



DIAMOND MICROWAVE CHAMBERS LTD

INTRODUCTION

- Diamond Microwave Chambers Ltd is the manufacturer and supplier of EMC Anechoic chamber, Antenna Anechoic Chamber, Antenna measurement system and RF Microwave and Millimeter wave absorbers
- We work with all test system suppliers to offer complete Turn-Key solution integrated with all necessary systems and gears
- Product Portfolio – EMI/EMC Test Chamber, Antenna Measurement System, RF Anechoic Chamber, RF Shielded cabinet, RF/Microwave/mmWave Absorbers, Honeycombs and Power line filters
- We follow OSHA standard for all installs and ensure international safety standards are being met to protect all our installers and technicians. Our team of Experts ensure End-End Project Management focused in Engineering standards and Engineered to meet all local Government install standards
- Industry Experience – More than 50 years of combined Experience in RF, Microwave and Chamber build industry adds up high integrity and quality

DMC IN A NUTSHELL

OUR COMMITMENT



Quality
Work



Trusted
Partner



Efficiency



Good
Customer
Relations



Affordable
Rate



COMPANY HEADQUARTERS
OTTAWA, CANADA



COMPANY REPRESENTATIVES
& DISTRIBUTORS
ACROSS GLOBE



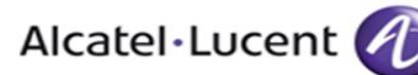
COMPANY RESEARCH &
DEVELOPMENT
TOKYO, JAPAN

TECHNOLOGY PARTNERS

DMC is an official partner of Keysight and Anritsu for supplying chambers, RF absorbers and utilizing their Test and measurement equipment for DMC turn-key Antenna measurement system projects

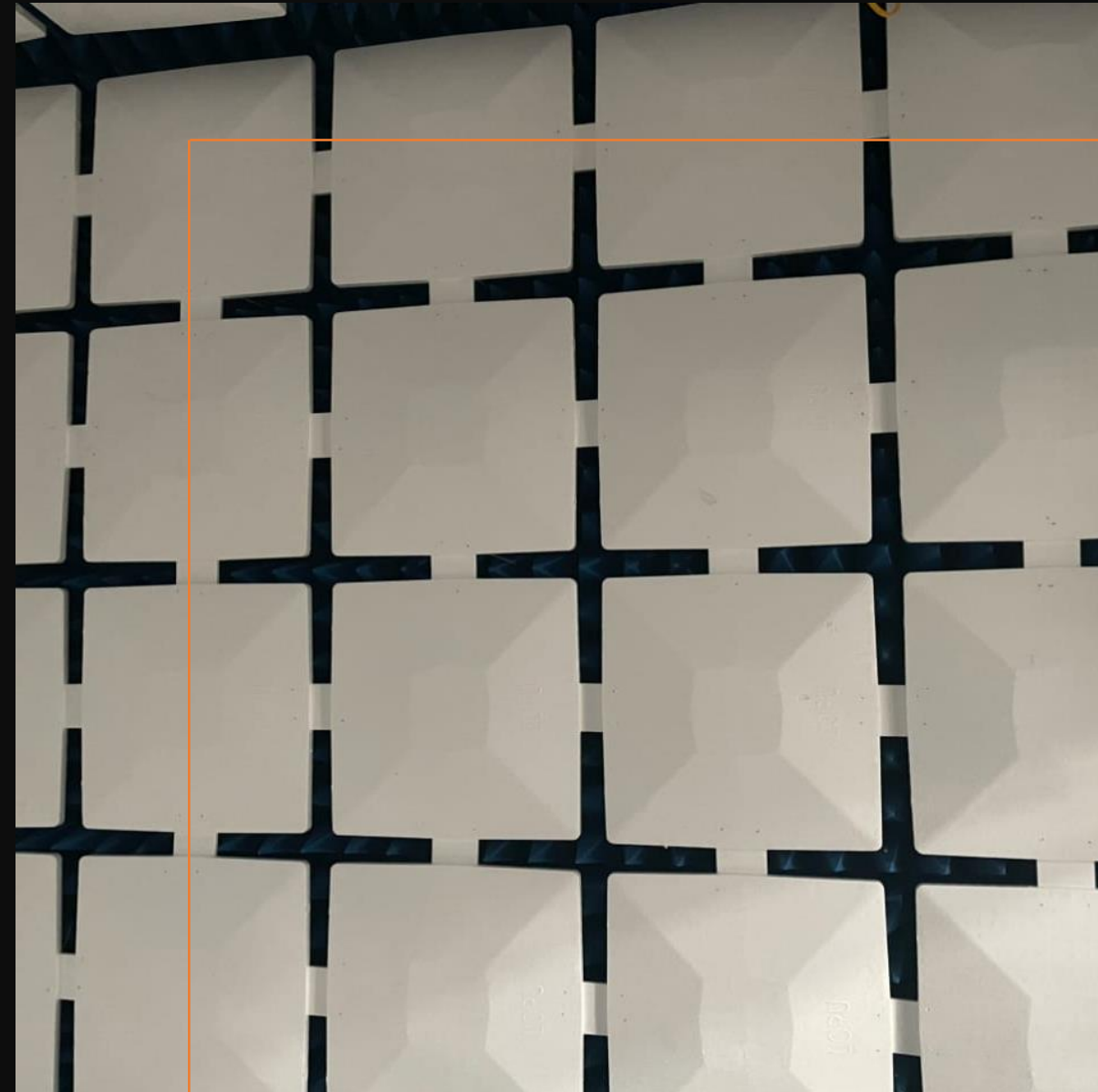


MAJOR
INDUSTRY
CUSTOMERS



Major US Customers List

Project Location	Company Name
USA	POC, CA, USA
USA	Anokiwave, NM, USA
USA	Beckman Coulter, CA and MN, USA
USA	Johnson Controls Inc, FL, USA
USA	Activision (Video Game Publisher) , CA, USA
USA	Qualcomm San Diego, USA
USA	Prolec GE USA LLC, LA, USA
USA	Auburn University, AL, USA
USA	Lockheed Martin, CO, USA
USA	CMI, CO, USA
USA	Northrop Grumman, CA, USA
USA	General Atomics, CA, USA
USA	Intel, OR, USA
USA	POC, CA, USA



