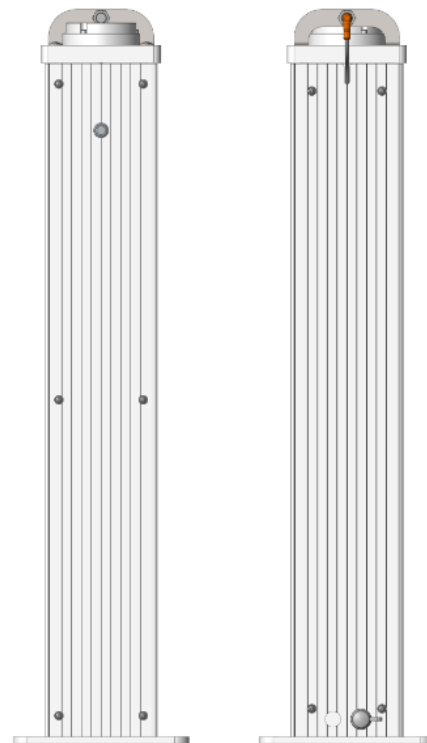




Easy Tool-ID





Easy Tool-ID is the low-cost entrance level to Tool-ID. Due to the simple set-up and configuration of the system it is easy to retrofit every machine tool with an existing USB port for an external keyboard.

The data (e.g. Tool Number, Tool Type, length) is written onto the RFID data carrier - which is mounted to the tool – by the presetter. (RFID technology at the presetter is mandatory)

The Easy Tool-ID is reading the data and sending it via USB straight to the HMI of the machine tool. It acts hereby like an automatic external keyboard. That way no manual entry of the tool data is needed anymore which leads to reduced tooling-time and eliminates data entry mistakes.



1. The Easy Tool-ID System is a tool holder including:
 1. RFID Read / write head BIS C
 2. RFID Processor BIS C
 3. Microcontroller
 4. Power Supply
2. The Easy Tool-ID System acts like an external keyboard and is connected to the machine tool via USB
3. The Data Mapping is being set up by using the configuration tool (Windows based)



Easy Tool-ID - Product Description



	Features / Attributes	Easy Tool-ID
General Information	System	Tool Identification System
	Approvals / Conformity	CE
	RFID Technology	BIS C
	Ambient Temperature	0 °C to 60 °C
	IP	IP21
Electrical Details	Input Voltage	100...240 V AC
	Connection to HMI	USB A
Mechanical Details	Dimensions (LxWxH)	1046,5mm x 170mm x 130 mm
	Material	Metal / Aluminum
	Interface	Button starting read process
	Available for	SK30, SK40, SK50, HSK32, HSK40, HSK50, HSK63, HSK 80, HSK100, Capto CC6
Additional Information	Requirements	For "Easy Tool –ID RFID" the end-user needs a RFID presetter with the "Balluff Data Mapping" already implemented
		USB Port at the machine tool



Easy Tool-ID - Product Description



Order Code	Material	Name	Description
BSG0015	255373	BSG TID-05-T30-00-005	Werkzeugständer
BSG0016	255391	BSG TID-05-T31	Werkzeughalter SK30
BSG0017	255392	BSG TID-05-T32	Werkzeughalter SK40
BSG0018	255393	BSG TID-05-T33	Werkzeughalter SK50
BSG0019	255394	BSG TID-05-T34	Werkzeughalter HSK32
BSG001A	255395	BSG TID-05-T35	Werkzeughalter HSK40
BSG001C	255396	BSG TID-05-T36	Werkzeughalter HSK50
BSG001E	255397	BSG TID-05-T37	Werkzeughalter HSK63
BSG001F	255398	BSG TID-05-T38	Werkzeughalter HSK80
BSG001H	255399	BSG TID-05-T39	Werkzeughalter HSK100
BSG001J	255400	BSG TID-05-T40	Werkzeughalter Capto CC6



Paperless Tool Identification

Tool data...

...is always correct, since manual entry mistakes are eliminated

...can be recalled at any time, since the information is always located on the tool itself

...is never lost, since paper and labels have been eliminated and the RFID tag is mounted to the tool permanently



Electronic Data Transmission

Save time and profit from...

...greater machine uptime, since data entry requires less time. Machine downtime is significantly reduced

...error-free data input – manual entry of tool information is eliminated and information cannot be forgotten



"Plug and Play"

Easy to install...

