Interlube Manufacturing and Distributing throughout the World

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A **TIMKEN** Brand

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HDI Range
Electric Lubrication Pumps

Accessories

Accessories Catalogue

Lubrication Systems

Heavy Duty Centralized Lubrication Systems
for Mobile Plant and Quarry Industry
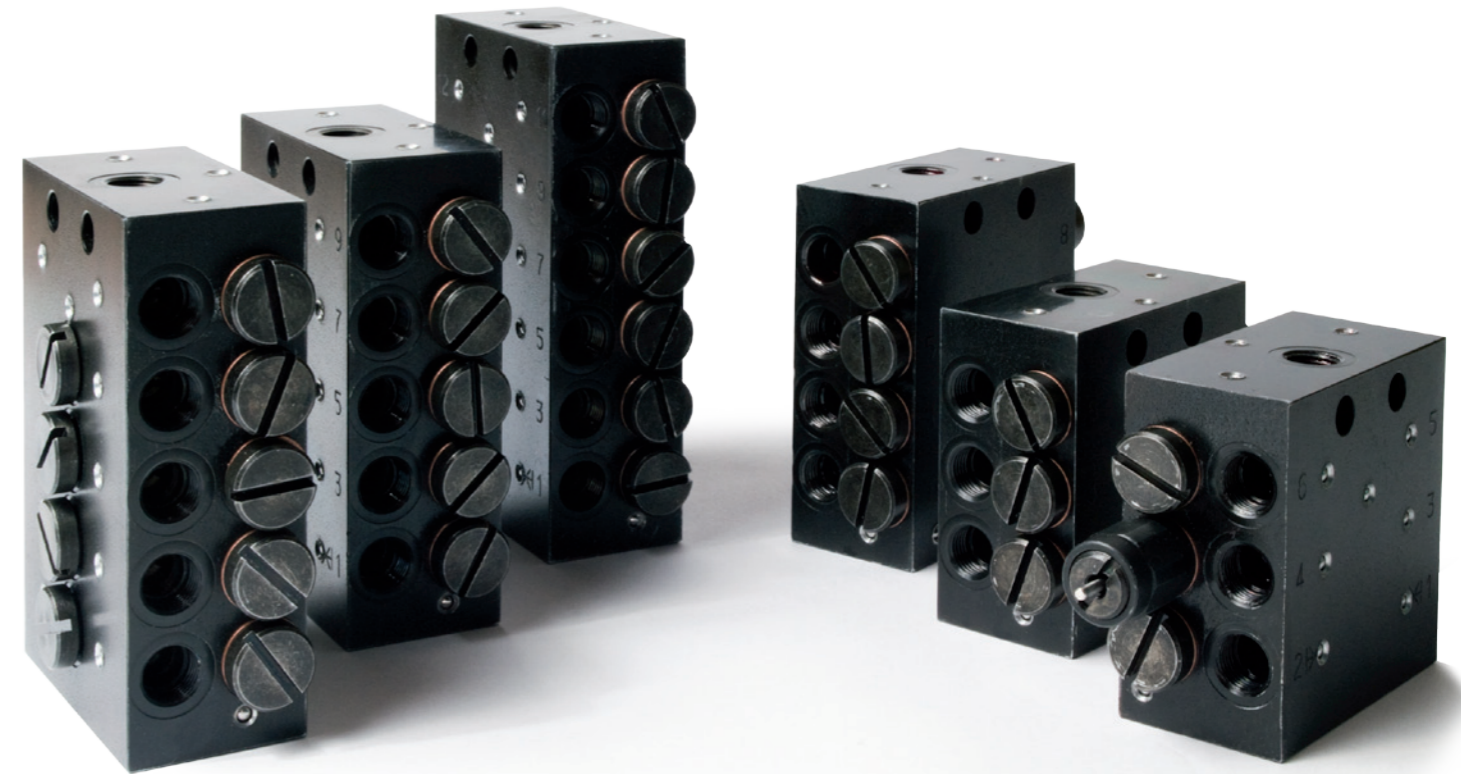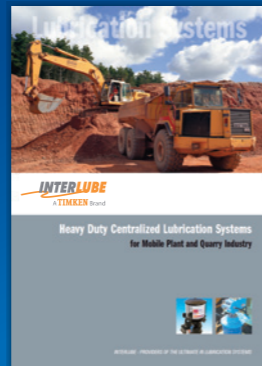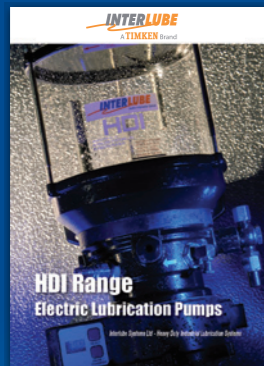
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SPL + XPL RANGE
Progressive Divider Valves

Part of the HDI range of lubrication systems

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Interlube Systems Ltd - Heavy Duty Industrial Lubrication Systems

SPL_SB_190112_V1

Simple Systems

Manual Centralised Lubrication Systems

The progressive divider valves will deliver set amounts of lubricant to each point, inturn, without missing a point out.

The lubrication is delivered to each connected point irrespective of feed length and back pressure.

The lubrication from the standard side lever grease gun or hand pump is positively divided into six equal amounts.

