



# 12

## HYDRAULICS, VALVES, HOSES & FITTINGS

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## HYDRAULIC CYLINDERS

### RC-TRIO SERIES SINGLE ACTING HYDRAULIC CYLINDERS

- Standard certified lifting eyes on cylinder models above 25kg weight
- Interchangeable with optional CHM6 carrying handle
- Heavy duty, durable and corrosion resistant
- CR400 coupler and dust cap included on all models
- Max. pressure: 10,000psi (700bar)
- 50, 75 and 100T capacity cylinders also available



ENERPAC

Item Code	Capacity	Stroke	Collapsed Height	Weight	Bishops Code
RC50	5t	16mm	41mm	1.0kg	*RC50
RC51	5t	25mm	110mm	1kg	*RC51
RC53	5t	76mm	165mm	1.5kg	*RC53
RC55	5t	127mm	215mm	1.9kg	*RC55
RC57	5t	177mm	273mm	2.4kg	*RC57
RC59	5t	232mm	323mm	2.8kg	*RC59
RC101	10t	26mm	89mm	1.8kg	*RC101
RC102	10t	54mm	121mm	2.3kg	*RC102
RC104	10t	105mm	171mm	3.3kg	77080600
RC106	10t	156mm	247mm	4.4kg	77080605
RC108	10t	203mm	298mm	5.4kg	*RC108
RC1010	10t	257mm	349mm	6.4kg	77080615
RC1012	10t	304mm	400mm	6.8kg	*RC1012
RC1014	10t	356mm	450mm	8.2kg	*RC1014
RC151	15t	25mm	124mm	3.3kg	*RC151
RC152	15t	51mm	149mm	4.1kg	*RC152
RC154	15t	101mm	200mm	5kg	*RC154
RC158	15t	203mm	322mm	8.2kg	*RC158
RC1510	15t	254mm	373mm	9.5kg	*RC1510
RC1512	15t	305mm	423mm	10.9kg	*RC1512
RC1514	15t	356mm	474mm	11.8kg	*RC1514
RC251	25t	26mm	139mm	5.9kg	*RC251
RC252	25t	50mm	165mm	6.4kg	77080625
RC254	25t	102mm	215mm	8.2kg	77080630
RC256	25t	158mm	273mm	10kg	77080635
RC258	25t	210mm	323mm	12.2kg	*RC258
RC2510	25t	261mm	374mm	14.1kg	*RC2510
RC2512	25t	311mm	425mm	16.3kg	*RC2512
RC2514	25t	362mm	476mm	17.7kg	*RC2514

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## FAST FACTS CALCULATING HYDRAULIC PUSH/PULL

If you're unsure of how much force your hydraulic cylinder produces, use this easy calculation to find out!

$$\text{Push (lbs)} = \frac{\text{Pressure (psi)} \times \pi \times b^2}{4}$$

$$\text{Pull (lbs)} = \frac{\text{Pressure (psi)} \times \pi \times (b^2 - d^2)}{4}$$

$\pi = 3.14$   $b =$  Bore of a cylinder (inches)  $d =$  Diameter of the rod (inches)

### LOW HEIGHT HYDRAULIC CYLINDERS ENERPAC

- Heavy duty, durable and corrosion resistant
- Low profile compact design for confined spaces
- CR400 coupler and dust cap included on all models (RSM50 is fitted with an AR400 coupler)
- Max. operating pressure: 10,000psi (700bar)

#### RSM-Series – Flat-Jac Cylinders:

- Mounting holes permit easy fixturing
- Grooved plunger ends require no saddle
- RSM750, 1000, 1500 have handle for easy carrying

#### RCS-Series – Low Height Cylinders:

- Grooved plunger end with threaded holes for mounting tilt saddles
- Integral handle on RCS1002



Item Code	Capacity	Stroke	Collapsed Height	Weight	Bishops Code
<b>RSM-SERIES</b>					
RSM50	5t	6mm	32mm	1kg	77080650
RSM100	10t	11mm	43mm	1.4kg	77080655
RSM200	20t	11mm	51mm	3.1kg	77080660
RSM300	30t	13mm	58mm	4.5kg	77080670
RSM500	45t	16mm	66mm	6.8kg	*RSM500
<b>RCS-SERIES</b>					
RCS101	10t	38mm	88mm	2.7kg	77080700
RCS201	20t	45mm	98mm	5kg	77080710
RCS302	30t	62mm	117mm	6.8kg	*RCS302
RCS502	45t	60mm	122mm	10.0kg	*RCS502

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### HOLLOW PLUNGER HYDRAULIC CYLINDERS

ENERPAC

- Durable and corrosion resistant
- Hollow plunger design allows for both pull and push forces
- Suitable across all industries for lifting, lowering, pushing and pulling
- Max. pressure: 10,000psi (700bar)



Item Code	Capacity	Stroke	Centre Hole Dia.	Collapsed Height	Weight	Bishops Code
RCH121	12t	42mm	19.6mm	120mm	2.8kg	*RCH121
RCH123	13t	76mm	19.6mm	184mm	4.4kg	*RCH123
RCH202	20t	49mm	26.9mm	162mm	7.7kg	77080750
RCH206	20t	155mm	26.9mm	306mm	14.1kg	*RCH206
RCH302	30t	64mm	33.3mm	178mm	10.9kg	77080760
RCH306	30t	155mm	33.3mm	330mm	21.8kg	*RCH306
RCH603	60t	76mm	53.8mm	247mm	28.1kg	77075560
RCH606	60t	153mm	53.8mm	323mm	35.4kg	*RCH606
RCH1003	95t	76mm	79mm	254mm	63kg	*RCH1003

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## GET MORE AT BISHOPS



### HYDRAULIC OILS

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## PUMP UP YOUR HYDRAULIC KNOWLEDGE

Hydraulic equipment allows you to complete tasks previously impossible to do by hand. Could you imagine trying to lift 150 tonnes? That's almost the weight of your average house!

**Hydraulic Cylinders** are used for a range of lifting, lowering, pushing and pulling applications. These come in two different varieties; single acting and double acting.

**Single Acting** cylinders use the working fluid to either push or pull a load. The force of the load then allows the piston to return to its starting position.

**Double Acting** cylinders use working fluid on both sides of the piston in order to create a pushing and pulling force on the load. These cylinders work well in situations where either there is no external force to retract the piston or where a force is required in both directions.

### Aluminium vs. Steel Hydraulic Cylinders

Hydraulic cylinders come in two main materials; aluminium and steel. Aluminium is a much lighter material which makes it great for transport. This material also provides high corrosion resistance making it great for varying weather conditions. Under constant, consistent use, aluminium will wear very quickly causing the system to fail. Steel is a much tougher material which is made to withstand constant and consistent use in applications such as manufacturing.

### Specialty Styles – Hollow & Low Profile

Hydraulic cylinders can be made in two styles for specific purposes. Hollow cylinders feature a centre hole running through the jack which allows for chains and ropes to be fed through the middle to tug, pull and create tension. Low profile cylinders, as the name suggests, are short in height and designed for applications where there is only a low clearance.

## SINGLE ACTING CYLINDER/PUMP SETS



- The quickest and easiest way to start working right away
- Optimum match of individual components
- Max. pressure: 10,000psi (700bar)

All Sets Include:

- A cylinder
- Two speed hand pump
- 1.8m safety hose
- Gauge
- Adaptor



SCR102H

Item Code	Capacity	Stroke	Collapsed Height	Cylinder
SCR55H	5t	127mm	215mm	RC-55
SCR102H	10t	54mm	121mm	RC-102
SCR106H	10t	156mm	247mm	RC-106
SCR1010H	10t	257mm	349mm	RC-1010
SCR252H	25t	50mm	165mm	RC-252
SCR254H	25t	102mm	215mm	RC-254
SCR256H	25t	158mm	273mm	RC-256
SCR2514H	25t	362mm	476mm	RC-2514
SCR506H	50t	159mm	282mm	RC-506
SCH1003H	95t	76mm	254mm	RCH-1003

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## HYDRAULIC HAND PUMPS



- Lightweight, compact durable design available in single and two speed pumps
- Two speed design for faster operation
- Integral 4-way valve on P842 for operation of double-acting cylinders
- Max. operating pressure: 10,000psi (700bar)



P392

Item Code	Oil Capacity	Pressure Rating – 1st	Weight
P142	0.327L	13bar	2.4kg
P392	0.901L	13bar	4.1kg
P802	2.54L	27bar	8.2kg
P842	2.54L	27bar	10kg

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## ULTIMA STEEL HYDRAULIC HAND PUMPS



- Durable and corrosion resistant steel
- Two speed design for fast operation
- Integral reservoir over-pressurisation protection
- Portable pump suitable for Enerpac tools and cylinders
- 4-way valving on the P-84 and P-464 for operation of double-acting cylinders
- Max. operating pressure: 10,000psi (700bar)



P39

Item Code	Description	Oil Capacity	Weight	Bishops Code
P39	Single Speed	0.77L	6.2kg	*P39
P77	Two Speed	0.77L	7.1kg	77075870
P80	Two Speed	2.2L	10.7kg	77075872
P84	Two Speed	2.2L	11.8kg	*P84
P462	Two Speed	7.423L	27.7kg	*P462
P464	Two Speed	7.423L	27.7kg	*P464

\* – SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## TURBO II AIR HYDRAULIC PUMPS



- Easily operated by hand or foot
- Reinforced heavy duty lightweight reservoir for applications in tough environments
- Oil Capacity: 2.1L



PATG1102N

Item Code	Valve	Weight
PATG1102N	Treadle 3/3	8.2kg
PAMG1402N	Manual 4/3	11kg

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT



## CORDLESS & ELECTRIC HYDRAULIC PUMPS

### CORDLESS HYDRAULIC PUMPS

ENERPAC

- Durable cordless technology 28V
  - Manual valve
  - Trigger lock-off
  - Flow rate: 2L/min (no load), 0.25L/min (load)
  - Max. operating pressure: 10,000psi (700bar)
  - Oil capacity: 2L
  - Weight: 11kg
- Includes:**
- 2 x Batteries
  - 230V Charger



XC1202ME

Item Code	Pump Type	Valve Function	Bishops Code
XC1202ME	Single Acting	3-Way, 2-Position	77075876
XC1402ME	Double-Acting	4-Way, 3-Position	*XC1402ME

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### ECONOMY ELECTRIC HYDRAULIC PUMPS

ENERPAC

- Lightweight and compact design powering small to medium size cylinders and hydraulic tools
- 230 VAC 50/60-cycle universal motor will operate under poor voltage supply
- Max. operating pressure: 10,000psi (700bar)
- Oil capacity: 3.8L
- Other models available



PUJ1201E

Item Code	Valve Type	Valve Function	Weight	Bishops Code
PUJ1201E	3/2 Manual	Advance/Hold/Retract	15.4kg	77075878
PUD1301E	3/2 Solenoid	Dump & Hold	17.5kg	*PUD1301E

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### ZU-SERIES PORTABLE ELECTRIC HYDRAULIC PUMPS

ENERPAC

- High efficiency hydraulic pump design
- Powerful 1.25kW universal electric motor
- Designed for use in workshops and remote locations
- Several valve configurations available
- Max. operating pressure: 10,000psi (700bar)



ZU4304ME

Item Code	Description	Oil Capacity	Weight
ZU4304ME	Manual	4.6L	25kg
ZU4308JE	Remote (Manual)	6.8L	28kg
ZU4320SE	Remote (Solenoid)	20L	57kg

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### PRO-SERIES ELECTRIC TORQUE WRENCH PUMP

ENERPAC

- Two speed operation for fast cycle time
- Roll cage protects the pump and provides increased stability
- Pendant control from 6m
- Auto cycle feature for continuous operation
- Easy to use LCD screen
- Compatible with all mainstream torque wrenches and hoses
- Flow @ rated pressure: 1.0L/min
- Max. operating pressure: 10,000psi (700bar)
- Capacity: 8L



**Item Code**  
ZU4208TA-QR

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### LAT-SERIES AIR HYDRAULIC TORQUE PUMP

ENERPAC

- Easy to lift and transport
- Can be moved without a crane, hoist or elevator
- Compatible with all mainstream torque wrenches and hoses
- Flow @ rated pressure: 0.4L/min
- Max. operating pressure: 10,000psi (700bar)
- Capacity: 1.9L
- Weight: 18kg



**Item Code**  
LA2504TX-QR

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## GET MORE AT BISHOPS



### WATER PUMPS

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### SPANNERS

From Page 195

### DSX-SERIES ALUMINIUM TORQUE WRENCHES

ENERPAC

- High strength, lightweight aluminium
- Slimline design for complete operator safety
- Fully enclosed drive for maximum safety
- Built-in tether connection for working at heights
- Retained quick-release button and reaction arm
- Fine tooth ratchet prevents tool 'locking on'
- 35° drive rotation
- Square drive



DSX11000

Item Code	Size	Max. Torque	Weight
DSX1500	3/4"	1,411ft/lbs (1,913Nm)	2.2kg
DSX3000	1"	3,233ft/lbs (4,383Nm)	4.8kg
DSX5000	1 1/2"	5,635ft/lbs (7,640Nm)	8.1kg
DSX11000	1 1/2"	11,000ft/lbs (14,914Nm)	14.4kg
DSX25000	2 1/2"	24,057ft/lbs (32,617Nm)	32.5kg

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT



## HMT-SERIES MODULAR TORQUE WRENCHES

- Hydraulic hex torque wrench drive
- Comes with ergonomic tool safety handle and link pin retainer as standard
- Interchangeable with many other manufacturers
- Solves bolting challenges quickly and safely
- Various attachment options
- Cassettes not included - must be ordered separately



HMT1500

Item Code	Max. Torque	Weight
HMT1500	1,541ft/lbs (2,089Nm)	1.0kg
HMT3500	3,750ft/lbs (5,084Nm)	1.8kg
HMT7500	7,562ft/lbs (10,252Nm)	3.2kg
HMT13000	13,489ft/lbs (18,289Nm)	9.7kg

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**

## W-SERIES HEXAGON HYDRAULIC TORQUE WRENCHES

- Durable, compact high strength steel design
- Safety handles keep hands clear of pinch points
- Low profile cassette provides low clearance access with a small nose radius
- Constant torque output provides high accuracy ( $\pm 3\%$ ) across the full stroke
- 360° swivel manifold with screw lock couplers
- Cassettes not included - must be ordered separately



W15000PX

Item Code	Nominal Torque	Hex. Cassette Range	Weight
W2000PX	2,766Nm	30–60mm	1.4kg
W4000PX	5,661Nm	36–85mm	2.0kg
W8000PX	11,484Nm	50–105mm	3.0kg
W15000PX	20,785Nm	65–115mm	5.0kg
W22000PX	30,506Nm	75–135mm	7.7kg

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**

## S-SERIES SQUARE DRIVE HYDRAULIC TORQUE WRENCHES

- Durable, compact high strength steel design
- Safety handles keep hands clear of pinch points
- Constant torque output provides high accuracy ( $\pm 3\%$ ) across the full stroke
- 360° swivel manifold with screw lock couplers



S11000PX

Item Code	Nominal Torque	Socket	Weight	Bishops Code
S1500PX	1,952Nm	19–50mm	3.2kg	*S1500PX
S3000PX	4,373Nm	19–100mm	5.6kg	77080985
S6000PX	8,338Nm	36–115mm	9.2kg	*S6000PX
S11000PX	15,151Nm	36–115mm	15.8kg	*S11000PX
S25000PX	35,455Nm	65–155mm	32.2kg	*S25000PX

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**



## TWIN TORQUE WRENCH HOSES

- Thermoplastic dual torque wrench hoses
- Male x female ends
- Certified 4:1 safety factor
- Max. pressure: 10,000psi (700bar)



THQ712T

Item Code	Length	Bishops Code
THQ706T	6m	77080928
THQ712T	12m	*THQ712T

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**

## 700-SERIES HIGH PRESSURE HYDRAULIC HOSES

- Polyurethane outside jacket to provide maximum abrasion resistance
- Low volumetric expansion under pressure to enhance overall system efficiency
- 4:1 safety factor
- Internal diameter: 6.4mm
- Connection 1: 3/8" NPTF
- Mine approved: HC7206-MDG41 and HC7210-MDG41
- Max. working pressure: 10,000psi (700bar)



