Comfortmaker®
Air Conditioning & Heating

EAM4X
Product Specifications

EXPANSION VALVE COILS

- 1–1/2 thru 5 Tons
- Tin plated copper tube / aluminum fin “A” coil with latest high–tech fin design
- Bolt–on TXV metering device factory installed on all models (equalizer tube brazed in)
- TXV and manifold positioned to the side for easier cleaning
- Innovative drain pan design for complete water removal
- Two condensate drain connections (Additional two for horizontal installation)
- 2–piece delta plate for easier removal and cleaning
- Cabinet widths match flush with ICP gas furnaces
- Removable front access panel
- Easy slide–out coil for inspection
- Hemmed flanges for safer handling
- Foil faced insulation
- Non–sweat cabinet, even at extreme conditions
- Cabinets meet or exceed 2% air leakage codes
- Sturdy, 22 gauge, pre–painted steel cabinet
- Multiposition installation – upflow, downflow, or horizontal
- Available for R–410A
- One or two UV light knock–outs provided on cabinet (depending on size)
- Industry exclusive tin coated copper main tubing for additional corrosion protection

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Use of the AHRI Certified TM Mark indicates a manufacturer’s participation in the program. For verification of certification for individual products, go to www.ahridirectory.org .

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WARRANTY*

- 5 year parts limited warranty
  –With timely registration, an additional 5 year parts limited warranty

***** Applies to original purchaser/homeowner, some limitations may apply. See Warranty certificate for complete details.

PRODUCT SPECIFICATONS

MODEL NUMBER	TONS	FLUSH FIT TO FURNACE WIDTH inches (mm)	COIL CONNECTION TUBE SIZE inches (mm)	
			Liquid	Suction
EAM4X18T14A	1–1/2	14–3/16 (360)	3/8	5/8
EAM4X24T14A	2	14–3/16 (360)	3/8	5/8
EAM4X24T17A	2	17–1/2 (445)	3/8	5/8
EAM4X30T14A	2–1/2	14–3/16 (360)	3/8	3/4
EAM4X30T17A	2–1/2	17–1/2 (445)	3/8	3/4
EAM4X36T14A	3	14–3/16 (360)	3/8	3/4
EAM4X36T17A	3	17–1/2 (445)	3/8	3/4
EAM4X36T21A	3	21 (533)	3/8	3/4
EAM4X42T21A	3–1/2	21 (533)	3/8	7/8
EAM4X42T24A	3–1/2	24–1/2 (622)	3/8	7/8
EAM4X48T17A	4	17–1/2 (445)	3/8	7/8
EAM4X48T21A	4	21 (533)	3/8	7/8
EAM4X48T24A	4	24–1/2 (622)	3/8	7/8
EAM4X60T21A	5	21 (533)	3/8	7/8
EAM4X60T24A	5	24–1/2 (622)	3/8	7/8

Specifications subject to change without notice.

COIL MODEL NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5	6, 7	8	9, 10	11	12
	E	**A**	**M**	**4**	**X**	**18**	**T**	**14**	**A**	**1**

