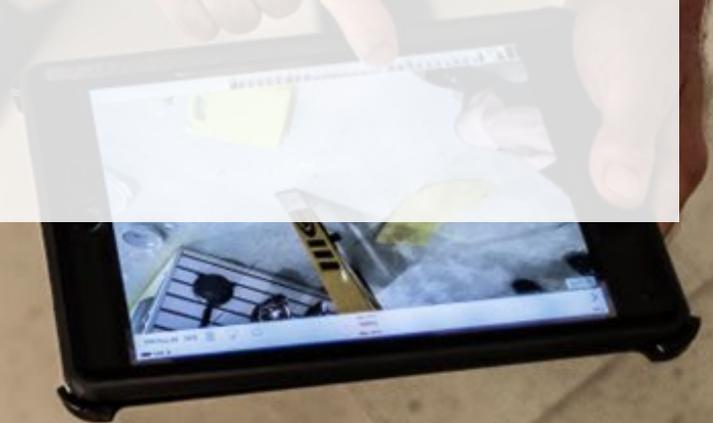


Water Damage Mitigation L & L

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Class Survey

- Who has experienced a water damage loss in their own home?
- What is our loss rate as a class?

What
Caused

the
Damage?





Top 10 – Commercial Water Losses

1. Roofs	15%	6. Vacancy	8%
2. Toilets	15%	7. Boiler/Machinery	7%
3. Sprinklers	14%	8. Sewer Backup	5%
4. Water Heaters	11%	9. Water Tanks	4%
5. HVAC Units	8%	10. Water Mains	3%

<https://www.chubb.com/us-en/businesses/resources/10-most-common-sources-of-commercial-water-damage.html>





The Stats - Water

- Commercial property, NCI @ 48% ratio
 - 1999 \$843 million
 - 2001: \$974 million
 - 2006: \$1.04 billion
 - 2011: \$1.96 billion
 - 2016: \$2.64 billion
 - 2021: \$2.25 billion



What is Mitigation?

- Webster says: “To make less severe; to alleviate”
- Water mitigation: Stop the water from spreading and minimize resulting damage.
- The “Building Paramedics”
- Mitigation is the first step in the Emergency Services Phase. It is not the same thing as restoration or re-construction

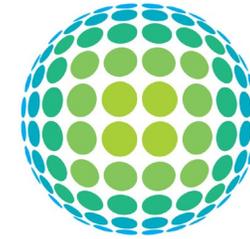


Benefits of Mitigation

- Damage doesn't spread further
- Lower cost
- Less intrusion
- Improved customer service perception
- Customer retention
- Customer referrals
- Improved loss ratio



Single Largest Factor



IICRC[®]
Institute of Inspection Cleaning
and Restoration Certification

Determine the water category

- Category 1—Formerly known as clean or clear.
- Category 2—Formerly known as grey.
- Category 3—Formerly known as black.

- Lapse of time increases category

*Service***MASTER**
Restore





Keys to Mitigation

- Significantly more opportunities in Category 1 and 2.
- The quicker the better
- Effective mitigation and restoration more significant than bottom-line cost of emergency services.
- Finding the most cost-effective balance



Waiting to Mitigate?

- Carpet delamination
- Underlayment
- Hardwood floors
- Foul odours
- Mould growth



Mitigating Water Damage

Carpet



Wood Floors



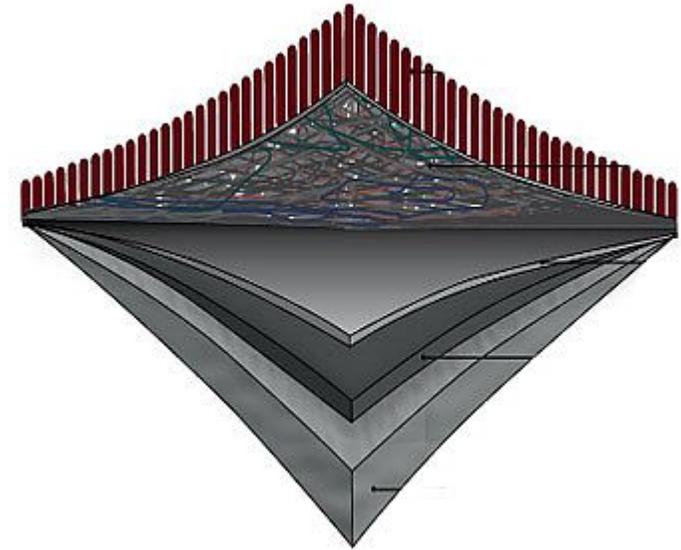
Drywall





Carpet Mitigation

- Basic carpet construction
 - Fibres
 - Primary backing
 - Adhesive back-coating
 - Secondary backing





