



QMS Standard Work

Title:	Part Number Codes for Sourcing, Certification, & Special Requirements	Document Number & Revision:	PM-07-02-08	F
Process Owner:	Product Engineering	Date of Revision:	6/8/2021	

1.0 PURPOSE: This instruction describes special part identifying methods, codes, and their application to indicate customer specified sourcing restrictions, increased levels of material certifications and documentation, and/or other special requirements.

The codes described herein can be applied as a suffix to either standard coded part numbers or raw material part numbers, or they can be used as P/N Key options within a Sundyne drawing. They cannot be added to drawing part numbers except as specified within that drawing's P/N Key.

2.0 SCOPE:

2.1 This document applies to all personnel responsible for reviewing customer requirements and determining material requirements and creating new Item Masters. This document is used when there are unique sourcing or certification requirements not covered in the ME02AA01 material code system or by the standard vendor part.

3.0 DEFINITIONS:

Origin: For the purposes of Table 1, wherever the process of smelting raw materials into an ingot, or casting of metal occurs. NOTE: Since casting vendors create and control the composition of the casting material, the casting location is both the origin and manufacturing location. Therefore, when a conflict exists between origin and manufacturing location specified in a casting drawing P/N, the origin requirement shall be followed:

Manufacturing: For the purposes of Table 1, wherever the production of the final product form occurs, e.g. steel plate, pipe, structural shapes, forgings, machining, etc. (N/A for castings).

P/N Key: Used on a Sundyne drawing to allow and control additional part number characters beyond the 8 character drawing number to define part options.

Qualifying Country: One of the countries listed in Table 2 where either the origin and/or manufacturing of a part must occur according to the specified Sourcing Code per Table 1.

Global: Not restricted to any country.

4.0 INSTRUCTIONS:

4.1 The sourcing, certification, and special requirement codes described herein are to be applied only as follows:

- Add as a suffix to a pre-defined part number for Industry Standard Raw Material defined per *PN10.01-01*
- Add as a suffix to a pre-defined part number for a standard off-the-shelf mechanical, electrical, or instrumentation component defined by a Standard Coded Part (SCP) per *PM-07-02-11*.
- Use within a Drawing P/N Key to define special requirement options, with reference back to this document for control of definitions and requirements.

4.2 These codes are not to be added to part numbers defined by Sundyne drawings, except when specifically called out and defined in a Drawing P/N Key.



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- 4.3 Where a two letter *ME02AA01* code is the primary suffix for an SCP number or Raw Material IM, these codes follow the *ME02AA01* code.
- 4.4 For suffixes historically applied directly to the drawing part number of castings and forgings, refer to *PM-07-02-05* (Part Number Codes for Sourcing & Inspection of Castings and Forgings). Note that the addition of special requirement codes to Drawing P/N Keys is intended to obsolete the use of the codes defined in *PM-07-02-05*.
- 4.5 Except as previously mentioned, part numbers defined by Sundyne drawings shall use *PM-07-02-13* (Serialized Item Numbering) to define special requirements instead of this document.
- 4.6 In the event the character maximum for IM numbers would be exceeded, a new number series (per *PM-07-02-11* (Item Numbering Instructions) should be defined and utilized.
- 4.7 Special requirements beyond those defined by the Sourcing and Certification codes within Tables 1 and 3 shall be addressed per section 6.0 within this document. If the special requirements exceed the scope of this document, then *PM-07-02-13* should be used instead.
- 4.8 Material selection, sourcing, certification and documentation requirements must be reviewed and determined during the Quoting (*PM-07-01-01*) and Contract Review (*PM-07-01-02*) processes.
- 4.9 When needed, new items masters that define material requirements are created per *PM-07-02-07* (Item Master Creation) using the information defined in this work instruction.
- 4.10 The general process for SCP and Raw Material part numbers is to first identify the “standard” item that will require additional material certification, documentation, or other special requirements. Next a unique SCP or raw material Item Master is created with the suffix codes defined in this work instruction. The suffix shall be two (2) to three (3) characters in length, in the specified order of Sourcing Code first, Certification Code second, and Special Requirement third. A Sourcing Code and Certification Code must always be used together, and a Special Requirement character is optional. See the examples that follow.
- 4.11 Refer to the flowchart at the end of this document for an overview of the process.
- 4.12 **GENERIC EXAMPLE:**
 [SCP or raw material part number] XYZ, where the suffix XYZ is defined as follows:
 X = Sourcing Code per Table 1
 Y = Certification Code per Table 3
 Z = Special Requirement character per Para 6.0

 The Sourcing Code “X” must be used with a Certification Code “Y”. The Special Requirement character “Z” is only added if there are special requirements beyond those defined by the Sourcing Code “X” and Certification Code “Y”.
- 4.13 See section 7.0 for specific Item Master text examples.



