

Pipe Welding Datasheet

Vapour & Purge Barrier Stoppers



KEY FEATURES

- Spark resistant
- Thermal Radiation resistant
- 70C continual max contact temp.
- Low Bulk

KEY BENEFITS

- Small access dims
 - D/3 max.
- Vapour Barrier to minimise welding operational risk
- Reduced purge gas volume & cost

APPROVED SUPPLIERS TO

- National Grid
- Marathon Oil
- KBR
- PMC
- TDW
- STATS

Flameshield Barrier Solution Overview

Sarco pioneered the manufacture and supply of the **Flameshield Gas Vapour and Purge Barrier Stoppers** in the late 90's driven by an industry requirement by BG Group and Gaz de France.

This was achieved using the engineering principles of the E4 Gas Industry Standard Gas Bag, which Sarco manufacture for UK & many global gas distribution networks under a Kitemark Licence, issued and audited by BSI annually, against the E4 standard.

The Flameshield solutions are commonly used as secondary safety vapour barriers to minimise the chance of explosive gases migrating into the "hot work" area or during inert gas purge operations to minimise the volume of gas required to reduce operation costs and negative impact on the environment.

These stoppers are all approved and often specified to suit operational requirements by oil & gas production, distribution and many other support servicing and fabrication companies, where operational safety and welding cost efficiency are paramount.

Sarco manufacture and individually test each Stopper in the UK in line with the companies BSI audited Integrated Management System ISO9001, 14001, 45001. This provides Sarco Operations and QC Departments with full traceability of the Stoppers, components and parts throughout the manufacturing processes.



Pig Out Purge Barrier



Flameshield Vapour & Purge Barriers

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Vapour & Purge Barrier Solution Details

CONFIGURATIONS

- Hydrocarbon Protection
- Aluminium Disk
- Spine to aid deployment
- Non-Metallic construction
- Pig Out type
- Inflation Kit to suit operational requirements
- Connections to suit

Product Config Ref	Description
SGB(size)/FL	Flameshield Stopper
SGB(size)/FL/PO	Flameshield Stopper – Pig Out Type
SRGB(size)/FL	R denotes a Resistra spine to aid deployment
SGB(size)/FL/ML	ML denotes Hydrocarbon Protection
SGB(size)/FL/SD	SD Denotes Silver Aluminiumised Disk

SGB(size)/FL Flameshield Vapour & Purge Barrier Stopper

Medium & Heavy duty Orange **Flameshield** purge Stoppers, spark and heat resistant. Inflation gas to suit operational safety requirements, Inflation hose sleeving available to further protect when running past hot work zones.

RELATED PRODUCTS

- EasiPurge twin Bag Stopper Set
- Ultra Twin Vapour Barrier Stopper Set

SGB(size)/FL/PO Pig Out Flameshield Purge Barrier Stopper

Heavy duty orange Flameshield Proban cover purge bag, spark retardant. Bag construction has zero metallics to suit **Pig Out** operations and avoid damage to pipeline filters, developed with BG Group. Inflation gas to suit safety requirements.

BESPOKE

Sarco Design Engineering team use expertise to develop heat protected systems for use in applications where the pipes are preheated to 350+ Deg C. Stoppers are also available with : Nomex, Kevlar, Silica, Aluminium and many others to best suit the customer needs.

SGB(size)/FL/ML Flameshield c/w Hydrocarbon Protection Stopper

The Flameshield Gas Bags have been adapted to suit **Hydrocarbon environments**. Sarco completed mechanical material testing using North Sea Crude Oil to make sure the materials are fully compatible, in addition to over a 20 year track record of successfully supporting the industry.

SGB(size)/FL/SD Flameshield Vapour & Purge Barrier c/w Aluminium Disk

When positioning the Flameshield Stopper in close proximity of the welding operation, or general “hot work” area, there is an increased risk of direct contact from sparks or molten debris. An additional **Aluminiumised Disk** can be added to further protect the Stopper, while also providing added protection from heat radiation during local heat treatment processes.

Operational Guidelines – Flameshield SINGLE TYPE Stoppers

1) CHECKS ON RECEIPT

- a. Remove bag stopper from shipping packaging, examine for any damage sustained in transit. Report any such damage to supplier immediately.
- b. Inflation testing – place bag stopper on clean flat surface and ensure that the bladder inside the Flameshield cover is not folded or twisted. Care must be taken when inflating bag stoppers that the bladder expands from the centre of the cover towards each end simultaneously, to prevent excessively stretching the bladder at one end. Inflate the bag stopper to the recommended inflation pressure, taking care that the disposition of the bladder in the cover does not cause the neck of the cover to twist or be pulled eccentrically to one side. Do not over inflate, as this may cause the bag stopper to burst when not supported within the pipe. (Only inflate so it takes its shape).

