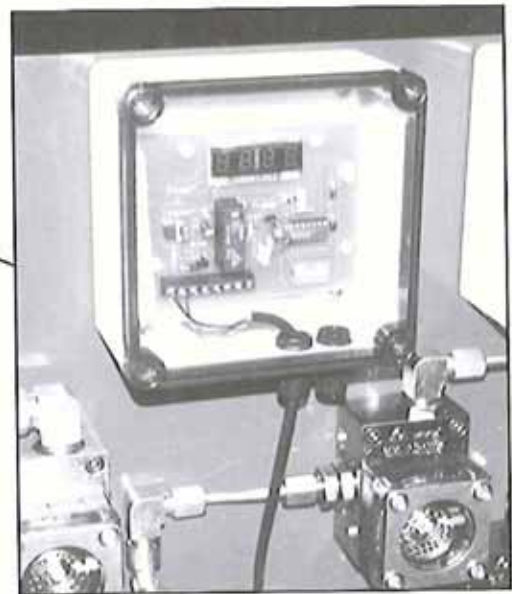
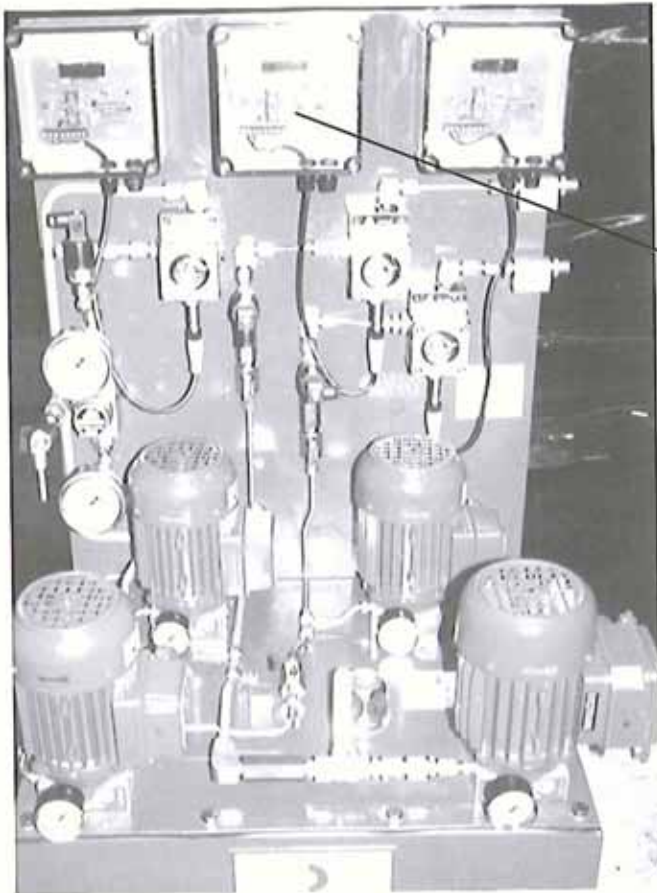


| | |
|-----|----|
| SW1 | 1 |
| SW2 | 2 |
| SW3 | 4 |
| SW4 | 8 |
| SW5 | 16 |
| SW6 | 32 |

Switch settings in pulses per second



Flowmaster Applications



Flowmaster system using the DC 004 control panel to monitor the flow of oil to three critical bearings.



Flowmaster system designed to lubricate pre-dryer and after dryer bearings on a paper machine.

Sales Enquiries

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website:www.hle.co.uk

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