HC7206



HC7206-MDG41

Item Code	Connection 2	Length	Bishops Code
HC7210	3/8" NPTF	3.0m	*HC7210
HC7220	3/8" NPTF	6.1m	*HC7220
HC7203	CH-604 Coupler	0.9m	*HC7203
HC7206	CH-604 Coupler	1.8m	*HC7206
HC7206-MDG41	CH-604 Coupler	1.8m	77080915
HC7210-MDG41	CH-604 Coupler	3m	77080920

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**

## HYDRAULIC COUPLERS & DUST CAPS

- Provides quick connection of hydraulic lines
- 3/8" couplers for cylinders, tools, and pumps
- Max. pressure: 10,000psi (700bar)

### Dust Caps:

- Protects couplers and prevents contamination



CH604



CR400



CD411

Item Code	Description	Bishops Code
C604	High Flow Coupler Set	36810604
CH604	High Flow Male Coupler	36810602
CR400	High Flow Female Coupler	36810600
CD411	Rubber Dust Cap To Suit CR-400 & CH-604	*CD411

**\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT**



## HYDRAULIC GAUGES & ADAPTORS & HOSE REELS

### HYDRAULIC FORCE & PRESSURE GAUGES

- Glycerine filled
- Dual scale reading calibrated in bar and psi
- Gauge snubbers or needle valves recommended for high cycle applications

#### GA45GC:

- Positioned at a 45° angle to ensure the best possible readings to easily monitor your system's performance
- Can be used on a broad range of systems



GA45GC

ENERPAC



G4039L

Item Code	Connection	Cylinder	Working Pressure	Face Dia.	Bishops Code
GA45GC	3/8" NPTF	All Cylinders	0-700bar	63mm	77080930
G2535L	1/4" NPTF	All Cylinders	0-700bar	63mm	*G2535L
G4039L	1/2" NPTF	All Cylinders	0-700bar	100mm	*G4039L
GP10S	1/2" NPTF	All Cylinders	0-700bar (0-10,000psi)	100mm	77080940

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

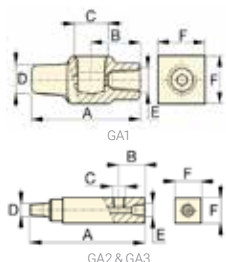
### GA-SERIES GAUGE ADAPTORS

- For easy mounting of a pressure gauge onto your system
- Male x female connection: 3/8" NPTF
- Max. operating pressure: 10,000psi (700bar)

ENERPAC



GA2



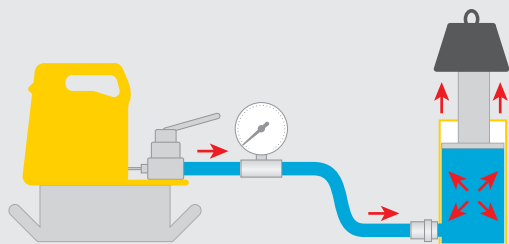
GA1

GA2 & GA3

Item Code	Gauge Port	Dimensions					
		A	B	C	D	E	F
GA1	1/2"	71mm	31mm	1/2" NPTF	3/8" NPTF	3/8" NPTF	32mm
GA2	1/2"	155mm	35mm	1/2" NPTF	3/8" NPTF	3/8" NPTF	32mm
GA3	1/4"	133mm	35mm	1/4" NPTF	3/8" NPTF	3/8" NPTF	32mm

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## HYDRAULIC SAFETY



Remember, each hydraulic system is rated to a **maximum capacity**. Never exceed this value or you could risk the failure of the system.

Hydraulic systems also have pressure ratings. This rating provides a value for the **maximum amount of pressure** that the internal chambers can safely take. Do not exceed this value.

## HOW TO UPGRADE YOUR HOSE SYSTEM

Make your upgrade process quick and easy with this selection guide.

### Option 1

You can find a wide range of fit for purpose, pre-assembled hose reels in the following pages that we're confident will meet your needs. Can't find the one you need? Just give us a call.

### Option 2

Your second option allows you to fully customise your set-up from your hose reel to your hose and fittings.

Step 1: Select a hose reel

Step 2: Select a hose

Step 3: Assemble with your desired fittings

Prefer option 2?

Jump to page 478 to start the three steps.

It's easy with Bishops!

### R3 GARDEN WATER REEL

RETRACTA

- High quality horticultural hose
- UV stable, impact resistant case
- Wear resistant Pro-Glide™ mouth
- Premium German engineered main spring
- Retracta FLEX Hybrid Polymer hose material
- Green case
- Fully serviceable
- Hose size: 1/2" x 25m
- Inlet: Hose and tap connector
- Outlet: Hose connector with spray gun
- Max. pressure: 150psi
- Max. temperature: 60°C



Item Code

DR425G-03

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

### RETRACTA R3 PREMIUM AIR HOSE REEL ASSEMBLIES

RETRACTA

- Compressed air hose assembly
- Rubberised reinforced PVC
- High quality premium air hose
- UV stable, impact resistant case
- Wear resistant Pro-Glide™ mouth
- Premium German engineered main spring
- Fully serviceable
- Pressure rating: 270psi
- Colour: Red
- Australian manufactured



AR320R-01

Item Code	Hose Size	Inlet	Outlet	Bishops Code
AR320R-01	3/8" x 20m	3/8" BSP	1/4" BSP	68540000
AR415R-01	1/2" x 15m	3/8" BSP	3/8" BSP	68540002

## RETRACTA R3 GREASE REEL



- High quality grease hose
- UV stable, impact resistant case
- Wear resistant Pro-Glide™ mouth
- Wire reinforced rubber (SAE100R2) hose material
- Premium German engineered main spring
- Fully serviceable
- Hose size: 1/4" x 15m
- Inlet: 1/4" BSP (F)
- Outlet: 1/4" BSPT (M)
- Max. pressure: 5,000psi



Item Code	Bishops Code
GR215K-01	68540010

## HEAVY DUTY HOSE REELS

- Impact resistant UV stabilised covers for maximum durability
- High flow swivel and fluid path for maximum air flow
- Automatic and positive latching mechanism
- Adjustable spring tension
- Crimped hose ends reduce OH&S concerns and possible air leaks
- Can be mounted on the floor, wall or ceiling
- Detachable steel mounting bracket enables 180° hose reel rotation



SA400N

Item Code	Application	Size	Bishops Code
SA300N	Air	10(ID)mm x 18(l)m	68540020
SA400N	Air	12(ID)mm x 15(l)m	68540040
SAW100	Air/Water	10(ID)mm x 16(l)m	68540042
SAW200	Air/Water	12(ID)mm x 13(l)m	*SAW200
SW500N	Air/Water	12(ID)mm x 18(l)m	68540080
SO600	Oxygen/Acetylene	6(ID)mm x 15(l)m	*SO600

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## ALEMITE HEAVY DUTY HOSE REELS

- Spring rewind hose reels
- Corrosion resistant, easy to install and incredibly durable
- Sealed spring cassette and plated bearings
- Easy and quick mounting
- Narrow width
- Lifetime warranty on the hose guide assembly and latch pawl spring



8080-A

Item Code	Application	Size	Bishops Code
8080-A	Grease	10(ID)mm x 25(l)m	*8080-A
8080-E	Oil	19(ID)mm x 15(l)m	*8080-E
8080-F	Air, Water, Oil	19(ID)mm x 25(l)m	*8080-F
8080-G	Air, Water, Oil	25(ID)mm x 15(l)m	68540046

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## EL SERIES HEAVY DUTY HOSE REELS

- Reinforced steel frame for maximum strength and stability
- Reliable spring life tested to 20,000 cycles and positive ratchet lock design ensures a long working life
- Durable long lasting powder coated finish
- Can be floor, wall or ceiling mounted
- Supplied with 1.2mm lead in hose
- 1.5mm thick robust drum assembly with stiffening ribs and flange edges
- 110° swivel base available on request



HR90005

Item Code	Application	Size
HR90005	Air, Water	1"(ID) x 30(l)m
HR90025	Air, Water	3/4"(ID) x 20(l)m
HR90010	Diesel	1"(ID) x 15(l)m

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## SAMOA HEAVY DUTY HOSE REELS

- Spring rewind hose reels
- Heavy duty full metal double pedestal construction
- Full port nickel protected steel shaft
- True full flow shaft and ports
- Large effective radial latching area for easy operation
- Fatigue resistant steel spring for longevity
- Epoxy coated for increased wear resistance
- Seven position outlet arm



504250

Item Code	Application	Size	Bishops Code
504250	Oil	12mm(ID) x 15(l)m	68540050
505224N	Air/Water/Oil/Fuel/Waste Oil	19mm(ID) x 15(l)m	68540090
508225	Water/Oil/Diesel Fuel/Waste Oil	25mm(ID) R1 x 15(l)m	*508225

\* - SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## OXY/ACETYLENE WELDING HOSE REEL

- Heavy duty steel construction with corrosion resistant powder coat finish
- Ideal for contractors, fabricators and people involved in the construction industry
- Suitable for use on utes, tray tops and flat bed trucks
- Supplied with 15m x 1/2" (ID) hose and 1.5m lead in hose
- Max. working pressure: 300psi



Item Code	Bishops Code
OS615	68540060

## GET MORE AT BISHOPS



## SAFETY GLOVES

From Page 2

## RUBBER BOOTS

Page 82





## HOW TO ASSEMBLE NEW HOSE ON A HOSE REEL

Using a hose reel to store your hose has many benefits including extending the life of your hoses. When it comes time to fit a new hose to a hose reel or replace an existing one, make sure you do it right.

### Step 1:

Assemble and secure hose reel in line with manufacturer specifications to ensure that it's fit for purpose and will not affect the integrity of the hose.

### Step 2:

Locate the coupling on the reel. If the reel is not supplied with one, take a look at Bishops' range in this section to find the right one for your needs. Connect the hose fitting to the coupling, ensuring a tight and secure seal.

### Step 3:

Locate the leader hose and attach it to the source. Ensure a tight seal before connecting the other end of the leader hose to the reel and turning on the source.

### Step 4:

Check all connections to ensure they are fitted correctly before proceeding to wind the reel using the built-in mechanism.

Need some additional help selecting the right fit for purpose hose, reel or fittings? Give your local Bishops branch a call.



## STEP 1 – SELECT A REEL

Reels can be mounted to walls, ceilings and vehicles, or they can be used unmounted. Bishops has a range of hose reels that can fit your existing kit, from manual rewind and spring coil to anti-kink reels. Whatever your reel, **Find it at Bshops.**

### Manual Rewind

Hand reels are manually controlled, operated by a rotating handle. They are an affordable entry to the hose market when you already have your own hose, coming in a variety of sizes to fit and connect to your existing hose.

### Air & Spring Rewind

Air and spring rewind reels offer quick, reliable and neat hose retraction and storage. Pull and the hose unwinds to the desired length. With one small tug the hose retracts. This makes them a popular, easy and time-saving choice for everyday use.

## MANUAL REWIND HOSE REELS

- Heavy duty manual hose reels
- Durable proprietary powder coating is corrosion resistant
- Low profile hose connector ensures smooth, even hose wraps
- Adjustable drag brake eliminates hose backlash when unreeling hose
- Full flow swivels facilitate high volume fluid transfer
- Rolled edges and barrel discs provide hose reel strength and operator safety
- Sturdy, all welded 'A' frame base provides exceptional strength



HR50020M

Item Code	Max. Pressure	Suits Hose
HR50010M	4,000psi	19(ID)mm x 30(l)m
HR50020M	4,000psi	12(ID)mm x 46(l)m

SPECIAL ORDER: PLEASE QUOTE ITEM CODE UPON ORDERING THIS PRODUCT

## GET MORE AT BISHOPS

### CAN'T FIND THE REEL YOU ARE AFTER?

### Contact Bishops with your requirements.

[bishopbros.com.pg](http://bishopbros.com.pg)  
[sales@bishopbros.com.pg](mailto:sales@bishopbros.com.pg)



## STEP 2 – SELECT A HOSE

With so many hoses to choose from, follow this simple selection guide to find the hose you need.

### Hose Material

The first choice you have to make is which material is best suited for your needs. Hoses generally have two material specifications – the outer cover and the inner tube. Some hoses come with reinforcement helping to strengthen the hose and prevent the walls collapsing.

**PVC** is economical, versatile and often used for general purposes. PVC can be used to transfer a wide variety of substances, however is most commonly used for air, water and mild chemicals.

The bend radius of PVC hose is more restrictive than rubber hose, so consider this when making your selection.

**Rubber** is also used to transfer a wide variety of substances including high pressure air, water, fuel, oil and chemicals. Rubber hoses are flexible under all weather conditions and are often highly abrasion resistant.



### Hose Application

Different variations in inner tube material and reinforcement allow some hoses to be used under high pressure, whilst others are suitable for suction and delivery.

**Air/Water Hoses** include your standard garden hoses and are often suited for general purpose use. Polyester reinforcement is common, allowing them to remain flexible.

**Suction/Delivery Hoses** are reinforced using a spiral formation often made of PVC or steel which allows the hose to compress and expand with minimal friction. These hoses are often very rigid and will not flex as much as other hoses.

**Layflat Hoses** are extremely flexible and durable. Their shape allows them to sit flat on the ground, reducing tripping hazards. Textile cord reinforcement gives them their flexible properties.

**Chemical Hoses**, such as those used for oil and fuel, are commonly made of nitrile rubber, which is highly resistant to heavy chemicals. These hoses have poor weather resistance and are only suitable for indoor use.



