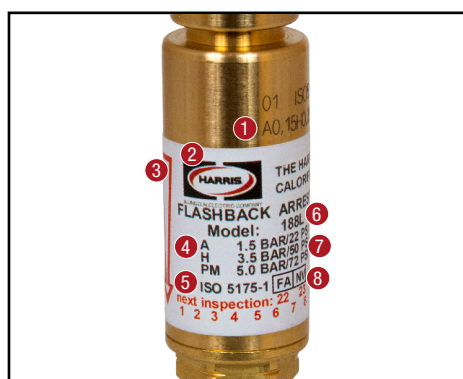


# Flashback Arrestors

## Introduction:

Flashback arrestors and check valves are safety devices designed for oxy-fuel systems to prevent or control damage from an occurrence like a flashback. They are used to prevent damage to equipment, but more importantly, to prevent personal injury.

## How to read the product label:



1	Serial number	A0,15H0,35MP0,5MP
2	Manufacturer/Distributor	Harris Calorific
3	Flow direction	↓
4	Type of gas	Acetylene/Hydrogen/PM
5	Number of applicable standard*	ISO 5175-1
6	Model designation	188L
7	Operating pressure	1,5/3,5/5 bar
8	Description of safety functions (see next page)	FA NV

\*Specific models may be object of other certifications such as: BAM and/or UL. For more information please contact our customer service.

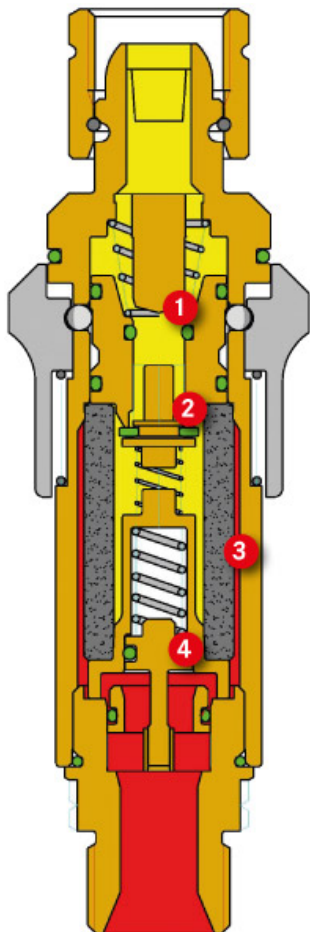
## Selection:

Choose the proper size device, paying particular attention to required equipment gas flow rates and the flow information supplied with the flashback arrestors like P charts. Features like thermal shut offs may also influence device selection. The aggregate number of safety devices in a system can also create an issue. Each safety device used creates a restriction in flow, so always follow the equipment manufacturer's recommendations.



## Safety functions:

Each flashback arrestor is equipped with safety functions which vary between models. Below you can find a short description of every function that is available for Harris safety devices.



### 1 PV - pressure-sensitive gas cut-off valve

The pressure-operated cut-off valve feature prevents the continuous gas flow in the event of rapid pressure change.

### 2 NV - gas non-return valve

The gas non-return valve prevents the sudden return of air or oxygen in the distribution line or single cylinders.

### 3 FA - flame arrestor

A sintered stainless steel flame arrestor prevents flashback from the gas outlet side and cools the flame down to below the ignition temperature, so that the gas cannot re-ignite on the inlet side.

### 4 TV - thermal cut-off valve

In the case of excessive temperatures in the safety device due to flashbacks or burnbacks, the valve closes automatically and cuts off the gas flow.

## FLASHBACK ARRESTOR TESTING INSTRUMENT

The 188-PG instrument can be used for testing:

- pressure sensitive gas cut-off (PV),
- gas non-return valve (NV),
- flow rate.

This testing unit can accommodate flashback arrestors with a maximum length of 200 mm and a diameter up to 50 mm; other sizes need special adapters. 188-PG is capable of testing flashback arrestors with a maximum flow rate of 20m³/h at a inlet pressure of 0.15 MPa (1,5 bar).

Each safety device should be tested annually for gas tightness, gas flow and gas return.



**REGULATOR MOUNT FLASHBACK ARRESTORS**

**188- (L & R)**

**188-2 (L & R)**

PART NO.	FUEL GAS	MAX. FLOW (l/h)	MAX. PRESSURE (bar)*				INLET THREAD	OUTLET THREAD	FUNCTIONS			
			OX	AC	LPG	H <sub>2</sub>			NV	FA	TV	PV
188-L	Fuel Gas	30.000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH	✓	✓		
188-R	Ox	100.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH	✓	✓		
188-LGB	Fuel Gas	30.000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	✓	✓		
188-RGB	Ox	100.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	✓	✓		
188-2L	Fuel Gas	60.000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH	✓	✓		
188-2R	Ox	180.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH	✓	✓		
188-2AL	Fuel Gas	60.000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH	✓	✓		
188-2AR	Ox	180.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH	✓	✓		
188-2LGB	Fuel Gas	60.000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	✓	✓		
188-2RGB	Ox	180.000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	✓	✓		
188-GL	Fuel Gas	30.000	-	1,5	5	3,5	G 1/4"-LH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	✓	✓		
188-GR	Ox	100.000	25	-	-	-	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228	✓	✓		
188-FFL	Fuel Gas	30.000	-	1,5	5	3,5	M16x1,5-6H-LH	M16x1,5-6G-LH	✓	✓		
188-FFR	Ox	100.000	15	-	-	-	M16x1,5-6H-RH	M16x1,5-6G-RH	✓	✓		

Other connections and models are available, hereby we have listed only the most common models. For more information please consult our customer service.


