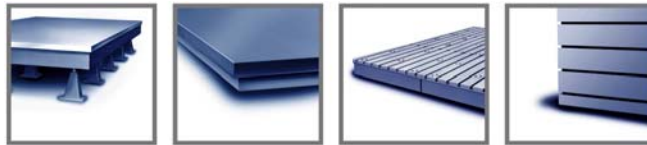




**ITB**  **NA**

a CFM Schiller Company



## ENGINEERING, DESIGN AND MANUFACTURING

Dynamic Test Fixtures  
Base Plates  
Seismic Mass Design  
Vibration Isolation  
Professional Installation



# Customer-Focused, ... German-Engineered,



## **CFM-ITBONA LLC**

CFM-ITBONA LLC was founded in April 2006 as a joint venture by the companies CFM Schiller GmbH and ITBONA Inc. The goal was to better serve the local Testing Market with Custom Design, Manufacturing, Service and Installation. CFM-ITBONA is committed to the highest standards of German Quality backed by the 30 years of experience of both founding companies. CFM-ITBONA is located in Spring Park, Minnesota, USA.



## **CFM Schiller GmbH**

With almost 30 years of experience CFM Schiller established itself as the leading provider of vibration isolation equipment and test fixturing for mainly the automotive industries. CFM Schiller with its highly skilled engineering staff and own manufacturing provides customized designs for single applications up to complete turn key systems. CFM Schiller is located in Germany, Roetgen (near Cologne).



## **Wilhelm Stolle GmbH**

With a 100 year tradition STOLLE is the market leader for the production of casting plates and related cast iron equipment in Europe. Stolle has the reputation of delivering highest quality in casting and machining. Casting plates are mainly used by the automotive-, machine tool-, airplane-, train- and measuring industry. Wilhelm Stolle is located in Germany, Bonn.

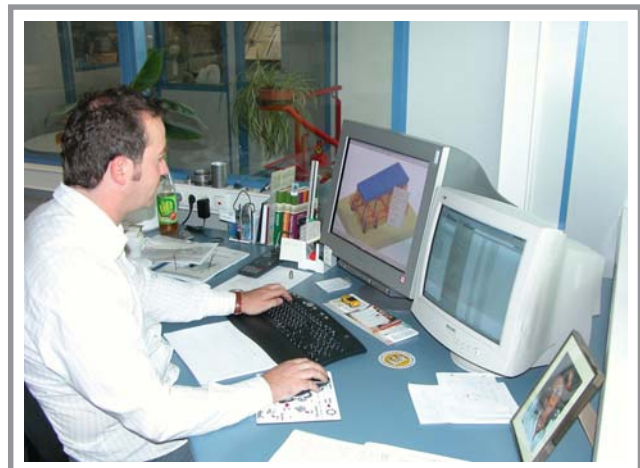
## ... U.S. Based

At CFM ITBONA, our most productive relationships begin when engineers present us with their testing challenges. Our customer's daily business is fatigue testing or performance evaluation on a wide variety of parts, subassemblies or complete systems. We see us as a partner to our customers. With the help of our intelligent fixture design our customers can do their jobs faster, more efficient while achieving test results they can rely on. That saves valuable time and money.

Beginning with an initial customer call, our German-trained engineers strive to first understand the testing requirements, engineering specifications and dynamic forces of each project. This collaboration enables customers to leverage 25 years of testing industry experience offered by the engineers at CFM Schiller and CFM-ITBONA.

After thoroughly understanding each project, we can offer the appropriate solution:

- **Test-fixture design, manufacturing and installation**
- **Custom T-slot plate manufacturing and installation**
- **Seismic mass design**
- **Vibration isolation**



Our customers also benefit from a new manufacturing facility established in Minneapolis in 2006. Every effort was made to replicate the German quality standards for manufacturing and installation of test fixtures, including the assignment of a German machinist, certified welder and installer to the U.S. operations.