Once the lubricant supply is stopped or interrupted the valve will continue to lubricate where it last stopped, irrespective of time intervals.
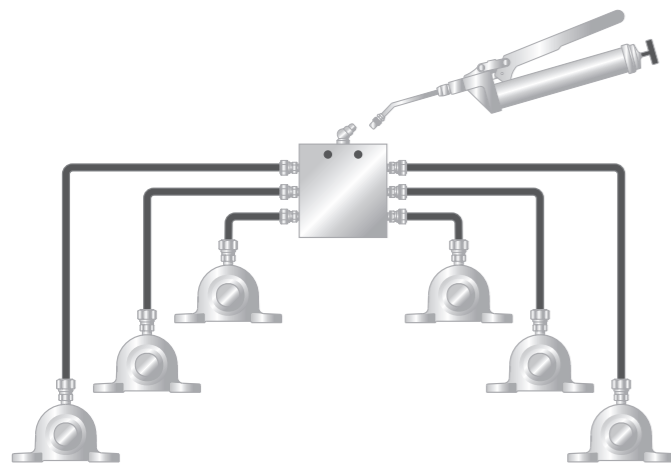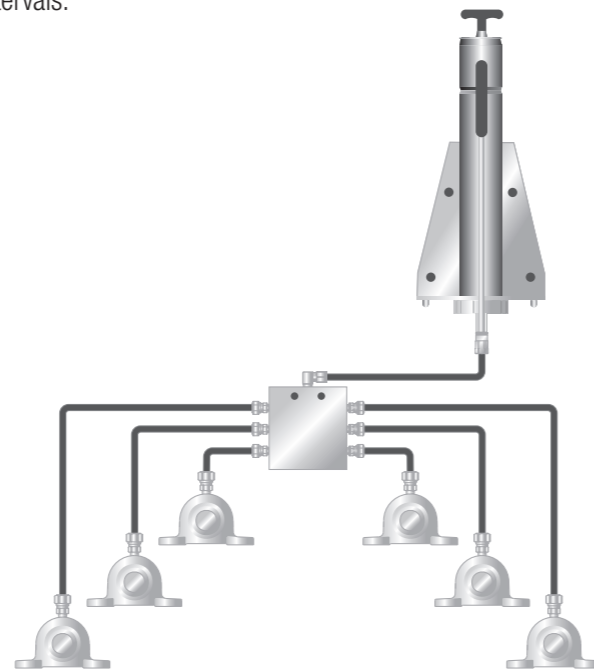
FIG 1

FIG 2

Automatic Centralised Lubrication Systems

Automatic Electric Grease Pump (HDI) - See page 10

FIG 3

Main feed

The progressive divider valve will operate exactly as detailed in the manual centralised system, except the HDI pump will automatically feed lubricant to the valve.

On operation the pump will deliver lubricant to the SPL/XPL divider valve. This valve will split the lubricant into calculated amounts and feed each point in turn never missing a point out irrespective of time delays.
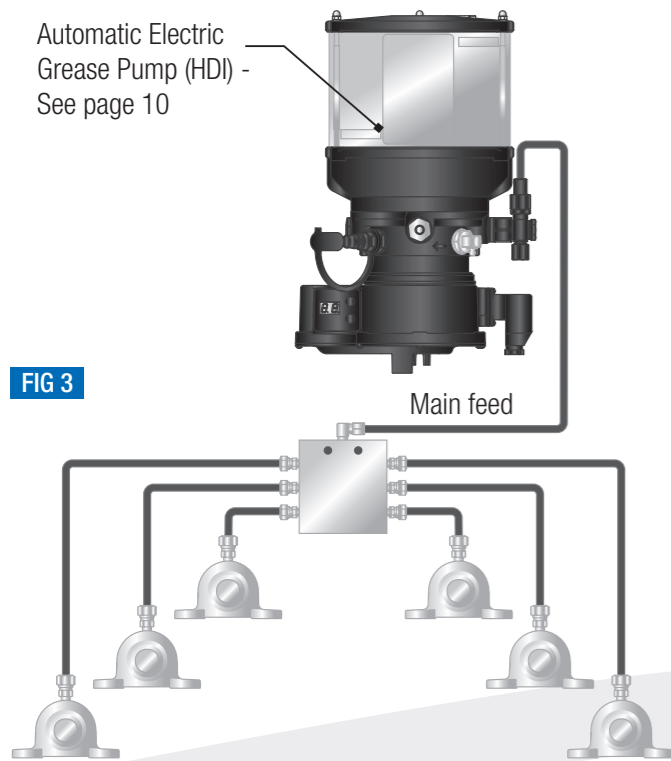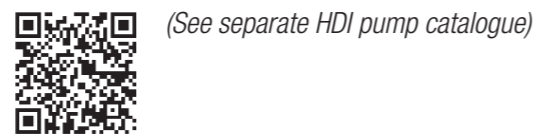
(See separate HDI pump catalogue)

Typical progressive system feeding 32 lubrication points with equal amounts of lubricant.

Automatic Electric Grease Pump (HDI) - See page 10

Primary SPL divider valve splits the lubricant into four equal amounts AND feeds the secondary valves in turn with equal amounts of lubricant.

