BRITISH COMPRESSED GASES ASSOCIATION
4a Mallard Way, Pride Park, Derby, UK. DE24 8GX
Company Number: 71798, England
www.bcga.co.uk

TECHNICAL INFORMATION SHEET 18

DATE MARKING OF GAS ACCESSORIES

Background

All equipment, including gas pressure equipment, is subject to the *Provision and Use of Work Equipment Regulations* (PUWER) [SI 1998 No. 2306] which requires that work equipment should not result in health and safety risks, regardless of its age, condition or origin. The PUWER requires that the employer selects suitable equipment and carries out appropriate maintenance and inspection.

Gas equipment will age and deteriorate over time. Components, such as elastomers and seals, will deteriorate from their date of manufacture whether in gas service or not. This particularly affects accessories, such as pressure regulators, flashback arrestors, flexible hoses and blowpipes attached to mobile systems or gas control systems. For this type of accessory, manufacturers and / or suppliers will allocate a life for their accessory. Typically in the industrial gases industry this is 5 years.

Some equipment is marked to either identify the date it was manufactured or the date when it needs replacement or refurbishment. Manufacturers and suppliers use a variety of systems for date marking or for inspection / replacement stamps. This can cause confusion. This document provides information on the marking or inspection / replacement stamps used.

Where no date is specified then it is advisable to refer to the manufacturer or the equipment supplier for advice. You may also refer to your insurance requirement on the replacement frequency of primary gas regulators.

British Compressed Gases Association (BCGA) documents provide guidance on maintenance requirements, refer to:

- BCGA Code of Practice 7, *The safe use of oxy-fuel gas equipment (individual portable or mobile cylinder supply)*;
- BCGA Guidance Note 7, *The safe use of individual portable or mobile cylinder gas supply equipment*;
- BCGA Technical Information Sheet 19, *Refurbishment of components used with compressed gases for welding, cutting and related processes.*

Marking system

The following pages show, for each BCGA member company who supplies such equipment, the marking system used.

1. Aeroflex Hose and Engineering Ltd.

For further information: www. aeroflex.co.uk

Flexible hose assemblies

Marking is typically customer driven and individual customers specify their marking requirements. A replacement date is not universally marked on the hose. 5 years is typical. Data is often provided on a coloured sleeve. Where possible the following data is used:

- Design pressure.
- Nominal bore.
- Nominal length.
- Test date.
- Test pressure.
- Batch number.
- When allowed the Aeroflex name or initials.
- Any relevant specification and the gas duty.

Where a part number is included this can be either an Aeroflex or a customer part number.

Figure 1.1: Aeroflex hose identification – Sleeve

The colour selection unfortunately differs from customer to customer; but wherever possible yellow is used for oxygen and unlimited shelf life and blue is used for inert gases.

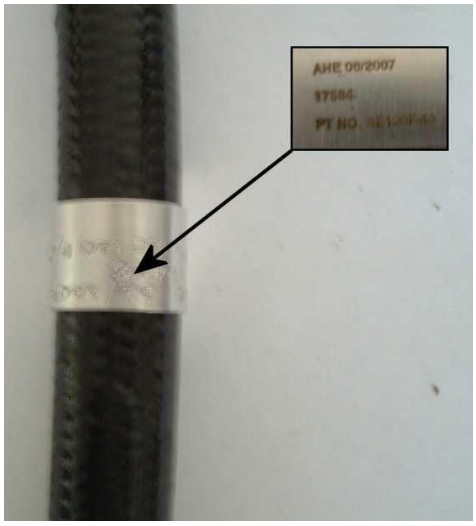


Figure 1.2: Aeroflex hose identification – Metal tag

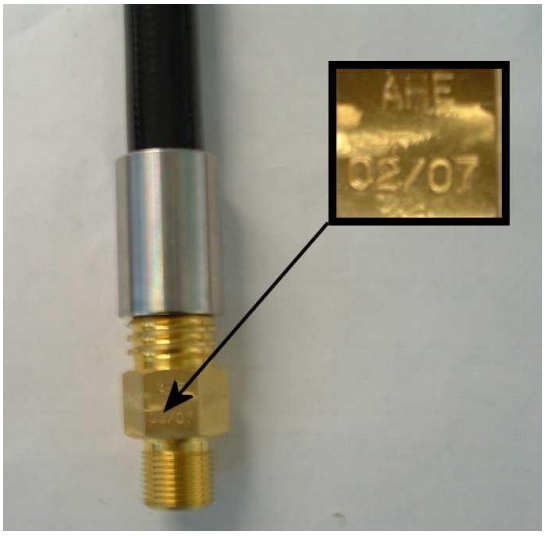


Figure 1.3: Aeroflex hose identification – Hard stamped

Figure 1.2 is an example of a metal tag used where a coloured polyoflin sleeve cannot be used such as cryogenics etc. (Variable data, but always AHE (Aeroflex Hose & Engineering Ltd.), batch number and date).