2) STORAGE

- a. **Storage area must be cool, dry, dark and not subject to excessive changes in temperature.**
- b. **Never store any inflatable stopper in direct sunlight or expose to weather.**
- c. **Do not place anything on top of the bag stopper while being stored. All inflatable bag stoppers must be kept upright and slightly inflated, with just enough air in them so that they will be slightly raised. Bags must remain extremely soft and flexible to the touch at all times, never store bags at recommended inflation pressure.**

3) USAGE

- a. Before usage, examine bag stoppers to be sure no cuts, tears or worn parts are present.
- b. Make sure that no sharp objects are present in the duct or pipe which are likely to puncture bag.
- c. When located within the duct/pipe, inflate the bag stopper to its recommended inflation pressure, making sure that the alignment of the bag is concentric with that of the duct or pipe. Do not inflate faster than 20ltrs per min. (Always inflate and deflate slowly).
- d. Do not over inflate bag stopper, or this may cause it to burst.
- e. The “Flameshield” Stopper Bag is designed to operate as a Hydrocarbon vapour barrier and/or reduce the area of Argon purging to save cost and environmental impact.
- f. The “Flameshield” product range is suitable for operating up to a continual max contact temperature of 70°C.

4) DISPOSAL

- a. It is the responsibility of the contractor/user of the bag stoppers to dispose of them in a manner appropriate to good environmental practice and in line with their company policies. Component parts can be broken down and recycled.

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REFERENCES, DIMENTIONS, RANGES AND PRESSURES

Product Ref	Size Ø Inches	Size Ø mm	Max Seal Ø mm	Deflated Length mm	Inflated Length mm	Min Access Ø Inches	Max Inflation PSI	Max Inflation BAR	Unit Weight	Qty/pack
SGB2/FL	2	50	57	165	x	1	15.0	1.034	x	1
SGB3/FL	3	80	84	191	205	1	15.0	1.034	x	1
SGB4/FL	4	100	112	254	250	1	15.0	1.034	x	1
SGB5/FL	5	125	138	300	265	1.5	15.0	1.034	x	1
SGB6/FL	6	150	168	305	286	1.5	15.0	1.034	x	1
SGB7/FL	7	175	192	325	275	1.5	15.0	1.034	x	1
SGB8/FL	8	200	224	355	289	2	14.0	0.966	x	1
SGB9/FL	9	225	245	360	300	2	12.0	0.828	x	1
SGB10/FL	10	250	276	430	343	2.5	10.0	0.690	x	1
SGB11/FL	11	275	x	435	347	2.5	9.0	0.621	x	1
SGB12/FL	12	300	324	460	350	2.75	8.0	0.552	x	1
SGB14/FL	14	350	368	545	460	2.75	7.0	0.483	x	1
SGB15/FL	15	375	403	555	482	2.75	6.5	0.448	x	1
SGB16/FL	16	400	417	724	533	2.75	6.5	0.448	x	1
SGB18/FL	18	450	481	788	555	3	6.0	0.414	x	1
SGB20/FL	20	500	520	825	623	3	5.0	0.345	x	1
SGB21/FL	21	525	546	850	655	3.5	4.75	0.328	x	1
SGB22/FL	22	550	559	880	700	3.5	4.5	0.310	x	1
SGB24/FL	24	600	637	1029	760	4	4.0	0.276	x	1
SGB26/FL	26	650	669	1050	800	4	3.75	0.259	x	1
SGB28/FL	28	700	737	1270	890	4	3.5	0.241	x	1
SGB30/FL	30	750	788	1282	940	5	3.25	0.224	x	1
SGB32/FL	32	800	813	1320	975	5	3.25	0.224	x	1
SGB36/FL	36	900	943	1448	1016	5	3.0	0.207	x	1
SGB40/FL	40	1000	1021	1700	1270	6	2.5	0.172	x	1
SGB42/FL	42	1050	1067	1735	1300	6	2.25	0.155	x	1
SGB46/FL	46	1150	1170	1850	1350	7	2	0.138	x	1
SGB48/FL	48	1200	1252	2030	1372	7	2	0.138	x	1