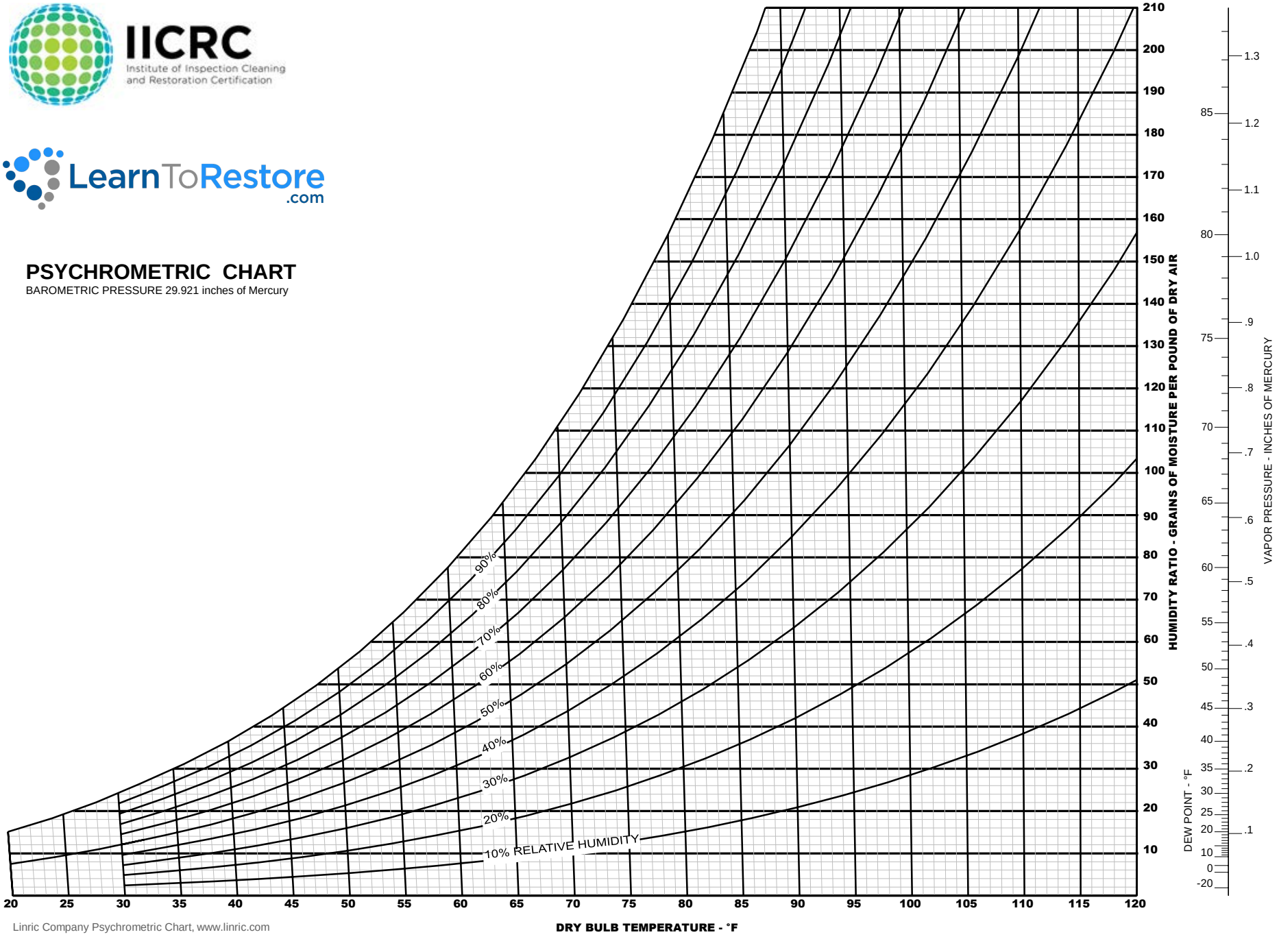
IICRC
Institute of Inspection Cleaning and Restoration Certification

