

smartTONNES API

This document applies to API version 2

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1 Introduction

This API allows access to the data collected by the smartTONNES server.

The API is based on the REST protocol and can return the requested data in either XML or JSON format.

2 URL

The API URL is made up of the following parts:

- Base URL: `http://www.smarttonnes.com/api/`
- The API version number in the format “v#”, where # is the version number (currently 2)
- The response data format required: “xml” or “json”
- The data area requested
- Optionally, any additional parameters (eg. IDs, dates, filter criteria, etc)

It is possible to use either HTTP or HTTPS protocols.

2.1 Format

`http://www.smarttonnes.com/api/[version]/[format]/[dataarea]`
`http://www.smarttonnes.com/api/[version]/[format]/[dataarea]?param1=x¶m2=y`

For brevity, the URLs specified throughout this document will only state the part from the `[dataarea]`, as shown in the shaded text above.

2.2 Example Request

Get a list of weighers in JSON format:

`http://www.smarttonnes.com/api/v2/json/WeigherList`

Get information for weigher 1234 in XML format:

`http://www.smarttonnes.com/api/v2/xml/Weigher?id=1234`

Get a production report for weigher 1234 from 01-Oct-2017 to 31-Oct-2017 in XML format:

`http://www.smarttonnes.com/api/v2/xml/WeigherProdReport?id=1234&from=2017-10-01&to=2017-10-31`

2.3 Example Response

2.3.1 XML Format

```
<WeigherList>
  <Weigher>
    <ID>1234</ID>
    <Name>Belt 1</Name>
    <MAC>ABCDEF123456</MAC>
    <AssignedTo>Location One : Crusher XYZ</AssignedTo>
    <LastOnline>2017-10-31T13:45:04</LastOnline>
    <Material>0-90</Material>
    <FlowRate>198.11</FlowRate>
    <Total>1465.6</Total>
    <RunTime>06:43:00</RunTime>
    <FlowTime>05:04:00</FlowTime>
    <EmptyTime>01:39:00</EmptyTime>
    <WeightUnits>t</WeightUnits>
    <TotalToDate>752129.493</TotalToDate>
    <RunTimeToDate>343.11:30:17</RunTimeToDate>
    <FlowTimeToDate>279.17:44:45</FlowTimeToDate>
    <EmptyTimeToDate>63.17:45:32</EmptyTimeToDate>
  </Weigher>
  <Weigher>
    <ID>9876</ID>
    <Name>Belt 2</Name>
    <MAC>FEDCBA654321</MAC>
    ...
    <EmptyTimeToDate>13:51:20</EmptyTimeToDate>
  </Weigher>
</WeigherList>
```

2.3.2 JSON Format

```
{
  "Weigher": [
    {
      "ID": "1234",
      "Name": "Belt 1",
      "MAC": "ABCDEF123456",
      "AssignedTo": "Location One : Crusher XYZ",
      "LastOnline": "2017-10-31T13:45:04",
      "Material": "0-90",
      "FlowRate": "198.11",
      "Total": "1465.6",
      "RunTime": "06:43:00",
      "FlowTime": "05:04:00",
      "EmptyTime": "01:39:00",
      "WeightUnits": "t"
      "TotalToDate": "752129.493"
      "RunTimeToDate": "343.11:30:17"
      "FlowTimeToDate": "279.17:44:45"
      "EmptyTimeToDate": "63.17:45:32"
    },
    {
      "ID": "9876",
      "Name": "Belt 2",
      "MAC": "FEDCBA654321",
      ...
      "EmptyTimeToDate": "13:51:20"
    }
  ]
}
```

2.4 Error Response

The following error responses are possible when using the API. The status code in the HTTP response headers should be checked to ensure that the data returned is valid before attempting to process it.

Status Code	Description
200	OK The request was successful and the data returned is valid.
400	Bad Request The request was invalid, possibly due to missing or invalid parameters. No valid data is returned.
401	Unauthorized The API key is missing or is invalid. No valid data is returned.
403	Forbidden The supplied API key does not have access to the data requested. No valid data is returned.
404	Not Found The Data Area requested was not found. Check the request URL. No valid data is returned.
429	Too Many Requests More than 3 requests for the same data have been made within the last minute. No valid data is returned.

