



# NSAI

## EC TYPE-APPROVAL CERTIFICATE

Communication concerning:

- ~~- EC type approval~~
- extension of EC type-approval
- ~~- refusal of EC type approval~~
- ~~- withdrawal of EC type approval~~

Of a type of Hydrogen component  
with regard to Regulation (EC) No 79/2009, as implemented by Regulation (EU) No 406/2010

EC Type-approval No: *e24\*79/2009\*406/2010\*0001\*01*

Reason for extension: *- Addition of new fittings to the original scope.  
- Change of manufacturer's representative.*


### SECTION I

- 0.1 Make (trade name of manufacturer's): *Swagelok Company*
- 0.2 Type: *SS-AFS*
- Varaints: *1. Swagelok (3/8", 1/2", 10mm, 12mm, 15mm, 16mm)  
2. NPT (3/8", 1/2")*
- 0.3 Means of identification of type, if marked on the component: *See 0.2 above*
- 0.3.1 Location of that marking: *On the valve body*
- 0.5 Name and address of manufacturer: *Swagelok Company,  
29500 Solon Road,  
Solon, OH 44139  
USA.*
- 0.7 In the case of components and separate technical units, location and method of affixing of the EC approval mark: *On the valve body via laser marking*
- 0.8 Address(es) of assembly plant(s): *Swagelok Company,  
29500 Solon Road,  
Solon, OH 44139  
USA.*
- 0.9 Name and address of the manufacturer's representative (if any): *Swagelok Denmark  
Glentevej 13  
DK-6705 Esbjerg East Denmark.*

EC Type-approval No:

e24\*79/2009\*406/2010\*0001\*01

## SECTION II

1. Additional information (where applicable): *See Addendum.*
2. Technical service responsible for carrying out the tests: *TÜV SÜD Auto Service GMBH,  
Westendstraße 199,  
D-80686 München,  
Germany.*
3. Date of test report: *As before and 06.03.2020*
4. Number of test report: *10-00100-UA-GBM up to 01*
5. Remarks (if any): *See Appendix.*
6. Place: *Dublin.*
7. Date: *26<sup>th</sup> June, 2020*
8. Signature: 



Attachments:

- Information package.
- Test report.

**Addendum**

to EC Type Approval Certificate No.: e24\*79/2009\*406/2010\*0001\*01  
relating to EC component type-approval of a hydrogen component or system.

1. Additional information
  - 1.1. ~~Hydrogen system designed to use liquid hydrogen / Hydrogen system designed to use compressed (gaseous) hydrogen / Hydrogen component designed to use liquid hydrogen / Hydrogen component designed to use compressed (gaseous) hydrogen~~
2. Specifications and test results: *See technical report 10-00100-UA-GBM up to 01 and manufacturer's documentation.*
  - 2.1. Containers designed to use compressed (gaseous) hydrogen: *N/A.*
    - 2.1.1. Container material specifications: *N/A.*
    - 2.1.2. Container material test result: *N/A.*
    - 2.1.3. Container test results: *N/A.*
3. Restriction of use of the device (if any): *See technical report 10-00100-UA-GBM up to 01 and manufacturer's documentation.*
4. Remarks: *N/A.*



EC Type-approval No:

*e24\*79/2009\*406/2010\*0001\*01*

## Index to the Information Package

Date of issue: *23<sup>rd</sup> December, 2010.*  
Date of latest amendment: *26<sup>th</sup> June, 2020*  
Reason for extension/revision: *- See top of page 1 of this cert.*

1. Test report(s)  
- numbers(s): *10-00100-UA-GBM up to 01*  
- date of issue: *08.12.2010*  
- date of latest amendment: *06.03.2020*

2. Information document  
- number(s): *10-00100-UA-GBM up to 01*  
- date of issue: *-*  
- date of latest amendment: *06.03.2020*

Documentation: *12 pages*



EC Type-approval No:

*e24\*79/2009\*406/2010\*0001\*01*

Appendix: **Additional conditions, and advisory notes on legal alternatives**

A: Additional conditions:

1. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
2. Each type from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
3. Changes in the type are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
4. At regular intervals, any tests or associated checks prescribed by the applicable legislation to verify continued conformity with the approved type shall be carried out. The manufacturer shall demonstrate compliance with this by submitting to NSAI evidence of adequate arrangements and documented control plans for each type approved.
5. Any set of samples or test pieces showing evidence of non-conformity shall give rise to further sampling and testing and all steps shall be taken to restore conformity of production.
6. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B: Legal Options:


Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.