E = Evaporator

A = A Coil **TYPE**

M = Cased, Multiposition (Upflow/Downflow/Horizontal) **INSTALLATION**

4 = Environmentally Sound R–410A **REFRIGERANT**

X = TXV **METERING DEVICE**

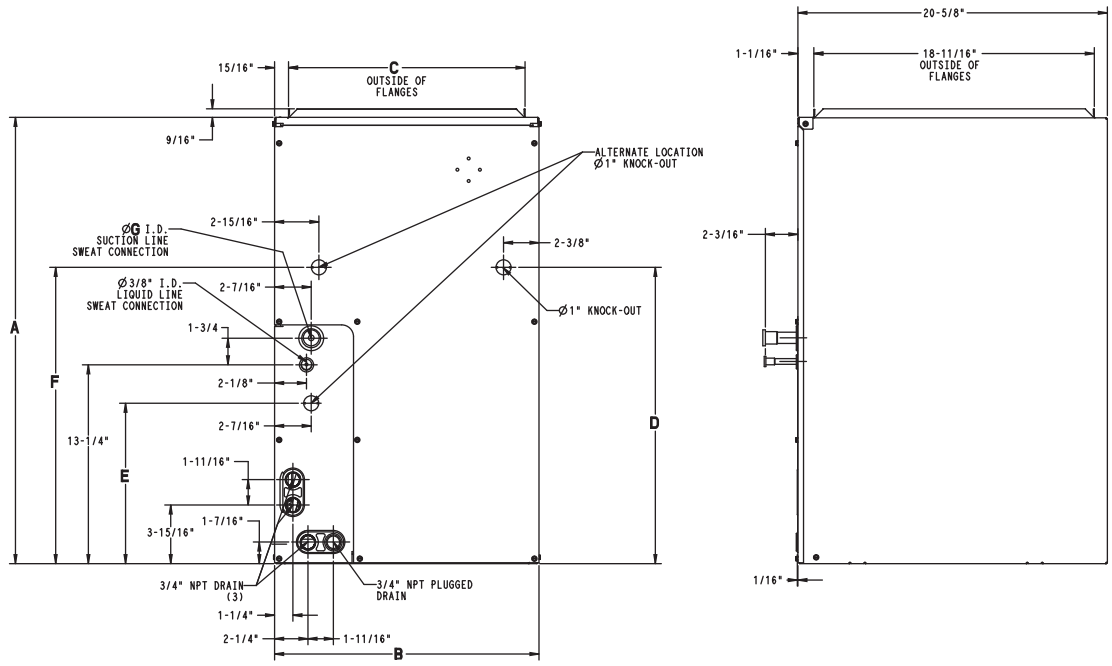
18 = 18,000 BTUH = 1–1/2 tons
24 = 24,000 BTUH = 2 tons
30 = 30,000 BTUH = 2–1/2 tons
36 = 36,000 BTUH = 3 tons
42 = 42,000 BTUH = 3–1/2 tons
48 = 48,000 BTUH = 4 tons
60 = 60,000 BTUH = 5 tons **NOMINAL CAPACITY**

T = Tin Coated Copper Tubes for Additional Corrosion Protection **HAIRPIN MATERIAL**

14 = 14–3/16”
17 = 17–1/2”
21 = 21”
24 = 24–1/2” **WIDTH (matches furnace)**

Sales Digit (Major Revision)

Engineering Digit (Minor Revision)



DIMENSIONAL DATA

UNIT	A (IN.)	B (IN.)	C (IN.)	D (IN.)	E (IN.)	F (IN.)	G (IN.)	SHIPPING WT. (LBS.) Tin–Coated Hairpins (T)
EAM4X18T14A1	25–13/16	14–3/16	12–7/16	17–3/16	10–11/16	–	5/8	50.5
EAM4X24T14A1	25–13/16	14–3/16	12–7/16	17–3/16	10–11/16	–	5/8	52.5
EAM4X24T17A1	25–13/16	17–1/2	15–3/4	10–11/16	10–11/16	–	5/8	56.5
EAM4X30T14A1	25–13/16	14–3/16	12–7/16	17–3/16	–	19–3/4	3/4	58.0
EAM4X30T17A1	25–13/16	17–1/2	15–3/4	17–3/16	–	19–3/4	3/4	64.5
EAM4X36T14A1	29–3/4	14–3/16	12–7/16	19–3/4	–	19–3/4	3/4	65.0
EAM4X36T17A1	29–3/4	17–1/2	15–3/4	19–3/4	–	19–3/4	3/4	71.0
EAM4X36T21A1	29–3/4	21	19–1/4	19–3/4	–	19–3/4	3/4	73.0
EAM4X42T21A1	29–3/4	21	19–1/4	19–3/4	–	19–3/4	7/8	78.0
EAM4X42T24A1	29–3/4	24–1/2	22–3/4	19–3/4	–	19–3/4	7/8	82.0
EAM4X48T17A1	35	17–1/2	15–3/4	19–3/4	–	19–3/4	7/8	91.0
EAM4X48T21A1	29–3/4	21	19–1/4	19–3/4	–	19–3/4	7/8	84.0
EAM4X48T24A1	29–3/4	24–1/2	22–3/4	19–3/4	–	19–3/4	7/8	88.5
EAM4X60T21A1	35	21	19–1/4	19–3/4	–	19–3/4	7/8	96.0
EAM4X60T24A1	35	24–1/2	22–3/4	19–3/4	–	19–3/4	7/8	101.0

