GRAINGER

Electronic Data Interchange

Transaction Set: 810 Supplier Invoice
ANSI X12 Version 4010

This specification covers the requirements for Grainger and our Business Units.
Grainger Parts
Grainger FindMRO

Supplier Invoice Requirements

- Supplier Invoice numbers can only be up to 16 positions in length

- Duplicate Invoices cannot be accepted

- Invoices will not be accepted with future invoice dates

- Invoices with allowances cannot be accepted via traditional edi

- Credit memos cannot be accepted via traditional edi

- All credits must be sent in paper format

- Any invoicing for freight only charges must be submitted to A/P in paper format

- Vendor number as referenced on the PO (REF segment with IA qualifier on the 850 PO), must be returned back on the Invoice in the REF segment. This number may have changed as part of the implementation, especially as it pertains to purchase orders from Grainger Sourcing and Parts

- Same item number can only be billed once on an invoice

- Grainger stock number (IT1 07) is a mandatory field on the 810. This requirement includes orders from all of Graingers purchasing groups including Grainger Sourcing (formerly FINDMRO) and Grainger Parts

- One PO number must be billed per invoice. There cannot be multiple PO's on an invoice

- The Unit of Measure in the IT1 03 must match the Unit of Measure sent in the PO1 03 on the purchase order

- Invoices should include only those items being shipped. No zero line items should be sent

- No zero amount for freight or tax lines should be sent

- We can only accept numeric values that represent 2 positions to the right of the decimal for all monetary values

- Any segments sent that are not on our Invoice Specifications and noncompliant invoices will be returned to you via email communication which will include your original data, and error report. These transactions will not be processed in our system

- If there are any questions regarding these business requirements, please contact Edita Shor in our Accounts Payable Team 1 –847-588-8712

Grainger 810 Specification
This specification covers the requirements for Grainger and our Business Units (Grainger Parts & Grainger FindMRO).

Grainger's Value Added Network (VAN):
Grainger uses the GE Global eXchange Services Network located in Gaithersburg, MD.
GE Global eXchange phone number: 1-800-334-2255.

Grainger Industrial Supply Invoice ISA ID Requirement
ISA and GS ID's will be provided when Supplier is moved to Production.

810 Invoice

Heading:

Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat
ST	Transaction Set Header	M	1	
BIG	Beginning Segment for Invoice	M	1	
NTE	Note/Special Instruction	O	1	
REF	Reference Identification	M	1	
	LOOP ID - N1			200
N1	Name	M	1	
N2	Additional Name Information	O	1	
N3	Address Information	M	1	
N4	Geographic Location	M	1	
DTM	Date/Time Reference	O	1	

Detail:

Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat
	LOOP ID - IT1			200000
IT1	Baseline Item Data (Invoice)	M	1	
	LOOP ID - PID			1000
PID	Product/Item Description	O	1	

Summary:

Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat
TDS	Total Monetary Value Summary	M	1	
	LOOP ID - SAC			25
SAC	Service or Charge Information	O	3	
TXI	Tax Information	O	1	
CTT	Transaction Totals	M	1	
SE	Transaction Set Trailer	M	1	

Segment: ST **Transaction Set Header**
    Level: Heading
    Usage: **Mandatory**
  Max Use: 1
  Purpose: To indicate the start of a transaction set and to assign a control number

Data Element Summary

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

	Segment:	**BIG** Beginning Segment for Invoice

Segment: **BIG** Beginning Segment for Invoice
Level: Heading
Usage: **Mandatory**
Max Use: 1
Purpose: To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
BIG01	**373**	**Invoice Date**	**M**	**DT 8/8**
		Date expressed as CCYYMMDD		
BIG02	**76**	**Invoice Number**	**M**	**AN 1/16**
		Identifying number assigned by issuer		
BIG04	**324**	**Grainger Purchase Order Number**	**M**	**AN 10/10**
		Identifying number for Purchase Order assigned by the orderer/purchaser		
BIG07	**640**	**Transaction Type Code**	**M**	**ID 2/2**
		Code specifying the type of transaction		
		DR	Debit Invoice	

Credit Memos cannot be accepted via EDI. Credit Memos should be sent on paper.