#### Material definitions:

- SBR:** Styrene-Butadiene Rubber
- EPDM:** Ethylene Propylene Diene Monomer
- NBR:** Acrylonitrile Butadiene Rubber (Nitrile)
- UHMW:** Ultra High Molecular Weight
- NR:** Natural Rubber

### GENERAL PURPOSE PVC HOSE



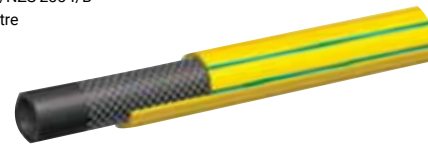
- Suitable for general purpose and compressed air applications
- PVC inner tube and cover
- Reinforced with high tensile textile cords
- Oil mist, ozone and abrasion resistant
- Safety factor: 3:1
- Temperature range: -5°C to 60°C
- Transparent with red stripes
- FDA 90/128/EC
- Sold per metre



Internal Dia.	Outside Dia.	Max. Working Pressure	Weight	Bishops Code
6mm	11mm	300psi (20bar)	0.08kg/m	37004010
8mm	13mm	225psi (15bar)	0.095kg/m	37004020
10mm	15mm	225psi (15bar)	0.115kg/m	37004030
13mm	19mm	150psi (10bar)	0.165kg/m	37004040
19mm	25mm	150psi (10bar)	0.26kg/m	37004050
25mm	32mm	150psi (10bar)	0.39kg/m	37004060
38mm	48mm	100psi (7bar)	0.82kg/m	37004070

### TYPE S COMPRESSED AIR/WATER PVC HOSE

- Suitable for general industrial and compressed air applications, as well as various crop spraying jobs
- Reinforced with high tensile textile cords
- Oil mist, ozone and abrasion resistant
- Black PVC inner tube with yellow and blue striped PVC cover
- Safety factor: 3.2:1
- Temperature range: -5°C to 60°C
- Exceeds AS/NZS 2554/B
- Sold per metre



Internal Dia.	Outside Dia.	Max. Working Pressure	Min. Bend Radius	Bishops Code
6mm	12mm	300psi (20bar)	48mm	37006010
8mm	14mm	300psi (20bar)	64mm	37006020
10mm	16mm	300psi (20bar)	80mm	37006030
13mm	19mm	300psi (20bar)	104mm	37006040
19mm	27mm	300psi (20bar)	152mm	37006050
25mm	34mm	300psi (20bar)	200mm	37006060
38mm	50mm	240psi (16bar)	304mm	37006070
51mm	63mm	240psi (16bar)	408mm	37006080

### GENERAL PURPOSE SUCTION & DELIVERY HOSE



- Suitable for liquid suction and delivery in general purpose applications
- Transparent PVC with steel helix wire reinforcement
- Abrasion and ozone resistant
- Safety factor: 3:1
- Temperature range: -5°C to 60°C
- FDA 90/128/EC AS2070
- Sold per metre



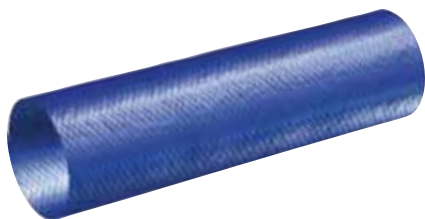
Internal Dia.	Outside Dia.	Min. Bend Radius	Vacuum	Max. WP	Weight	Bishops Code
25mm	33mm	150mm	90%	100psi (7bar)	0.52kg/m	37020215
32mm	40mm	128mm	85%	60psi (4bar)	0.66kg/m	37020220
38mm	48mm	152mm	80%	60psi (4bar)	0.86kg/m	37020230
51mm	61mm	204mm	80%	45psi (3bar)	1.23kg/m	37020240
63mm	75mm	252mm	80%	30psi (2bar)	1.78kg/m	37020250
76mm	90mm	304mm	70%	30psi (2bar)	2.45kg/m	37020260
102mm	116mm	408mm	70%	30psi (2bar)	3.48kg/m	37020270
150mm	172mm	608mm	70%	30psi (2bar)	7.3kg/m	37020290



## PVC & RUBBER HOSES

### PVC LAYFLAT WATER DELIVERY HOSE

- Standard duty hose for water delivery applications
- PVC inner tube and cover with high tensile textile cord reinforcement
- Safety factor: 3:1
- Temperature range: -10°C to 60°C
- Blue
- Sold per metre



Internal Dia.	Outside Dia.	Weight	Bishops Code
51mm	75psi (5bar)	0.27kg/m	37018020
63mm	60psi (4bar)	0.38kg/m	37018030
76mm	60psi (4bar)	0.53kg/m	37018040
102mm	60psi (4bar)	0.71kg/m	37018050
152mm	45psi (3bar)	1.18kg/m	37018060

### MULTIPURPOSE RUBBER HOSE

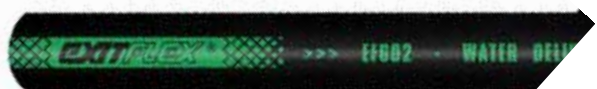
- Excellent resistance to ageing, atmospheric conditions and ozone
- Non-conductive outer cover
- Specific compound to resist petroleum products with aromatic content to 50%
- Economical general-purpose hose suitable for the safe transfer of air, water, oil and all alcohol blended fuels including leaded and unleaded
- Great all round hose to minimise stock holdings
- Black smooth NBR (Class A) inner tube
- Red smooth non-conductive NBR blend cover
- High tensile textile cord reinforcement
- Temperature range: -20°C to 95°C
- Max. working pressure: 300psi (20bar)
- Safety factor: 4:1 (5-38mm), 3:1 (51mm)
- Sold per metre



Item Code	Internal Dia.	Outside Dia.	Bishops Code
08-210-006-CUT	6.4mm	13mm	37008010
08-210-008-CUT	7.9mm	15mm	37008020
08-210-010-CUT	9.5mm	17mm	37008030
08-210-012-CUT	12.7mm	20mm	37008040
08-210-016-CUT	15.9mm	26mm	37008050
08-210-019-CUT	19.1mm	29mm	37008060
08-210-025-CUT	25.4mm	35.5mm	37008070
08-210-032-CUT	31.8mm	44mm	37008075
08-210-038-CUT	38.1mm	54mm	37008080
08-210-051-CUT	50.8mm	67mm	37008090

### AIR & WATER RUBBER DELIVERY HOSE

- A sturdy water delivery hose for use in all sectors of industry, including agriculture, mining, general industry and aquaculture
- Good cold weather flexibility
- Outer cover offers good resistance to abrasion and atmospheric conditions
- Black NR/SBR inner tube and cover
- High tensile cord reinforcement
- Temperature range: -25°C to 85°C
- Max. working pressure: 145psi (10bar)
- 20m roll

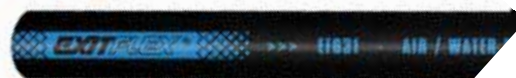


Item Code	Internal Dia.	Outside Dia.	Bishops Code
10-100-019-020	19mm	29mm	37012020
10-100-051-020	51mm	62mm	37012050
10-100-063-020	63mm	78mm	37012055
10-100-102-020	102mm	115mm	37012070

### COMPRESSED AIR RUBBER MINING HOSE



- Designed for pneumatic machines and tools, such as rock drills and air/water mining applications
- Good cold weather flexibility
- Good resistance to fatigue, bending and twisting
- Excellent resistance to abrasion and atmospheric conditions
- Black NR/SBR blend inner tube and cover
- High tensile braid reinforcement
- Temperature range: -20°C to 80°C
- Max. working pressure: 300psi (20bar)
- Safety factor: 3:1
- Standards: AS2554 Type B
- Sold per metre



Item Code	Internal Dia.	Outside Dia.	Bishops Code
10-000-012-020	13mm	23mm	37012210
10-000-019-020	19mm	31mm	37012220
10-000-025-020	25mm	37mm	37012230
10-000-051-020	51mm	65mm	37012240
10-000-076-020	76mm	92mm	37012250

### STRAIGHT RADIATOR HOSE

- Black EPDM tube reinforced with high tensile textile cords
- Heat, abrasion and ozone resistant
- Safety factor: 3:1
- Temperature range: -40°C to 120°C
- Max. working pressure: 75psi (5bar)
- Length: 900mm
- Exceeds DIN 73411 and SAE 20R1 D-2



Internal Dia.	Outside Dia.	Bishops Code	Internal Dia.	Outside Dia.	Bishops Code
19mm	27mm	37044030	51mm	61mm	37044100
25mm	33mm	37044050	57mm	67mm	37044105
32mm	40mm	37044060	63mm	73mm	37044110
38mm	48mm	37044070	76mm	86mm	37044140
40mm	50mm	37044080	90mm	102mm	37044160
45mm	55mm	37044090	102mm	114mm	37044170

### FUEL & EMISSION HOSE



- Multipurpose fuel line hose for use with diesel, oil, leaded and unleaded petrols, ethanol, methanol and others
- Excellent resistance to petroleum derivatives, ozone and heat
- Kink resistant
- Available in longer lengths
- High tensile textile braid reinforcement
- Smooth black nitrile inner tube and cover
- Temperature range: -20°C to 70°C
- Safety factor: 3:1
- Sold per metre



Item Code	Diameter	Bishops Code
08-401-005-CUT	5mm	37026030
654AA006	6mm	37026040
08-401-006-CUT	6.5mm	37026050
08-401-008-CUT	8mm	37026060
08-401-010-152	10mm	37026070
08-401-012-CUT	12.5mm	37026080

## FUEL/OIL SUCTION & DELIVERY HOSE



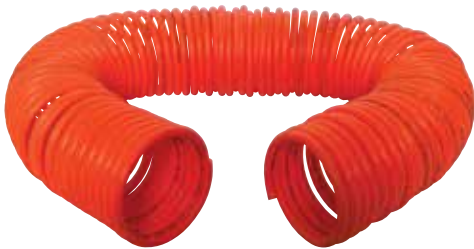
- Suitable for the safe transfer of virtually all petroleum based products
- Ideally suited for use as transfer lines for diesel, ethanol, gasolines, oil and petroleum based products with an aromatic content of up to 50%
- Excellent resistance to ageing, atmospheric conditions and ozone
- Black smooth NBR inner tube
- Black wrapped NBR (FRAS) cover
- High tensile textile cord with steel wire helix reinforcement
- Temperature range: -20°C to 80°C
- Safety factor: 3:1
- Working pressure at 20°C: 150psi (10bar)
- Standards: Meets/exceeds SAE100 R4
- Sold per metre



Item Code	Internal Dia.	Outside Dia.	Min. Bend Radius	Vacuum	Weight	Bishops Code
10-500-019-020	19mm	29mm	76mm	100%	0.61kg/m	37022010
10-500-025-020	25mm	35mm	100mm	100%	0.76kg/m	37022020
10-500-032-020	32mm	42mm	128mm	100%	0.9kg/m	37022030
10-500-038-020	38mm	48mm	152mm	100%	1.05kg/m	37022040
10-500-051-020	51mm	61mm	204mm	100%	1.35kg/m	37022060
10-500-063-020	63mm	75mm	252mm	90%	2.11kg/m	37022070
10-500-076-020	76mm	88mm	304mm	90%	2.52kg/m	37022080
10-500-102-020	102mm	116mm	408mm	90%	3.5kg/m	37022090
10-510-152-CUT	152mm	170mm	608mm	80%	7.36kg/m	37022100

## SELF-STORE HOSE

- Nylon
- Fittings sold separately
- Yellow available on request



Working Pressure	ID x Maximum Extension	Bishops Code
1,241kPa (180psi)	¼" x 15m	73686125
1,241kPa (180psi)	¾" x 26m	73686250
1,034kPa (150psi)	½" x 23m	73686350

## SELF-STORE HOSE FITTINGS

- Swivel and non-swivel hose fittings and nylon olives



73686710



73686620

Description	Size	Bishops Code
Non-Swivel	½" ID x ½" BSP	73686710
Swivel	¼" ID x ¼" BSP	73686520
Swivel	¾" ID x ¾" BSP	73686620
Swivel	½" ID x ½" BSP	73686720

## FLEXIBLE NYLON TUBE

- Metric
- Medium pressure type
- Corrosion and chemical resistant
- Min. burst pressure: 1,160psi
- Max. working pressure: 290psi
- Black



Outside Dia.	Bishops Code	Outside Dia.	Bishops Code
4mm	38490050	8mm	38490080
5mm	38490060	10mm	38490090
6mm	38490070	12mm	38490100

## FLEXIBLE NYLON TUBE

- Imperial
- Medium pressure type
- Corrosion and chemical resistant
- Min. burst pressure: 1,000psi
- Max. working pressure: 250psi
- Black



Outside Dia.	Bishops Code	Outside Dia.	Bishops Code
⅛"	38490010	⅜"	38490030
⅜"	38490015	½"	38490040
¼"	38490020	⅝"	38490045
⅝"	38490025	-	-

## POLYETHYLENE TUBE

- Temperature range: -20°C to 60°C
- Max. working pressure: 115psi
- Black



Outside Dia.	Bishops Code	Outside Dia.	Bishops Code
4mm	38690040	10mm	38690100
6mm	38690060	12mm	38690120
8mm	38690080	-	-

GET MORE AT BISHOPS



TUBE CUTTERS

From Page 210



## HOSE ASSEMBLIES

## CHOOSE YOUR FIT FOR PURPOSE HOSE & HOSE ASSEMBLY

No matter what fluid you deal with or what you're cleaning, Bishops has a great range of hose and hose assemblies from some of the toughest and most trusted brands. Each hose type is designed for a particular purpose with its own advantages, so it's essential that you use a fit-for-purpose hose and housing to achieve the greatest results.

### Water

Explore our large range of water suitable hoses that can handle hot and cold water in a range of lengths. If you're moving your hose around the worksite, go for a lightweight plastic assembly with a handle. Most general water hose assemblies come with a spray nozzle or trigger gun.

### Compressed Air/Water

Need a little more versatility in your equipment? Pick up an assembly that can handle either compressed air or water.

### Oil

Typically made from nitrile rubber, PVC or styrene rubber, oil hoses are suitable for the transport of oil based products. Often coupled with a heavy duty metal reel to increase stability and reduce vibration when fitted to service vehicles.

### Oxy Acetylene & Oxy LPG

Each hose is colour coded (blue for oxygen, red for acetylene, orange for LPG) for quick and easy identification. Reels are typically made of tough steel inclusive of a corrosion resistant powder coat finish ideal for general welding applications.

### Weedicide/Pesticide

These hoses are UV stabilised and made from reinforced PVC with high chemical resistance. Corrosion and weather resistant construction make their reels ideal for outdoor use.

### Heavy Duty Assemblies

A heavy duty assembly is needed when dealing with corrosive materials, on mining or construction sites, in workshops or wherever durability is important. Where hoses will encounter rubbing or abrasive surfaces it's best to choose abrasion-resistant hoses for longer life.

The range at Bishops includes hoses and tough, durable housings and mounts to ensure maximum durability and performance at any worksite.

**It's easy with Bishops!**

## PVC AIR/WATER HOSE ASSEMBLY

- Assembled with Type S Nitto fittings
- Suitable for general industrial and compressed air applications, as well as various crop spraying jobs
- Black PVC inner tube with ribbed PVC cover
- High tensile textile cord reinforcement
- Safety factor: 3.2:1
- Temperature range: -5°C to 60°C
- Hose: 10(ID) x 16(OD)mm
- Max. working pressure: 300psi (20bar)
- Min. bend radius: 80mm
- Weight: 0.17kg/m
- 20m roll
- Exceeds AS/NZS 2554/B



Bishops Code

37006090

## COMPRESSED AIR RUBBER MINING HOSE ASSEMBLY



- Designed for pneumatic machines and tools, such as rock drills and air/water mining applications
- Good cold weather flexibility
- Good resistance to fatigue, bending and twisting
- Excellent resistance to abrasion and atmospheric conditions
- High tensile braid reinforcement
- Black NR/SBR blend inner tube
- Black NR/SBR blend cover
- Temperature range: -20°C to 80°C
- Max. working pressure: 300psi (20bar)
- Safety factor: 3:1
- Standards: AS2554 Type B
- 1" Type A claw coupling ends
- Length: 20m



Item Code	Internal Diameter	Bishops Code
10-000-09025-020ACP	25mm	86420310
10-000-9019-020ACP	20mm	86420308
17-175-10-000-038-AS	38mm	86420315
10-000-9051-020SCP	50mm	86420320

## RUBBER HOSE ASSEMBLY



- High pressure compressed air service line hose
- For stationary or mobile compressors operating pneumatic tools in quarries, mining civil and road construction
- Very flexible at low temperatures
- Highly visible safety yellow outer cover
- Good resistance to abrasion and atmospheric conditions
- Comes with 3/4" Type A claw clamps
- Black SBR blend inner tube
- Yellow EPDM/SBR blend cover
- High tensile textile cord reinforcement
- Temperature: -20°C to 70°C
- Working pressure: 300psi (20bar)
- 19mm(ID) x 20m roll

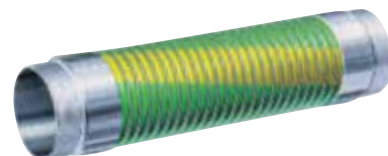


Item Code	Bishops Code
08-000-9019-020AS	37012920

## FUEL TRANSFER HOSE ASSEMBLIES



- Standard duty hose for fuel and oil suction and delivery
- Assembled with female camlocks, crimped and tested
- Internal wire in galvanised steel inner tube with PVC coated fabric cover
- Reinforced with superposed polypropylene films and sheets
- Hydrocarbon resistant
- Safety factor: 4:1
- Working pressure: 150psi (10 bar)
- Temperature range: -30°C to 100°C
- Vacuum: 90%
- Green body with yellow stripe