- **Consult**
- **Design**
- **Build**
- **Install**



# Cast Iron Plates & Angle Plates



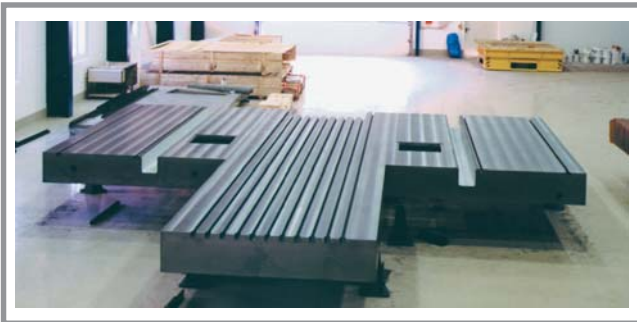
## ■ T-slot base plates

We offer T-slot Base Plates for the Automotive Testing and Machine Tool industry. The base plates are very stiff by using a rib-pattern which eliminates the need of grouting the plate except for high dynamic loading.

T-slots are machined according to DIN 650 and can be ordered in any size and pattern.

We offer T-slot base plates in all sizes and shapes to your specification, in cast iron or steel.

We manufacture in metric or non metric. We machine T-slots size and location to your specification. We design base plates for all applications.



## ■ Surface Plates

We manufacture surface plates in any size or design. Surface plates can be mounted on special supports or directly to the floor.

Surface plates can come with inspection holes, threaded holes or grid patterns, defined by the customer. The surface accuracy is defined by DIN 876.



## ■ Angle Plates in cast iron or steel

We can provide the design and build of angle plates, specifically made for your application. If the stiffness and resonant characteristic of the angle plates is of importance we will use FEM Analysis methods to guarantee the desired performance data. We can provide T-slots in any form and direction, threaded holes, custom openings and more, specified by you.

# T-slot Tables & Test Fixtures

- **T-slot tables on heavy support frame**

We offer custom designed work tables in any size or shape. The tables are usually made of steel with T-slots machined to our customers specifications. The support frames are designed to accommodate any working height and payload and can be supplied with vibration isolators.



- **Elevating Tables**

We offer several types of elevating tables with manual handling or automatic lifting, corrosion resistant for use in a climate chamber i. e.



# Test Fixturing



We design any custom test fixturing based on your specification, for linear or rotating applications like the following examples:

- **Tilting tables, fixed or adjustable tables**
- **Axle fixture systems**

to hold axles, chassis systems or their components. They can be universally applied to all common axle types and hold either the front or the rear axle.



## ■ **MOCOKIT**

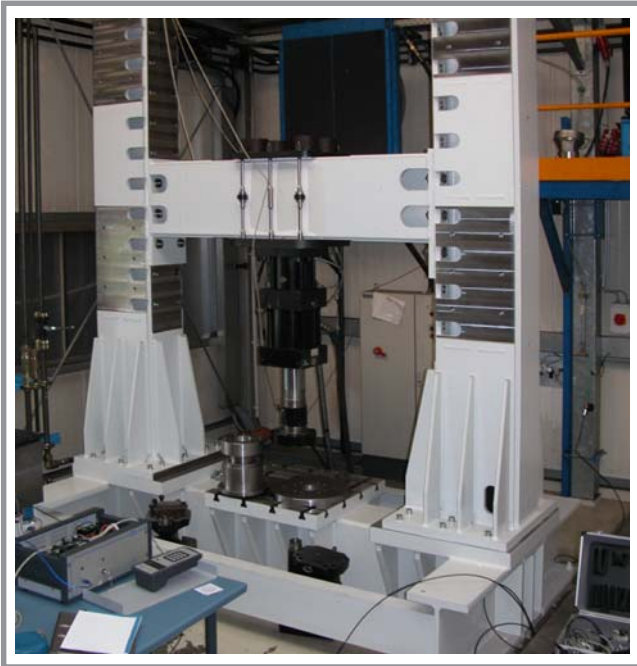
The Mocokit is a versatile modular fixturing kit customized specifically to the demands of component test labs. Linear actuators and rotary actuators as well as test specimen can easily be mounted in any direction and any angle. The *MOCOKIT* components are fatigue rated and come in three load ranges ( up to 5.5 kip, 14 kip and 55 kip).