Segment: # NTE Note/Special Instruction

Level:	Heading
Usage:	**Optional**
Max Use:	1
Purpose:	To transmit information in a free-form format, if necessary, for comment or special instruction

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
NTE01	**363**	**Note Reference Code**	**O ID 3/3**

Code identifying the functional area or purpose for which the note applies

   INV   Invoice Instruction

Ref. Des.	Data Element	Name	Attributes
NTE02	**352**	**Description**	**M AN 1/80**

A free-form description to clarify the related data elements and their content

Segment: **REF** Reference Identification
Level: Heading
Usage: **Mandatory**
Purpose: To specify identifying information

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
REF01	128	**Reference Identification Qualifier**	**M ID 2/2**
		Code qualifying the Reference Identification	
		IA Grainger Internal Supplier Number	
REF02	127	**Reference Identification**	**M AN 8/10**

NOTE: The Grainger Internal Supplier Number must match the number as it is sent in the REF segment, IA Qualifier from the 850 Purchase Order

Segment: # N1 Name

Level: Heading
Usage: **Mandatory**
Purpose: To identify a party by type of organization, name, and code

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
N101	**98**	**Entity Identifier Code**	**M**	**ID 2/2**

Code identifying an organizational entity, a physical location, property or an individual

   ST   Ship To

Ref. Des.	Data Element	Name	Attributes	
N102	**93**	**Name**	**M**	**AN 1/40**

Free-form name

Ref. Des.	Data Element	Name	Attributes	
N103	**66**	**Identification Code Qualifier**	**M**	**ID 2/2**

   92

Ref. Des.	Data Element	Name	Attributes	
N104	**67**	**Identification Code**	**M**	**AN 3/4**

Grainger Plant Code

NOTE: The Grainger Plant Code must match the value in the N104 of the N1 ST loop from the 850

Segment: **N2** **Additional Name Information**
    Level: Heading
    Usage: **Optional**
  Purpose: To specify additional names or those longer than 35 characters in length

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N201	**93**	**Name**	**O** **AN 1/40**
		Free-form name	
N202	**93**	**Name**	**O** **AN 1/40**
		Free-form name	

Segment: **N3** Address Information

Level:	Heading
Usage:	**Mandatory**
Purpose:	To specify the location of the named party

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
N301	**166**	**Address Information**	**M**	**AN 1/40**
		Address information		
N302	**166**	**Address Information**	**O**	**AN 1/40**
		Address information		

Segment: **N4** **Geographic Location**
  Level: Heading
  Usage: **Mandatory**
Purpose: To specify the geographic place of the named party

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
N401	**19**	**City Name**	**M**	**AN 2/30**
N402	**156**	**State or Province Code**	**M**	**ID 2/2**
N403	**116**	**Postal Code**	**M**	**ID 3/9**
N404	**26**	**Country Code**	**M**	**ID 2/2**

Segment: **DTM** Date/Time Reference

Level: Heading
Usage: **Optional**
Purpose: To specify pertinent dates and times

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
DTM01	374	**Date/Time Qualifier**	M ID 3/3
		Code specifying type of date or time, or both date and time	
		011 Shipped	
DTM02	373	**Shipment Date**	M DT 8/8
		Date expressed as CCYYMMDD	

Segment: **IT1** **Baseline Item Data (Invoice)**
      Level: Detail
      Usage: **Mandatory**
  Purpose: To specify the basic and most frequently used line item data for the invoice and related transactions

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
IT101	**350**	**Grainger Purchase Order Line Number**	**M**	**AN 5/5**

NOTE: The IT101 must match the exact Grainger Purchase Order Line Number that was sent in the PO101 of the 850 for the item number being invoiced

IT102	**358**	**Quantity Invoiced**	**M**	**R 1/10**
IT103	**355**	**Unit or Basis for Measurement Code**	**M**	**ID 2/2**

NOTE: Unit of Measure Code must match the Unit of Measure Code sent in the PO103 segment from the 850

IT104	**212**	**Unit Price**	**M**	**R 1/17**

NOTE: Grainger will only accept numeric values that represent 2 positions to the right of the decimal.
For example: $12.65 should be sent as 12.65

IT106	**235**	**Grainger Stock Number Qualifier**	**M**	**ID 2/2**
		CB Grainger Stock Number		
IT107	**234**	**Grainger Stock Number**	**M**	**AN 5/10**
IT108	**235**	**Vendor Item Number Qualifier**	**O**	**ID 2/2**
		VN Vendor's Item Number		
IT109	**234**	**Vendor Item Number**	**O**	**AN 1/35**
IT110	**235**	**Purchase Order Number Qualifier**	**M**	**ID 2/2**
		PO Purchase Order Number		
IT111	**234**	**Grainger Purchase Order Number**	**M**	**AN 10/10**

