

Test report

Report No.: 21-0344-1

TÜV Rheinland Industrie Service GmbH
 hereby certifies that the company

Gripple GmbH

Loherstraße 4

35614 Aßlar

the testing of the following products

Load handling devices of the company Gripple GmbH

<u>Fast Trak Standard Bracket – FTB</u>	<u>Fast Trak Standard Track- FTT</u>
FTB-170	FTT-1500
FTB-270	FTT-1300
FTB-370	FTT-500
FTB-470	FTT-700
FTB-570	FTT-1200
FTB-670	FTT-600
FTB-770	FTT-1400
FTB-870	FTT-900
FTB-970	FTT-800
FTB-1070	FTT-500
FTB-1170	FTT-1000
FTB-1270	FTT-1100
FTB-1370	FTT-400
FTB-1470	FTT-300



The company Gripple GmbH is hereby certified that tensile tests were carried out on various products of the company Gripple GmbH as part of a material test. It is expressly pointed out that only products from Gripple GmbH have been tested and any connecting elements to walls or beams were not part of this test. The manufacturer's operating instructions must be observed for use. The safety factors required for the respective application must be determined by the user. Statements on dynamic load effects on the test objects are not part of the test and are not made.

Test Results

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ANNEX - Illustration of the experimental set-ups

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This test certificate contains the results of a total of 14 test setups with a test scope of 5 tests each. The breaking loads listed in this document correspond to the lowest measured breaking forces. Articles from the following product categories were checked. This Test-Report is valid until 31.5.2026.

TÜV Rheinland Industrie Service GmbH

Cologne, den 14.05.2021


 Dipl.-Ing. Dirk Laenger

The test was carried out one the following machine:

Producer	Heidkamp
Type	RHS 12
Year	1998
Serial No.	8 100
Load	12.000 kg
Max lift	150 mm
Layout	Tensile Test Machine

Table 1: Type label – Tensile Test Machine



Picture 1: Tensile Test Machine

Since the lowest expected breaking load was approx. 50 kg and the largest expected breaking load was over 2000 kg, two different dynamometers were used, which have different resolutions and cover the small and large force range.

Dynamometer 1

Model	KEM-1CT
Max Load	10.000 kg
Year	1994
Resolution	5 kg
Range	1.000 kg bis 10.000 kg

Dynamometer 2

Producer	KERN
Model	HCB 1T-3
Max Load	1.000 kg
Year	2018
Resolution	2 kg
Range	0 kg bis 1.000 kg

The details of the measured breaking loads have the unit [kg]. Using the equation $\vec{F}_B = m_B \cdot \vec{g}$ and the gravitational acceleration factor $\vec{g} \sim 9,81 \frac{m}{s^2}$ contained therein, the equivalent breaking force \vec{F}_B can be determined in the unit [N].

Results

Note

The different lengths of the Streps are irrelevant for the test results, as they have no significant effects on the cause of failure / max. Load and thus on the test results.

Test results for the product type "FTB-170 with FTT-1500" with the FTB safety factor of 3:1

Edge parameter:

- Single Point Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-170 with FTT-1500	100	590	5,9	Failure: Fracture FTB

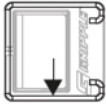
Test results for the product type "FTB-270 with FTT-1300" with the FTB safety factor of 3:1

Edge parameter:

- Single Point Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-270 with FTT-1300	70	570	8,1	Failure: Deflection FTB

Test results for the product type "FTB-370 with FTT-500" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-370 with FTT-500	200	920	4,6	Failure: Fracture FTB

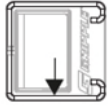
Test results for the product type "FTB-470 with FTT-700" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-470 with FTT-700	130	640	4,9	Failure: Fracture FTB Fracture FTT

Test results for the product type "FTB-570 with FTT-1200" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-570 with FTT-1200	200	970	4,9	Failure: Fracture FTB Deflection FTB

