XML_Data set
ALBZ-100

Version 2015.09

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General information about the XML data format

The abbreviation XML means E***x***tensible ***M***arkup ***L***anguage. XML is particularly appropriate to put structured data in a text file. XML adds to SGML (***S***tandard ***G***eneralized ***M***arkup ***L***anguage according to ISO) the possibility of a personal extension.

The following reasons are in favour of XML:

- It is particularly easy to read for both machine and operator.
- Structured data presented in this form can be particularly easily memorized, presented and transferred.
- There are standard functions at disposal for search, filtration and display.
- The data structure can be extended individually at any time.
- Support with displaying in a PC-WebBrowser.
- International support and development of the XML technology (Microsoft, SUN, IBM).
- Easy, platform-independant and system-independant data exchange (Business-To-Business-Communikation).
- Ready-to use XML-Parsers are available for different development areas.

Document type definitions and other notations are not given here.

Number formats

When feeding numbers (e.g. positions, speeds) the corresponding resolution in mm or m/min cannot be high enough. In this case the number formats of the operationg system can be used. Under Windows a modification of the number format is possible as follows:

- Settings
- Country settings
- Number formats

Text formats

With feeding characters please consider that characters of other languages can only be read without errors if the file code is switched to Unicode or UTF-8. If there are further special characters in the text which are part of the parser drive characters, the data of this element have to be enclosed by a CDATA-Block.

<![CDATA[...]]>

e.g.in connection with the element <Designation>(Data content=Transom /\):

<Designation>***<![CDATA[***Transom /***]]>***</Designation>

For reasons of simplicity these indications can be enclosed always in CDATA-Blocks.

Units

The following dimensions are applicable if not otherwise stated:

- Speeds in mm/min
- Positions in mm
- Angles in degrees
- Times in seconds

Basics

- Only numbers from 0-9,
- Letters a–z, A–Z
- No space
- Have no more than 40 characters.
- No special characters e.g. @ € ! § $ % & etc.

Structure XML-Data

```
<Datei Name="BeispielNCProdDat.xml">
<Profildaten ProfilName="BDM_01" Profilhersteller="BDM">
<Profilkopf>
  …
</Profilkopf>
…
</Profildaten>
<OptiZuschnittdaten>
<Optidaten Name="BeispielNCProdDat.xml">
<Stabdaten Bezeichnung="Muster" Kommentar="Musterdaten" ProfilName="BDM_01"
ResteTeileNr="9999" Restekennung="2" Restelaenge="82" Rohlaenge="6000" StabNr="1">
<Teiledaten StabNr="1" TeileNr="1" AbGehrung="45" AnGehrung="45" Laenge="1475"
Kommentar="Musterteil" Kommission="Test" Position="004" />
<Etikettendaten TeileNr="1">
  …
</Etikettendaten>
…
</Teiledaten>
…
</Stabdaten>
…
</Optidaten>
</OptiZuschnittdaten>
</Datei>
```

Production data

Element: <Datei>

The file name <Datei> ist he main level of the XML-Data.

Data line:
<Datei Name="**BeispielNCProdDat.xml**">

Attribut: Name	- Code for file name
Value: **“(File name)“**	- Initial file name
Data type: **Text**	- The file name should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.

Element:<OptiZuschnittdaten>

Data line:
<OptiZuschnittdaten Maschine=“**ALBZ**“>
.....
</OptiZuschnittdaten>

Attribut: Maschine	- Code for machine name **(Optional)**
Value: **“(Machine)“**	- Distinguishing feature in case of several results
Data type: **Text**	- The machine name should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.

Element: <Optidaten>

Data line:
<Optidaten Maschine="**ALBZ**" Name="**BDM**" Lauf="**Los BDM**">
.....(Stabdaten)
</Optidaten>

Attribut: Name	- Code for lot name
Value: **"(Lot name)"**	- Distinguishing feature in case of several results
Data type: **Text**	- The lot name should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.
Attribut: Lauf	- Code for designation of optimization **(Optional)**
Value: **" (Designation)"**	- Distinguishing with any text you like.
Data type: **Text**	- max. 255 characters
Attribut: Maschine	- Code for machine name **(Optional)**
Value: **"(Machine)"**	- Distinguishing feature in case of several results
Data type: **Text**	- The machine name should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.

Element:<Stabdaten>

Data line:
<Stabdaten StabNr="**1**" Rohlaenge="**6000**" Bezeichnung="**BDM-Doku**" ProfilName="**BDM**"
ResteLaenge="**4578**" Restekennung="**1**" ResteTeileNr="**10002**" Farbe="**weiss**" >
.....
</Stabdaten>

Attribut: StabNr	- Code for bar number
Value: **"(Bar Number)"**	- Number of the bar
Data type: **Number**	- Number from1 – 9999
Attribut: Rohlaenge	- Code for bar length
Value: **"(Bar Length)"**	- Bar length in mm
Data type: **Number**	- Number in mm
Attribut: Bezeichnung	- Code for profile designation
Value: **"(Designation)"**	- Text for general profile informations
Data type: **Text**	- max. 255 Characters
Attribut: Kommentar	- Code for comment **(Optional)**
Value: **"(Comment)"**	- Text for any comments you like
Data type: **Text**	- max. 255 Characters
Attribut: ProfilName	- Code for profile name
Value: **"(Profile name)"**	- Name of the profile
Data type: **Text**	- The profile name should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.
Attribut: Farbe	- Code for profile colour
Value: **"(ProfileColour)"**	- Colour of the Profile
Data type: **Text**	- The profile colour should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.
Attribut: Restelaenge	- Code for rest length **(Optional)**
Value: **"(RestLength)"**	- Rest length in mm
Data type: **Number**	- Number in mm
Attribut: Restekennung	- Code for rest **(Optional)**
Value: **"(RestCode)"**	- RestCode 1=Rest; 2=Waste, 4=Small pieces cutting
Data type: **Number**	- Numbers 1, 2 or 4

Attribut: ResteTeileNr - Code for rest piece number **(Optional)**
Value: **“(RestPieceNo)“** - Reference to the PieceNo of the printdata
Data type: **Number** - Number from 9001 - 9999

Attribut: Profilhoehe - Code for profile heigth **(Optional)**
Value: **“(ProfileHeight)“** - Profile heigth in mm
Data type: **Number** - Number in mm

Attribut: Profilbreite - Code for profile width **(Optional)**
Value: **“(ProfileWidth)“** - Profil width in mm
Data type: **Number** - Number in mm

Element: <Teiledaten>

Data line:
<Teiledaten TeileNr="**1**" StabNr="**1**" WagenNr="**1**" FachNr="**21**" Bezeichnung="**BDM**" Kommission="**BDM**" Position="**1**" Laenge="**1402**" AnGehrung="**90.0**" AbGehrung="**90.0**" >
.....
</Teiledaten>

Attribut: StabNr - Code for bar number
Value: **“(Bar number)“** - Bar number
Data type: **Number** - Number from 1 - 9999

Attribut: TeileNr - Code for piece number
Value: **“(Piece number)“** - Piece number
Data type: **Number** - Number from 1 - 9999

Attribut: Laenge - Code for piece length
Value: **“(Piece length)“** - Piece length in mm from peak to peak
Data type: **Number** - Number in mm

Attribut: WagenNr - Code for wagon number **(Optional)**
Value: **“(Carriage Number)“** - Wagon number
Data type: **Text** - max. 40 Characters

Attribut: FachNr - Code for case number **(Optional)**
Value: **“(Case Number)“** - Case number
Data type: **Text** - max. 40 Characters

Attribut: Bezeichnung - Code for piece designation **(Optional)**
Value: **“(Designation)“** - Text for general piece information
Data type: **Text** - max. 255 Characters

Attribut: Kommentar
Value: **“(Comment)“**
Data type: **Text**

- Code for comments **(Optional)**
- Text for any comments you like
- max. 255 Characters

Attribut: Kommission
Value: **“(Commission)“**
Data type: **Text**

- Code for commission **(Optional)**
- Designation or number of commission
- max. 255 Characters

Attribut: Position
Value: **“(Position)“**
Data type: **Text**

- Code for position **(Optional)**
- Designation or number of position
- max. 255 Characters

Attribut: AnGehrung
Value:**“(AngleOnCut)“**
Data type: **Number**

- Code for AngleOnCut
- AngleOnCut in Degrees
- Number in degrees: Default 45°-90°, Optional 30°-90°

Attribut: AbGehrung
Value:**“(AngleOffCut)“**
Data type: **Number**

- Code for AngleOffCut
- AngleOffCut in Degrees
- Number in degrees: Default 45°-90°, Optional 30°-90°

Attribut: Barcode
Value: **“(Barcode)“**
Data type: **Text**

- Code for barcode
- Barcode for individual piece for manufacturing
- The bar code should contain only digits from 0-9, characters A/a -Z/z, without "space" and not longer than 40 characters.

Element: <Werkzeugdaten>

Data line:

<Werkzeugdaten TeileNr="**1**">
<Rechteck Wkz="**xxx**" ……/>
<Kreis Wkz="**xxx**" ……/>
.....
</Werkzeugdaten>

Attribut: TeileNr
Value: **“(Piece Number)“**
Data type: **Number**

- Code for piece number
- Piece number
- Number from 1 - 9999

Element:<Etikettendaten>

Data line:
<Etikettendaten TeileNr="**1**">
<Druckdaten>
.....
</Druckdaten>
</Etikettendaten>

Attribut: TeileNr	- Code for piece number
Value: **"(Piece Number)"**	- Piece number
Data type: **Number**	- Number from 1 - 9999

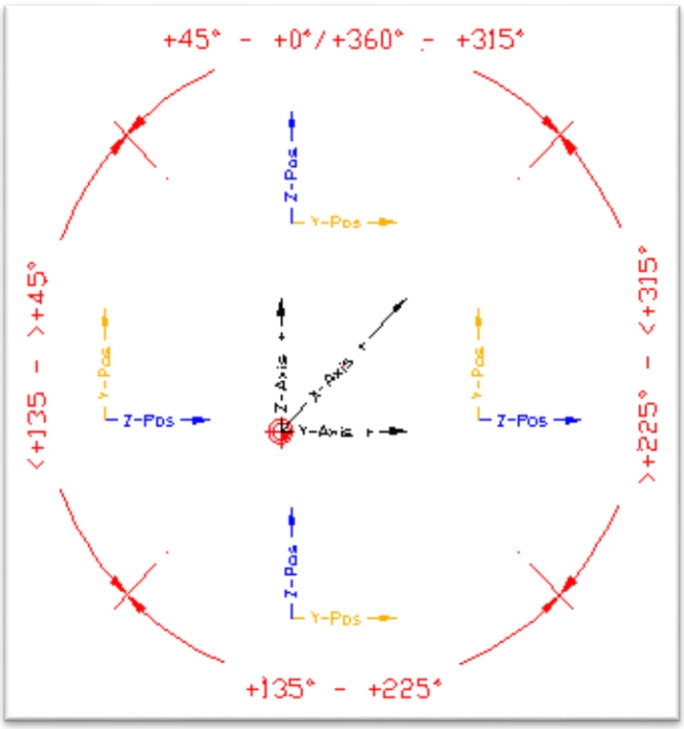
Element:<Druckdaten>

The necessary commands/ necessary syntax for the print text, please extract the printer manufacturer's documentation. The commands may not contain special characters or binary code.

