

Prüfbericht-Nr.: <i>Test Report No.:</i>	50350420 001	Auftrags-Nr.: <i>Order No.:</i>	170134259	Seite 1 von 11 <i>Page 1 of 11</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	685445	Auftragsdatum: <i>Order date:</i>	25.02.2020	
Auftraggeber: <i>Client:</i>	Xiamen Kseng Metal Tech.Co.,Ltd 3F, Huixin Wealth Centre, No.891, Fanghu North 2nd Road, Huli District, Xiamen, Fujian 361000 P. R. China			
Prüfgegenstand: <i>Test item:</i>	Mechanical test for components of ground mounting system			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	Declared by client			
Auftrags-Inhalt: <i>Order content:</i>	Mechanical test for components of ground mounting system			
Prüfgrundlage: <i>Test specification:</i>	According to client's requirement			
Wareneingangsdatum: <i>Date of receipt:</i>	02.03.2020	See details in page 4		
Prüfmuster-Nr.: <i>Test sample No.:</i>	170134259-07-170134259-011			
Prüfzeitraum: <i>Testing period:</i>	03.03.2020-09.03.2020			
Ort der Prüfung: <i>Place of testing:</i>	Guangzhou			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong)., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	See details in page 6 to page 10			
geprüft von / tested by:		kontrolliert von / reviewed by:		
Yakov Yang/Project engineer				
<u>10.03.2020</u>	<u>Tiqo You/trainee</u>	<u>11.03.2020</u>	<u>Susie Ni / Reviewer</u>	
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other:				
1) The test report is including 6 connection parts of ground mounting system.				
2) Place of testing: No.199 Kezhu Road, Guangzhou Science City · Guangzhou · 510663, P.R. China				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m test specification(s)	2 = good F(ail) = failed a.m test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 2 von 11
Page 2 of 11

Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel <i>Test equipment</i>	Prüfmittel-Nr. / ID-Nr. <i>Equipment No. / ID-No.</i>	Nächste Kalibrierung <i>Next calibration</i>
Tensile Machine	WDW-50M	2020-09-05

To be continued

Prüfbericht-Nr.: 50350420 001
Test Report No.:

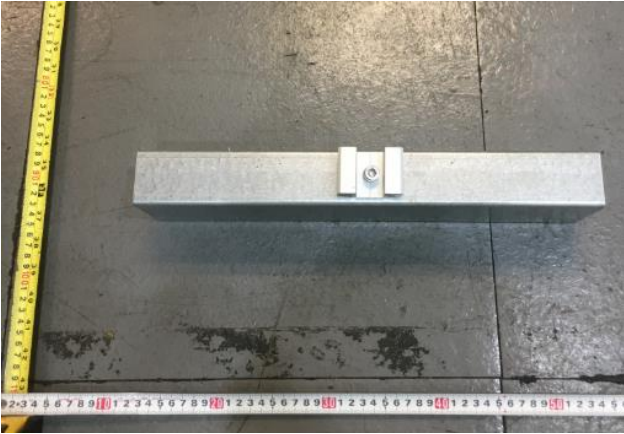




Seite 3 von 11
Page 3 of 11

Produktbeschreibung
Product description

1	Produktdetails <i>Product details</i>	Connection parts of ground mounting system
2	Maße <i>Dimensions</i>	./.
3	Bedienelemente <i>Operating elements</i>	./.
4	Ausstattung / Zubehör <i>Equipment / Accessories</i>	./.
5	Verwendete Materialien <i>Used materials</i>	1) Middle clamp –AL/6005-T5 2) End clamp –AL/6005-T5 3) Rail –Zinc-Aluminum-Magnesium Coated Steel 4) Girder – Zinc-Aluminum-Magnesium Coated Steel 5) Upright – Zinc-Aluminum-Magnesium Coated Steel
6	Sonstiges <i>Other</i>	./.