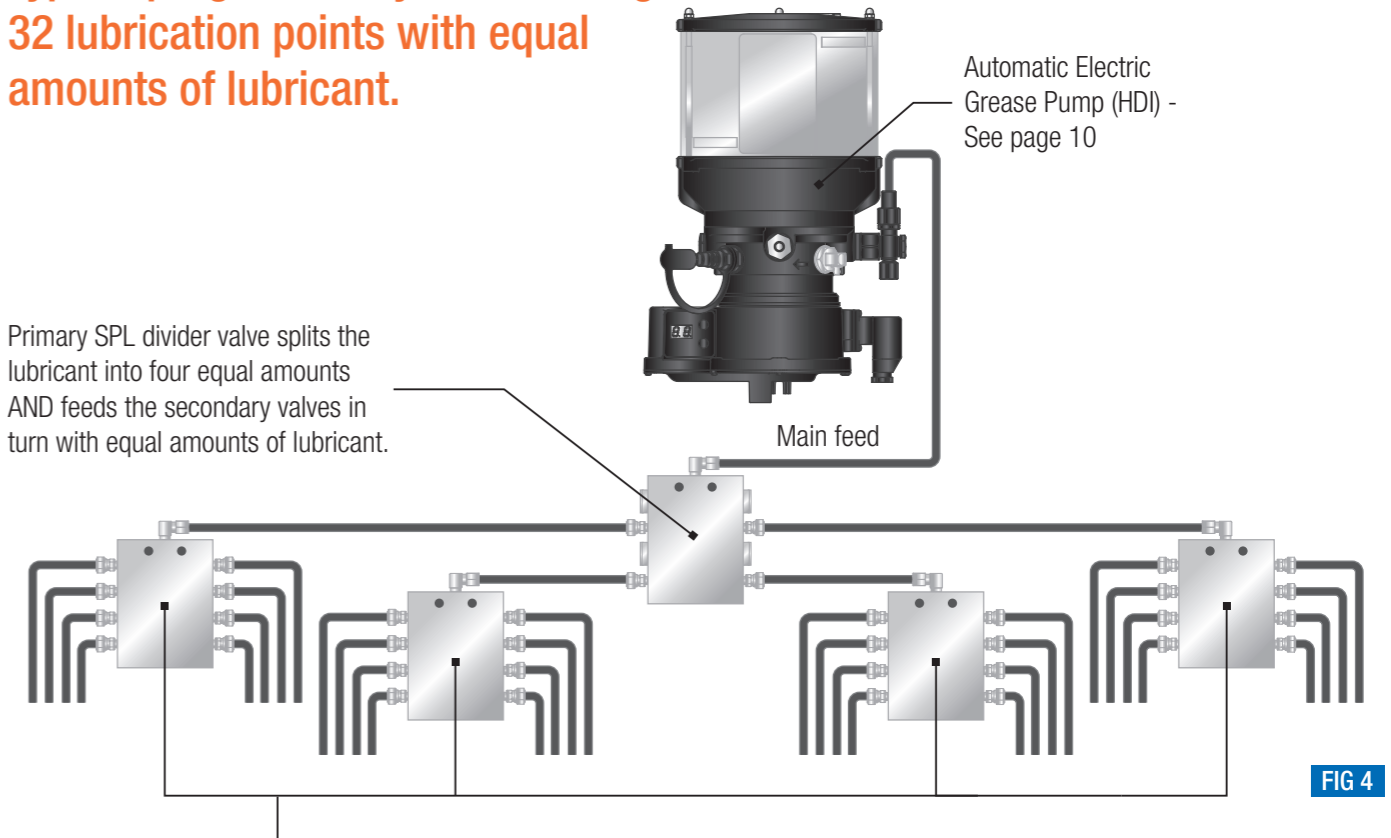Main feed

Secondary divider valves, mounted relatively close to the application points to minimise pipework to the machine.

FIG 4

Progressive system feeding 13 points with various amounts of lubricant

Automatic Electric Grease Pump (HDI) - See page 10

Example: The pump output is 3.2cc per minute. If the pump runs for 6 minutes, the feeds would be as detailed.
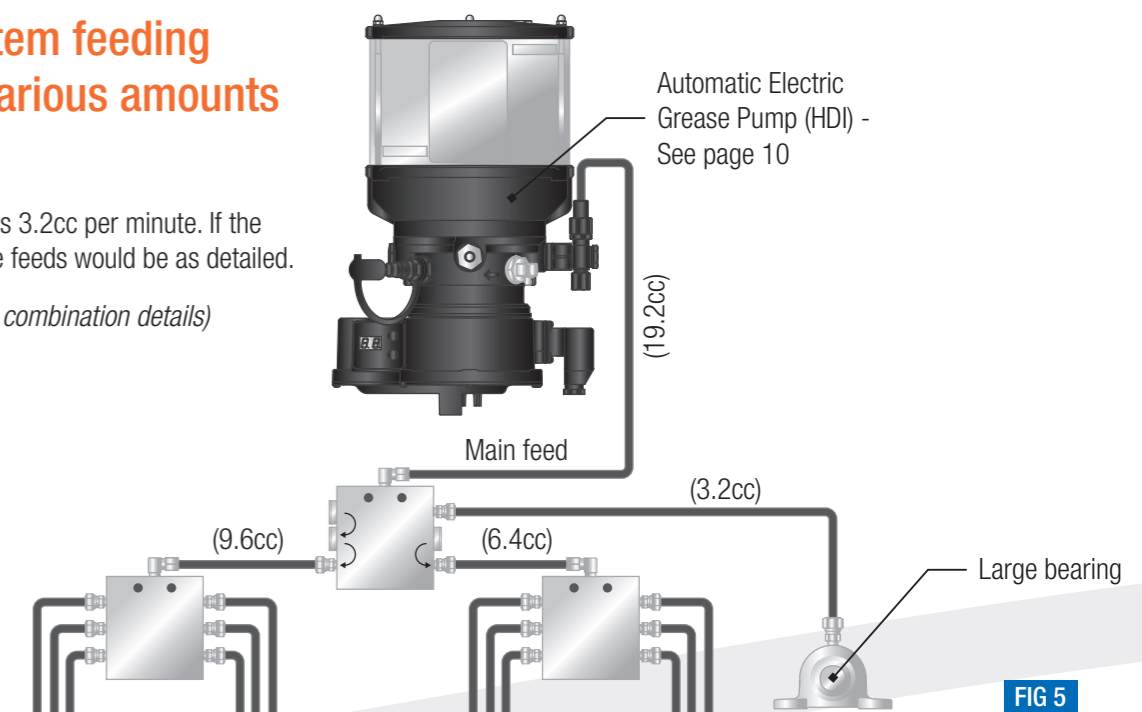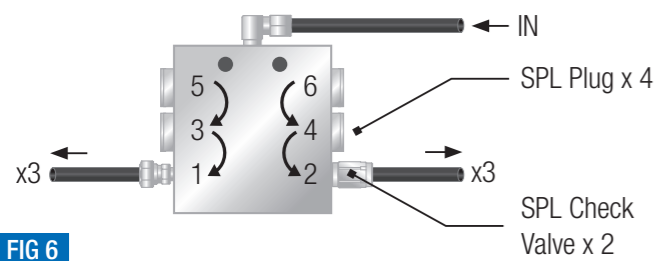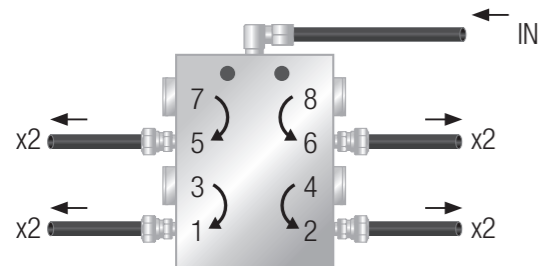
(See page 3 for divider valve combination details)