Example:
<Etikettendaten TeileNr="**1**">
<Druckdaten>**DIR1:AN7:FT"Swiss 721 Bold BT",15:PP050,060:**
PT"Auftrag:22116.00 Pos:1.000":FT"Swiss 721 BT",11:PP050,97:
PT"51244A":PP050,134:PT"TeileNr.:1":PP050,171:PT"Profil:375870":
PP280,130:PT"Laenge:1475":PP050,220:BT"COD E39":BH50:BM3 PB"100323455":PF$013
</Druckdaten>
</Etikettendaten>

Makros for the machining braket

Relation angle of the tool to X



WkzWinkel: +45° to 0°/+360° to +315°: YPos = horizontal axis, ZPos = vertical axis

WkzWinkel: > +45° to < +135°: YPos = vertical axis, ZPos = horizontal axis

WkzWinkel: +135° to +225°: YPos = horizontal axis, ZPos = vertical axis

WkzWinkel: > +225° to < +315°: YPos = vertical axis, ZPos = horizontal axis

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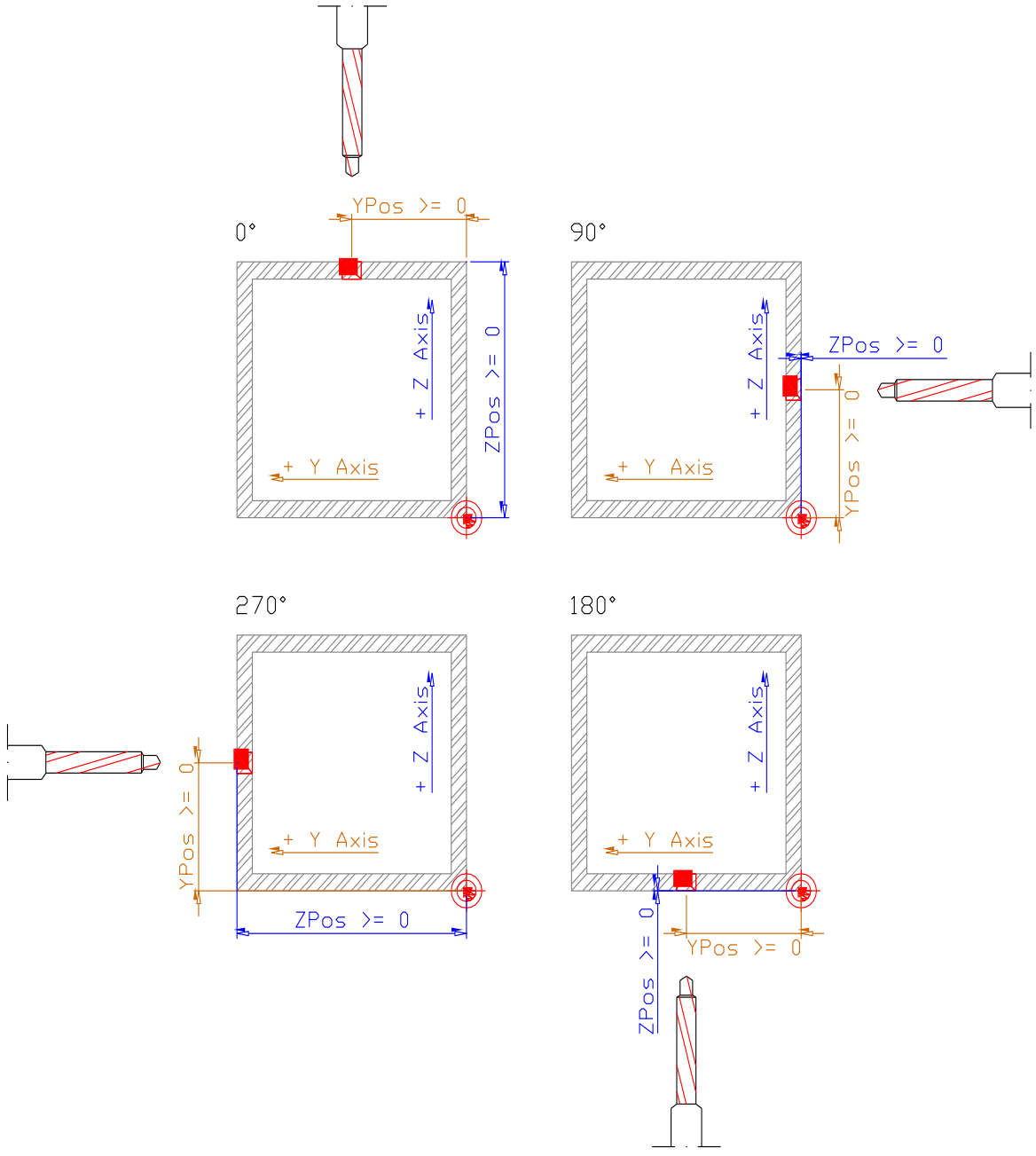
Example:


0°
YPos >= 0
+ Z Axis
ZPos >= 0
+ Y Axis
90°
+ Z Axis
ZPos >= 0
YPos >= 0
+ Y Axis
270°
YPos >= 0
+ Z Axis
+ Y Axis
ZPos >= 0
180°
+ Z Axis
+ Y Axis
ZPos >= 0
YPos >= 0

Macro name: <Kreis>

Macro for generating circular pockets. The reference for the position of the machining is the circle center

Data line:
<Kreis Wkz="**102**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**10**" Konturabstand="**0**" Radius="**10**" Ausraeumend ="**1**" Bohrvorschub="**100**" Fraesvorschub="**100**" GruppenNr="**0**" FolgeNr="**0**" />

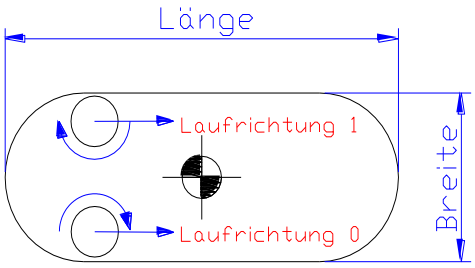
Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: WkzWinkel	- Code for A position of the treatment (tool angle)
Value: **"(Position)"**	- Middle of the treatment in A-direction in degree
Data type: **Number**	- Number in Degree
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Konturabstand	- Code for pre-postion
Value: **"(Konturabstand)"**	- Pre-position of the tool tot he profile
Data type: **Number**	- Number in mm
Attribut: Radius	- Code for the radius of the treatment
Value: **"(Radius)"**	- Radius of the treatment in mm
Data type: **Number**	- Number in mm

Attribut: Ausraeumend	- Code for empty out
Value: **“(Empty out)“**	- The material in the counter will be machined completely. 0 = without empty out, 1 = with emty out
Data type: **Number**	- Number 0 or 1
Attribut: Laufrichtung	- Code for milling direction
Value: **“(Milling direction)“**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Schlichtaufmass	- Code for allowance for finishing milling
Value: **“(Finishing milling)“**	- Allowance for finishing milling
Data type: **Number**	- Number in mm
Attribut: Werkzeugbruch	- Code for broken tool detection
Value: **“(BrokenToolDetection)“**	- Broken tool detection On/Off 0 = Off, 1 = On
Data type: **Number**	- Number 0 or 1
Attribut: Bohrvorschub	- Code for drill feed
Value: **“(Drill feed)“**	- Drill feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Fraesvorschub	- Code for milling feed
Value: **“(Milling feed)“**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: GruppenNr	- Code for group number **(Optional)**
Value: **“(GroupNo)“**	- Several operations can be combined to one operation group Do not use the same group numbers in the same bar
Data type: **Number**	- Number 0-254, 0=no sorting
Attribut: FolgeNr	- Code for order number **(Optional)**
Value: **“(OrderNo)“**	- Within a group the operations will be processed by ascending order number; 1, 2, 3,…
Data type: **Number**	- Number 0-254, 0= no sorting

Macro name: <Langloch>

Macro for generating slot pockets. The reference for the position of the machining is the center of the slot pocket.