2.5 Authentication

An authentication key is required to access the API. This key is assigned to the Company group in smartTONNES and needs to be sent with the HTTP request headers.

The name of the header is "api-key". Any request to the server with an invalid or missing api-key header will generate a 401 Unauthorised error response and no data will be returned.

If API access is enabled, the API key can be viewed from smartTONNES as part of the Group Details.

3 Data Types

The following data types are used by the API.

3.1 Numeric

Numeric data using a period (.) as the decimal separator.

For example: 12
9876543
123.456

3.2 String

Text data.

3.3 Date

A text string representing a date value using a hyphen to separate the date components. This is always specified in the format "YYYY-MM-DD".

For example: 2017-10-01 (1st October 2017)

3.4 Time

A text string representing a time value using a colon to separate the time components, and a period between days. Note: the 'days' component will only be included if the time period is greater than 23:59:59. This type can be a time-of-day value or a time period value.

For example: 02:35:15 (2 hours, 35 minutes, 15 seconds)
3.16:01:59 (3 days, 16 hours, 1 minute, 59 seconds)

3.5 DateTime

A text string representing a date/time value using a hyphen to separate the date components and a colon to separate the time components with the letter 'T' separating the date from the time. The date is always in the format "YYYY-MM-DD" and the time is always in the 24-hour format.

For example: 2017-10-01T17:28:45 (1st October 2017 17:28:45)

3.6 Bool

A boolean value ('true' or 'false').

4 Data Areas

4.1 Weigher List

4.1.1 URL

/WeigherList

4.1.2 Description

Returns a list of weighers with current live information (flow rate, total, etc).

4.1.3 Request Parameters

None.

4.1.4 Response Fields

Field Name	Type	Description
Weigher	Array	One Weigher array element for each weigher in the list.

Weigher Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".
AssignedTo	String	The path to the Group that the weigher is assigned to. The parts of the path will be separated with the following character sequence: [space][colon][space]. For example: "Location A : Group 123"
GroupID	Numeric	The Group ID that the weigher is assigned to.
LastOnline	DateTime	The date and time this this weigher was last online.
Material	String	The current material name selected on the weigher.
FlowRate	Numeric	The current flow rate.
Total	Numeric	The total recorded so far today.
RunTime	Time	The time that the belt has been running so far today.

Field Name	Type	Description
FlowTime	Time	The time that the belt has been running with material so far today.
EmptyTime	Time	The time that the belt has been running without material so far today.
WeightUnits	String	The units that the total and flow rate are displayed in. Can be either t (tonnes) or kg (kilograms).
TotalToDate	Numeric	The total recorded to date.
RunTimeToDate	Time	The time that the belt has been running as recorded to date.
FlowTimeToDate	Time	The time that the belt has been running with material as recorded to date.
EmptyTimeToDate	Time	The time that the belt has been running without material as recorded to date.

4.2 Weigher Information

4.2.1 URL

/Weigher?id=#

4.2.2 Description

Returns information for the specified weigher.

4.2.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the weigher.

4.2.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".
AssignedTo	String	The name of the Group that the weigher is assigned to.
GroupID	Numeric	The Group ID that the weigher is assigned to.
ShowTTD	Bool	Whether or not to show the "Total to Date" figure on reports.
StartingTotal	Numeric	The starting total configured for this weigher.
MaterialSeparation	Array	One <i>Split</i> element for each material split specified.

Split Element

Field Name	Type	Description
Material	String	The name of the material.
Proportion	Numeric	The percentage of the split.

4.3 Weigher Production Report

4.3.1 URL

/WeigherProdReport?id=#&from=#&to=#

4.3.2 Description

Returns a production report for the specified weigher.

4.3.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the weigher.
from	Date	The starting date for the report.
to	Date	The ending date for the report.
splitMaterial	Numeric	Optional. If present and set to "1", the elements "Detail → Lines → Materials" will contain two additional fields: 'StartTime' and 'EndTime'. See response fields below for details. Also, if there are interleaving materials then the totals for materials of the same name will not be combined. Note: This parameter is not effective unless the 'LinePeriod' is "Day" (i.e. the report period is 31 days or less). In this case the API behaves as though splitMaterial = 0.