## Swagelok Company - Manual Valve SS-AFS

Test Report No.: 10-00100-UA-GBM-01

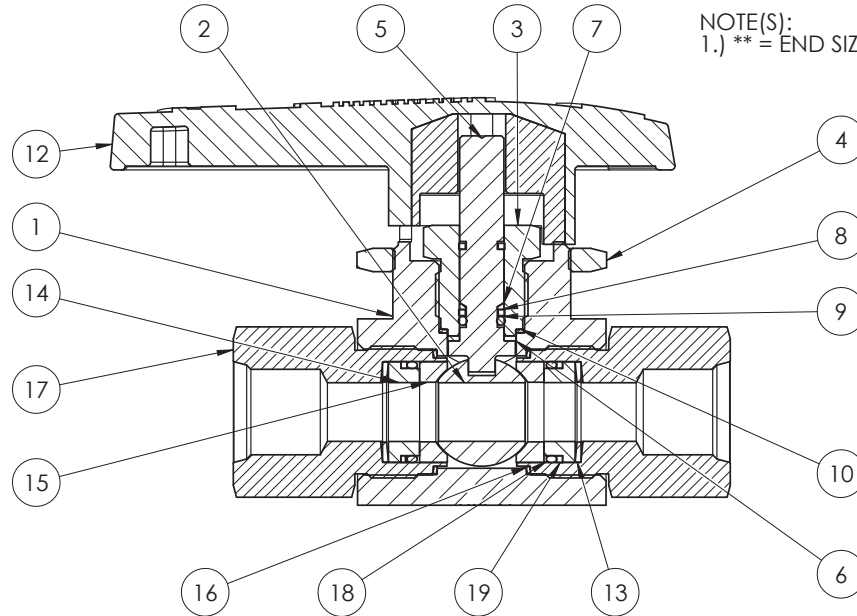
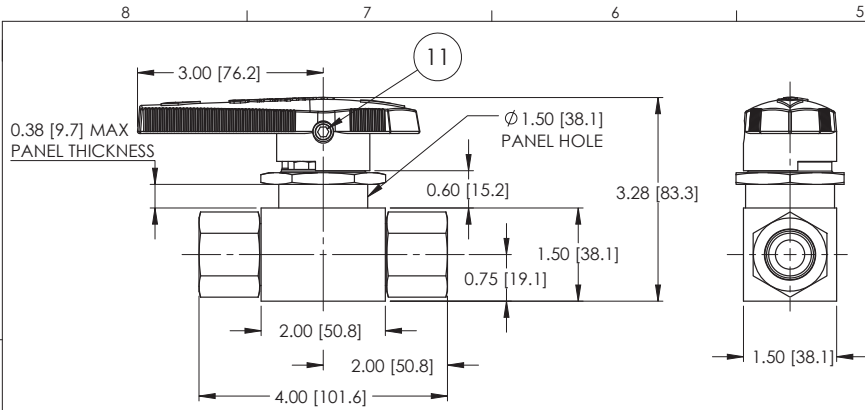
dated 2020.03.06

Information Document of the Hydrogen Component in accordance with EC 79/2009 & Annex 1, Part 1 of EU 406/2010.		
0.	GENERAL	
0.1.	Make:	Swagelok Company
0.2.	Type:	SS-AFS
0.5.	Name and address of the manufacturer:	Swagelok Company 29500 Solon Road Solon, OH 44139 USA
0.7.	Location and method of affixing of the EC type-approval mark(s):	On the valve body via laser marking.
0.8.	Name and address of assembly plant:	Swagelok Order Fulfillment Center 29495 F. A. Lennon Drive Solon, OH 44139 USA
0.9.	Name and address of the manufacturer's representative (if any):	Swagelok Denmark Glentevej 13 DK-6705 Esbjerg East Denmark
3.9.1.	Use :	Hydrogen component designed to use compressed (gaseous) hydrogen
3.9.1.12.	Manual Valve:	Yes
3.9.1.12.1.	Make:	Swagelok Company
3.9.1.12.2.	Type:	SS-AFS
3.9.1.12.3.	Maximum Allowable Working Pressure (MAWP):	56,69 MPa (8220 psig)
3.9.1.12.4.	Nominal Working Pressure:	41,37 MPa (6000 psig)
3.9.1.12.5.	Operating Temperature:	-40°C to +120°C
3.9.1.12.6.	Number of filling cycles or duty cycles:	50000
3.9.1.12.7.	Approval number:	e24*79/2009*406/2010*0001*01
3.9.1.12.8.	Material:	316 SS
3.9.1.12.9.	Operating principles:	2 way ball valve
3.9.1.12.10.	Description and drawing:	Approval drawing for AFS EC79/2009 approval extension 01 DWG: SS-AFS-EC79-APPROVAL Rev. B.