Data line:
<Langloch Wkz="**102**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Konturabstand="**0**" Laenge="**20**" Breite="**5**" Ausraeumend="**0**" Laufrichtung="**0**" Bohrvorschub="**100**" Fraesvorschub="**100**" Winkel="**0**" GruppenNr="**0**" FolgeNr="**0**" />



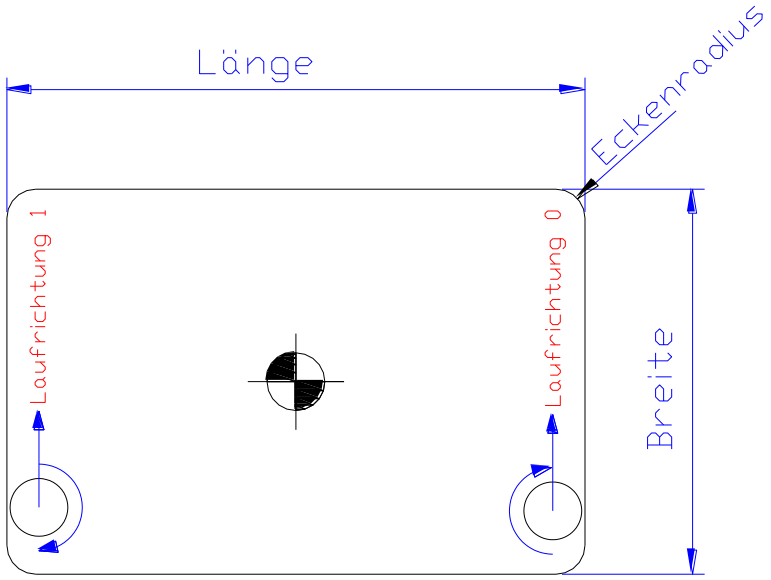
Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: WkzWinkel	- Code for A position of the treatment (tool angle)
Value: **"(Position)"**	- Middle of the treatment in A-direction in degree
Data type: **Number**	- Number in Degree
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Konturabstand	- Code for pre-postion
Value: **"(Konturabstand)"**	- Pre-position of the tool tot he profile
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **"(Length)"**	- Length of the treatment in mm
Data type: **Number**	- Number in mm

Attribut: Breite	- Code for the width of the treatment
Value: **“(Width)“**	- Width of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Ausraeumend	- Code for empty out
Value: **“(Empty out)“**	- The material in the counter will be machined completely. 0 = without empty out, 1 = with emty out
Data type: **Number**	- Number 0 or 1
Attribut: Laufrichtung	- Code for milling direction
Value: **“(Milling direction)“**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Schlichtaufmass	- Code for allowance for finishing milling
Value: **“(Finishing milling)“**	- Allowance for finishing milling
Data type: **Number**	- Number in mm
Attribut: Werkzeugbruch	- Code for broken tool detection
Value: **“(BrokenToolDetection)“**	- Broken tool detection On/Off 0 = Off, 1 = On
Data type: **Number**	- Number 0 or 1
Attribut: Bohrvorschub	- Code for drill feed
Value: **“(Drill feed)“**	- Drill feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Fraesvorschub	- Code for milling feed
Value: **“(Milling feed)“**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Winkel	- Code of the angle
Value: **“(Winkel)“**	- Angle of the treatment around Z
Data type: **Number**	- Number in degree
Attribut: GruppenNr	- Code for group number **(Optional)**
Value: **“(GroupNo)“**	- Several operations can be combined to one operation group Do not use the same group numbers in the same bar
Data type: **Number**	- Number 0-254, 0=no sorting
Attribut: FolgeNr	- Code for order number **(Optional)**
Value: **“(OrderNo)“**	- Within a group the operations will be processed by ascending order number; 1, 2, 3,…
Data type: **Number**	- Number 0-254, 0= no sorting

Macro name: <Rechteck>

Macro for generating rectangular pockets. The reference for the position of the machining is the center of the rectangular pocket.

Data line:
<Rechteck Wkz="**102**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Konturabstand="**0**" Laenge="**50**" Breite="**30**" Eckenradius="**5**" Ausraeumend="**0**" Laufrichtung="**0**" Bohrvorschub="**100**" Fraesvorschub="**100**" Winkel="**0**" GruppenNr="**0**" FolgeNr="**0**" />



Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: WkzWinkel	- Code for A position of the treatment (tool angle)
Value: **"(Position)"**	- Middle of the treatment in A-direction in degree
Data type: **Number**	- Number in Degree

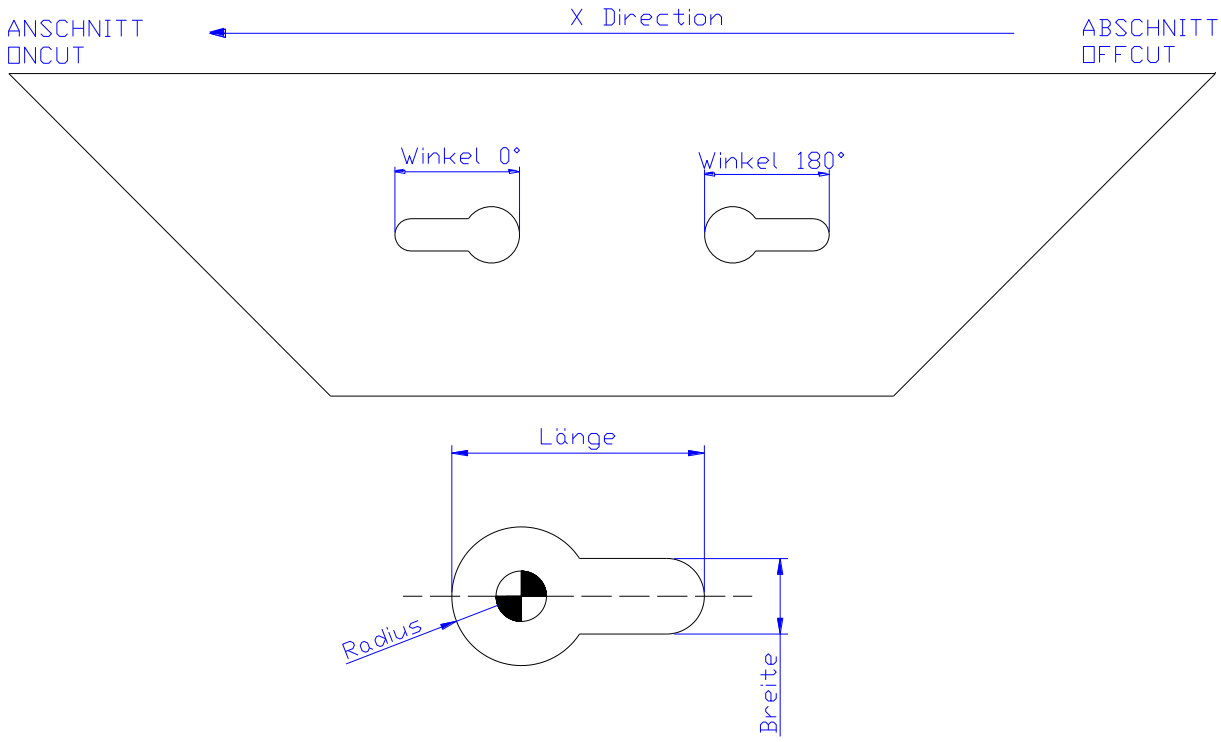
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **“(Depth)“**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Konturabstand	- Code for pre-postion
Value: **“(Konturabstand)“**	- Pre-position of the tool tot he profile
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **“(Length)“**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Breite	- Code for the width of the treatment
Value: **“(Width)“**	- Width of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Eckenradius	- Code for corner radius
Value: **“(CornerRadius)“**	- Corner radius oft he contour
Data type: **Number**	- Number in mm
Attribut: Ausraeumend	- Code for empty out
Value: **“(Empty out)“**	- The material in the counter will be machined completely. 0 = without empty out, 1 = with emty out
Data type: **Number**	- Number 0 or 1
Attribut: Laufrichtung	- Code for milling direction
Value: **“(Milling direction)“**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Schlichtaufmass	- Code for allowance for finishing milling
Value: **“(Finishing milling)“**	- Allowance for finishing milling
Data type: **Number**	- Number in mm
Attribut: Werkzeugbruch	- Code for broken tool detection
Value: **“(BrokenToolDetection)“**	- Broken tool detection On/Off 0 = Off, 1 = On
Data type: **Number**	- Number 0 or 1

Attribut: Bohrvorschub	- Code for drill feed
Value: **“(Drill feed)“**	- Drill feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Fraesvorschub	- Code for milling feed
Value: **“(Milling feed)“**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Winkel	- Code of the angle
Value: **“(Angle)“**	- Angle of the treatment around Z
Data type: **Number**	- Number in degree
Attribut: GruppenNr	- Code for group number **(Optional)**
Value: **“(GroupNo)“**	- Several operations can be combined to one operation group Do not use the same group numbers in the same bar
Data type: **Number**	- Number 0-254, 0=no sorting
Attribut: FolgeNr	- Code for order number **(Optional)**
Value: **“(OrderNo)“**	- Within a group the operations will be processed by ascending order number; 1, 2, 3,…
Data type: **Number**	- Number 0-254, 0= no sorting

Macro name: <Profilzylinder>

Macro for generating profile cylinder. The reference for the position of the machining is the center of the circle.

Data line:
<Profilzylinder Wkz="**101**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Konturabstand="**0**" Laenge="**20**" Breite="**10**" Radius="**10**" Bohrvorschub="**100**" Fraesvorschub="**100**" Winkel="**0**" GruppenNr="**0**" FolgeNr="**0**" />



Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm

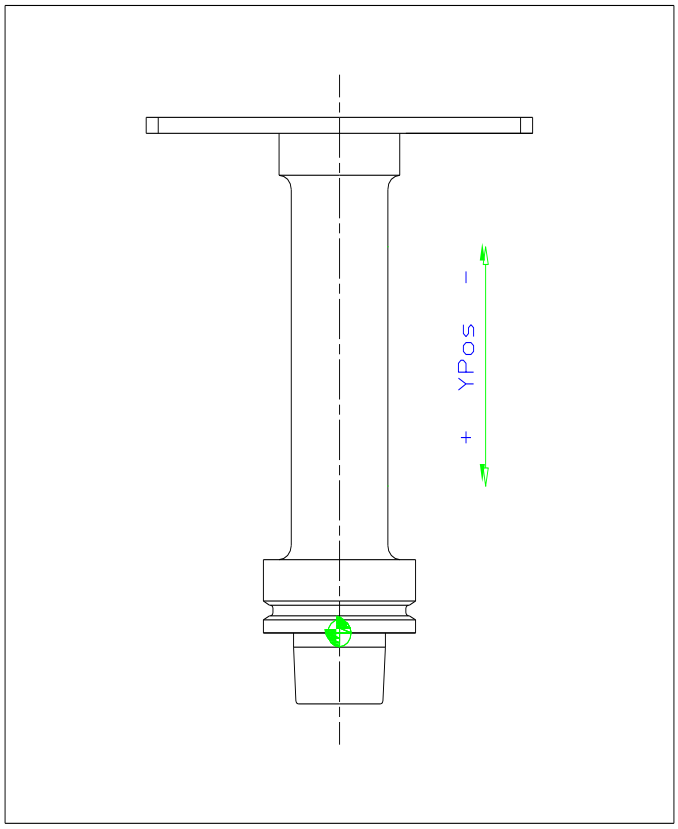
Attribut: ZPos	- Code for Z position of the treatment
Value: **“(Position)“**	- Start offset of a treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: WkzWinkel	- Code for A position of the treatment (tool angle)
Value: **“(Position)”**	- Middle of the treatment in A-direction in degree
Data type: **Number**	- Number in Degree
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **“(Depth)“**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Konturabstand	- Code for pre-postion
Value: **“(Konturabstand)“**	- Pre-position of the tool tot he profile
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **“(Length)“**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Breite	- Code for the width of the treatment
Value: **“(Width)“**	- Width of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Radius	- Code for the radius of the treatment
Value: **“(Radius)“**	- Radius of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Ausraeumend	- Code for empty out
Value: **“(Empty out)“**	- The material in the counter will be machined completely. 0 = without empty out, 1 = with emty out
Data type: **Number**	- Number 0 or 1
Attribut: Laufrichtung	- Code for milling direction
Value: **“(Milling direction)“**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Schlichtaufmass	- Code for allowance for finishing milling
Value: **“(Finishing milling)“**	- Allowance for finishing milling
Data type: **Number**	- Number in mm

Attribut: Werkzeugbruch	- Code for broken tool detection
Value: **“(BrokenToolDetection)“**	- Broken tool detection On/Off 0 = Off, 1 = On
Data type: **Number**	- Number 0 or 1
Attribut: Bohrvorschub	- Code for drill feed
Value: **“(Drill feed)“**	- Drill feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Fraesvorschub	- Code for milling feed
Value: **“(Milling feed)“**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Winkel	- Code of the angle
Value: **“(Angle)“**	- Angle of the treatment around Z
Data type: **Number**	- Number in degree
Attribut: GruppenNr	- Code for group number **(Optional)**
Value: **“(GroupNo)“**	- Several operations can be combined to one operation group Do not use the same group numbers in the same bar
Data type: **Number**	- Number 0-254, 0=no sorting
Attribut: FolgeNr	- Code for order number **(Optional)**
Value: **“(OrderNo)“**	- Within a group the operations will be processed by ascending order number; 1, 2, 3,…
Data type: **Number**	- Number 0-254, 0= no sorting

Makros for the end work tool

Tool number: 161-170

The YPos is adjusted with the **horizontal** axis.
The ZPos is adjusted with the **vertical** axis.
The Tiefe (Depth) of the machining is specified always positive.



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info@BDMaschinenbau.com · www.BDMaschinenbau.com

Macro name: <Stirn_Strecke_Scheibe> (Optional)

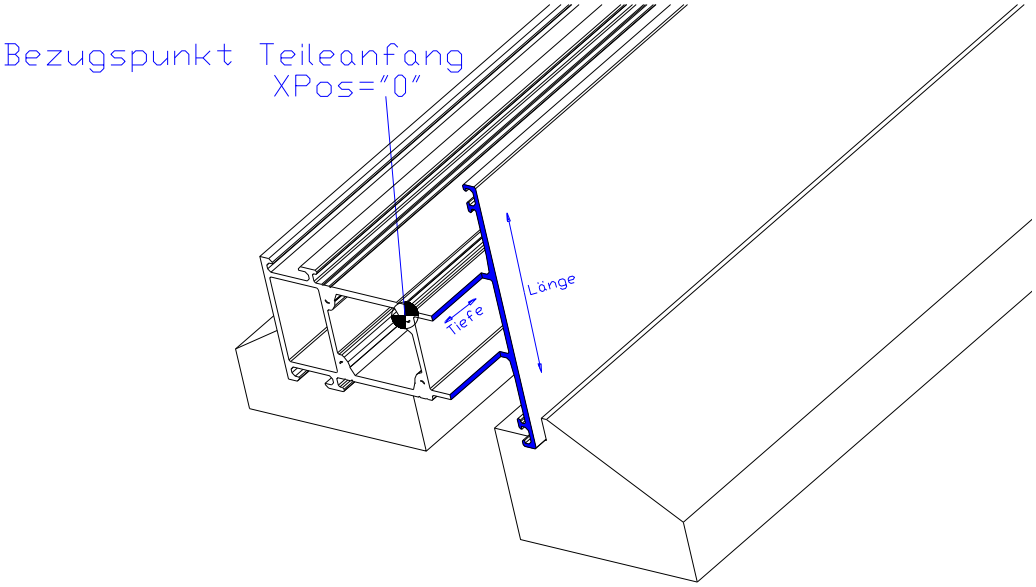
Macro for generating a notching with a side milling cutter.

Data line:
<Stirn_Strecke_Scheibe Wkz="**161**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Laenge="**58**"
Laufrichtung="**0**" Fraesvorschub="**100**"/>

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Y-axis in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z-axis in mm
Data type: **Number**	- Number in mm
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **"(Length)"**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Laufrichtung	- Code for milling direction
Value: **"(Milling direction)"**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Fraesvorschub	- Code for milling feed
Value: **"(Milling feed)"**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min

Sketch: Stirn_Strecke_Scheibe at the beginning of the piece

Reference point: beginning of the piece is XPos=0



Macro name: <Stirn_Strecke_Scheibe_oTP> (Optional)

Macro for generating a notching with a side milling cutter. „oTP“ = without depth control

Data line:
<Stirn_Strecke_Scheibe_oTP Wkz="**161**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Laenge="**58**" Laufrichtung="**0**" Fraesvorschub="**100**"/>

Attribut: Wkz	- Code for tool number
Value: **“(Tool)“**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **“(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **“(Position)”**	- Start offset of a treatment in Y-axis in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **“(Position)“**	- Start offset of a treatment in Z-axis in mm
Data type: **Number**	- Number in mm
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **“(Depth)“**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **“(Length)“**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Laufrichtung	- Code for milling direction
Value: **“(Milling direction)“**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Fraesvorschub	- Code for milling feed
Value: **“(Milling feed)“**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min

Macro name: <Stirn_Strecke_Kontur> (Optional)

Macro for generating a notching with a contour milling.

Data line:
<Stirn_Strecke_Kontur Wkz="**161**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**1**" Laenge="**58**"
Laufrichtung="**0**" Fraesvorschub="**100**"/>

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Y-axis in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z-axis in mm
Data type: **Number**	- Number in mm
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **"(Length)"**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Laufrichtung	- Code for milling direction
Value: **"(Milling direction)"**	- Milling down-cut or up-cut 0 = Down-cut milling, 1 = Up-cut milling
Data type: **Number**	- Number 0 or 1
Attribut: Fraesvorschub	- Code for milling feed
Value: **"(Milling feed)"**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min

Macro name: <Stirn_Klinkung_Scheibe> (Optional)

Macro for generating a notching with a side milling cutter in a double gear.

Data line:
<Stirn_Klinkung_Scheibe Wkz="**161**" XPos="**0**" YPos="**25**" ZPos="**28**" Tiefe="**1**" Laenge="**60**" Breite="**50**" Fraesvorschub="**100**" Winkel="**0**"/>

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Y-axis in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z-axis in mm
Data type: **Number**	- Number in mm
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **"(Length)"**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Breite	- Code for the width of the treatment
Value: **"(Width)"**	- Width of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Fraesvorschub	- Code for milling feed
Value: **"(Milling feed)"**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Winkel	- Code of the angle
Value: **"(Angle)"**	- Angle of the treatment around Z
Data type: **Number**	- Number in degree

Macro name: <Stirn_Klinkung_Fraeser> (Optional)

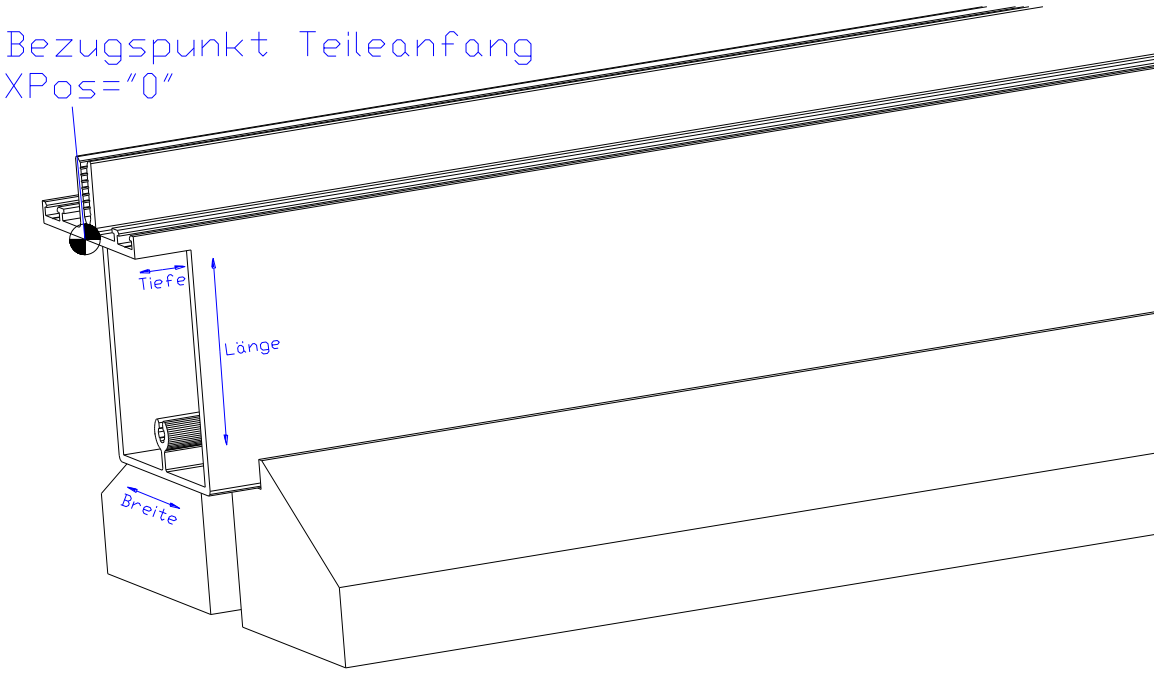
Macro for generating a notching with a end mill cutter in a double gear

