

TEST PLANS BROETJE-AUTOMATION

Additional supplier information

29.01.2024

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I	Documentation of components
II	Provision of documentation
1	Overview test plans
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I Documentation of components

Legal basis

In order to ensure the safety of products, state laws and regulations of private organizations oblige manufacturers and installers of technical products to provide "technical documentation".

In the EU, relevant [EC directives](#), such as the [Machinery Directive](#), the [ATEX Directive](#), the [Low Voltage Directive](#), the [Pressure Equipment Directive](#) or the [Product Safety Directive](#), which have been transposed into national law by the member states (e.g. [German Product Safety Act](#) or [Medical Devices Act](#)), must be mentioned.

In the event of damage, faulty technical documentation leads to [liability](#) on the part of the manufacturer arising from the [Product Liability Act](#), the [German Civil Code](#) (§ 823 Liability for damages) and any individual contractual obligations.

Due to these requirements, it is essential that Broetje-Automation and its suppliers ensure complete documentation.

- 1. Minimum requirements for documents are to be delivered**
- 2. The complete documentation must be sent to the mail address of the delivery address of the respective BA Group with goods issue.**
SQA@Broetje-Automation.de (Address: Broetje-Automation GmbH, Am Autobahnkreuz 14, 26180 Rastede)
SQA-BAC@Broetje-Automation.com (Address: Site BA China) **see SLIDE 3**
- 3. Each delivery is accompanied by the delivery note and the accompanying documents required according to the respective component-related test plan for the unambiguous identification of the components.**
- 4. The delivery of an order item is only regarded as complete and forwarded for invoice release if the goods including the required documents are available.**




II Provision of documentation

Requirements

According to Broetje requirement the documentation is to be delivered in digital format:

- Document „Provision of Documentation“ is available on the Broetje Homepage via Downloads: <https://broetje-automation.de/downloads/>

QUALITY ASSURANCE

- 8D-Report 
- Application_for_rework_BA 
- Provision of Documentation 

Partial deliveries

In the case of partial deliveries, the uniqueness of delivered components in the documentation supplied must be maintained.

- *Documents to be produced per drawing must be sent with the respective part at the time of delivery.*
- *Cross-sectional documents must also be adapted to the deliveries. Example: certificate of compliance:*
 - For each partial delivery, a certificate of compliance with the order must be enclosed with the individual order items delivered.

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1 Overview test plans

		Prüfpläne / Test Plans / 测试计划											
BROETJE AUTOMATION		per Sichtkontrolle BA only visual check by BA 仅目视 BA	Mass- und Prüfmittel Measurement and test equipment 测量以及检测设备	CNC Teile CNC parts 数控加工零件		SMT Teile Welding parts 焊接零件				Berechnung Bezugspreis Procurement of assembly group fraction (AG) 组件价格计算	Zusatzanforderung an additional requirements 附加要求		
Kontext context 背景	test plan requirement (EN)	07	08	10	11	20	23	25	27	29	BGR/GEW AG	13	
Werkzeugcheinigung Certificate of conformity 合格证	Certificate of conformity: Verification per purchase order according to document template "Cert of Conformity" provided on Broetje-Automation homepage (Downloads) (DIN EN 10204-2.1)			X	X	X	X	X	X	X			
Messprotokoll measurement report 测量报告	Measurement report: all test dimensions recorded for every part (no measurement allowed on machining center or manufacturing machine).			X	X	X	X	X	X	X			
Härte Hardness 硬度	Hardness test certificate: Hardness specifications must be verified according to DIN EN ISO 6506-1, 6507-1, 6508-1 Chapter inspection report.				X								
Leckierung coating 涂装	Coating: Confirmation of professional execution according to purchase order must be provided by confirmation of paint thickness and color.				X	X	X	X	X	X			
Personnelqualifikation personnel qualification CE 认证	Welder's qualification test certificates on request according to DIN EN ISO 3606 . CE marking and declaration of performance according to DIN EN 1090-1 .					X	X	X	X	X			
Prüfcheinigung inspection certificate 检测报告	3.1 Inspection certificate (verification per part and traceability for every part necessary). 2.2 Test report (verification per part and traceability for every part necessary). Material test certificates in accordance with DIN EN 1090-2 , chapter 5.2 table 1 (steel), DIN EN 1090-3 table A3 section 5 (aluminium) respectively.	<i>Not applicable for BA suppliers</i>			X								
Schweißauführung welding execution 焊接实施	Inspection and documentation of weld seams according to DIN EN 1090-2 chapter 12.4.2					X							
	Inspection and documentation of weld seams according to DIN EN 1090-3 chapter B.2.3						X						
	Visual inspection of welds according to ISO 17637 . Inspector qualified according to ISO 3712 and valid eye test required. For welded parts according to test plan 23, only to be supplied on request. If necessary, further NDT according to requirements in drawing/order.								X	X	X		
	Test reports ZfP as indicated on the drawing							X	X				
	Heat treatment record (if heating is indicated on the drawing)				X			X	X	X			
Zusatzanforderung additional requirements 附加要求	additional requirement, see purchase order											X	
Anforderungen Bezugspreis assembly fraction requirements 组件价格要求	requirement needs to be defined in writing between BA and supplier before placing of order. See purchase order.										X		