For more information ask for this brochure:

# Weldments

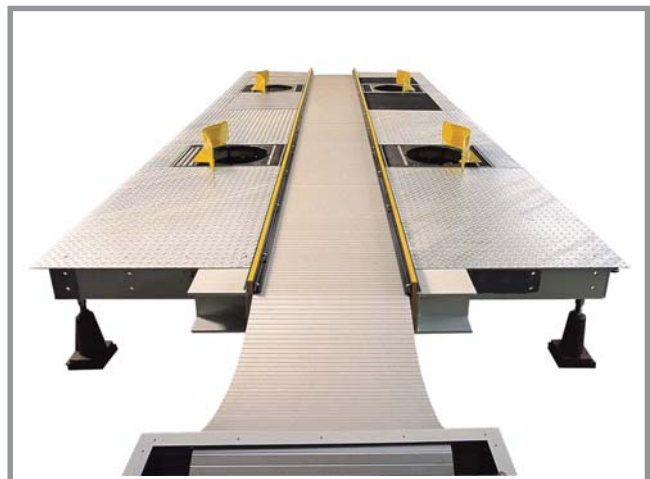
- Steel weldment sub-structures like for K&C machines
- Load frames



- High performance aluminium weldment



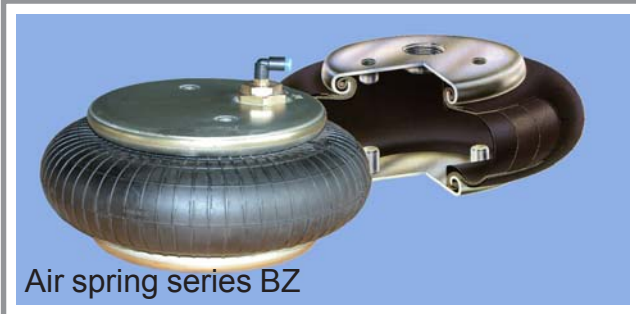
- Pit cover



# Vibration Isolation Systems



Air spring series GRB



Air spring series BZ



Air spring series MAS



Steel spring series Ubpl



Steel spring series P

## ■ Air springs and steel springs

We offer vibration isolation systems for any application. The advantages of air springs are the level control capability and the low 1<sup>st</sup> resonant frequency ( $\geq 0.8$  Hz). Air springs of the series GRB and BZ are used to isolate seismic masses or base plates where membrane air springs type MAS are typically used for Dynamometer test rigs and passive isolation.



Steel springs are typically used for Chassis Roller systems, where active level control is not important.

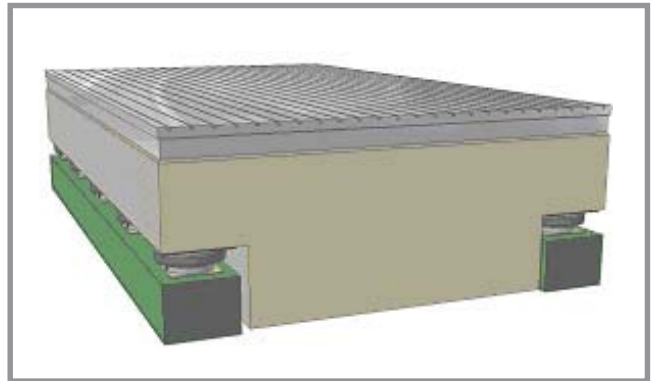




# Seismic Mass Design

We design suspended and fixed seismic masses based on your performance data. We offer the complete seismic mass and pit layout with integration of base plates, anchoring, X-Y-adjustment units, actuators, pit covers and more. Furthermore we provide a drawing package of the rebar system with integrated anchor frame, which can be used by architects or construction companies to build the seismic mass.

