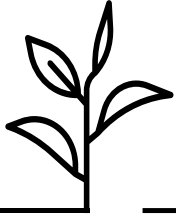




# RAF VALVES





# RAF VALVES

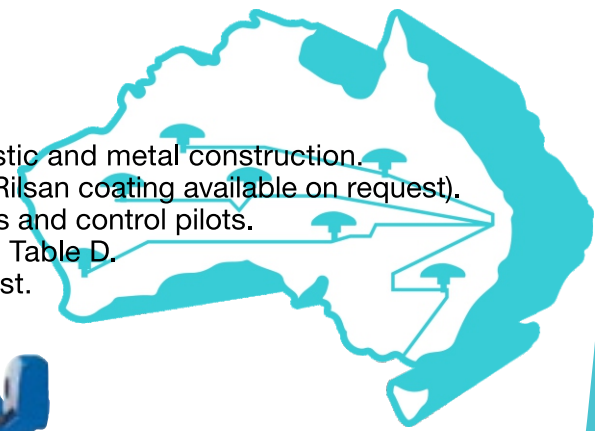


## Contents:

• Standard RAF valve.....	1
• Technical specifications metal in-line valves .....	2
• Technical specifications metal angle valves .....	3
• Basic valve .....	4
• Manual valve .....	5
• Electric valve.....	6
• Basic valve with hydraulic relay .....	7
• Pressure reducing valve.....	8
• Pressure reducing valve with hydraulic relay.....	9
• Pressure reducing valve with shuttle valve .....	10
• Pressure reducing valve electric .....	11
• Pressure sustaining valve .....	12
• Pressure sustaining valve electric .....	13
• Pressure reducing and sustaining valve .....	14
• Pressure reducing and sustaining valve electric .....	15
• 2 Way float valve with single level float.....	16
• 3 Way float valve with dual level float .....	16
• Quick pressure relief valve .....	17

# RAF VALVES

RAF diaphragm valves, by Raphael, are available in plastic and metal construction. The metal valves have an epoxy coating for protection. (Rilsan coating available on request). The valves are available with a range of operating options and control pilots. Threaded valves are FBSP. Flanged valves are drilled to Table D. Other thread and flange patterns are available on request.



RAF in-line flanged valves from 80 to 400mm are constructed of Ductile Iron. 50mm flanged, 80x65x80, 100x80x100 and 150x100x150 valves are of Cast Iron construction. All RAF threaded and angle (threaded and flanged) valves are Cast Iron.

## Standard RAF valve control accessories and fittings

valve	Size	Control Plumbing	Solenoid	Pilot
RAF-P	50 - 100	8mm PE Plastic Fittings	RAF Plastic 24V AC 3 Way N.O.	Arad or Raphael plastic 3 way
RAF PN10	25 - 100	8mm PE Plastic Fittings	RAF Plastic 24V AC 3 Way N.O.	Arad or Raphael plastic 3 way
RAF PN10	150*	8mm PE Plastic Fittings	Gemsol 8W 24V AC 2.4mm N.O.	Arad or Raphael plastic 3 way
RAF PN10	150 - 200	10mm Nylon Brass Fittings	Gemsol 8W 24V AC 2.4mm N.O.	Raphael Brass 3 way
RAF PN10	250 - 300	12mm Nylon Brass Fittings	Gemsol 8W 24V AC 2.4mm N.O.	Raphael Brass 3 way
RAF PN16	25 - 200	10mm Nylon Brass Fittings	Gemsol 8W 24V AC 1.6mm N.O.	Raphael Brass 3 way
RAF PN16	250 - 300	12mm Nylon Brass Fittings	Gemsol 8W 24V AC 1.6mm N.O.	Raphael Brass 2 or 3 way

\* Limited to <70m Regulating Pressure

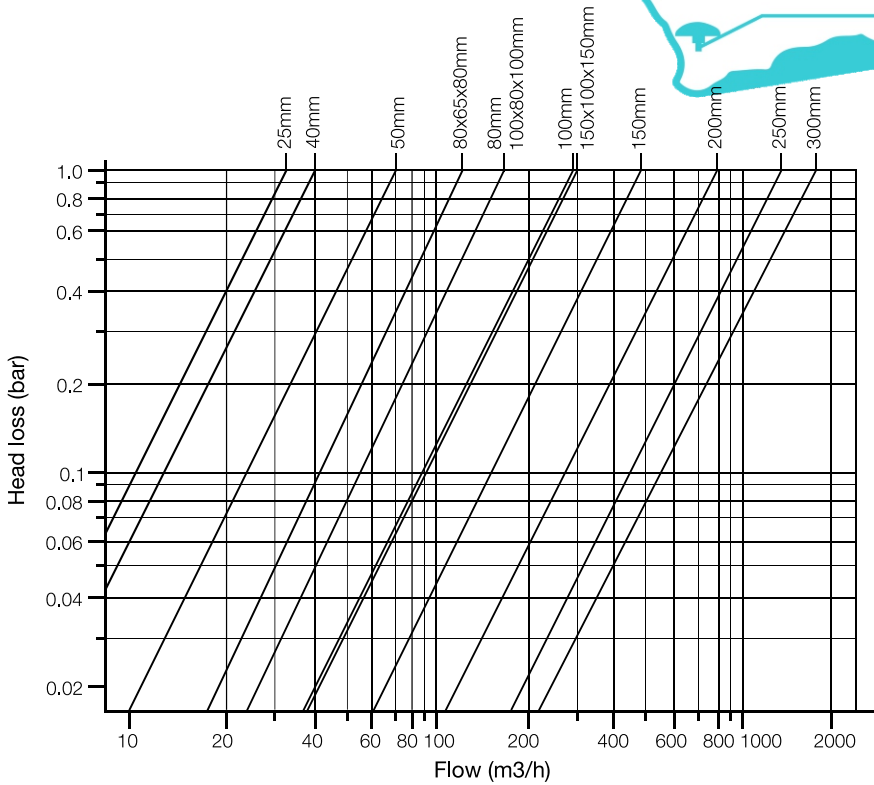
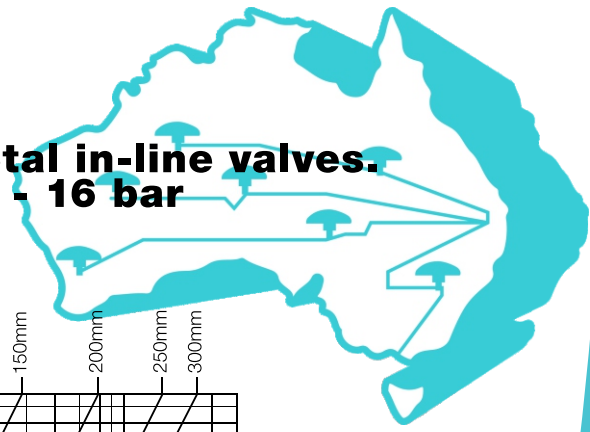
Regulating valves with plastic pilots include pressure check point. Regulating valves with brass pilots include liquid filled pressure gauge. Finger filter is fitted as standard to all valves.