Additionally, as well as coloured sleeving and metal tagging the product will be hard stamped (Figure 1.3) or roll marked or etched (Figure 1.4) with the following data: AHE, Batch No. and Month & Year.

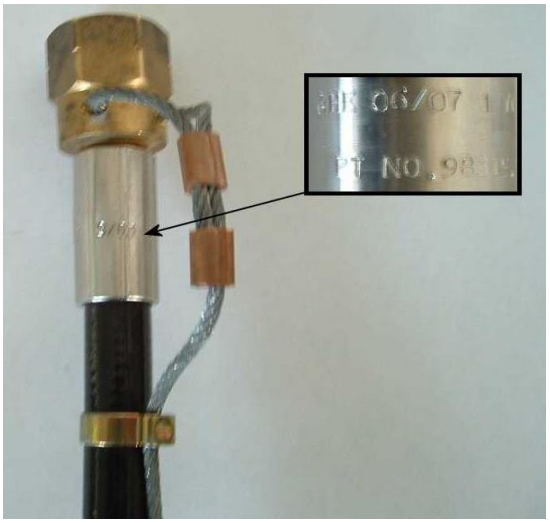


Figure 1.4: Aeroflex hose identification – Roll marked or etched

2. Air Liquide Welding Ltd.

For further information:
http://www.airliquidewelding.com

Regulators

Figure 2.1 shows the stamping on a regulator, indicating the month and year of manufacture.

Figure 2.1: Air Liquide regulator marking

Figure 2.2 provides a close-up view of the stamping on a regulator, showing month and year of manufacture

Figure 2.2: Air Liquide regulator marking – Close-up

Flashback arrestors

Figure 2.3: Air Liquide flashback arrestor marking

Citoguard R5 resettable flashback arrestors, showing year of manufacture marking.

3. BOC Gases

For further information: www.boconline.co.uk

Member of The Linde Group

Regulators

Stamp marking BOC 5000, 6000, 8500 & 9500 series
BOC UK regulators are stamped with the recommended year of replacement, which is approximately six years after the year of manufacture. BOC 5000 & 6000 series regulators will be stamped on the rear face as shown in Figure 3.1. BOC Series 8500 laboratory, are stamped around the body of the regulator.

Figure 3.1: BOC Regulator – stamp-marking

High pressure nitrogen regulators
These are marked on the body with a five figure date code. Example 01816.

This code translates as:
018 = the 18th day of the year.
16 = the year of manufacture.

Genie regulators
Genie regulators currently manufactured are marked with a “Replace by Year”

Figure 3.2: Genie regulators

Earlier versions, distinguishable by a chrome plated body, use a 3 letter date code to denote manufacture date on the rear of the regulator body. Refer to Table 3.1.

Digits 1 & 2 indicate the last two digits of the year
(for example, BI = 18 = 2018)
Digit 3 is the month of manufacture

A = 0	G = 6	A = January	G = July
B = 1	H = 7	B = February	H = August
C = 2	I = 8	C = March	I = September
D = 3	J = 9	D = April	J = October
E = 4		E = May	K = November
F = 5		F = June	L = December

Table 3.1: Genie regulator marking code

Examples:

BEG = 2014 July
AJC = 2009 March

Flashback arrestors

All BOC flashback arrestors are stamped with a two letter code showing the month and year in which they were manufactured. Refer to Table 3.2.

The BOC Standard and Premier Flashback arrestors carry the two letters below the BOC label, on the main body of the unit. On the BOC Resettable, the letters are found on the smooth portion below the ridges around the main body.

As examples, a flashback arrestor marked A3 would have been manufactured in January 2013; one marked AA, manufactured in January 2020.