4.3.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".
AssignedTo	String	The name of the Group that the weigher is assigned to.
TotalToDate	Numeric	The total to date, if enabled in the Weigher configuration.
WeightUnits	String	The units that the totals and flow rates are displayed in. Can be either t (tonnes) or kg (kilograms).
Summary		Summary information for the report.
Detail		Detail information for the report.
FlowData		Flow rate information for the weigher.
Notes	Array	An array of <i>NoteItem</i> elements.

Summary Element

Field Name	Type	Description
RunTime	Time	The time period that the belt has been running.
FlowTime	Time	The time period that the belt has been running with material.
EmptyTime	Time	The time period that the belt has been running without material.
AverageFlow	Numeric	The average flow rate over the selected period.
Total	Numeric	The total of all material for the report period selected.
Materials	Array	An array of <i>MaterialTotal</i> elements with the totals for each material.

MaterialTotal Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.

Detail Element

Field Name	Type	Description
LinePeriod	String	The period that each line element covers. This will depend on the date period that the report covers. <ul style="list-style-type: none"> • Day: each line represents one day. • Week: each line represents one week. The date is the start of the week. • Month: each line represents one month. The date is the start of the month.
Lines	Array	An array of <i>LineItem</i> elements.

LineItem Element

Field Name	Type	Description
Date	Date	The date that this element relates to.
Total	Numeric	The total recorded for the date.
AverageFlow	Numeric	The average flow rate for the date.
RunTime	Time	The time period that the belt has been running.
FlowTime	Time	The time period that the belt has been running with material.
EmptyTime	Time	The time period that the belt has been running without material.
StartOfRun	DateTime	The time of day that the belt starting running. NOTE: Only present if the LinePeriod is "Day".

Field Name	Type	Description
EndOfRun	DateTime	The time of day that the belt stopped running. NOTE: Only present if the LinePeriod is "Day".
Materials	Array	An array of <i>MaterialItem</i> elements for each material recorded for the date.

MaterialItem Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.
AverageFlow	Numeric	The average flow rate for the date.
RunTime	Time	The time period that the belt has been running.
FlowTime	Time	The time period that the belt has been running with material.
EmptyTime	Time	The time period that the belt has been running without material.
StartTime	DateTime	This field will only be present if the request parameter "splitMaterial" is set to "1". The time that logging began for this material.
EndTime	DateTime	This field will only be present if the request parameter "splitMaterial" is set to "1". The time that logging ended for this material.
MaterialSeparation	Array	An array of <i>Item</i> elements. This element will only be present if Material Separation is configured for the weigher.

Item Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.

FlowData Element

Field Name	Type	Description
FlowPeriod	Numeric	The period in minutes that each flow line element covers.
FlowLines	Array	An array of <i>FlowLine</i> elements.

FlowLine Element

Field Name	Type	Description
Timestamp	Date	The time and date that this element relates to.
FlowRate	Numeric	The flow rate.

NoteItem Element

Field Name	Type	Description
Timestamp	DateTime	The name of the material.
Type	String	The item that this note relates to. <ul style="list-style-type: none">• Group: this is a group note• Weigher: this is a weigher note
RelatedID	Numeric	The identifier of the item that this note relates to. This could be the weigher ID or the group ID depending on the 'Type' field.
RelatedName	String	The name of the item that this note relates to.
Message	String	The text message of the note.

4.4 Weigher Utilisation Report

4.4.1 URL

/WeigherUtilReport?id=#&date=#

4.4.2 Description

Returns a utilisation report for the specified weigher.

4.4.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the weigher.
date	Date	The date for the report.

4.4.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".
AssignedTo	String	The name of the Group that the weigher is assigned to.
TotalToDate	Numeric	The total to date, if enable in the Weigher configuration.
WeightUnits	String	The units that the totals and flow rates are displayed in. Can be either t (tonnes) or kg (kilograms).
Summary		Summary information for the report.
Detail	Array	An array of <i>Line</i> elements.
Utilisation	Array	An array of <i>UtilItem</i> elements. Elements are only included if there is valid data available for the point in time.
Notes	Array	An array of <i>NoteItem</i> elements.