LearnToRestore.com

PSYCHROMETRIC CHART

BAROMETRIC PRESSURE 29.921 inches of Mercury



AIRMOVER and GALLONS CALCULATION WORKSHEET

STEP	CALCULATION	AIRMOVER QUANTITY	
1.	Install ONE airmover in **each affected room**. *(Add this quantity to both HIGH **and** LOW range.)*	Low Range	High Range
2.	**FLOOR:** Add ONE airmover for every **50-70 square feet** of wet FLOOR in each room. This includes floors and lower walls up approximately 2 feet (24 inches). Only use total wet FLOOR square footage excluding walls. _____sq ft floor ÷ 70 = _____ low range _____sq ft floor ÷ 50 = _____ high range	Low Range	High Range
3.	**WALL & CEILING (above 2 feet):** Add ONE airmover for every **100-150 square feet** of affect wet CEILING and WALL areas above approximately 2 feet (24 inches). _____ sq ft ceiling and wall ÷ 150 = _____ low range _____ sq ft ceiling and wall ÷ 100 = _____ high range	Low Range	High Range
4.	Add ONE airmover for each wall INSET and OFFSET greater than 18 inches. *(Add this quantity to both HIGH **and** LOW range.)*		
	TOTAL AIRMOVER REQUIREMENTS **Add all 4 steps together to get a TOTAL for both High and Low range**	Low Range **TOTAL**	High Range **TOTAL**

ADDITIONAL NOTES:

- When the calculation is a fraction, round up to the next number.
- In small rooms or areas (under approximately 25 square feet) one airmover may be adequate.
- Drying of the lower walls up approximately 2 feet (24 inches) is included (**but not measured**) in the square footage of the affected floor.

WHEN WATER AFFECTS LOWER WALLS AND LIMITED FLOORING:

- In circumstances where water migration has primarily affected lower wall sections and limited flooring (e.g., less than 2 feet (24 inches) of migration INTO the room or area), restorers should install a total of **ONE airmover for each 14 affected linear foot of wall.** This calculation is independent of the square foot calculation and is NOT meant to be used in the same room or area.

GALLONS OF WATER CALCULATION

[**NOTE:** Conversion: inches - to - decimal _____(inches) ÷ 12 = _____ feet]

EXAMPLE: *3 foot 9 inches would be 9 ÷ 12 = .75…….3 foot 9 inches = 3.75 feet*

1. _____ Length x _____ Width x _____ Depth of water = _____ Cubic Feet
2. _____ Cubic Feet x 7.48 = _____ **Gallons of Water**

INITIAL DEHUMIDIFICATION RECOMMENDATION FACTORS AND FORMULAS

FACTOR CHART				
DEHUMIDIFIER TYPE	**CLASS 1**	**CLASS 2**	**CLASS 3**	**CLASS 4**
Conventional Refrigerant	100	40	30	N/A
Low Grain Refrigerant (LGR)	100	50	40	40
Desiccant *(Air Changes per Hour)*	1 ACH	2 ACH	3 ACH	3 ACH

* ***length*** x ***width*** = **Square Feet** * * ***length*** x ***width*** x ***height*** = **Cubic Feet** *

REFRIGERANT FORMULA – Conventional and Low Grain (LGR)

Cubic Footage ÷ Chart Factor = **Total PPD** ÷ Dehumidifier AHAM rating = **Total Number** of Dehumidifiers

Cubic Footage	÷ **Chart Factor** (from chart above)	= **Total PPD** (Pints Per Day)	÷ **Dehumidifier AHAM** Rating	= **Total Number Dehumidifiers**

DESICCANT FORMULA

**** can also be used to determine AFD (Air Filtration Device) calculations****

Cubic Footage x ACH ÷ 60 = **Total CFM** ÷ Dehumidifier CFM rating = **Total Number** of Dehumidifiers

Cubic Footage	X **Air Changes** per Hour (**ACH**)	÷ 60 (minutes)	= **Total CFM**	÷ **Dehumidifier CFM** Rating	= **Total Number Dehumidifiers**
		÷ 60			
		÷ 60			
		÷ 60			
		÷ 60			
		÷ 60			

ACH =** *Air Changes Per Hour*** ***CFM =** *Cubic Feet Per Minute******