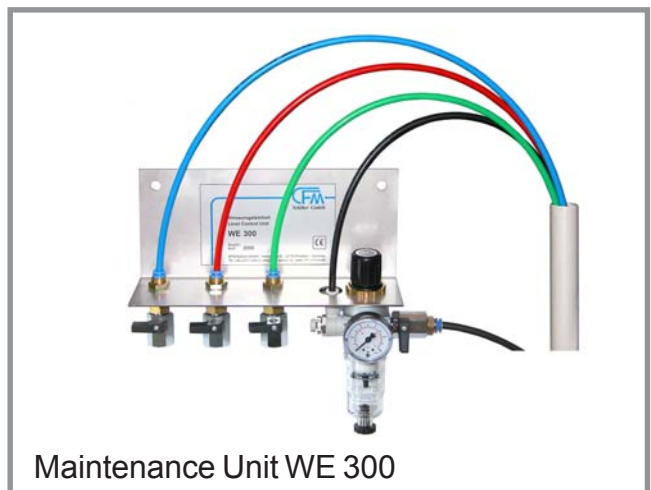
When using vibration isolation an active level control system automatically regulates the height and level of the seismic mass. This is especially important for varying loads, off-center loading as well as loads changing locations, like driving a car on or off.



Level Control Unit LC 300



Level Control Unit μC 300



Maintenance Unit WE 300

# Installations

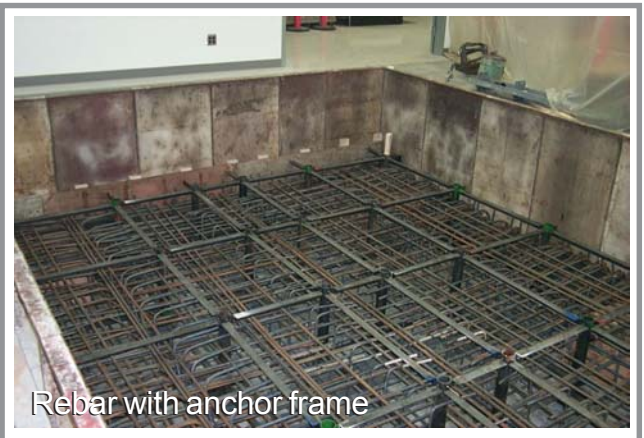


Base plate with protective wax cover

We provide installation services for all our products. The pictures below show a turn-key installation of a vibration isolated seismic mass with anchor frame, base plates and level control system installed by CFM-Schiller at Continental Teves in Auburn Hills, MI.



Seismic mass area



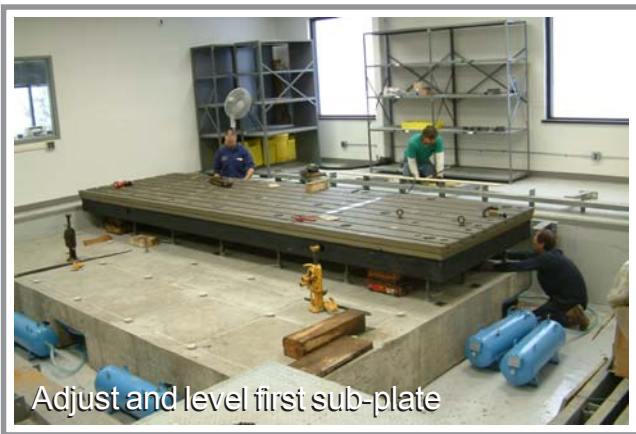
Rebar with anchor frame



Finished seismic mass



Bringing in the first sub-plate



Adjust and level first sub-plate



Finished: Protective wax on the plate stays until test system is ready to be installed