Item Code	Internal Dia.	Outside Dia.	Length	Min. Bend Radius	Weight	Bishops Code
16-100-9051-05CCE	50mm	66mm	5m	275mm	1.61kg/m	37028355
17-170-16-100-051-03	50mm	66mm	3m	90mm	1.6kg/m	37028354
17-170-16-100-051-10	50mm	66mm	10m	90mm	1.6kg/m	37028360
17-170-16-100-063-03	63mm	75mm	3m	100mm	2.4kg/m	37028348
17-170-16-100-063-06	63mm	75mm	6m	100mm	2.4kg/m	37028350
17-170-16-100-063-18	63mm	75mm	18.3m	100mm	2.4kg/m	37028353
17-170-16-100-076-01	75mm	88mm	1m	125mm	2.8kg/m	37028300
17-170-16-100-076-03	75mm	88mm	3m	125mm	2.8kg/m	37028330
17-170-16-100-076-05	75mm	88mm	5m	125mm	2.8kg/m	37028333
17-170-16-100-076-06	75mm	88mm	6m	125mm	2.8kg/m	37028338
17-170-16-100-076-10	75mm	88mm	10m	125mm	2.8kg/m	37028340
17-170-16-100-076-18	75mm	88mm	18.3m	125mm	2.8kg/m	37028343
17-170-16-100-102-08	100mm	112mm	8m	200mm	4.1kg/m	37028375
17-170-16-100-102-10	100mm	112mm	10m	200mm	4.1kg/m	37028380
17-170-16-100-102-18	100mm	112mm	18.3m	200mm	4.1kg/m	37028385



## A TYPE MALE BSP CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- SG iron construction to ISO 1083, zinc plated, natural rubber seal (other materials on request)



Item Code	Size	Bishops Code
21-001-006	3/8"	37806530
21-001-008	1/2"	37804040
21-001-012	3/4"	37804050
21-001-016	1"	37804060
21-001-020	1 1/4"	37804061

## A TYPE FEMALE BSP CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- SG iron construction to ISO 1083, zinc plated, natural rubber seal (other materials on request)



Item Code	Size	Bishops Code
21-002-006	3/8"	37802057
21-002-008	1/2"	37806040
21-002-012	3/4"	37806050
21-002-016	1"	37806060

## A TYPE HOSE TAIL CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- SG iron construction to ISO 1083, zinc plated, natural rubber seal (other materials on request)



Item Code	Size	Bishops Code
21-000-006	3/8"	37802038
21-000-008	1/2"	37802040
21-000-012	3/4"	37802050
21-000-016	1"	37802060
21-000-020	1 1/4"	37802058

## RUBBER SEAL GASKET



- NBR rubber construction
- To suit type A claw coupling 3/8"-1 1/4"



Item Code	Bishops Code
21-005-000	37812100

## S TYPE MALE BSP CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- SG iron ISO 1083, zinc plated to AS 1789:2003, composite bellows seal (other materials on request)



Item Code	Size	Bishops Code	Item Code	Size	Bishops Code
21-101-008	1/2"	37806760	21-101-024	1 1/2"	37806784
21-101-012	3/4"	37806770	21-101-032	2"	37804080
21-101-016	1"	37806780	21-101-048	3"	37804082
21-101-020	1 1/4"	37806782	-	-	-

## S TYPE FEMALE BSP CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- SG iron ISO 1083, zinc plated to AS 1789:2003, composite bellows seal (other materials on request)



Item Code	Size	Bishops Code	Item Code	Size	Bishops Code
21-102-008	1/2"	37806730	21-102-024	1 1/2"	37806078
21-102-012	3/4"	37806740	21-102-032	2"	37806080
21-102-016	1"	37806750	21-102-048	3"	37806082

## S TYPE HOSE TAIL CLAW COUPLINGS



- Universal hose coupling that provides quick, safe and reliable connection for air and water hoses
- Common applications include underground and surface mining, mineral processing, compressor and air tool industries
- Machined seal cavity in coupling to ensure secure sealing under high pressures
- Zinc plated carbon steel
- Temperature range: -29°C to 71°C (Natural Rubber Seal)
- Working pressure: 500psi
- Safety factor: 3:1



Item Code	Size	Bishops Code	Item Code	Size	Bishops Code
21-100-008	1/2"	37806700	21-100-024	1 1/2"	37802070
21-100-012	3/4"	37806710	21-100-032	2"	37802080
21-100-016	1"	37806720	21-100-048	3"	37802082
21-100-020	1 1/4"	37802068	-	-	-

## SAFETY LOCKING PINS



- Necessary to ensure claw couplings will not become disconnected
- 3/8"-3"
- 1,000 per box



Item Code	Bishops Code
21-008-000B	37850100



# HOSE CLAMPS, WHIPCHECKS & CAMLOCK FITTINGS

## DOUBLE BOLT CLAMPS

- SG Iron ISA 108
- Zinc plated



Item Code	Size	Bishops Code
44-022-029	1/2"	37840050
44-022-034	3/4"	37840060
44-022-039	1"	37840070

## WHIPCHECKS

- Hose to hose, eliminates injury caused by broken air hose connections, highly resistant to rust and corrosion, no tools needed – easy to install and remove
- Crimped steel ferrules suitable for use in underground mines
- G1570 FC galvanised steel wire rope
- Mild steel ferrules
- Zinc plated steel spring
- Max working pressure: 200psi for air



Item Code	Size	Bishops Code
21-450-020	Small – Suits 3/8"-1 1/4" Hose	37215010
21-450-032	Medium – Suits 1 1/4"-2" Hose	37215020
21-450-064	Large – Suits 2 1/2"-4" Hose	37215030

## TYPE A ALUMINIUM CAMLOCK ADAPTORS

- MIL C - 27.487
- Adaptor to female BSP
- Aluminium construction



Item Code	Size (BSP)	Bishops Code	Item Code	Size (BSP)	Bishops Code
20-000-A100	1"	37602010	20-000-A400	4"	37602040
20-000-A150	1 1/2"	37602015	20-000-A600	6"	37602060
20-000-A200	2"	37602020	20-000-A200300	2" x 3"	37625030
20-000-A250	2 1/2"	37602025	20-100-A300200	3" x 2"	37625070
20-000-A300	3"	37602030	-	-	-

## TYPE B ALUMINIUM CAMLOCK COUPLINGS

- MIL C - 27.487
- Coupler to male BSPT



Item Code	Size (BSPT)	Bishops Code	Item Code	Size (BSPT)	Bishops Code
20-000-B075	3/4"	37604007	20-000-B250	2 1/2"	37604025
20-000-B100	1"	37604010	20-000-B300	3"	37604030
20-000-B150	1 1/2"	37604015	20-000-B400	4"	37604040
20-000-B200	2"	37604020	20-000-B300200	3" x 2"	37625040

## TYPE C ALUMINIUM CAMLOCK COUPLINGS

- MIL C - 27.487
- Coupler to hose shank



Item Code	Internal Dia.	Bishops Code	Item Code	Internal Dia.	Bishops Code
20-000-C100	1"	37606010	20-000-C250	2 1/2"	37606025
20-000-C125	1 1/4"	37606012	20-000-C300	3"	37606030
20-000-C150	1 1/2"	37606015	20-000-C400	4"	37606040
20-000-C200	2"	37606020	20-000-C600	6"	37606060

## TYPE D ALUMINIUM CAMLOCK COUPLINGS

- MIL C - 27.487
- Coupler to female BSP



Item Code	Size (BSP)	Bishops Code	Item Code	Size (BSP)	Bishops Code
20-000-D100	1"	37608010	20-000-D300	3"	37608030
20-000-D150	1 1/2"	37608015	20-000-D400	4"	37608040
20-000-D200	2"	37608020	20-000-D600	6"	37608060
20-000-D250	2 1/2"	37608025	-	-	-

## GET MORE AT BISHOPS



### SAFETY GLASSES

Page 13

### CABLE TIES

Page 366



### CUTTING PLIERS

Page 207

## TYPE E ALUMINIUM CAMLOCK ADAPTORS

- MIL C - 27.487
- Adaptor to hose tail
- Aluminium construction



Item Code	Size (I.D.)	Bishops Code	Item Code	Size (I.D.)	Bishops Code
20-000-E100	1"	37610010	20-000-E300	3"	37610030
20-000-E125	1¼"	37610012	20-000-E400	4"	37610040
20-000-E150	1½"	37610015	20-000-E600	6"	37610060
20-000-E200	2"	37610020	20-000-E300200	3" x 2"	37625060
20-000-E250	2½"	37610025	-	-	-

## TYPE F ALUMINIUM CAMLOCK ADAPTORS

- MIL C - 27.487
- Adaptor to male BSPT



Item Code	Size (BSPT)	Bishops Code	Item Code	Size (BSPT)	Bishops Code
20-000-F100	1"	37612010	20-000-F300	3"	37612030
20-000-F125	1¼"	37612012	20-000-F400	4"	37612040
20-000-F150	1½"	37612015	20-100-F200300	2" x 3"	37625100
20-000-F200	2"	37612020	20-000-F300200	3" x 2"	37625110
20-000-F250	2½"	37612025	-	-	-

## CAMLOCK JOINERS

- Male x male



Item Code	Size	Bishops Code
20-000-AA150150	1½" x 1½"	37613115
20-000-AA200200	2" x 2"	37613120
20-000-AA300300	3" x 3"	37613130
20-000-AA400400	4" x 4"	37613140
20-000-AA300200	3" x 2"	37625150
20-000-AA400200	4" x 2"	37625035

## TYPE DA ALUMINIUM CAMLOCK COUPLER X ADAPTORS

- Female x male



Item Code	Size	Bishops Code
20-000-CA200300	2" x 3"	37625180
20-000-CA300200	3" x 2"	37625190

## TYPE DP ALUMINIUM CAMLOCK DUST PLUGS

- MIL C - 27.487
- Male dust plug to suit couplers
- Not to be used in pressure situations



Item Code	Head Nominal Dia.	Bishops Code	Item Code	Head Nominal Dia.	Bishops Code
20-000-DP100	1"	37616010	20-000-DP300	3"	37616030
20-000-DP150	1½"	37616015	20-000-DP400	4"	37616040
20-000-DP200	2"	37616020	20-000-DP600	6"	37616060
20-000-DP250	2½"	37616025	-	-	-

## TYPE DC ALUMINIUM CAMLOCK DUST CAPS

- MIL C - 27.487
- Female dust cap to suit adaptors
- Not to be used in pressure situations



Item Code	Head Nominal Dia.	Bishops Code	Item Code	Head Nominal Dia.	Bishops Code
20-000-DC100	1"	37618010	20-000-DC300	3"	37618030
20-000-DC150	1½"	37618015	20-000-DC400	4"	37618040
20-000-DC200	2"	37618020	20-000-DC600	6"	37618060
20-000-DC250	2½"	37618025	-	-	-

## LOCKABLE ALUMINIUM CAMLOCK DUST CAPS

- Lockable cap protects hose from dust and contaminants
- Can be secured with a padlock
- Not to be used in pressure situations



Item Code	Head Nominal Dia.	Bishops Code
20-000-DCL200	2"	37618120
20-000-DCL300	3"	37618130
20-000-DCL400	4"	37618140

## CAMLOCK RUBBER BUNA SEAL RING

- Buna/NBR rubber



Item Code	Diameter	Bishops Code	Item Code	Diameter	Bishops Code
20-900-100	1"	37690010	20-900-300	3"	37690050
20-900-150	1½"	37690020	20-900-400	4"	37690060
20-900-200	2"	37690030	20-900-600	6"	37690070
20-900-250	2½"	37690040	-	-	-



## HOSE CLAMPS

### SINGLE BOLT SUPER HOSE CLAMPS

- Mild steel
- Zinc plated



Item Code	Size Range	Bishops Code	Item Code	Size Range	Bishops Code
42-101-019	17-19mm	37206030	42-101-091	86-91mm	37206200
42-101-022	20-22mm	37206040	42-101-097	92-97mm	37206210
42-101-025	23-25mm	37206050	42-101-103	98-103mm	37206220
42-101-028	26-28mm	37206060	42-101-112	104-112mm	37206230
42-101-031	29-31mm	37206070	42-101-121	113-121mm	37206240
42-101-035	32-35mm	37206080	42-101-130	122-130mm	37206250
42-101-039	36-39mm	37206090	42-101-139	131-139mm	37206260
42-101-043	40-43mm	37206100	42-101-148	140-148mm	37206270
42-101-047	44-47mm	37206110	42-101-161	149-161mm	37206280
42-101-051	48-51mm	37206120	42-101-174	162-174mm	37206290
42-101-055	52-55mm	37206130	42-101-187	175-187mm	37206300
42-101-059	56-59mm	37206140	42-101-200	188-200mm	37206310
42-101-063	60-63mm	37206150	42-101-213	201-213mm	37206320
42-101-067	64-67mm	37206160	42-101-226	217-226mm	37206330
42-101-073	68-73mm	37206170	42-101-239	227-239mm	37206340
42-101-079	74-79mm	37206180	42-101-252	240-252mm	37206350
42-101-085	80-85mm	37206190	-	-	-

### STAINLESS STEEL ECONOMY HOSE CLAMPS



Width	Size Range	Bishops Code	Width	Size Range	Bishops Code
10mm	8-12mm	37202007	50mm	50-70mm	37202060
12mm	10-16mm	37202010	60mm	60-80mm	37202070
16mm	11-20mm	37202015	82mm	72-95mm	37202090
20mm	14-27mm	37202020	90mm	78-101mm	37202100
25mm	18-32mm	37202030	100mm	100-120mm	37202110
38mm	21-44mm	37202050	125mm	120-140mm	37202130
45mm	32-50mm	37202055	140mm	130-152mm	37202140

### 26 PIECE HOSE CLAMP GRAB KIT

- Comes in hard plastic case for handy storage

#### Includes:

- Sizes: 16, 22, 25, 28, 35 and 40mm



Item Code	Bishops Code
FD-6080	40420070

### STAINLESS STEEL MULTI-PURPOSE HOSE CLAMPS

- All stainless steel, solid band
- For industrial, hardware, automotive and general purpose use
- Heavy duty, non-perforated band
- Removable safety collar to prevent screwdriver slip injuries
- Rolled edge and smooth underside to prevent hose damage
- Technically advanced design improves sealing capability
- Made in Australia
- 10 per pack



Item Code	Size Range	Bishops Code
<b>MICRO CLAMPS</b>		
SMPC00P	9.5-12mm	37204010
SMPCM00P	11-16mm	37204020
SMPC00P	13-20mm	37204030
<b>REGULAR CLAMPS</b>		
SMPC0P	16-27mm	37204035
SMPC1P	22-38mm	37204040
SMPC1XP	30-42mm	37204050
SMPC2P	35-53mm	37204060
SMPC2XP	40-57mm	37204070
SMPC3P	52-70mm	37204080
SMPC4P	65-90mm	37204090
SMPC5P	85-110mm	37204100
SMPC6P	105-130mm	37204110
SMPC7P	130-155mm	37204120
SMPC9	180-205mm	37204130
SMPC10	205-230mm	37204140
SMPC11	230-255mm	37204150
SMPC13	280-305mm	37204180

### 150 PIECE HOSE CLAMP SET

- Designed to suit a variety of applications using handy storage cases with clamps
- Ideal for farm, workshop or mobile use

#### Includes:

- 30 x Micro Clamps
- 30 x EFI Clamps
- 90 x Regular Clamps



Item Code	Bishops Code
CWP150	37204261

### 125 PIECE HOSE CLAMP SET

- MP Series hose clamps
- Solid band with safety collar
- A mix of micro and regular hose clamps

#### Includes:

- 40 x Micro clamps
- 85 x Regular clamps



Item Code	Bishops Code
MP125	37204250



**STAINLESS STEEL BAND**

- 304 Stainless steel
- Thickness: 0.76mm
- 30m roll



Item Code	Width	Bishops Code
46-000-203	10mm	37208010
46-000-204	12.7mm	37208020
46-000-205	16mm	37208030
46-000-206	19mm	37208040

**CLAMP-IT BUCKLES**

- Stainless steel banding strap buckles
- Economical method of securing banding
- To be used in conjunction with appropriate clamping tool



Item Code	Size	Quantity	Bishops Code
46-000-253	3/8"	100	37208050
46-000-254	1/2"	100	37208060
46-000-255	5/8"	100	37208070
46-000-256	3/4"	50	37208080

**SOFT ANNEALED COPPER TUBING**

- Refrigeration quality
- Wall thickness: 0.91mm
- Wall gauge: 20



Size	Bishops Code
3/16" x 30m	38590187
1/8" x 30m	38590125
1/4" x 30m	38590250
3/8" x 18m	38590375
1/2" x 18m	38590500

**SELECTING THE RIGHT MATERIALS**



When choosing a fitting, does it even matter what material it's made of? Yes!

