

## MANIFOLD

Many installations with multiple work stations require flashback protection exceeding the capabilities of single arrestors. This range of manifold arrestors is designed for such applications. They feature varying numbers of standard or high flow arrestors in parallel, to allow for the supply of very high flow rates.

### DEMAX MANIFOLD ARRESTORS

DEMAX manifold flashback arrestors feature five standard flow flashback arrestors in parallel. They are available with a number of different inlet and outlet connections to suit various sizes of pipework connections.

Specifications	
Packaging Type	Plastic Container
Weight Nett Gross	1.45 kg 1.47 kg
Dimensions Product Only With Packaging	(H) 147 mm (Ø) 65 mm (H) 151 mm (W) 79 mm (D) 79 mm



Part No	Gas Service	Inlet Connection	Outlet Connection	Maximum Working Pressure *
FMD5F1	Fuel Gas	G 1" RH Female	G 1" RH Female	A 150 H 300 CMPY 500
FMD5F2	Fuel Gas	G 1/2" LH Female	G 1/2" LH Male	A 150 H 300 CMPY 500
FMD5F3	Fuel Gas	G 3/8" LH Female	G 3/8" LH Male	A 150 H 300 CMPY 500
FMD5O1	Oxygen	G 1" RH Female	G 1" RH Female	OD 1500
FMD5O2	Oxygen	G 1/2" RH Female	G 1/2" RH Male	OD 1500
FMD5O3	Oxygen	G 3/8" RH Female	G 3/8" RH Male	OD 1500

\* See flow chart page for gas type abbreviations.

### SIMAX 3

SIMAX 3 manifold flashback arrestors feature three high flow flashback arrestors in parallel. They are available with G 1" RH inlet and outlet connections with a variety of adaptors to suit various sizes of pipework connections.

Specifications	
Packaging Type	Cardboard Box
Weight	
Nett	3.25 kg
Gross	3.49 kg
Dimensions	
Product Only	(H) 174 mm (Ø) 88 mm
With Packaging	(H) 154 mm (W) 305 mm (D) 204 mm

Part No	Gas Service	Inlet Connection	Outlet Connection	Maximum Working Pressure *
FMS3F	Fuel Gas	G 1" RH Female	G 1" RH Female	A 150 H 400 CMPY 500
FMS3O	Oxygen	G 1" RH Female	G 1" RH Female	OD 2500

\* See flow chart page for gas type abbreviations.

### SIMAX 3 HIGH PRESSURE FUEL GAS

These products are used when a higher fuel gas pressure is required than is available with the standard SIMAX 3 model above. They are available with either G 1" or G 2" RH inlet and outlet connections. Adaptors are available to suit various sizes of pipework connections.

Specifications	
Packaging Type	Cardboard Box
Weight	
Nett	3.25 kg
Gross	3.49 kg
Dimensions	
Product Only	(H) 174 mm (Ø) 88 mm
With Packaging	(H) 154 mm (W) 305 mm (D) 204 mm

Part No	Gas Service	Inlet Connection	Outlet Connection	Maximum Working Pressure *
FMS3H	Fuel Gas	G 1" RH Female	G 1" RH Female	A 250 H 1000 CMPY 1200
FMS3H2	Fuel Gas	G 2" RH Female	G 2" RH Female	A 250 H 1000 CMPY 1200

\* See flow chart page for gas type abbreviations.

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### SIMAX 5 MANIFOLD ARRESTORS

SIMAX 5 manifold flashback arrestors feature five high flow flashback arrestors in parallel. They are available with G 1" RH inlet and outlet connections with a variety of adaptors to suit various sizes of pipework connections.

Specifications	
Packaging Type	Cardboard Box
Weight	
Nett	3.95 kg
Gross	4.19 kg
Dimensions	
Product Only	(H) 174 mm (Ø) 91 mm
With Packaging	(H) 154 mm (W) 305 mm (D) 204 mm



Part No	Gas Service	Inlet Connection	Outlet Connection	Maximum Working Pressure *
FMS5F	Fuel Gas	G 1" RH Female	G 1" RH Female	A 150 H 400 CMPY 500
FMS5O	Oxygen	G 1" RH Female	G 1" RH Female	OD 2500

\* See flow chart page for gas type abbreviations.