PERFORMANCE DATA

COOLING CAPACITIES (MBH) – R–410A REFRIGERANT

UNIT SIZE	INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (°F)														
			30			35			40			45			50		
EAM4X	CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
18T14	450	72	32.00	15.70	0.00	29.30	14.30	0.00	26.40	12.80	0.00	23.10	11.30	0.00	19.50	9.70	0.01
		67	26.80	16.10	0.01	24.10	14.60	0.01	21.10	13.10	0.01	17.80	11.50	0.02	14.20	9.90	0.02
		62	22.10	16.50	0.02	19.30	14.90	0.02	16.40	13.40	0.02	13.20	11.80	0.02	10.30	10.30	0.05
	600	72	39.20	19.10	0.00	36.00	17.40	0.00	32.30	15.70	0.00	28.30	13.90	0.02	23.80	12.00	0.02
		67	32.90	19.90	0.03	29.60	18.20	0.03	25.90	16.30	0.03	21.90	14.40	0.03	17.40	12.50	0.03
		62	27.20	20.60	0.04	23.80	18.80	0.04	20.20	16.90	0.04	16.30	15.00	0.04	13.20	13.20	0.09
	750	72	45.10	21.90	0.00	41.40	20.10	0.00	37.20	18.20	0.02	32.60	16.10	0.04	27.40	14.00	0.04
		67	38.00	23.20	0.05	34.20	21.20	0.05	29.90	19.10	0.05	25.20	17.00	0.05	20.00	14.70	0.06
		62	31.50	24.20	0.06	27.60	22.10	0.06	23.40	20.00	0.06	19.10	17.90	0.06	15.70	15.70	0.13
24T14 24T17	600	72	39.40	19.20	0.00	36.30	17.60	0.00	32.80	15.90	0.00	28.90	14.10	0.00	24.50	12.20	0.01
		67	33.10	20.00	0.01	29.90	18.20	0.01	26.30	16.40	0.01	22.40	14.50	0.02	17.90	12.60	0.02
		62	27.40	20.50	0.02	24.10	18.70	0.02	20.50	16.90	0.02	16.60	15.00	0.02	13.10	13.10	0.05
	800	72	47.70	23.20	0.00	44.00	21.40	0.00	39.80	19.40	0.00	35.10	17.30	0.02	29.80	15.10	0.02
		67	40.30	24.50	0.03	36.40	22.50	0.03	32.10	20.40	0.03	27.30	18.10	0.03	21.80	15.80	0.03
		62	33.40	25.50	0.04	29.50	23.40	0.04	25.10	21.20	0.04	20.50	19.00	0.04	16.70	16.70	0.09
	1000	72	54.30	26.40	0.00	50.20	24.40	0.00	45.40	22.30	0.02	40.10	20.00	0.04	34.00	17.50	0.04
		67	46.00	28.20	0.05	41.70	26.10	0.05	36.80	23.70	0.05	31.20	21.20	0.05	25.00	18.60	0.05
		62	38.30	29.80	0.05	33.80	27.50	0.06	28.90	25.10	0.06	23.80	22.60	0.06	19.90	19.90	0.14
30T14 30T17	750	72	49.10	24.00	0.00	45.00	21.90	0.00	40.50	19.70	0.00	35.50	17.40	0.00	30.00	15.00	0.01
		67	41.20	24.80	0.01	37.00	22.50	0.02	32.40	20.20	0.02	27.40	17.80	0.02	21.90	15.30	0.02
		62	34.00	25.40	0.02	29.70	23.00	0.02	25.10	20.60	0.02	20.30	18.30	0.02	16.00	16.00	0.06
	1000	72	59.90	29.10	0.00	55.00	26.70	0.00	49.50	24.10	0.00	43.30	21.30	0.02	36.50	18.40	0.03
		67	50.40	30.50	0.03	45.30	27.90	0.04	39.70	25.10	0.04	33.50	22.20	0.04	26.70	19.20	0.04
		62	41.70	31.60	0.04	36.50	28.80	0.04	30.90	26.00	0.04	25.00	23.10	0.05	20.30	20.30	0.10
	1250	72	68.80	33.40	0.00	63.20	30.70	0.00	56.80	27.80	0.03	49.70	24.70	0.04	41.90	21.40	0.05
		67	58.00	35.40	0.06	52.20	32.40	0.06	45.70	29.30	0.06	38.50	26.00	0.06	30.60	22.60	0.07
		62	48.00	37.00	0.07	42.10	33.90	0.07	35.70	30.70	0.07	29.20	27.50	0.07	24.20	24.20	0.14
36T14 36T17 36T21	900	72	60.30	29.40	0.00	55.40	26.90	0.00	49.90	24.30	0.00	43.80	21.50	0.01	37.00	18.60	0.02
		67	50.70	30.60	0.02	45.70	27.90	0.03	40.10	25.10	0.03	33.90	22.20	0.03	27.00	19.20	0.03
		62	41.90	31.50	0.03	36.70	28.70	0.03	31.10	25.80	0.03	25.10	22.90	0.04	20.00	20.00	0.08