Summary Element

Field Name	Type	Description
RunTime	Time	The time period that the belt has been running.
FlowTime	Time	The time period that the belt has been running with material.
EmptyTime	Time	The time period that the belt has been running without material.
StartOfRun	DateTime	The time of day that the belt starting running.

Field Name	Type	Description
EndOfRun	DateTime	The time of day that the belt stopped running.
StartOfFlow	DateTime	The time of day that the belt starting running with material.
EndOfFlow	DateTime	The time of day that the belt stopped running with material.

Line Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the date.
AverageFlow	Numeric	The average flow rate for the date.
RunTime	Time	The time period that the belt has been running.
FlowTime	Time	The time period that the belt has been running with material.
EmptyTime	Time	The time period that the belt has been running without material.
MaterialSeparation	Array	An array of <i>Item</i> elements. This element will only be present if Material Separation is configured for the weigher.

Item Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.

UtilItem Element

Field Name	Type	Description
Time	Time	The time of day that this element relates to.
Status	Numeric	The status of the belt at this time. <ul style="list-style-type: none"> • 0: The belt was stopped. • 1: The belt was running empty. • 2: The belt was running with material.

NoteItem Element

Field Name	Type	Description
Date	DateTime	The name of the material.
Type	String	The item that this note relates to. <ul style="list-style-type: none"> • Group: this is a group note • Weigher: this is a weigher note

Field Name	Type	Description
RelatedID	Numeric	The identifier of the item that this note relates to. This could be the weigher ID or the group ID depending on the 'Type' field.
RelatedName	String	The name of the item that this note relates to.
Message	String	The text message of the note.

4.5 Weigher Event Log

4.5.1 URL

/WeigherEventLog?id=#&from=#&to=#

4.5.2 Description

Returns the event log entries for the specified weigher.

4.5.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the weigher.
from	Date	The starting date for the report.
to	Date	The ending date for the report.
withFields	Numeric	Optional. If present and set to "1", the <i>Item</i> elements in the response will also contain the individual fields of the event. See below for details.

4.5.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".
AssignedTo	String	The name of the Group that the weigher is assigned to.
GroupID	Numeric	The Group ID that the weigher is assigned to.
Log	Array	An array of <i>Item</i> elements containing the event log details.

Item Element

Field Name	Type	Description
Timestamp	DateTime	The date and time of the event log entry.
Type	Numeric	The event type. <ul style="list-style-type: none"> • 0: Error. • 1: Parameter change. • 2: Tare started. • 3: Tare ended. • 4: Calibration started. • 5: Calibration ended. • 6: Resettable total cleared. • 7: Non-resettable total cleared. • 8: Flow time cleared. • 9: Run time cleared. • 10: Factory reset.
Details	String	A description of the event.
Fields		The event details split into individual fields. Only present if the parameter "withFields" is present in the request and is set to "1".

Fields for Event Type 0: Error

Field Name	Type	Description
ErrorCode	Numeric	The error code
ErrorText	String	A text description of the error

Fields for Event Type 1: Parameter Change

Field Name	Type	Description
ParameterIndex	Numeric	The internal parameter index.
ParameterName	String	The name of the parameter.
OldValue	Numeric/String	The old value of the parameter.
NewValue	Numeric/String	The new value of the parameter.

Fields for Event Type 2: Tare Started

Field Name	Type	Description
TareValue	Numeric	The tare value before the new tare was started.

Fields for Event Type 3: Tare Ended

Field Name	Type	Description
Accepted	Bool	Whether or not the new tare value was accepted by the operator.
TareValue	Numeric	The new tare value.

Fields for Event Type 4: Calibration Started

Field Name	Type	Description
CalMethod	Numeric	The calibration method used: <ul style="list-style-type: none"> • 0: Material • 1: Test Weight
CalFactor	Numeric	The calibration factor before the calibration was started.

Fields for Event Type 5: Calibration Ended

Field Name	Type	Description
Accepted	Bool	Whether or not the new calibration was accepted by the operator.
CalMethod	Numeric	The calibration method used: <ul style="list-style-type: none"> • 0: Material • 1: Test Weight
CalFactor	Numeric	The calibration factor after the calibration was ended.
WeigherTotal	Numeric	The total weight accumulated by the weigher during the calibration process.
RefTotal	Numeric	The reference total entered by the operator.