Even if the fittings are the same size across different materials, it's still important to match the fitting material to the pipe material. Here are the two main reasons.

**Hardness**

Different materials have different levels of hardness based on their individual atomic bonds. Because of this, using a fitting or pipe of a softer material on a pipe fitting or pipe of hard material, will stop the ferrule from biting, causing a loss in pressure and increasing the possibility of a burst pipe.

Stainless steel is a relatively hard material, and therefore is best suited for use with stainless steel tubing. Brass is a much softer material and is best suited for use with copper tubing.

**Corrosion**

Common causes of corrosion can include bacteria, selective leaching, erosion and low pH liquids. When a joint has corroded, it can become very difficult, if not impossible to pull apart by hand and may call for the use of rough chemicals to treat it. Corrosion can also pollute the substance being transferred by the pipes.

Corrosion also commonly occurs when dissimilar metals are used together. For example, using galvanized steel pipe together with copper pipe will lead to galvanic corrosion.

This occurs when dissimilar metals with a connecting current flow (via liquid such as water) are paired. Use the table below to see the anodic and cathodic relationship between common metals. Always plan accordingly when assembling your system.

**ANODIC (Least Noble)**

- Magnesium
- Zinc
- Aluminium
- Carbon Steel or Cast Iron
- Copper alloys (Brass, Bronze)
- Lead
- Stainless Steel
- Nickel Alloys (Incoloy 825, Hastelloy B)
- Titanium
- Graphite

**CATHODIC (Most Noble)**



GET MORE AT BISHOPS



**PIPE BENDERS**

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# HYDRAULIC HOSE FITTINGS & ADAPTORS

Bishops has a wide range of Hydraulic Hose Fittings & Adaptors to suit all your needs. We have the following fittings and more available at our warehouses across Papua New Guinea. Contact your local warehouse for more information or to place an order.

## Hose Fittings

### BSP



BSP Female Straight



BSPT Male Straight



BSP Female 45° Close



BSP Female 90° Close

### JIC



Female Straight



Female Straight x Hex Collar



Female 90° Bend

### SAE O-Ring Flange Code 61



Straight



45° Bend



90° Bend

### SAE O-Ring Flange Code 62



Straight



45° Bend



90° Bend

### NPT



Male Straight

### UNO Ring



Male Straight

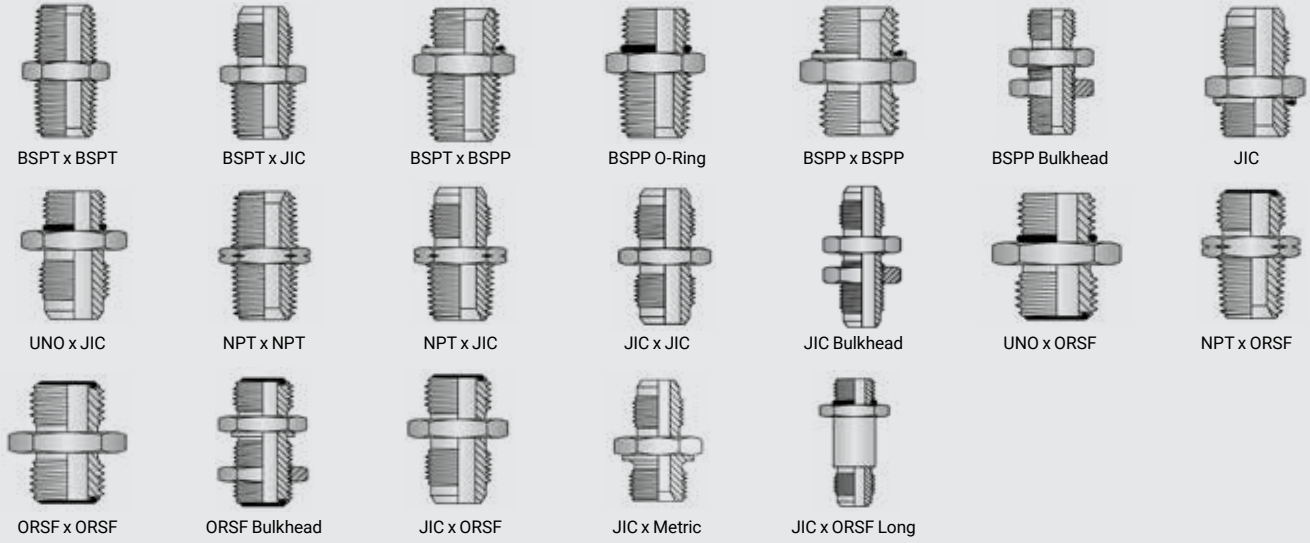
### Hose Joiner



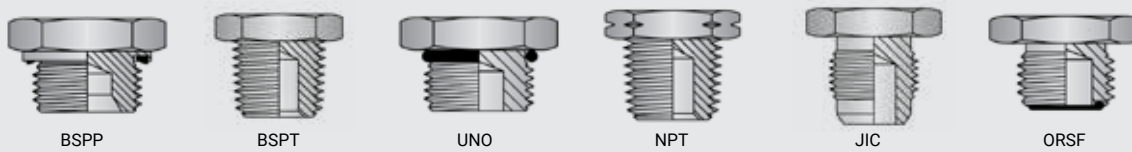
Double Ended Straight

## Adaptors

### Nipples



### Plugs



### Caps



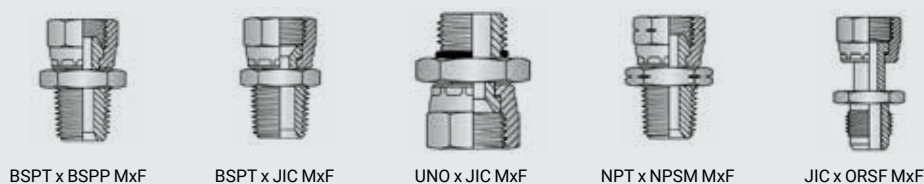
### Sockets



### Adaptor Unions – 90°



### Adaptor Unions – Straight





## Adaptors

### Adaptor Unions – 45°



BSPT x BSPP MxF



NPT x NPSM M F

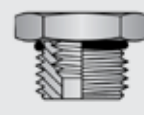


JIC MxF

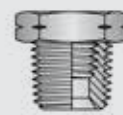
### Reducing Bushes



BSPT x BSPT



BSPP x BSPP



NPT x NPT

### Adaptors – Fixed



BSPT MxF

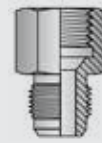


BSPT x JIC MxF



NPT x JIC MxF

### Tube Reducers



JIC MxF

### Elbows – 45°



BSPT MxM



BSPP x JIC MxM



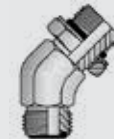
BSPT x JIC MxM



UNO x JIC MxM



NPT x JIC MxM



UNO x ORSF MxM

### Elbows – 90°



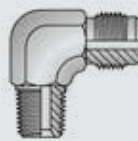
BSPT MxF



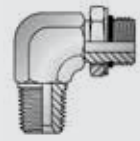
BSPT MxM



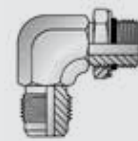
BSPT FxF



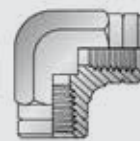
BSPT x JIC MxM



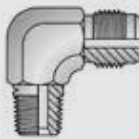
BSPT x UNO MxM



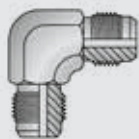
UNO x JIC MxM



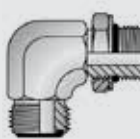
NPT FxF



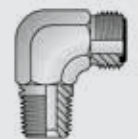
NPT x JIC MxM



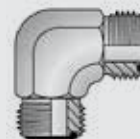
JIC MxM



UNO x ORSF MxM

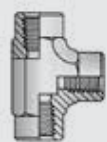


NPT x ORSF MxM

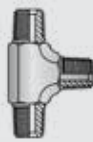


ORSF MxM

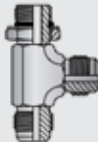
### Tees



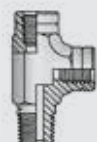
BSPT Female



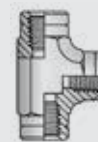
BSPT Male



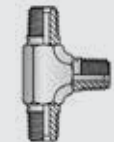
UNC x JIC Male



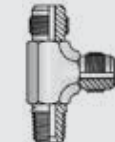
NPT MxFxF



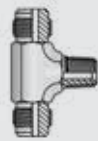
NPT Female



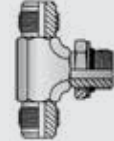
NPT Male



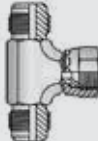
NPT x JIC Male



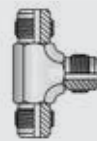
JIC x BSPT Male



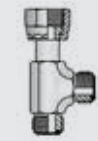
JIC x UNCF Male



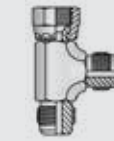
JIC MxMxF



JIC Male



ORSF MxFxM



JIC MxFxM

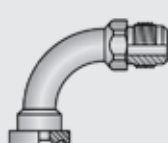
### SAE Flange Fittings



C61 FLG x JIC M



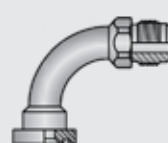
C61 FLG x JIC M 45



C62 FLG x JIC M 90



C62 FLG x JIC M



C62 FLG x JIC M 90



# Hydraulic Hose, Fittings, Manufacture & Repairs available in-house at Bishops

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**Hydraulic  
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**One Piece Fittings**

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## PUSH-IN TUBE FITTINGS

### PUSH-IN MALE ELBOW CONNECTORS

- One-touch fittings
- White plastic
- Imperial connectors are fitted with thread sealant



Size	Bishops Code	Size	Bishops Code
4mm x M5-0.8	38630045	8mm x 3/8" BSP	38630083
6mm x M5-0.8	38630065	8mm x 1/4"	38430150
4mm x 1/8" BSP	38630041	10mm x 1/4" BSP	38630102
6mm x 1/8" BSP	38630061	10mm x 3/8" BSP	38630103
6mm x 1/4" BSP	38630062	12mm x 1/4" BSP	38630122
6mm x 3/8" BSP	38630063	12mm x 3/8" BSP	38630123
8mm x 1/8" BSP	38630081	12mm x 1/2" BSP	38630124
8mm x 1/4" BSP	38630082	1/2" x 1/2" BSP	38630126

### PUSH-IN DOUBLE UNIVERSAL MALE ELBOWS

- One-touch fittings
- White plastic body
- Thread sealant
- Copper-free



Size	Bishops Code
6mm x 1/8" BSP	38635061
6mm x 1/4" BSP	38635062
8mm x 1/8" BSP	38635081
8mm x 1/4" BSP	38635082
10mm x 1/4" BSP	38635102
12mm x 1/4" BSP	38635122

### PUSH-IN TEE UNIONS

- One-touch fittings
- White plastic body
- Copper-free
- Max. working pressure: 1.0MPa



Size	Bishops Code	Size	Bishops Code
4mm	38686004	10mm	38686010
6mm	38686006	12mm	38686012
8mm	38686008	–	–

### PUSH-IN MALE BRANCH TEES

- One-touch fittings
- White plastic body
- Max. working pressure: 1.0MPa
- Imperial tees are copper-free and fitted with thread sealant



Size	Bishops Code	Size	Bishops Code
4mm x M5-0.8	38686045	8mm x 1/4"	38686082
6mm x M5-0.8	38686065	8mm x 3/8"	38686083
6mm x 1/8"	38686061	10mm x 1/4"	38686102
6mm x 1/4"	38686062	10mm x 3/8"	38686103
6mm x 3/8"	38686063	12mm x 1/4"	38686122
8mm x 1/8"	38686081	12mm x 1/2"	38686020

### PUSH-IN TUBE UNIONS

- Metric and imperial
- One-touch fittings
- White plastic body
- Max. working pressure: 1.0MPa



Size	Bishops Code	Size	Bishops Code
<b>METRIC</b>			
4mm	38694004	10mm	38694010
6mm	38694006	12mm	38694012
8mm	38694008	–	–
<b>IMPERIAL</b>			
5/16"	38494040	–	–

### PUSH-IN TUBE CONNECTORS

- One-touch fittings
- White plastic body
- Copper-free
- Max. working pressure: 1.0MPa



Size	Bishops Code
4 x 6mm	38694034
6 x 8mm	38694036
8 x 10mm	38694038
10 x 12mm	38694040

### PUSH-IN MALE CONNECTORS

- One-touch fittings
- Max. working pressure: 1.0MPa
- Imperial connectors are fitted with thread sealant



Size	Bishops Code	Size	Bishops Code
4mm x M5-0.8	38638045	8mm x 3/8"	38638083
6mm x M5-0.8	38638065	10mm x 1/8"	38638101
4mm x 1/4"	38638042	10mm x 1/4"	38638102
6mm x 1/8"	38638061	10mm x 3/8"	38638103
6mm x 1/4"	38638062	12mm x 1/4"	38638122
6mm x 3/8"	38638063	12mm x 3/8"	38638123
8mm x 1/8"	38638081	12mm x 1/2"	38638124
8mm x 1/4"	38638082	1/2" x 1/2"	38638126

### PUSH-IN TUBE BULKHEAD UNIONS

- Brass



Size	Bishops Code	Size	Bishops Code
3/16"	38494070	3/8"	38494100
1/4"	38494080	1/2"	38494110
5/16"	38494090	–	–

## FEMALE COUPLINGS – SEALING

- Steel
- Airline fittings
- Ryco–Nitto interchange



Size (BSP)	Bishops Code
¼"	37408010
⅜"	37408070
½"	37408130

## MALE COUPLINGS – SEALING

- Steel
- Airline fittings
- Ryco – Nitto interchange



Size (BSP)	Bishops Code
¼"	37408020
⅜"	37408080
½"	37408140

## HOSE TAIL COUPLINGS – SEALING

- Steel
- Airline fittings
- Ryco–Nitto interchange



Size (BSP)	Bishops Code
¼"	37408030
⅜"	37408090
½"	37408150

## MALE PLUG ADAPTORS – NON-SEALING

- Steel
- Airline fittings
- Ryco–Nitto interchange



Size (BSP)	Bishops Code
¼"	37408050
⅜"	37408110
½"	37408170

## FEMALE PLUG ADAPTORS – NON-SEALING

- Steel
- Airline fittings
- Ryco–Nitto interchange



Size (BSP)	Bishops Code
¼"	37408040
⅜"	37408100
½"	37408160

## HOSE TAIL PLUG ADAPTORS – NON-SEALING

- Steel
- Airline fittings
- Ryco–Nitto interchange



Size	Bishops Code
¼"	37408060
⅜"	37408120
½"	37408180

## AIRLINE DISTRIBUTOR BLOCKS

- Nitto style fittings



Description	Bishops Code
2 Port Manifold	37408920
4 Port Manifold	37408960

**GET MORE AT BISHOPS** ▶



**COMPRESSORS**

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## HOSE FITTINGS – BRASS &amp; STAINLESS STEEL

## BARBED MALE HOSE TAILS

- No. P3
- Brass airline fittings



Size (Hose x BSPT)	Bishops Code	Size (Hose x BSPT)	Bishops Code
1/4" x 1/8"	38038030	1/2" x 1/8"	38038140
1/4" x 1/4"	38038040	1/2" x 1/4"	38038150
1/4" x 3/8"	38038060	1/2" x 3/8"	38038170
1/4" x 1/2"	38038070	1/2" x 1/2"	38038180
5/16" x 1/4"	38038072	1/2" x 3/4"	38038190
5/16" x 3/8"	38038074	3/4" x 1/2"	38038210
3/8" x 1/8"	38038080	3/4" x 3/4"	38038220
3/8" x 1/4"	38038090	3/4" x 1"	38038230
3/8" x 3/8"	38038110	1" x 1/2"	38038240
3/8" x 1/2"	38038120	1" x 3/4"	38038250
3/8" x 3/4"	38038130	1" x 1"	38038260