## SIMAX 8 MANIFOLD ARRESTORS

SIMAX 8 manifold flashback arrestors feature eight high flow flashback arrestors in parallel. They are available with G 1" RH inlet and outlet connections with a variety of adaptors to suit various sizes of pipework connections.

Specifications	
Packaging Type	Cardboard Box
Weight Nett Gross	5.45 kg 5.94 kg
Dimensions Product Only With Packaging	(H) 192 mm (Ø) 114 mm (H) 154 mm (W) 305 mm (D) 204 mm

Part No	Gas Service	Inlet Connection	Outlet Connection	Maximum Working Pressure *
FMS8F	Fuel Gas	G 1" RH Female	G 1" RH Female	A 150 H 400 CMPY 500
FMS8O	Oxygen	G 1" RH Female	G 1" RH Female	OD 2500

\* See flow chart page for gas type abbreviations.

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### DEMAX AND SIMAX FEMALE CONNECTION ADAPTORS

These female connection adaptors are used to connect G 1" DEMAX and SIMAX manifold arrestors to pipework of various sizes. The G 1" RH Male connection to the arrestor is aided by an o-ring seal to ensure gas tightness.

Specifications	
Packaging Type	Plastic Bag with Header Card
Material of Construction	Brass NBR70 (Nitrile butadiene rubber)
Body O-Ring	
Gas Service	Fuel Gas / Oxygen



Part No	Connection	Connection	Length	Diameter	Weight
CAF38M1	G 3/8" RH Female	G 1" RH Male *	68 mm	47 mm	0.270 kg
CAF12M1	G 1/2" RH Female	G 1" RH Male *	77 mm	47 mm	0.350 kg
CAF58M1	G 5/8" RH Female	G 1" RH Male *	75 mm	47 mm	0.310 kg
CAF34M1	G 3/4" RH Female	G 1" RH Male *	71 mm	47 mm	0.335 kg
CAF78M1	G 7/8" RH Female	G 1" RH Male *	61 mm	47 mm	0.305 kg
CAF1M1	G 1" RH Female	G 1" RH Male *	77 mm	47 mm	0.325 kg

\* Includes an o-ring seal.

### DEMAX AND SIMAX MALE CONNECTION ADAPTORS

These male connection adaptors are used to connect G 1" DEMAX and SIMAX manifold arrestors to pipework of various sizes. The G 1" RH Male connection to the arrestor is aided by an o-ring seal to ensure gas tightness.

Specifications	
Packaging Type	Plastic Bag with Header Card
Material of Construction	Brass NBR70 (Nitrile butadiene rubber)
Body O-Ring	
Gas Service	Fuel Gas / Oxygen

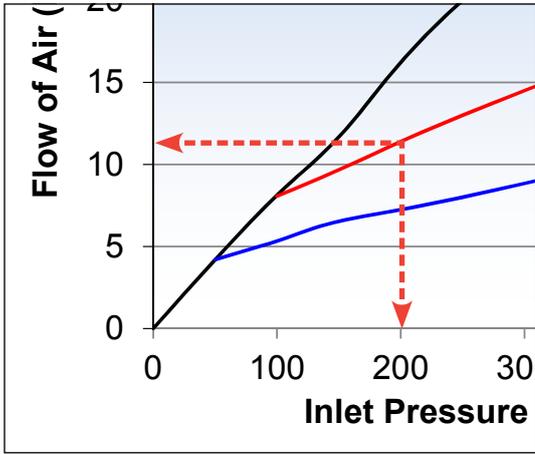


Part No	Connection	Connection	Length	Diameter	Weight
CAM38M1	G 3/8" RH Male	G 1" RH Male *	45 mm	47 mm	0.245 kg
CAM12M1	G 1/2" RH Male	G 1" RH Male *	45 mm	47 mm	0.255 kg
CAM58M1	G 5/8" RH Male	G 1" RH Male *	46 mm	47 mm	0.230 kg
CAM34M1	G 3/4" RH Male	G 1" RH Male *	57 mm	47 mm	0.240 kg
CAM78M1	G 7/8" RH Male	G 1" RH Male *	49 mm	47 mm	0.265 kg
CAM1M1	G 1" RH Male	G 1" RH Male *	56 mm	47 mm	0.245 kg

\* Includes an o-ring seal.

## USING THE FLOW CHARTS

The flow charts below show the flow of air through different models of flashback arrestors, at various inlet pressures and with increasing line restrictions. To determine the gas flow, multiply the flow derived from the charts below by the conversion factor from the table to the right appropriate to the gas medium being used.



