



Installation Instructions

Package Numbers: 30GX900027, 30GX900032, 30GX900036, 30GX900038, 30GX900045-30GX900047, 30GX900067-30GX900070, 30HX900017, 30HX900018, 30HX900020, 30HX900021, 30HX900023, 30HX900024, 30HX900035-30HX900040

SAFETY CONSIDERATIONS

! WARNING

Disconnect power and lock out disconnects before working on unit.

Installing, starting up, and servicing air-conditioning equipment can be hazardous due to system pressures, electrical components, and equipment location.

Only trained, qualified installers and service technicians should install, start up, and service this equipment. When working on the equipment, observe precautions in the literature and on tags, stickers, and labels attached to the equipment. Follow all safety codes. Wear safety glasses and work gloves.

INTRODUCTION

The accessory insulation package provides thermal insulation protection for 30GX and 30HX chiller applications where condensation is undesirable. Each package provides all of the necessary pieces to insulate the evaporator water heads and

tubesheets. For units that have economizers, insulation is provided for these as well. See Table 1 for corresponding package numbers that apply to specific Carrier unit sizes.

PRE-INSTALLATION

Examine each item. If any part is damaged or missing, file a claim immediately with the shipper. See Fig. 1 for details for a graphical representation of the accessory insulation parts and the corresponding Tables 2-5 that delineate each part's name and number, and the corresponding package number each part is located in.

In addition to the included items, field-supplied adhesive will be required to attach the insulation to the chiller. The recommended adhesive is any general-purpose rubber-based contact cement. One gallon will be adequate to install any of the insulation kits.

IMPORTANT: Be sure to follow all of the manufacturer's instructions and warnings when applying the adhesive.

Table 1 — Accessory Package Usage

PACKAGE NUMBER	COOLER SHELL DIAMETER (in.)	ECONO.	COOLER NUMBER OF PASSES	UNIT SIZE
30GX900027	14	Yes	1	30GXN,R118,128,138,150,153 (-1P)
30GX900032	18	Yes	3	30GXN,R204-268 (+1P), 30HX206-271 (+1P)
30GX900036	20	Yes	3	30GXN,R281-350 (+1P)
30GX900038	20	Yes	1	30GXN,R281-350 (-1P)
30GX900045	16	Yes	1	30GXN,R303A,390B,415B (STD)
30GX900046	18	Yes	1	30GXN,R204-268 (-1P), 30GXN,R370A,373A,390A,393A,415A,418A,450A/B,453A/B,475A/B,478A/B,500A/B,503A/B,525A/B,528A/B (STD)
30GX900047	14	Yes	1	30GXN,R283A/B,303B,328A/B,353A/B,370B,373B,393B,418B (STD)
30GX900067	16	Yes	3	30GXN,R108,115,125,135 (STD), 30GXN,R160,163,174,175,178 (+1P), 30HX161-186 (+1P)
30GX900068	14	Yes	2	30GXN,R118,128,138,150,153 (STD)
30GX900069	14	Yes	3	30GXN,R118,128,138,150,153 (+1P)
30GX900070	20	Yes	2	30GXN,R281-350 (STD)
30HX900017	14	No	4	30GXN,R080,083,090,093 (+1P), 30HX076-096 (+1P)
30HX900018	14	No	1	30HX116-146 (-1P)
30HX900020	16	Yes	4	30GXN,R108,115,125,135 (+1P)
30HX900021	16	Yes	1	30GXN,R160-178 (-1P), 30HX161-186 (-1P)
30HX900023	18	Yes	1	30HX206-271 (-1P)
30HX900024	16	No	4	30GXN,R106,114 (+1P), 30HX106 (+1P)
30HX900035	14	No	3	30GXN,R080,083,090,093 (STD), 30HX076-096 (STD), 30HX116-146 (+1P)
30HX900036	16	No	3	30GXN,R106,114 (STD), 30HX106 (STD)
30HX900037	14	No	2	30GXN,R080,083,090,093 (-1P), 30HX076-096 (-1P), 30HX116-146 (STD)
30HX900038	16	Yes	2	30GXN,R108,115,125,135 (-1P), 30GXN,R160,163,174,175,178 (STD), 30HX161-186 (STD)
30HX900039	18	Yes	2	30GXN,R204-268 (STD), 30HX206-271 (STD)
30HX900040	16	No	2	30GXN,R106,114 (-1P), 30HX106 (-1P)