## Optional valve accessories and fittings

Solenoids	Baccara, Bermad, Gemsol, N.O. or N.C.	
Voltages	AC 110, 240	DC 12, 24 and Latching
Pilots	Dorot, Bermad	
Relays	Galit, Galsol, Dorot, Bermad, Shuttle valve	
Plumbing	Copper, Stainless Steel	
Control Filter	External Y Strainer, Large External Filter	
Other	Low Operating Pressure Diaphragm, Internal Enamel Coating, Mechanical Closing Stem, Visual Position Indicator, Analogue Position Indicator SS Bolts, Nuts and Washers	

# RAF VALVES

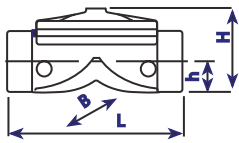
**Technical specifications metal in-line valves.**  
**Maximum working pressure - 16 bar**



**RAF Metal In-line Head loss**

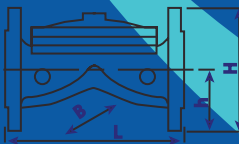
## Dimensions and weights

Threaded Inline



Size		L (mm)	H (mm)	B (mm)	h (mm)	Weight (kg)	Control Chamber (L)	Max Flow m3/h	Kv (Full Open)
mm	in								
25	1	156	70	94	21	1.5	0.065	20	32
40	1.5	159	80	96	29	2	0.065	25	40
50	2	190	100	125	38	3.5	0.08	45	70
80x65x80	3x2.5x3	244	127	138	50	5.5	0.16	70	130
80	3	290	138	200	50	11	0.3	90	170
100	4	346	220	230	60	16.5	0.78	150	290

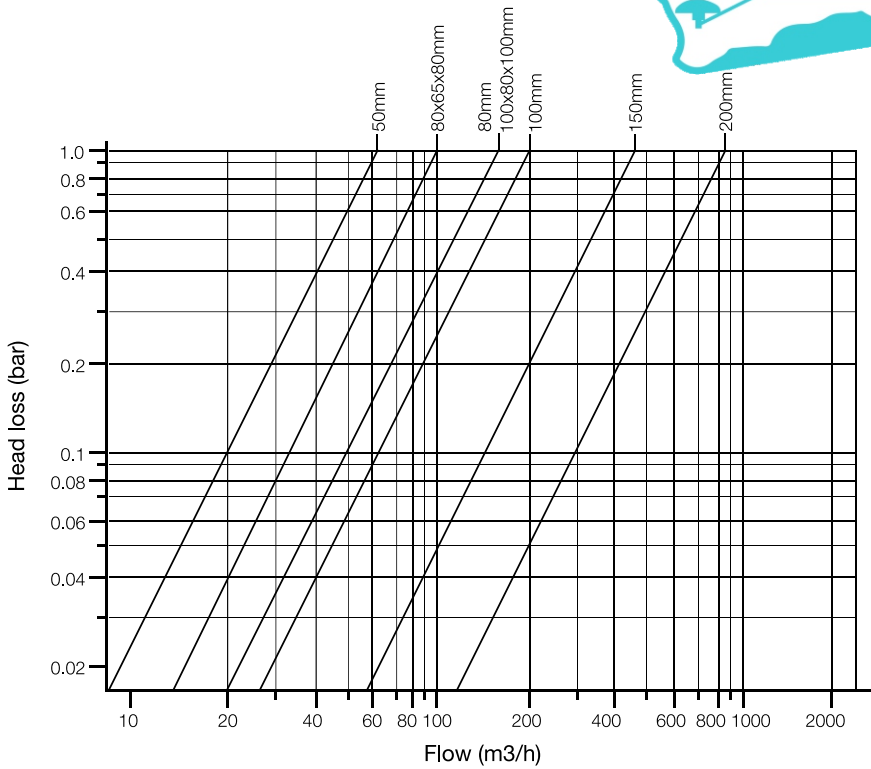
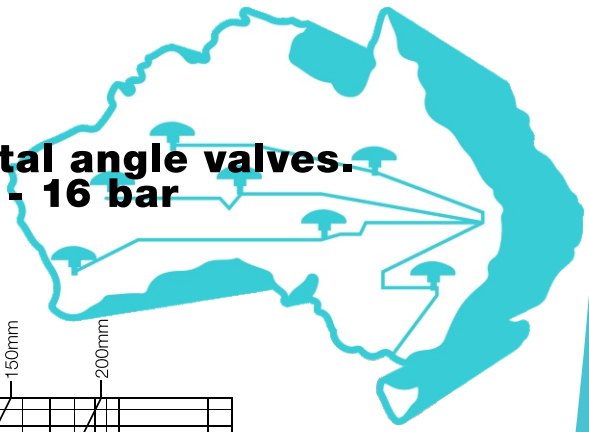
Flanged Inline



Size		L (mm)	H (mm)	B (mm)	h (mm)	Weight (kg)	Control Chamber (L)	Max Flow m3/h	Kv (Full Open)
mm	in								
50	2	190	159	165	76	7.9	0.08	45	70
80x65x80	3x2.5x3	216	192	200	92	11.4	0.16	70	130
80	3	283	200	200	100	15	0.3	90	170
100x80x100	4x3x4	283	222	222	111	20	0.16	90	130
100	4	305	220	230	99	18	0.78	150	290
150x100x150	6x4x6	325	243	250	120	34.5	0.78	150	300
150	6	406	295	300	142	36	1.56	320	490
200	8	470	383	354	160	57	3.5	550	790
250	10	635	430	464	197	111	7.6	950	1400
300	12	749	474	480	234	151	7.6	1200	1800

# RAF VALVES

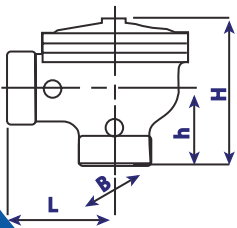
**Technical specifications metal angle valves.**  
**Maximum working pressure - 16 bar**



**RAF Metal Angle Head loss**

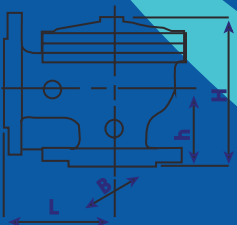
## Dimensions and weights

Threaded Angle



Size		L (mm)	H (mm)	B (mm)	h (mm)	Weight (kg)	Control Chamber (L)	Max Flow m3/h	Kv (Full Open)
mm	in								
50	2	90	150	125	81	4.2	0.08	40	62
80x65x80	3x2.5x3	130	170	140	86	4.6	0.16	65	100
80	3	148	205	200	107	12	0.3	85	155
100	4	150	227	230	118	15.9	0.78	140	200

Flanged Angle



Size		L (mm)	H (mm)	B (mm)	h (mm)	Weight (kg)	Control Chamber (L)	Max Flow m3/h	Kv (Full Open)
mm	in								
50	2	112	159	165	77	8.1	0.08	40	62
80x65x80	3x2.5x3	130	215	200	115	11.65	0.16	65	100
80	3	154	210	200	115	19	0.3	85	155
100x80x100	4x3x4	155	225	220	110	19.5	0.3	85	155
100	4	177	230	230	113	26.5	0.78	140	200
150	6	218	315	300	148	48.7	1.56	300	470
200	8	225	400	354	170	62.5	3.5	500	750

# RAF VALVES



## RAF HYDRAULIC BASIC VALVE

Basic valve with finger filter, Pressure rating 160m

### Straight threaded – BSP

Code	Description
VR1T	25mm basic valve
VR1.5T	40mm basic valve
VR2T	50mm basic valve
VR323T	80 x 65 x 80mm basic valve
VR3T	80mm basic valve