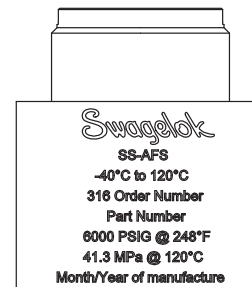

DWG. NO. SS-AFS-EC79-APPROVAL

NOTE(S):  
1.) \*\* = END SIZE DESIGNATOR

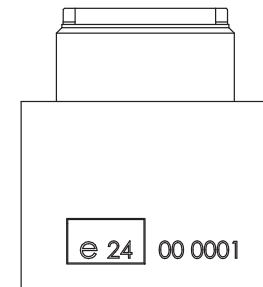


"SS-AFS"

ITEM NO.	DESCRIPTION	DRAWING NUMBER	QTY.
1	AFS BODY	SS-1-AFS-APPROVAL	1
2	BALL	SS-3B-AFS-TC-APPROVAL	1
3	PACKING BOLT	SS-4-AFS-APPROVAL	1
4	PANEL NUT	SS-7-45-APPROVAL	1
5	STEM	SSB-3A-AFS-APPROVAL	1
6	STEM THRUST WASHER	PK-8B-AFS-APPROVAL	1
7	STEM BACKUP RING	PK-8F-AFS-APPROVAL	1
8	STEM GUIDE RING	T-8G-010-APPROVAL	2
9	STEM O-RING	FULT-75-OR-010-APPROVAL	1
10	PACKING BOLT GASKET	SS-8C-AFS-APPROVAL	1
11	SET SCREW	N/A	1
12	HANDLE	PNY-5-AFS-APPROVAL	1
13	SEAT SPRING	SS-13-AFS-APPROVAL	2
14	SEAT GLAND	SS-9C-AFS-APPROVAL	2
15	SEAT	PK-9E-AFS-APPROVAL	2
16	END SCREW GASKET	SS-8F-P3-APPROVAL	2
17	END SCREW	SS-1C-AFS**-APPROVAL (NOTE 1)	2
18	SEAT O-RING	FULT-75-OR-017-APPROVAL	2
19	SEAT BACKUP RING	T-9D-017-APPROVAL	2



FRONT BODY MARKING



BACK BODY MARKING

VALVE TYPE: AFS SERIES WITH VARIOUS END CONNECTIONS PER SHEET 2

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.XXXX ±.0015  
ANGLES ±30 MINUTES  
INTERPRET DIM. AND TOL. PER ASME Y14.5M-1994

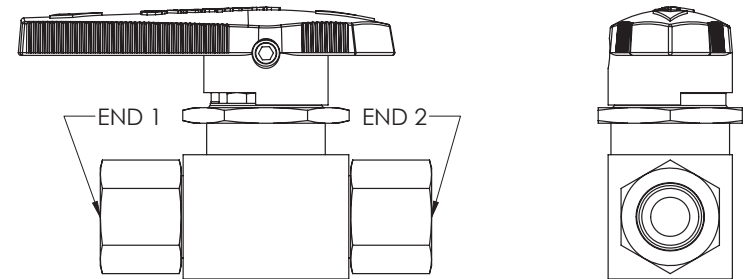
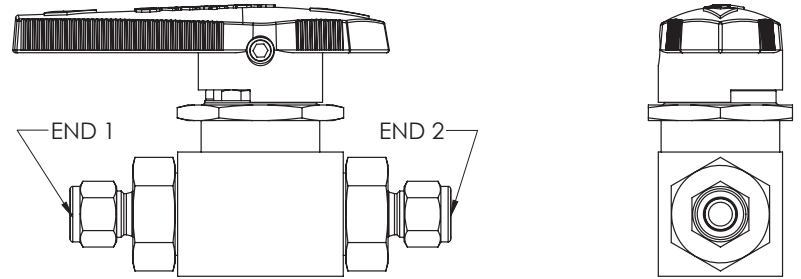
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		DATE 6/24/2020	DWG. NO. SS-AFS-EC79-APPROVAL

Swagelok	SHEET 1 of 2
	VS. 02
	REV. B

NOTE(S):  
 1.) THE END CONNECTIONS ARE AVAILABLE IN ANY COMBINATION

END 1	DESIGNATOR	SAE/MS THREAD SIZE
600	S6	
810	S8	
10M0	S10MM	
12M0	S12MM	
15M0	S15MM	
16M0	S16MM	
1/2" MALE NPT	M8	
3/8" FEMALE NPT	F6	
1/2" FEMALE NPT	F8	
1/2" FEMALE SAE	MS8	3/4-16

END 2	DESIGNATOR	SAE/MS THREAD SIZE
600	S6	
810	S8	
10M0	S10MM	
12M0	S12MM	
15M0	S15MM	
16M0	S16MM	
1/2" MALE NPT	M8	
3/8" FEMALE NPT	F6	
1/2" FEMALE NPT	F8	
1/2" FEMALE SAE	MS8	3/4-16



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 SS-AFS-EC79-APPROVAL

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