Prüfbericht-Nr.: 50350420 001
Test Report No.:

Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Middle clamp on the rail	End clamp on the rail
	
Upright and girder connect with bolt	Rails connected with bolt
	
Rail and girder connect with bolt	N/A
	N/A

Prüfbericht-Nr.: 50350420 001 Test Report No.:		Seite 5 von 11 Page 5 of 11	
Absatz Clause	According to client's requirement Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse - Bemerkungen Measuring results - Remarks	Bewertung Evaluation
7	Test item and requirement		
7.1	Tensile test for middle clamp on the rail Install the middle clamp according to client's requirement. Perform the tensile force till the big deformation happened. One sample need to be tested and result will be recorded.		
7.2	Tensile test for end clamp on the rail Install the end clamp according to client's requirement. Perform the tensile force till the big deformation happened. One sample need to be tested and result will be recorded.		
7.3	Tensile test for upright and girder connect with bolt Install the Upright and girder with bolt according to client's requirement. Perform the tensile force till the big deformation happened. One sample need to be tested and result will be recorded.		
7.4	Compressive force test for rails connected with bolt Install the splice between two rails with flange facing self-tapping screw according to client's requirement. Place between two weights with a span of 40 cm. Perform the compressive force till the big deformation happened. One sample need to be tested and result will be recorded.		
7.5	Tensile test for rail and girder connect with bolt Install the rail clamp between the rail and the girder according to client's requirement. Perform the tensile force till the big deformation happened. One sample need to be tested and result will be recorded.		

Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 6 von 11
Page 6 of 11

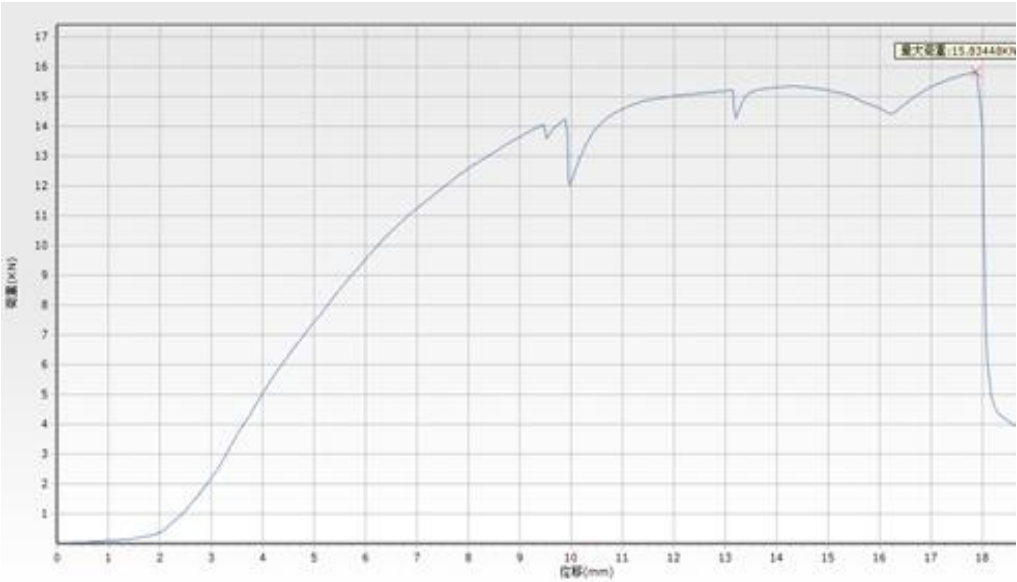
Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