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5.0 Part Number Codes

Table 1 - Sourcing Definitions

Sourcing Code ¹	Sourcing Description	Definition	
		Origin	Manufacturing
C	Qualifying Country Origin and Manufacturing	Qualifying Country	Qualifying Country
D	Global Origin and Qualifying Country Manufacturing	Global	Qualifying Country
N ²	Non-Standard/Special	See Special Requirement Character text for sourcing restrictions	
S ³	Standard	Global	Global
U	United States Origin and Manufacturing	USA	USA

Notes:

- 1) In all cases, vendor shall provide documented proof of meeting the sourcing code requirement(s).
- 2) Sourcing Code "N" is used as a place holder when a Special Requirement Character is used to define special sourcing restrictions.
- 3) Sourcing Code "S" is typically used as a place holder when a Certification Code or Special Requirement Character is used and the sourcing is not restricted.

Table 2 - List of Qualifying Countries

Austria	Germany	Norway
Australia	Greece	Poland
Belgium	Ireland	Portugal
Canada	Italy	South Korea
Czech Republic	Japan	Spain
Denmark	Luxembourg	Sweden
Finland	Mexico	Switzerland
France	Netherlands	United Kingdom
		United States



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Table 3 - Certification Documentation

Certification Code	Description	Requirements
0	Sundyne Standard	For part numbers that include an ME02AA01 material code, this code indicates that certification per ME02AA01 will apply. For part numbers without a material code, this code serves as a place holder only, and does not indicate any certification requirements.
1	Typical Certification	Certification of chemical and physical properties which are “typical” to the material. The certification does not identify an individual “heat” but is representative of requirements of the material type. May be either wrought or cast material.
2	Material Certification	Certification of physical and chemical properties as recorded by the <u>re-processor</u> , and tied to the material heat number. Typically, this is the certification provided for pipe, tube, fittings, and fasteners. These must be signed, photocopies are acceptable if numeric values are legible. Part numbers with material codes that include footnote 10 in ME02AA01, which requires physical and chemical certification, should not use this code to specify that certification is required, as this would duplicate the existing requirement. In these cases the Certification Code 0 should be used.
3	Mill Certification	Certification of physical and chemical properties, produced by the <u>original</u> material manufacturer. May be a copy of the original cert. Typically, this is available for bar stock (wrought material) only.
4	“Signed in Red” Certification	An original certification of physical and chemical properties authorized with an original signature (not a photocopy) signed in red ink. May be from original material manufacturer (mill) or re-processor. This is available only on raw material with Purchasing approval.
5	Certificate of Conformance / Compliance	A certificate authorized by a processor stating that material/product described in the cert was processed according to specifications.
6	Certificate of Origin	A certificate authorized by the seller, attesting to the country of origin.
7	ISA Data Sheet	The supplier will provide the applicable ISA data sheet for the class of electrical component. In addition to the data sheet requirement, the Item Master text must include the required delivery (such as 4 weeks after order placement) and that the data sheet is to be provided to the buyer on the P.O. Receiving Inspection will not check for ISA data sheets since they are sent directly to Purchasing