### Straight flanged – table D

Code	Description
VR2F	50mm basic valve
VR323F	80 x 65 x 80 basic valve
VR3F	80mm basic valve
VR434F	100 x 80 x 100mm basic valve
VR4F	100mm basic valve
VR646F	150 x 100 x 150mm basic valve
VR6F	150mm basic valve
VR8F	200mm basic valve
VR10F	250mm basic valve
VR12F	300mm basic valve

### Angle threaded – BSP

Code	Description
VR2TA	50mm basic valve
VR323TA	80 x 65 x 80mm basic valve
VR3TA	80mm basic valve

### Angle flanged – table D

Code	Description
VR3253FA	80 x 65 x 80mm basic valve
VR3FA	80mm basic valve
VR4FA	100mm basic valve
VR6FA	150mm basic valve

# RAF VALVES



## RAF 01 HYDRAULIC MANUAL VALVE

Basic valve with finger filter, 3 way selector, Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR1TM	25mm manual valve
VR1.5TM	40mm manual valve
VR2TM	50mm manual valve
VR323TM	80 x 65 x 80mm manual valve
VR3TM	80mm manual valve

### Straight flanged – table D

Code	Description
VR2FM	50mm manual valve
VR323FM	80 x 65 x 80mm manual valve
VR3FM	80mm manual valve
VR434FM	100 x 80 x 100mm manual valve
VR4FM	100mm manual valve
VR646FM	150 x 100 x 150mm manual valve
VR6FM	150mm manual valve (PN 10)
VR6FHM	150mm HP manual valve (PN 16)
VR8FM	200mm manual valve (PN 16)
VR10FM	250mm manual valve (PN 16)
VR12FM	300mm manual valve (PN 16)

### Angle threaded – BSP

Code	Description
VR2TAM	50mm manual valve
VR323TAM	80 x 65 x 80mm manual valve
VR3TAM	80mm manual valve

### Angle flanged – table D

Code	Description
VR323FAM	80 x 65 x 80mm manual valve
VR3FAM	80mm manual valve
VR4FAM	100mm manual valve
VR6FAM	150mm manual valve (PN 10)

# RAF VALVES



## RAF 31 ELECTRIC VALVE

Basic valve with finger filter, 3 way selector & 24 VAC Solenoid.  
Pressure rating: (25 - 100mm: 80m), (150-300mm: 100m)

### Straight threaded

Code	Description
VR1TE3WAC	25mm electric on/off valve
VR1.5TE3WAC	40mm electric on/off valve
VR2TE3WAC	50mm electric on/off valve
VR323TE3WAC	80 x 65 x 80mm electric on/off valve
VR3TE3WAC	80mm electric on/off valve

### Straight flanged

Code	Description
VR2FE3WAC	50mm electric on/off valve
VR323FE3WAC	80 x 65 x 80mm electric on/off valve
VR3FE3WAC	80mm electric on/off valve
VR4FE3WAC	100mm electric on/off valve
VR646FE3WAC	150 x 100 x 150mm electric on/off valve
VR6FE3WAC	150mm electric on/off valve
VR8FE3WAC	200mm electric on/off valve
VR10FE3WAC	250mm electric on/off valve
VR12FE3WAC	300mm electric on/off valve

### Angle threaded

Code	Description
VR2TAE3WAC	50mm electric on/off valve
VR3TAE3WAC	80mm electric on/off valve

### Angle flanged

Code	Description
VR323FAE3WAC	80 x 65 x 80mm electric on/off valve
VR3FAE3WAC	80mm electric on/off valve
VR4FAE3WAC	100mm electric on/off valve
VR6FA3WAC	150mm electric on/off valve

Standard solenoid: RAF 24VAC no plastic up to 100mm.

Standard solenoid: GEMSOL 2.4-24VAC-NO for valves 150mm and up. (PN 10)



# RAF VALVES



## RAF 0G3 WITH HYDRAULIC RELAY

Basic valve with finger filter and hydraulic relay, Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR1TG	25mm valve with hydraulic relay
VR1.5TG	40mm valve with hydraulic relay
VR2TG	50mm valve with hydraulic relay
VR323TG	80 x 65 x 80 valve with hydraulic relay
VR3TG	80mm valve with hydraulic relay

### Straight flanged – table D

Code	Description
VR2FG	50mm valve with hydraulic relay
VR323FG	80 x 65 x 80mm with hydraulic relay
VR3FG	80mm valve with hydraulic relay
VR434FG	100 x 80 x 100mm valve with hydraulic relay
VR4FG	100mm valve with hydraulic relay
VR646FG	150 x 100 x 150mm valve with hydraulic relay
VR6FG	150mm valve with hydraulic relay

### Angle threaded – BSP

Code	Description
VR2TAG	50mm valve with hydraulic relay
VR323TAG	80 x 65 x 80 valve with hydraulic relay
VR3TAG	80mm valve with hydraulic relay

### Angle flanged – table D

Code	Description
VR323FAG	80 x 65 x 80mm with hydraulic relay
VR3FAG	80mm valve with hydraulic relay
VR4FAG	100mm valve with hydraulic relay
VR6FAG	150mm valve with hydraulic relay

Hydraulic relay can be either Galit or Inbar. Please specify with order.

# RAF VALVES



## RAF 63 3-WAY PRESSURE REDUCING VALVE

Basic valve with finger filter, 3 way selector & 3 way pressure reducing pilot.  
Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR1TPR3W	25mm pressure reducing valve
VR1.5TPR3W	40mm pressure reducing valve
VR2TPR3W	50mm pressure reducing valve
VR323TPR3W	80 x 65 x 80mm pressure reducing valve
VR3TPR3W	80mm pressure reducing valve

### Straight flanged – table D

Code	Description
VR2FPR3W	50mm pressure reducing valve
VR323FPR3W	80 x 65 x 80mm pressure reducing valve
VR3FPR3W	80mm pressure reducing valve
VR434FPR3W	100 x 80 x 100mm pressure reducing valve
VR4FPR3W	100mm pressure reducing valve
VR646FPR3W	150 x 100 x 150mm pressure reducing valve
VR6FPR3W	150mm pressure reducing valve (PN 10)
VR6FHPR3W	150mm HP pressure reducing valve (PN 16) with brass pilot
VR8FPR3W	200mm pressure reducing valve (PN 16) with brass pilot
VR10FPR3W	250mm pressure reducing valve (PN 16) with brass pilot
VR12FPR3W	300mm pressure reducing valve (PN 16) with brass pilot

### Angle threaded – BSP

Code	Description
VR2TAPR3W	50mm pressure reducing valve
VR323TAPR3W	80 x 65 x 80mm pressure reducing valve
VR3TAPR3W	80mm pressure reducing valve

### Angle flanged – table D

Code	Description
VR323FAPR3W	80 x 65 x 80mm pressure reducing valve
VR3FAPR3W	80mm pressure reducing valve
VR4FAPR3W	100mm pressure reducing valve
VR6FAPR3W	150mm pressure reducing valve (PN 10)

Valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.  
Valves 150-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.

