

**SARA SAE ENGINEERING SPECIFICATION****Section: SES 26 – 705****Issue: “A”****Rev No: “2”****Eff. Date: 27.11.2015****Page: 1 of 11****APPLICATION / WITHDRAWAL OF API MONOGRAM**

Rev	Reason of Change	Date	Prepared by	Reviewed by	Approved by	Status
1		20-10-2011	YR	JMS	KKD	Released
2	API 17D added in reference documents and API Marking requirement tables added	27-11-2015	AS	JMS	KKD	Released



## APPLICATION / WITHDRAWAL OF API MONOGRAM

### **1.0 PURPOSE**

To describe the requirements for making of API monogrammed products in accordance with applicable API specifications.

### **2.0 APPLICABILITY**

The requirements imposed by this procedure are directive in nature to all Production, Manufacturing Engineering, Production Control, Design Engineering, and Quality Control personnel involved in the manufacture of products manufactured to API specifications.

### **3.0 REFERENCE DOCUMENTS**

- 3.1 Sara Quality Assurance Manual
- 3.2 API Spec 6A, "Specification for Valves and Christmas Tree Equipment"
- 3.3 API Spec 7K, "Specification for Drilling and well servicing Equipment"
- 3.4 API Spec 11E, "Specification for Pumping Units and Production Hoisting Equipment"
- 3.5 API Spec 16A, "Specification for Drill Through Equipment"
- 3.6 API Q1, "Specification for Quality Programs"
- 3.7 API Spec 16C, "Choke and kill Equipment"
- 3.8 API Spec 16D, "Control Systems for Drilling Well Control Equipment"
- 3.9 API Spec 17D, "Design and Operation of Subsea Production Systems- Subsea Wellhead and Tree Equipment".

### **4.0 GENERAL**

The API monogram shall be applied only to those products that are designed and manufactured in accordance with applicable API specifications when required by the customer and Sara Sales Order.

- 4.1 Products that do not conform to API specified requirements will not be monogrammed.
- 4.2 Only API Monogram approved Licensee shall apply the monogram and its designated license number to applicable monogrammable products
- 4.3 License(s) being facility specific, monogram shall be applied at the approved site only.



**4.4** Monogram may be applied at any appropriate time during product process but shall be removed, if the product is subsequently found out of conformance including rejection at the supplied location, in accordance with the process covered in APPX to this procedure.

Note - Alternative API Monogram marking procedures required to be adopted if any Shall be in accordance with the details contained in the API Monogram Program Alternative Marking of Products License Agreement, available on the API Monogram Program website.

