

API Standard 20J

Standard 20J is a service standard that addresses the qualification of distributors of metallic materials for use in the petroleum and natural gas industry.

- Support API product specifications / standards where 20J is specified
- Be utilized when contractually specified as a requirement for compliance
- Provide distributors of metallic materials with a voluntary method to demonstrate their compliance to specified requirements

Overview of API 20J

1st Edition Published May 2017

Distributor Qualification Levels (DQL-1 and DQL-2)

QMS Requirements

Personnel and Facility Requirements

Distributor Process Controls

- Control of Mills
- Control of Sub-Distributors
- Control of Service Suppliers

Additional 20J Requirements

Terms and Definitions

Term	Definition
Distributor	An organization that maintains and provide metallic bar, plate and tubular products for resale.
Mill	A factory in which metals are hot worked, cold worked, or melted and cast into standard shapes suitable for secondary fabrication into commercial product.
Remote Technical Assessment	A technical assessment of capabilities performed using a method other than an on-site audit. This includes, but is not limited to a checklist or a survey.
Service Supplier	An organization that performs activities on behalf of the distributor (Note: The services covered in this standard are; machining, material testing, heat treatment, nondestructive examination)
Sub-Distributor	A distributor that is a supplier to the 20J distributor

Distributor Qualification

API Q1 QMS Elements

- Determination of requirements
- Control of production and servicing
- Personnel competence
- Internal audit
- Control of testing, measuring & monitoring equipment
- Control of non-conforming product
- Improvement (corrective and preventive action)
- Inspection & testing
- Identification & traceability
- Control of records
- Risk assessment & management
- Management of change

20J Requirements

Facilities & Equipment Capabilities:

- Equipment to receive and ship material to customers
- Facility to store and maintain physical inventory
- Appropriate handling and lifting equipment
- Inspection and test equipment

Personnel Training and Competency Requirements:

- Require knowledge of metallic material processing and testing
- Methods and requirements for personnel training qualification
- Knowledge necessary to address specific customer requirements
- Qualifications for personnel performing processes that require validation
- Method(s) used to verify competency of personnel

Distributor Process Controls

Table 1— Guidance for Distributor Qualification Requirements

Requirement	DQL-1	DQL-2
Quality Management System	4.3.1	4.3.2
Initial approval of a mill	7.3.2.1	7.3.2.2
Periodic evaluation of a mill	7.3.3.1	7.3.3.2
Review of order requirements with a mill	7.3.4.1	7.3.4.2
Initial approval of sub-distributors	7.4.2.2	7.4.2.3
Initial approval of service suppliers	7.4.3.1	7.4.3.2
Periodic evaluation of sub-distributors and service suppliers	7.4.4.1	7.4.4.2
Review of order requirements with sub-distributors and service suppliers	7.4.5.1	7.4.5.2

Control of Mills

Initial Approval

- Verification of accredited QMS
- Verification of initial order
- DQL-2 Documented procedure to validate acceptance criteria:
 1. Chemistry Analysis
 2. Mechanical Testing
 3. NDE
 4. Microstructure
- DQL-2 Assessment of mill's capabilities and controls through either:
 1. Verification of active API license for applicable products
 2. On-site technical audit
 3. Technical Assessment

Control of Mills

Periodic Evaluation

- Documented Procedure of monitoring and re-evaluation
- Identify minimum performance requirements and process for continual monitoring
- Frequency based on risk assessment and re-evaluation performed through either:
 1. On-site technical audit
 2. Technical assessment
 3. Review of supplier performance
 4. Verification of active applicable API license
- DQL-2 Frequency of re-evaluation shall not exceed 36 months

Control of Sub-Distributors

Initial Approval of Sub-Distributor

- Ensure sub-distributor maintains QMS or meets one of the following
 1. Verification QMS conforms to requirements for suppliers
 2. Assessment to meet distributor's purchasing requirements
 3. Assessment of product upon delivery or activity completion

- DQL-2 ensure one of the following:
 1. Sub-distributor demonstrates conformance to API 20J DQL-2
 2. Supplying mill for sub-distributor approved by distributor
 3. Distributor tested and qualified product upon delivery or activity completion

Control of Service Suppliers

Initial Approval of Service Suppliers

- Verification of capabilities and controls:
 - Machining (Stated elements of API Q1)
 - Material Testing (Stated elements of ISO 17025)
 - Heat Treatment (AMS 2750 or API 20H)
 - NDE (API 20D)
 - Methods for verification using one of the following:
 - On-site technical audit
 - Technical assessment
 - Evidence of conformance to respective API, ISO or AMS requirement
- DQL-2 | Remote technical assessment shall not be utilized for verification

Sub-Distributors and Service Suppliers

Periodic Evaluation

- Documented Procedure of monitoring and re-evaluation
- Identify minimum performance requirements and process for continual monitoring
- Frequency based on risk assessment and re-evaluation performed through either:
 1. On-site technical audit
 2. Technical assessment
 3. Review of supplier performance
 4. Verification of active applicable API license
- DQL-2 Frequency of re-evaluation shall not exceed 12 months