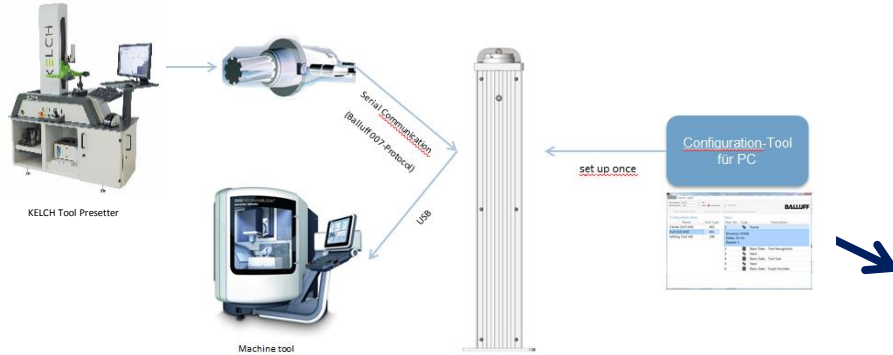
...Easy Tool-ID acts like an external keyboard. All that is needed is a USB Port on the User panel of the machine tool

...the data mapping is configured and uploaded to the system only once for each machine tool

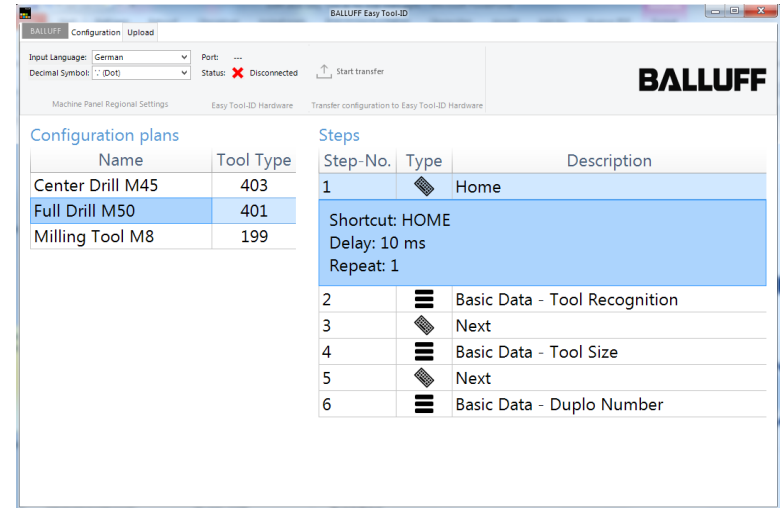
...by using the configuration tool, Easy Tool-ID can be configured to each machine individually



System Details



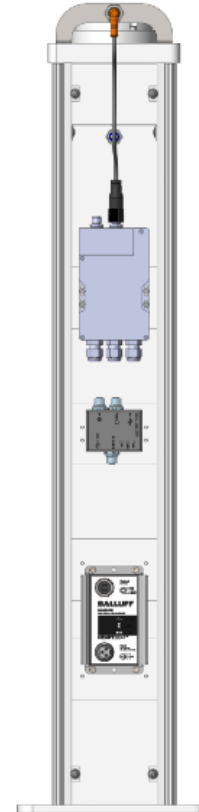
- PCB board with microcontroller integrated into the tool holder
- Mapping will be installed one time using the configuration tool (via USB port)
- Connection to user panel of machine via USB-Port
- Reading and transmitting of tool data via push button





Components / Hardware

- Processor BIS C-600-007-650-00-KL1
- Read / Write Head BIS C-306/10-S4
- Power Supply BAE PS-XA-1W-24-038-601
- Microcontroller BSG TID-05-H01-00-005





Configuration Software

Configuration plans

Name	Tool Type
Cutter	1
Cutter15	15

Steps

Step-No.	Type	Description
1	HOME	Shortcut: HOME Delay: 50 ms Repeat: 1
2	Basic Data - Identification Number	
3	RIGHT	
4	Edge 1 - Length (Z)	
5	RIGHT	
6	Edge 1 - Cross Dimension (X)	
7	RIGHT	
8	Edge 1 - Life Time	
9	RIGHT	
10	Edge 1 - Remaining Life Time	

System requirements

- Microsoft Windows 7 (32- or 64-bit)
- .NET Framework 4
- Min. 128 MB available memory
- Min. 100 MB available hard drive space