## BARBED FEMALE HOSE TAILS

- No. P10
- Brass airline fittings



Size (Hose x BSP)	Bishops Code	Size (Hose x BSP)	Bishops Code
1/4" x 1/4"	38038300	3/8" x 1/2"	38038380
1/4" x 3/8"	38038320	1/2" x 1/4"	38038390
1/4" x 1/2"	38038330	1/2" x 3/8"	38038400
5/16" x 1/4"	38038332	1/2" x 1/2"	38038410
5/16" x 3/8"	38038336	3/4" x 1/2"	38038420
3/8" x 1/4"	38038350	3/4" x 3/4"	38038430
3/8" x 3/8"	38038370	–	–

## BARBED MALE ELBOWS

- No. P6
- Brass airline fittings



Size (Hose x BSPT)	Bishops Code	Size (Hose x BSPT)	Bishops Code
1/4" x 3/8"	38530180	3/8" x 1/2"	38530200
3/8" x 3/8"	38530195	–	–

## BARBED MALE BRANCH TEES

- No. P12
- Brass airline fittings
- Two-way tees



Size (Hose x BSPT)	Bishops Code
3/8" x 3/8"	38086220

## BARBED HOSE TEES

- No. P14
- Brass airline fittings
- Three-way tees



Size	Bishops Code
3/8"	38586130

## BARBED HOSE TAIL JOINERS

- No. P7
- Brass airline fittings



Size	Bishops Code	Size	Bishops Code
3/16"	38034010	3/8"	38034030
1/4"	38034020	1/2"	38034040
5/16"	38034025	3/4"	38034050

## 316 STAINLESS STEEL BARBED MALE HOSETAIL JOINERS

- No. P3SS



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
3/8"	38354130	1"	38354160
1/2"	38354140	1 1/2"	38354170
3/4"	38354150	2"	38354180



**MALE ELBOW ADAPTORS**

- No. 48
- Brass



Size (BSPT x BSPT)	Bishops Code	Size (BSPT x BSPT)	Bishops Code
1/8" x 1/8"	38030700	1/4" x 1/4"	38030720
1/8" x 1/4"	38030710	1/2" x 1/2"	38030750

**FEMALE EXTRUDED TEE ADAPTORS**

- No. 35
- Brass



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/4"	38086040	3/8"	38086050

**MALE & FEMALE REDUCING BUSH ADAPTORS**

- No. 24
- Brass



Size (BSPT x BSP)	Bishops Code	Size (BSPT x BSP)	Bishops Code
1/4" x 1/8"	38070010	3/4" x 1/4"	38070080
3/8" x 1/8"	38070020	3/4" x 3/8"	38070090
3/8" x 1/4"	38070030	3/4" x 1/2"	38070100
1/2" x 1/8"	38070040	1" x 1/4"	38070105
1/2" x 1/4"	38070050	1" x 1/2"	38070110
1/2" x 3/8"	38070060	1" x 3/4"	38070120

**FEMALE REDUCING HEX SOCKETS**

- No. 29
- Brass



Size (BSP x BSP)	Bishops Code	Size (BSP x BSP)	Bishops Code
1/4" x 1/8"	38078010	1/2" x 3/8"	38078060
3/8" x 1/8"	38078020	3/4" x 1/2"	38078070
3/8" x 1/4"	38078030	1" x 3/4"	38078080

**MALE REDUCING NIPPLES**

- No. 73
- Brass



Size (BSPT x BSPT)	Bishops Code	Size (BSPT x BSPT)	Bishops Code
1/4" x 1/8"	38074010	1/2" x 3/8"	38074050
3/8" x 1/8"	38074020	3/4" x 3/8"	38074060
3/8" x 1/4"	38074030	3/4" x 1/2"	38074070
1/2" x 1/4"	38074040	-	-

**MALE HEX NIPPLES**

- No. 27
- Brass
- BSPT



Size (BSPT)	Bishops Code	Size (BSPT)	Bishops Code
1/8"	38054010	1/2"	38054040
1/4"	38054020	3/4"	38054050
3/8"	38054030	1"	38054060

**MALE & FEMALE ADAPTORS**

- No. 72
- Brass



Size (BSP x BSPT)	Bishops Code	Size (BSP x BSPT)	Bishops Code
1/4" x 1/8"	38010020	1/2" x 1/4"	38010070
1/4" x 1/4"	38010030	1/2" x 3/8"	38010080
3/8" x 1/4"	38010050	1/2" x 1/2"	38010090
3/8" x 3/8"	38010060	3/4" x 1/2"	38010100

**MALE TAPER PLUG ADAPTORS**

- No. 64
- Brass



Size	Bishops Code	Size	Bishops Code
1/8" BSP	38066010	1/2" BSP	38066040
1/4" BSP	38066020	3/4" BSP	38066050
3/8" BSP	38066030	-	-



## PIPE FITTINGS – BRASS &amp; GALVANISED

## FEMALE HEX SOCKETS

- No. 26
- Brass



Size	Bishops Code	Size	Bishops Code
1/8" BSP	38078090	1/2" BSP	38078120
1/4" BSP	38078100	3/4" BSP	38078130
3/8" BSP	38078110	1" BSP	38078140

## BRASS OLIVES

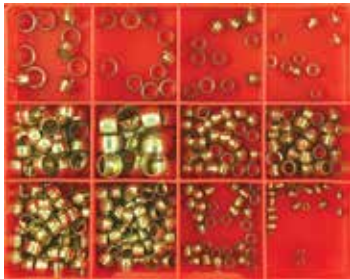
- No. 1
- Brass
- Compression sleeve for metal tube



Size	Bishops Code	Size	Bishops Code
1/4"	38562015	3/8"	38562025
5/16"	38562020	1/2"	38562030

## 330 PIECE BRASS OLIVE KIT – METRIC &amp; IMPERIAL

- Suits copper and nylon tube
  - 6mm copper and nylon
- Includes:
- 12 sizes: Copper 1/8" to 1/2" and nylon 3/16" to 3/8"



Champion

Item Code	Bishops Code
CA1412	40410680

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FASTENER GRAB KITS

From Page 289

## MALE &amp; FEMALE REDUCING BUSH ADAPTORS

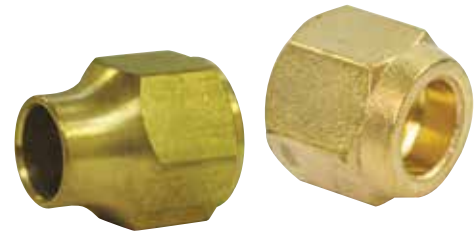
- No. 24
- Galvanised



Item Code	Size	Bishops Code
01-2412	100 x 50mm (4" x 2" BSP)	38070252
10-G2442	100 x 80mm (4" x 3" BSP)	38070254

## SAE 45° FLARE FITTINGS – FLARE NUTS

- No. 6 Standard and No. 6S short types
- Imperial fitting
- Brass



STANDARD		SHORT	
Size	Bishops Code	Size	Bishops Code
3/8"	38558025	3/8"	38558040
1/2"	38558030	–	–

## IT'S TIME TO SADDLE UP

When it comes time to secure your piping, many different clamp options become available. The most popular option is the use of a saddle bracket.

## Secure Positioning

Saddle brackets allow you to secure piping directly to a surface. This reduces costs associated with the purchasing of unnecessary components. By securing a pipe directly to the surface, you are able to reduce the space taken up by the system, making this method perfect for tight spaces such as within walls or under flooring.

## Working Load

When securing your pipe, it is important to determine the load of the pipe when full in order to make a decision on how many brackets will be needed. When mounting your saddles, ensure they are spaced equally to spread the load out and secure the pipe effectively.

If you're chasing stainless steel U-bolts, contact your Bishops representative.

Can't find the little things you need in this catalogue? Give us a call – we'll get 'em for you. Find them at Bishops!





**PIPE FITTINGS & ACCESSORIES**

**Pipe:**

- Used for industrial plumbing and fire hydrant piping systems, provides water to landing valves, hose reels, and hydrant risers typically located in stairwells or building cavities, suitable for mains or independent water supply

**Pipe Fittings:**

- Roll grooved pipe couplings and fittings system is a fast and reliable way to join pipe for both wet and dry applications
- Providing a flexible movement to the piping system and easily adapted to suit standard or light walled pipe

**Gasket Lube:**

- Specifically formulated where rubber gaskets are fitted in hot, dry, and wet weather, also used in areas where high levels of water quality are not required such as sewerage, irrigation, and fire control systems
- Standards: AS 4020-1999

**Petro Tape:**

- Petro petrolatum coating systems were developed for the protection of metal surfaces in the most severe environments. They are designed to be applied over wire brushed surfaces in exposed, underground, and underwater applications
- Range in sizes: 50 to 150mm wide



Roll Grooved Pipe Fittings



Mechanical Tee

Roll Grooved Couplings

Minsup® Gasket Lube

Petro Tape

CONTACT YOUR BISHOPS REPRESENTATIVE FOR MORE INFORMATION & TO ORDER THESE PRODUCTS

**304 STAINLESS STEEL FEMALE ELBOWS**

- Screwed fittings
- Female x female connections



90° ELBOW		45° ELBOW	
Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/4"	38330305	3/8"	38330510
3/8"	38330310	1/2"	38330515
1/2"	38330315	3/4"	38330520
3/4"	38330320	1"	38330525
1"	38330325	1 1/2"	38330530
1 1/2"	38330330	2"	38330535
2"	38330335	-	-

**316 STAINLESS STEEL FEMALE TEES**

- Service pressure: 150psi



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/8"	38386300	3/4"	38386320
1/4"	38386305	1"	38386325
3/8"	38386310	1 1/2"	38386330
1/2"	38386315	2"	38386335

**304 STAINLESS STEEL MALE & FEMALE ELBOWS 90°**

- Fig 4
- Screwed fittings



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/8"	38330400	3/4"	38330420
1/4"	38330405	1"	38330425
3/8"	38330410	1 1/2"	38330430
1/2"	38330415	2"	38330435

**316 STAINLESS STEEL REDUCING BUSH ADAPTORS**

- Fig 9



Size (BSP x BSP)	Bishops Code	Size (BSP x BSP)	Bishops Code
3/8" x 1/4"	38370020	1" x 3/4"	38370310
1/2" x 1/4"	38370040	1" x 1 1/2"	38370315
1/2" x 3/8"	38370050	2" x 1 1/2"	38370320
3/4" x 1/2"	38370070	-	-

**PIPE FITTINGS – STAINLESS & BLACK STEEL****316 STAINLESS STEEL SOCKETS**

- 150lb
- No. 26



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
3/8"	38378510	1"	38378525
1/2"	38378515	1 1/2"	38378530
3/4"	38378520	2"	38378535

**316 STAINLESS STEEL MACHINED HEX SOCKETS**

- Fig 15



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/8"	38378300	3/4"	38378330
3/8"	38378310	1"	38378340
1/2"	38378320	2"	38378360

**316 STAINLESS STEEL HEX NIPPLES**

- No. 27SS



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/8"	38354010	1"	38354060
1/4"	38354020	1 1/2"	38354070
3/8"	38354030	1 1/4"	38354075
1/2"	38354040	2"	38354080
3/4"	38354050	–	–

**316 STAINLESS STEEL FEMALE BARREL UNIONS**

- ANSI B16.5
- Fig 6



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
3/8"	38394310	1"	38394325
1/2"	38394315	1 1/2"	38394330
3/4"	38394320	2"	38394335

**316 STAINLESS STEEL TUBE CAPS**

- FIG12
- Screwed fittings



Size	Bishops Code	Size	Bishops Code
3/8"	38318020	1 1/2"	38318060
1/2"	38318030	2"	38318070
3/4"	38318040	3"	38318080
1"	38318050	–	–

**316 STAINLESS STEEL HEX PLUGS**

- Fig 8



Size (BSP)	Bishops Code	Size (BSP)	Bishops Code
1/8"	38366300	1"	38366325
3/8"	38366310	1 1/2"	38366330
1/2"	38366315	2"	38366335
3/4"	38366320	–	–

**EQUAL TEE BSP – 1,000LB**

- Black steel



Soft Metric	Nominal Bore	Pipe O.D.	Bishops Code
6mm	1/8"	10.30mm	68086005
8mm	1/4"	13.70mm	68086010
10mm	3/8"	17.20mm	68086015
15mm	1/2"	21.30mm	68086020
20mm	3/4"	26.70mm	68086025
25mm	1"	33.40mm	68086030
32mm	1 1/4"	42.20mm	68086035
40mm	1 1/2"	48.30mm	68086040
50mm	2"	60.30mm	68086045

**FEMALE X FEMALE ELBOW FITTINGS**

- Black steel
- Female x female

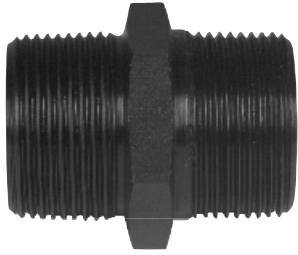


Size	Bishops Code	Size	Bishops Code
6mm (1/4" BSP)	68030005	25mm (1" BSP)	68030030
10mm (3/8" BSP)	68030015	32mm (1 1/4" BSP)	68030040
12mm (1/2" BSP)	68030012	40mm (1 1/2" BSP)	68030045
20mm (3/4" BSP)	68030025	50mm (2" BSP)	68030050



**NIPPLES BSP – 1,000LB**

- Black steel



Soft Metric	Nominal Bore	Pipe O.D.	Bishops Code
6mm	¼"	13.7mm	68054005
10mm	⅜"	17.2mm	68054015
32mm	1¼"	42.2mm	68054035
40mm	1½"	48.3mm	68054040
50mm	2"	60.3mm	68054045

**REDUCING NIPPLES BSP – 1,000LB**

- Black steel



Soft Metric	Nominal Bore	Pipe O.D. Large	Pipe O.D. Small	Bishops Code
8 x 6mm	¼" x ⅜"	13.70mm	10.30mm	68074005
10 x 8mm	⅜" x ½"	17.20mm	13.70mm	68074010
15 x 8mm	½" x ⅜"	21.30mm	13.70mm	68074015
15 x 10mm	½" x ⅝"	21.30mm	17.20mm	68074020
20 x 10mm	¾" x ⅝"	26.70mm	17.20mm	68074025
20 x 15mm	¾" x ½"	26.70mm	21.30mm	68074030
25 x 15mm	1" x ½"	33.40mm	21.30mm	68074035
25 x 20mm	1" x ¾"	33.40mm	26.70mm	68074040
32 x 25mm	1¼" x 1"	42.20mm	33.40mm	68074045
40 x 25mm	1½" x 1"	48.30mm	33.40mm	68074050
50 x 40mm	2" x 1½"	60.30mm	48.30mm	68074055

**FEMALE X FEMALE UNIONS BSP – 1,000LB**

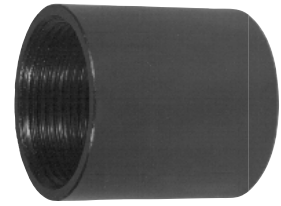
- Brass seats where available
- Black steel



Soft Metric	Size	Bishops Code	Soft Metric	Size	Bishops Code
8mm	¼"	68094005	25mm	1"	68094025
10mm	⅜"	68094010	32mm	1¼"	68094030
15mm	½"	68094015	40mm	1½"	68094040
20mm	¾"	68094020	50mm	2"	68094045

**SOCKETS BSP – 1,000LB**

- Black steel



Soft Metric	Nominal Bore	Pipe O.D.	Bishops Code
6mm	¼"	10.30mm	68078005
8mm	⅜"	13.70mm	68078010
10mm	⅝"	17.20mm	68078015
15mm	½"	21.30mm	68078020
20mm	¾"	26.70mm	68078025
32mm	1¼"	42.20mm	68078035
40mm	1½"	48.30mm	68078040
50mm	2"	60.30mm	68078045

**BUSHES BSP – 600 TO 1,000LB**

- 1,000psi all sizes to 2" nominal bore
- 600psi rating for 2½"
- Black steel



Soft Metric	Nominal Bore	Pipe O.D. Large	Pipe O.D. Small	Bishops Code
8 x 6mm	¼" x ⅜"	13.70mm	10.30mm	68070005
10 x 8mm	⅜" x ½"	17.20mm	13.70mm	68070010
15 x 8mm	½" x ⅜"	21.30mm	13.70mm	68070015
15 x 10mm	½" x ⅝"	21.30mm	17.20mm	68070020
20 x 8mm	¾" x ⅜"	26.70mm	13.70mm	68070025
20 x 10mm	¾" x ⅝"	26.70mm	17.20mm	68070030
20 x 15mm	¾" x ½"	26.70mm	21.30mm	68070035
25 x 20mm	1" x ¾"	33.40mm	26.70mm	68070040
40 x 25mm	1½" x 1"	48.30mm	33.40mm	68070050
50 x 25mm	2" x 1"	60.30mm	33.40mm	68070055
50 x 40mm	2" x 1½"	60.30mm	48.30mm	68070060

**PLUGS BSP – 1,000LB**

- Black steel



Soft Metric	Nominal Bore	Pipe O.D.	Bishops Code
6mm	¼"	10.30mm	68066005
10mm	⅜"	17.20mm	68066015
20mm	¾"	26.70mm	68066025
25mm	1"	33.40mm	68066030
38mm	1½"	48.30mm	68066035
50mm	2"	60.30mm	68066040

## BALL VALVES

### DIFFERENT TYPES OF VALVES & THEIR COMMON USES

**Ball Valves** are commonly used in shut off applications and are quarter turn operated with a spherical plug with an opening. When the opening is in line with the flow, fluid is able to pass through. When the opening is perpendicular to the flow, fluid stops. The ball is controlled by a valve handle.