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2 Detail information

Test plan request (EN)	Additional information
<p>Certificate of conformity: Certificate of conformity: Verification per purchase order according to document template "Cert of Conformity" provided on Broetje-Automation homepage (Downloads) (DIN EN 10204-2.1)</p>	<p>Detection options:</p> <ul style="list-style-type: none"> – Broetje-Automation template on homepage (http://www.broetje-automation.de/de/downloads/) or – Document acc. EN 10240-2.1 <p>One document per order delivery is to be created. One document per delivery in case of partial deliveries (see slide 4). Example see slide 10/11</p>
<p>Measurement report: Measurement report: all test dimensions recorded for every part (no measurement allowed on machining center or manufacturing machine).</p>	<p>If an inspection dimension is indicated on the drawing, all inspection dimensions must be recorded in the drawing and documented on the measurement report. Example see slide 13</p>
<p>Hardness: Hardness test certificate: Hardness specifications must be verified according to DIN EN ISO 6506-1, 6507-1, 6508-1 Chapter inspection report.</p>	<p>In the chapters "Test report" of the required standards you will find a list of the information that must be verified.</p> <p>Alternatively, the design according to DIN EN 10204 in chapter "Acceptance Test Certificate 3.1" is also possible for confirmation.</p>

2 Detail information

Test plan request (EN)	Additional information
<p>Coating: If applicable: Confirmation of professional execution according to purchase order must be provided with confirmation of paint thickness and colour.</p>	<ol style="list-style-type: none"> 1. <u>Possible verification layer thickness:</u> Paint layer thickness: Values to be noted on drawing 2. <u>Proof of colour shade:</u> Delivery note for painter <p>All other types of coating (if required on the drawing) are confirmed by the supplier by means of proof of the works certificate.</p>
<p>Personnel qualification: Welder´s qualification test certificates on request according to DIN EN ISO 9606.</p>	<p>For every welding part the test certificate of the qualified person who welded the part is to be delivered.</p> <p>Note data security: Minimum identification requirement on certificate that must not be blackened: Full employee name of the certificate holder.</p>
<p>CE: CE marking and declaration of performance in accordance with DIN EN 1090-1.</p>	<p>Delivery of the CE if requested according to DIN EN 1090-1.</p>

2 Detail information

Test plan request (EN)	Additional information
Inspection certificates: 3.1 Inspection certificate (verification per part and traceability for every part necessary).	Document to be supplied for semi-finished products according to DIN EN 10204. The certificate shall be assignable to the part.
Inspection certificates: 2.2 Test report (verification per part and traceability for every part necessary).	Document to be supplied for semi-finished products according to DIN EN 10204. The certificate shall be assignable to the part.
Inspection certificates: Material test certificates in accordance with DIN EN 1090-2, Chapter 5.2 table1 (<i>steel</i>), DIN EN 1090-3, table A3 section 5 (<i>aluminium</i>) respectively.	Execution and delivery of documentation according to standard requirements. Overview regarding material allocation + test certificates, please see slide
Welding execution: Inspection and documentation of welding seams according to DIN EN 1090-chapter 12.4.2	Execution and delivery of documentation according to standard requirements
Welding execution: Inspection and documentation of welding seams according to DIN EN 1090-3 chapter B.2.3	Execution and delivery of documentation according to standard requirements