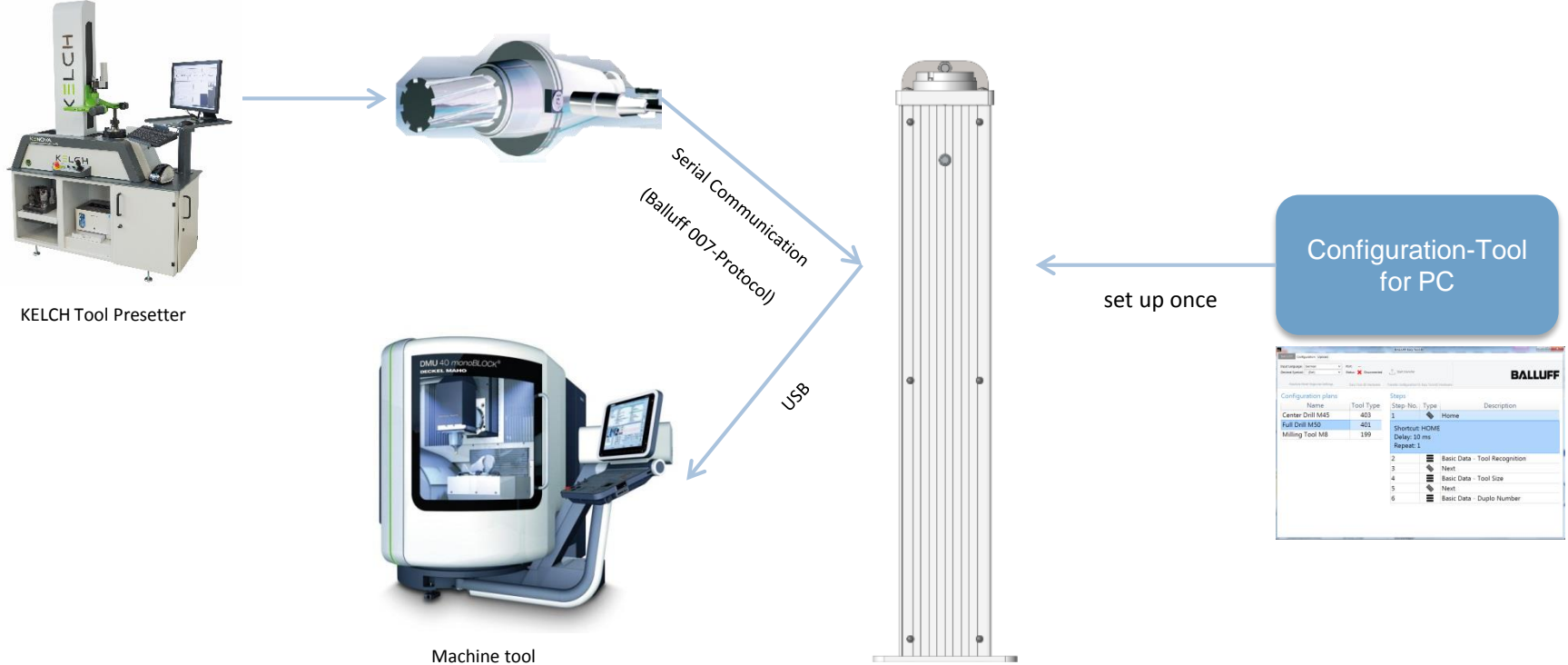
4.2. USB connection of the Easy Tool-ID control unit

At program start the Easy-Tool ID software automatically connects to the control unit.



Easy Tool-ID – Application Example

System Overview





Current Situation

Today most of the tool data is still being handled manually by entering the information into the machine tool after being printed onto a label or paper and attached to the tool. This can lead to several problems:

1. Data can get lost
 1. Label doesn't stick correctly
 2. Label is unreadable due to handwriting or stains (e.g. Oil)
 3. Papers / labels are being mixed up
2. Data is entered incorrectly
 1. Data must be entered manually into the machine control. Statistically ever 40 stokes a mistake occurs
 2. High source of errors due to forgotten, unreadable or wrong data information. There is no verification of the data
3. Manual data entry costs time and money

→ Higher risk of tool crashes and production of scrap !!!



RFID Solution

Easy Tool-ID is a solution to eliminate the before mentioned problems and a great entry level into tool identification. By using RFID technology, the Data from the presetter is written straight onto an RFID tag which is mounted onto the tool. The Easy Tool-ID System is reading the data at the machine tool and entering it automatically:

1. Data can't get lost
 1. All Data is written straight onto the RFID tag
 2. Data is available at all time being stored onto the RFID tag in a standard format
 3. The RFID tag is mounted onto the tool permanently and secure
2. Data can't be entered incorrectly
 1. Data is entered automatically by being read from the RFID tag and transferred via USB directly onto the machine-tool.
 2. No errors can occur due to automatic reading and writing of Data
3. Automatic data entry saves time and money

→ No risk of tool crashes or production of scrap!!!



**Thank you for your attention.
If there are any questions, please feel free to contact me.**

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