**Butterfly Valves** are a simple and versatile quarter turn operated valve. A disc with a centre axis turns 90°. In an open position the disc sits perpendicular to the flow and fluid is able to pass through. In a closed position the disc sits in line with the flow. The butterfly valve can be operated easily and quickly either manually or with a pneumatic actuator.



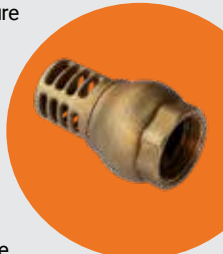
**Gate Valves** are controlled by a metal gate that slides up and down to manipulate flow. When the gate is fully open the flow is equal to the area of the pipe. When the gate is fully closed, flow stops. Gate valves are recommended for on/off use, as partly open conditions can lead to erosion of the gate.



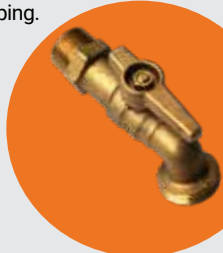
**Check Valves** have two ports, one for fluid to enter, the other for fluid to leave. Check valves work automatically and are not controlled externally. Instead they have a 'cracking pressure'. This means the fluid must reach a certain pressure before it will operate.



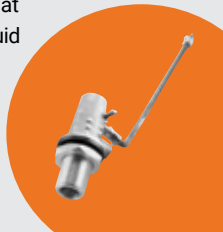
**Foot Valve** is a marriage between a check valve and a straining element. The valve works in the same way as the check valve, working once a certain pressure is reached. A straining element is added to the 'fluid in' side, stopping the movement of particles that may block hose or piping.



**Cock Valve**, also known as plug valve, blocks flow with a cone-shaped plug. When rotated the plug moves aside allowing fluid to flow through.



**Float Valve** has the role to control the inflow of fluid in a storage tank. It is controlled by a float that sits on the top of the liquid surface. When the liquid level decreases the float drops and the valve opens, letting in liquid to refill the tank to the desired level.



### BRASS BALL VALVES – FULL BORE

- Female/female connections
- Nickel plated brass body with chrome plated brass ball
- PTFE seals
- Plastic coated handle for extra comfort
- Non-AGA approved



Working Pressure	Size	Bore Size	Bishops Code
435psi (30 bar)	¼" BSP	6mm	39602020
435psi (30 bar)	½" BSP	12mm	39602040
360psi (25 bar)	2" BSP	50mm	39602090
230psi (16 bar)	2½" BSP	65mm	39602095

### PREMIUM BRASS BALL VALVES – FULL BORE

- Female/female connections
- Nickel plated brass body with chrome plated brass ball
- PTFE seals
- Plastic coated handle for extra comfort
- AGA approved up to 2"



Working Pressure	Size	Bore Size	Bishops Code
710psi (49 bar)	¾" BSP	10mm	39602030
435psi (30 bar)	¾" BSP	20mm	39602050
435psi (30 bar)	1" BSP	25mm	39602060
360psi (25 bar)	1¼" BSP	32mm	39602070
360psi (25 bar)	1½" BSP	40mm	39602080
230psi (16 bar)	3" BSP	75mm	39602100

**BALL VALVES BSP – 3 PIECE**

- 316 Stainless steel
- Full port
- 800psi WOG
- Max. temperature: 180°C



Soft Metric	Nominal Bore	Bishops Code
15mm	½"	39610004
20mm	¾"	39610006
25mm	1"	39610008
40mm	1½"	39610010
50mm	2"	39610012

**HIGH PRESSURE BALL VALVES**

- Inteva series
- Female/female connections
- Carbon steel body and ball with a yellow Bichromate finish on the body
- Designed for use in oil hydraulic applications
- Suitable for industrial, agricultural and public works machinery areas
- Comes with mounting holes to allow attachment to most surfaces
- Working pressure: 6,000psi (400 bar)



Size	Nominal Dia.	Bishops Code
¼" BSP	6	39610106
⅜" BSP	10	39610108
½" BSP	13	39610110
¾" BSP	20	39610120
1" BSP	25	39610125

**BRASS GATE VALVES**

- Hot pressed brass body with a steel handle
- Female/female connections
- Working temperature: 0°C to 120°C



39604030

Working Pressure	Size	Bishops Code	Working Pressure	Size	Bishops Code
145psi (10 bar)	½" BSP	39604020	145psi (10 bar)	1½" BSP	39604060
145psi (10 bar)	¾" BSP	39604030	145psi (10 bar)	2" BSP	39604070
145psi (10 bar)	1" BSP	39604040	230psi (16 bar)	2½" BSP	39604075
145psi (10 bar)	1¼" BSP	39604050	230psi (16 bar)	3" BSP	39604080

**1, 2 & 3 PIECE BALL VALVES**

**One Piece**

One piece ball valves are cast as one piece. In comparison to other ball valve options, they are relatively inexpensive. Their one piece construction makes them difficult to service. In most cases they are easier to replace entirely, than to service.



**Two Piece**

A two piece ball valve is constructed using two pieces. The ball being held in position by a body stud. This makes servicing the valve simpler, but does disrupt the pipeline. As the two pieces are fixed together, the force and the internal temperature can affect the seal tightness causing leaks.



**Three Piece**

A three piece ball valve consists of two end caps and a body. The three piece design allows for the centre part of the valve, containing the ball, to be easily removed from the pipeline to allow for servicing.



**GET MORE AT BISHOPS**

**PIPE WRENCHES**

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## HOW TO SELECT A PRESSURE GAUGE

### 1. Accuracy

Accuracy is defined as a percentage of the full-scale range. While requirements differ from one industry to another, the following are general guidelines:

- Test gauges and standards: 0.25% through 0.10% full scale accuracies
- Critical processes: 0.5% full scale accuracy
- General industrial processes: 1.0% accuracy
- Less critical commercial uses: 2.0% accuracy
- Refer to ASME B40.100 or the DIN specifications for more information on accuracy

### 2. Dial Size

Pressure gauge dial sizes range from 1½" to 16" diameters. Generally, readability requirements, space limitations and required gauge accuracy determine dial size. Accuracies of 0.25% to 0.5% generally have dial sizes of 4½" or larger since more dial graduations are required.

### 3. Case Style/Material

Environmental considerations include ambient temperature, airborne particulates, condensation, humidity, water and chemicals, all of which can affect gauge performance.

Ambient temperature may affect the accuracy and integrity of the gauge. Gauges are available either temperature compensated or non-temperature compensated. Ambient conditions may require that the gauge be isolated from temperature extremes. When required, the gauge should be isolated from temperature extremes with a flexible line assembly.

When ambient conditions are corrosive, contain a large number of particulates, or the gauge will be exposed to a wet or humid environment, specify a gauge that is weatherproof/hermetically sealed or liquid filled.

### 4. Media/Wetted Parts

The wetted parts of the pressure gauge, the Bourdon tube and socket, must be compatible with the process media. If not compatible with the wetted parts of the gauge, corrosion will occur. Corrosion of gauge wetted parts will eventually cause gauge failure and possibly safety issues. When the gauge wetted parts are not compatible with the process media, a diaphragm should be considered.

### 5. Connection Size

Gauges are available with a variety of connections including NPT, DIN, JIS, BSP & SAE. Process pressure gauges with 4½" dial sizes or larger are most often supplied with a ½" NPT connection to best support the gauge. Factors to consider when selecting a pressure gauge connection include process pressures, gauge size and weight, space limitations, leak integrity and past experience.

### 6. Connection Location

Consider the following mounting options when selecting a pressure gauge:

- Bottom entry connection
- Back entry connection
- Wall/surface mounting
- U-clamp flush mounting for back entry connection
- Front flange flush mounting for back entry connection

### 7. Pressure Ranges

ASME B40.100 recommends that normal operating pressure be confined to 25%–75% of the scale. If pulsation is present in the process, maximum operating gauge pressure should not exceed 50% of the full-scale range.

**To properly select a pressure gauge, consider the gauge process, range, environment, accuracy, dial size, connection and mounting requirements.**

## PRESSURE GAUGES – BACK ENTRY



- For use with regulators for setting output pressure
- Graduated both in bars and psi with a max. reading of 200psi (14 bar), in intervals of 5psi (0.20 bar) and is accurate to within 5%
- Male threads on the centre back and fit female threads on the regulator
- Gauge has a steel casing with clear glass lens and internal components made from brass



Item Code	Thread Size	Bishops Code
A2G02	½" BSP	73682005
A2G08	¼" BSP	73682010

## PRESSURE GAUGES – BOTTOM ENTRY

- Grade 304 stainless steel case
- Glycerine-filled to protect against vibration and extend life of the gauge
- Liquid filled gauges are not suitable where oxidising agents such as oxygen, chlorine, nitric acid and hydrogen peroxide are being used
- Diameter: 63mm



73682240

Description	Working Pressure	Bishops Code
¼" BSPT	0–100kPa (0–15psi)	73682210
¼" BSPT	0–250kPa (0–36psi)	73682220
¼" BSPT	0–600kPa (0–85psi)	73682230
¼" BSPT	0–1,000kPa (0–145psi)	73682240
¼" BSPT	0–1,000kPa (0–140psi)	73682145
¼" BSPT With ½" BSPT Adaptor	0–1,000kPa (0–140psi)	73682148
¼" BSPT	0–1,600kPa (0–230psi)	73682250
¼" BSPT	0–10,000kPa (0–1,500psi)	73682550
¼" BSPT	0–25,000kPa (0–3,600psi)	73682625
¼" BSPT With ½" BSPT Adaptor	0–25,000kPa (0–3,600psi)	73682600
¼" BSPT	0–40,000kPa (0–5,800psi)	73682630

## PRESSURE GAUGES – BOTTOM ENTRY

- Dry gauge
- Stainless steel case
- Diameter: 50mm
- Port size: ¼" BSP



Working Pressure	Bishops Code
0–800kPa (0–115psi)	73682185



### STAINLESS STEEL PRESSURE GAUGES – BOTTOM ENTRY

- Stainless steel casing
- Liquid filled to protect against vibration and extend life of the gauge
- Liquid filled gauges are not suitable where oxidising agents such as oxygen, chlorine, nitric acid and hydrogen peroxide are being used
- Face diameter: 150mm
- Port size: ½" NPT



Working Pressure	Bishops Code
0–6,000kPa (0–870psi)	73682740

### OIL PRESSURE GAUGES – BOTTOM ENTRY

- Grade 304 stainless steel case
- Liquid filled to protect against vibration and extend life of the gauge
- Liquid filled gauges are not suitable where oxidising agents such as oxygen, chlorine, nitric acid and hydrogen peroxide are being used
- Diameter: 63mm
- Port size: ¼" BSP



Working Pressure	Bishops Code
0–300kPa (0–43psi)	73682150
0–16,000kPa (0–2,320psi)	73682180

### AIRLINE AIR PRESSURE GAUGE

- Back entry
- Oil filled
- Max. working pressure: 1.0MPa
- 50mm



Size	Bishops Code
¼" BSP	73682160

### PRESSURE TEST PUMP

- Max. pressure: 860psi
- Max. volume: 12L



Item Code	Bishops Code
60005	64090150

## THE DIFFERENCE BETWEEN AIR FILTERS, AIR REGULATORS & AIR LUBRICATORS

**Air Filter** cleans compressed air by trapping solid particles and separating liquids, such as oil and water. Filters are installed in the air line upstream of regulators, lubricators, and all pneumatically-powered tools and equipment. They remove contaminants from pneumatic systems, preventing damage to equipment and reducing production losses due to contaminant-related downtime.



**Air Pressure Regulators** control fluid pressure in compressed air systems. Regulators are also known as pressure reducing valves (PRVs). Pressure regulators maintain a constant output pressure regardless of input pressure variations and demands made on the system by downstream components.



**Air Lubricators** add controlled quantities of oil into the compressed air system to reduce the friction between moving components within air tools and other equipment. Adding lubrication oil to the system also clears compressor oils that travel through the system in vapor form. To prevent build-up of oil within system components, mineral oils are added to the system to flush away the deposits.