Example:  
 QG = Flow (Gas Type)  
 QD = Flow of Air  
 F = Conversion Factor

$$QG = QD \times F$$

$$= 11 \times 2.5$$

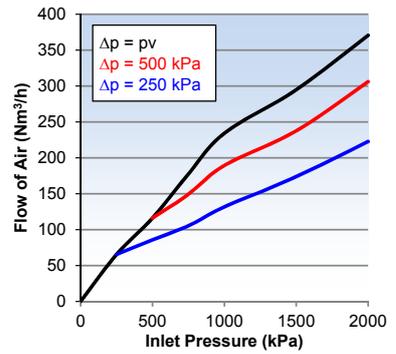
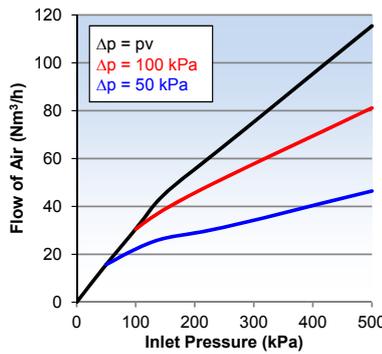
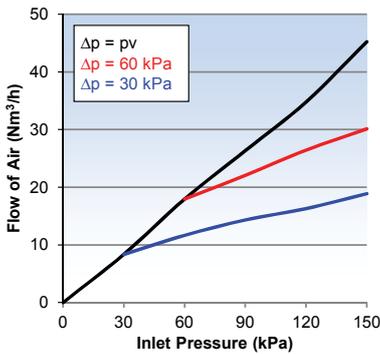
$$= 27.5 \text{ m}^3/\text{h (Hydrogen)}$$

Definitions:  
 pv = Primary pressure  
 ph = Secondary pressure  
 $\Delta p = p_v - p_h$

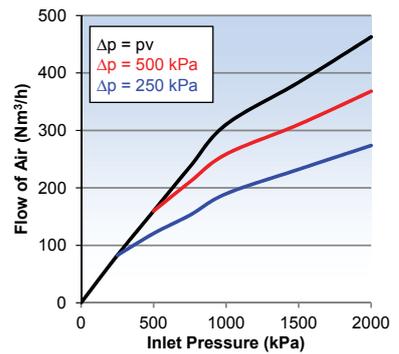
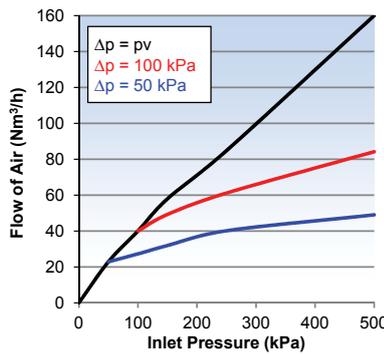
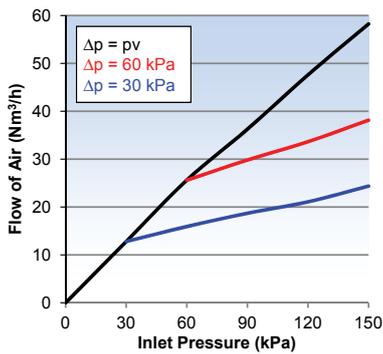
## Conversion Factors:

Gas Type (Abbreviation)	Conversion Factor (F)
Acetylene (A)	1.2
Hydrogen (H)	2.5
Town Gas (C)	0.9
Methane (M)	1.25
Propane (P)	0.9
Mixed Gas (Y)	-
Oxygen (O)	0.95
Air (D)	1.0

