



**DUROROOM™**

Retractable Enclosures  
to Accommodate any Workpiece  
Sizes up to 50'H x 60'W x any linear length



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Product Data Sheet – DuroRoom™

**Applications**

Dust Control, Welding, Painting and Coating, Cleanrooms (Positive Pressure and Negative Pressure), Anterooms, Non-Destructive Testing, Other

**DuroRoom™ Overview**

DuroRoom™ retractable enclosure systems are a modular designed system, built in 5’-0” or 6’-0” increments depending upon the height and width of the enclosure. The enclosures retract to 20% of the extended length allowing for maximum use of existing floorspace during intermittent use and loading of the workspace with use of overhead crane. Systems are fabricated from cost competitive, fire resistant clear and solid vinyl and heavy walled steel framing. Custom sizes are available.

**Standard DuroRoom™ Systems**

- Modular Design in 5’-0” or 6’-0” increments
- Barn doors with intake filters, open face or mesh curtain
- Clear PVC vinyl 16 mil.
- All vinyl joints are heat welded
- Double polished, 95% light transfer
- Retracts to 20% of the extended length
- Build on casters to allow for extending and retracting

**Tapered Airflow Design**

The Duroair product line is a cross draft design. Shop air enters the enclosure through the front filter doors. Clean air travels in a horizontal direction towards the back of the enclosure using Duroair’s patented tapered airflow design. Airflow is drawn through multiple stages of filtration and is discharged upward.

The filter assembly creates a tapered airflow which directs air down the center of the enclosure maximizing control of overspray and keeping the sidewalls clean. During the dry cycle, airflow rates are increased which creates a wicking process that reduces dry times without the need for heaters or blowers. The cross-draft exhaust is attached to an enclosure with air intake filters, housing a work piece.

- Patented “Taper Draft air flow to maximize velocities around the products being worked on and minimize overspray on enclosure walls
- Cross draft airflow creates a wicking process that decreases dry times without dirt transfer
- Exhaust system creates a negative pressure vacuum seal creating a clean purified environment
- Duroair cleanrooms are positive or negative pressure depending on the requirements
- Positive pressure cleanrooms are created through a closed loop recirculating system with air exchanges of approximately 10%-20% exterior air with every pass through the filters before supplying it back into the enclosure
- Vinyl covering is affixed to the interior of the enclosure when an ISO level cleanroom is required
- Internal sacrificial layer is available

DuroRoom™ Sizes	Frame	Frame Material	Powder Coating	Room Pressure			Front Wall			Fabric Covering NFPA 701 Compliant		Rail with V Groove Wheel	Quick Seal Fabric Penetration	Lighting Options		
				+	-	Neutral	Folding Barn Doors	Mesh Curtain	Open Face	Clear	Opaque or Blackout			Recommended after 40’L	C1 D1	C1 D2
Up to 20’H x 20’W	0.083 wall 2” steel tube	Galvanized Steel	Optional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20’H x 30’W	0.083 wall Ladder Truss 2” steel tube	Galvanized Steel	Optional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greater than 20’H x 30’W	Tri-Truss	Powder Coated Black Steel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greater than 24’H x 40’W	Quad-Truss	Powder Coated Black Steel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multi-Chamber Custom	0.083 wall 2” steel tube	Galvanized Steel	Optional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Enclosure Frame**

The enclosure frame is galvanized heavy wall, 0.083 wall tube steel frame with welded construction and comes in 2” square steel tube, ladder truss, tri-truss or quad truss design depending on width and height. Industrial grade 4” and 6” casters are used. Options are available, such as “V” groove wheels with inverted angle and track for enclosures greater than 40’ long.

**Vinyl Covering**

All Duroair vinyl is heat welded and affixed to the enclosure frame using a poly-lock system which creates an airtight seal. Vinyl is available in double polished clear with 95% light transfer, opaque for enclosures where security might be a requirement or

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black-out for non-destructive testing applications. Anti-static vinyl is available if required. The vinyl and PVC scrim is flame retardant, rot, mildew and ultra-violet resistant and suitable for indoor and some outdoor applications. All are NFPA 701 compliant.

**Lighting**

Extra lighting is usually not required because the vinyl used to cover the enclosure is double polished clear with 95% light transfer. Optional lighting is available; C1D1, C1D2 and standard LED.

**Quick Seals**

Quick seals are used to penetrate the vinyl covering and allow mechanicals to enter the enclosure, for example, air and electrical requirements.

**Fire Suppression**

The fire suppression system used on Duroair equipment is a dry chemical system (BC or ABC) designed by Kidde Badger and protects both exhaust system and the enclosure.