Month:	A = January B = February E = March	G = April K = May N = June	P = July S = August T = September	V = October X = November Z = December
Year:	0 = 2010 1 = 2011 2 = 2012 3 = 2013 4 = 2014 5 = 2015 6 = 2016 7 = 2017	8 = 2018 9 = 2019 A = 2020 B = 2021 C = 2022 D = 2023 E = 2024 H = 2025	I = 2026 J = 2027 K = 2028 L = 2029 M = 2030 N = 2031 P = 2032 S = 2033	T = 2034 U = 2035 V = 2036 W = 2037 X = 2038 Z = 2039

Table 3.2: BOC marking format for flashback arrestors

BOC Flashback Arrestors have to be replaced 5 years from first date of use. A “notched date label” on the flashback arrestor allows the end user to mark the date of first use, providing this is within 1 year of date of manufacture.

BOC Nexus range

Regulators

The Nexus range of regulators will be stamped as shown in Figure 3.3 and the making format is shown in Table 3.3.

As an example, a regulator marked FG would have been manufactured in July 2013.

Figure 3.3:
Nexus Regulators

Flashback arrestors

The Nexus range of flashback arrestors are marked in accordance with Table 3.4 and as illustrated in Figure 3.4. They have a serial number above the flow direction arrow with a three digit date code below. As an example, a flashback arrestor marked E3C = 2013 March. The product label in Figure 3.4 is provided with a section for marking the last inspection date (year/ month).

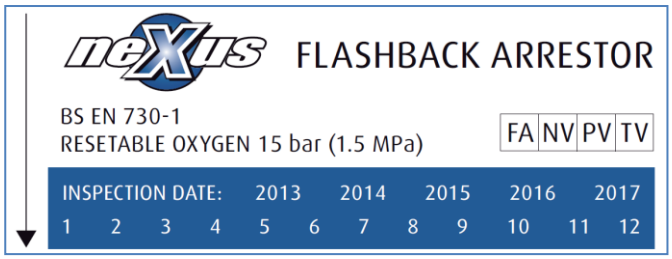


Figure 3.4: Nexus flashback arrestors marking scheme

Blowpipes

The Nexus range of blowpipes will be stamped as shown in Figure 3.5 and the making format is shown in Table 3.3.

Figure 3.5:
Nexus Cutting Blowpipes

Month:	A = January B = February C = March D = April E = May F = June	G = July H = August J = September K = October L = November M = December
Year:	F = 2013 G = 2014 H = 2015 J = 2016 K = 2017 L = 2018	M = 2019 N = 2020 P = 2021 Q = 2022 R = 2023 S = 2024

Table 3.3: Nexus marking format for regulators and cutting blowpipes.

Month:	A = January B = February C = March D = April E = May F = June	G = July H = August J = September K = October L = November M = December
Year:	E3 = 2013 E4 = 2014 E5 = 2015 E6 = 2016 E7 = 2017 E8 = 2018	E9 = 2019 F0 = 2020 F1 = 2021 F2 = 2022 F3 = 2023 F4 = 2024

Table 3.4: Nexus marking format for flashback arrestors

BOC RYVAL range

Regulators

The RYVAL range of regulators will be stamped as shown in Figure 3.6. The date shown is the year by which they are to be replaced.

Figure 3.6: RYVAL Regulators

Flashback arrestors

The RYVAL range of flashback arrestors are marked in accordance with Figure 3.7. These flashback arrestors are marked with the year of manufacture. Ryval Flashback Arrestors must be replaced 5 years from first date of use. A “notched date label” on the flashback arrestor allows the end user to mark the date of first use, providing this is within 1 year of date of manufacture.

Figure 3.7: RYVAL flashback arrestors marking scheme

Blowpipes

The RYVAL range of blowpipes will be stamped as shown in Figure 3.8. These blowpipes are marked with the year of manufacture.

On the example shown “1010” - this is week 10 of 2010.

Figure 3.8:
RYVAL Cutting Blowpipes

4. ESAB

For further information: www.esab.co.uk

Regulators

ESAB regulators have two permanently marked codes on their bodies. This displays the date of manufacture in code plus an additional inspection / replacement stamp showing the year at which ESAB recommend the equipment is replaced.

To determine the month of manufacture of an ESAB Edge, or G Series, regulator the date stamp code appears on the back, for example 'CMV'.

Therefore a regulator marked 'CMV' was manufactured in December 2012 in China.

