EDI IMPLEMENTATION GUIDE

863 REPORT OF TEST RESULTS

ANSI X12 V4010

863 REPORT OF TEST RESULTS

Functional Group ID=RT

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Report of Test Results Transaction Set (863) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit the results of tests performed to satisfy a specified product or process requirement. This includes, but is not limited to, test data such as inspection data, certification data, and statistical process control measurements. The transaction set enables the sender to provide the Chemistry, Physical and mechanical measurements. The sender of this transaction is the organization responsible for detailing and communicating the measurements, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of Report of test results.

Suppliers must have the capability of transmitting almost all of the segments and elements described below. There are many other loops, segments and elements that can be used in an AIAG v4010 863 but those are not described in this document. In general, Flex-N-Gate can successfully receive any AIAG-compliant data, but the Flex-N-Gate software will only process and use the entries described below.

The far-left column below describes Flex-N-Gate's requirements. Again, almost every segment and element in this 863 will be marked "Always", indicating that it must be sent in every 863, and that it must be sent in the specified loops. The few exceptions to these rules will be noted in the comments.

Please note that Flex-N-Gate will request that the BTR05 (Reference ID) be a match to the 856 packing slip number.

REVISIONS:

1. **08/01/2025**
    a. Creation of document.
2. **02/05/2026**
    a. Added PID segment to describe material shipped on ASN.
3. **11/03/2026**
    a. Changed to use FD Finished Dimensions in the MEA.
    b. Added CID with Coating description.
    c. Fixed CTT segment description.

Heading:

FNG USAGE	POS. NO.	SEG. ID	NAME	AIAG USAGE	MAX USE	LOOP REPEAT	NOTES AND COMMENTS
ALWAYS	010	ST	Transaction Set Header	M	1		
ALWAYS	020	BTR	Beginning Segment for Test Results	M	1		
ALWAYS	080	NI	Name	O	1		

Detail:

FNG USAGE	POS. NO.	SEG. ID	NAME	AIAG USAGE	MAX USE	LOOP REPEAT	NOTES AND COMMENTS
			LOOP ID --LIN			>1	
ALWAYS	010	LIN	Item Identification	M	1		
ALWAYS	020	PID	Product/Item Description	M	1		
			LOOP ID—CID			>1	
ALWAYS	060	CID	Characteristics / Class ID	M	1		
	202	MEA	Measurement	M	>1		

Summary:

FNG USAGE	POS. NO.	SEG. ID	NAME	AIAG USAGE	MAX USE	LOOP REPEAT	NOTES AND COMMENTS
ALWAYS	005	CTT	Transaction Totals	M	1		
ALWAYS	010	SE	Transaction Set Trailer	M	1		

Segment: **ST** **Transaction Set Header**
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** the transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments: The transaction Set Control Number (ST02) in this header must match the Transaction Set Control Number (SE02) in the Transaction Set Trailer (SE).

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes	
Always	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 863 Report of Test Results	**M**	**ID 3/3**
Always	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the Transaction set functional group assigned by the originator for a transaction set.	**M**	**AN 4/9**

Segment: **BTR** **Beginning Segment for Report of Test Results**
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set
Syntax Notes:
Semantic Notes: **1** BSN02 is the date the Report of Test Results transaction set is created.
2 BSN04 is the time the Report of Test Results transaction set is created.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes	
Always	**BTR01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set 00 Original	**M**	**ID 2/2**
Always	**BTR02**	**373**	**ASN Date** Date expressed as CCYYMMDD	**M**	**DT 8/8**
Always	**BTR03**	**337**	**ASN Time** Time expressed in 24-hour clock time as follows: HMM. Where H = Hours (00-23), M = Minutes (00-59).	**M**	**TM 4/8**
Always	**BTR04**	**755**	**Report Type Code** RT Test results	**M**	**ID 2/2**
Always	**BTR05**	**396**	**Shipment Identification** A unique control number assigned by the original shipper To identify a specific shipment Will need to be a match to the Packing Slip Number sent On the 856 ASN to Flex-N-Gate. If packing slip is missing Then the number sent in the 856 BSN can be used.	**M**	**AN 2/30**