Fields for Event Type 6: Resettable Total Cleared

Field Name	Type	Description
WeigherTotal	Numeric	The resettable total before it was cleared.

Fields for Event Type 7: Non-resettable Total Cleared

Field Name	Type	Description
WeigherTotal	Numeric	The non-resettable total before it was cleared.

Fields for Event Type 8: Flow Time Cleared

Field Name	Type	Description
Time	Time	The flow time before it was cleared.

Fields for Event Type 9: Run Time Cleared

Field Name	Type	Description
Time	Time	The run time before it was cleared.

Fields for Event Type 10: Factory Reset

Field Name	Type	Description
DataArea	Numeric	The data area that was reset: <ul style="list-style-type: none">• 0: Calibration Data• 1: Configuration Data• 2: Logged Data• 3: All data areas• 4: Passcodes

4.6 Group List

4.6.1 URL

/GroupList

4.6.2 Description

Returns a list of Groups.

4.6.3 Request Parameters

None.

4.6.4 Response Fields

Field Name	Type	Description
Group	Array	One <i>Group</i> element for each weigher in the list. See below.

Group Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the group.
Type	Numeric	The type of group. <ul style="list-style-type: none"> • 1: Company • 2: Location • 3: Equipment • 4: Miscellaneous
ParentID	Numeric	The identifier of the parent group that this group belongs to.
Name	String	The name assigned to the group in smartTONNES.
CustomerName	String	The customer name that this equipment is currently assigned to. NOTE: Only present if "Use Customers & Sites" is enabled in the smartTONNES configuration and the Group Type is 'Equipment'.
CustomerID	Numeric	The identifier of the customer. NOTE: Only present if "Use Customers & Sites" is enabled in the smartTONNES configuration and the Group Type is 'Equipment'.
SiteName	String	The site name that this equipment is currently assigned to. NOTE: Only present if "Use Customers & Sites" is enabled in the smartTONNES configuration and the Group Type is 'Equipment'.

Field Name	Type	Description
SiteID	Numeric	The identifier of the site. NOTE: Only present if "Use Customers & Sites" is enabled in the smartTONNES configuration and the Group Type is 'Equipment'.
DailyTotal	Numeric	The total recorded so far today for the Group. NOTE: Only present for 'Equipment' type groups.
WeeklyTotal	Numeric	The total recorded so far this week for the Group. NOTE: Only present for 'Equipment' type groups.
MonthlyTotal	Numeric	The total recorded so far this month for the Group. NOTE: Only present for 'Equipment' type groups.
WeightUnits	String	The units that the totals and flow rates are displayed in. Can be either t (tonnes) or kg (kilograms). NOTE: Only present for 'Equipment' type groups.

4.7 Group Information

4.7.1 URL

/Group?id=#

4.7.2 Description

Returns information for the specified Group.

4.7.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the group.

4.7.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier of the group.
Type	Numeric	The type of group. <ul style="list-style-type: none"> • 1: Company • 2: Location • 3: Equipment • 4: Miscellaneous
Name	String	The name of the group.
Address	String	The address specified for the group. NOTE: Not present for 'Equipment' type groups.
Contact	String	The address specified for the group. NOTE: Not present for 'Equipment' type groups.
Telephone1	String	The first telephone number specified for the group. NOTE: Not present for 'Equipment' type groups.
Telephone2	String	The second telephone number specified for the group. NOTE: Not present for 'Equipment' type groups.
Fax	String	The fax number specified for the group. NOTE: Not present for 'Equipment' type groups.
Email	String	The email address specified for the group. NOTE: Not present for 'Equipment' type groups.
Website	String	The website address specified for the group. NOTE: Not present for 'Equipment' type groups.
Notes	String	The notes specified for the group. NOTE: Not present for 'Equipment' type groups.
UseCustomers	Bool	Whether or not the "Use Customers and Sites" option is enabled. NOTE: Only present for 'Company' type groups.