Figure 4.1: ESAB Regulators

Month		Year	
January	A	2010	T
February	B	2011	U
March	C	2012	V
April	D	2013	W
May	E	2014	Y
June	F	2015	Z
July	G	2016	A
August	H	2017	B
September	J	2018	C
October	K	2019	D
November	L	2020	E
December	M	2021	F

Table 4.1: Month and year codes

Assembly location	Lettering style
USA	Gothic
Mexico	*Italic*
China	Gothic, with the letter 'C' before the date code

Table 4.2: Lettering format chart for assembly location

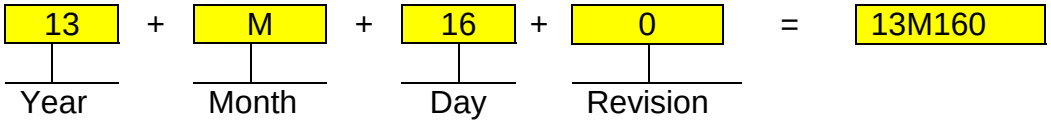
To determine the month of manufacture of ESAB and Murex regulators, the date stamp code appears on the back, for example: E3AF.

Using Table 4.3, E3AF was manufactured in January 2013 in Florence

Decade	Year		Month		Assembly location
A = 1970	1	6	A = January	G = July	F = Florence
B = 1980	2	7	B = February	H = August	
C = 1990	3	8	C = March	J = September	
D = 2000	4	9	D = April	K = October	
E = 2010	5		E = May	L = November	
			F = June	M = December	

Table 4.3: Date stamp code

For ESAB Elite series regulators manufactured from December 2013 the code changed such that it is permanently engraved and is translated thus:



Therefore a regulator marked '13M160' was manufactured on 16th December 2013.

Flashback arrestors

Flashback arrestors are marked on their labels.

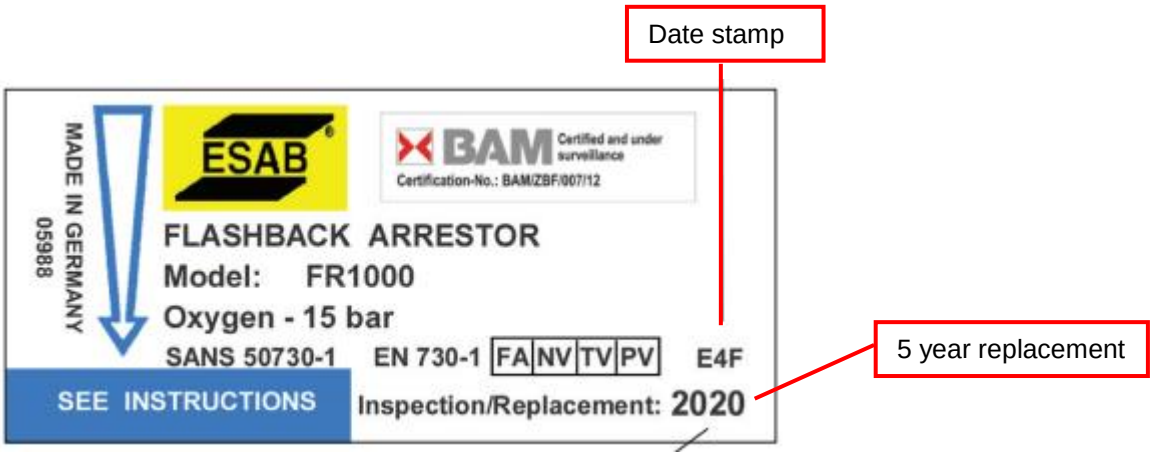


Figure 4.2: Flashback arrestors marking scheme

5. GASARC Group Ltd.

For further information: www.esabspecgas.com

Product Marking

GASARC products now typically use the **Julian Day Calendar Marking System** to mark the date of manufacture for a given product, this system is based on an incremental count of days within each calendar year.

The code will be 5 digits in length, digits 1 to 3 denote the day of manufacture while digits 4 and 5 denote the year of manufacture.

The inspection and replacement date can therefore be calculated by adding 5 years to the Julian Day code.

A Julian Day marking of '16717' means the product was manufactured on the 16th June 2017 (the 167th day of 2017). Therefore this product example would be due for replacement by 16th June 2022.