# RAF VALVES



## RAF 63-0G3 3-WAY PRESSURE REDUCING VALVE WITH HYDRAULIC RELAY

Basic valve with finger filter, 3-way pressure reducing pilot and hydraulic relay. (Galit or Inbar)  
Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR1TPRG	25mm pressure reducing valve with hydraulic relay
VR1.5TPRG	40mm pressure reducing valve with hydraulic relay
VR2TPRG	50mm pressure reducing valve with hydraulic relay
VR323TPRG	80 x 65 x 80mm pressure reducing valve with hydraulic relay
VR3TPRG	80mm pressure reducing valve with hydraulic relay

### Straight flanged – table D

Code	Description
VR2FPRG	50mm pressure reducing valve with hydraulic relay
VR323FPRG	80 x 65 x 80mm pressure reducing valve with hydraulic relay
VR3FPRG	80mm pressure reducing valve with hydraulic relay
VR434FPRG	100 x 80 x 100mm pressure reducing valve with hydraulic relay
VR4FPRG	100mm pressure reducing valve with hydraulic relay
VR646FPRG	150 x 100 x 150mm pressure reducing valve with hydraulic relay
VR6FPRG	150mm pressure reducing valve with hydraulic relay

### Angle threaded – BSP

Code	Description
VR2TAPRG	50mm pressure reducing valve with hydraulic relay
VR323TAPRG	80 x 65 x 80mm pressure reducing valve with hydraulic relay
VR3TAPRG	80mm pressure reducing valve with hydraulic relay

### Angle flanged – table D

Code	Description
VR323FAPRG	80 x 65 x 80mm pressure reducing valve with hydraulic relay
VR3FAPRG	80mm pressure reducing valve with hydraulic relay
VR4FAPRG	100mm pressure reducing valve with hydraulic relay
VR6FAPRG	150mm pressure reducing valve with hydraulic relay

Hydraulic relay can be either Galit or Inbar. Please specify with order.

# RAF VALVES



## RAF 63-0S3 3-WAY PRESSURE REDUCING VALVE WITH SHUTTLE VALVE

Basic valve with finger filter, 3 way selector, 3 way pressure reducing pilot and shuttle valve (pressure selector). Pressure rating 100m.

### Straight threaded – BSP

Code	Description
VR1TPRSV	25mm pressure reducing valve with shuttle valve
VR1.5TPRSV	40mm pressure reducing valve with shuttle valve
VR2TPRSV	50mm pressure reducing valve with shuttle valve
VR323TPRSV	80 x 65 x 80mm pressure reducing valve with shuttle valve
VR3TPRSV	80mm pressure reducing valve with shuttle valve

### Straight flanged – table D

Code	Description
VR2FPRS	50mm pressure reducing valve with shuttle valve
VR323FPRS	80 x 65 x 80mm pressure reducing valve with shuttle valve
VR3FPRS	80mm pressure reducing valve with shuttle valve
VR434FPRS	100 x 80 x 100mm pressure reducing valve with shuttle valve
VR4FPRS	100mm pressure reducing valve with shuttle valve
VR646FPRS	150 x 100 x 150mm pressure reducing valve with shuttle valve
VR6FPRS	150mm pressure reducing valve with shuttle valve

### Angle threaded – BSP

Code	Description
VR2TAPRSV	50mm pressure reducing valve with shuttle valve
VR323TAPRSV	80 x 65 x 80mm pressure reducing valve with shuttle valve
VR3TAPRSV	80mm pressure reducing valve with shuttle valve

### Angle flanged – table D

Code	Description
VR323FAPRSV	80 x 65 x 80mm pressure reducing valve with shuttle valve
VR3FAPRSV	80mm pressure reducing valve with shuttle valve
VR4FAPRSV	100mm pressure reducing valve with shuttle valve
VR6FAPRSV	150mm pressure reducing valve with shuttle valve

# RAF VALVES



## RAF 63-31 ELECTRIC 3-WAY PRESSURE REDUCING VALVE

Basic valve with finger filter, 3 way selector, 24 VAC Solenoid & 3 way pressure reducing pilot.  
Pressure rating: (25 - 100mm: 80m), (150-300mm: 100m)

### Straight threaded

Code	Description
VR1.5TPRE3WAC	40mm electric pressure reducing valve
VR2TPRE3WAC	50mm electric pressure reducing valve
VR323TPRE3WAC	80 x 65 x 80mm electric pressure reducing valve
VR3TPRE3WAC	80mm electric pressure reducing valve

### Straight flanged

Code	Description
VR2FPRE3WAC	50mm electric pressure reducing valve
VR323FPRE3WAC	80 x 65 x 80mm electric pressure reducing valve
VR3FPRE3WAC	80mm electric pressure reducing valve
VR434FPRE3WAC	100 x 80 x 100mm electric pressure reducing valve
VR4FPRE3WAC	100mm electric pressure reducing valve
VR646FPRE3WAC	150 x 100 x 150mm electric pressure reducing valve
VR6FPRE3WAC	150mm electric pressure reducing valve (PN10)
VR6FHPRE3WAC	150mm HP electric pressure reducing valve (PN16) with brass pilot
VR8FPRE3WAC	200mm electric pressure reducing valve (PN10) with brass pilot
VR10FPRE3WAC	250mm electric pressure reducing valve (PN10) with brass pilot

### Angle threaded

Code	Description
VR2TAPRE3WAC	50mm electric pressure reducing valve
VR3TAPRE3WAC	80mm electric pressure reducing valve

### Angle flanged

Code	Description
VR323FAPRE3WAC	80 x 65 x 80mm electric pressure reducing valve
VR3FAPRE3WAC	80mm electric pressure reducing valve
VR4FAPRE3WAC	100mm electric pressure reducing valve
VR6FAPRE3WAC	150mm electric pressure reducing valve (PN10)

valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.  
valves 150-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.  
Standard solenoid: RAF 24VAC NO for valves up to 100mm.  
Standard solenoid: GEMSOL 2.4-24VAC-NO for valves 150mm and up.

# RAF VALVES



## RAF 83 3-WAY PRESSURE SUSTAINING VALVE

Basic valve with finger filter, 3 way selector & 3 way pressure sustaining pilot.  
Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR1TPS3W	25mm pressure sustaining valve
VR1.5TPS3W	40mm pressure sustaining valve
VR2TPS3W	50mm pressure sustaining valve
VR323TPS3W	80 x 65 x 80mm pressure sustaining valve
VR3TPS3W	80mm pressure sustaining valve

### Straight flanged – table D

Code	Description
VR2FPS3W	50mm pressure sustaining valve
VR3FPS3W	80mm pressure sustaining valve
VR434FPS3W	100 x 80 x 100mm pressure sustaining valve
VR4FPS3W	100mm pressure sustaining valve
VR646FPS3W	150 x 100 x 150mm pressure sustaining valve
VR6FPS3W	150mm pressure sustaining valve (PN10)
VR6FHPS3W	150mm HP pressure sustaining valve (PN 16) with brass pilot
VR8FPS3W	200mm pressure sustaining valve (PN 16) with brass pilot
VR10FPS3W	250mm pressure sustaining valve (PN 16) with brass pilot

### Angle threaded – BSP

Code	Description
VR2TAPS3W	50mm pressure sustaining valve
VR323TAPS3W	80 x 65 x80mm pressure sustaining valve
VR3TAPS3W	80mm pressure sustaining valve

### Angle flanged – table D

Code	Description
VR3FAPS3W	80mm pressure sustaining valve
VR4FAPS3W	100mm pressure sustaining valve
VR6FAPS3W	150mm pressure sustaining valve (PN10)

valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.  
valves 150-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.