Stains in Carpet Fibers

- Soiling versus staining
 - Soiling – material that will stick to the fibres but will not penetrate the fibre such as sand, food crumbs, hair
 - Staining – any material/liquid that can be absorbed into the fiber
- Types of stains
 - Quicker the better
- Permanent stains
- Important to identify fibre



Delamination

- Watch out for the adhesive back coating
- Can become soft and unstable while wet
 - Delamination can happen
 - “Don’t Wait To Mitigate”
 - Watch out for the “yank & pull artist”



Wood Floor Mitigation

- Types of flooring
- Common damage:
 - Cupping
 - Crowning
 - Joint staining



Wood Floor Mitigation



Cupped



Sanded flat



Crowned



<https://www.floorsave.co.uk/troubleshooting/crowning-on-wood-flooring>



Wood Floor Mitigation

- The drying processes:
 - Air dry: 6 to 9 months??
 - Tent the floor: 3 to 5 days but can change access
 - Negative air pressure system: 3 to 5 days
- Quick response is everything
- Must consider the whole floor system



Wood Floor Mitigation





Wood Floor Mitigation





Wood Floors: The Sliding Scale

- Every job really is different
- Factors to be considered:
 - Type of wood flooring
 - Anticipation results of drying
 - Size of job
 - Potential cost savings
 - Timeline



Vinyl Plank Flooring

- The material is sold as a waterproof product
- However, in a water damage situation, the entire flooring system must be considered
 - Glue down
 - Floating
- Tongue and groove system is difficult to remove and reinstall
 - Warranty concerns



Drywall & Framing Mitigation

- Types of damage
 - Nail pop, seam tape, texture, stains
- Moisture meters
 - Non penetrating, penetrating
- The drying process
 - Positive air pressure system
- Quick response is important