(19.2cc)

Main feed

(9.6cc)

(6.4cc)

(3.2cc)

Large bearing

FIG 5

Outlet Combinations

FIG 6

SPL Plug x 4

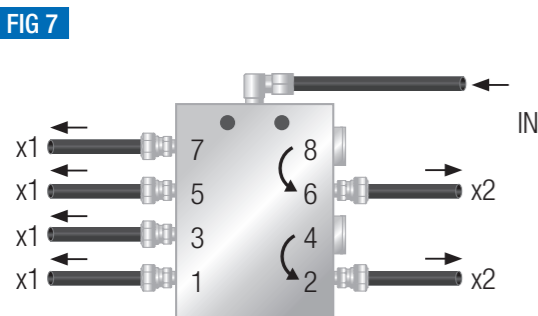SPL Check Valve x 2

SPL06 - 6 Outlet Valve

Fig 6 illustrates the SPL06 valve splitting the lubricant into two equal amounts.

FIG 7

SPL08 - 8 Outlet Valve

Fig 7 illustrates the SPL08 valve splitting the lubricant into four equal amounts.

FIG 8

### SPL08 - 8 Outlet Valve

Fig 8 illustrates the SPL valve splitting the lubricant into four single and two double amounts.

Note: Never plug ports 1 and 2 off.

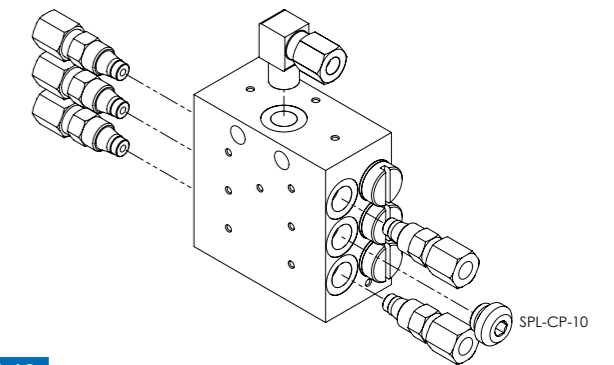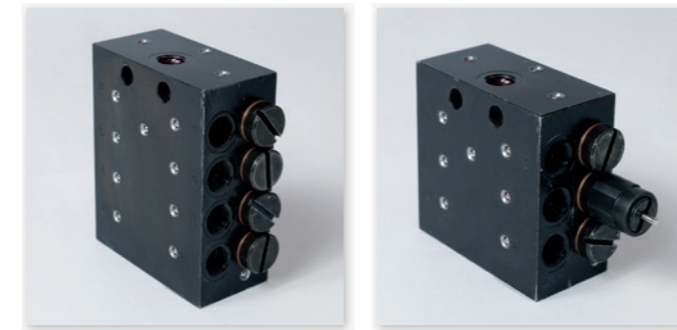## Examples below showing the outlet feeds (in cm³/stroke)

When an outlet is plugged off using an SPL blanking plug, the lubricant is automatically directed internally to the port below.

Note: Outlets 1 and 2 must never be plugged. Always use SPL blanking plugs and SPL check valves.

FIG 9
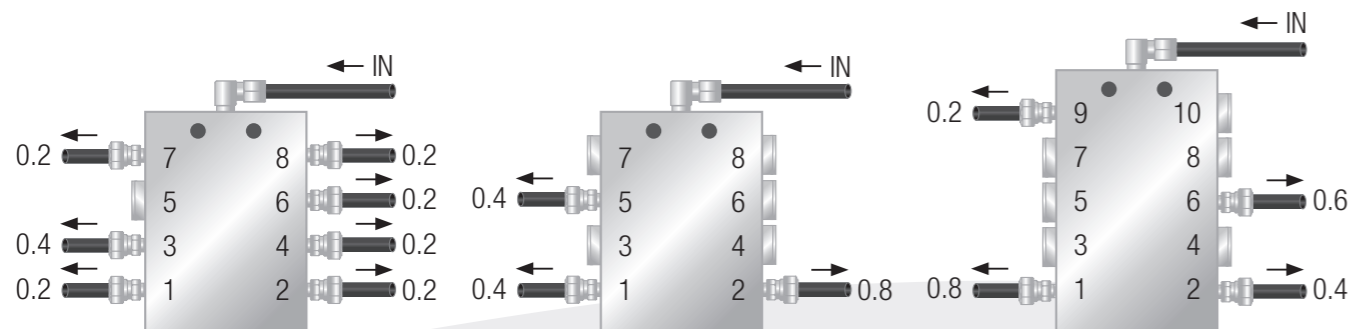
Standard SPL Progressive Divider Valves for Grease or Oil

Range

FIG 10

SPL-CP-10

Each SPL divider valve can be installed using the accessories shown. For best results, and to eliminate any possibility of damage or proof operation of the system, only SPL parts should be used.