# RAF VALVES



## RAF 83-31 ELECTRIC 3-WAY PRESSURE SUSTAINING VALVE

Basic valve with finger filter, 3 way selector, 24 VAC Solenoid & 3 way pressure sustaining pilot.  
Pressure rating: (25 - 100mm: 80m), (150-300mm: 100m)

### Straight threaded

Code	Description
VR1.5TPSE3WAC	40mm electric pressure sustaining valve
VR2TPSE3WAC	50mm electric pressure sustaining valve
VR323TPSE3WAC	80 x 65 x 80mm electric pressure sustaining valve
VR3TPSE3WAC	80mm electric pressure sustaining valve

### Straight flanged

Code	Description
VR2FPSE3WAC	50mm electric pressure sustaining valve
VR3FPSE3WAC	80mm electric pressure sustaining valve
VR434FPSE3WAC	100 x 80 x 100mm electric pressure sustaining valve
VR4FPSE3WAC	100mm electric pressure sustaining valve
VR646FPSE3WAC	150 x 100 x 150mm electric pressure sustaining valve
VR6FPSE3WAC	150mm electric pressure sustaining valve (PN10)
VR6FHPSE3WAC	150mm HP electric pressure sustaining valve (PN 16) with brass pilot
VR8FPSE3WAC	200mm electric pressure sustaining valve (PN10)
VR10FPSE3WAC	250mm electric pressure sustaining valve (PN10)

Valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.

Valves 150-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.

Standard solenoid: RAF 24VAC NO for valves up to 100mm.

Standard solenoid: GEMSOL 2.4-24VAC-NO for valves 150mm and up.

# RAF VALVES



## RAF 683 3-WAY PRESSURE REDUCING/ SUSTAINING VALVE

Basic valve with finger filter, 3 way selector & 3 way pressure reducing and pressure sustaining pilots. Pressure rating 100m

### Straight threaded – BSP

Code	Description
VR2TPRPS3W	50mm pressure reducing/sustaining valve
VR323TPRPS3W	80 x 65 x 80mm Pressure Pressure/Sustaining valve
VR3TPRPS3W	80mm pressure reducing/sustaining valve

### Straight flanged – table D

Code	Description
VR2FPRPS3W	50mm pressure reducing/sustaining valve
VR3FPRPS3W	80mm pressure reducing/sustaining valve
VR434FPRPS3W	100 x 80 x 100mm pressure reducing/sustaining valve
VR4FPRPS3W	100mm pressure reducing/sustaining valve
VR646FPRPS3W	150 x 100 x 150mm pressure reducing/sustaining valve
VR6FPRPS3W	150mm pressure reducing/sustaining valve (PN 10)
VR6FHRPS3W	150mm HP pressure reducing/sustaining valve (PN 16) with brass pilot
VR8FPRPS3W	200mm pressure reducing/sustaining valve (PN 16) with brass pilot
VR10FPRPS3W	250mm pressure reducing/sustaining valve (PN 16) with brass pilot

### Angle threaded – BSP

Code	Description
VR2TAPRPS3W	50mm pressure reducing/sustaining valve
VR323TAPRPS3W	80 x 65 x 80mm pressure reducing/sustaining valve
VR3TAPRPS3W	80mm pressure reducing/sustaining valve

### Angle flanged – table D

Code	Description
VR3FAPRPS3W	80mm pressure reducing/sustaining valve
VR4FAPRPS3W	100mm pressure reducing/sustaining valve
VR6FAPRPS3W	150mm pressure reducing/sustaining valve (PN 10)

Valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.  
Valves 150-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.



# RAF VALVES



## RAF 683-31, ELECTRIC 3-WAY PRESSURE REDUCING/ SUSTAINING VALVE

Basic valve with finger filter, 3 way selector, 24 VAC Solenoid, 3 way pressure reducing pilot and pressure sustaining pilot. Pressure rating: (25 - 100mm: 80m), (150-300mm: 100m)

### Straight threaded

Code	Description
VR2TPRPSE3WAC	50mm electric pressure reducing/sustaining valve
VR323TPRPSE3WAC	80 x 65 x 80mm electric pressure reducing/sustaining valve
VR3TPRPSE3WAC	80mm electric pressure reducing/sustaining valve

### Straight flanged

Code	Description
VR2FPRPSE3WAC	50mm electric pressure reducing/sustaining valve
VR3FPRPSE3WAC	80mm electric pressure reducing/sustaining valve
VR434FPRPSE3WAC	100 x 80 x 100mm electric pressure reducing/sustaining valve
VR4FPRPSE3WAC	100mm electric pressure reducing/sustaining valve
VR646FPRPSE3WAC	150 x 100 x 150mm electric pressure reducing/sustaining valve
VR6FPRPSE3WAC	150mm electric pressure reducing/sustaining valve
VR8FPRPSE3WAC	200mm electric pressure reducing/sustaining valve
VR10FPRPSE3WAC	250mm electric pressure reducing/sustaining valve

Valves 25-150mm supplied with 3 way Arad or Raphael plastic pilot with grey spring 8-70m standard.  
 Valves 200-300mm supplied with 3 way bronze pilots with green spring 20-120m standard.  
 Standard solenoid: RAF 24VAC NO for valves up to 100mm.  
 Standard solenoid: GEMSOL 2.4-24VAC-NO for valves 150mm and up.

# RAF VALVES



## RAF 10 2-WAY FLOAT VALVE WITH SINGLE LEVEL FLOAT

Basic valve with finger filter, needle valve and float. Pressure rating 100m

### Straight threaded

Code	Description
VR1TFL	25mm float valve
VR1.5TFL	40mm float valve
VR2TFL	50mm float valve
VR323TFL	80 x 65 x 80mm float valve
VR3TFL	80mm float valve

### Straight flanged

Code	Description
VR2FFL	50mm float valve
VR3FFL	80mm float valve
VR4FFL	100mm float valve
VR646FFL	150 x 100 x 150mm float valve
VR6FFL	150mm float valve
VR8FFL	200mm float valve

Valve supplied with float Pilot assembly and 6m tubing

## RAF 13 3 WAY FLOAT VALVE WITH DUAL LEVEL FLOAT

Basic valve with finger filter and 3 way dual level float. Pressure rating 100m

### Straight threaded

Code	Description
VR2TDFL	50mm Dual level float valve
VR3TDFL	80mm Dual level float valve

### Straight flanged

Code	Description
VR3FDFL	80mm dual level float valve
VR4FDFL	100mm dual level float valve
VR6FDFL	150mm dual level float valve
VR8FDFL	200mm dual level float valve
VR10FDFL	250mm dual level float valve
VR12FDFL	300mm dual level float valve

Valve supplied with float Pilot assembly and 6m tubing

# RAF VALVES



## RAF 80Q QUICK PRESSURE RELIEF VALVE

Basic valve with finger filter, 2 way QPR brass pilot and pressure gauge. PN16

### Straight threaded – BSP

Code	Description
VR1TQPR	25mm quick pressure relief valve
VR1.5TQPR	40mm quick pressure relief valve
VR2TQPR	50mm quick pressure relief valve
VR323TQPR	80 x 65 x 80mm quick pressure relief valve
VR3TQPR	80mm quick pressure relief valve