Segment: **N1** **Name**
Loop: HL/N1 **Repeat:** 200
Level: Detail -- Shipment
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** this segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes	
Always	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical Property or an individual. ST Ship To SU Supplier/Manufacturer	**M**	**ID 2/3**
Always	**N102**	**93**	**Name** Free-form name	**X**	**AN 1/60**
Always	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure Used for Identification Code (67) 1 DUNS Number, Dun & Bradstreet	**X**	**ID ½**
Always	**N104**	**67**	**Identification Code** Code identifying a party or other code	**X**	**AN 2/80**

Segment: **LIN** **Item Identification**
Loop: HL
Level: Detail – Order
Usage: Mandatory
Max Use: 1
Purpose: To specify basic item identification data
Comments: **1** See the Data Dictionary for a complete list of IDs.
2 LIN02 through LIN31 provides for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**LIN02**	**235**	**Product / Service ID Qualifier** Code identifying the type/source of the descriptive Number used in the Product/Service Data Element 234 VP Vendor part can be used for OEM Part number.	**M ID 2/3**
Always	**LIN03**	**234**	**Product / Service ID** Identifying number for product or service	**X AN 1/48**
Always	**LIN02**	**235**	**Product / Service ID Qualifier** Code identifying the type/source of the descriptive Number used in the Product/Service Data Element 234 BP Buyer Part Number	**M ID 2/3**
Always	**LIN03**	**234**	**Product / Service ID** Identifying number for product or service. Should be a match to the 830 Release from FNG	**X AN 1/30**
Always	**LIN02**	**235**	**Product / Service ID Qualifier** Code identifying the type/source of the descriptive Number used in the Product/Service Data Element 234 LS Bar-Coded Serial Number	**M ID 2/3**
Always	**LIN03**	**234**	**Product / Service ID** Identifying number for product or service Must reference the serials found on the 856 / ASN	**X AN 1/30**
Always	**LIN02**	**235**	**Product / Service ID Qualifier** Code identifying the type/source of the descriptive Number used in the Product/Service Data Element 234 HN Heat Number	**M ID 2/3**
Always	**LIN03**	**234**	**Product / Service ID** Identifying number for product or service Must be a match to the HC found on the 856 / ASN	**X AN 1/30**
Always	**LIN02**	**235**	**Product / Service ID Qualifier** Code identifying the type/source of the descriptive Number used in the Product/Service Data Element 234 PO Purchase Order Number	**M ID 2/3**
Always	**LIN03**	**234**	**Product / Service ID** Identifying number for product or service Must be a match to the PO found on the 830	**X AN 1/30**

Segment: **PID** **Product/Item Description**
Loop: LIN
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To describe a product or process in free-form format
Syntax Notes:
Semantic Notes:
Comments: **PID05** To be used by Vendors shipping raw metals, such as Steel or Aluminum etc.
Example: PID*F**STEEL~**

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**PID01**	**349**	**Product / Service ID Qualifier** Item Description Type ID F Free form	**M ID 1/1**
Always	**PID05**	**352**	**Description** A free form description to clarify type of material Shipped on ASN**.** **Example: Steel, Aluminum, etc.**	**M AN 1/80**

Segment: **CID** **Item Detail (Shipment)**
Loop: CID
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify the general class or specific characteristics upon which test results are being reported or are to be taken
Syntax Notes:
Semantic Notes:
Comments:
1 CID06 specifies the individual code list of the agency specified in CID03.
2 CID07 refers to whether or not the characteristic identified in CID04 or CID05 or both is affected by the product change. If it is affected, the value is "Y". A value of "N" is used when it is known that it will not be affected. Any other value indicates it is indeterminate

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**CID01**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic To which a measurement applies CTG To be used if there is a coating on the material	**M ID 1/3**
Always	**CID02**	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process Characteristics. 17 Coating (to be used with CID01 CTG) 68 Chemistry 69 Physical 71 Mechanical	**M ID 2/3**
Always	**CID05**	**352**	**Description – Free Form** A free form description to clarify the product used. Example Zinc Coating.	**C ID 1/80**