Test results for the product type "FTB-670 with FTT-600" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-670 with FTT-600	200	770	3,9	Failure:: Fracture FTB Deflection FTB

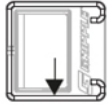
Test results for the product type "FTB-770 with FTT-1400" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-770 with FTT-1400	130	1080	8,3	Failure:: Fracture FTT

Test results for the product type "FTB-870 with FTT-900" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-870 with FTT-900	200	910	4,6	Failure:: Fracture FTB Fracture FTT

Test results for the product type "FTB-970 with FTT-800" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-970 with FTT-800	200	840	4,2	Failure:: Fracture FTB Deflection FTB

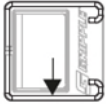
Test results for the product type "FTB-1070 with FTT-500" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-1070 with FTT-500	130	760	5,8	Failure:: Fracture FTT

Test results for the product type "FTB-1170 with FTT-1000" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-1170 with FTT-1000	200	1130	5,7	Failure:: Fracture FTB Deflection FTB

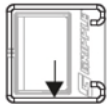
Test results for the product type "FTB-1270 with FTT-1100" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-1270 with FTT-1100	130	540	4,2	Failure:: Fracture FTB Fracture FTT

Test results for the product type "FTB-1370 with FTT-400" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:

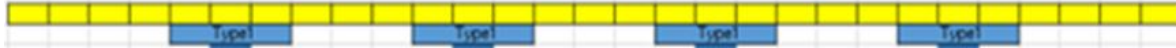


No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-1370 with FTT-400	200	670	3,4	Failure:: Deflection FTB

Test results for the product type "FTB-1470 with FTT-300" with the FTB safety factor of 3:1

Edge parameter:

- Uniformly Distributed Load:



- Load effect:



No.	Description	Nominal Load [kg]	Collapse Load [kg]	Reached Factory of Safety	Notes
1	FTB-1470 with FTT-300	200	630	3,2	Failure:: Deflection FTB

Attachment - Illustration of the experimental set-ups

Picture 2: Test setup FTB-170 / FTT-1500



Picture 3: Test result FTB-170 / FTT-1500



Picture 4: Test setup FTB-270 / FTT-1300



Picture 5: Test result FTB-270 / FTT-1300



Picture 6: Test setup FTB-370 / FTT-500



Picture 7: Test result FTB-370 / FTT-500



Picture 8: Test setup FTB-470 / FTT-700



Picture 9: Test result FTB-470 / FTT-700



Picture 10: Test setup FTB-570 / FTT-1200



Picture 11: Test result FTB-570 / FTT-1200



Picture 12: Test result FTB-570 / FTT-1200



Picture 13: Test setup FTB-670 / FTT-600



Picture 14: Test result FTB-670 / FTT-600



Picture 15: Test result FTB-670 / FTT-600



Picture 16: Test setup FTB-770 / FTT-1400



Picture 17: Test result FTB-770 / FTT-1400



Picture 18: Test setup FTB-870 / FTT-900



Picture 19: Test result FTB-870 / FTT-900





Picture 21: Test setup FTB-970 / FTT-800

Picture 22: Test result FTB-970 / FTT-800



Picture 23: Test result FTB-970 / FTT-800



Picture 24: Test setup FTB-1070 / FTT-500



Picture 25: Test result FTB-1070 / FTT-500



Picture 26: Test setup FTB-1170 / FTT-1000



Picture 27: Test result FTB-1170 / FTT-1000



Picture 28: Test result FTB-1170 / FTT-1000



Picture 29: Test setup FTB-1270 / FTT-1100



Picture 30: Test result FTB-1270 / FTT-1100



Picture 31: Test result FTB-1270 / FTT-1100



Picture 32: Test setup FTB-1370 / FTT-400



Picture 33: Test result FTB-1370 / FTT-400



Picture 34: Test setup FTB-1470 / FTT-300



Picture 35: Test result FTB-1470 / FTT-300