### Straight flanged – table D

Code	Description
VR2FQPR	50mm quick pressure relief valve
VR3FQPR	80mm quick pressure relief valve
VR434FQPR	100 x 80 x 100mm quick pressure relief valve
VR4FQPR	100mm quick pressure relief valve
VR6FQPR	150mm quick pressure relief valve

### Angle threaded – BSP

Code	Description
VR2TAQPR	50mm quick pressure relief valve
VR3TAQPR	80mm quick pressure relief valve

### Angle flanged – table D

Code	Description
VR3FAQPR	80mm quick pressure relief valve
VR4FAQPR	100mm quick pressure relief valve



# RAF HP VALVES

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## Contents:

- Manual valve (PN16) ..... 18
- Electric valve (PN16) ..... 19
- Pressure reducing valve 3 way (PN16) ..... 20
- Pressure sustaining valve 3 way (PN16) ..... 20
- Pressure reducing electric valve 3 way (PN16)..... 21
- Pressure sustaining electric valve 3 way (PN16)..... 21
- Pressure reducing valve 2 way (PN16) ..... 22
- Pressure sustaining valve 2 way (PN16) ..... 22
- Quick pressure relief valve (PN16)..... 23



# VALVES

## RAF 01 HIGH PRESSURE MANUAL VALVE

Basic valve with brass finger filter and 3 way selector, plumbed with high pressure nylon tubing and brass compression fittings. Pressure rating 160m. Copper plumbing is available as a higher cost option.

### Straight threaded – BSP

Code	Description
VR1THM	25mm manual valve (PN 16)
VR1.5THM	40mm manual valve (PN 16)
VR2THM	50mm manual valve (PN 16)
VR323THM	80 x 65 x 80mm manual valve (PN 16)
VR3THM	80mm manual valve (PN 16)

### Straight flanged – table D

Code	Description
VR2HFM	50mm manual valve (PN 16)
VR3FHM	80mm manual valve (PN 16)
VR434FHM	100 x 80 x 100mm manual valve (PN 16)
VR4FHM	100mm manual valve (PN 16)
VR646FHM	150 x 100 x 150mm manual valve (PN 16)
VR6FHM	150mm HP manual valve (PN 16)
VR8FM	200mm manual valve (PN 16)
VR10FM	250mm manual valve (PN 16)
VR12FM	300mm manual valve (PN 16)

### Angle threaded – BSP

Code	Description
VR2TAHM	50mm manual valve (PN 16)
VR3TAHM	80mm manual valve (PN 16)

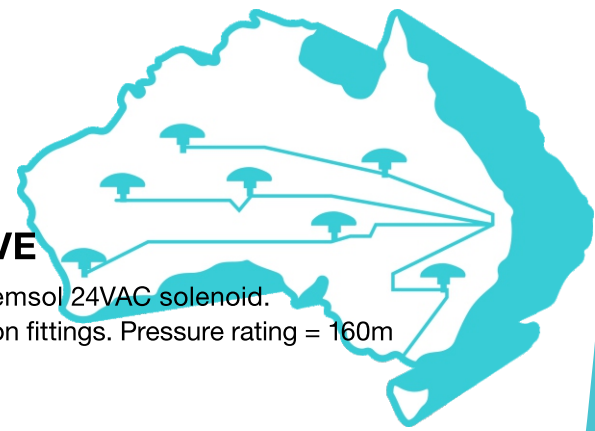
### Angle flanged – table D

Code	Description
VR3FAHM	80mm manual valve (PN 16)
VR4FAHM	100mm manual valve (PN 16)
VR6FAHM	150mm manual valve (PN 16)

# VALVES

## RAF 31 HIGH PRESSURE ELECTRIC VALVE

Basic valve with brass finger filter and 3 way selector with Gemsol 24VAC solenoid. Plumbed with high pressure nylon tubing and brass compression fittings. Pressure rating = 160m. Copper plumbing is available as a higher cost option.



### Straight threaded

Code	Description
VR1THE3WAC	25mm electric on/off valve (PN 16)
VR1.5THE3WAC	40mm electric on/off valve (PN 16)
VR2THE3WAC	50mm electric on/off valve (PN 16)
VR323THE3WAC	80 x 65 x 80mm electric on/off valve (PN 16)
VR3THE3WAC	80mm electric on/off valve (PN 16)

### Straight flanged

Code	Description
VR2FHE3WAC	50mm electric on/off valve (PN 16)
VR3FHE3WAC	80mm electric on/off valve (PN 16)
VR4FHE3WAC	100mm electric on/off valve (PN 16)
VR646HE3WAC	150 x 100 x 150mm electric on/off valve (PN 16)
VR6FHE3WAC	150mm electric on/off valve (PN 16)
VR8FHE3WAC	200mm electric on/off valve (PN 16)
VR10FHE3WAC	250mm electric on/off valve (PN 16)
VR12FHE3WAC	300mm electric on/off valve (PN 16)

### Angle threaded

Code	Description
VR2TAHE3WAC	50mm electric on/off valve (PN 16)
VR3TAHE3WAC	80mm electric on/off valve (PN 16)

### Angle flanged

Code	Description
VR3FAHE3WAC	80mm electric on/off valve (PN 16)
VR4FAEH3WAC	100mm electric on/off valve (PN 16)
VR6FAEH3WAC	150mm electric on/off valve (PN 16)

Standard voltage is 24VAC. Other voltages available.

# VALVES



## RAF 63B HIGH PRESSURE 3-WAY PRESSURE REDUCING VALVE

High Pressure valve with finger filter, 3 way selector, pressure gauge & 3 way pressure reducing pilot. Pressure rating 160m

### Straight flanged

Code	Description
VR2FHPR3W	50mm pressure reducing HP valve
VR3FHPR3W	80mm pressure reducing HP valve
VR4FHPR3W	100mm pressure reducing HP valve
VR6FHPR3W	150mm pressure reducing HP valve

Pilots: all valves plumbed with bronze pilot with Yellow Spring 30-160m as standard



## RAF 83B HIGH PRESSURE 3-WAY PRESSURE SUSTAINING VALVE

High Pressure valve with finger filter, 3 way selector, pressure gauge & pressure sustaining pilot. Pressure rating 160m

### Straight flanged

Code	Description
VR2FHPS3W	50mm pressure sustaining HP valve
VR3FHPS3W	80mm pressure sustaining HP valve
VR4FHPS3W	100mm pressure sustaining HP valve
VR6FHPS3W	150mm pressure sustaining HP valve

Pilots: all valves plumbed with bronze pilot with Yellow Spring 30-160m as standard.



# VALVES

## RAF 63B-31 HIGH PRESSURE ELECTRIC 3 WAY PRESSURE REDUCING VALVE

High Pressure valve with finger filter, 3 way selector, 24VAC Gemsol solenoid, pressure gauge & pressure reducing pilot. Pressure rating 160m.

