

**Submit Samples to:**  
Manufacturing Solutions Center  
301 Conover Station SE  
Conover NC 28613



**Structural Testing and 3D Printing/CAD Design Intake Log**

Seth Setzer  
Phone: 828-327-7000 Ext. 4449  
[ssetzer@manufacturingsolutionscenter.org](mailto:ssetzer@manufacturingsolutionscenter.org)

Cody Whitener  
Phone: 828-327-7000 Ext. 4490  
[cwhitener@manufacturingsolutionscenter.org](mailto:cwhitener@manufacturingsolutionscenter.org)

**Date:** \_\_\_\_\_  
**Company Name:** \_\_\_\_\_  
**Contact Name for Testing:** \_\_\_\_\_  
**Testing Contact Phone #:** \_\_\_\_\_  
**Email:** \_\_\_\_\_  
**Email:** \_\_\_\_\_  
**Email:** \_\_\_\_\_  
**Email:** \_\_\_\_\_

Test Results will ONLY be sent to emails listed here

**Contact Name for Billing:** \_\_\_\_\_  
**Billing Contact Phone # :** \_\_\_\_\_  
**Billing Address for Testing:** \_\_\_\_\_  
**PO # (if applicable)** \_\_\_\_\_

\*\*Please note: The bill will come from cvcc (Catawba Valley Community College) along with a copy of this Test Package Request Form. Please make checks payable to "CVCC"

**STRUCTURAL TESTING**

**Sample ID:** \_\_\_\_\_  
**Type of Sample:** \_\_\_\_\_  
**Test(s) to perform:** \_\_\_\_\_  
(BIFMA Standard tests on back): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**Modifications (if any):** \_\_\_\_\_  
\_\_\_\_\_  
**Specifications of test (if any):** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3D PRINTING/CAD DESIGN**

3D Printing:  CAD Design:   
Dropping off: Reverse Engineering:   
Native File:   
Material: ABS Plastic   
Nylon Filament   
Quantity: \_\_\_\_\_  
Specifications: \_\_\_\_\_

**ANSI / BIFMA 5.1-2011 \_ General Purpose Office Chairs Testing Price List**

<b>Test #</b>	<b>Test Name</b>	<b>Type of Test / Actuator Orientation</b>
5	Back Strength - Type 1	Static / Horizontal
6	Back Strength - Type 2 & 3	Static / Horizontal
8	Drop Test - Dynamic	Static / Vertical
9	Swivel Test - Cyclic	Cyclic / Horizontal / Rotational
10	Tilt Mechanism Test - Cyclic	Cyclic / Horizontal
11	Seating Impact - Cyclic & Load Ease	Cyclic / Vertical
12	Stability Tests	Static / Horizontal - Front & Rear
13	Arm Strength Test	Static / Vertical
14	Arm Strength Test	Static / Horizontal
15	Backrest Durability - Cyclic - Type 1	Cyclic / Horizontal
16	Backrest Durability - Cyclic - Type 2 & 3	Cyclic / Horizontal
17	Caster / chair Base Durability - Cyclic	Cyclic / Horizontal
18	Leg Strength	Static / Horizontal - Front & Side
19	Footrest Static Load	Static / Vertical
20	Footrest Durability	Cyclic / Vertical
21	Arm Durability	Cyclic / Vertical
22	Out Stop/Manual Adjustable Seat Depth	Cyclic / Horizontal
23	Tablet Arm Load	Static / Vertical
24	Tablet Arm Load Ease	Cyclic / Vertical
FNAE	80-214 Recliner Cycle Test	Cyclic / Horizontal
RWST	Real World Sit Test	Cyclic / special fixture

**ANSI / BIFMA 5.4-2012 \_ Lounge & Public Seating Testing Price List**

5	Back Strength - Horizontal	Static / Horizontal / Single
6	Back Strength - Vertical	Static / Vertical / Single
7	Back Durability - Horizontal	Cyclic / Horizontal / Single
8	Back Durability - Vertical	Cyclic / Vertical