Data line:
<Stirn_Klinkung_Fraeser Wkz="**161**" XPos="**0**" YPos="**25**" ZPos="**28**" Tiefe="**1**" Laenge="**60**" Breite="**50**" Bohrvorschub="**100**" Fraesvorschub="**100**" Winkel="**0**"/>

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number in the machine
Data type: **Number**	- Number (101 - 139)
Attribut: XPos	- Code for X position of the treatment
Value: **"(Position)**	- Middle of the treatment in X-direction in mm
Data type: **Number**	- Number in mm
Attribut: YPos	- Code for Y position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Y-axis in mm
Data type: **Number**	- Number in mm
Attribut: ZPos	- Code for Z position of the treatment
Value: **"(Position)"**	- Start offset of a treatment in Z-axis in mm
Data type: **Number**	- Number in mm
Attribut: Tiefe	- Code for the depth of the treatment (option)
Value: **"(Depth)"**	- Final depth of the treatment in Z direction in mm
Data type: **Number**	- Number in mm
Attribut: Laenge	- Code for the length of treatment
Value: **"(Length)"**	- Length of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Breite	- Code for the width of the treatment
Value: **"(Width)"**	- Width of the treatment in mm
Data type: **Number**	- Number in mm
Attribut: Bohrvorschub	- Code for drill feed
Value: **"(Drill feed)"**	- Drill feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Fraesvorschub	- Code for milling feed
Value: **"(Milling feed)"**	- Milling feed in mm/min
Data type: **Number**	- Value in mm/min
Attribut: Winkel	- Code of the angle
Value: **"(Angle)"**	- Angle of the treatment around Z
Data type: **Number**	- Number in degree

Sketch: notching at the beginning of the piece

Reference point: beginning of the piece is XPos=0



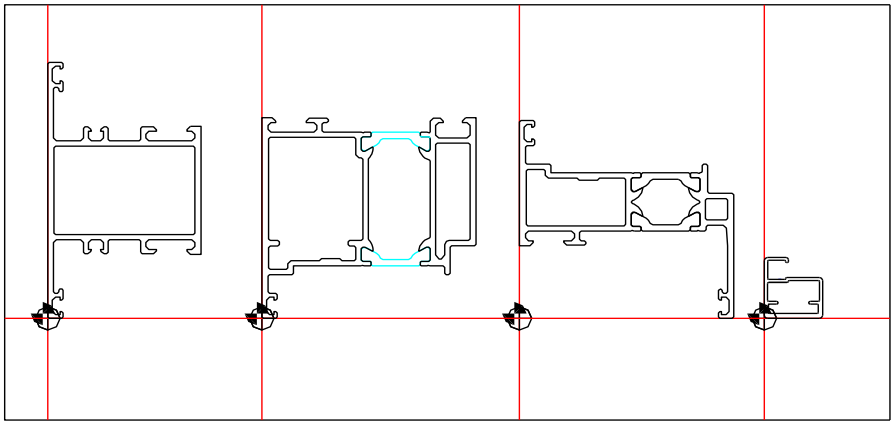
Example file for editing

```
<?xml version="1.0" encoding="UTF-8" ?>
<Datei Name="Test.xml">
<OptiZuschnittdaten>
<Optidaten Name="BDM">
<Stabdaten StabNr="1" Rohlaenge="6000" Bezeichnung="" ProfilName="BDM" Farbe="Farbe"
Restelaenge="5100" Restekennung="1" ResteTeileNr="9999">
<Teiledaten StabNr="1" TeileNr="1" Barcode="99000" Bezeichnung="" Kommission=""
Laenge="900" AnGehrung="90" AbGehrung="90">
<Werkzeugdaten Teilenr="1">
<Bohrung Wkz="102" XPos="450" YPos="30" ZPos="40" Tiefe="10" />
<Rechteck Wkz="132" XPos="450" YPos="20" ZPos="60" Tiefe="10" Laenge="160" Breite="18" />
<Stirn_Strecke_Scheibe Wkz="161" XPos="900" YPos="35" ZPos="25" Tiefe="10" Laenge="60" />
<Stirn_Strecke_Scheibe Wkz="161" XPos="900" YPos="30" ZPos="25" Tiefe="10" Laenge="60" />
<Stirn_Strecke_Scheibe Wkz="161" XPos="0" YPos="35" ZPos="25" Tiefe="15" Laenge="60" />
<Stirn_Strecke_Scheibe Wkz="161" XPos="0" YPos="30" ZPos="25" Tiefe="15" Laenge="60" />
</Werkzeugdaten>
</Teiledaten>
-<Etikettendaten TeileNr="1">
<Druckdaten> DIR1:AN7:FT"Swiss 721 Bold BT",14:PP010,200:PT"R E S T Laenge
ca:5590mm":PP010,140:FT"Swiss 721
BT",11:PT"Prof:BDM":PP10,100:PT"Farbe:farbe":PP10,60:PT"Auftrag:":PF$013
</Druckdaten>
</Etikettendaten>
<Etikettendaten TeileNr="9999">
<Druckdaten>DIR1:AN7:FT"Swiss 721 Bold BT",14:PP010,200:PT"R E S T Laenge
ca:5590mm":PP010,140:FT"Swiss 721
BT",11:PT"Prof:BDM":PP10,100:PT"Farbe:farbe":PP10,60:PT"Auftrag:":PF$013
</Druckdaten>
</Etikettendaten>
</Stabdaten>
</Optidaten>
</OptiZuschnittdaten>
</Datei>
```

Profile data

Zero offset for each profile

The zero point of tools is or can be displaced to a defined point on the profile by means of RefEdge_Y and RefEdge_Z in the data set depending on the profile.
To determine a reference point on the profile, it is necessary to know the exact position of the profile Bar in the machine beforehand. The position is determined by the sawing angle.
The zero point on the profile in the vertical direction is the deepest point of the profile in the machine.
The zero point on the profile in the horizontal direction is the side of the profile facing the saw.
Example, see sketch.



Sketch 1

All machining procedures use this zero point as a reference.

Element: <Profilkopf>

If external profile data is created, this data can be transferred to the control system in the XML data set. Define the dimensions and position (zero point) of the profiles in the profile head. Also transfer all settings for the profile in the profile data.

Data line:

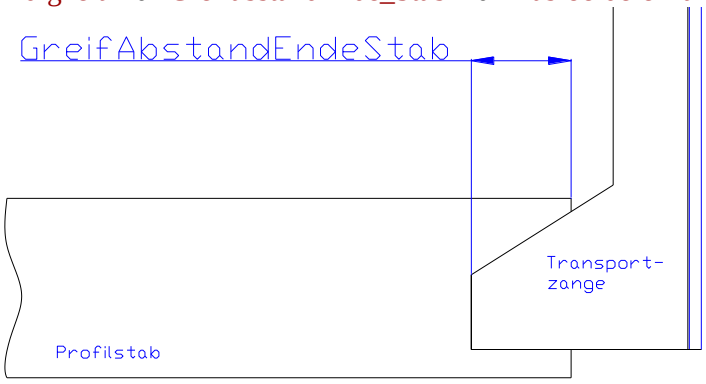
```
<Datei Name="BeispielNCProdDat.xml">
<Profildaten ProfilName="BDM_01" Profilhersteller="BDM">
<Profilkopf>
<Bezeichnung>Blendrahmen</Bezeichnung>
<Rohlaenge>6000</Rohlaenge>
<Profilbreite>75.00</Profilbreite>
<Profilhoehe>69.00</Profilhoehe>
<Bezug_X>0</Bezug_X>
<Bezug_Y>0</Bezug_Y>
<Bezug_Z>60.00</Bezug_Z>
</Profilkopf>
…
</Datei>
```

Attribut: Bezeichnung	- Code for profile designation
Value**: „(Designation)“**	- Text for general profile informations
Data type: **Text**	- max. 255 characters
Attribut: Rohlaenge	- Code for bar length
Value**: “(Rohlaenge)“**	- Length in mm of standard bar length
Data type: **Number**	- Number in mm
Attribut: Profilbreite	- Code for profile width
Value: **“(Profile width)“**	- Profile width in mm
Data type: **Number**	- Number in mm
Attribut: Profilhoehe	- Code for profile height
Value**: “(Profile height)“**	- Profile height mm
Data type: **Number**	- Number in mm
Attribut: Bezug_X	- Code for Reference_X
Value: **“(Reference_X)“**	- Shifting the reference in X
Data type: **Number**	- Number in mm
Attribut: Bezug_Y	- Code for Reference_Y
Value: **“(Reference_Y)“**	- Shifting the reference in Y
Data type: **Number**	- Number in mm
Attribut: Bezug_Z	- Code for Reference_Z
Value: **“(Reference_Z)“**	- Shifting the reference in Z Range **25mm – 85mm (Optional 28mm - 88mm)**
Data type: **Number**	- Number in mm

Werkzeugdaten in Profildaten

Element: <Transport Wkz="3001">

Data line:
<Transport Wkz="**3001**" BNr="**3001**" Zusatzbemerkung="**Transport**" Leergeschwindigkeit="**0**"
Transportgeschwindigkeit="**0**" GreifabstandEnde_Stab="**0**" AusfoerdererTaktanzahl="**6**" />



Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3001**
Attribut: BNr	- Code for the process
Value**: "(Processing No)"**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3001**
Attribut: Zusatzbemerkung	- Code for additional remark **(Optional)**
Value: **"(Additional remark)"**	- Text of general comment
Data type: **Text**	- max. 255 characters
Attribut: Leergeschwindigkeit	- Code for rapid speed
Value: **"(Rapid speed)"**	- Speed without profile
Data type: **Number**	- Number
Attribut: Transportgeschwindigkeit	- Code for transport speed
Value: **"(Transport speed)"**	- Transport speed with profile
Data type: **Number**	- Number
Attribut: GreifabstandEnde_Stab	- Code for grip distance at the end of the bar
Value: **"(GripDistanceBarEnd)"**	- Gripping the end of the bar
Data type: **Number**	- Number in mm
Attribut: AusfoerdererTaktanzahl	- Code for cycle of the outfeed conveyor
Value: **"(CycleOutfeed)"**	- Cycle of the outfeed conveyor
Data type: **Number**	- Number