Drywall & Framing Mitigation





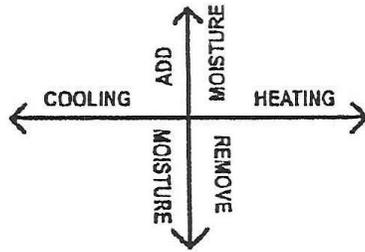
Never Leave Mould Behind

Mycotoxins and respiratory issues

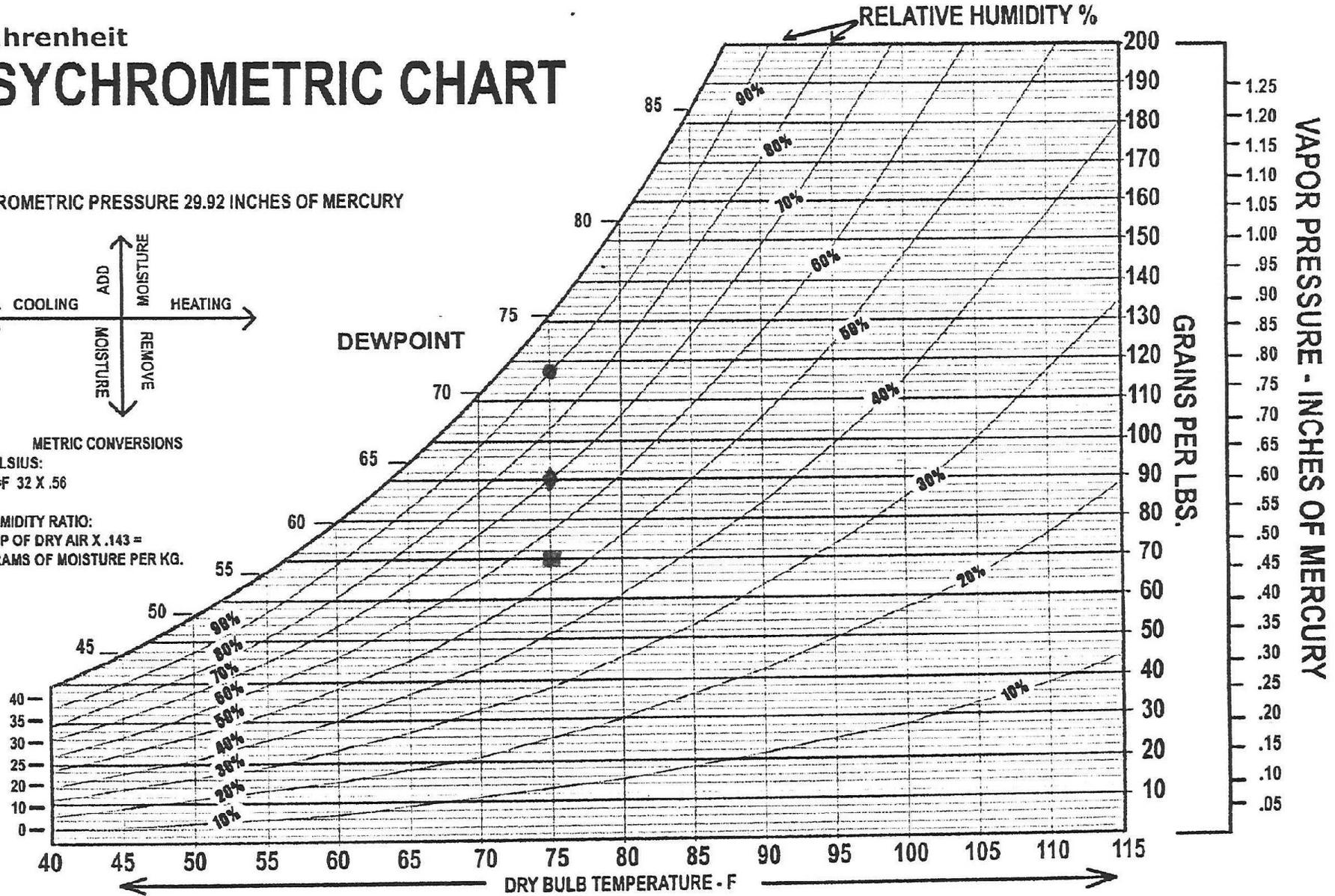


Fahrenheit PSYCHROMETRIC CHART

BAROMETRIC PRESSURE 29.92 INCHES OF MERCURY



METRIC CONVERSIONS
CELSIUS:
 $C = F \times .56$
HUMIDITY RATIO:
GPP OF DRY AIR X .143 =
GRAMS OF MOISTURE PER KG.



List Three Reasons We Say:
“Don’t Wait to Mitigate.”





Three Reasons

- Reduces overall damage
- Improves customer satisfaction
- Saves money on the claim (and helps loss ratio!!)

A man in a dark uniform is crouching in a construction site, looking at a tablet. The background shows wooden framing and a concrete floor.

Thank you for coming today!

Continuing Education

*Service*MASTER

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Restore



How Many Dehumidifiers?

<p>STEP 1 Determine the cubic feet (ft³) of the environment to be dried</p>	<h2 style="font-size: 2em; margin: 0;">L x W x H</h2>																														
<p>STEP 2 Determine the Class of Evaporation</p> <p><u>Class:</u></p> <ol style="list-style-type: none"> 1. No carpet or pad 2. Mostly carpet and pad; wet walls < 24" 3. Water from above; wet walls > 24" 4. Specialty drying situations 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 12.5%; text-align: center;">1</td> <td style="width: 12.5%; text-align: center;">2</td> <td style="width: 12.5%; text-align: center;">3</td> <td style="width: 12.5%; text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Class of Evaporation</td> <td style="text-align: center;">Slow</td> <td style="text-align: center;">Fast</td> <td style="text-align: center;">Fastest</td> <td style="text-align: center;">Specialty</td> </tr> <tr> <td colspan="5" style="text-align: center;"> <p>Class Factor: (Dehumidifier CFM needed per AHAM rated pint)</p> </td> </tr> <tr> <td rowspan="2" style="text-align: center;">Type of Dehu</td> <td style="text-align: center;">Conventional (Standard)</td> <td style="text-align: center;">100</td> <td style="text-align: center;">40</td> <td style="text-align: center;">30</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td style="text-align: center;">Low Grain Refrigerant (LGR)</td> <td style="text-align: center;">100</td> <td style="text-align: center;">50</td> <td style="text-align: center;">40</td> <td style="text-align: center;">50</td> </tr> </table>						1	2	3	4	Class of Evaporation	Slow	Fast	Fastest	Specialty	<p>Class Factor: (Dehumidifier CFM needed per AHAM rated pint)</p>					Type of Dehu	Conventional (Standard)	100	40	30	N/A	Low Grain Refrigerant (LGR)	100	50	40	50
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	Low Grain Refrigerant (LGR)	100	50	40	50																										
<p>STEP 3 Choose the type of dehumidifier(s) to be used <i>If both conventional and LGR refrigerants are to be installed, use the calculation for conventional refrigerants</i></p>																															
<p>STEP 4 Do the math</p>	<p><u>Conventional and LGR:</u> Step 1: (<u>cft</u>) ÷ Step 2: (<u>class factor</u>) = _____ minimum # of AHAM pints needed</p>																														





How Many Air Movers?

- Class 1
 - one air mover per 150-300 sq. ft.
- Class 2 and 3
 - one air mover per 50-60 sq. ft.
- For **in-place** drying
 - Air movers installed at intervals of 10-14 linear feet
 - Placed in a clockwise rotation
 - At a 45° angle touching the wall
 - Make sure adequate dehumidification is being used