Outlets which are not required should be closed with SPL closure plugs. If an outlet is closed, the adjacent outlet on the same side delivers a double quantity of lubricant. Note: outlets 1 and 2 of SPL divider valves must never be closed.

When an outlet is closed in the pump with one of the closure plugs, lubricant is automatically redirected internally to the next adjacent outlet in ascending numerical order.

Specifications

SPL10 Valve**
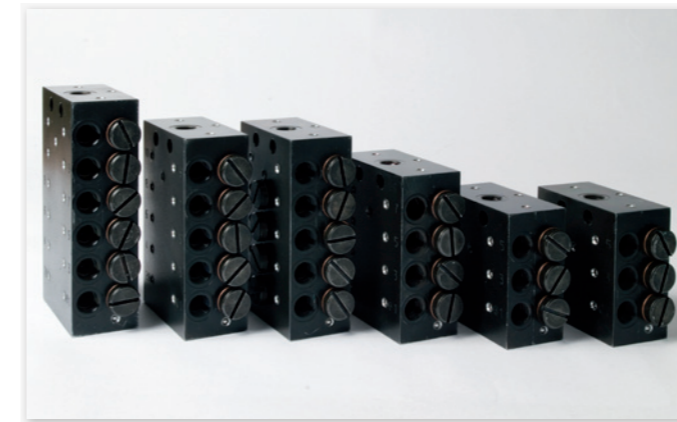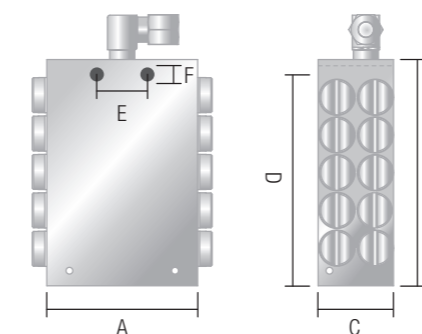
Model	Outlets	Inlet Thread	Indicator Pin	Max Oil Volume/Min*	A	B	C	D	E	F
SPL06	6 Outlets		No	200cm3	60	60	30	54	20	6.6
SPL06K			Yes	200cm3	60	60	30	54	20	6.6
SPL08	8 Outlets		No	600cm3	60	75	30	69	20	6.6
SPL08K		1/8" BSP (Female)	Yes	600cm3	60	75	30	69	20	6.6
SPL10	10 Outlets		No	700cm3	60	90	30	84	20	6.6
SPL10K			Yes	700cm3	60	90	30	84	20	6.6
SPL12	12 Outlets		No	800cm3	60	105	30	99	20	6.6
SPL12K			Yes	800cm3	60	105	30	99	20	6.6

Volume is approximate and can vary depending on oil viscosity and operating temperature.

Material	Max Operation Pressure	Min Operation Pressure	Max Grease Viscosity*	Min Oil Viscosity*	Output/Stroke/Outlet
Carbon Steel	370 BAR (5365psi)	17 BAR (247psi)	NLGI2	68Cst	0.2 cc / 0.12 cu in

*SPL Valves will only work with grease and oil
**All tests carried out with NGG2 grease at ambient temp

Note: All SPL Progressive Divider Valves must be used with approved lubricants/ Lubricants with solids/additives are not recommended