Element: <Voreinstellung Wkz="3002">

Data line:
<Voreinstellung Wkz="**3002**" BNr="**3002**" Zusatzbemerkung="**Voreinstellung**" Auflagentabelle-ID="**0**" />

Attribut: Wkz
Value: **"(Tool)"**
Data type: **Number**

- Code for tool number
- Tool number for the process
- Fester Value=**3002**

Attribut: BNr
Value: **"(Processing No)"**
Data type: **Number**

- Code for the process
- Processing number
- Number, fixed BNr.=**3002**

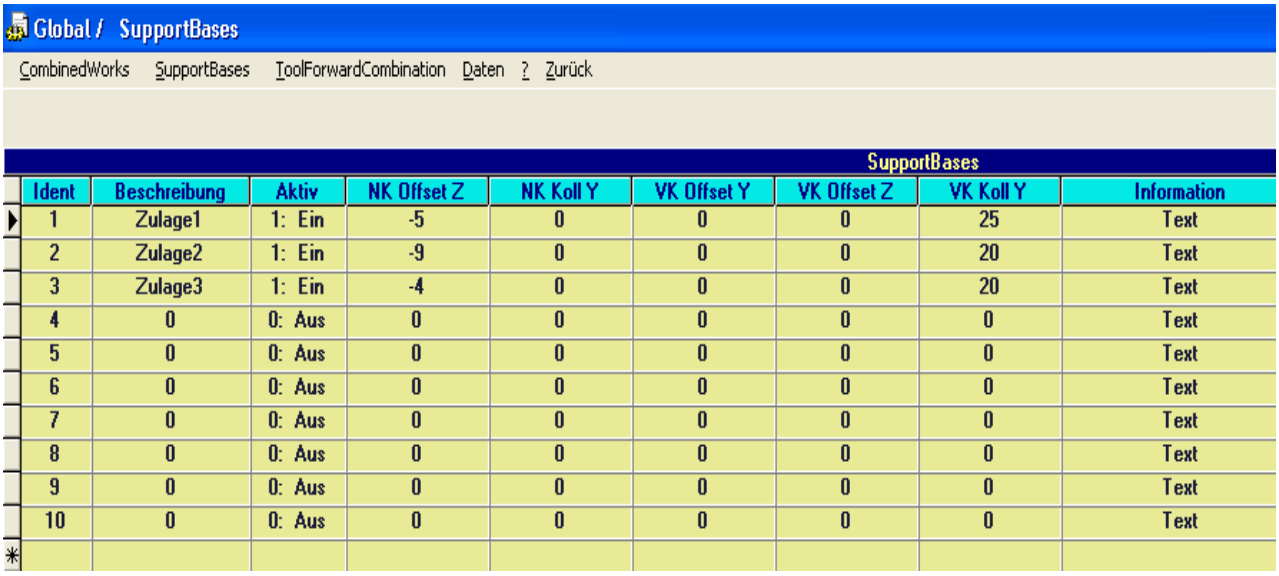
Attribut: Zusatzbemerkung
Value: **"(Additional remark)"**
Data type: **Text**

- Code for additional remark **(Optional)**
- Text of general comment
- max. 255 characters

Attribut: Auflagentabelle-ID
Value: **"(SupportsTable-ID)"**
Data type: **Number**

- Code for supports table-ID
- ID of selected supports from the support table
- Number

Explanation:



SupportBases

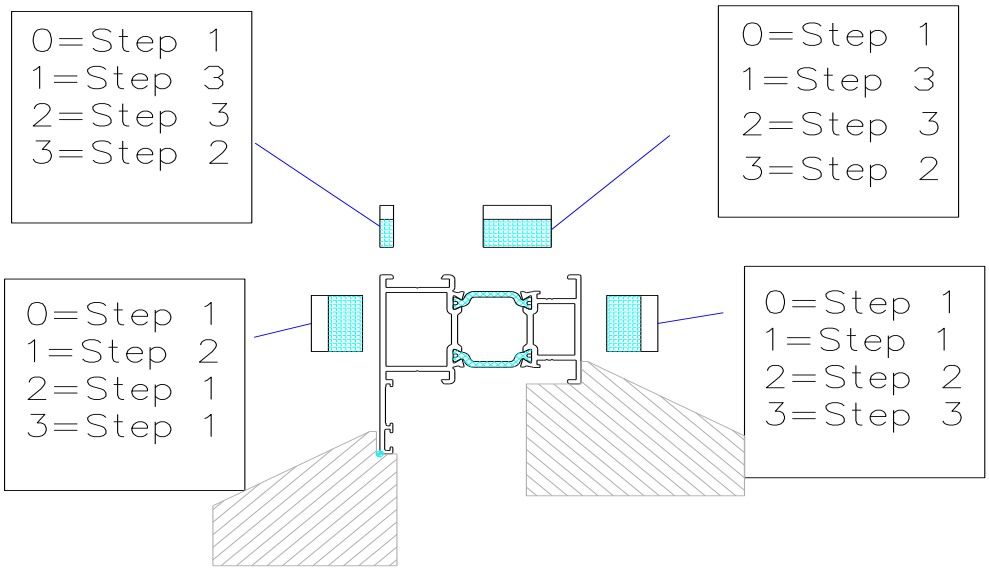
Ident	Beschreibung	Aktiv	NK Offset Z	NK Koll Y	VK Offset Y	VK Offset Z	VK Koll Y	Information
1	Zulage1	1: Ein	-5	0	0	0	25	Text
2	Zulage2	1: Ein	-9	0	0	0	20	Text
3	Zulage3	1: Ein	-4	0	0	0	20	Text
4	0	0: Aus	0	0	0	0	0	Text
5	0	0: Aus	0	0	0	0	0	Text
6	0	0: Aus	0	0	0	0	0	Text
7	0	0: Aus	0	0	0	0	0	Text
8	0	0: Aus	0	0	0	0	0	Text
9	0	0: Aus	0	0	0	0	0	Text
10	0	0: Aus	0	0	0	0	0	Text

Additional supports can be configured by means of the support table under MachineData / SupportBases.

Element: <Spanner Wkz="3003">

Data line:
<Spanner Wkz="**3003**" BNr="**3003**" Zusatzbemerkung="**Spanner**" Spannermaske_ID="**0**" Spannreihenfolge="**3**" SpannfensterStabanfang="**0**" SpannfensterStabende="**0**" />

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3003**
Attribut: BNr	- Code for the process
Value: **"(Processing No)"**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3003**
Attribut: Spannreihenfolge	- Code for the clamp order
Value: **"(Clamp order)"**	- Clamp order
Data type: **Number**	- Number
	<u>The clamp order can be selected</u>
	0 = vertical and horizontal clamps at the same time
	1 = VK-Clamps, NK-Clamps, vertical clamps
	2 = NK- Clamps, VK- Clamps, vertikale clamps
	3 = NK- Clamps, vertikale clamps, VK- Clamps



Attribut: SpannfensterStabanfang
Value: **“(ClampingWindowRodStart)“**

- Code for ClampingWindowRodStart
- Clamping at the start of the bar

Explanation:
All machining procedures at the beginning of the bar which fit into a window of e.g. "100 mm" are combined in one clamping operation. Subsequently the machining procedures are combined in wider windows until both sides can be clamped. Then the entire machining gap is used

Data type: **Number**

- Number in mm

Attribut: SpannfensterStabende
Value: **“(ClampingWindowRodEnd)“**

- Code for ClampingWindowRodEnd
- Clamping on the end of the bar

Explanation:
If the entire machining gap can no longer be used, because the infeed side can no longer be clamped, the machining procedures on the rod end are combined in e.g. "100 mm" windows and machined accordingly. All machining procedures up to the entered value are completed as closely as possible to the clamp behind BAB.

Data type: **Number**

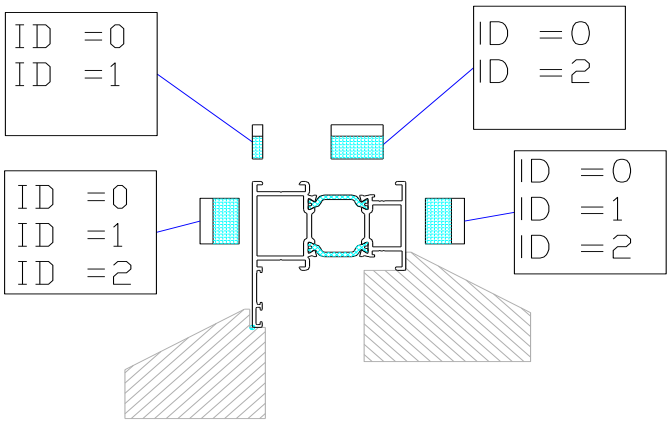
- Number in mm

Attribut: Zusatzbemerkung
Value: **“(Additional remark)“**
Data type: **Text**

- Code for additional remark (Optional)
- Text of general comment
- max. 255 characters

Attribut: Spannermaske_ID
Value: **“(Clampmask_ID)“**
Data type: **Number**

- Code for the ID of the clamp mask
- ID, wich clamps are selected
- Number



Element: <ProfilHoehenBreitenMessung Wkz ="3005">

Data line:
<ProfilHoehenBreitenMessung Wkz="**3004**" BNr="**3004**" Zusatzbemerkung="**Profilhoehen-und-Breitenmessung**" Profilhoehenmessungaus="**0**" Profilbreitenmessungaus="**1**" />

Attribut: Wkz	- Code for tool number
Value: **“(Tool)“**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3004**
Attribut: BNr	- Code for the process
Value: **“(Processing No)“**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3004**
Attribut: Zusatzbemerkung	- Code for additional remark **(Optional)**
Value: **“(Additional remark)“**	- Text of general comment
Data type: **Text**	- max. 255 characters
Attribut: Profilhoehenmessungaus	- Code for profile height measurement
Value: **“(ProfileHeightMeasurement)“**	- On / Off profile height measurement 0 = On / 1 = Off
Data type: **Number**	- Number 0 or 1
Attribut: Profilbreitenmessungaus	- Code for profile widht measurement
Value: **“(ProfileWidhtMeasurement)“**	- On / Off profile widht measurement 0 = On / 1 = Off
Data type: **Number**	- Number 0 or 1