9	Arm Strength	Static / Horizontal
10	Arm Strength	Static / Vertical
11	Arm Durability	Cyclic / Horizontal
12	Arm Durability	Cyclic / Vertical / Multi Seat
13	Arm Durability	Cyclic / Vertical / Single Seat
14	Seating Durability	Cyclic / Vertical
15	Drop Test	Static / Drop - Functional & Proof
16	Leg Strength	Static / Horizontal - Front & Side
17	Unit Drop Test	Static / Unit Drop
18	Caster Durability	Cyclic / Horizontal
29	Swivel Cycling	Cyclic / Horizontal - Rotational
20	Tilt Mechanism	Cyclic / Horizontal
21	Stability	Static / Horizontal - Front & Rear
22	Tablet Arm Load Ease	Cyclic / Vertical
23	Tablet Arm Load	Static / Vertical
FNAE	80-214 Recliner Cycle Test	Cyclic / Horizontal
RWST	Real World Sit Test	Cyclic / special fixture

**ANSI / BIFMA 5.5-2014 \_ Desks & Tables Testing Price List**

4	Stability Tests	
4.2	Stability w/ Extendible Elements Open	
4.3	Stability Under Vertical Load	
4.4	Horizontal Stability Test for Desks/Tables w/ Casters	
4.5	Stability_Keyboard / Laptop Table_W/ & W/out Casters	
4.6	Force Stability Test_Tall Desk/Table Products	
5	Unit Strength Tests	
5.2	Concentrated Functional Load Test	
5.3	Distributed Functional Load Test	
5.4	Concentrated Proof Load Test	

5.5	Distributed Proof Load Test	
5.6	Transaction Surface Torsion Load Test	
5.7	Extendible Element Static Load Test	
5.8	Benching Systems_Distributed Functional Load & Stability Test	
5.9	Benching Systems_Distributed Proof Load Test	
6	Top Load Ease Cycle Test	
7	Desk/Table Unit Drop Test	
8	Leg Strength Test	
9	Separation Test_Tall Desk/Table Products	
10	Extendible Element Cycle Test	
10.2	Cycle Test_Extendible Elements Deeper than Wide	
10.3	Cycle Test_Extendible Elements Wider than Deep	
10.4	Cycle Test_Low height drawers	
11	Extendible Element Retention Impact & Durability Test	
12	Extendible Element Rebound Test	
13	Interlock Strength Test	
14	Lock Tests	
14.2	Force Test_Extendible Element Locks	
14.3	Force Test_Door Locks	
14.4	Locking Mechanism Cycle Test	
15	Work Surface Vertical Adjustment Tests	
16	Keyboard Support and Input Device Support Adjustment Tests	
17	Door Tests	
17.2	Strength Test_Vertically Hinged, Bi-fold, & Vertically Receding Doors	
17.3	Hinge Override Test_Vertically Hinged Doors	
17.4	Vertically Receding Doors Strength Test	
17.5	Horizontal Receding Doors Strength Test	
17.6	Wear & Fatigue Test_Hinged, Horizontal Sliding, & Tambour Doors	
17.7	Wear & Fatigue Test_Vertical Receding Doors	
17.8	Wear & Fatigue Test_Horizontal Receding Doors	
17.9	Vertical & Horizontal Receding Door Out Stop Test_Cyclic Impact & Durability	

17.1	Slam Closed Test_Vertically Hinged & Vertically Receding Doors	
17.11	Drop Cycle Test_Horizontally Hinged & Horizontally Receding Doors	
17.12	Slam Test_Doors that Free Fall Open or Closed	
17.13	Slam Open & Closed Test_Doors That Do Not Free Fall	
17.14	Door Latch Test	
18	Durability Test_Desks & Tables w/ Casters	
19	Pull Force Test	
20	Tilting Top Table_Cycle Test	
21	Tilting Top Table_Latch Strength Test	
22	Monitor Arm Strength Test	
23	Monitor Arm Cyclic Test	
24	Monitor Arm Dislodgement Test	
<b>ANSI / BIFMA 5.6-2010 _ Panel Systems Testing Price List</b>		
5	Stability Tests	
5.1	Force Stability	
5.2	Impact Stability	
5.3	Force Stability; Freestanding Screens	
6	Mechanical Strength	
7	Panel Glide Assembly Strength	
8	Panel Component Static Load Tests	
8.1	Primary Surface Concentrated Functional Load	
8.2	Horizontal Surface Distributed Functional Load	
8.3	Primary Surface Concentrated Proof Load	
8.4	Horizontal Surface Distributed Proof Load	
8.5	Transaction Surface Torsional Load	
8.6	Functional Load; Panel Mounted Storage Units; Static	
8.7	Proof Load; Panel Mounted Storage Units; Static	
9	Lock Tests	
9.1	Test; Extendible Element Locks	
9.2	Force Test; Door Locks	
10	Panel Mounted Component Cyclic Durability Tests	
10.1	Top Load Ease Cycle; Primary Surfaces	
10.2	Cycle; Extendible Elements Deeper then Wide	

