YORK® A JOHNSON CONTROLS COMPANY	Form Number: 155.16-M3.1 (LS01)	309
	Supersedes: 155.16-M3.1 (1207)	
LITERATURE SUPPLEMENT	File with: 155.16-M3.1 (1094)	
Subject: YIA Absorption Chiller, special start-up instructions for Mix-Match Units.		

GENERAL

Mix-Match units are units with non-standard top shells or condenser/generator shells on standard lower shells. These shells are often chosen for increased tube surface for low temperature hot water applications.

You can recognize a Mix-Match unit by the difference in the Model #. The unit size will be repeated twice (ie. YIA-HW-3B24C1-46-C-S-C).

START-UP INSTRUCTIONS

A Mix-Match unit will require a different amout of solution and refrigerant charge from the standard unit. The correct amounts are indicated in the Solution & Refrigerant Charge Table on Page 2.
When commissioning a Mix-Match unit, you will notice one or two additional valves located on the liquid line between the condenser and evaporator. These valves serve as the expansion device and thus will need to be properly throttled for optimum unit performance. They normally ship fully open from the factory.

Adjust the valves one at a time as follows:

1. Verify that the unit is completely shutdown (NO pumps runing).
2. Turn valve CW to the fully closed position.
3. Turn valve CCW, 4 full turns open.
4. Run unit 80 – 100% load.
5. Measure and record the Delta T of each valve at points A and B on FIG. 1.
6. Delta T should be between 18 – 22 ºF (10 – 12 ºC)

7a. If Delta T is above the recommended temperature in step 5; turn the valve CW ½ turn to decrease the temperature 3 – 5 ºF (2 – 3 ºC).

7b. If Delta T is below the recommended temperature in step 5; turn the valve CCW ½ turn to increase the temperature 3 – 5 ºF (2 – 3 ºC).

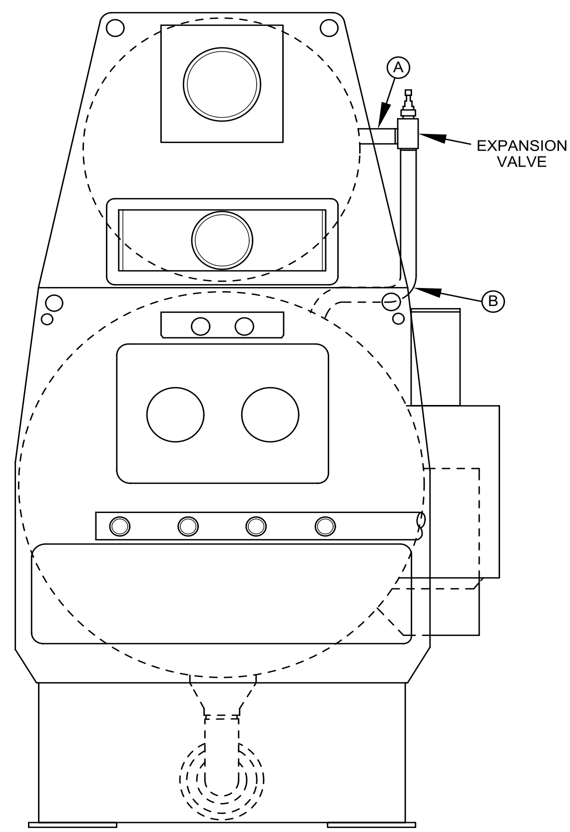

FIG. 1 – WHERE TO MEASURE REFRIGERANT DELTA T

CAUTION

If these valves are closed and the unit is operated, the rupture disk will burst!

NOTE

The valves used for the expansion device are the "new style" globe valves found on the YPC products. All information for these valves including repair and spare parts can be found in Service Information letter SI0010.

SOLUTION & REFRIGERANT CHARGE

Mix-Match Unit	Refrigerant Charge					Solution Charge					Standard Unit Fluids			
											Charge Shipped (drums)			
	Charge Shipped		Unit Charge			Charge Shipped		Unit Charge			Standard		Diff M/M vs. Std	
	Drums	Pounds	(Gallons)	(Liters)	Pounds	Drums	Pounds	(Gallons)	(Liters)	Pounds	Refrig	Solution	Refrig	Solution
ONE LARGER SHELL														
2A3-2B1	1	458	51	193	425	5	3,685	131	496	1,755	1	5	0	0
2A4-3B2	2	917	61	230	508	6	4,422	156	590	2,090	1	6	1	0
3B2-4C1	2	917	86	327	717	8	5,896	222	839	2,975	1	8	1	0
3B3-5C2	2	917	95	359	792	9	6,633	243	921	3,256	2	9	0	0
5C2-7D1	2	917	106	402	883	10	7,370	273	1033	3,658	2	12	0	-2
4B4-5C3	3	1,375	113	428	942	10	7,370	290	1099	3,886	2	10	1	0
5C3-7D2	3	1,375	124	471	1,033	11	8,107	319	1209	4,275	2	13	1	-2
7D2-8E1	3	1,375	142	539	1,183	13	9,581	366	1384	4,904	2	16	1	-3
6C4-8D3	4	1,833	177	670	1,475	16	11,792	454	1720	6,084	2	14	2	2
8D3-9E2	4	1,833	197	745	1,642	17	12,529	505	1913	6,767	3	18	1	-1
9E2-12F1	6	2,750	283	1070	2,359	25	18,425	726	2748	9,728	3	26	3	-1
10E3-13F2	6	2,750	300	1136	2,500	26	19,162	770	2916	10,318	3	27	3	-1
TWO LARGER SHELLS														
2A4-4C1	2	917	70	264	583	6	4,422	179	678	2,399	1	6	1	0
3B3-7D1	2	917	98	370	817	9	6,633	251	951	3,363	2	9	0	0
4B4-7D2	3	1,375	110	415	917	10	7,370	282	1066	3,779	2	10	1	0
5C3-8E1	3	1,375	142	539	1,183	13	9,581	365	1383	4,891	2	13	1	0
6C4-9E2	3	1,375	163	616	1,358	14	10,318	418	1580	5,601	2	14	1	0
8D3-12F1	5	2,292	224	849	1,867	20	14,740	576	2179	7,718	3	18	2	2

Notes:

1. Solution drums are 30 gallon capactiy.
2. Refrigerant drums are 55 gallon capacity.
3. The unit charge given in the table
4. Solution quantities are based on ADVAGuard750 @ 53% base concentration weight
5. 1 gallon of water = 8.334 lbs.

YORK®
A JOHNSON CONTROLS COMPANY
P.O. Box 1592, York, Pennsylvania USA 17405-1592
Tele. 800-861-1001
www.york.com
Copyright © by Johnson Controls 2009
Form 155.16-M3.1 (LS01) (309)
Supersedes: 155.16-M3.1 (LS01) (1207)
Subject to change without notice. Printed in USA
ALL RIGHTS RESERVED