## 5.0 RESPONSIBILITY

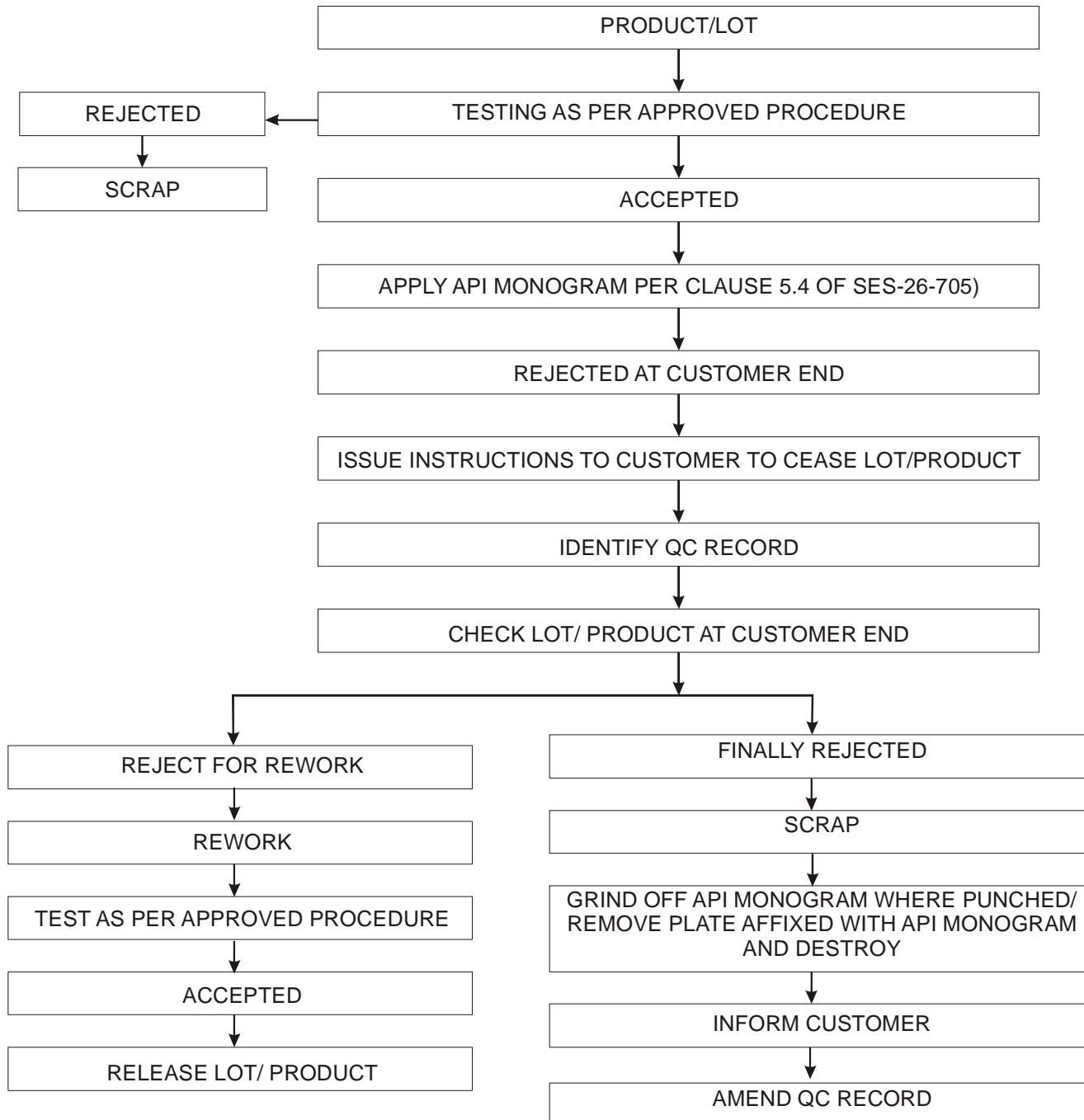
- 5.1** Manufacturing Engineering is responsible for detailing marking requirements for monogrammed products on Process Routings in accordance with Design Engineering documentation.
- 5.2** Production is responsible for marking all monogrammed products in accordance with the Engineering drawing or according to marking given in API (refer API specs tables in appendix B for marking).
- 5.3** Quality Control is responsible for ensuring the API monogrammed products are properly marked in accordance with the Engineering documentation.
- 5.4** Director/ Manager QAD will be responsible for release of application of API Monogram.

## 6.0 METHODS

- 6.1** Design Engineering drawings shall specify all marking requirements and identify location for monogramming final products according to the appropriate API Specifications.
- 6.2** Manufacturing Engineering shall describe all marking requirements and methods of applications of markings of the final products according to Design Engineering drawings.
- 6.3** The marking shall include API Licenses number, manufacturer's name and the date of manufacturing in conjunction with API Monogram.
  - 6.3.1** Date of manufacturing shall be of 2 digits representing month & year e.g 03-11 for March 2011 unless otherwise stipulated in the applicable API Spec including additional requirements of specs/stds, if any, as applicable.
  - 6.3.2** Design Engineering shall specifically add note to clarify for the application of the additional API product specification(s) and/or standard(s) marking requirements, to be marked on the product, if applicable.
- 6.4** Production shall apply all appropriate markings according to the information contained on the Process Routing in conformity with the details as mentioned on the relevant drawing.
- 6.5** Quality Control shall apply the API Monogram in accordance with the Design Engineering drawings.

**6.6** Manager Quality Control shall be responsible for overseeing the removal of the API monogram if the product is subsequently found to be in nonconformance with API specified requirements as per procedure in appendix A attached.

### **APPENDIX A**



## **APPENDIX -B**

### **(API Based Marking details of Products)**

## **Marking details of API 6A products –**

**(Ref Table 39 of API 6A) — Marking requirements and locations**

<sup>a</sup> For SSV/USV, in place of performance requirement level, mark class I or class II as appropriate.