2 Detail information

Test plan request (EN)	Additional information
<p>Welding execution: Visual inspection of welds according to ISO 17637. Inspector qualified according to ISO 9712 and valid eye test required. For welded parts according to test plan 29, only to be supplied on request. If necessary, further NDT according to requirements in drawing/order.</p>	<p>Options for verification:</p> <ul style="list-style-type: none"> – BA Template on homepage (http://www.broetje-automation.de/de/downloads/) or – Document with identical information created by the supplier <p>Test personnel: qualified and appropriate personnel on an adequate qualification level according to DIN EN ISO 9712 and valid eye test.</p>
<p>Welding execution: Heat treatment record (if heating is indicated on the drawing).</p>	<p>Documented execution according to welding stamp on the drawing or welding-related technical drawing appendix (on old drawings) according to ISO TR14745.</p>
<p>Additional requirement, see purchase order.</p>	<p>This is an additional request that exceeds the standard test plans due to e.g. additional Broetje customer requirements. If required, details are additionally included into the purchase order.</p>
<p>Assembly / Sections requirements: Requirement needs to be defined in writing between BA and supplier before placing of order. See purchase order.</p>	<p>/</p>

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3.1 Template Certificate of conformity (1/2)

Order no. Broetje-Automation

Certificate of Conformity acc. DIN EN 10204-2.1				
Werksbescheinigung nach DIN EN 10204-2.1				
General part Allgemeiner Teil				
Customer Besteller	<input type="checkbox"/>	Broetje-Automation GmbH	Company / Supplier Firma / Lieferant	
	<input type="checkbox"/>	Shanghai Broetje-Automation Equipment Trading Co., Ltd		
	Bitte ankreuzen / Please mark.			
Order no. Bestellnr.		Delivery note no. Lieferscheinnr.		
		Order date Bestelldatum		
Order scope Bestellumfang				
Order position Bestellposition	Drawing no. / Revision no. Zeichnungsnr. / Revisions-Nr.	Quantity Liefermenge	Comment Bemerkung	
1				
2				
3				

Supplier name and adress

Delivery note no.

Order date

Possible comments can be included here.

Order positions to be listed as indicated in the purchase order

Indication of drawing no. incl. revision no. with regards to single position no.

Ordered quantity per order position and drawing

3.1 Template Certificate of conformity (2/2)

Statement Bescheinigung		
<p>This is to certify that the prespecified product has been tested and complies with the order/ specification/ manufacturing documents.</p> <p>Hiermit wird bescheinigt, dass das vorbezeichnete Produkt geprüft worden ist und mit der Bestellung/ Spezifikation/ Bauunterlagen übereinstimmt.</p>		
Date Datum		Signature Unterschrift
Name Name		

Date and name creator of document

Signature necessary!

3.2 Template Visual inspection sheet

Fill-in aids via drop-down cells in the document header, e.g.: "acceptance standard"

To be filled out in case of imperfections/ irregularities according to the standard

Example shown here. To be filled out for the specific situation and part.

