

TEST REPORT FOR:
Avail Design
Calibre Grab Rail(R01AD45CDDA90°)
Test to 1100N loading force.

TEST DOCUMENTS:
AS 1428.1:2021
Design for access and mobility, Part 1 – General requirements for
access – New building work, Section 14 - Grabrails

LABORATORY REFERENCE:
493565

26th May 2022

TEST REPORT

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Job Number: 493565

PRODUCT

Name and Model No:

Avail Design Calibre Grab Rail(R01AD45CDDA90°)

Serial/Batch No:

NA

Maximum user mass:

Tested to 1100N / 112kgf

Documents used in report

AS 1428.1:2021 Section 14 - Grabrails

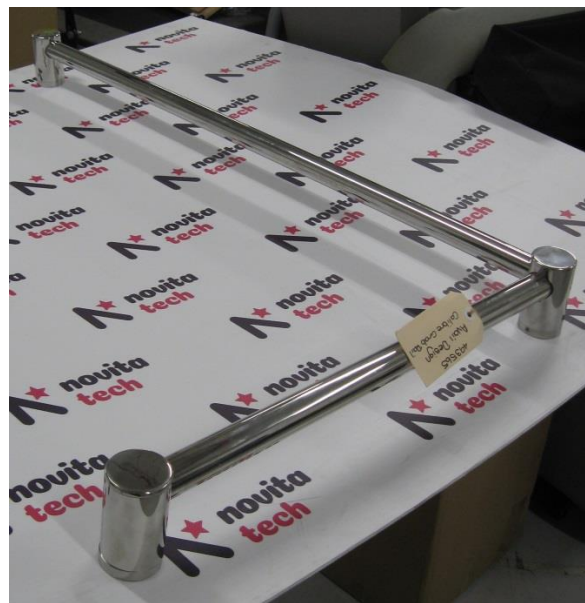
SUPPLIER

Name:

Avail Design

Address:

3/10 Rutherford Road, Seaford VIC 3198

**Isometric View of Sample****Contact:** David Sayers**Telephone:** 0400 095 077**Email:** dave@avail.design**Order no:****Order date:**

TESTING AUTHORITY

Name: Novita Children's Services, NovitaTech Test Laboratory**Address:** 1 South Road, Thebarton, South Australia 5031**Telephone:** (08) 8243 8289**Email:** testing@novita.org.au**Testing supervisor:** Greg Paini

Senior test technician

Authorised signatory

Checked:

Leonie Rich Perrett

Assistive Technology Technical Specialist

Dates of testing period:

May 2022

Date of issue of this report:26th May 2022

DETAILED PRODUCT DESCRIPTION

Name/model number:

Avail Design Calibre Grab Rail(R01AD45CDDA90°)

Production or prototype sample:

Production

Material:

Stainless steel tubular frame.

Fasteners supplied with rail:

12g x 50mm stainless steel counter sunk timber screws

Functional description:

90° 600mm x 1000mm grab rail

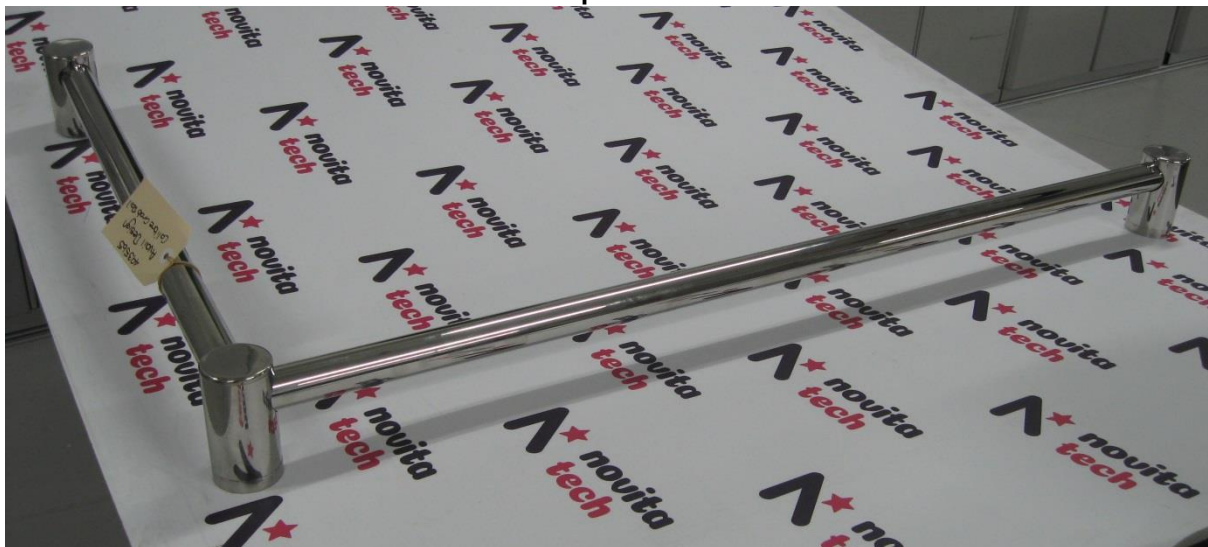
Pre-test Inspection:

OK to test

PHOTOS OF SAMPLE (BEFORE TESTING)



Top View



Isometric View

AS 1428.1:2021 DESIGN FOR ACCESS AND MOBILITY- SECTION 14

Reference	Test/Requirement	Specification	Result
Grabrails shall be in accordance with the following:			
14 (a)	Outside diameter or:	Not < 30 mm – Not > 40 mm	PASS
	Sectional shape	Within limits of 30 to 40 mm Ø	NA
14 (b)	Exposed edges and corners	Not less than 5 mm	PASS
14 (c)	Withstand a load of 1100N at any position and in any direction	Shall be no visible deformation, loosening or rotation	PASS
14 (d)	Clearance between a grab-rail and adjacent wall or any obstruction	50 mm – 60 mm	PASS
14 (e)	No obstruction to the passage of the hand	Top 270° arc	PASS
Note*	An exposed end of a grabrail is a potential hazard – visual check		PASS

Remarks:

The grab rail was attached to a flat, rigid vertical surface using supplied 12g x 50mm stainless steel counter sunk timber screws, to simulate the normal mounting of a grab rail to the wall.

Forces were applied in the following directions:

1. Outwards away from the mounting surface at the centre point of each rail
2. Inwards towards the mounting surface at the centre point of each rail
3. Parallel to the mounting surface, at the mounting points left and right, on each point
4. Parallel to the mounting surface, at the mounting points up and down, on each point
5. Parallel to the mounting surface at the centre point of each rail

The Avail Design Calibre Grab Rail(R01AD45CDDA90°) was able to sustain the required 1100 N force in all directions without loosening or permanent deformation.

None. GP. End of remarks -----

The sample submitted for this test satisfies the relevant requirements of AS1428.1 (Section 14) for grab-rails (except the methods indicated in this report as “not assessed” and/or tested with deviations).