WHAT MAKES US DIFFERENT

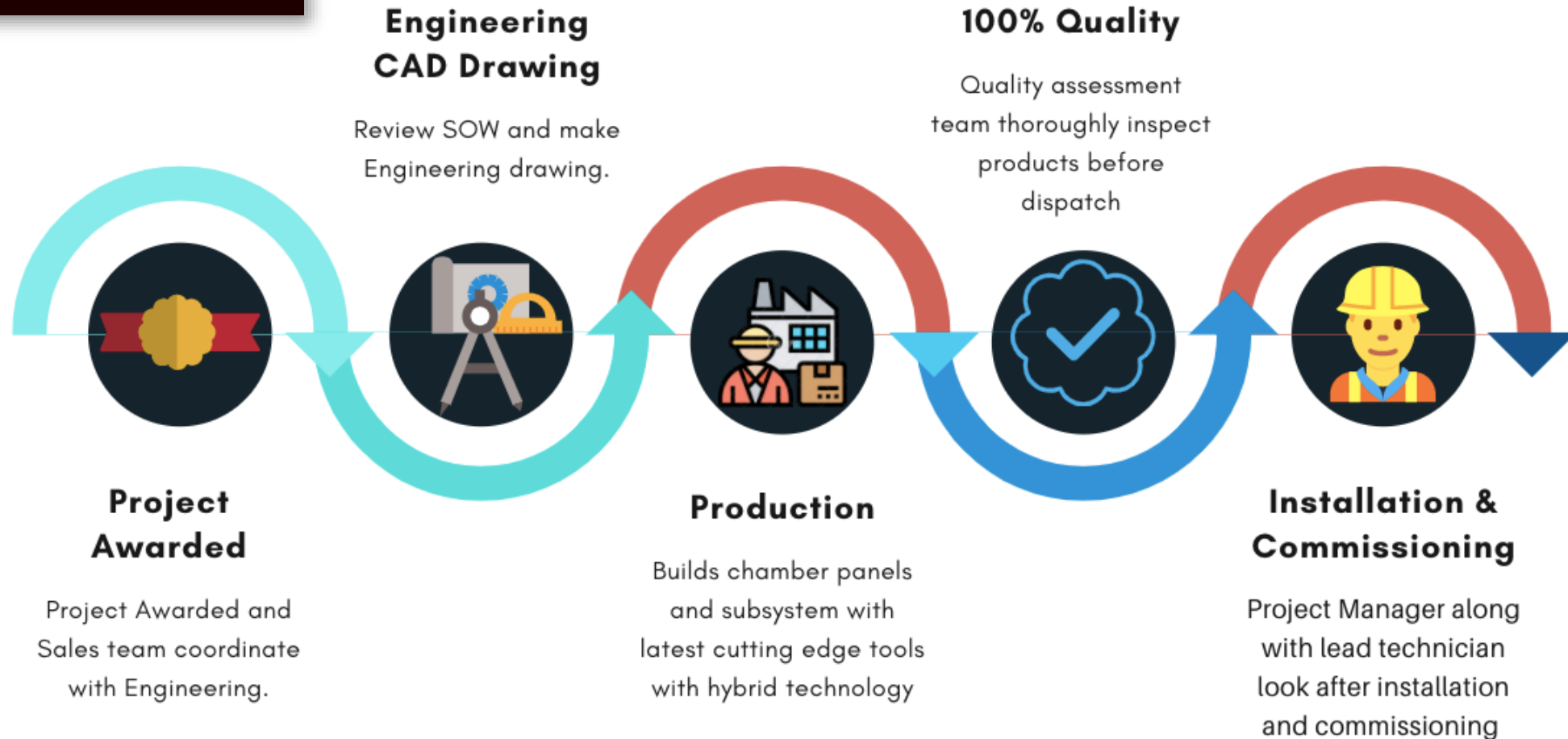
CUSTOM-FIT SOLUTION AND AFFORDABILITY

DMC and its global partners always strive to meet customer requirements and make sure to meet 100% customized technical specifications with competitive prices.

QUICK TURN AROUND TIME

DMC provides quick turn around time for projects by using cutting edge technology and offers Turn-key solutions meeting all international standards such as IEC/EN, CISPR, MIL-STD, ISO, ANSI.