### AIRLINE FILTERS

- Modular type
- Polycarbonate bowl
- No mounting bracket or auto drain
- Max. working pressure: 1.0MPa
- Ambient and fluid temp: -5°C to 60°C



Port Size	Bishops Code
¾" BSP	73675070
½" BSP	73675080



# FILTER REGULATORS, LUBRICATORS & DRAIN VALVES

## AIRLINE FILTER REGULATORS

- Modular type regulators
- Polycarbonate bowl with standard guard
- No backflow function
- With mounting bracket and pressure gauge
- Pressure range: 0.05–0.85MPa



Description	Port Size	Bishops Code
AC40 Filter Regulator	½" BSP	73675015
AW30 Filter Regulator	¼" BSP	73675020
AW30 Filter Regulator	¾" BSP	73675030
AW40 Filter Regulator	½" BSP	73675040
AW40 Filter Regulator with Auto Drain	¾" BSP	73675050

## FILTER REGULATOR COMBINATIONS



- Air filter is used to separate dust, dirt, moisture and other contaminants from compressed air
- Filter has a die cast aluminium body, polycarbonate bowl with a steel bowl guard and a high performance sintered bronze filtering element
- Filter is designed with a separator and shield for efficient moisture separation. It is combined with a regulator which maintains a steady outlet pressure, unaffected by variations/fluctuations in the inlet pressure
- Regulators have a non-raising "Press to Lock" adjusting knob for locking at any set pressure
- Regulators work on a diaphragm operated, relieving type mechanism with pressure compensated by balanced poppet
- Wetted components: Aluminium, bronze, brass, steel, acetal, polycarbonate, stainless steel and nitrile
- Comes with bracket and gauge



Item Code	Port Size	Flow Rate	Pressure Gauge Port Size	Bowl Size	Bishops Code
FRC146134-S/GB	¼"	1,800L/min (63cfm)	½"	32ml	73677020
FRC146234-S/GB	¾"	2,200L/min (77cfm)	½"	32ml	73677030
FRC156334-S/GB	½"	3,000L/min (106cfm)	½"	44ml	73677040
FRC176434-S/GB	¾"	4,250L/min (149cfm)	¼"	165ml	73677050

## AIRLINE LUBRICATORS

- Modular type
- Metric thread
- Polycarbonate bowl
- No mounting option
- Max. working pressure: 1.0MPa



Port Size	Bishops Code
½" BSP	73675140

## AIR LUBRICATORS

- Used to feed lubricants to pneumatic equipment
- Maintains a constant oil-to-air density over a wide range of flow
- Fog/MicroMist type, up to 50' pipe runs
- Die cast aluminium head, polycarbonate bowl with a steel bowl guard
- The head is fitted with oil drop indicator, oil drop controller and oil filling plug
- Wetted components: aluminium, bronze, steel, acetal, polycarbonate, stainless steel and nitrile
- Designed for best performance with 32 grade oil



Item Code	Port Size	Flow Rate	Bowl Size	Dimensions	Bishops Code
L1361	¼" BSP	1,350L/min (48cfm)	20ml	135(h) x 40(w)mm	73677110
L1462	¾" BSP	3,000L/min (106cfm)	57ml	157(h) x 55(w)mm	73677130
L1563	½" BSP	5,650L/min (200cfm)	152ml	190(h) x 70(w)mm	73677140
L1764	¾" BSP	7,200L/min (318cfm)	200ml	273(h) x 90(w)mm	73677150

## AUTO DRAIN VALVES

- Drains the condensate water automatically
- Features a provision in the valve for manual drain off
- Unlike an electrical auto drain valve, these float type auto drain valve operates only when the condensate is collected and drains only the condensate



Item Code	Suits	Bishops Code
A2D01	¼" Units Miniature – Model Series F13, FS13	73677670
A2D02	¾" Units Intermediate – Model Series F14, FS14	73677675
A2D03	½" Units Standard – Model Series F15, FS13	73677680
A2D04	¾" Units Heavy Duty – Model Series F17, FS17	73677685

## GET MORE AT BISHOPS



### VALVE LOCKOUTS

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### PAINT MARKERS

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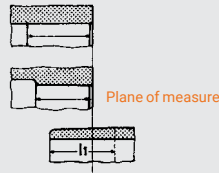
### BUCKETS

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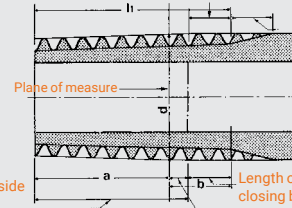
# DIMENSIONS

## Dimensions & Lengths of Thread

Matching conical outside thread with cylindrical inside thread



Maximum length of screw of inside thread in case of manual screw



Positive shifting of plane of greater extremity of inside thread of plane of measure

Outside Pipe Thread		Pipe Size															
Description		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	
Length of Measure (a)	Size Of Thread In Plane Of Measure (d)	9.728	13.157	16.662	20.995	26.441	33.249	41.91	47.803	59.614	75.184	87.884	100.33	113.03	138.43	163.83	
	Nominal Dimension	4.0	6.0	6.4	8.2	9.5	10.4	12.7	12.7	15.9	17.5	20.6	22.2	25.4	28.6	28.6	
	Shiftings mm≈	±0.9	±1.3	±1.3	±1.8	±1.8	±2.3	±2.3	±2.3	±2.3	±3.5	±3.5	±3.5	±3.5	±3.5	±3.5	
	Shiftings Threads	±1	±1	±1	±1	±1	±1	±1	±1	±1	±1 1/2	±1 1/2	±1 1/2	±1 1/2	±1 1/2	±1 1/2	
	Dimension Max.≈	4.9	7.3	7.7	10	11.3	12.7	15	15	18.2	21	24.1	25.7	28.9	32.1	32.1	
Tolerance of Screw (b)	mm≈	2.5	3.7	3.7	5	5	6.4	6.4	6.4	7.5	9.2	9.2	9.2	10.4	11.5	11.5	
	Threads	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	3 1/2	4	4	4	4 1/2	5	5	
Length min. of Useful Thread (L1)	For a Nominal 6.5	9.7	10.1	13.2	14.5	16.8	19.1	19.1	-	23.4	26.7	29.8	31.4	35.8	40.1	40.1	
	For a Max.	7.4	11	11.4	15	16.3	19.1	21.4	21.4	25.7	30.2	33.3	34.9	39.3	43.6	43.6	
	For a Min.	5.6	8.4	8.8	11.4	12.7	14.5	16.8	16.8	21.1	23.2	26.3	27.9	32.3	36.6	36.6	
Inside Pipe Thread																	
Length of Useful Thread (L2)	7.4	11.0	11.4	15.0	16.3	19.1	21.4	21.4	-	25.7	30.2	33.3	34.9	39.3	43.6	43.6	
Shifting of Plane Of Extremity	mm ≈	±1.1	±1.7	±1.7	±2.3	±2.3	±2.9	±2.9	±2.9	±2.9	±3.5	±3.5	±3.5	±3.5	±3.5	±3.5	
On The Plane of Measure	Threads	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/4	±1 1/2	±1 1/2	±1 1/2	±1 1/2	±1 1/2	±1 1/2	
Shifting on Sizes Of Middle Thread And Of Stone		±0.071	±0.104	±0.104	±0.142	±0.142	±0.180	±0.180	±0.180	±0.180	±0.217	±0.217	±0.217	±0.217	±0.217	±0.217	

## Bolt & Stud Dimensions for ASA (USAS) Flanges to USAS B16.5

150lb. Flanges																				
Nominal Pipe Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Number of Bolts	4	4	4	4	4	4	4	4	8	8	8	8	8	12	12	16	16	20	24	24
Dia. of Bolts	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"	1"	1"	1 1/8"	1 1/8"	1 1/8"
Machine Bolts	1 3/4"	2"	2"	2 1/4"	2 1/4"	2 1/4"	3"	3"	3"	3"	3 1/4"	3 1/4"	3 1/4"	3 3/4"	3 3/4"	4"	4 1/4"	4 1/4"	4 3/4"	5 1/4"
Stud Bolts	2 1/4"	2 1/4"	2 1/2"	2 1/2"	2 3/4"	3"	3"	3 1/4"	3 1/2"	3 1/2"	3 1/2"	3 3/4"	3 3/4"	4 1/2"	4 1/2"	5"	5 1/4"	5 3/4"	6"	6 3/4"
300lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24
Dia. of Bolts	1/2"	5/8"	5/8"	5/8"	3/4"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	7/8"	1"	1 1/8"	1 1/8"	1 1/4"	1 1/4"	1 1/4"	1 1/2"
Machine Bolts	2	2 1/2	2 1/2	2 3/4	3	3	3 1/4	3 1/2	3 3/4	3 3/4	4	4 1/4	4 3/4	5 1/4	5 3/4	6	6 1/2	6 3/4	7	7 3/4
Stud Bolts	2 1/2"	2 3/4"	3"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/4"	4 1/2"	4 3/4"	5 1/4"	6"	6 1/2"	6 3/4"	7 1/4"	7 1/2"	8"	9"
400lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24
Dia. of Bolts	1/2"	5/8"	5/8"	5/8"	3/4"	5/8"	3/4"	3/4"	7/8"	7/8"	7/8"	7/8"	1"	1 1/8"	1 1/8"	1 1/4"	1 1/4"	1 3/8"	1 3/8"	1 1/2"
Machine Bolts	3"	3"	3"	3"	4"	4"	4"	4"	5"	5"	5"	5"	6"	7"	7"	8"	8"	8"	9"	10"
600lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	8	12	12	16	20	20	20	20	24	24
Dia. of Bolts	1/2"	5/8"	5/8"	5/8"	3/4"	5/8"	3/4"	3/4"	7/8"	7/8"	1"	1"	1 1/8"	1 1/8"	1 1/4"	1 3/8"	1 3/8"	1 1/2"	1 5/8"	1 5/8"
Machine Bolts	3"	3 1/4"	3 1/2"	3 3/4"	4"	4"	4 1/2"	4 3/4"	5 1/4"	5 1/2"	6 1/4"	6 1/2"	7 1/2"	8 1/4"	8 1/2"	9"	9 3/4"	10 1/2"	11 1/4"	12 3/4"
900lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	12	12	12	16	20	20	20	20	20	20
Dia. of Bolts	3/4"	3/4"	7/8"	7/8"	1"	7/8"	1"	7/8"	1 1/8"	1 1/4"	1 1/8"	1 3/8"	1 3/8"	1 3/8"	1 1/2"	1 3/8"	1 3/8"	1 1/2"	1 3/8"	2"
Machine Bolts	4"	4 1/4"	4 3/4"	4 3/4"	5 1/4"	5 1/2"	6"	5 1/2"	6 1/2"	7 1/4"	7 1/2"	8 1/2"	9"	9 3/4"	10 1/2"	11"	12 3/4"	13 1/2"	17"	
1,500lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	16	16	16	16	16
Dia. of Bolts	3/4"	3/4"	7/8"	7/8"	1"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/2"
Machine Bolts	4"	4 1/4"	4 3/4"	4 3/4"	5 1/4"	5 1/2"	6"	6 3/4"	7 1/2"	8 1/2"	9 3/4"	11 1/2"	13 1/4"	14 3/4"	16"	17 1/2"	19 1/4"	21"		
2,500lb. Flanges																				
Number of Bolts	4	4	4	4	4	8	8	8	8	8	12	12	12	12	-	-	-	-	-	-
Dia. of Bolts	3/4"	3/4"	7/8"	1"	1 1/8"	1"	1 1/8"	1 1/4"	-	1 1/2"	1 3/4"	2"	2"	2 1/2"	2 3/4"	-	-	-	-	-
Machine Bolts	4 3/4"	4 3/4"	5 1/4"	5 3/4"	6 1/2"	6 3/4"	7 1/2"	8 1/2"	-	9 3/4"	11 1/2"	13 1/2"	15"	19"	21"	-	-	-	-	-

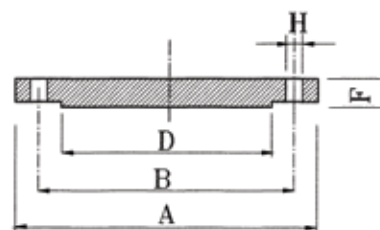
Machine bolt lengths include height of point; stud-bolt lengths do not include height of point. Length shown is for raised face joints



# FLANGES

## ANSI CLASS 150 BLIND FLANGE

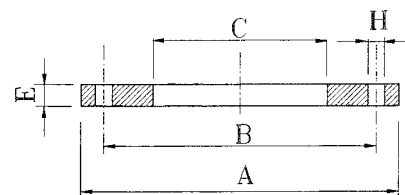
- ANSI flanges specification: ANSI B 16.5
- Raised face thickness: 1.6mm
- Material: A105N Carbon Steel



Soft Metric	Nom. Bore	A	B	D	F	H	Bolt Size	Number of Holes	Approx. Weight	Bishops Code
50mm	2"	152.5	120.6	92.0	19.1	20.0	5/8"	4	2.3kg	68289010
100mm	4"	228.7	190.5	157.2	23.8	20.0	5/8"	8	7.7kg	68289020
150mm	6"	276.5	241.3	216.0	25.5	22.0	3/4"	8	12.0kg	68289025
200mm	8"	343.0	298.4	269.9	28.6	22.0	3/4"	8	21.4kg	68289030
250mm	10"	406.5	361.9	232.9	30.2	26.0	7/8"	12	30.5kg	68289035

## SLIP ON PLATE FLANGE – TABLE D

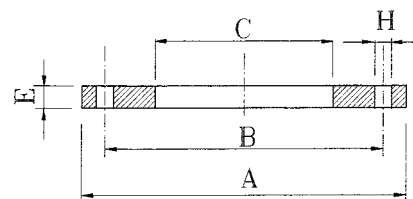
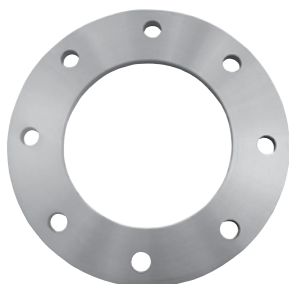
- Specification: AS2129
- Material: Steel



Soft Metric	Imperial Size	A	B	C	E	H	Bolt Size	Number of Holes	Approx. Weight	Bishops Code
150mm	6"	279mm	235mm	167mm	13mm	18mm	M16	8	3.9kg	68284045
200mm	8"	337mm	292mm	221mm	13mm	18mm	M16	8	5.2kg	68284050

## SLIP ON PLATE FLANGE – TABLE E

- Specification: AS2129
- Material: 316 Stainless Steel



Soft Metric	Imperial Size	A	B	C	E	H	Bolt Size	Number of Holes	Approx. Weight	Bishops Code
25mm	1"	114	83	35	12	14	M12	4	0.9kg	68285025
50mm	2"	152	114	62	12	18	M16	4	1.4kg	68285050
65mm	2½"	165	127	78	12	18	M16	4	1.5kg	68285065
80mm	3"	184	146	90	12	18	M16	4	2.0kg	68285080



# KNOW YOUR STANDARDS & CLASSES

Flanges are made to different standards, each with their own classes to match a wide series of pipe dimensions. Before choosing your flange, make sure it matches the standard and class on your pipes to ensure everything lines up perfectly. Never pick and mix between different classes, they just won't fit and alteration to the flange will drastically affect its integrity.

The two standards sold at Bishops are; AS 2129 and ANSI B16.5. If you need a special size or even a different material, Bishops can source what you need. Give your local branch a call.

**AS 2129** is an Australian Standard that is used by most Australian manufacturers. These flanges are most commonly made of mild steel. The classes within this standard are labelled Tables. The most common classes which are offered by Bishops include Table D, Table E and Table H.

**ANSI B16.5** is an American Standard. These flanges are most commonly made of carbon steel A105. The classes within this standard are labelled by the standard name; ANSI. The most common classes within this standard are ANSI 150, ANSI 300, ANSI 600, ANSI 900 and ANSI 1500. These also come in Raised Face and Ring Type Joint (RTJ).

## EXPAND YOUR Flange Knowledge

The most common flanges Bishops supply are flat face and raised face. But what sets them apart?

Flat face flanges are only used in low temperature, low pressure applications. The flat surface allows for full contact across the whole face of the two flanges. Only use full face gaskets with full face flanges to ensure full and equal contact between the two flanges.

Raised face flanges are widely used for all forged steel equipment and valves. The face on these flanges has two levels; the inner level and outer level. The inner level forms the contact surface whilst the outer level forms the non-contact area. The extra level allows for more thread which in turn enables the bolt to apply more force and create a much tighter seal. When fitting a gasket, make sure that it lines up with the inner level in both size and shape.

Temperature °C	Flange Pressure Chart (kPa)							
	ANSI B16.5				AS 2129			
	Class 150	Class 300	Class 600	Class 900	Class 1500	Table D	Table E	Table H
-29 to 38	1,960	5,110	10,210	15,320	25,530	700	1,400	3,500
50	1,920	5,010	10,020	15,020	25,040	700	1,400	3,500
100	1,770	4,640	9,280	13,910	23,190	700	1,400	3,500
150	1,580	4,520	9,050	13,570	22,610	700	1,400	3,500
200	1,400	4,380	8,760	13,150	21,910	700	1,400	3,500
250	1,210	4,170	8,340	12,520	20,860	650	1,300	3,300
300	1,020	3,870	7,750	11,620	19,370	570	1,100	2,900
350	840	3,700	7,390	11,090	18,480	500	950	2,400
375	740	3,650	7,290	10,940	18,230	450	900	2,200
400	650	3,450	6,900	10,350	17,250	400	800	2,000
425	560	2,880	5,750	8,630	14,380	350	700	1,700
450	470	2,000	4,010	6,010	10,020	-	-	1,300
475	370	1,350	2,710	4,060	6,770	-	-	900
500	280	880	1,760	2,640	4,400	-	-	-
525	190	520	1,040	1,550	2,590	-	-	-
540	130	330	650	980	1,630	-	-	-

## GET MORE AT BISHOPS ▶



### PIPE REPAIR TAPE

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### GASKETS

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### GASKET SEALANTS

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