Visueller - Prüfbericht
Visual-Inspection-Sheet

Auftraggeber/Hersteller: Broetje-Automation		Bericht-Nr.: VT-01/2018	Blatt: 1 von 1
Auftragsnummer: BestellNr.: 4005101		Prüfart: Loy	Zeichnungs-Nr.: 270.223.103 / 04
Bauteil/Objekt: Lastaufnahme am Aufnahmeträger		Oberflächenzustand: geschliffen	
Abmessung: L=76 mm a=6mm t=20mm	Schweißverfahren: 111	Werkstoff: S355J2+N	Wärmebehandlung: <input checked="" type="checkbox"/> ja <input type="checkbox"/> nein
Temperatur des Prüfobjekts: 18°C	Prüfbereich: SN + WEZ	Prüfumfang: 100%	
Prüfung nach: DIN EN ISO 17637	Bewertung nach: DIN EN 5817	Bewertungsgruppe: C	
Beleuchtungsstärke: Soll 500 Ist 800 lux	Prüfsystem/Hilfsmittel: 5 Skalenlehre, Stahlmaß, Meßschieber		
Skizze/Foto (Anlage): <input checked="" type="checkbox"/> ja <input type="checkbox"/> nein			

Naht-Nr.: seam no.	Referenz Nr. reference no.	Lage und Beschreibung der festgestellten Unregelmäßigkeiten location and description of imperfections	Bewertung evaluation	
			e	ne
1	2017	Pore bei Länge 36mm - 37mm, d=1mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	503	Nahtüberhöhung bei Länge 12mm - 14mm, h=2mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
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			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

Bemerkungen oder Abweichungen von der Norm
Remark or deviations from the standard

Bauteil in Ordnung, Fehler gem. Norm zulässig.

Referenz Nr. nach DIN EN ISO 6520-1	Abkürzungen	Ort: Loy	den: 15.11.2018
101 = Längsriss / longitudinal cracks	e = erfüllt / accepted	Prüfer: Name in block letters	
102 = Querriss / transversal cracks	ne = nicht erfüllt / not accepted	Prüfaufsicht:	
104 = Endkaterkerbe / end crater		Sachverständiger:	
2025= Endkaterkerbe / end crater			
501 = Einbrandkerbe / undercut			
507 = Kantenversatz / linear misalignment			
502/503 = Nahtüberhöhung / excess weld metal			
509 = verlaufenes Schweißgut / sagging			
511 = Decklagenunverwölbung / incompletely filled groove			
601 = Zündstelle / arc strike stray arc			
602 = Spritzer / spatter			
604 = Schleifkerbe / grinding mark			
610 = Anlaufkerbe / temper colours			

Name + Signature of examiner necessary! (Example shown)

if required/ necessary

3.3 Template measurement report

Manually filled out protocols.

General information

Measurement device information

Results and evaluation

Examiner / signature / location

QA - Measurement Report
 QS - Messprotokoll



Stand: 21.11.2018

general part Allgemeiner Teil								
supplier / manufacturer: Auftraggeber / Hersteller:			component designation: Bauteilbezeichnung					
order no.: Bestell Nr.:			drawing no.: Zeichnungsnummer:					
Project: Projekt			drawing index.: Zeichnungsindex:					
module: Baugruppe:			serial number: Seriennummer:					
log number: Protokollnummer:								
used measurement device Verwendete Messmittel								
measurement device: Messmitteltyp:								
other measurement device: Sonstige Messmittel:								
device Ident. No.: Messmittelnnummer:								
result Befund						evaluation Bewertung		
PM	inspec. Dim. Prüfmaß	set point Sollwert	tolerance Toleranz	act. value Istwert	deviation Abweichung	o.k i.O.	n.o.k n.i.O.	Remarks Bemerkungen
1								
2								
3								
4								
5								
6								
7								
8								
10								
11								
12								
13								
14								
15								
16								
examiner Prüfer								
name of examiner: Name des Prüfers:			date of examination: Datum der Prüfung:					
signature of examiner: Unterschrift des Prüfers:			location of examiner: Ort der Prüfung:					