10.3	Cycle; Extendible Elements Wider than Deep	
10.4	Cycle; Center / Pencil Drawers	
10.5	Extendible Element Retention Impact & Durability	
10.6	Rebound	
10.7	Locking Mechanism; Cyclic	
10.8	Keyboard Support & Input Device Support Adjustment	
10.9	Work Surface Vertical Adjustment	
11	Door Tests	
11.2	Door Strength; Vertically Hinged Doors, Bi-fold Doors, & Vert. Receding	
11.3	Hinge Override; Vertically Hinged Doors	
11.4	Vertical Receding Door Strength	
11.5	Horizontal Receding Door Strength	
11.6	Wear & Fatigue; Hinged, Horizontal Sliding, & Tambour Doors	
11.7	Wear & Fatigue; Vertical Receding Door	
11.8	Wear & Fatigue; Horizontal Receding Door	
11.9	Vertical or Horizontal Receding Door Out Stop; Cyclic Impact, & Durability	
11.10	Slam Closed; Vertical Hinged Doors	
11.11	Drop; Horizontally Hinged Doors; Cyclic	
11.12	Slam; Doors which Free Fall Open or Closed	
11.13	Slam Open / Closed; Doors that Do Not Free Fall	
11.14	Door Latch	
12	Disengagement Tests for Panel Mounted Components	
12.1	Upward Force Static Disengagement; Panel Mounted Components	
12.2	Upward Force Impact Disengagement; Panel Mounted Components	
13	Pull Force Test	
<b>ANSI / BIFMA 5.9-2012 _ Storage Unit Testing Price List</b>		
4	Unit Strength Tests - Concentrated, Distributed & Extendable Load	
5	Leg/ Glide Assembly Strength Test	
6	Racking Resistance	
7	Vertical Load Durability Test	
7.1	Top Load Ease Cycle Test	
7.2	Drop Test - Dynamic for Units w/ Seat Surfaces	

7.3	Durability Test for for Units w/ Seat Surfaces - Cyclic Impact	
8	Separation & Disengagement Test	
8.1	Separation Test-Tall Storage Units w/ Vertically or Stacked Elements	
8.2	Upward Impact Force Disengagement Test	
8.3	Upward Force static Disengagement Test	
9	Stability Tests	
9.2	Horizontal Force Stability Test for Tall Storage Units	
9.3	Stability Test for Type 1 units w/ Extendable Elements	
9.4	Stability Test for Type 1 Storage Units with Multiple Extendable Elements	
9.5	Stability Test for Type 2 Storage Units with Extendable Elements	
9.6	Vertical Force Stability Test for Storage Units	
9.7	Stability Test for Pedestals / Storage Units w/ Seat Surfaces	
10	Storage Unit Drop Test	
11	Durability Test for Desks and Tables w/ Casters	
12	Rebound Test	
13	Extendible Element Retention Impact and Durability Test	
14	Lock Tests	
14.2	Force Test for Extendible Element Locks	
14.3	Force Test for Door Locks	
14.4	Locking Mechanism Cycle Test	
15	Extendible Element Cycle Test	
15.2	Cycle Test for Extendible Elements Deeper than Wide	
15.3	Cycle Test for Extendible Elements Wider than Deep	
15.4	Horizontal Cycle Test for Television / Video Display Extendible Elements	
15.5	Cycle Test For Low Height Drawers	
16	Interlock Strength Test	
17	Door Tests	
17.2	Strength Test for Vertically Hinged Doors, Bi-fold Doors, & Vertically Receding	
17.3	Hinge Override Test for Vertically Hinged Doors	
17.4	Vertically Receding Doors Strength Test	
17.5	Horizontal Receding Doors Strength Test	
17.6	Wear / Fatigue Test for Hinged, Horizontal Sliding, and Tambour Doors	
17.7	Wear / Fatigue Test for Vertical Receding Doors	

17.8	Wear / Fatigue Test for Horizontal Receding Doors	
17.9	Vertical and Horizontal Receding Door Out Stop Test – Cyclic Impact and Dura	
17.1	Slam Closed Test for Vertically Hinged and Vertically Receding Doors	
17.11	Drop Cycle Test for Horizontally Hinged and Horizontally Receding Doors	
17.12	Slam Test for Doors that Free Fall Open or Closed	
17.13	Slam Open and Closed Test for Doors That Do Not Free Fall	
17.14	Door Latch Test	
18	Clothes Rail Static Loading Test	
19	Swivel cycle test for Television / Video Display Terminal Surfaces	
20	Pull Force Test	