LEGEND
ECONO. — Economizer

NOTES:
1. (STD) denotes chillers with standard number of cooler passes.
2. (-1P) denotes chillers with minus one pass cooler option.
3. (+1P) denotes chillers with plus one pass cooler option.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

INSTALLATION USING HEAD SPACER RINGS

The following installation steps describe the procedure for applying insulation pieces from packages 30GX900067-30GX900070, 30HX900035-30HX900040.

Item numbers discussed in the following installation steps correlate to Fig. 1 and Tables 2-5. Figure 2 shows an exploded view of the insulation assembly.

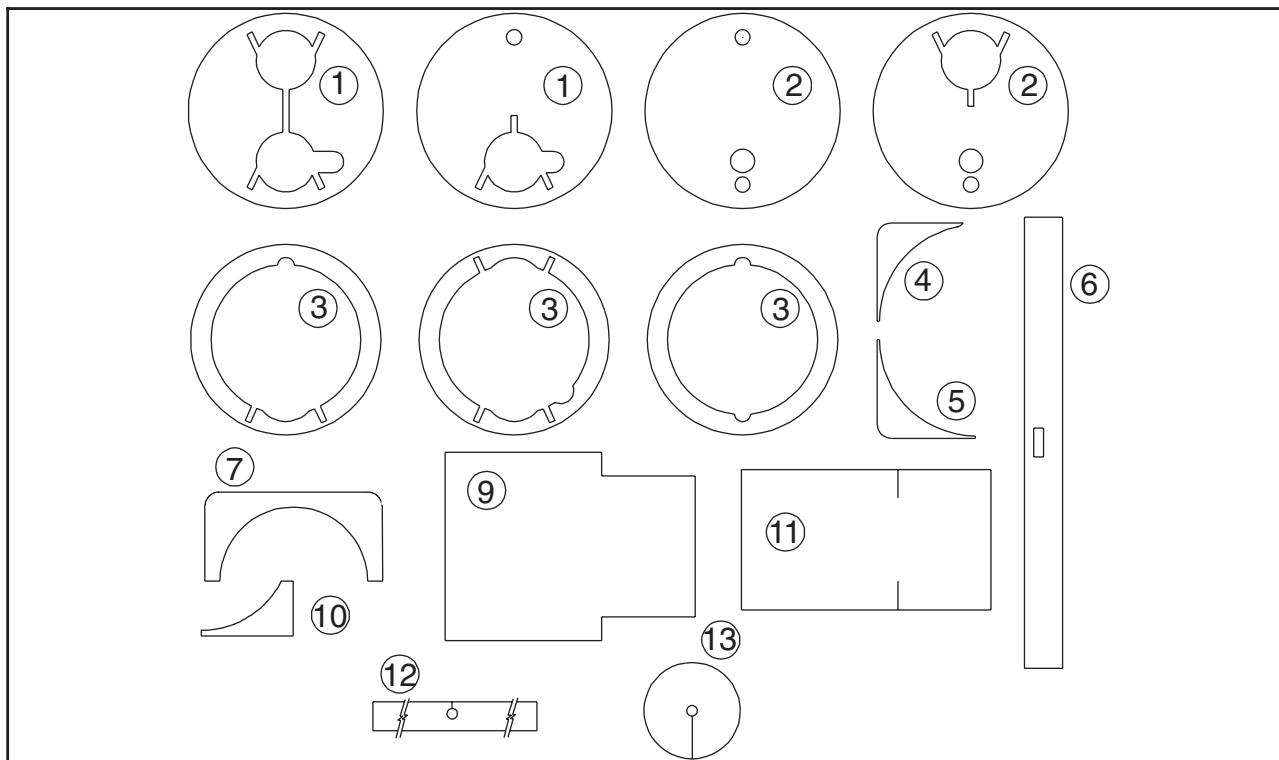


Fig. 1 — Accessory Package Contents For Tables 2-5

Table 2 — 30GX900067 and 30HX900036, 038, 040 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	2-Pass Water Head Cover (Nozzle End)	1	30HX502916	30HX900038, 30HX900040
	3-Pass Water Head Cover (Inlet)	1	30HX502905	30GX900067, 30HX900036
2	2-Pass Water Head Cover	1	30HX502918	30HX900038, 30HX900040
	3-Pass Water Head Cover (Outlet)	1	30HX502906	30GX900067, 30HX900036
3	3-Pass Head Spacer Ring	2	30HX502904	30GX900067, 30HX900036
	2- Pass Head Spacer Ring (Nozzle End)	1	30HX502915	30HX900038
	2- Pass Head Spacer Ring	1	30HX502917	30HX900038
4	Upper Outside Tubesheet Face	8	30HX502902	All
5	Lower Outside Tubesheet Face	8	30HX502903	All
6	End Tubesheet Wrap	2	30HX502912	All
7	Inside Tubesheet Face	8	10HX500188	All
9	Economizer Front Wrap	2	30HX500759	30GX900067, 30HX900038
10	Economizer Wedge	8	30HX500779	30GX900067, 30HX900038
11	Economizer Back Wrap	2	30HX500788	30GX900067, 30HX900038
12	Economizer Bottom Wrap	2	30HX500770	30GX900067, 30HX900038
13	Econ. Top/Bottom Cover	4	30HX500760	30GX900067, 30HX900038
14*	Sealing Tape	5 ft	LF3121	All
15*	Adhesive	1 gal.	Field-Supplied†	All

LEGEND

Econ. — Economizer

*Not shown.

†Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 3 — 30GX900068, 069 and 30HX900035, 037 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	2-Pass Water Head Cover (Nozzle End)	1	30HX502921	30GX900068, 30HX900037