Element: <Saege Wkz="3005">

Data line:
<Saege Wkz="**3005**" BNr="**3005**" Zusatzbemerkung="**Saege**" Sauberkeits-Anschnitt="**50**" Reststab-Anschnitt="**600**" TiefeSaege="**2**" TiefeBremseSaege="**4**" OelnebelbeimSaegenaus="**0**" Spannerfunktion="**0**" />

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3005**
Attribut: BNr	- Code for the process
Value: **"(Processing No)"**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3005**
Attribut: Zusatzbemerkung	- Code for additional remark **(Optional)**
Value: **"(Additional remark)"**	- Text of general comment
Data type: **Text**	- max. 255 characters
Attribut: Sauberkeits-Anschnitt	- Code for clean cut
Value: **"(CleanCut)"**	- First cut on the beginning of the bar
Data type: **Number**	- Number in mm
Attribut: Reststab-Anschnitt	- Code for residual bar cut
Value: **"(ResidualBarCut)"**	- Rest length smaller than value are sawn off 90°
Data type: **Number**	- Number in mm
Attribut: TiefeSaege	- Code for cutting depth
Value: **"(TiefeSaege)"**	- Final cutting depth
Data type: **Number**	- Number 1 to 4
	Explanation:
	Setting values for the depth of the saw Ø 550 mm:
	1 = 40 mm deep in profile
	2 = 60 mm deep in profile
	3 = 80 mm deep in the profile
	4 = 160 mm deep in the profile

In case of a saw cut of 35° or 145°, enter a minimum value of 3 so that the part can be sawn safely.

Attribut: TiefeBremseSaege
Value: **“(DepthBrakeSaw)“**
Data type: **Number**

- Code for depth brake of saw
- Start of the brake when sawing
- Number 1 to 4

Explanation:
Setting values for starting the braking function of the saw Ø 550 mm:
1 = 40 mm deep in the profile
2 = 60 mm deep in the profile
3 = 80 mm deep in the profile
4 = 160 mm deep in the profile

Attribut: OelnebelbeimSaegenaus
Value:**“(OilMistOnOff)“**

Data type:**Number**

- Code for oil mist off when sawing
- On / Off oil mist function
  0 = On / 1 = Off
- Number 0 or 1

Attribut: Spannerfunktion
Value:**“(ClampFunction)“**

Data type:**Number**

- Code for clamp function
- Free swivelling
  0 = On / 1 = Off
- Number 0 or 1

Explanation:
0 = with swivelling movement of the saw during cut.
1 = Swivelling during cut switched off. Outfeed of the part and saw in home position start at the same time.

Element: <Auflagen Wkz="3102">

Data line:
<Auflagen Wkz="**3102**" BNr="**3102**" Zusatzbemerkung="**Auflagen**" Z-VerstellpositionFoerderer="**85**" Z-VerstellpositionNK="**85**" Y-VerstellpositionVK1="**40.1**" Z-VerstellpositionVK1="**85**" />

Attribut: Wkz
Value: **“(Tool)“**
Data type: **Number**

- Code for tool number
- Tool number for the process
- Number, fixed tool number=**3102**

Attribut: BNr
Value: **“(Processing No)“**
Data type: **Number**

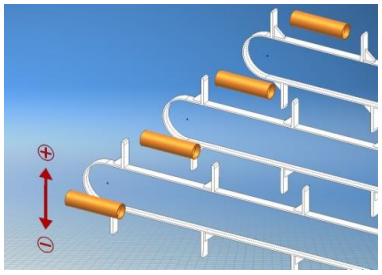
- Code for the process
- Processing number
- Number, fixed BNr.=**3102**

Attribut: Zusatzbemerkung
Value: **“(Additional remark)“**
Data type: **Text**

- Code for additional remark **(Optional)**
- Text of general comment
- max. 255 characters

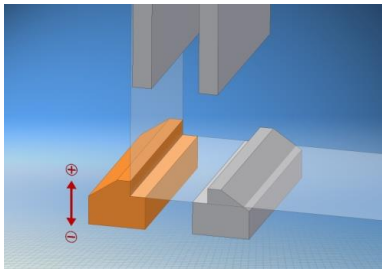
Attribut: Z-VerstellpositionFoerderer
Value: **“(Z-AdjustmentConveyor)“**
Data type: **Number**

- Code for Z-adjustment for the conveyor
- the height Z of the conveyor roller track
  Value range **25mm – 85mm**
- Number in mm



Attribut: Z-VerstellpositionNK
Value: **“(Z-AdjustmentZE)“**
Data type: **Number**

- Code for Z-adjustment for the zero edge
- Height Z of the profile support on the zero edge side
  Value range **25mm – 85mm**
- Number in mm

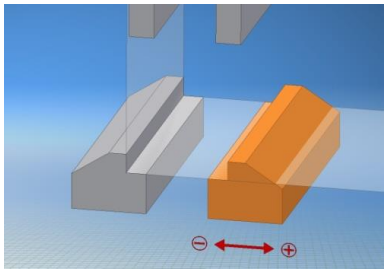


Attribut: Y-VerstellpositionVK1
Value: **“(Y-AdjustmentVE1)“**

- Code for Y-adjustment for the variable edge
- Width Y of the profile support on the side of the variable edge
  Value range **40mm – 160mm** for ALBZ 100
  Value range **40mm – 260mm** for ALBZ 100L

Data type: **Number**

- Number in mm

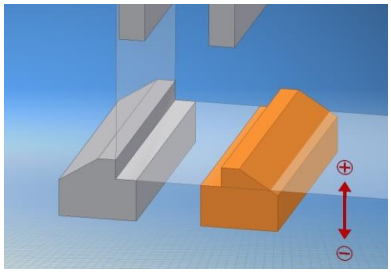


Attribut: Z-VerstellpositionVK1
Value: **“(Z-AdjustmentVE1)“**

- Code for Y-adjustment for the variable edge
- Height Z of the profile support, variable edge side
  Value range **25mm – 85mm**

Data type: **Number**

- Number in mm

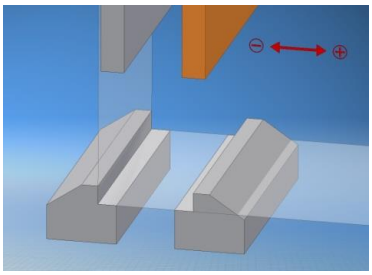


Element: <SpannerWkz Wkz="3103">

Position specification of the vertical clamp, movable in the direction Y

Data line:
<SpannerWkz Wkz="**3103**" BNr="**3103**" Zusatzbemerkung="**SpannerWkz**" Y-Verstellposition1="**40**" Y-Verstellposition2="**40**" />

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3103**
Attribut: BNr	- Code for the process
Value: **"(Processing No)"**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3103**
Attribut: Zusatzbemerkung	- Code for additional remark **(Optional)**
Value: **"(Additional remark)"**	- Text of general comment
Data type: **Text**	- max. 255 characters
Attribut: Y-Verstellposition1	- Code for Y-Position of the clamps on the saw
Value: **"(Y-AdjustmentPosition1)"**	- Outer edge of the variable clamp in relation to the zero edge in the direction Y in mm
Data type: **Number**	- Number in mm
Attribut: Y-Verstellposition2	- Code for Y-Position of the clamps on the machining braket
Value: **"(Y-AdjustmentPosition 2)"**	- Outer edge of the variable clamp in relation to the zero edge in the direction Y in mm
Data type: **Number**	- Number in mm, if the value is 0, the value from adjustment position 1 is taken over Value range **36mm – 130mm** for ALBZ 100 Value range **36mm – 230mm** for ALBZ 100L



Element: <Optimierung Wkz="3111">

Optimisation tool for combining machining procedures at the beginning of the bar.

Data line:
<Optimierung Wkz="**3111**" BNr="**3111**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**" Zusatzbemerkung="**Optimierung**" OptifensterAnfangEnde="**150**" />

Attribut: Wkz	- Code for tool number
Value: **"(Tool)"**	- Tool number for the process
Data type: **Number**	- Number, fixed tool number=**3111**
Attribut: BNr	- Code for the process
Value: **"(Processing No)"**	- Processing number
Data type: **Number**	- Number, fixed BNr.=**3111**
Attribut: Zusatzbemerkung	- Code for additional remark (Optional)
Value: **"(Additional remark)"**	- Text of general comment
Data type: **Text**	- max. 255 characters
Attribut: OptifensterAnfangEnde	- Code for the optimization window
Value: **"(OptiWindowStartEnd)"**	- From the beginning of the bar to the entered value, machining procedures are combined in a group.
Data type: **Number**	- Number in mm