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Certification Code	Description	Requirements
8	NACE Compliance	<p>This Certification Code should not be used with ME02AA01 codes that already specify required properties and processing to meet NACE, i.e. AV, DV, EN, etc.</p> <p>Item Master text and required documentation will be one of two types, depending on the product being specified:</p> <ol style="list-style-type: none"> For raw material and many product forms (screws, studs, nuts, etc.) made primarily of a single material, the ME02AA01 code is the primary suffix after the SCP number. In rare instances the "8" Certification Code will be applied where there is no NACE version of the given ME02AA01 code. In these cases, it is the responsibility of the Item Master creator to determine the property and processing required to meet the applicable NACE specification and to specify them within the Item Master text. This is because the vendor cannot be expected to determine the NACE requirements. Reference PN41.25.50 for further details on complying with NACE. The supplied material certification, which should also meet the requirements of Certification Code 2 above, must document compliance with the maximum hardness and any other processing requirements (if applicable) specified in the Item Master text. For engineered products such as seals, valves, instruments, etc., where the vendor can provide a Certification of NACE Compliance for the item or assembly, the Item Master text may specify that a NACE certification be supplied to the required NACE specification. The Item Master text in this case does not necessarily need to specify properties or processing required to meet NACE, as the vendor takes responsibility by the issuing of their Certification of NACE Compliance. <p>Warning: Existing item masters with Certification Code 8 must be carefully reviewed for proper callout of the NACE required properties and processing, and for applicability to the NACE specification required for the application.</p>



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Certification Code	Description	Requirements
9	ATEX Compliance	<p>This Certification Code shall be used to indicate special ATEX requirements of a product, subassembly, and subcomponent or purchased items. The provision of ATEX certified products imposes additional requirements during all phases of product fulfillment from evaluation of customer specifications and quoting through order engineering and order fulfillment. ATEX products also include requirements for aftersales support including recalls of nonconforming products.</p> <p>ATEX requirements must be clearly conveyed in all relevant technical documentation used internally as well as that being communicated to suppliers and other external parties. ATEX compliance requirements must typically be objectively documented and records preserved for 10 years.</p> <p>Item Master text and required documentation will be of # types, depending on whether a manufactured or purchased product being specified and will impose the following requirements on the production or acquisition and use of an item in an ATEX product:</p> <ol style="list-style-type: none"> 1. ATEX requirements including site conditions and instrumentation requirements must be captured and propagated through the engineering design and manufacturing of the ATEX product 2. Product Engineering will design the ATEX product in conformance with its certificate and meeting the applicable site conditions and instrumentation requirements. 3. Critical features of manufactured products - defined in the ATEX certificate, its schedule and related drawings and associated technical documentation - must be evaluated for every unit. 4. Manufactured products must meet the ATEX certificate requirements and any engineering change, substitution, or concession must not conflict with the product certificate. 5. Items, components or assemblies procured from an external provider (supplier), must be coherent with the certificate and consistent with the unit type protection in the certificate. 6. Purchased ATEX items will have appropriate CE marking and include a Declaration of Conformity (DOC) 7. Unless otherwise provided, procured items will be purchased from ATEX-qualified suppliers.



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6.0 Special Requirements

6.1 An alpha letter may be used as the third character of the suffix to denote a special requirement. Some examples of special requirements are a customer approved supplier list, special international certifications, or special documentation requirements.

6.1.1 Assignment of alpha letters shall begin with “A” for part numbers that do not have special requirements yet defined, and proceed alphabetically for additional characters in the part number series (where all characters preceding the special requirement character are the same).

Example: 15-305DHD2A exists, the next part number shall be 15-305DHD2B.

6.1.2 Special requirement alpha letters shall not be assigned out of the alphabetical order within a part number series, i.e. the same special requirement character should not be applied across multiple part numbers with the purpose of matching the definition of an alpha character across part numbers or for a particular project.

Example: The same new special requirement is required for both 15-305DHD2A and 15-326AAD2B. The new part numbers shall be 15-305DHD2B and 15-326AAD2C.

6.1.3 If an alpha letter has already been assigned to a part number for a specific requirement, and the current requirement is different, then the next available alpha character must be used to create a new Item Master.

6.2 The Item Master text shall specify all of the required special requirements for the part. See paragraph 7.0 for specific examples:

7.0 Item Master Text Examples

7.1 Item master text should be clear regarding the definition of the suffixes being applied per this procedure. The following examples are to be followed for clarity and consistency.

Note: The examples below may not actually exist or match existing item master text.

Example 1 (D0): Fitting made from material that requires material certs per ME02AA01, but for the present job requires qualified country manufacturing:

SUNDYNE P/N 15-305DHD0

ELBOW,STD,45DEG,3"BW,SCHED 40

DH = MATERIAL PER SUNDYNE ME02AA01

D= GLOBAL ORIGIN AND QUALIFYING COUNTRY MANUFACTURING

PER SUNDYNE PM-07-02-08

0= MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with order.