DMC PROJECT DELIVERY MODEL



DMC PRODUCTS AND SERVICES

01

Anechoic Chamber

02

RF Shielded Room

03

RF Shielded Cabinet

04

Polypropylene
Polyurethane
Absorbers

05

Anechoic Chamber
Accessories

06

Installation and
Renovation of
Chamber

07

Near Field Antenna
Measurement System

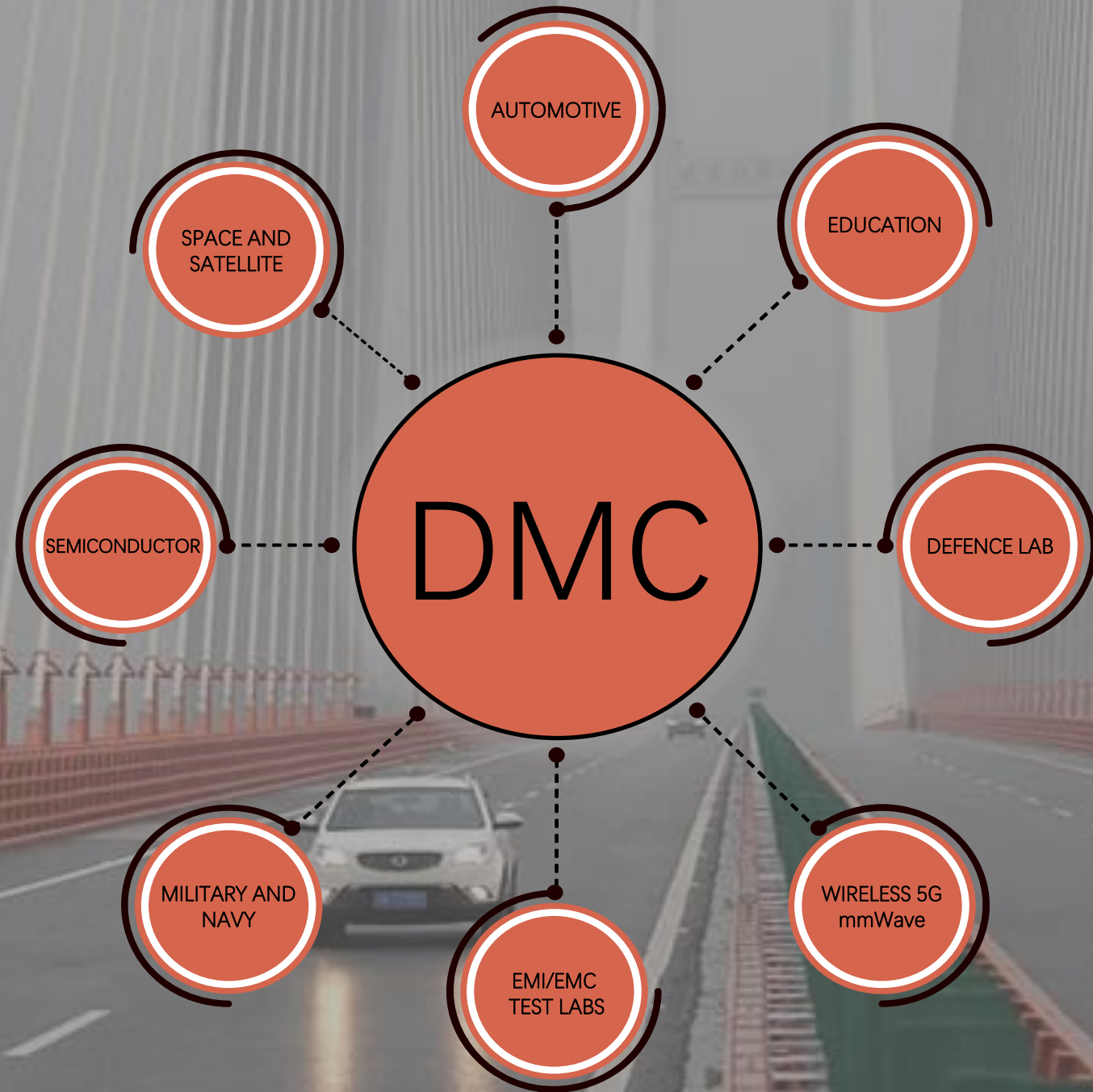
08

Far Field Antenna
Measurement System

09

Compact Range
Measurement System

INDUSTRIES SERVED



DMC Pre-Compliance Chamber

- DMC chambers are useful for pre-compliance emissions and compliant immunity testing with limited space availability in the host building. It provides test capability at 3 meter test distance with up to 2.0 meter quiet zone and repeatable results.
 - Full Compliance Emission per ANSI C63.4 and CISPR-16
-

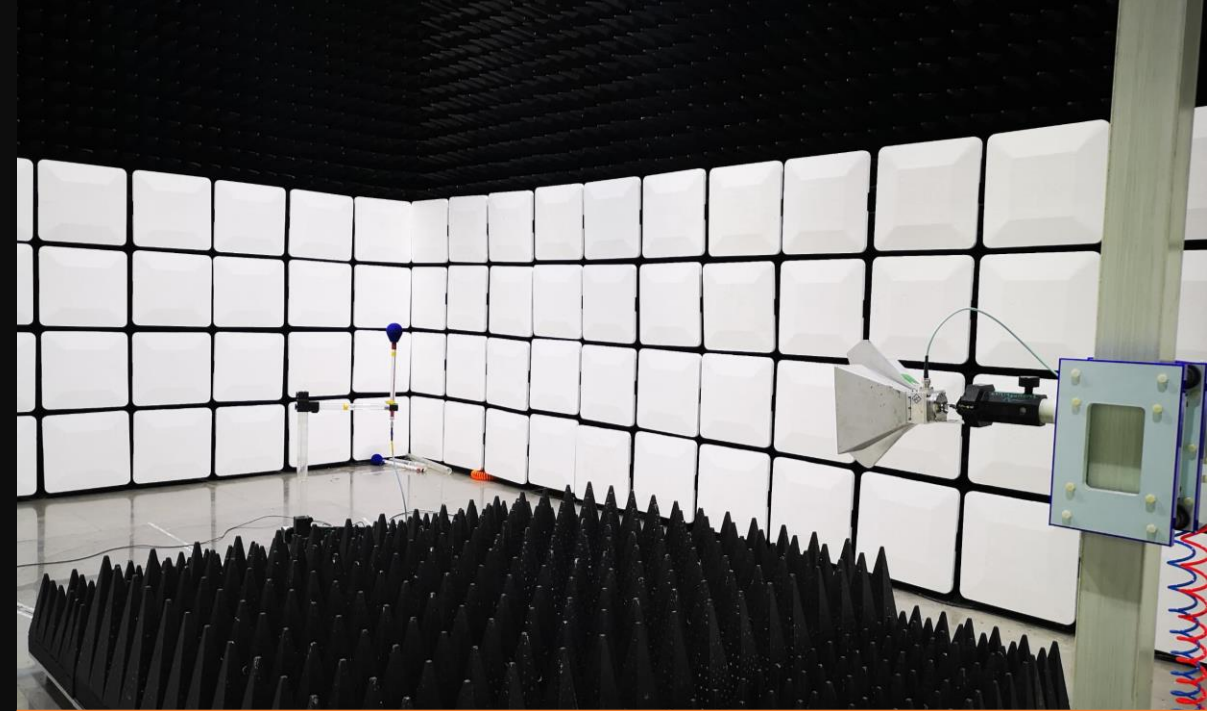


DMC 3mtr SAC & FAC Chamber

Normalised site attenuation deviation (NSA) is better than ± 3.5 dB between from 30MHz to 1 GHz sVSWR deviation better than ± 5.5 dB from 1 GHz to 18 GHz.