Example data set for profile data

<Profildaten ProfilName="**BDM**" Profilhersteller="**BDM**">
<Profilkopf>
<Rohlaenge>**6000**</Rohlaenge>
<Profilbreite>**96**</Profilbreite>
<Profilhoehe>**94**</Profilhoehe>
<Bezug_X>**0**</Bezug_X>
<Bezug_Y>**0**</Bezug_Y>
<Bezug_Z>**61**</Bezug_Z>
</Profilkopf>
</Profildaten>
<Profildaten ProfilName="**BDM**" Profilhersteller="**BDM**">
<Transport Wkz="**3001**" BNr="**3001**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**Transport**" Leergeschwindigkeit="**0**" Transportgeschwindigkeit="**0**"
AusfoerdererTaktanzahl="**4**" />
<Voreinstellung Wkz="**3002**" BNr="**3002**" Zusatzbemerkung="**Voreinstellung**" Auflagentabelle-
ID="**0**"/>
<Spanner Wkz="**3003**" BNr="**3003**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**Spanner**" Spannermaske_ID="**0**" Spannreihenfolge="**3**"
SpannfensterStabanfang="**150**" SpannfensterStabende="**150**"/>
<ProfilhoehenBreitenMessung Wkz="**3004**" BNr="**3004**" XPos="**0**" YPos="**0**" ZPos="**0**"
Tiefe="**0**"Zusatzbemerkung="**Hoehenmessung**" Profilhoehenmessungaus="**0**"
Profilbreitenmessungaus="**0**"/>
<Saege Wkz="**3005**" BNr="**3005**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**Saege**" Sauberkeits-Anschnitt="**40**" Reststab-Anschnitt="**1000**" TiefeSaege="**4**"
TiefeBremseSaege="**0**" OelnebelbeimSaegenaus="**0**" Freischwenken="**0**"/>
<Auflagen Wkz="**3102**" BNr="**3102**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**Auflagen**" Z-VerstellpositionFoerderer="**61**" Z-VerstellpositionNK="**85**" Y-
VerstellpositionVK1="**96**" Z-VerstellpositionVK1="**85**"/>
<SpannerWkz Wkz="**3103**" BNr="**3103**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**SpannerWz**" Y-Verstellposition1="**96**" Y-Verstellposition2="**82**"/>
<Optimierung Wkz="**3111**" BNr="**3111**" XPos="**0**" YPos="**0**" ZPos="**0**" Tiefe="**0**"
Zusatzbemerkung="**Optimierung**" OptifensterAnfangEnde="**150**"/>
</Profildaten>
</Datei>

Tool data

About a Tooltable.xml the tool parameters can be transferred and matched according to a timestamp.
Tooltable.xml:

```
<Data>
    <Tool index="1">
        <Number>101</Number>
        <Description>Wkz 101 Fräser</Description>
        <Type_Tool />
        <Type_Mount />
        <Enable>1</Enable>
        <TimeStamp>2011-04-08 13:03:56</TimeStamp>
        <Relation_Angle_X>-90</Relation_Angle_X>
        <Relation_Angle_Y>0</Relation_Angle_Y>
        <Relation_Angle_Z>0</Relation_Angle_Z>
        <Relation_Angle_X_2>0</Relation_Angle_X_2>
        <Relation_Angle_Y_2>0</Relation_Angle_Y_2>
        <Relation_Angle_Z_2>0</Relation_Angle_Z_2>
        <Length>60.1</Length>
        <Length_Edge>20</Length_Edge>
        <Length_Intrusion>60.1</Length_Intrusion>
        <Diameter>10</Diameter>
        <Diameter_Shank>9.8</Diameter_Shank>
        <Length_Mount>0< Length_Mount>
        <Diameter_Mount>42</Diameter_Mount>
        <Offset_X>0</Offset_X>
        <Offset_Y>0</Offset_Y>
        <Offset_Z>0</Offset_Z>
        <Length_2>0</Length_2>
        <Length_Edge_2>0</Length_Edge_2>
        <Length_Intrusion_2>0</Length_Intrusion_2>
        <Diameter_2>0</Diameter_2>
        <Diameter_Shank_2>0</Diameter_Shank_2>
        <Length_Mount_2>0</Length_Mount_2>
        <Diameter_Mount_2>0</Diameter_Mount_2>
        <Offset_X_2>0</Offset_X_2>
        <Offset_Y_2>0</Offset_Y_2>
        <Offset_Z_2>0</Offset_Z_2>
        <Window_XMin>97</Window_XMin>
        <Window_XMax>306</Window_XMax>
        <RotationDirection>0</RotationDirection>
        <RotationDirection_2>0</RotationDirection_2>
        <MaxRPM>3</MaxRPM>
        <Velocity_Milling>0</Velocity_Milling>
        <Velocity_Cutting>0</Velocity_Cutting>
    </Tool>
</Data>
```

Basic configuration:

Element <Number>:
Tool number

Element <Description>:
Description of the tool, e.g. **Wkz 101 Fräser**

Element <Type_Tool>:
Description of the tool type
Element <Type_Mount>:
Description of the tool mount, e.g. ER 25

Element <Enable>**:**
Tool On/Off

Element <TimeStamp>:
Timestamp of the XML-File, e.g. **2011-04-08 13:03:56**

References 1:

Element <Relation_Angle_X>:
Relation angle of the tool to X:

Element <Relation_Angle_Y>:
Relation angle of the tool to Y

Element <Relation_Angle_Z>:
Relation angle of the tool to Z

References 2:

Element <Relation_Angle_X_2>:
Relation angle of the tool to X

Element <Relation_Angle_Y_2>:
Relation angle of the tool to Y

Element <Relation_Angle_Z_2>:
Relation angle of the tool to X

Limits:

Elemenet <Window_XMin>:
Working window minimum

Elemenet <Window_XMax>:
Working window maximum

The maximum machining path of the tool in the X direction, arises from the difference Window_XMin and Window_XMax

Properties:

Element <RotationDirection>:
Direction of rotation of the tool

Element <RotationDirection_2>:
Direction of rotation of the tool

Geschwindigkeiten:

Element <Velocity_Milling>:
Drill feed, is not filled

Element <Velocity_Cutting>:
Milling feed, is not filled

Dimension of the tool:

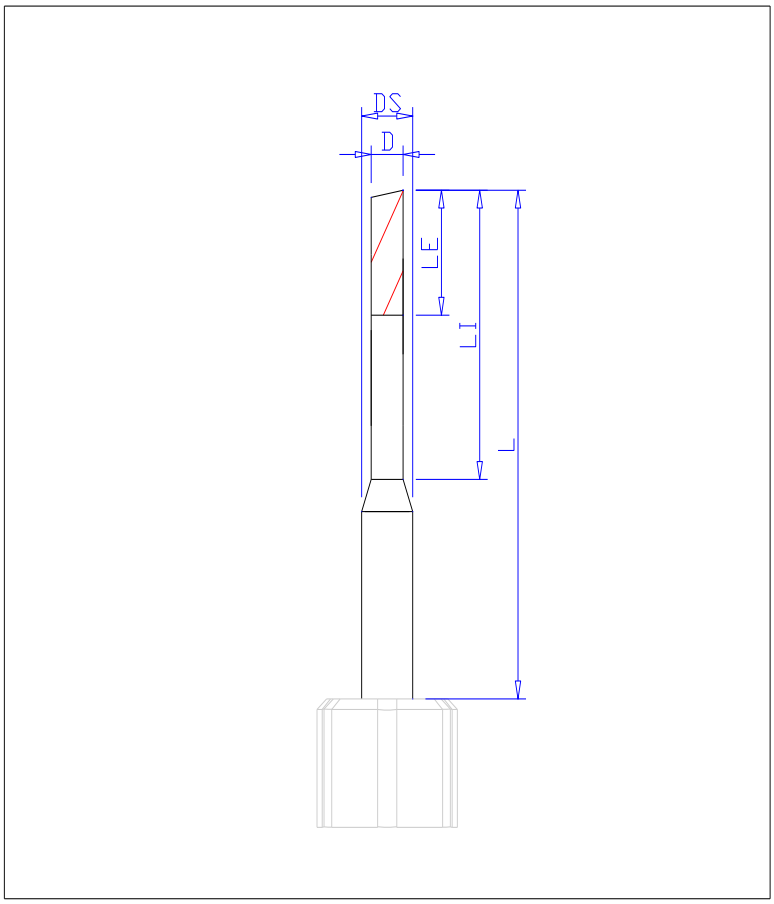
Element <Length>:
L

Element <Length_Intrusion>:
LI

Element <Length_Edge>:
LE

Element <Diameter>:
D

Element <Diameter_Shank>:
DS



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Dimension of the endwork tool:

Element <Length> / <Length_2>:
L

Element <Length_Edge> / <Length_Edge_2>:
LE

Element <Blank_Thickness> / <Blank_Thickness_2>:
BT

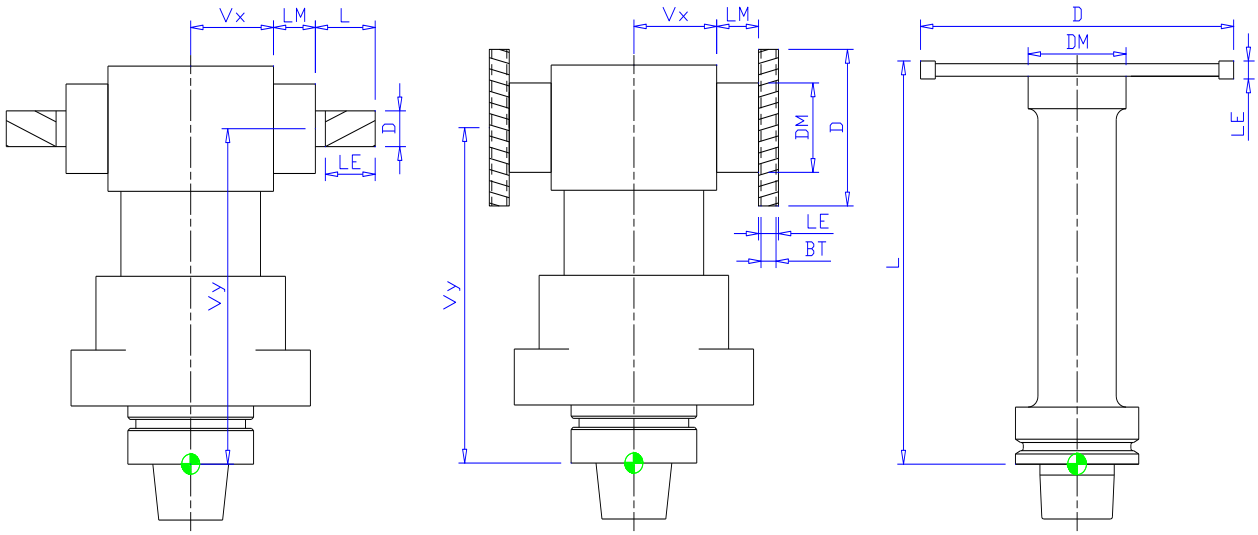
Element <Length_Mount> / <Length_Mount_2>:
LM

Element <Diameter> / <Diameter_2>:
D

Element <Diameter_Mount> / <Diameter_Mount_2>:
DM

Element <Offset_X> / <Offset_X_2>:
Vx

Element <Offset_Y> / <Offset_Y_2>:
Vy



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