### Straight flanged

Code	Description
VR2FHPRE3WAC	50mm electric pressure reducing HP valve
VR3FHPRE3WAC	80mm electric pressure reducing HP valve
VR4FHPRE3WAC	100mm electric pressure reducing HP valve
VR6FHPRE3WAC	150mm electric pressure reducing HP valve

## RAF 83B-31 HIGH PRESSURE ELECTRIC 3 WAY PRESSURE SUSTAINING VALVE

High Pressure valve with finger filter, 3 way selector, 24VAC Gemsol solenoid, pressure gauge & pressure sustaining pilot. Pressure rating 160m

### Straight flanged

Code	Description
VR2FHPSE3WAC	50mm electric pressure sustaining HP valve
VR3FHPSE3WAC	80mm electric pressure sustaining HP valve
VR4FHPSE3WAC	100mm electric pressure sustaining HP valve
VR6FHPSE3WAC	150mm electric pressure sustaining HP valve

Pilots: all valves plumbed with bronze pilot with Yellow Spring 30-160m as standard.  
Solenoid: GEMSOL 1.6 24VAC AC NO as standard





# VALVES

## RAF 2-WAY PRESSURE REDUCING VALVE

High pressure valve with brass finger filter, 2 way pressure reducing pilot, needle valve and pressure gauge. Plumbed in high pressure nylon tubing. Pressure rating = 160m

### Straight flanged

Code	Description
VR2FPR2W	50mm pressure reducing valve 2-way
VR3FPR2W	80mm pressure reducing valve 2-way
VR4FPR2W	100mm pressure reducing valve 2-way
VR6FPR2W	150mm pressure reducing valve 2-way
VR8FPR2W	200mm pressure reducing valve 2-way
VR10FPR2W	250mm pressure reducing valve 2-way

## RAF 2-WAY PRESSURE SUSTAINING VALVE

High pressure valve with brass finger filter, 2 way pressure sustaining pilot, needle valve and pressure gauge. Plumbed in high pressure nylon tubing. Pressure rating = 160m

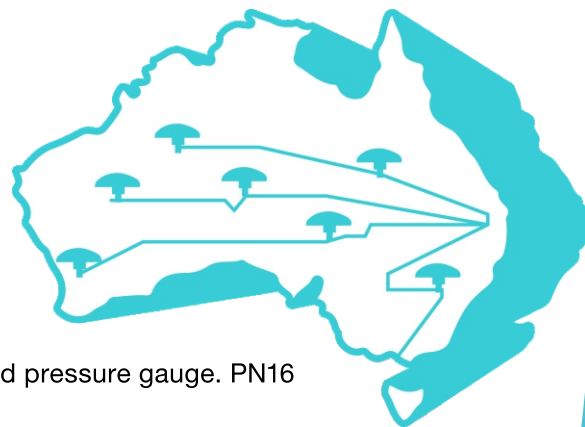
### Straight flanged

Code	Description
VR2FPS2W	50mm pressure sustaining valve 2-way
VR3FPS2W	80mm pressure sustaining valve 2-way
VR4FPS2W	100mm pressure sustaining valve 2-way
VR6FPS2W	150mm pressure sustaining valve 2-way
VR8FPS2W	200mm pressure sustaining valve 2-way
VR10FPS2W	250mm pressure sustaining valve 2-way

# VALVES

## RAF QPR VALVE

Basic valve with finger filter, 2 way QPR brass pilot and pressure gauge. PN16



### Straight threaded – BSP

Code	Description
VR1TQPR	25mm quick pressure relief valve
VR1.5TQPR	40mm quick pressure relief valve
VR2TQPR	50mm quick pressure relief valve
VR323TQPR	80 x 65 x 80mm quick pressure relief valve
VR3TQPR	80mm quick pressure relief valve

### Straight flanged – table D

Code	Description
VR2FQPR	50mm quick pressure relief valve
VR3FQPR	80mm quick pressure relief valve
VR434FQPR	100 x 80 x 100mm quick pressure relief valve
VR4FQPR	100mm quick pressure relief valve
VR6FQPR	150mm quick pressure relief valve

### Angle threaded – BSP

Code	Description
VR2TAQPR	50mm quick pressure relief valve
VR3TAQPR	80mm quick pressure relief valve

### Angle flanged – table D

Code	Description
VR3FAQPR	80mm quick pressure relief valve
VR4FAQPR	100mm quick pressure relief valve



# PLASTIC VALVES

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## Contents:

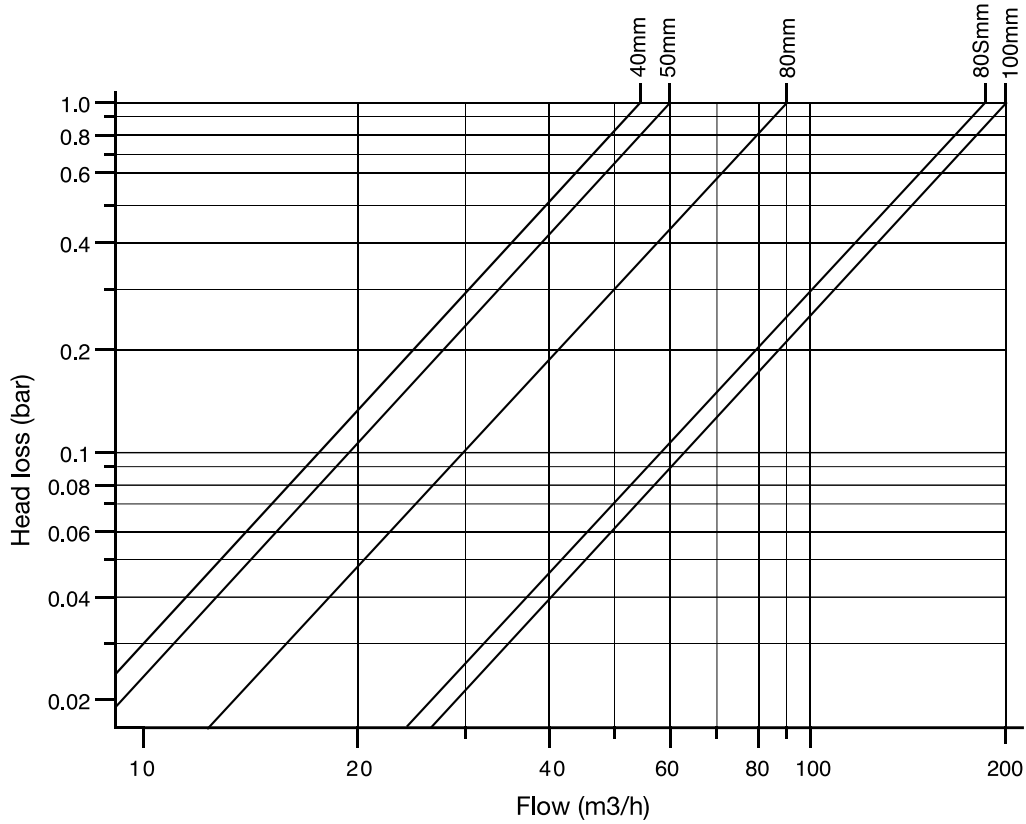
• Technical specifications RAF-P plastic valves.....	24
• RAF-P basic valves .....	25
• RAF-P manual valves.....	25
• RAF-P electric valves.....	25
• RAF-P pressure reducing valves.....	26
• RAF-P pressure reducing valves electric.....	26
• RAF-P pressure sustaining valves .....	26
• RAF-P pressure sustaining valves electric.....	26
• RAF-P pressure reducing and sustaining valves .....	27
• RAF-P pressure reducing and sustaining valves electric .....	27