Full Compliant Immunity per IEC/EN 61000-4-3

Field Uniformity deviation better than 6 dB at 75% of 16 measuring points from 26 MHz/ 80 MHz to 18 GHz

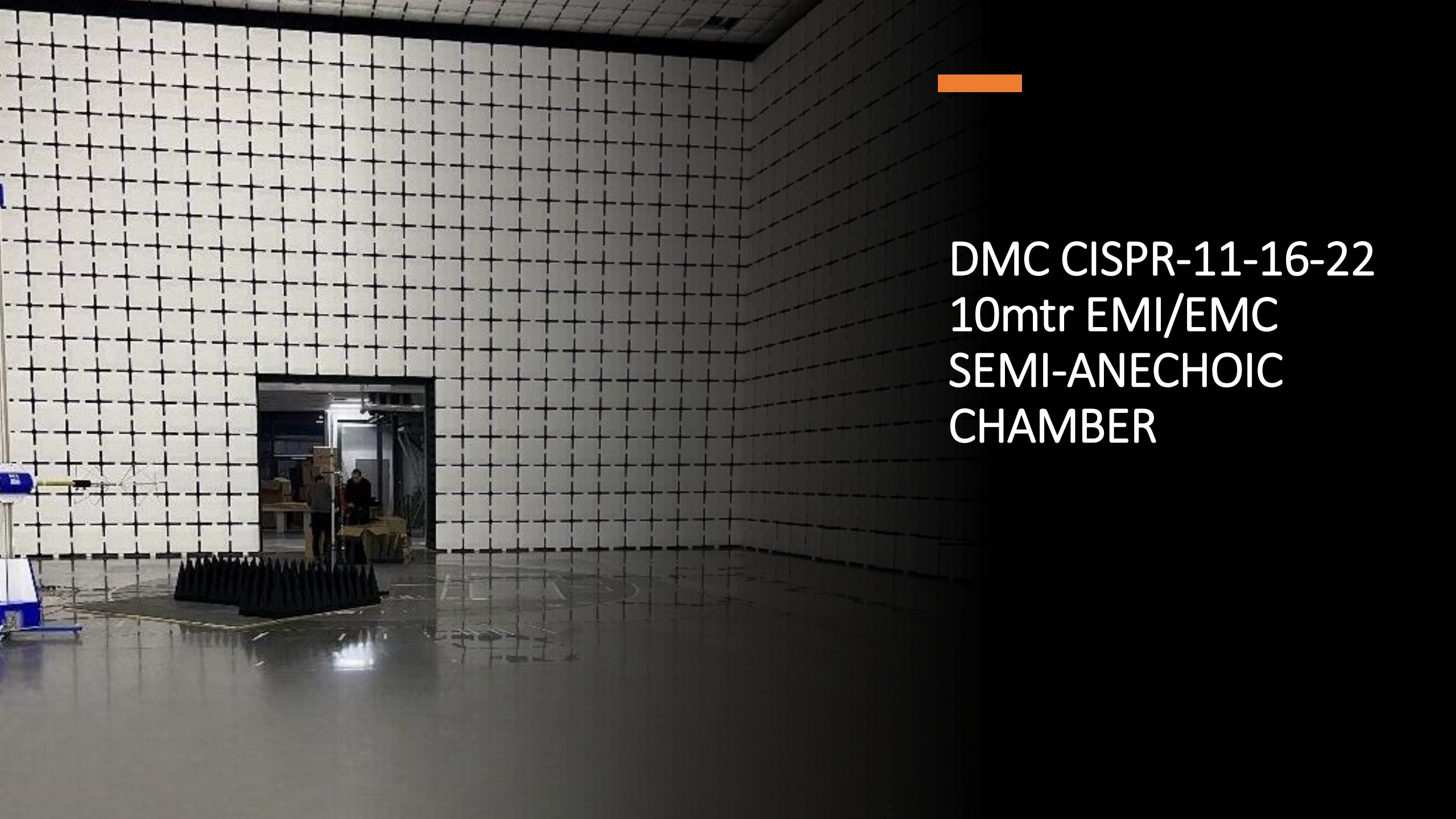




**DMC CISPR-11-16-22
10mtr EMI/EMC
SEMI-ANECHOIC CHAMBER**



DMC CISPR-11-16-22
10mtr EMI/EMC
SEMI-ANECHOIC
CHAMBER



DMC MIL-STD 461 G SEMI ANECHOIC CHAMBER

- DMC MIL-STD 461 is a Semi-Anechoic Chamber or referred as MIL STD chamber is a RF-shielded semi-anechoic chamber designed for testing in accordance with MIL-STD 461E, MIL-STD 461F and MIL-STD-461G.
- It is made of DMC-PAN series self-standing shielding, ferrite tiles and Polypropylene based hybrid absorbers on all walls and ceiling with the reflective ground plane.

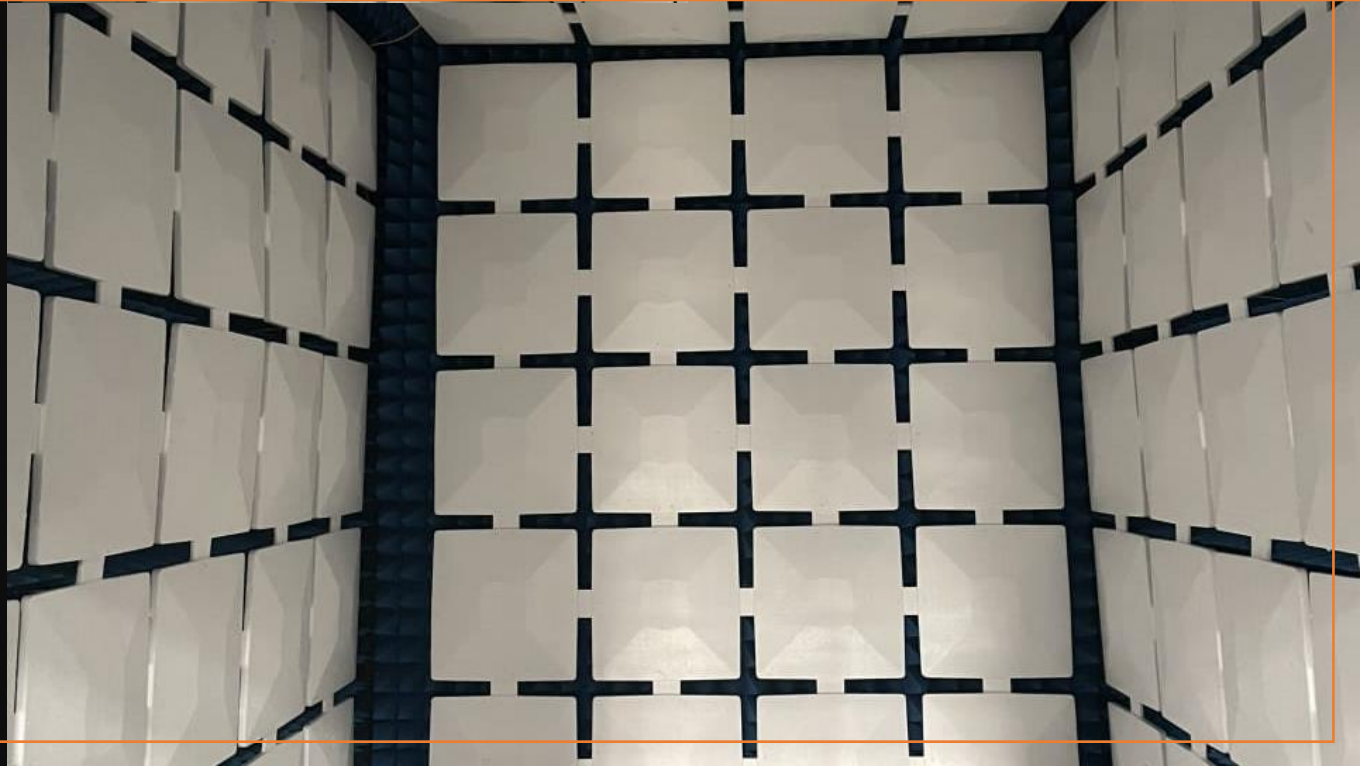
Product Compliance Standard:

- MIL-STD 461 E/F/G



DMC MIL-STD 461-E/F/G

- DMC chambers are lined with Class 5 clean room rated Polypropylene Hybrid absorbers
- DMC offers full turn-key MIL-STD chambers with all Emission and Susceptibility requirements





Diamond Microwave Chambers Limited

Model No: DMC-MIL-STD-PPHY-CR-555535

Product: MIL-STD Chamber with Control Room

Date: May 2020

www.dmcrcf.com

DMC-MIL-STD

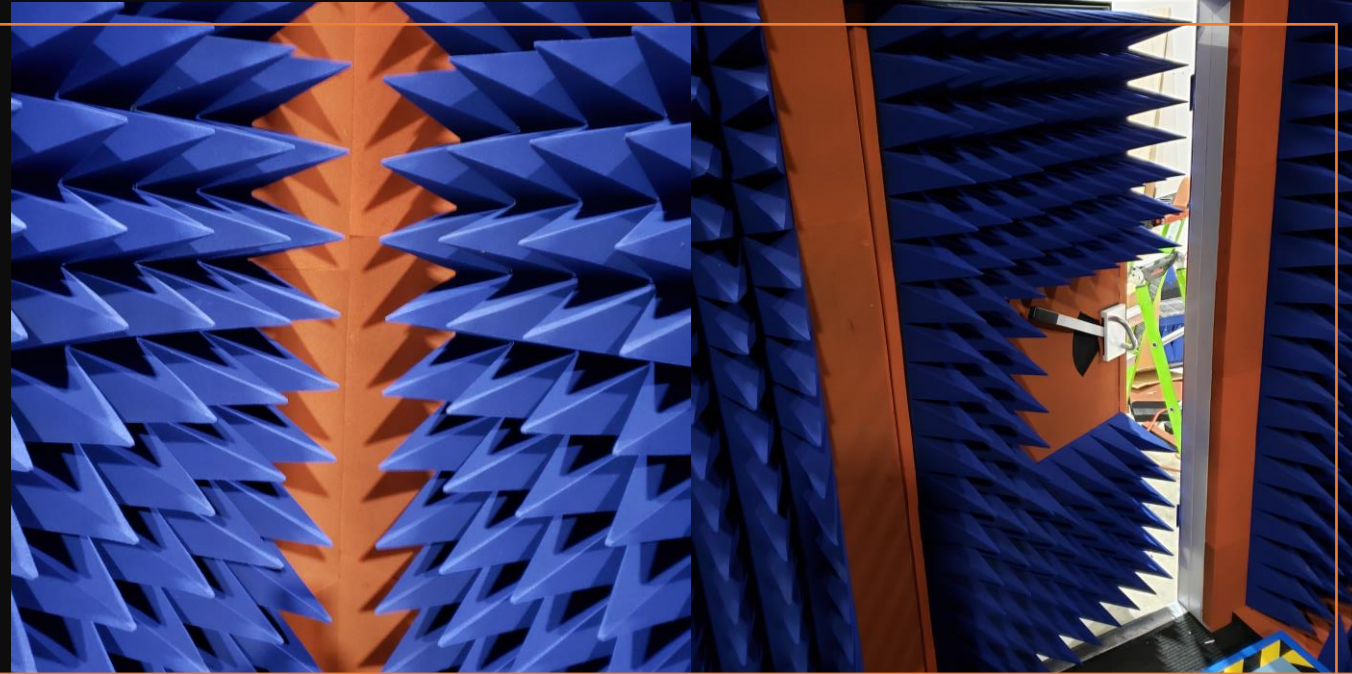
SUPPORT FRAME STRUCTURE



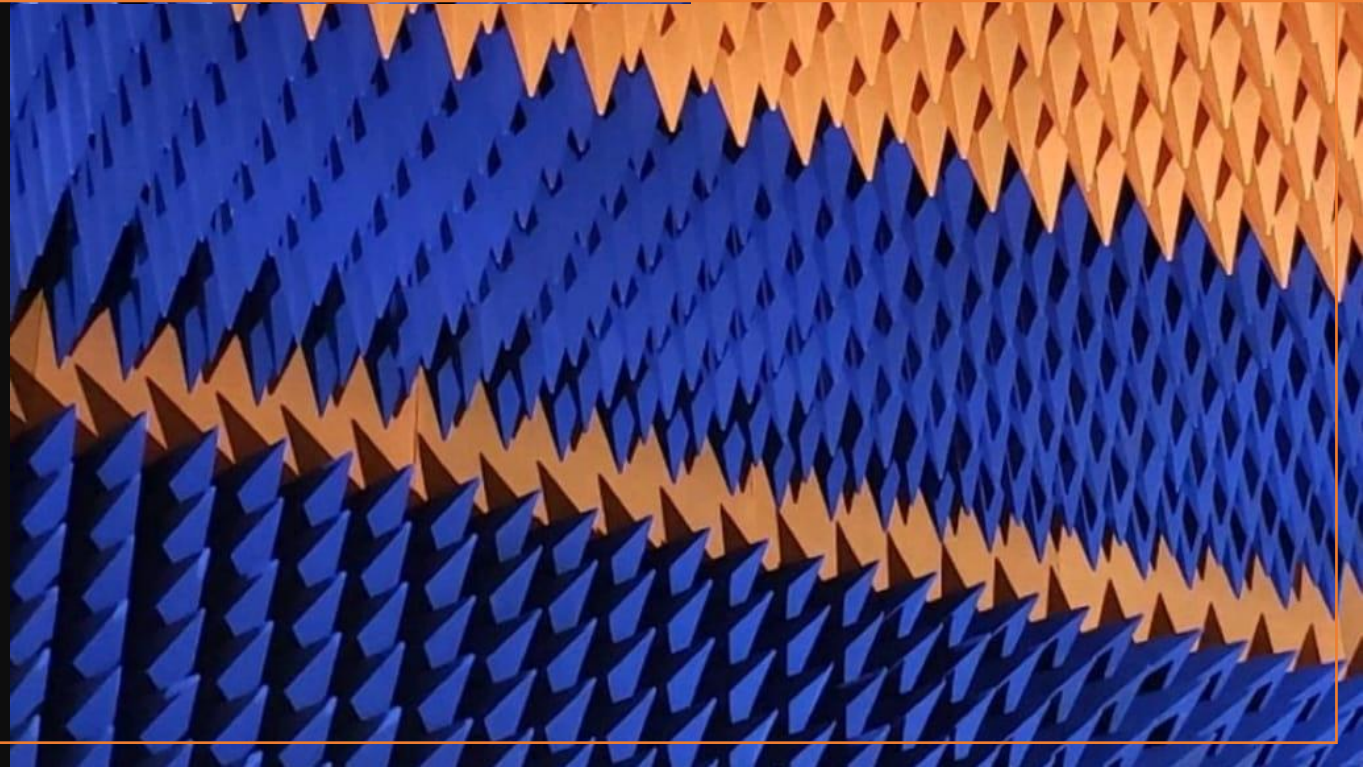
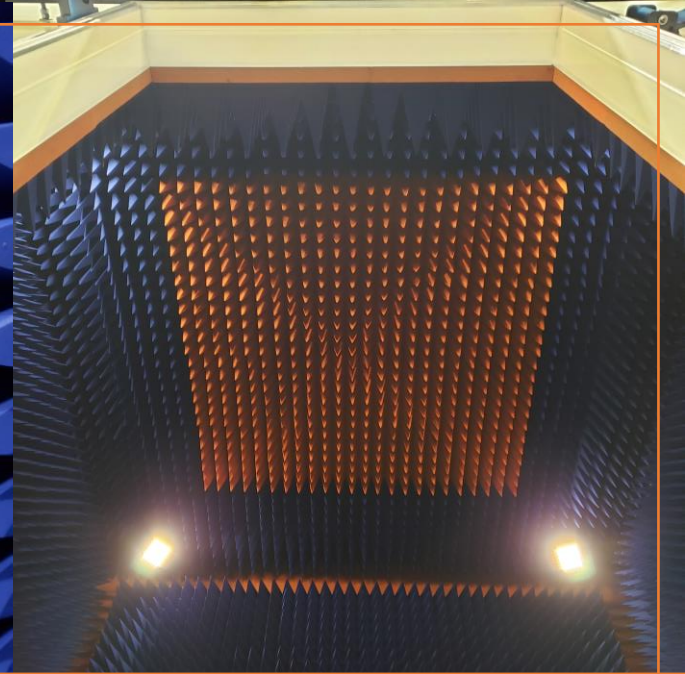
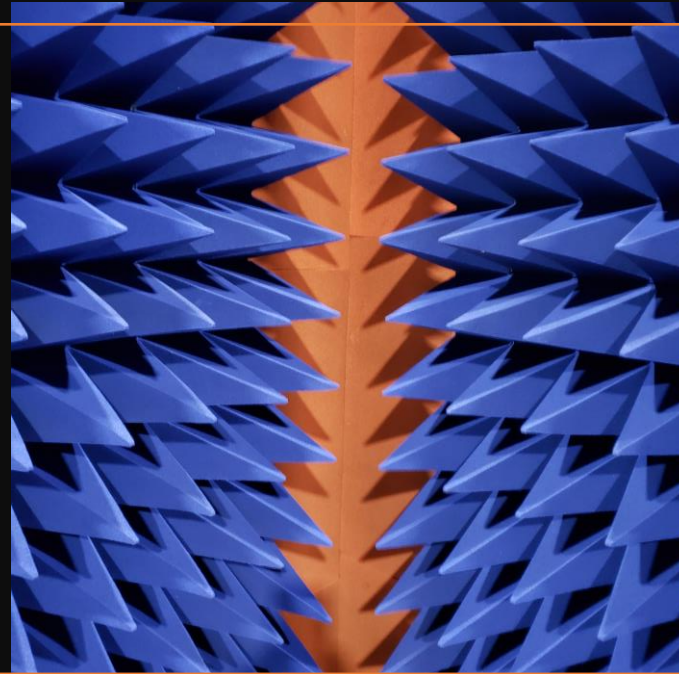