	3-Pass Water Head Cover (Inlet)	1	30HX502910	30GX900069, 30HX900035
2	2-Pass Water Head Cover	1	30HX502922	30GX900068, 30HX900037
	3-Pass Water Head Cover (Outlet)	1	30HX502919	30GX900069, 30HX900035
3	3-Pass Head Spacer Ring	2	30HX502909	30GX900069, 30HX900035
	2-Pass Head Spacer Ring (Nozzle End)	1	30HX502920	30GX900068, 30HX900037
	2-Pass Head Spacer Ring	1	30HX502923	30GX900068, 30HX900037
4	Upper Outside Tubesheet Face	8	30HX502907	All
5	Lower Outside Tubesheet Face	8	30HX502908	All
6	End Tubesheet Wrap	2	30HX502911	All
7	Inside Tubesheet Face	8	10HX500186	All
9	Economizer Front Wrap	2	30HX500759	30GX900068, 30GX900069
10	Economizer Wedge	8	30HX500779	30GX900068, 30GX900069
11	Economizer Back Wrap	2	30HX500788	30GX900068, 30GX900069
12	Economizer Bottom Wrap	2	30HX500770	30GX900068, 30GX900069
13	Econ. Top/Bottom Cover	4	30HX500760	30GX900068, 30GX900069
14*	Sealing Tape	5 ft	LF3121	All
15*	Adhesive	1 gal.	Field-Supplied†	All

LEGEND

Econ. — Economizer

*Not shown.

†Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 4 — 30GX900070 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	2-Pass Water Head Cover (Nozzle End)	1	30HX502933	30GX900070
2	2-Pass Water Head Cover	1	30HX502935	30GX900070
3	2-Pass Head Spacer Ring (Nozzle End)	1	30HX502932	30GX900070
	2-Pass Head Spacer Ring	1	30HX502934	30GX900070
4	Upper Outside Tubesheet Face	8	30HX502930	30GX900070
5	Lower Outside Tubesheet Face	8	30HX502931	30GX900070
6	End Tubesheet Wrap	2	30HX502914	30GX900070
7	Inside Tubesheet Face	8	10HX500268	30GX900070
9	Economizer Front Wrap	2	30HX500797	30GX900070
11	Economizer Back Wrap	2	30HX500780	30GX900070
12	Economizer Bottom Wrap	2	30HX500786	30GX900070
13	Econ. Top/Bottom Cover	4	30HX500784	30GX900070
14*	Sealing Tape	5 ft	LF3121	30GX900070
15*	Adhesive	1 gal.	Field-Supplied†	30GX900070

LEGEND

Econ. — Economizer

*Not shown.

†Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 5 — 30HX900039 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	2-Pass Water Head Cover (Nozzle End)	1	30HX502927	30HX900039
2	2-Pass Water Head Cover	1	30HX502929	30HX900039
3	2-Pass Head Spacer Ring (Nozzle End)	1	30HX502926	30HX900039
	2-Pass Head Spacer Ring	1	30HX502928	30HX900039
4	Upper Outside Tubesheet Face	8	30HX502924	30HX900039
5	Lower Outside Tubesheet Face	8	30HX502925	30HX900039
6	End Tubesheet Wrap	2	30HX502913	30HX900039
7	Inside Tubesheet Face	8	10HX500190	30HX900039
9	Economizer Front Wrap — Ckt. A	1	30HX500797	30HX900039
	Economizer Front Wrap — Ckt. B	1	30HX500759	30HX900039
10	Economizer Wedge — Ckt. A	4	30HX500787	30HX900039
	Economizer Wedge — Ckt. B	4	30HX500779	30HX900039
11	Economizer Back Wrap — Ckt. A	1	30HX500780	30HX900039
	Economizer Back Wrap — Ckt. B	1	30HX500788	30HX900039
12	Economizer Bottom Wrap — Ckt. A	1	30HX500786	30HX900039
	Economizer Bottom Wrap — Ckt. B	1	30HX500770	30HX900039
13	Econ. Top/Bottom Cover — Ckt. A	2	30HX500784	30HX900039
	Econ. Top/Bottom Cover — Ckt. B	2	30HX500760	30HX900039
14*	Sealing Tape	5 ft	LF3121	30HX900039
15*	Adhesive	1 gal.	Field-Supplied†	30HX900039

LEGEND

Econ. — Economizer

*Not shown.

†Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

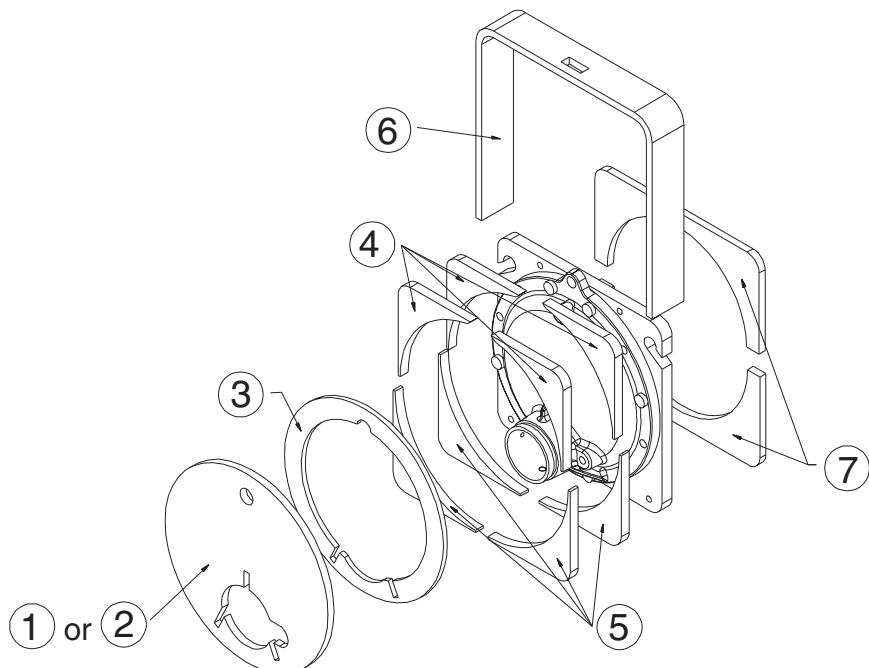


Fig. 2 — Head and End Tubesheet Insulation for Tables 2-5

Step 1 — Insulate End Tubesheets (Outside) — Insulate the outside face of one of the end tubesheets using 4 pieces of Item 4 and 4 pieces of Item 5. These pieces are one inch thick and will require one on top of the other to achieve a two-inch thickness. Apply adhesive to insulation and tubesheet as directed by adhesive manufacturer. Cover tubesheet as shown in Fig. 3 and 4. Repeat the process for the opposite end tubesheet.