Field Name	Type	Description
ChildGroups	Array	An array of <i>ChildGroup</i> elements listing any child Groups of this group.
Users	Array	An array of <i>User</i> elements listing any Users associated with this group.
Weighers	Array	An array of <i>Weigher</i> elements listing any Weighers associated with this group.

ChildGroup Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the group.
Type	Numeric	The type of group. <ul style="list-style-type: none"> • 1: Company • 2: Location • 3: Equipment • 4: Miscellaneous
Name	String	The name of the group.

User Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the user.
LoginName	String	The login username for the user.
Name	String	The name of the user.
Email	String	The email address of the user.
LoginAllowed	Bool	Whether or not the user is allowed to log in.

Weigher Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".

4.8 Group Production Report

4.8.1 URL

/GroupProdReport?id=#&from=#&to=#

4.8.2 Description

Returns a production report for the specified group.

4.8.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the group.
from	Date	The starting date for the report.
to	Date	The ending date for the report.

4.8.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier of the group.
Type	Numeric	The type of group. <ul style="list-style-type: none"> • 1: Company • 2: Location • 3: Equipment • 4: Miscellaneous
Name	String	The name of the group.
WeightUnits	String	The units that the totals and flow rates are displayed in. Can be either t (tonnes) or kg (kilograms).
Groups	Array	An array of <i>Group</i> elements listing of the sub-groups contained within this group.
Weighers	Array	An array of <i>Weigher</i> elements listing of the weighers contained within this group.
Sites	Array	An array of <i>Site</i> elements listing each customer and site associated with this group. NOTE: Only present if using Customers & Sites.
Summary		Summary information for the report.
Detail		Detail information for the report.
Notes	Array	An array of <i>NoteItem</i> elements.

Group Element

Field Name	Type	Description
ID	Numeric	The unique identifier of the group.
Type	Array	The type of group. <ul style="list-style-type: none"> • 1: Company • 2: Location • 3: Equipment • 4: Miscellaneous
Name	Array	The name of the group.

Weigher Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the weigher.
Name	String	The name assigned to the weigher in smartTONNES.
MAC	String	The MAC address of the weigher in the format: "ABCDEF123456".

Site Element

Field Name	Type	Description
SiteID	Numeric	The unique identifier for the site.
SiteName	String	The site name.
CustomerName	String	The customer site that this site belongs to.

Summary Element

Field Name	Type	Description
Total	Numeric	The total of all material for the report period selected.
Materials	Array	An array of <i>MaterialTotal</i> elements with the totals for each material.
Sites	Array	An array of <i>SiteTotal</i> elements listing the totals per site. NOTE: Only present if using Customers & Sites.

MaterialTotal Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.

SiteTotal Element

Field Name	Type	Description
CustomerID	Numeric	The ID of the customer.

Field Name	Type	Description
CustomerName	String	The name of the customer.
SiteID	Numeric	The ID of the site.
SiteName	String	The name of the site.
Total	Numeric	The total of all material for this site for the report period selected.
Materials	Array	An array of <i>MaterialTotal</i> elements with the totals for each material for this site.

Detail Element

Field Name	Type	Description
LinePeriod	String	The period that each line element covers. This will depend on the date period that the report covers. <ul style="list-style-type: none"> • Day: each line represents one day. • Week: each line represents one week. The date is the start of the week. • Month: each line represents one month. The date is the start of the month.
Lines	Array	An array of <i>LineItem</i> elements.

LineItem Element

Field Name	Type	Description
Date	Date	The date that this element relates to.
Total	Numeric	The total recorded for the date.
StartOfRun	DateTime	The time of day that the belt starting running. NOTE: Only present if the LinePeriod is "Day".
EndOfRun	DateTime	The time of day that the belt stopped running. NOTE: Only present if the LinePeriod is "Day".
FlowTime	Time	The time period that the belt has been running with material. NOTE: Only present if the LinePeriod is "Day".
Materials	Array	An array of <i>MaterialItem</i> elements for each material recorded for the date.

MaterialItem Element

Field Name	Type	Description
Name	String	The name of the material.
Total	Numeric	The total recorded for the material.
CustomerID	Numeric	The ID of the customer. NOTE: Only present if using Customers & Sites.
CustomerName	String	The name of the customer. NOTE: Only present if using Customers & Sites.