DMC 3mtr CHAMBER SUPPORT STRUCTURE

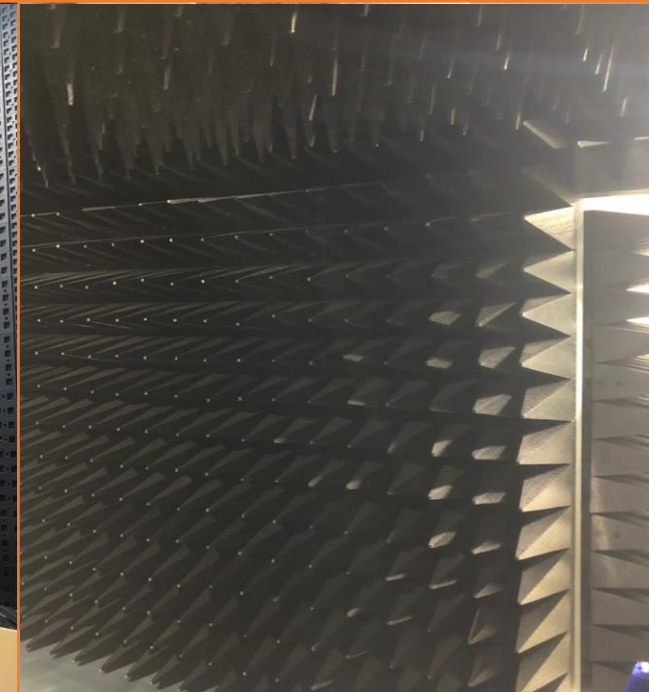
DMC CUSTOM
FIT ABSORBERS
& WALKWAYS



DMC EDGE
TREATMENT OF
PU ABSORBERS



DMC EPP BASE PLATE AND ABSORBERS



Our Installation Crew



PRE-COMPLIANCE TEST CHAMBER

- DMC pre-compliant test chambers are quite compact and cost effective to pre-qualify electrical and electronics Equipment under test (EUT) prior carrying out full compliance testing
- Before going for final accreditation, our pre-compliance chambers provide a test set up as close as the final assessment with repeatable and dependable test results saving time and money

FULL-COMPLIANCE TEST CHAMBER

- DMC Fully compliant test chambers come in different size based on quiet zone diameters, device under test size and test standard requirements
- The combination of DMC-PAN series shielding system with high quality Polypropylene/ Polyurethane absorbers create a controlled test environment meeting international test standards
- Highly experienced engineering team design and manufacture every part of anechoic chamber based on CAD drawings. 3D visualization of the final solution is shown to customer before production starts to ensure every minute details are covered and designed to meet ever changing EMC requirements

DMC RF SHIELDING SYSTEM

- DMC-PAN series modular PAN-type shielding system is made up of 2mm thick Zinc coated cold rolled sheet metal panels as per ASTM A653
- These Galvanized Iron panels are welded on all corners and spray galvanized for long life
- High performance 25.4 mm TCS gaskets are used between panel joints and M10 bolts are fastened in 100 mm gap for excellent RF shielding attenuation
- Our modular construction of shield room is flexible in design and ideal for relocation. It can be custom made to any dimension and design to our customer's specific requirement.
- All parts are precisely made in factory, so no welding or cutting required during installation, barring few exceptions or project requirement
- DMC shielding system provides excellent RF shielding attenuation from 14 kHz to 40 GHz

TYPICAL ATTENUATION OF SHIELDING SYSTEM

	Frequency	Shielding Effectiveness
Magnetic Field	14 kHz	-75 dB
	100 kHz	-90 dB
	200 kHz	-100 dB
Plane Wave	50-1000 MHz	-100 dB
	1-10 GHz	-100 dB
Microwave	18 GHz	-100 dB
	26 GHz	-90 dB
	40 GHz	-80 dB



FULLY AUTOMATED DOOR



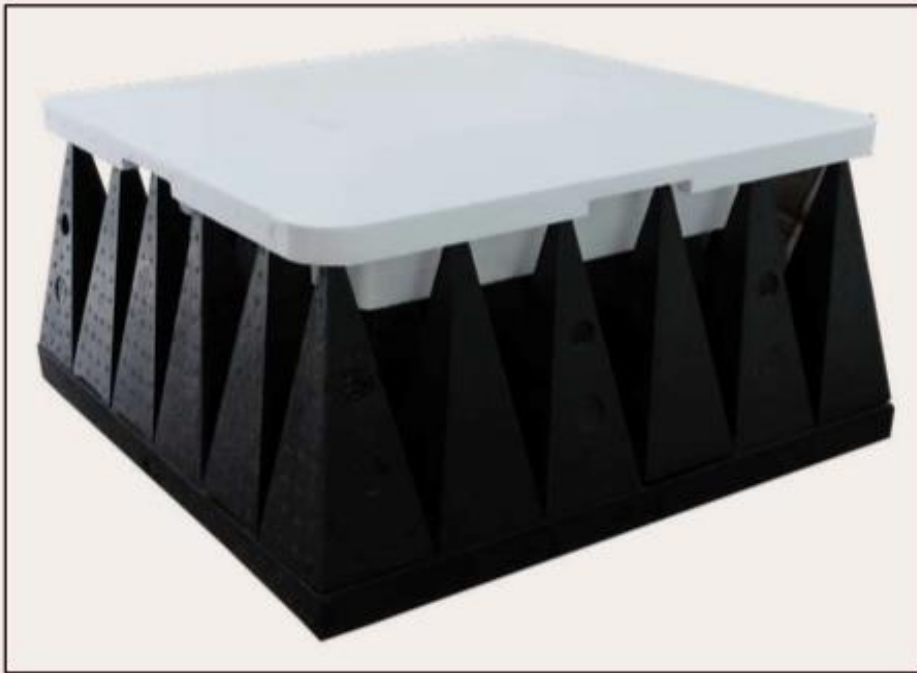
SEMI-AUTOMATIC PNEUMATIC DOOR



POLYPROPYLENE ABSORBERS

PROPERTIES AND FEATURES

- Polypropylene polymers have closed cell structure, moisture-proof and strong mechanical strength than polystyrene and polyurethane
- Polypropylene doesn't use hydrochlorofluorocarbon (HCFC) or butane in foaming process like Polystyrene, so the material has no bad effect on environment after degradation
- Polypropylene(EPP) absorbers are designed with state-of-the-art technology to ensure high uniformity of carbon powder density throughout the absorber
- Manufactured by molding process gives equal dimension to all absorbers and evenly distributed activated carbon particle ensures equal performance of all absorbers
- Almost zero carbon dust emission and Clean room compatible per ISO 14644-1 Class 5
- Water and fire resistant. Fire retardant as per UL94 HBF/ DIN 4102 Class B2
- Halogen free as per ISO 60754-1 and weather proof as per ISO 4892-2
- Power handling capacity: 1.5 kW/m² or 600 V/m
- 35 + years of electrical performance