**188-T (L & R)**

**188-3T (LGB & RGB)**

PART NO.	FUEL GAS	MAX. FLOW (l/h)	MAX. PRESSURE (bar)*				INLET THREAD	OUTLET THREAD	FUNCTIONS			
			OX	AC	LPG	H <sub>2</sub>			NV	FA	TV	PV
188-TL	Fuel Gas	30.000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH	✓	✓	✓	
188-TR	Ox	100.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH	✓	✓	✓	
188-TAL	Fuel Gas	30.000	-	1,5	5	3,5	5/8"-18-UNF-LH	5/8"-18-UNF-LH	✓	✓	✓	
188-TAR	Ox	100.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH	✓	✓	✓	
188-TLGB	Fuel Gas	30.000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	✓	✓	✓	
188-TRGB	Ox	100.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	✓	✓	✓	
188-2TAL	Fuel Gas	60.000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH	✓	✓	✓	
188-2TAR	Ox	180.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH	✓	✓	✓	
188-2TL	Fuel Gas	60.000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH	✓	✓	✓	
188-2TR	Ox	180.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH	✓	✓	✓	
188-TLGB	Fuel Gas	60.000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	✓	✓	✓	
188-TRGB	Ox	180.000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	✓	✓	✓	
188-3TLGB	Fuel Gas	60.000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	✓	✓	✓	✓
188-3TRGB	Ox	180.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	✓	✓	✓	✓

Other connections and models are available, hereby we have listed only the most common models. For more information please consult our customer service.

\*1 bar = 100 kPa

**HOSE TO HOSE FLASHBACK ARRESTORS**

**188-TT (L6 & R6)**

**188-1G (L6 & R6)**

PART NO.	FUEL GAS	MAX. FLOW (l/h)	MAX. PRESSURE (bar)*				INLET THREAD	OUTLET THREAD	FUNCTIONS			
			OX	AC	LPG	H <sub>2</sub>			NV	FA	TV	PV
188-TTL6	Fuel Gas	20.000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)	✓	✓		
188-TTR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)	✓	✓		
188-TTR8	Fuel Gas	20.000	-	1,5	4	4,0	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)	✓	✓		
188-TTR8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)	✓	✓		

Other connections and models are available, hereby we have listed only the most common models. For more information please consult our customer service.

**TORCH MOUNT FLASHBACK ARRESTORS**

**188-GG (L & R)**

**188-GB (L6 & R6)**

PART NO.	FUEL GAS	MAX. FLOW (l/h)	MAX. PRESSURE (bar)*				INLET THREAD	OUTLET THREAD	FUNCTIONS			
			OX	AC	LPG	H <sub>2</sub>			NV	FA	TV	PV
188-1GBL6	Fuel Gas	20.000	-	1,5	4	4.0	Ø hose 1/4"(6 mm)	G 3/8"-LH-UNI ISO 228	✓	✓		
188-1GBR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	G 3/8"-RH-UNI ISO 228	✓	✓		
188-1GBL8	Fuel Gas	20.000	-	1,5	4	4.0	Ø hose 5/16"(8 mm)	G 3/8"-LH-UNI ISO 228	✓	✓		
188-1GBR8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	G 3/8"-RH-UNI ISO 228	✓	✓		
188-1GL6	Fuel Gas	20.000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	G 1/4"-LH-UNI ISO 228	✓	✓		
188-1GR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	G 1/4"-RH-UNI ISO 228	✓	✓		
188-1L6	Fuel Gas	20.000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2A-LH	✓	✓		
188-1R6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2A-RH	✓	✓		
188-1L8	Fuel Gas	20.000	-	1,5	4	4,0	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2A-LH	✓	✓		
188-1R8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2A-RH	✓	✓		
188-GGAL	Fuel Gas	20.000	-	1,5	4	4.0	5/8"-18-UNF-LH	5/8"-18-UNF-LH	✓	✓		
188-GGAR	Ox	65.000	15	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH	✓	✓		
188-GGGBL	Fuel Gas	20.000	-	1,5	4	4.0	G 3/8" A-LH-UNI ISO 228	G 3/8" -LH-UNI ISO 228	✓	✓		
188-GGGBR	Ox	65.000	15	-	-	-	G 3/8" A-RH-UNI ISO 228	G 3/8" -RH-UNI ISO 228	✓	✓		
188-GGGL	Fuel Gas	20.000	-	1,5	4	4.0	G 1/4" A-LH-UNI ISO 228	G 1/4" -LH-UNI ISO 228	✓	✓		
188-GGGR	Ox	65.000	15	-	-	-	G 1/4" A-RH-UNI ISO 228	G 1/4" -RH-UNI ISO 228	✓	✓		
188-GGL	Fuel Gas	20.000	-	1,5	4	4.0	9/16"-18-UNF-2A-LH	9/16"-18-UNF-2B-LH	✓	✓		
188-GGR	Ox	65.000	15	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-2B-RH	✓	✓		

Other connections and models are available, hereby we have listed only the most common models. For more information please consult our customer service.

\*1 bar = 100 kPa