**Table 43 — Additional marking for valves and chokes**

Marking	Location	
	Valves	Chokes
Flow direction (unidirectional valves only)	Body	Body
Direction of movement to open	Handwheel	Handwheel
Bore sizes <sup>a</sup> (multiple-bore valves only)	Connector OD (see Tables 73* and 74*)	—

<sup>a</sup> See also 10.5.4.2.2.

**NOTE** The data in tables marked with an asterisk (\*) are repeated in USC units in Annex B (with the same table number as in the main body of this International Standard, but with the prefix “B”).

**Table 44 — Marking for choke beans**

Marking	Location
Manufacturer's name or mark	OD or end
Size Nominal orifice size Bean size	OD or end

**Table 45 — Identification marks for ring gaskets**

Material	Mark
Soft iron	D-4
Carbon and low-alloy steel	S-4
304 stainless steel	S304-4
316 stainless steel	S316-4
Nickel alloy UNS N08825	825-4
Other CRA materials	UNS number-4

**Table 46 — Marking for ring gaskets**

Marking	Location
Date of manufacture	OD of gasket
Manufacturer's name or mark	OD of gasket
Ring gasket type and number	OD of gasket
Material	OD of gasket

## Marking details of API 16A products –

**Table 28 — Marking requirements and location**


**SARA SAE ENGINEERING SPECIFICATION**
**Section: SES 26 – 705**
**Issue: “A”**
**Rev No: “2”**
**Eff. Date: 27.11.2015**
**Page: 7 of 11**

Marking	Ram blowout preventer	Annular blowout preventer	Hydraulic connector	Drilling spools and adapters	Loose connector	OECs (integral & loose) <sup>d</sup>	Clamps	Ram blocks	Annular & ram packers & top seals
ISO 13533 or API 16A	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body	Mfr's specification	Mfr's specification
Mfr's name or mark	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body	Mfr's specification	Mfr's specification
Model or type designation (if applicable) (9.4.2.1)	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body				Nameplate and/or body		
Serial number (if applicable)	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body			Nameplate and/or body	Mfr's specification	
Size designation (Table 33)	Nameplate and/or body & connection OD <sup>a</sup>	Connection OD a, b, c	Mfr's specification	e					
Rated working pressure (Table 34)	Nameplate and/or body & connection OD <sup>a</sup>	Connection OD a, b, c	Mfr's specification	e					
Temperature rating (Table 35)	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body		
Mfr's part number	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body	Mfr's specification	Mfr's specification
Date of manufacture	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body	Mfr's specification	Mfr's specification
Product description code (9.4)	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body	Connection OD a, b, c	Mfr's specification	Nameplate and/or body <sup>e</sup>		
Hydr OS rated working pressure	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body						
Hydr OS recommended operating pressure	Nameplate and/or body	Nameplate and/or body	Nameplate and/or body						
Hydraulic open & close ports	Mfr's specification	Mfr's specification	Mfr's specification						
Equipment orientation	Upper portion								
Ring groove designation	Connection OD a, b, c	Connection OD a, b, c	Mfr's specification <sup>c</sup>						
Alphanumeric codification system (9.3.4)									Mfr's specification

a All type 16B and 16BX hub connections shall be marked on the neck of the connection, 12 mm (1/2 in) max. from the required length of the neck.

b All flanges shall be marked in accordance with ISO 10423.

c If the ring groove is overlaid with corrosion-resistant material, the ring groove number shall be followed with “CRA”.

d All ISO 10423 OECs shall be marked in an easily accessible and readable area selected by the manufacturer.

e The size designation in the PDC may be replaced by the two-digit clamp number in accordance with Table 15. If the clamp number is used, the rated working pressure code shall be replaced by the letters “CC”.