Field Name	Type	Description
SiteID	Numeric	The ID of the site. NOTE: Only present if using Customers & Sites.
SiteName	String	The name of the site. NOTE: Only present if using Customers & Sites.
MaterialSeparation	Array	An array of <i>MaterialTotal</i> items. This element will only be present if Material Separation is configured for the weigher.

NoteItem Element

Field Name	Type	Description
Date	DateTime	The name of the material.
Type	String	The item that this note relates to. <ul style="list-style-type: none"> • Group: this is a group note • Weigher: this is a weigher note
RelatedID	Numeric	The identifier of the item that this note relates to. This could be the weigher ID or the group ID depending on the 'Type' field.
RelatedName	String	The name of the item that this note relates to.
Message	String	The text message of the note.

4.9 Site Production Report

4.9.1 URL

/SiteProdReport?id=#&from=#&to=#

4.9.2 Description

Returns a production report for the specified site.

4.9.3 Request Parameters

Parameter Name	Type	Description
id	Numeric	The unique identifier of the site.
from	Date	The starting date for the report.
to	Date	The ending date for the report.

4.9.4 Response Fields

Field Name	Type	Description
ID	Numeric	The unique identifier of the site.
Name	String	The name of the group.
WeightUnits	String	The units that the totals and flow rates are displayed in. Can be either t (tonnes) or kg (kilograms).
Equipment	Array	An array of <i>Item</i> elements listing the equipment groups contained within this group.
Summary		Summary information for the report.
Detail		Detail information for the report.
Notes	Array	An array of <i>NoteItem</i> elements.

Item Element

Field Name	Type	Description
ID	Numeric	The unique identifier of the equipment group.
Name	Array	The name of the equipment group.

Summary Element

Field Name	Type	Description
Total	Numeric	The total of all material for the report period selected.
Materials	Array	An array of <i>MaterialTotal</i> elements with the totals for each material.

MaterialTotal Element

Field Name	Type	Description
Material	String	The name of the material.
Total	Numeric	The total recorded for the material.

Detail Element

Field Name	Type	Description
LinePeriod	String	The period that each line element covers. This will depend on the date period that the report covers. <ul style="list-style-type: none"> • Day: each line represents one day. • Week: each line represents one week. The date is the start of the week. • Month: each line represents one month. The date is the start of the month.
Lines	Array	An array of <i>LineItem</i> elements.

LineItem Element

Field Name	Type	Description
Date	Date	The date that this element relates to.
Total	Numeric	The total recorded for the date.
StartOfRun	Time	The time of day that the belt starting running. NOTE: Only present if the LinePeriod is "Day".
EndOfRun	Time	The time of day that the belt stopped running. NOTE: Only present if the LinePeriod is "Day".
FlowTime	Time	The time period that the belt has been running with material. NOTE: Only present if the LinePeriod is "Day".
Materials	Array	An array of <i>MaterialItem</i> elements for each material recorded for the date.

MaterialItem Element

Field Name	Type	Description
Name	String	The name of the material.
Total	Numeric	The total recorded for the material.
MaterialSeparation	Array	An array of <i>MaterialTotal</i> items. This element will only be present if Material Separation is configured for the weigher.

NoteItem Element

Field Name	Type	Description
Date	DateTime	The name of the material.
Type	String	The item that this note relates to. <ul style="list-style-type: none">• Group: this is a group note• Weigher: this is a weigher note• Site: this is a site note
RelatedID	Numeric	The identifier of the item that this note relates to. This could be the weigher ID or the group ID depending on the 'Type' field.
RelatedName	String	The name of the item that this note relates to.
Message	String	The text message of the note.

4.10 Customer and Site List

4.10.1 URL

/CustomerList

4.10.2 Description

Returns a list of customers and sites.

4.10.3 Request Parameters

None.

4.10.4 Response Fields

Field Name	Type	Description
Customer	Array	An array of <i>Customer</i> elements.

Customer Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the Customer.
Name	String	The name of the Customer.
Sites	Array	An array of <i>Site</i> elements listing each site associated with this customer.

Site Element

Field Name	Type	Description
ID	Numeric	The unique identifier for the Site.
Name	String	The name of the Site.