	1200	72	72.40	35.10	0.00	66.50	32.30	0.00	59.90	29.30	0.02	52.50	26.00	0.04	44.30	22.60	0.05
		67	61.00	37.10	0.05	55.00	34.00	0.06	48.20	30.70	0.06	40.70	27.30	0.06	32.40	23.70	0.06
		62	50.50	38.80	0.06	44.30	35.50	0.06	37.60	32.10	0.06	30.60	28.70	0.07	25.20	25.20	0.13
	1500	72	82.20	39.90	0.00	75.60	36.90	0.02	68.10	33.50	0.05	59.70	29.90	0.07	50.40	26.10	0.08
		67	69.40	42.70	0.08	62.60	39.30	0.08	55.00	35.70	0.08	46.40	31.80	0.09	37.00	27.80	0.09
		62	57.70	45.10	0.09	50.70	41.40	0.09	43.10	37.70	0.09	35.50	34.00	0.10	29.80	29.80	0.18
42T21 42T24	1050	72	75.00	36.40	0.00	69.30	33.70	0.00	62.60	30.60	0.01	55.10	27.40	0.02	46.90	24.00	0.03
		67	63.30	38.80	0.03	57.20	35.70	0.03	50.50	32.50	0.03	42.90	29.00	0.04	33.50	25.00	0.04
		62	52.60	40.80	0.04	46.40	37.60	0.04	39.50	34.10	0.04	32.00	30.40	0.05	26.40	26.40	0.14
	1400	72	87.10	42.50	0.00	80.60	39.50	0.03	73.00	36.20	0.04	64.20	32.50	0.05	54.40	28.60	0.06
		67	73.80	46.10	0.06	66.90	42.70	0.06	58.90	39.00	0.07	50.10	35.20	0.07	40.00	30.90	0.07
		62	61.40	49.30	0.07	54.40	45.70	0.07	46.90	42.10	0.07	39.00	38.10	0.09	33.00	33.00	0.19
	1750	72	96.50	47.40	0.05	89.50	44.30	0.07	81.30	40.80	0.07	71.70	36.90	0.08	60.50	32.60	0.09
		67	82.10	52.30	0.09	74.60	48.80	0.09	65.90	44.90	0.09	55.90	40.60	0.09	45.10	36.20	0.10
		62	68.60	56.80	0.10	61.00	53.10	0.10	52.90	49.10	0.10	44.90	44.90	0.12	38.70	38.70	0.24
48T17 48T21 48T24	1200	72	83.40	40.60	0.00	76.70	37.20	0.00	69.30	33.60	0.00	60.90	29.80	0.01	51.70	25.80	0.02
		67	70.10	42.30	0.02	63.20	38.60	0.03	55.60	34.80	0.03	47.20	30.80	0.04	37.80	26.60	0.04
		62	57.90	43.50	0.04	50.90	39.70	0.04	43.20	35.70	0.04	34.90	31.70	0.04	27.70	27.70	0.08
	1600	72	100.80	48.90	0.00	92.80	45.10	0.00	83.80	40.90	0.01	73.80	36.40	0.04	62.50	31.70	0.05
		67	84.90	51.70	0.05	76.70	47.40	0.06	67.50	42.90	0.06	57.30	38.10	0.06	45.90	33.20	0.06
		62	70.40	53.90	0.06	62.00	49.30	0.06	52.60	44.60	0.07	42.80	39.90	0.07	35.00	35.00	0.13
	2000	72	114.70	55.70	0.00	105.70	51.60	0.00	95.60	47.00	0.05	84.20	42.00	0.07	71.40	36.70	0.08
		67	97.00	59.50	0.08	87.70	54.90	0.08	77.30	49.90	0.09	65.60	44.60	0.09	52.50	39.00	0.09
		62	80.60	62.80	0.09	71.00	57.70	0.09	60.50	52.50	0.09	49.60	47.20	0.10	41.30	41.30	0.18
60T21 60T24	1600	72	109.20	53.40	0.00	100.00	48.60	0.00	89.90	43.60	0.00	78.60	38.50	0.00	66.40	33.10	0.02
		67	91.50	55.10	0.02	82.10	50.00	0.03	71.90	44.80	0.03	60.70	39.40	0.03	48.40	34.00	0.03
		62	75.40	56.30	0.03	65.90	51.00	0.03	55.60	45.70	0.04	44.80	40.40	0.04	35.30	35.30	0.07
	2000	72	128.00	62.20	0.00	117.20	56.90	0.00	105.20	51.20	0.00	92.00	45.20	0.02	77.50	39.10	0.04
		67	107.40	64.90	0.04	96.40	59.10	0.04	84.30	53.00	0.05	71.10	46.80	0.05	56.60	40.50	0.05
		62	88.60	66.90	0.05	77.50	60.80	0.05	65.30	54.60	0.05	52.70	48.50	0.06	42.40	42.40	0.11
	2400	72	144.20	70.00	0.00	132.10	64.20	0.00	118.50	57.90	0.01	103.60	51.20	0.04	87.20	44.30	0.06
		67	121.20	73.60	0.06	108.80	67.20	0.06	95.10	60.40	0.07	80.10	53.50	0.07	63.70	46.40	0.07
		62	100.10	76.40	0.07	87.50	69.60	0.07	73.80	62.70	0.07	59.80	56.00	0.08	48.90	48.90	0.14