Julian Day Calendar

Julian Day Calendar is used to indicate the date of manufacture, and is represented by a 5 digit code.
Digits 1-3 represent the 'Day of Manufacture' in any given year ; Digits 4-5 represent the 'Year of Manufacture'

For Leap Years, add one (+1) after the Month of February. (applicable to 2020 ; 2024 ; 2024 ; 2028 ....)

Day >>	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031
Jan	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031
Feb	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	+1in Leap Years	
Mar	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090
Apr	091	092	093	094	095	096	097	098	099	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
May	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151
Jun	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	
Jul	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212
Aug	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243
Sep	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	
Oct	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304
Nov	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	
Dec	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365

Regulators

Single-stage & multi stage cylinder regulators
(configurable design 2015 +)

Date of manufacture (Julian Day) is marked on the rear of the regulator, as shown in Figure 5.1.

Figure 5.1: A single stage regulator (center).
Single stage regulator marking (left). Multi stage regulator marking (right).

The marking in Figure 5.1 (left & right images) identifies that the product was manufactured on the 26th January 2018. It would be due for replacement by 26th January 2023.

Single and multi-stage cylinder regulator (legacy design)

Inspection / replacement year is marked on the side of the regulator body, next to the inlet connection as shown in Figure 5.2.

Figure 5.2: Single-stage regulator (left) & multi stage regulator (right)

The marking in Figure 5.2 identifies that the product would be due for replacement by 31st December 2022.

Regulator types GA600, HF14 & HF35

Inspect / replace date is marked on the rear of the regulator body (GA600) or on the side of the body (HF Series), as shown in Figure 5.3 and Figure 5.4.

Figure 5.3:
GA 600 marking

Figure 5.4:
HF Series marking

The GA600 product would be due for replacement by 31st December 2022.
The HF Series product would be due for replacement by 31st December 2023.

Flashback arrestors

Model GPO/LGO series flashback arrestors

GASARC GPO / LGO series flashback arrestors are marked with their inspection / replacement year as shown in Figure 5.5.

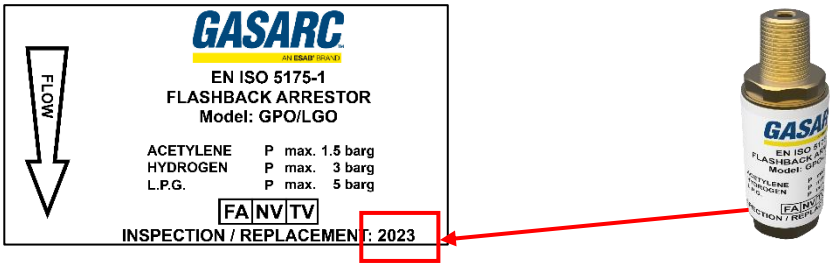


Figure 5.5: Example - Model GPO Flashback Arrestor

This product would be due for replacement by 31st December 2023.

Model GA-D97 series flashback arrestors

These flashback arrestors are marked with the date of manufacture shown as the month and year. The example in Figure 5.6 is marked “12 17” and would have been manufactured in December 2017.

Figure 5.6: Model GA-D97 flashback rrrestor

This product would be due for replacement five years from the end of the year of manufacture; that is by the 31st December 2022.

Flexible hose

GASARC high pressure flexible hoses are marked with their recommended replacement date, shown below as 2021 in Figure 5.7.

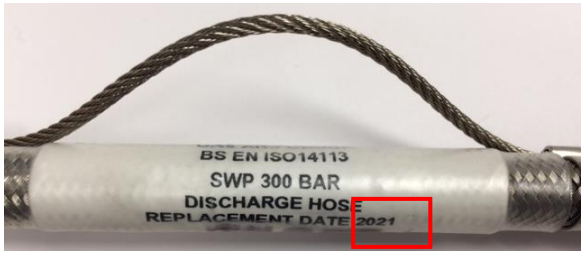


Figure 5.7: Flexible hose

This product would be due for replacement by 31st December 2021.