# Turn Key Solutions

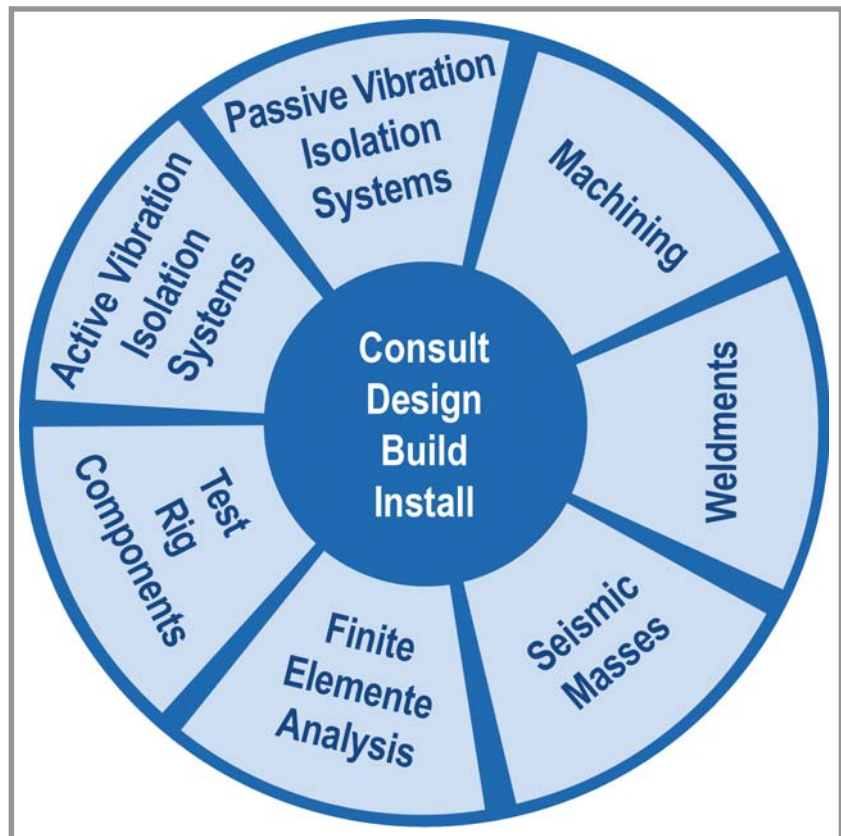
- **Consult - Design - Build - Install**

CFM-ITBONA offers **Turn Key Solutions**.

That means we can provide you with a complete system from the seismic mass via the base plate to the test fixture on top, including its professional installation. The complete system design as a whole is based on your performance criteria, not only one part. This is crucial to achieve accurate test results you can rely on.

Please contact us and describe your test setup and the results you want to achieve. We will do the rest.

CFM-ITBONA LLC  
4282 Shoreline Drive  
Spring Park, MN 55384, USA  
Tel.: +1 (952) 9426104  
Fax: +1 (952) 9426106  
contact@cfm-itbona.com  
www.cfm-itbona.com



Ask for more information:





**CFM-ITBONA LLC**  
4282 Shoreline Drive  
Spring Park, MN 55384, USA  
Tel.: +1 (952) 9426104  
Fax: +1 (952) 9426106  
contact@cfm-itbona.com  
www.cfm-itbona.com



**CFM Schiller GmbH**  
Vennstraße 8  
52159 Roetgen  
Germany  
Tel.: +49 (0) 24 71.12 46-0  
Fax: +49 (0) 24 71.12 46-20  
www.cfm-schiller.de  
info@cfm-schiller.de



**Wilhelm Stolle GmbH**  
Broichstraße 78-90  
53227 Bonn  
Germany  
Tel.: +49 (0) 228 / 950330  
Fax: +49 (0) 228 / 9503333  
info@stolle.net  
www.stolle.net