Segment: **MEA** **Measurements**
Loop: HL Mandatory
Level: Detail -- Item
Usage: Mandatory
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights
Syntax Notes:
Semantic Notes: **1** MEA04 defines the unit of measure for MEA03
Comments: **1** this segment is required at item level to identify RAW METAL coils.
2 At least one iteration of 'WT' Weight required identifying total weight of all RAW METAL coils shipped in preceding Item level SN1.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a Measurement applies FD Actual Dimensions TR Test Results	**O ID 2/2**
Always	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process Characteristic to which a measurement applies LN Length TH Thickness WD Width WT Weight DN Density YB Yield TF Tensile strength EA Elongation % CTG Coating Weight TOP CTG Coating Weight Bottom	**O ID 1/3**
Always	**MEA03**	**739**	**Measurement Value** The value of the measurement	**X R 1/20**
Always	**MEA04**	**355**	**Unit or Basis for Measurement Code** To identify a composite unit of measure. Code specifying the units in which a value is being Expressed, or manner in which a measurement has been taken Use any valid X12 measurement code.	**M ID 2/2**

Segment: **CTT** **Transaction Totals**
Loop:
Level: Summary
Usage: Optional
Max Use: 1
Purpose: Total number of line items in the transaction set
Syntax Notes:
Semantic Notes:
Comments: **1** Total number of line items in the transaction set.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**CTT01**	**354**	**Number of Line Items** Total number of LIN segments in the transaction set	**M N0 1/6**

Segment: **SE** **Transaction Set Trailer**
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set Including ST and SE Segments.	**M N0 1/10**
Always	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the Transaction set functional group assigned by the originator For a transaction set.	**M AN 4/9**

SAMPLE 863:

```
ISA*00*          *00*          *ZZ*Same info as 856   *01*205644524      *250915*1309*U*00401*000000688*0*P*@.
GS*SH*Same info as 856*205644524*20250915*1309*63872804*X*004010.
ST*863*000000688~
BTR*00*20250915*1930*RT*3612073864~
N1*SU*Vendor Name*92*Must Match Info. used on 856~
N1*ST*Flex-N-Gate*92*0050054743~
LIN**VP*VENDORPARTNMBR*BP*R7253501*LS*97861091*HN*B612801*PO*78201~
PID*F****STEEL~
CID**69~
MEA*FD*LN*4225*LF~
MEA*FD*TH*.0630*IN~
MEA*FD*WD*21.5000*IN~
MEA*FD*WT*19515*LB~
MEA*FD*DN*.153*IN~
CID**71~
MEA*TR*YB*20.000*M8~
MEA*TR*TF*114.000*M8~
MEA*TR*EA*6.40*P1~
MEA*TR*CTG*53.000*GM*****TP~
MEA*TR*CTG*55.000*GM*****BT~
CID*CTG*17***ZINC COATING~
LIN**VP*VENDORPARTNMBR*BP*R7253501*LS*978610902*HN*B612801*PO*78201~
PID*F****STEEL~
CID**69~
MEA*FD*LN*4225*LF~
MEA*FD*TH*.0630*IN~
MEA*FD*WD*21.5000*IN~
MEA*FD*WT*19515*LB~
MEA*FD*DN*.153*IN~
CID**71~
MEA*TR*YB*20.000*M8~
MEA*TR*TF*114.000*M8~
MEA*TR*EA*6.40*P1~
MEA*TR*CTG*53.000*GM*****TP~
MEA*TR*CTG*55.000*GM*****BT~
CID*CTG*17***ZINC COATING~
LIN**VP*VENDORPARTNMBR*BP*R7253501*LS*978611101*HN*B612801*PO*78201~
PID*F****STEEL~
CID**69~
MEA*FD*LN*4164*LF~
MEA*FD*TH*.0630*IN~
MEA*FD*WD*21.5000*IN~
MEA*FD*WT*19250*LB~
MEA*FD*DN*.203*IN~
CID**71~
MEA*TR*YB*20.000*M8~
MEA*TR*TF*114.000*M8~
MEA*TR*EA*6.40*P1~
MEA*TR*CTG*53.000*GM*****TP~
MEA*TR*CTG*55.000*GM*****BT~
CID*CTG*17***ZINC COATING~
CTT*3~
SE*51*000000688~
GE*1*63872804~
IEA*1*000000688~
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