6. Gas Control Equipment Ltd.

For further information: www.gcegroup.com

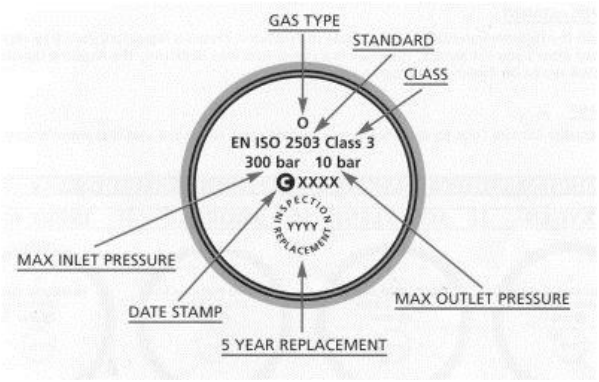
Regulators

Marking on rear face
(refer to Figure 6.3)

Figure 6.1: Series 300 Multi-Stage Regulators

Marking on rear face
(refer to Figure 6.3)

Figure 6.2: Series 300 Multi-Stage Regulators



Also refer to
Table 6.1

Figure 6.3: Example of marking on the rear face of a regulator

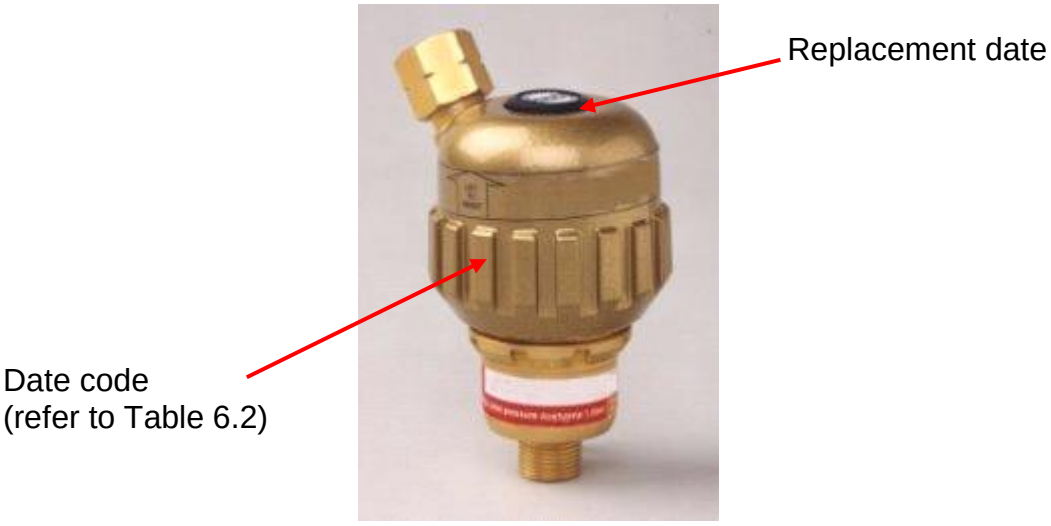


Figure 6.4: Resettable 36*ec* Flashback Arrestors

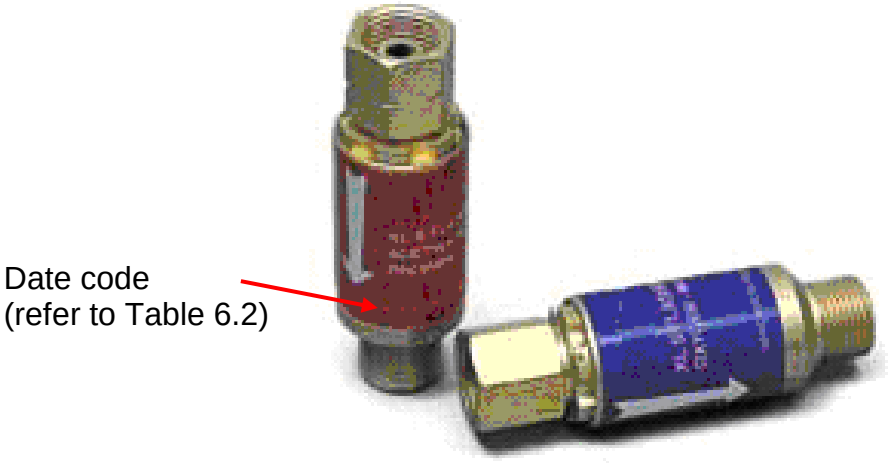


Figure 6.5: Barrel XL5 Flashback Arrestors

Table 6.1 provides a marking format for regulators.

Decade:	C = 1990 D = 2000 E = 2010 etc.	
Year:	0 = 0 1 = 1 2 = 2 3 = 3 4 = 4	5 = 5 6 = 6 7 = 7 8 = 8 9 = 9
Month:	A = January B = February C = March D = April E = May F = June	G – July H = August I = September J = October K = November L = December
Manufacturing site:	S = Skelmersdale / Stone Cross A or F = *Another*	

Table 6.1: GCE marking format for regulators

An example of the date coding system is as follows:

"D7FS" **=** Skelmersdale / Stone Cross origin made in June 2007.