Step 2 — Complete Insulation of End Tubesheets (Inside) — Once the outside faces of the end tubesheets are insulated, finish insulating the end tubesheets by applying insulation to the inside faces and tubesheet edges.

To finish insulating end tubesheets:

1. Apply two pieces of Item 7 (See Fig. 2) to the inside face of one of the end tubesheets. See Fig. 5 and 6.
2. Complete the insulation of the end tubesheet by insulating the exposed edges of the tubesheet and face insulation, using Item 6. See Fig. 7. Note that the notch in this piece allows the lifting hole on the head to pass through.
3. Repeat the above steps for the other end tubesheet.

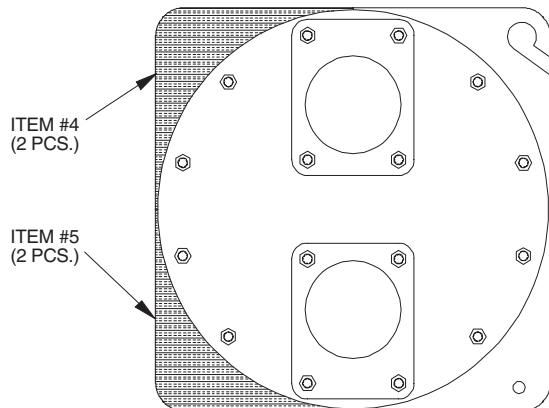


Fig. 3 — Outside Tubesheet Face (Half-Insulated)

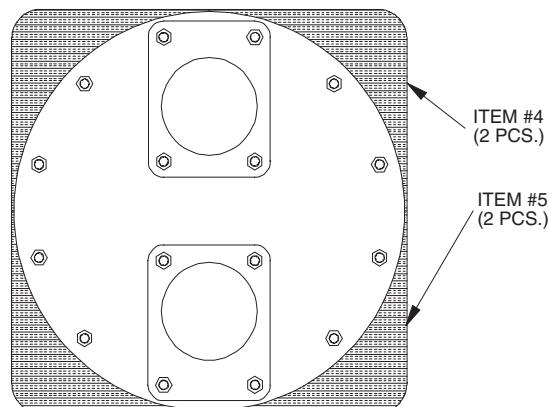


Fig. 4 — Outside Tubesheet Face (Fully Insulated)

Step 3 — Insulate Water Heads — After the end tubesheets have been insulated, apply insulation to the water heads.

To insulate water heads:

1. Apply spacer ring (Item 3) to the face of the head as shown in Fig. 2. To allow service access, do not apply adhesive to head bolts. The ring will fit inside the upper and lower insulation pieces applied in Step 1.

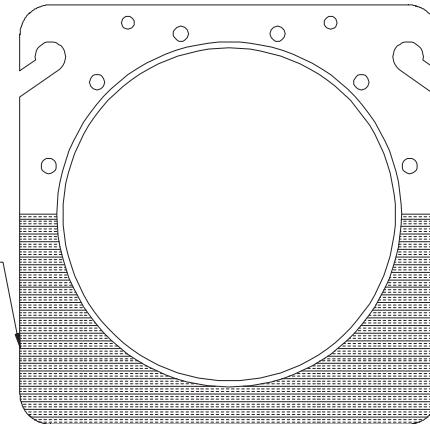


Fig. 5 — Inside Tubesheet (Half-Insulated)

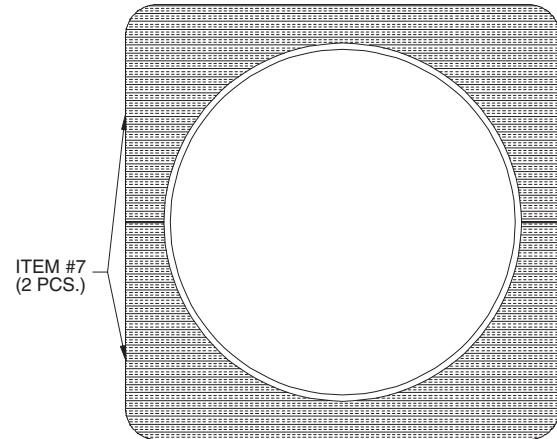


Fig. 6 — Inside Tubesheet (Fully Insulated)