See Legend and Notes on next page

Legend:

CFM – Cubic Ft. per Minute
EWB – Entering Wet Bulb (°F)
LWB – Leaving Wet Bulb (°F)
TC – Gross Cooling Capacity 1000 Btuh
SHC – Gross Sensible Capacity 1000 Btuh
BF – Bypass Factor
MBH – 1000 Btuh

NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.
2. Formulas:
   Leaving db = entering db $- \frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$
   Leaving wb = wb corresponding to enthalpy of air leaving coil (h_{LWB})
   $h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$
   Where h_{EWB} = enthalpy of air entering coil
3. SHC is based on 80°F db temperature of air entering the evaporator coil.
   Below 80°F db, subtract (Correction Factor x CFM) from SHC.
   Above 80°F db, add (Correction Factor x CFM) to SHC.
4. Direct interpolation is permissible. Do not extrapolate.
5. Fan motor heat has not been deducted.
6. All data points are based on 10°F superheat leaving coil and use of thermostatic expansion valve (TXV) device.
7. All units have sweat suction–tube connection and a liquid–tube connection. For 1–1/8 in. system suction tube, 3/4 x 1–1/8 in. suction tube connection adapter is available as accessory.
8. The EAM4X coils can be used in any properly designed system using Refrigerant R–410A.
9. Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.
10. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	**ENTERING AIR DRY BULB TEMPERATURE (°F)**					
	79	78	77	76	75	Under 75
	81	82	83	84	84	Above 85
	Correction Factor					
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.
Correction Factor = 1.09 x (1 – BF) x (db – 80)

PERFORMANCE DATA (CONT.)