Table 6.2 provides a marking format for some flash back arrestors. A single digit code represents the year of manufacture.

Year:	C = 1999 D = 2000 E = 2001 F = 2002 G = 2003 H = 2004 I = 2005 J = 2006	K = 2007 L = 2008 M = 2009 N = 2010 O = 2011 P = 2012 Q = 2013

Table 6.2: GCE marking format for flash back arrestors

7. Spectron Gas Control Systems Ltd

For further information:
www.spectron.de/spectron_de/en/

Regulators

All Spectron Gas Control Systems regulators have an information label that indicates the month and year of manufacture. Refer to Figures 7.1 and 7.2.

Figure 7.1: Regulator marking scheme

Figure 7.2: Regulator marking scheme

Flashback arrestors

Spectron Gas Control Systems flashback arrestors are marked with the year of manufacture and an inspection calendar for competent personnel to complete maintenance at regular intervals. Figure 7.3 shows the flashback arrestor marking scheme.

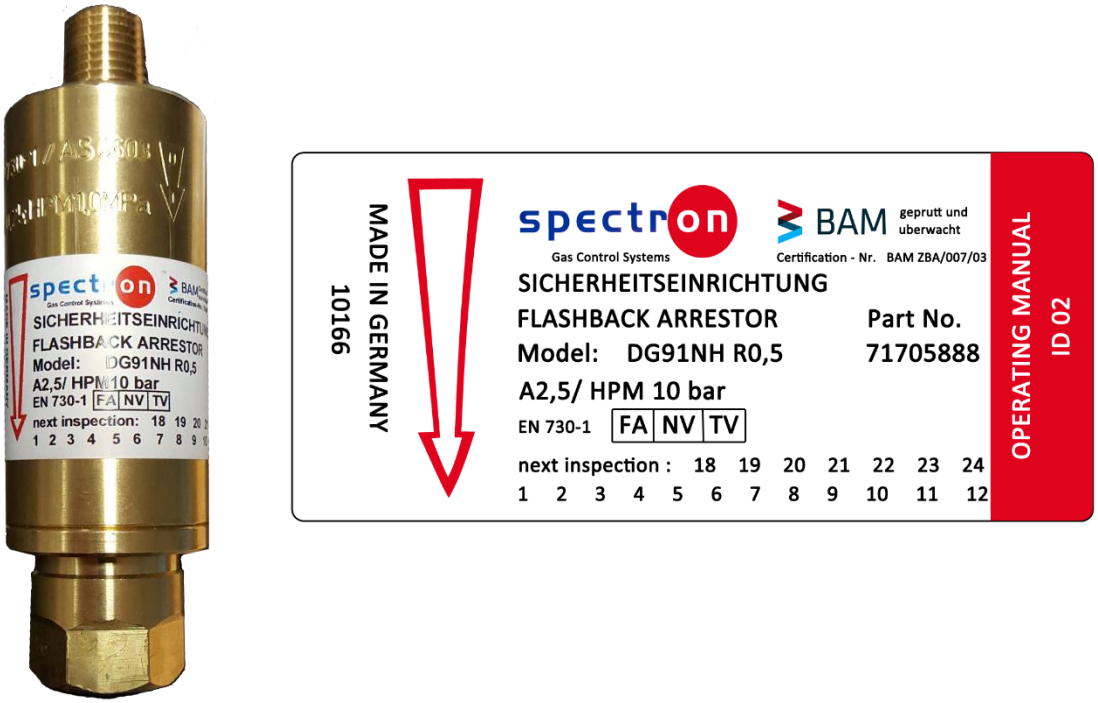


Figure 7.3: Flashback arrestor marking scheme

8. Verigas Engineering Ltd. (previously Black Teknigas Ltd.)

Regulators

Tekniflo autochange regulator
Replacement date is marked on the top of the regulator body, next to the outlet connection, where shown in Figure 8.1.