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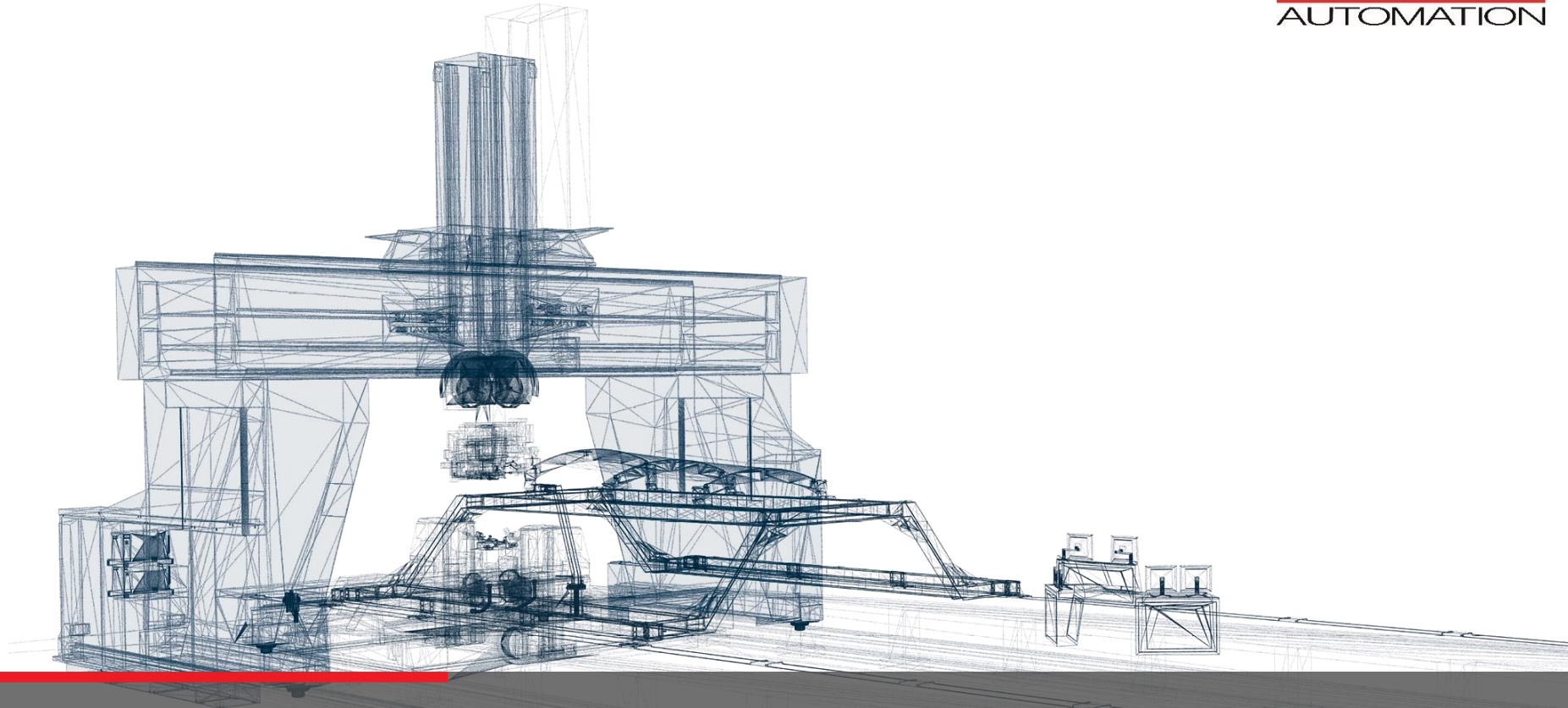
Prüfbescheinigungen / test certificates

Zuordnung Material/ material allocation <-> Prüfbescheinigungen/ test certificate		
SWT-Teile/ welded parts		
Material/ material:	Prüfbescheinigung/ test certificate:	Hinweis/ reference:
S185; S235; S275	2.2	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
DC01; DD11...	2.2	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
Schweißzusätze/ welding fillers	2.2	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
≥ S355	3.1	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
Nichtrostende Stähle/ stainless steels (1.4301; 1.4305; 1.4571;	3.1	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
Aluminium (EXC1 / 3834-4)	2.2	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>
Aluminium (≥ EXC2 / 3834-3)	3.1	Bei Prüfplan 29 kein Materialzeugnis notwendig/ <i>no material certificate required for inspection plan 29</i>

4 Additional information

Test plan requirements according to the respective order are leading.

Broetje-Automation will of course support in case of need for clarification. Contact person:
Purchaser of relevant purchase order.



Thank you!