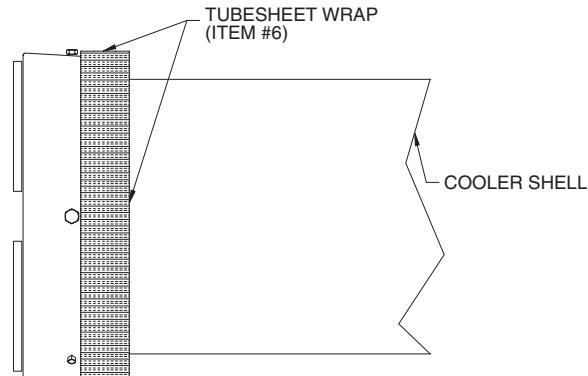


Fig. 7 — End Tubesheet Wrap

2. Attach a head cover (Item 1 or Item 2, depending on unit configuration) to the head and spacer ring applied in the previous step. Be sure to line up the nozzle, drain, vent, and heater openings in the insulation with those in the head.

IMPORTANT: When insulating the water heads, be sure to allow for service access and removal of the heads.

3. Repeat the above steps for the opposite water head.

Step 4 — Insulate Economizers (30GXN,R108, 115-350 and Associated Duplex Units, 30HX161-271 Only)

NOTE: For the 30GXN,R204-268, associated duplex units, and 30HX206-271 units, the economizer insulation pieces are different for Circuit A and Circuit B. Refer to Table 5 for the correct insulation part numbers for the two circuits.

For all other units, the economizer insulation pieces are the same for both circuits.

To insulate the economizers:

1. Apply the economizer front wrap (Item 9) to the front surface of the economizer, as shown in Fig. 8. The bottom of the notched portion of the economizer front wrap should be aligned with the top of the economizer brackets.
2. Wrap the economizer bottom wrap (Item 12) around the bottom portion of the economizer. Align the liquid outlet tube from the economizer with the hole in the bottom wrap.

Glue the top edge of the bottom wrap to the bottom edge of the front wrap (Item 9). Apply adhesive to the seam where the two edges of the bottom wrap come together. See Fig. 9.

3. Apply the two economizer wedge pieces (Item 10) to the top brackets of the economizer, as shown in Fig. 10.

Glue the wedges to the top of the economizer brackets, and to the cooler shell and economizer.

Repeat this process with two additional economizer wedge pieces on the bottom of the economizer brackets.

NOTE: It is *not* necessary to apply the economizer wedge pieces to the Circuit A economizer on 30GXN,R204-350 chillers or the Circuit B economizer on 30GXN,R281-350 chillers. The back surface of this economizer is fully exposed on these units, and can be completely covered using Item 11.

4. For the 30GXN,R204-350 Circuit A Economizer and the 30GXN,R281-350 Circuit B Economizer only, use the economizer back wrap (Item 11) to fully cover the rear surface of the economizer.

For all other economizers, trim the economizer back wrap (Item 11) as needed to cover the remaining exposed back surface of the economizer, up to the wedge pieces that were installed in the previous step.

5. Complete the insulation of the economizer by installing an economizer cover (Item 13) on the top and bottom of the economizer.

Glue the bottom edge of the top cover (Item 13) to the top edges of the front wrap and back wrap. Glue the top edge of the bottom cover (Item 13) to the bottom edge of the economizer bottom wrap. This will completely enclose the economizer. Figure 11 shows a fully insulated economizer.