Typical Progressive System (XPL) Feeding 18 Lubrication Points with Equal Amounts of Lubricant
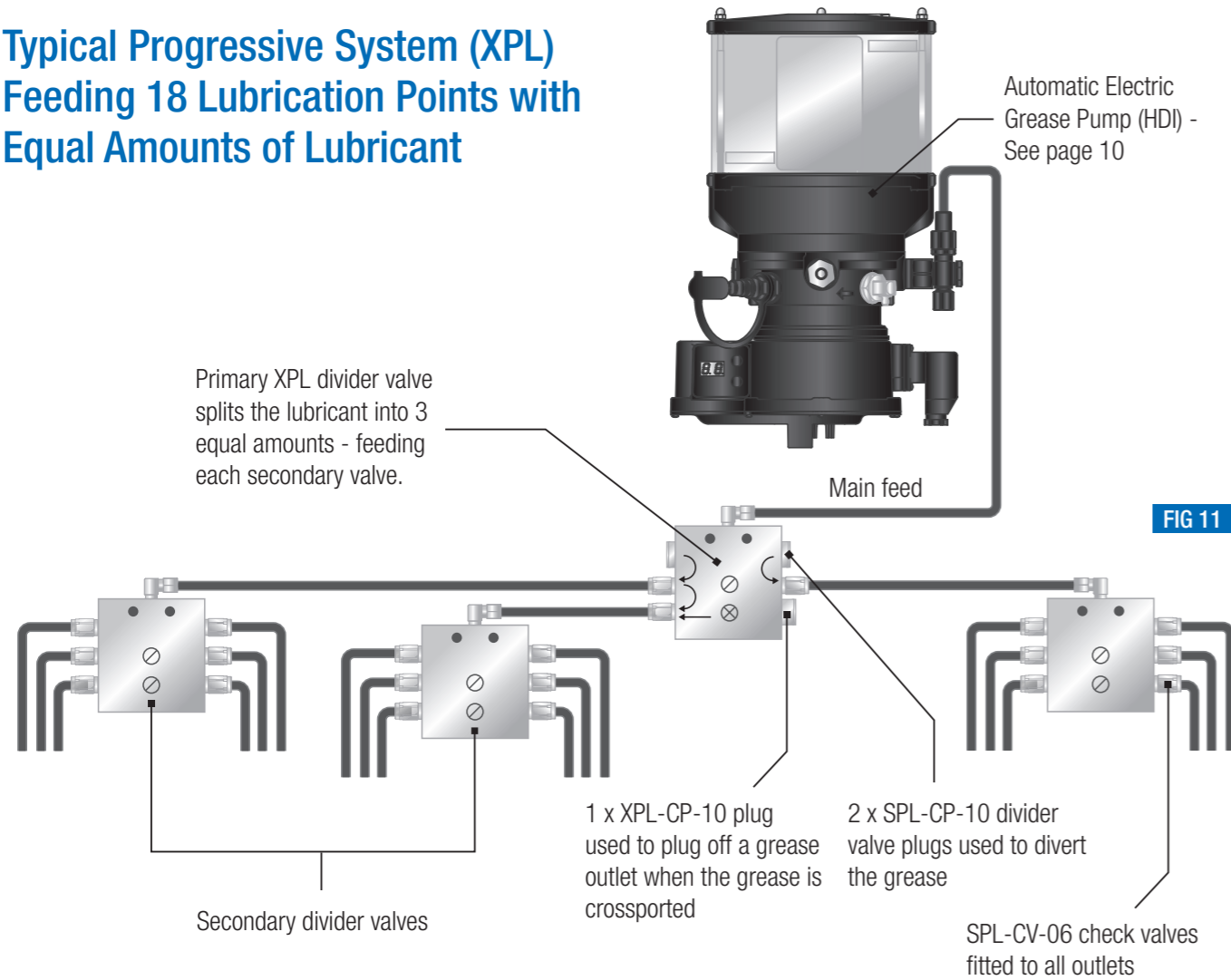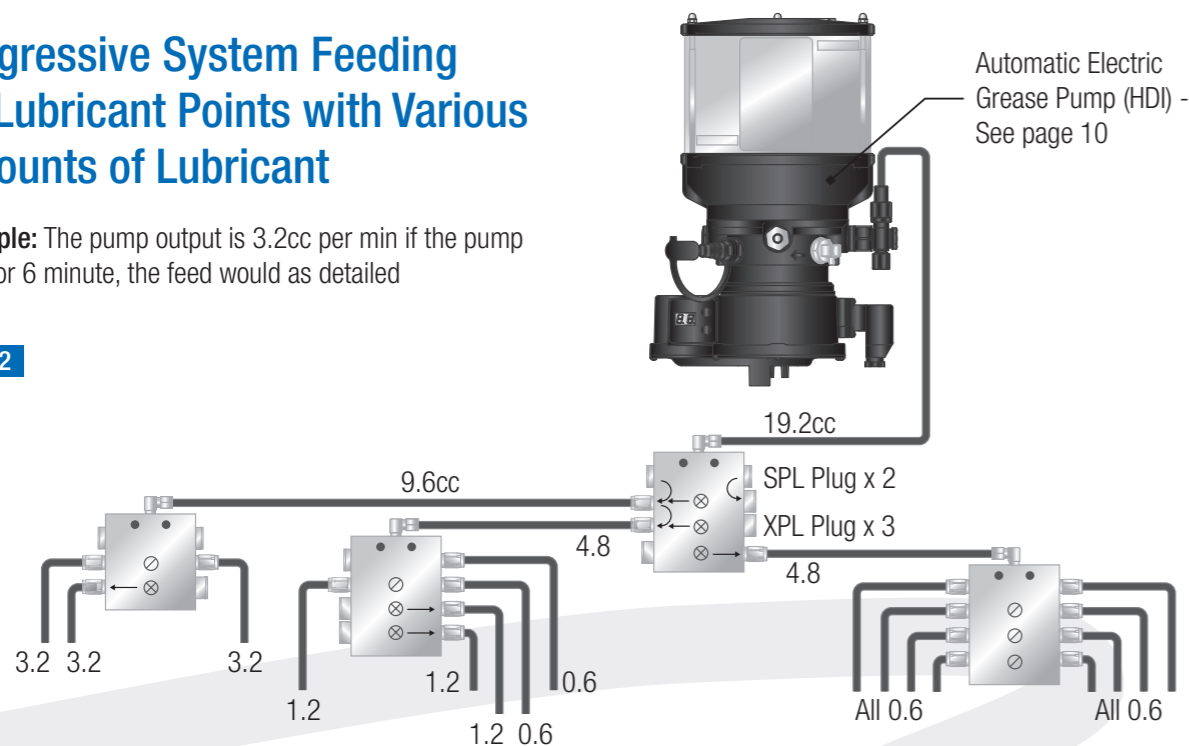
Automatic Electric Grease Pump (HDI) - See page 10

Primary XPL divider valve splits the lubricant into 3 equal amounts - feeding each secondary valve.

