**General**

This document is an example for a safety acceptance test

**Usage of the document**

This document can be used as a template

Remarks for the usage of the document:

* Set up a team with all functions during the development of the machine, for example:
  + Mechanic design
  + Electric design
  + Software
  + Documentation
  + Machine-tester
  + Commissioning
  + ...
* Define standard terms fort the whole document
  + Comprehensible terms for all team members
  + Easy to review ( official verification)
* Fill the tables of the document

**Acceptance test for safety functions – Cutting machine with automatic feeder**

**Moderator**

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Comment** |
| Mr. Creator | Creator |  |

**Participants**

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Date, Signature** |
| Mr Tester 1 | Tester 1 |  |
| Mrs Tester 2 | Tester 2 |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Document – History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Changes** | **Name** | **Role** |
| 0.1 | 01.01.2018 | First version | Mr. Creator | Creator |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Table of content**

1 Project data 4

1.1 Machine description 5

1.2 Machine part 1 7

1.3 Other documents ( references) 10

Project data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Rev.** | **Modification contents** | | | | | | |
|  | New construction of cutting machine | | | | | | |
| Contract No | 125345-2018 | | | | | | |
| Project | Cutting machine with automatic feeder | | | | | | | |
|  | | | | | | | |
| Plant |  | | | | | | | |
|  | | | | | | | |
| Area |  | | | | | | |
|  | | | | | | |
| Equipment |  | | | | | | |
|  | | | | | | |
| DocType | Acceptance test | | Referenced document/ | | |  | |
|  | |  | | |  | |
| Doc Title | Example\_template\_acceptancetest\_V1\_0.docx | | Substitute for / | | |  | |
|  | | Replaced by | | |  | |
| Language(s) | EN | | | | | | |
| **Customer specific:** | | | | | | | |
|  | | **Name** | | **Date** | **Signature** | |
| Made by | | Mr. Cretaor | |  |  | |
| Checked by | | Mrs. MachineCheck | |  |  | |
| Approved by | | Mr. Approver | |  |  | |

## Machine description

|  |  |
| --- | --- |
| Type: | **„Machine“** in the sense of MD 2006/42/EC Article 2 / Pt. a |
| Name: | Cutting machine with automatic feeder |
| Machine-Typ: | Cutting machine |
| Year of construction: | 2018 |
| Customer: | METCON |
| Location: | Nuremberg |
| Projectcode: | 123-3949 |

**Cutting machine with automatic feeder**

**Use**

* + - Machine for cutting solid wood or similar  
      material up to 150 mm x 150 mm
    - Maximum diameter of cutting disk 600 mm

**Application boundaries**

* + - Connection: 400 V 3~ 50 Hz
    - Indoor use (IP54)
    - Temperature range: -15° C to +50° C

**User groups**

* + - Only specialist personnel, no laypersons
    - Trainees only under supervision by specialists

**Time boundaries** 150,000 operating hours

**Physical boundaries**

* + - The machine does not include loading aids
    - Space required by persons handling the machine

.



## Machine part 1

|  |  |  |  |
| --- | --- | --- | --- |
| Place of potential hazard: | Whole machine | Operation mode: | All |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **E-Stop** | **1.2.3** | | | | |
|  | If the E-Stop is activated, all drives will stop. | SIL1 | 1 | Activate E-Stop | Drive 1 "Saw blade rotation" stops immediately  Drive 2 "Saw blade lift" stops immediately  Drive 3 "Feeder" stops immediately  Drive 4 "Conveyer" stops immediately  Drive 5 "Clamp 1" stops delayed after 0.5s  Drive 6 "Clamp 2" stops delayed after 2s  Drive 7 "Centering" stops delayed after 2s | OK  OK  OK  OK  OK  OK  OK  OK |
|  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Gefahrenstelle: | Door 1 | Betriebsart: | Alle |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Door monitoring** | **2.3.4** | | | | |
|  | If the door will be openend the drives 1, 2, 3 and 4 will stop. | SIL3 | 1 | Open the door | Drive 1 "Saw blade rotation" stops immediately  Drive 2 "Saw blade lift" stops immediately  Drive 3 "Feeder" stops immediately  Drive 4 "Conveyor" stops immediately | OK  OK  OK  OK |
|  |  |  | 2 | Fault simulation discrepancy (only one position switch is open) | Drive 1 "Saw blade rotation" stops immediately  Drive 2 "Saw blade lift" stops immediately  Drive 3 "Feeder" stops immediately  Drive 4 "Conveyor" stops immediately  Fault is detected. Restart is not possible until the defect is corrected. | OK  OK  OK  OK  OK |
|  |  |  | 3 | Fault simulation Cross fault (Cross fault between both contacts of the position switches) | Drive 1 "Saw blade rotation" stops immediately  Drive 2 "Saw blade lift" stops immediately  Drive 3 "Feeder" stops immediately  Drive 4 "Conveyor" stops immediately  Fault is detected. Restart is not possible until the defect is corrected. | OK  OK  OK  OK  OK |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Door locking** | **2.3.4** | | | | |
|  | During operation of the blade (blade is rotating) the door is locked. In case of standstill of the blade the door is unlocked. (Detection with standstill monitoring) | SIL2 | 1 | Door is closed, Machine is running, Saw blade is rotating. | Door is locked,can not be opened | OK |
|  |  |  | 2 | Door is closed, Machine is stopped, Saw blade is in standstill. | Door is unlocked, can be openend | OK |
|  |  |  | 3 | Door is open, Machine Start is requested. | Door is not able to lock  Machine will not start | OK  OK |
|  |  |  | 4 | … |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Gefahrenstelle: | Handzuführung | Betriebsart: | Alle |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Admission control witch light grid /light curtain** | **2.3.5** | | | | |
|  | If the light grid is activated the drives 5,6 and 7 will stop. | SIL3 | 1 | Activate Ligthgrid with test-finger | Drive 5 "Clamp 1" stops immediately  Drive 6 "Clamp 2" stops immediately  Drive 7 "Centering" stops delayed after 2s | OK  OK  OK |
|  |  |  | 2 | Fault simulation Cross fault (Cross fault between both OSSD outputs) | Drive 5 "Clamp 1" stops immediately  Drive 6 "Clamp 2" stops immediately  Drive 7 "Centering" stops delayed after 2s  Fault is detected. Restart is not possible until the defect is corrected. | OK  OK  OK  OK |

## Other documents ( references)

e.g.:

specifications

Safety Evaluationen Report

Operating manual

Maintenance manual

...