Technical Assessment

Guide for Technical Criteria:

- General scope
- Product range
- Inspection blooms, billets and bars
- Rolling and piercing
- Heat treatment
- Metallurgical testing
- Straightening capabilities
- Finishing and marking capabilities
- Non-destructive testing

1. General						
Mill Name						
Address						
Tel. Number					e-mail:	
Supplier contact name						Title/Function:
Type of facility				Years in operation:	Annual Capacity:	
Product size capability						
Bar:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Size Range:			
Forgings:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Size Range:			
Tubing:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Size Range:			
Plates:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Size Range:			
Others:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Size Range:			
Grades Produced (list all):						
	Carbon Steel	Low Alloy	Stainless	Others		
2.1 Production Overview - Carbon Steel						
Melting	Blast Furnace <input type="checkbox"/>	BOF Melting <input type="checkbox"/>	EAFF Melting <input type="checkbox"/>	None <input type="checkbox"/>		
Refining	Vacuum Degass <input type="checkbox"/>	Argon Bubbling <input type="checkbox"/>	Ladle Refining <input type="checkbox"/>	None <input type="checkbox"/>		
Billet/Blooms	External Source <input type="checkbox"/>	Internal Billets <input type="checkbox"/>	Both <input type="checkbox"/>			
2.2 Production Overview- Low Alloy Steel						
Melting	Blast Furnace <input type="checkbox"/>	BOF Melting <input type="checkbox"/>	EAFF Melting <input type="checkbox"/>	None <input type="checkbox"/>		
Refining	Vacuum Degass <input type="checkbox"/>	Argon Bubbling <input type="checkbox"/>	Ladle Refining <input type="checkbox"/>	None <input type="checkbox"/>		
Billet/Blooms	External Source <input type="checkbox"/>	Internal Source <input type="checkbox"/>	Both <input type="checkbox"/>			
2.3 Production Overview- Stainless Steels						
Melting	Blast Furnace <input type="checkbox"/>	BOF Melting <input type="checkbox"/>	EAFF Melting <input type="checkbox"/>	None <input type="checkbox"/>		
Refining	Vacuum Degass <input type="checkbox"/>	Argon Bubbling <input type="checkbox"/>	Ladle Refining <input type="checkbox"/>	None <input type="checkbox"/>		
Billet/Blooms	External Source <input type="checkbox"/>	Internal Source <input type="checkbox"/>	Both <input type="checkbox"/>			
2.4 Production Overview- Other Materials						
Melting	Blast Furnace <input type="checkbox"/>	BOF Melting <input type="checkbox"/>	EAFF Melting <input type="checkbox"/>	None <input type="checkbox"/>		
Refining	Vacuum Degass <input type="checkbox"/>	Argon Bubbling <input type="checkbox"/>	Ladle Refining <input type="checkbox"/>	None <input type="checkbox"/>		
Billet/Blooms	External Source <input type="checkbox"/>	Internal Billets <input type="checkbox"/>	Both <input type="checkbox"/>			
3. Inspection of Blooms, Billets, Bars						
Flaw Detection:						
Visual?	Yes <input type="checkbox"/>	No <input type="checkbox"/>				
Product Inspected:	Bloom <input type="checkbox"/>	Billet <input type="checkbox"/>	Bar <input type="checkbox"/>	Coil <input type="checkbox"/>	Rod <input type="checkbox"/>	Other <input type="checkbox"/>
MPR?	Yes <input type="checkbox"/>	No <input type="checkbox"/>				
If yes, specify:	A.C. <input type="checkbox"/>	D.C. <input type="checkbox"/>				
Product inspected:	Bloom <input type="checkbox"/>	Billet <input type="checkbox"/>	Ingot <input type="checkbox"/>			

20J Requirements

Distributor Performed Processes

- Verification of conformance to applicable standards through internal on-site audit:
 1. Heat Treatment (AMS 2750 or API 20H)
 2. NDE (API 20D)
 3. Material testing (ISO 17025)

Activities Performed by Distributor

- Distributor shall maintain the capability to perform the following:
 1. Receiving Verification
 2. Traceability
 3. Marking
 4. Final Inspection

Questions?

Sample Language for API Product Specifications

Provide Awareness

- Manufacturers that purchase metallic materials from distributors should be aware of API Standard 20J, Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries, including the relevant Distributor Qualification Level 1 or 2.

Sample Language for API Product Specifications

Provide Recommendation

- Manufacturers that purchase metallic materials from distributors should recommend the distributor be compliant with API Standard 20J, Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries, including the relevant Distributor Qualification Level 1 or 2.

Sample Language for API Product Specifications

Provide Requirement

- Manufacturers that purchase metallic materials from distributors shall require the distributor meet API Standard 20J, Qualification of Distributors of Metallic Materials for Use in the Petroleum and Natural Gas Industries, including the relevant Distributor Qualification Level 1 or 2.