Segment: **PID** Product/Item Description

Level: Detail
Usage: **Optional**
Purpose: To describe a product or process in coded or free-form format

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
PID01	**349**	**Item Description Type**	**M ID 1/1**
		Code indicating the format of a description	
		F Free-form	
PID05	**352**	**Description**	**M AN 1/60**
		A free-form description to clarify the related data elements and their content	

Segment:	**TDS** Total Monetary Value Summary
Level:	Summary
Usage:	**Mandatory**
Purpose:	To specify the total invoice amount

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
TDS01	610	Amount	M N2 1/15
		Monetary amount	

NOTE: Grainger will only accept numeric values that represent 2 positions to the right of the decimal.
For example: $12.65 should be sent as 1265

Segment: **SAC** **Service or Charge Information**

Level: Summary
Usage: **Optional**
Purpose: To request or identify a service or charge; to specify the amount for the service or charge

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
SAC01	248	**Charge Indicator**	**M ID 1/1**

Code which indicates a charge for the service specified

    C   Charge

Ref. Des.	Data Element	Name	Attributes
SAC02	1300	**Service or Charge Code**	**M ID 4/4**

Code identifying the service or charge **(these are the only codes we accept)**

    D240   Freight
    F050   Other or Miscellaneous Charge

Ref. Des.	Data Element	Name	Attributes
SAC05	610	**Amount**	**M N2 1/15**

Monetary amount

NOTE: Grainger will only accept numeric values that represent 2 positions to the right of the decimal.
For example: $12.65 should be sent as 1265

Ref. Des.	Data Element	Name	Attributes
SAC15	352	**Description**	**M AN 1/80**

A free-form description to clarify the related data elements and their content

Segment: **TXI** Tax Information
Level: Summary
Usage: **Optional**
Purpose: To specify tax information

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
TXI01	**963**	**Tax Type Code**	**M** **ID 2/2**
		Code specifying the type of tax	
		TX	
TXI02	**782**	**Monetary Amount**	**M** **R 1/18**
		Monetary amount	

NOTE: Grainger will only accept numeric values that represent 2 positions to the right of the decimal.
For example: $12.65 should be sent as 12.65

Segment: # CTT **Transaction Totals**

    Level: Summary
    Usage: **Mandatory**
  Purpose: To transmit a hash total for a specific element in the transaction set

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
CTT01	354	**Number of Line Items**	M N0 1/6
		Total number of line items in the transaction set	

Segment: **SE** **Transaction Set Trailer**
Level: Summary
Usage: **Mandatory**
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)

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
SE01	96	**Number of Included Segments**	M N0 1/10

Total number of segments included in a transaction set including ST and SE segments

Ref. Des.	Data Element	Name	Attributes
SE02	329	**Transaction Set Control Number**	M AN 4/9

Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

Sample 810 Grainger Invoice

ISA*00*   *00*   *ZZ*SUPPLIER   *ZZ*005103494   *060302*1900*U*00401*000000209*0*P*<~
GS*IN*SUPPLIER*005103494*20060302*1832*0001*X*004010~
ST*810*000000001~
BIG*20060301*123456789**4600000000***DR~
NTE*INV*FREE FORM MESSAGE~
REF*IA*SUPPLIER VENDOR NUMBER~ (i.e. 2000 + 4 digits)
N1*ST*GRAINGER SHIP TO*92*GRAINGER PLANT CODE~   (i.e. 001)
N2*ATTENTION NAME 1*ATTENTION NAME 2~
N3*SHIP TO ADDRESS 1*SHIP TO ADDRESS2~
N4*CITY*STATE*ZIPCODE*COUNTRY CODE~
DTM*011*20060301~
IT1*00001*10*EA*1.45**CB*GRAINGER STOCK NUMBER*VN*VENDOR ITEM
NUMBER*PO*4600000000~
PID*F****ITEM DESCRIPTION~
IT1*00002*10*EA*1.00**CB*GRAINGER STOCK NUMBER*VN*VENDOR ITEM
NUMBER*PO*4600000000~
PID*F**** ITEM DESCRIPTION~
TDS*21423~
SAC*C*D240***2572*********FREIGHT~
SAC*C*F050***786*********MISCELLANEOUS~
TXI*TX*10.15~
CTT*2~
SE*19*000000001~
GE*1*0001~
IEA*1*000000209~