Main feed

FIG 11

1 x XPL-CP-10 plug used to plug off a grease outlet when the grease is crossported

2 x SPL-CP-10 divider valve plugs used to divert the grease

Secondary divider valves

SPL-CV-06 check valves fitted to all outlets

Progressive System Feeding 14 Lubricant Points with Various Amounts of Lubricant

Example: The pump output is 3.2cc per min if the pump runs for 6 minute, the feed would as detailed

FIG 12

Automatic Electric Grease Pump (HDI) - See page 10

19.2cc

9.6cc

SPL Plug x 2

XPL Plug x 3

4.8

4.8

3.2 3.2   3.2

1.2   1.2

1.2   0.6   0.6

All 0.6   All 0.6

Outlet Combinations

IN

5   6   SPL Plug
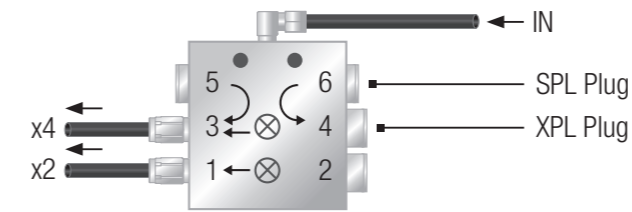3   4   XPL Plug
x4
x2   1   2

FIG 13

XPL06 - 6 Outlet Valve

Fig 13 illustrates the XPL cross porting divider valve splitting the grease into set amounts:

Port 3 = x4
Port 1 = x2

Note: ⊗ *This means the middle disc has been removed allowing the grease to be cross ported*

IN

x1   7   8   SPL Plug
5   6
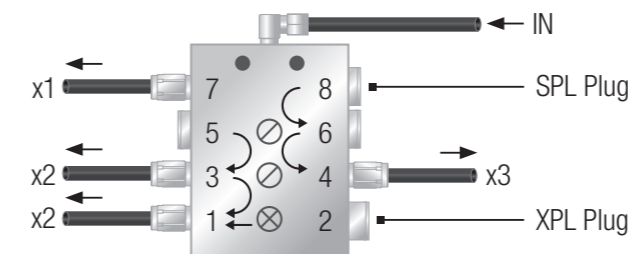x2   3   4   x3
x2   1   2   XPL Plug

FIG 14

XPL08 - 8 Outlet Valve

Fig 14 illustrates the XPL valve splitting the grease as follows:

Port 1 = x2
Port 2 = x2
Port 4 = x3
Port 7 = x1

Note: *If cross porting use the XPL divider valve plug. Never plug ports 1 and 2 off.*
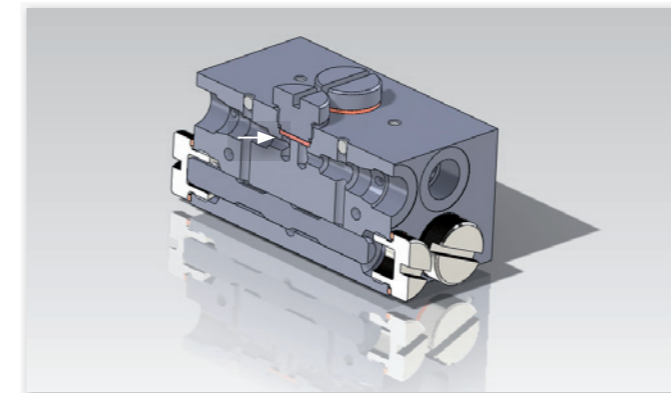
Outlet Combinations

FIG 15

Fig 15 illustrates the plug in position with copper disc, not allowing the grease to be cross ported.
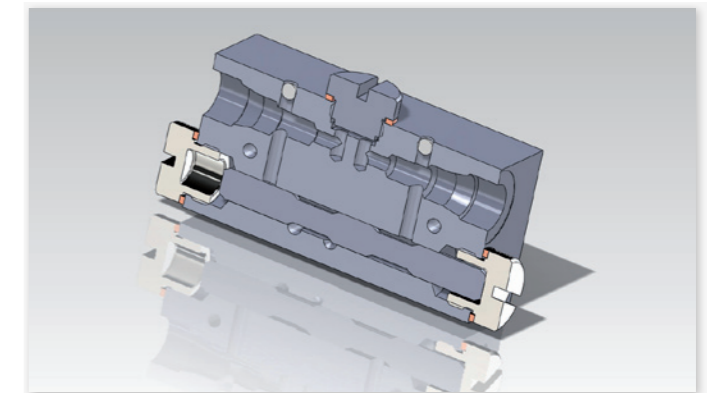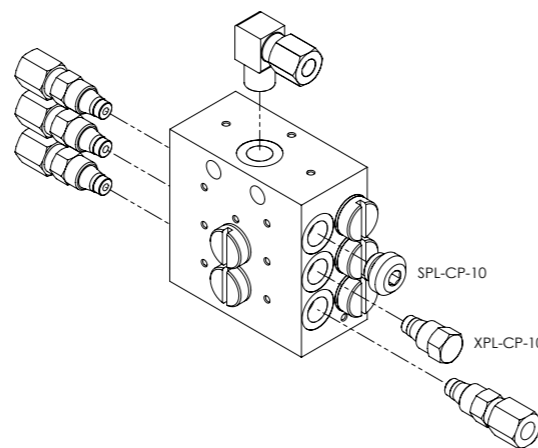
FIG 16

Fig 16 illustrates the internal disc being removed and the plug sealed with copper washer to allow for cross porting. Each XPL valves is supplied with copper washers to allow for cross porting.

## Standard XPL Progressive Divider Valves for Grease and Oil

Installation Information

SPL-CP-10

XPL-CP-10

(a) = 6mm O.D check valve outlet
(b) = SPL plug for sequential diverting of the SPL valves
(c) = XPL plug for cross porting

Each XPL divider valve can be installed using accessories shown. For best results, and to eliminate any possibility of damage or poor operation of the system only Interlube parts should be used.