**ANSI / BIFMA 5.11-2015 General Purpose Large Occupant Office Chair Testing Price List**

6	Back Strength - Type 1	Static/Horizontal
7	Back Strength - Type 2 & 3	Static/horizontal
8	Drop Test - Dynamic	Static / Vertical
9	Swivel Test - Cyclic	Cyclic / Horizontal / Rotational
10	Tilt Mechanism Test - Cyclic	Cyclic / Horizontal
11	Seating Impact - Cyclic & Load Ease	Cyclic / Vertical
12	Stability Tests	Static / Horizontal - Front & Rear
13	Arm Strength Test	Static / Vertical
14	Arm Strength Test	Static / Horizontal
15	Backrest Durability - Cyclic - Type 1	Cyclic / Horizontal
16	Backrest Durability - Cyclic - Type 2 & 3	Cyclic / Horizontal
17	Caster / chair Base Durability - Cyclic	Cyclic / Horizontal
18	Leg Strength	Static / Horizontal - Front & Side
19	Arm Durability	Cyclic / Vertical
20	Out Stop/Manual Adjustable Seat Depth	Cyclic / Horizontal
21	Tablet Arm Load	Static / Vertical
22	Tablet Arm Load Ease	Cyclic / Vertical
23	Sturctural Durability Test	Cyclic / Horizontal
FNAE	80-214 Recliner Cycle Test	Cyclic / Horizontal



RWST	Real World Sit Test	Cyclic / special fixture
<b>ANSI / BIFMA 6.5 Small Office &amp; Home Office Furniture Testing Price List</b>		
4	Stability Tests	
4.2	Stability Under Vertical Load Test	
4.3	Stability Test for Units with Extendible Load-Bearing Elements	
4.4	Stability Test for Freestanding Pedestals	
4.5	Horizontal Stability Test for Desk/Tables with Casters	
4.6	Horizontal Force Stability/Disengagement Test for Tall Units	
4.7	Vertical Force Stability For Bookcases and Other Units Without Extendible Elements	
4.8	Horizontal Force Stability for Bookcases and Other Units Without Extendible Elements	
5	Static Load Tests	
5.2	Distributed Functional Load Test for Individual Surfaces	
5.3	Concentrated Functional Load Test For Primary Surfaces	
5.4	Distributed Proof Load Test for Individual Surfaces	
5.5	Concentrated Proof Load Test for Individual Surfaces	
5.6	Unit Strength Test - Static Load	
5.7	Extendible Element Proof Load Test	
6	Top Load Ease Test - Cyclic	
7	Leg Strength Test - Static	
8	Horizontal Racking Resistance Test	
9	Interlock Test - Static	
10	Drop Test	
11	Lock Tests	
11.2	Force Test for Extendible Element Locks	
11.3	Force Test for Door Locks	
12	Extendible Element/Equipment Surface Test - Cyclic	
12.2	Cycle Test for Extendible Elements/Equipment Surfaces Deeper Than Wide	
12.3	Cycle Test for Extendible Elements/Equipment Surfaces Wider Than Deep	
12.4	Cycle Test for Center/Pencil Drawers	
13	Extendible Element/Equipment Surface Retention Tests	
14	Rebound Test	
15	Keyboard Support and Input Device Support Adjustment Tests	

16	Hinged Door Tests	
16.1	Strength Test for Vertically Hinged Doors	
16.2	Wear / Fatigue Tests for All Hinged Doors	
16.3	Slam Open/Closed Test for Vertically Hinged Doors	
16.4	Drop Cycle Test for Horizontally Hinged and Horizontally Receding Doors	
17	Receding Door Tests - Cyclic	
17.2	Test for Horizontal Receding Doors	
17.3	Test for Vertical Receding Doors	
18	Sliding and Tambour Door Tests - Cyclic	
18.2	Wear / Fatigue Test	
18.3	Slam Open and Closed Test for Doors Which Do Not Free Fall	
19	Durability Test for Products with Casters - Cyclic	
20	Pull Force Test	

**Labor Cost (per hr): \$75 per hour**

**Cost:** \_\_\_\_\_

**Machine Run Cost (per hr): \$2 per hour**

**Cost:** \_\_\_\_\_

**Total:** \_\_\_\_\_