8 Test result

8.1 Tensile test for middle clamp on the rail:

Test result(N)	15834,5
----------------	---------

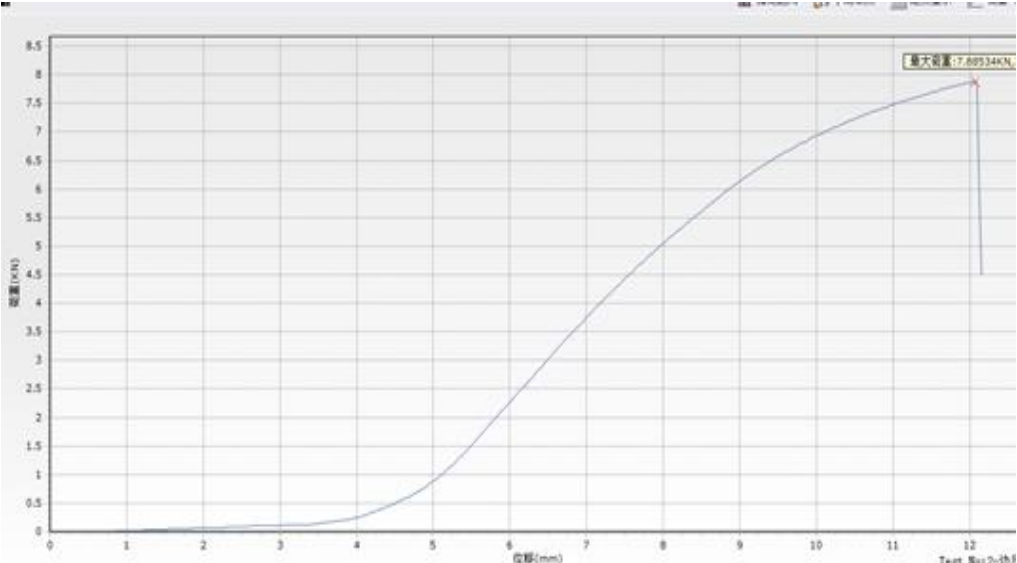
Test curve:



8.2 Tensile test for end clamp on the rail:

Test result(N)	7885,3
----------------	--------

Test curve:



Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 7 von 11
Page 7 of 11

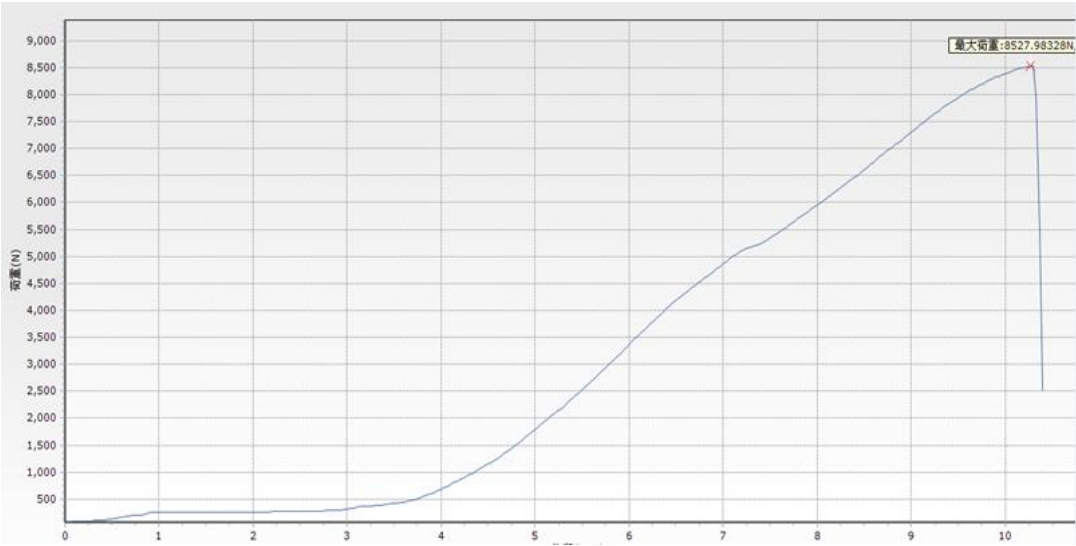
Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

8.3

Tensile test for upright and girder connect with bolt:

Test result(N)	8527,9
----------------	--------

Test curve:

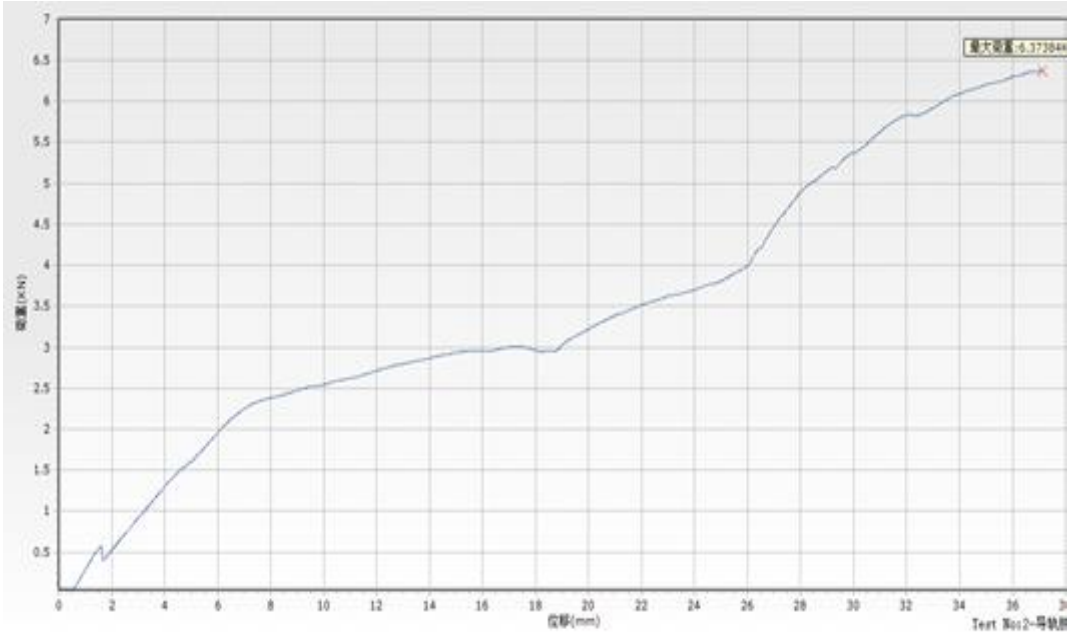


8.4

Compressive force test for rails connected with bolt:

Test result(N)	6373,8
----------------	--------

Test curve:



Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 8 von 11
Page 8 of 11

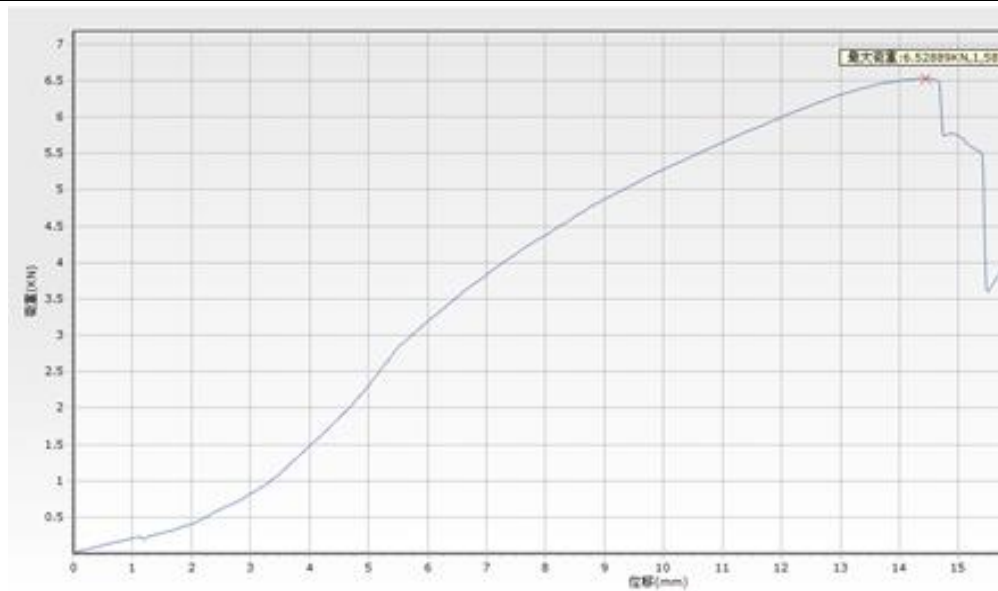
Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Tensile test for rail and girder connect with bolt:

Test result(N)	6528,9
----------------	--------

Test curve:

8.5



Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 9 von 11
Page 9 of 11



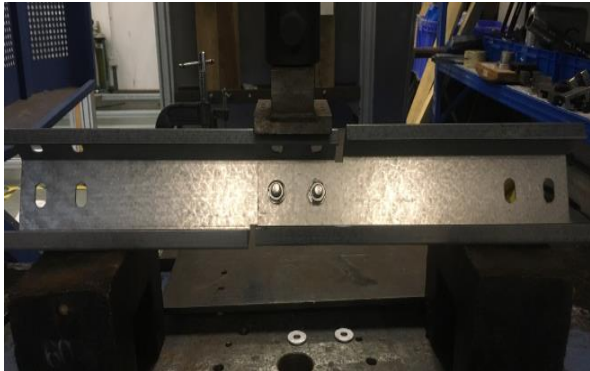
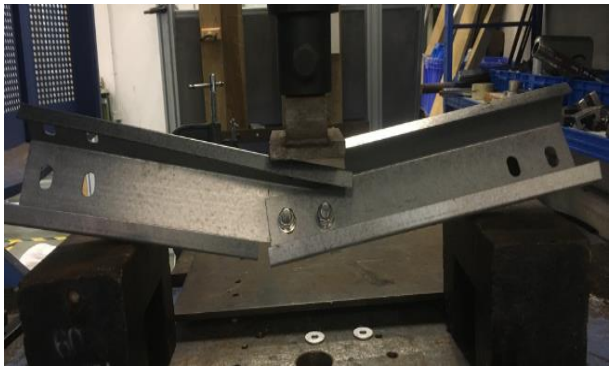


Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

9	Test photo:		
	Tensile test for middle clamp on the rail		
9.1			
	Before test	After test	
	Tensile test for end clamp on the rail		
9.2			
	Before test	After test	

Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 10 von 11
Page 10 of 11

Absatz	According to client's requirement	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

9.3	Tensile test for upright and girder connect with bolt	
		
	Before test	After test
9.4	Compressive force test for rails connected with bolt	
		
	Before test	After test
9.5	Tensile test for rail and girder connect with bolt	
		
	Before test	After test

Prüfbericht-Nr.: 50350420 001
Test Report No.:

Seite 11 von 11
Page 11 of 11

This testing report is prepared and issued solely by TÜV Rheinland (Guangdong) Ltd. ("TÜV Rheinland"). The use, display, reproduction and duplication of the testing report will be subject to the following rules:

1. All the copyrights and know-how in this testing report shall be exclusively and solely vested in TÜV Rheinland.
2. The Client may use this testing report and the test results, calculations, presentations therein in an appropriate way within the scope and for the purpose contractually agreed by both parties.
3. The Client shall use this testing report complete and un-shortened.
4. Any publication or duplication for advertising purposes by the Client needs the prior written approval of TÜV Rheinland.

TÜV Rheinland shall not be held liable for any consequences of use of this report for a purpose other than the purpose contractually agreed by both parties and the Client shall hold harmless from and indemnify TÜV Rheinland against all losses, damages, demands, requests or claims claimed or made by any third party resulting from the Client's breach of the contract and the foregoing obligations.

*** End of Report ***