6. Repeat the previous steps to insulate the economizer on the opposite refrigerant circuit.

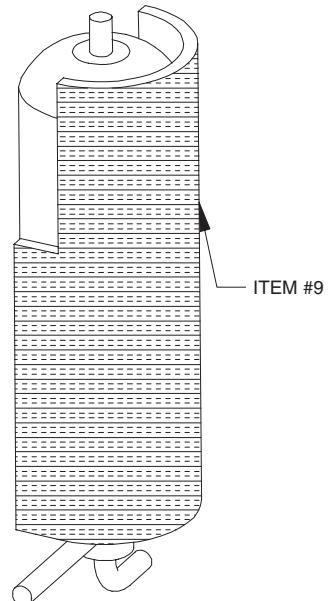


Fig. 8 — Economizer Front Wrap

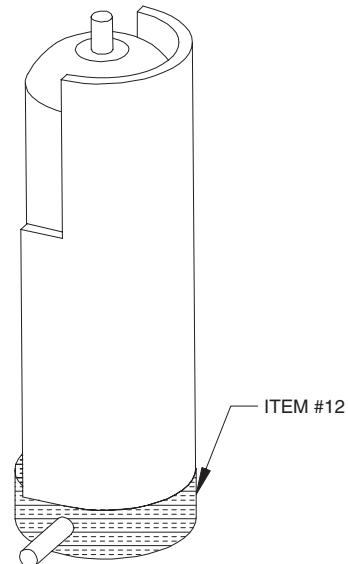


Fig. 9 — Economizer Bottom Wrap

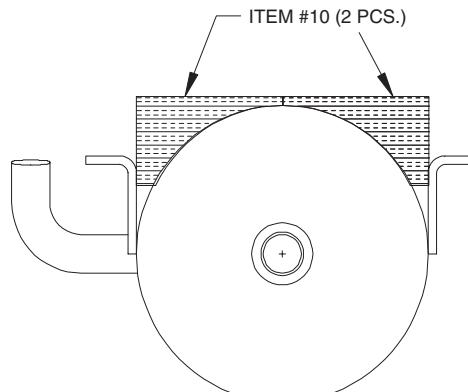


Fig. 10 — Economizer Wedges

Step 5 — Completing the Installation — To finish the job, apply sealing tape (Item 14) as needed, to fill all gaps and cover exposed seams. Touch-up the insulation, as required, using gray touch-up paint to match the chiller. Finally insulate the chilled water supply and return lines, making sure to allow for service access.

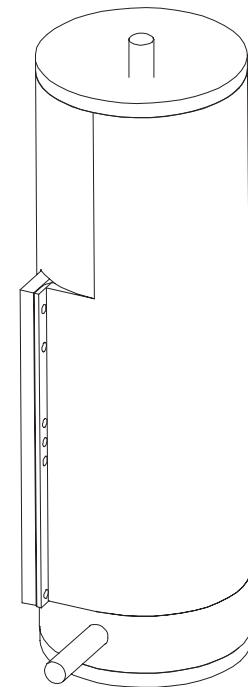


Fig. 11 — Insulated Economizer

INSTALLATION USING WATER HEAD WRAPS

The following installation steps describe the procedure for applying insulation pieces from packages 30GX900027, 30GX900032, 30GX900036, 30GX900038, 30GX900045-30GX900047, 30HX900017, 30HX900018, 30HX900020, 30HX900021, 30HX900023, 30HX900024.

NOTE: Item numbers discussed in the installation steps below correlate to Fig. 12 and Tables 6-9.

Step 1 — Insulate End Tubesheets (Outside) — Insulate the outside face of one of the end tubesheets using four pieces of Item 5. Apply adhesive to insulation and tubesheet as directed by adhesive manufacturer. Cover tubesheet face as shown in Fig. 13. Repeat for the opposite end tubesheet.

Step 2 — Complete Insulation of End Tubesheets (Inside) — Once the outside faces of the end tubesheets are insulated, finish insulating the end tubesheets by applying insulation to the inside faces and tubesheet edges.

To finish insulating end tubesheets:

1. Apply two pieces of Item 7 to the inside face of one of the end tubesheets. See Fig. 5 and 6.
2. Complete the insulation of the end tubesheet by insulating the exposed edges of the tubesheet and face insulation, using Item 6. See Fig. 7.
3. Repeat the above steps for the other end tubesheet.