**Table 31 – Product description code**

Code	Description
AA	Equipment type (see 9.4.2.1)
BB	Size designation (see 9.4.2.2)
CC	Rated working pressure (see 9.4.2.3)
DD	Temperature rating (see 9.4.2.4)
EEEE	Date of manufacture (see 9.4.2.5)

**Table 32 — Equipment type**

Generic description of equipment	Code AA
Single ram BOP	01
Double ram BOP	02
Single annular BOP	03
Double annular BOP	04
Drilling spool	05
Adapter	06
Triple ram BOP	07
Hydraulic connector	08
Clamp	09
Other	99

**Table 33 — ISO equipment size designation**

ISO size designation		Code BB
mm	(in)	
179	7 1/16	07
228	9	09
279	11	11
346	13 5/8	13
425	16 3/4	16
476	18 3/4	18
527	20 3/4	20
540	21 1/4	21
680	26 3/4	26
762	30	30

**Table 34 — Rated working pressure**

Rated working pressure		Code CC
MPa	(psi)	
13,8	2 000	02
20,7	3 000	03
34,5	5 000	05
69,0	10 000	10
103,5	15 000	15
138,0	20 000	20

**Table 35 — Temperature ratings (metallic materials)**

Operating temperature range		Code DD
°C	(°F)	
– 59 to 121	– 75 to 250	75
– 29 to 121	– 20 to 250	20
– 18 to 121	0 to 250	00

## Marking details of API 16C products –

## Table 26- Metallic Marking Requirements

Marking	Equipment					
	Articulated Lines Swivel Joints Unions	Rigid Piping Buffer Chamber	Flexible Choke and Kill lines	Drilling Choke	Drilling Choke Actuators	Choke and Kill Manifold assembly
"API 16C"	OD	OD	Termination OD	Nameplate <sup>a</sup>	Nameplate	Nameplate
Assembly serial number	Nameplate and band	Nameplate or OD	Termination OD	Body and nameplate	Nameplate	Nameplate
Connector size	OD	OD	Connector OD	Connector	N/A	N/A
Date of manufacture (month and year)	OD	OD	Termination OD	Body or nameplate	Body or nameplate	Nameplate
Flow direction	N/A	N/A	N/A	Body	N/A	N/A
Mfg. name or mark	OD	OD	Termination OD	Nameplate	Nameplate	Nameplate
Flexible specification	N/A	N/A	Termination OD	N/A	N/A	N/A
Rated working pressure	Nameplate and band	OD	Termination OD	Nameplate and termination OD	N/A	Nameplate
Ring gasket type and number	OD	OD	Connector OD	Connector OD	N/A	N/A
Schedule/grade	OD	OD	N/A	N/A	N/A	N/A
Safety clamp	N/A	N/A	Termination OD <sup>b</sup>	N/A	N/A	N/A
Size	OD	OD	Termination OD	Nameplate	Nameplate	N/A
Thread size	N/A	N/A	N/A	Adjacent to thread	N/A	N/A
Temperature rating	OD	OD	Termination OD	Body and nameplate	Body and nameplate	Nameplate
Orifice size	N/A	N/A	N/A	Nameplate	N/A	N/A

**Marking details of API 17D products – Marking to be done according to ISO 10423.**

Marking	Location
	Loose connectors
ISO 10423	OD of connector
Temperature class or upper and lower operating temperature range rating	OD of connector
Material class	OD of connector
Product specification level	OD of connector
Performance requirement level	—
Nominal size (bore if required)	OD of connector
Thread size (threaded products only)	OD of connector
End and outlet connector size	OD of connector
Rated working pressure	OD of connector
Ring gasket type and number	OD of connector
Date of manufacture	OD of connector
Manufacturer's name or mark	OD of connector
Serial number (if applicable)	OD of connector
Hardness test values (if applicable)	Adjacent to test location

**Table 45 — Identification marks for ring gaskets**

Material	Mark
Soft iron	D-4
Carbon and low-alloy steel	S-4
304 stainless steel	S304-4
316 stainless steel	S316-4
Nickel alloy UNS N08825	825-4
Other CRA materials	UNS number-4

**SARA SAE ENGINEERING SPECIFICATION****Section: SES 26 – 705****Issue: “A”****Rev No: “2”****Eff. Date: 27.11.2015****Page: 11 of 11****Table 46 — Marking for ring gaskets**

Marking	Location
Date of manufacture	OD of gasket
Manufacturer's name or mark	OD of gasket
Ring gasket type and number	OD of gasket
Material	OD of gasket