PASS

Traceable Equipment Used For Measurements In This Report					
Gauge #	Gauge Type		Gauge #	Gauge Type	
TLE004	Standard finger Probe	<input type="checkbox"/>	TLE141	Tape Measure, 5 Metre	<input type="checkbox"/>
TLE009	Cold Climate Chamber	<input type="checkbox"/>	TLE144	Stop Watch	<input type="checkbox"/>
TLE010	Test Rig (Static Load Drop)	<input checked="" type="checkbox"/>	TLE148	Protractor, Vernier	<input type="checkbox"/>
TLE011	2 Drum Durability Rig	<input type="checkbox"/>	TLE151	Accelerometer	<input type="checkbox"/>
TLE012	Stability Ramp - Static	<input type="checkbox"/>	TLE167	Test Masses, 25kg	<input type="checkbox"/>
TLE016	Square, Steel - Large	<input type="checkbox"/>	TLE175	2 Drum Durability rig	<input type="checkbox"/>
TLE018	Rule, Steel – 1,000 mm	<input type="checkbox"/>	TLE176	Test Dummy	<input type="checkbox"/>
TLE019	Reference Load Gauge	<input type="checkbox"/>	TLE179	Test Rig Prosthetics, Foot	<input type="checkbox"/>
TLE024	Stability Ramp, Dynamic	<input type="checkbox"/>	TLE182	Multimeter	<input type="checkbox"/>
TLE028	Spring Balance 0-100g	<input type="checkbox"/>	TLE183	Impact Pendulum	<input type="checkbox"/>
TLE029	Spring Balance 0– 5kg	<input type="checkbox"/>	TLE184	Test Dummy	<input type="checkbox"/>
TLE030	Spring Balance 0-20kg	<input type="checkbox"/>	TLE185	Inclinometer	<input type="checkbox"/>
TLE032	Thermometer	<input type="checkbox"/>	TLE186	Inclinometer, small	<input type="checkbox"/>
TLE049	Torque Wrench	<input type="checkbox"/>	TLE196	Test Rig Prosthetics, Knee	<input type="checkbox"/>
TLE067	Tyre Pressure Gauge	<input type="checkbox"/>	TLE201	Load Cell	<input checked="" type="checkbox"/>
TLE068	Impact Mass, 25 kg Soccer	<input type="checkbox"/>	TLE203	Impactor	<input type="checkbox"/>
TLE077	Force Gauge, RLG	<input type="checkbox"/>	TLE204	Pendulum Impact Hammer	<input type="checkbox"/>
TLE084	Rule, Steel – 300mm	<input checked="" type="checkbox"/>	TLE205	Tape Measure, 8 Metre	<input type="checkbox"/>
TLE087	Test Obstacles	<input type="checkbox"/>	TLE210	Test Obstacle, Threshold	<input type="checkbox"/>
TLE105	Thermohygrograph	<input checked="" type="checkbox"/>	TLE211	Prosthetic Set up Gauge	<input type="checkbox"/>
TLE106	Scales, Digital	<input type="checkbox"/>	TLE212	Test Rig, Proof Test	<input type="checkbox"/>
TLE112	Vernier Caliper, 200mm	<input type="checkbox"/>	TLE216	Load Pad, Seat Base	<input type="checkbox"/>
TLE114	Spring Balance, 50kg	<input type="checkbox"/>	TLE218	Square, Steel - Small	<input type="checkbox"/>
TLE131	Test Dummy	<input type="checkbox"/>	TLE220	DC Wattmeter	<input type="checkbox"/>
TLE132	Test Dummy	<input type="checkbox"/>	TLE221	Temp/Humidity Meter	<input type="checkbox"/>
TLE133	Test Dummy	<input type="checkbox"/>	TLE225	Caliper, Digital 200mm	<input checked="" type="checkbox"/>

NOTES:

1. Uncertainty of measurement (U_m) has been calculated for linear, angle, force, mass, temperature, cycles and count measurements and meets the referenced standards' specifications.
2. Kgf to N conversion calculations take into account any difference in standard gravity (g_n) to local measurement (g) obtained from the world geodetic system.
3. All testing was carried out in a controlled environment laboratory using methods set out in the Standards documents, all deviations and additions to the Standards' methods are noted in remarks.
4. All instruments either carried valid calibration certificates throughout the test period or were checked against traceable Standards before and after use.
5. The NovitaTech Test Laboratory has no control over the selection of test samples. Any extension of the findings of this report to cover production items must be based on production being truly represented by the sample(s).
6. Any non-conformances are indicated in red.

END OF REPORT