Specifications
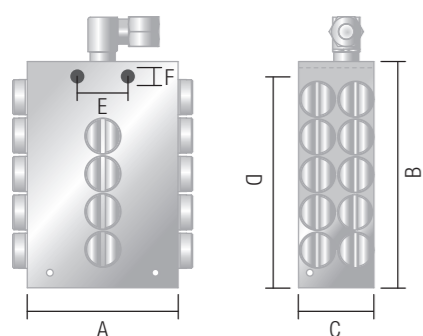
XPL10K Valve**

Model	Outlets	Inlet Thread	Indicator Pin	Max Oil Volume/Min*	A	B	C	D	E	F
XPL06	6 Outlets		No	200cm3	60	60	30	54	20	6.6
XPL06K			Yes	200cm3	60	60	30	54	20	6.6
XPL08	8 Outlets		No	600cm3	60	75	30	69	20	6.6
XPL08K		1/8" BSP (Female)	Yes	600cm3	60	75	30	69	20	6.6
XPL10	10 Outlets		No	700cm3	60	90	30	84	20	6.6
XPL10K			Yes	700cm3	60	90	30	84	20	6.6
XPL12	12 Outlets		No	800cm3	60	105	30	99	20	6.6
XPL12K			Yes	800cm3	60	105	30	99	20	6.6

*Volume is approximate and can vary depending on oil viscosity and operating temperature.

Material	Max Operation Pressure	Min Operation Pressure	Max Grease Viscosity*	Min Oil Viscosity*	Output/Stroke/Outlet
Carbon Steel	370 BAR (5365psi)	17 BAR (247psi)	NLGI2	68Cst	0.2 cc / 0.12 cu in

*XPL Valves will only work with grease and oil
**All tests carried out with NGG2 grease at ambient temp

Note: All XPL Progressive Divider Valves must be used with approved lubricants/ Lubricants with solids/additives are not recommended

Check Valve Outlet Fittings

Part No.	Description
SPL-CV-LL	M10x1 Check Valve Body
SPL-CN-6-LL	6mm o.d Coupling Nut
SPL-OL-6-LL	6mm o.d Olive

Closure Plug

Part No.	Description
SPL-CP-10	Closure Plug
XPL-CP-10	Closure Plug for XPL Valves

SPL Flow Indicator Sensors

Part No.	Description
SPL-PA	SPL Proximity Adaptor
SPL-PS	Proximity Switch

SPL Weld Plates (6mm thick)

Part No.	Description	Thread Size
SPL-BP6	Weld Plate	2 x M6x1
SPL-BP8	Weld Plate	2 x M6x1
SPL-BP10	Weld Plate	2 x M6x1
SPL-BP12	Weld Plate	2 x M6x1

Cap Head Bolts

Part No.	Description
Bolt M6x35	M6 Cap Head Bolt 35mm Long
Bolt M6x40	M6 Cap Head Bolt 40mm Long
Bolt M6x45	M6 Cap Head Bolt 45mm Long
Bolt M6x75	M6 Cap Head Bolt 75mm Long
M6 Washer	M6 Spring Washer
M6 Nut	M6 Hex Head Nut

INTERLUBE

A **TIMKEN** Brand

Main Feed Line Tube (Braided)

Part No.	Description	Burst Pressure
TML-8.6-2.3F	8.6mm x o.d 2.3mm Wall Tube Grease Filled	400 BAR
TML-8.6-2.3U	8.6mm x o.d 2.3mm Wall Tube Unfilled	400 BAR
TML-12.0-2.5F	12mm x o.d 2.3mm Wall Tube Grease Filled	400 BAR
TML-12.0-2.5U	12mm x o.d 2.3mm Wall Tube Unfilled	400 BAR

Secondary Feed Line Tube (Polyamide Nylon)

Part No.	Description	Burst Pressure
TSL-6.0-1.5F	6mm o.d x 1.5mm Wall Grease Filled	250 BAR
TSL-6.0-1.5U	6mm o.d x 1.5mm Wall Grease Unfilled	250 BAR

Re-usable Studs (Inserts) and Sleeves (Ferrules) for Main Line Braided Tube 8.6mm+

Part No.	Description	Tube
TML-8.6-FE	Re-usable Sleeve	8.6mm ø
TML-8.6-ST	Re-usable Stud - 6mm o.d	8.6mm ø
TML-8.6-ST-90	Re-usable Stud - 6mm o.d (90°)	8.6mm ø
TML-12-0-FE	Re-usable Sleeve	12mm ø
TML-12.0-ST	Re-usable Stud - 6mm o.d	12mm ø

Straight Compression Fittings

Part No.	Description
CF6-1-6	6mm o.d x M6x1 Male Connector
CF6-1-8	6mm o.d x M8x1 Male Connector
CF6-1-10	6mm o.d x M10x1 Male Connector
CF6-1-1/4	6mm o.d x 1/4" BSPT Male Connector
CF6-1-1/8	6mm o.d x 1/8" BSPT Male Connector

Elbow Compression Fittings

Part No.	Description
CF6-2-6	6mm o.d x M6x1 Male Connector
CF6-2-8	6mm o.d x M8x1 Male Connector
CF6-2-10	6mm o.d x M10x1 Male Connector
CF6-2-1/8	6mm o.d x 1/8" BSPT Male Connector
CF6-2-1/4	6mm o.d x 1/4" BSPT Male Connector

Typical Applications such as:-
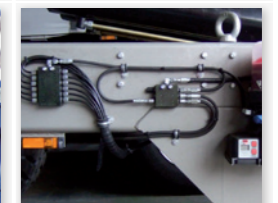
Chassis/Agricultural

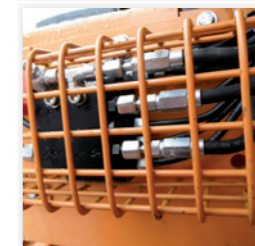Cultivator

Sprayer

Trailed Press

Chassis

Mobile Plant

Case Loading Shovel

Industrial

Food Industry

Steel Industry

Grease Spray Systems