COIL STATIC PRESSURE DROP (in. w.c.) R–410A

UNIT SIZE	STANDARD CFM																			
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
18T14										Dry									
	0.079	0.111	0.145	0.186	0.232														
										Wet									
	0.083	0.116	0.151	0.196	0.243														
24T14										Dry									
	0.065	0.091	0.120	0.154	0.194	0.237	0.284												
										Wet									
	0.066	0.094	0.124	0.161	0.203	0.250	0.301												
24T17										Dry									
	0.056	0.076	0.097	0.123	0.151	0.182	0.215												
										Wet									
	0.060	0.082	0.105	0.132	0.163	0.195	0.231												
30T14										Dry									
	0.054	0.077	0.102	0.133	0.167	0.206	0.248	0.296	0.347										
										Wet									
	0.059	0.084	0.111	0.142	0.181	0.223	0.269	0.319	0.375										
30T17										Dry									
	0.043	0.059	0.077	0.096	0.119	0.144	0.171	0.201	0.232										
										Wet									
	0.046	0.063	0.083	0.105	0.130	0.157	0.186	0.219	0.252										
36T14										Dry									
	0.047	0.069	0.093	0.119	0.151	0.187	0.227	0.270	0.317	0.362	0.418								
										Wet									
	0.053	0.076	0.101	0.129	0.162	0.200	0.241	0.286	0.335	0.388	0.447								
36T17										Dry									
	0.023	0.036	0.052	0.069	0.089	0.110	0.135	0.160	0.189	0.219	0.251								
										Wet									
	0.042	0.058	0.076	0.095	0.117	0.142	0.169	0.198	0.231	0.265	0.299								
36T21										Dry									
	0.026	0.037	0.050	0.062	0.077	0.092	0.109	0.128	0.148	0.170	0.193								
										Wet									
	0.029	0.040	0.053	0.065	0.082	0.099	0.119	0.138	0.160	0.185	0.209								
42T21										Dry									
			0.044	0.056	0.068	0.082	0.099	0.119	0.138	0.161	0.183	0.205	0.233						
										Wet									
			0.058	0.073	0.089	0.106	0.125	0.143	0.165	0.189	0.213	0.239	0.268						
42T24										Dry									
			0.039	0.049	0.060	0.072	0.085	0.099	0.114	0.130	0.146	0.164	0.182						
										Wet									
			0.054	0.066	0.079	0.092	0.103	0.125	0.142	0.161	0.182	0.202	0.222						
48T17										Dry									
			0.065	0.082	0.105	0.128	0.156	0.185	0.216	0.253	0.290	0.331	0.372	0.417	0.464				
										Wet									
			0.066	0.084	0.106	0.130	0.159	0.188	0.222	0.256	0.296	0.337	0.379	0.425	0.476				
48T21										Dry									
			0.055	0.072	0.089	0.107	0.128	0.150	0.175	0.199	0.228	0.257	0.288	0.321	0.356				
										Wet									
			0.058	0.075	0.094	0.115	0.136	0.161	0.188	0.217	0.247	0.279	0.313	0.347	0.386				
48T24										Dry									
			0.044	0.056	0.069	0.084	0.100	0.118	0.137	0.159	0.180	0.198	0.222	0.247	0.275				
										Wet									
			0.052	0.065	0.080	0.095	0.112	0.131	0.150	0.171	0.193	0.214	0.241	0.270	0.296				
60T21										Dry									
					0.075	0.093	0.112	0.133	0.157	0.181	0.206	0.234	0.264	0.294	0.326	0.360	0.396	0.432	0.478
										Wet									
					0.077	0.095	0.115	0.137	0.159	0.184	0.209	0.238	0.268	0.300	0.334	0.370	0.407	0.444	0.488
60T24										Dry									
					0.073	0.083	0.095	0.107	0.120	0.136	0.152	0.169	0.184	0.203	0.217	0.238	0.260	0.283	0.307
										Wet									
					0.076	0.086	0.098	0.110	0.124	0.140	0.157	0.175	0.193	0.215	0.238	0.261	0.286	0.314	0.342