## FLOW CHARTS – MODEL: DEMAX

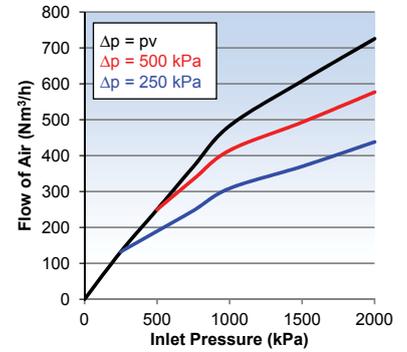
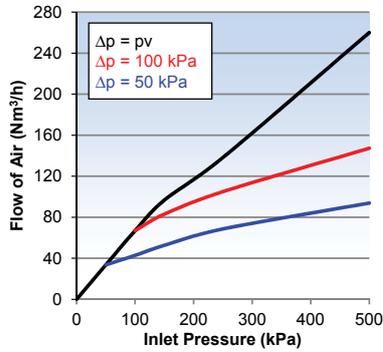
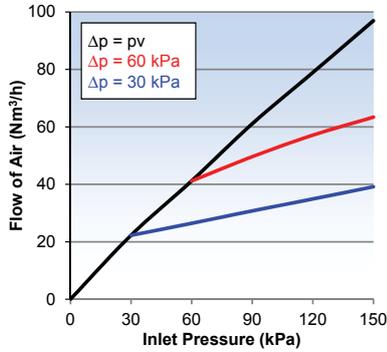


## FLOW CHARTS – MODEL: SIMAX 3

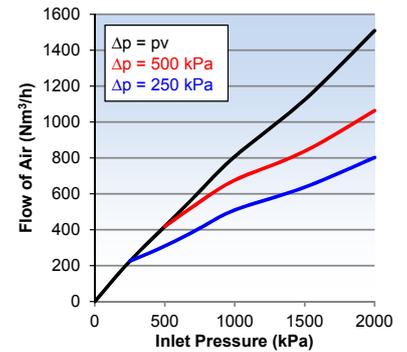
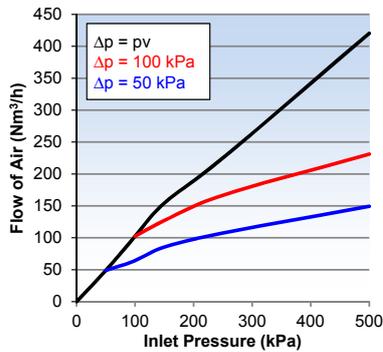
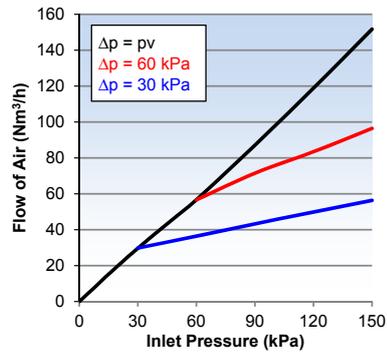


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### FLOW CHARTS – MODEL: SIMAX 5



### FLOW CHARTS – MODEL: SIMAX 8



### MANIFOLD FLASHBACK ARRESTOR APPLICATION CHART

Model	Suitable For	Welding 0.5 – 30 mm	Heating 0.5 – 30 mm	Heating 30 – 100 mm	Heating > 100 mm	Flame Cutting 3 – 200 mm	Flame Cutting 50 – 700 mm	Flame Cutting > 700 mm	Flame Scarfing 50 – 200 mm	Flame Scarfing 200 – 500 mm	5-Flame Scarfing	Brazing 4 m³/h	Brazing 12 m³/h	Brazing > 12 m³/h	Flame Spraying
DEMAX 5		•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIMAX 3		•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIMAX 5		•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIMAX 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•

## MANIFOLD FLASHBACK ARRESTORS

The following specification table is common to the group of manifold flashback arrestors detailed in this section of the catalogue.

Specifications	
Materials of Construction Body Flame Arrestor Non Return Valve Seat	Brass Stainless Steel Sintered Filter NBR70 (Nitrile butadiene rubber)
Inclusions Non Return Valve Flame Arrestor Thermal Cut-off Valve Inlet Filter	All Models All Models All Models All Models
Standard	BAM <sup>1</sup> Certified to AS 4603
Identification Colour Coding Fuel Gas Oxygen Label Information	Red Blue  Logo of Manufacturer Year of Construction Country of Origin Direction of Flow Australian Standard Certification Product Description Model Number Gas Service Maximum Working Pressures
Body Stamping	Manufacturer's Identification Year of Construction Product Type Australian Standard Serial Number Gas Service Maximum Working Pressures Direction of Flow
Warranty	1 Year – Covering Manufacturer's Defect
Maximum Operating Temperature	100 °C
Counrty of Origin	Germany



<sup>1</sup> BAM is the Federal Institute for Materials Research and Testing in Berlin, Germany. They are the largest independent testing facility in the world. Through extensive testing, BAM have certified the IBEDA range of flashback arrestors to AS 4603, making them the first AS 4603 certified product available in the Australian market.