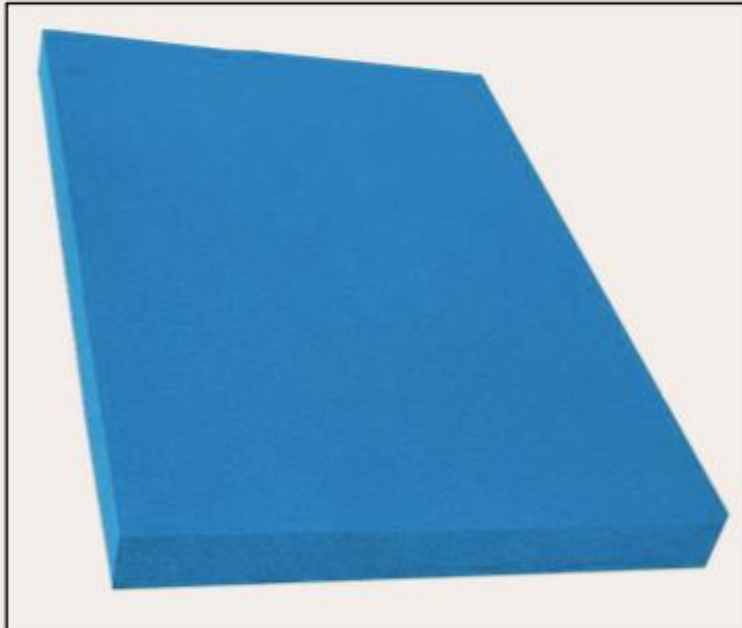
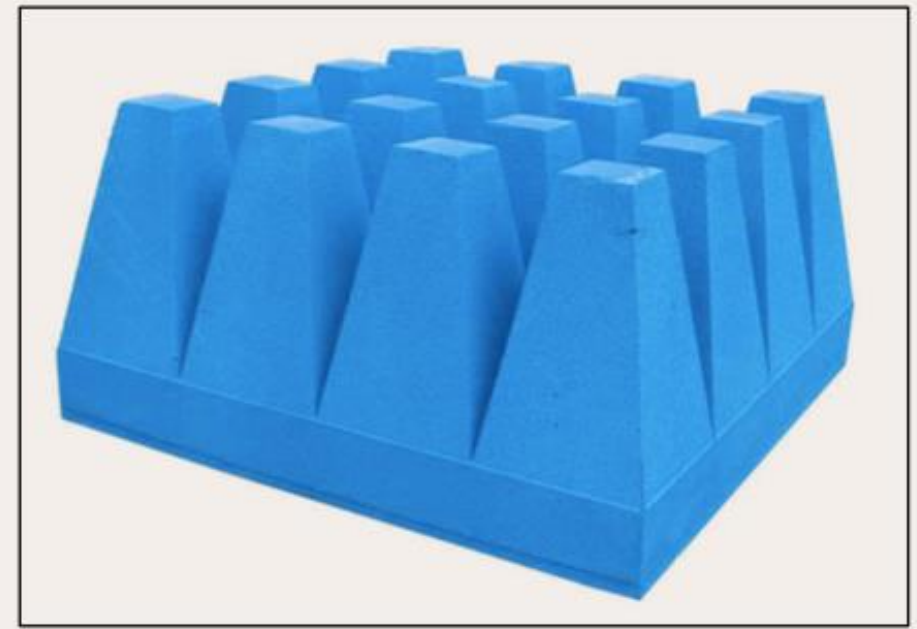
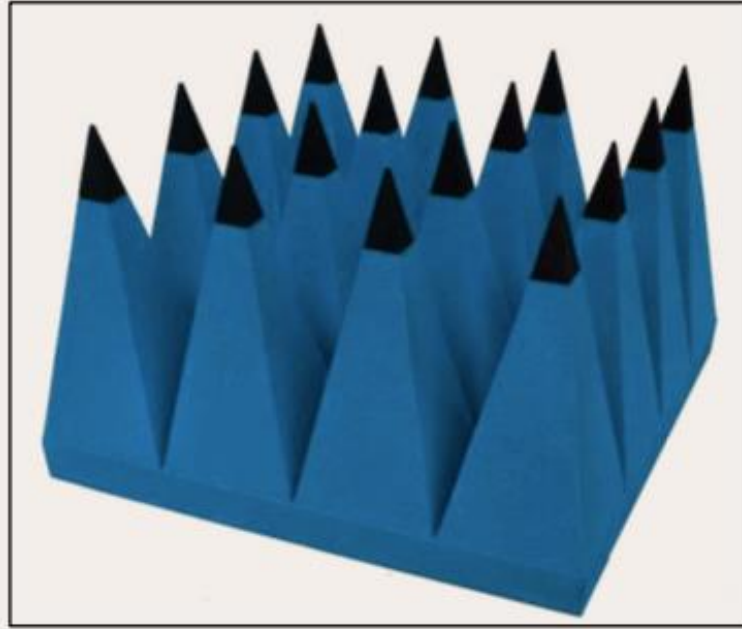


POLYURETHANE ABSORBERS

PROPERTIES AND FEATURES

- DMC premium quality high performance Polyurethane absorbers are made of carbon impregnated low density Polyurethane foam
- These absorbers are made of environment friendly raw material, so it's non volatile and does not emit toxic gases
- Unique manufacturing process ensures almost zero carbon dust emission, providing clean test site and very low maintenance
- Power handling capacity 1.5 kW/m² and continuous working temperature of up to 90°
- Fire retardant as per NRL-8093 tests 1, 2, 3
- Guaranteed performance with repeatable results and flexible pyramid tips wont bend in long term use
- DMC offers various color options such as Unpainted black, Sky blue, Turquoise blue, Traffic grey, Salmon orange, Zinc yellow, Sun yellow, Oyster white and Aqua
- Long product life of up to 10 years with excellent electrical performance

**POLYURETHANE
ABSORBER TYPES**



Corporate Office



DIAMOND MICROWAVE CHAMBERS LTD

15 Fitzgerald Rd, Suite 200

Ottawa, ON K2H 9G1

Canada

+1 (613) 915 5533

+1 (315) 602 2636

sales@dmcrf.com

www.dmcrf.com



A close-up photograph of two hands shaking in a firm grip, symbolizing agreement or partnership. The hands are positioned centrally, with fingers interlaced. The background is a soft, out-of-focus grey. The text 'THANK YOU' is overlaid in white, bold, sans-serif font across the center of the hands.

THANK YOU