# VALVES

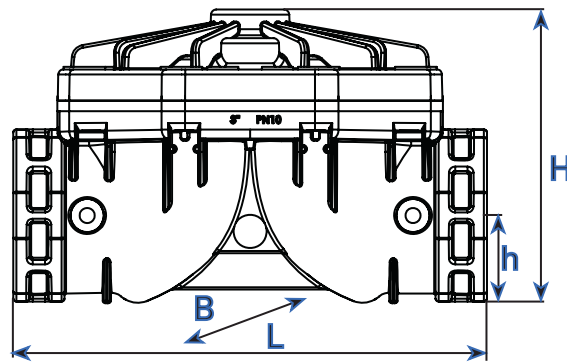
## RAF plastic valves

Technical specifications

RAF plastic in-line valves. Maximum working pressure - 10 bar



RAF-P Head loss



## Dimensions and weights

Threaded Inline

Size		L (mm)	H (mm)	B (mm)	h (mm)	Weight (kg)	Control Chamber (L)	Max Flow m <sup>3</sup> /h	Kv (Full Open)
mm	in								
40	1.5	185	105	125	32	0.7	0.1	20	55
50	2	194	110	125	38	0.8	0.1	25	60
80	3	240	152	160	58	1.4	0.2	45	90
80S	3x4x3	314	190	252	61	4.5	0.7	120	180
100	4	320	190	252	67	4.6	0.7	120	200

# VALVES



## RAF-P PLASTIC HYDRAULIC BASIC VALVE

Basic valve, pressure rating 100m

### Straight threaded – BSP

Code	Description
VRP1.5T	40mm basic valve
VRP2T	50mm basic valve
VRP3T	80mm basic valve
VRP3ST	80mm super basic valve
VRP4T	100mm basic valve

### Flange adaptors for plastic valves

Code	Description
FLRAFP030	Flange adaptor suit 80mm valve (2 required)
FLRAFP040	Flange adaptor suit 100mm valve (2 required)

## RAF-P 01 PLASTIC HYDRAULIC MANUAL VALVE

Basic valve with 3 way selector, pressure rating 100m

### Straight threaded – BSP

Code	Description
VRP1.5TM	40mm manual valve
VRP2TM	50mm manual valve
VRP3TM	80mm manual valve
VRP3STM	80mm super manual valve
VRP4TM	100mm manual valve

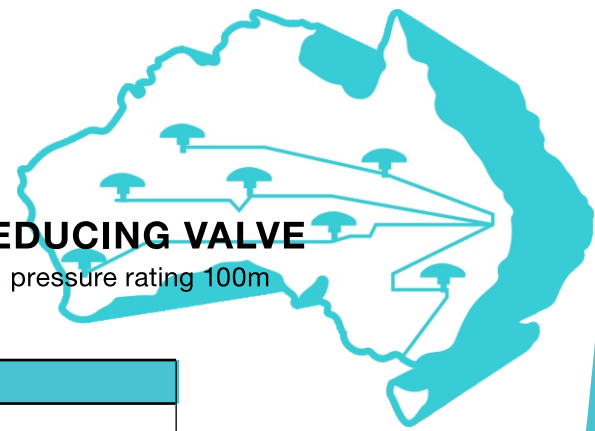
## RAF-P 31 PLASTIC ELECTRIC VALVE

Basic valve with 3 way selector & 24 VAC solenoid. pressure rating 80m

### Straight threaded – BSP

Code	Description
VRP1.5TE3WAC	40mm electric on/off valve
VRP2TE3WAC	50mm electric on/off valve
VRP3TE3WAC	80mm electric on/off valve
VRP3STE3WAC	80mm super electric on/off valve
VRP4TE3WAC	100mm electric on/off valve

# VALVES



## RAF-P 63 PLASTIC 3-WAY PRESSURE REDUCING VALVE

Basic valve with 3 way selector & 3 way pressure reducing pilot, pressure rating 100m

### Straight threaded – BSP

Code	Description
VRP1.5TPR3W	40mm pressure reducing valve
VRP2TPR3W	50mm pressure reducing valve
VRP3TPR3W	80mm pressure reducing valve
VRP3STPR3W	80mm super pressure reducing valve
VRP4TPR3W	100mm pressure reducing valve

## RAF-P 63-31 PLASTIC ELECTRIC 3-WAY PRESSURE REDUCING VALVE

Basic valve with 3 way selector & 24 VAC solenoid & pressure reducing pilot. pressure rating 80m

### Straight threaded – BSP

Code	Description
VRP1.5TPRE3WAC	40mm electric pressure reducing valve
VRP2TPRE3WAC	50mm electric pressure reducing valve
VRP3TPRE3WAC	80mm electric pressure reducing valve
VRP3STPRE3WAC	80mm super electric pressure reducing valve
VRP4TPRE3WAC	100mm electric pressure reducing valve

## RAF-P 63 PLASTIC 3-WAY PRESSURE SUSTAINING VALVE

Basic valve with 3 way selector & 3 way pressure sustaining pilot, pressure rating 100m

### Straight threaded – BSP

Code	Description
VRP1.5TPS3W	40mm pressure sustaining valve
VRP2TPS3W	50mm pressure sustaining valve
VRP3TPS3W	80mm pressure sustaining valve
VRP3STPS3W	80mm super pressure sustaining valve
VRP4TPS3W	100mm pressure sustaining valve

## RAF-P 63-31 PLASTIC ELECTRIC 3 WAY PRESSURE SUSTAINING VALVE

Basic valve with 3 way selector & 24 VAC solenoid & pressure sustaining pilot. pressure rating 80m

### Straight threaded – BSP

Code	Description
VRP1.5TPSE3WAC	40mm electric pressure sustaining valve
VRP2TPSE3WAC	50mm electric pressure sustaining valve
VRP3TPSE3WAC	80mm electric pressure sustaining valve
VRP3STPSE3WAC	80mm super electric pressure sustaining valve
VRP4TPSE3WAC	100mm electric pressure sustaining valve



## VALVES

### RAF-P 63 PLASTIC 3-WAY PRESSURE REDUCING AND SUSTAINING VALVE

Basic valve with 3 way selector and 3 way pressure reducing and sustaining pilots.  
pressure rating 100m

#### Straight threaded – BSP

Code	Description
VRP1.5TPRPS3W	40mm pressure reducing and sustaining valve
VRP2TPRPS3W	50mm pressure reducing and sustaining valve
VRP3TPRPS3W	80mm pressure reducing and sustaining valve
VRP3STPRPS3W	80mm super pressure reducing and sustaining valve
VRP4TPRPS3W	100mm pressure reducing and sustaining valve

### RAF-P 63-31 PLASTIC ELECTRIC 3-WAY PRESSURE REDUCING AND SUSTAINING VALVE

Basic valve with 3 way selector & 24 VAC solenoid & pressure and sustaining reducing pilot.  
pressure rating 80m

#### Straight threaded – BSP

Code	Description
VRP1.5PRPSE3WAC	40mm electric pressure reducing and sustaining valve
VRP2PRPSE3WAC	50mm electric pressure reducing and sustaining valve
VRP3PRPSE3WAC	80mm electric pressure reducing and sustaining valve
VRP3SPRPSE3WAC	80mm super electric pressure reducing and sustaining valve
VRP4PRPSE3WAC	100mm electric pressure reducing and sustaining valve



# RAF VALVES

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