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Example 2 (C0A): Raw Material made from material that requires material certs per ME02AA01, but for the present job requires qualified country material origin and manufacturing, as well as special certification type:

SUNDYNE P/N YRC0106AAX00528C0A

ROUND,CR,1.06"OD X 5.28"THK

AA = MATERIAL PER SUNDYNE ME02AA01

C = QUALIFYING COUNTRY ORIGIN AND MANUFACTURING
PER SUNDYNE PM-07-02-08

0 = MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with order.

A = MATERIAL CERTS SHALL STATE COMPLIANCE TO EN 10204 TYPE 3.1

Example 3 (S0A): Flange made from material that requires material certs per ME02AA01, but for the present job requires Canadian CRN:

SUNDYNE P/N 44-220DHS0A

FLANGE,RF,WN,2"-150#,S-80

STD FINISH, RAISED FACE, WELD NECK, SCHEDULE 80

DH = MATERIAL PER SUNDYNE ME02AA01

S = STANDARD SOURCING PER SUNDYNE PM-07-02-08.

0 = MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with order.

A = CANADIAN REGISTRATION NUMBER (CRN) FOR THE PROVINCE OF ALBERTA



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Example 4 (N0A): Flange made from material that requires material certs per ME02AA01, but for the present job requires sourcing from a customer approved supplier list:

SUNDYNE P/N 44-220DHN0A

FLANGE,RF,WN,2"-150#,S-80

STD FINISH, RAISED FACE, WELD NECK, SCHEDULE 80

DH = MATERIAL PER SUNDYNE ME02AA01

N = NON-STANDARD/SPECIAL SOURCING PER SUNDYNE PM-07-02-08.

0 = MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with order.

A = CUSTOMER SPECIFIED SUPPLIERS PER (CUSTOMER NAME AND SUPPLIER LIST DOCUMENT NUMBER REQUIRED).

Example 5 (N0A): Flange made from material that requires material certs per ME02AA01, but for the present job is not allowed to have material or manufacturing from a particular country:

SUNDYNE P/N 44-153DBN0A

FLANGE,RF,SW,1/2"-600#,S-80

STD FINISH, RAISED FACE, SOCKET WELD, SCHEDULE 80

DB = MATERIAL PER SUNDYNE ME02AA01

N = NON-STANDARD/SPECIAL SOURCING PER SUNDYNE PM-07-02-08.

0 = MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with the order.

A = NO CHINESE MATERIAL OR MANUFACTURING IS ALLOWED PER THE QUALITY/CONTRACT REQUIREMENTS OF SUNDYNE'S CUSTOMER



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Example 6 (D2): Screw made from material that does not require material certs per ME02AA01, but for the present job requires material certs and qualified country manufacturing:

SUNDYNE P/N 02-041AFD2

SCREW,HHC,1/4"-20-UNCX5/8"LG

DIMENSIONS PER INDUSTRIAL FASTENERS INSTITUTE STANDARDS, LATEST EDITION
CLASS 2 THREADS

AF = MATERIAL PER SUNDYNE ME02AA01

D = GLOBAL ORIGIN AND QUALIFYING COUNTRY MANUFACTURING

PER SUNDYNE PM-07-02-08

2 = CERTIFICATION OF PHYSICAL AND CHEMICAL PROPERTIES AS RECORDED

BY THE RE-PROCESSOR, PER SUNDYNE PM-07-02-08.

Example 7 (C0): Nut made from material that requires material certs per ME02AA01, but for the present job requires qualified country material origin and manufacturing:

SUNDYNE P/N 04-058BBC0

NUT,HEAVY-HEX,3/4"-10-UNC

BB = MATERIAL PER SUNDYNE ME02AA01

C = QUALIFYING COUNTRY ORIGIN AND MANUFACTURING

PER SUNDYNE PM-07-02-08

0 = MATERIAL CERTIFICATION PER SUNDYNE ME02AA01

REF: ME02AA01 for this item requires that Certification of chemical and physical test results per applicable specification be provided with the order.



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8.0 Process Overview Flowchart