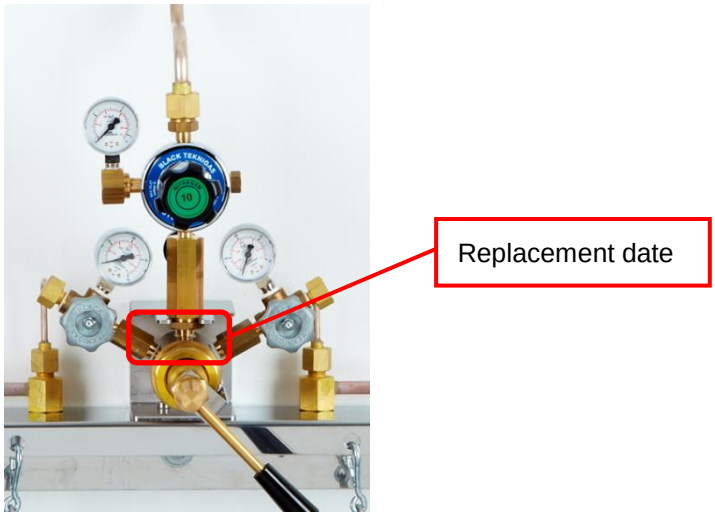


Figure 8.1: Tekniflo Autochange Regulator

Multi-stage regulator
Replacement date is marked on the side of the regulator body, where shown in Figure 8.2.

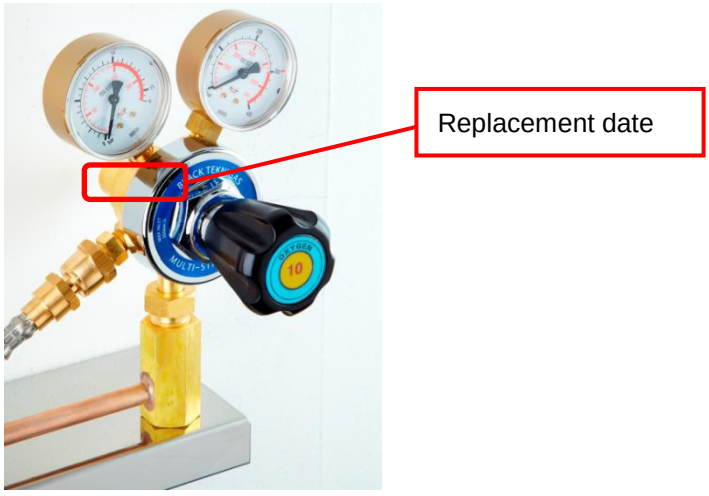


Figure 8.2: Multi-stage regulator

Single-stage regulator
Replacement date is marked on the side of the regulator body, where shown in Figure 8.3.

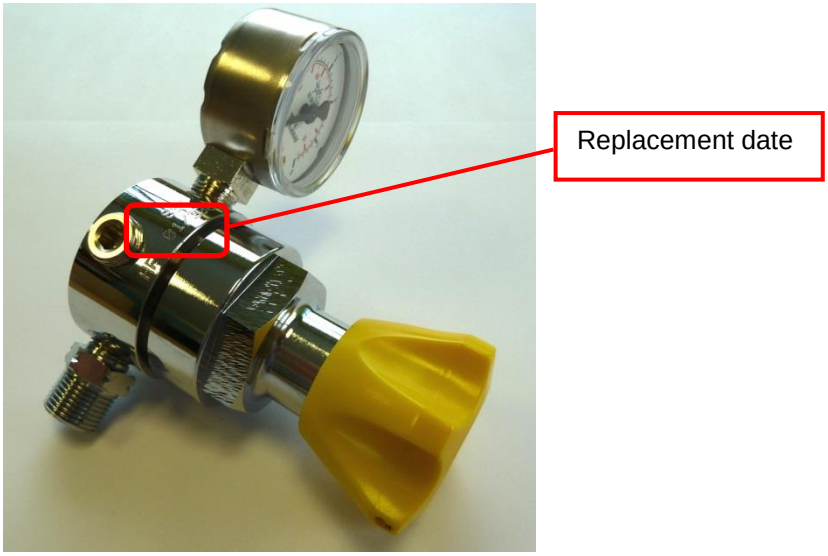


Figure 8.3: Single-Stage Regulator

Flashback arrestor

Model DGN MC00197 flashback arrestor
Flashback arrestors are marked with the year of manufacture, where shown in Figure 8.4. The product would be due for replacement five years from the end of the year of manufacture.

Figure 8.4: Model DGN MC00197 Flashback arrestor