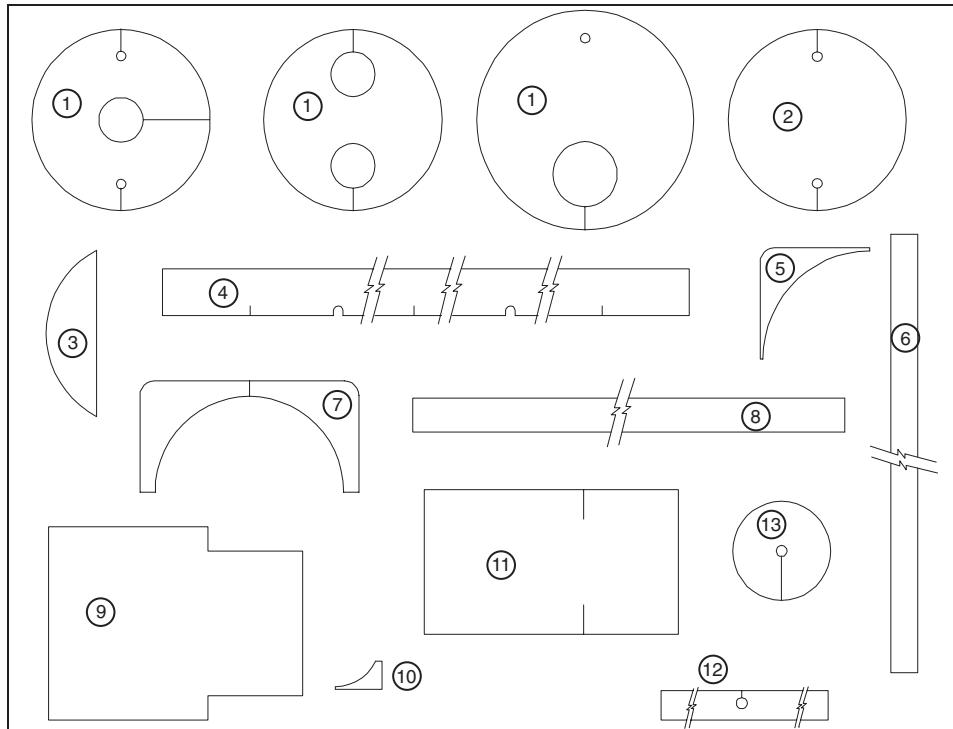


Fig. 12 — Accessory Package Contents For Tables 6-9

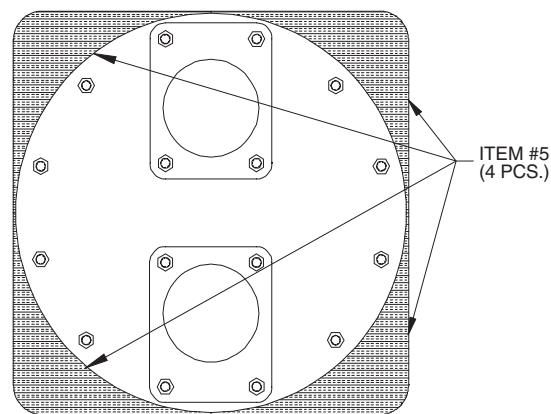


Fig. 13 — Outside Tubesheet Face (Fully Insulated)

Table 6 — 30GX900027, 047 and 30HX900017, 018 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	1-Pass Water Head Cover	2	30HX500761	30GX900027, 30HX900018
	1-Pass Water Head Cover (Duplex)	2	30GX504471	30GX900047
	4-Pass Water Head Cover	1	30HX500763	30HX900017
2	4-Pass Return Head Cover	1	30HX500762	30HX900017
3	Head Spacer	4	30HX500757	All†
4	Water Head Wrap	2	30HX500756	All†
5	Outside Tubesheet Face	8	30HX500755	All†
6	End Tubesheet Wrap	2	99KK301200260580	All†
7	Inside Tubesheet Face	8	10HX500186	All†
8	Center Tubesheet Wrap	1	99KK301200340580	All†
9	Economizer Front Wrap	2	30HX500759	30GX900027, 047
10	Economizer Wedge	8	30HX500779	30GX900027, 047
11	Economizer Back Wrap	2	30HX500788	30GX900027, 047
12	Economizer Bottom Wrap	2	30HX500770	30GX900027, 047
13	Econ. Top/Bottom Cover	4	30HX500760	30GX900027, 047
14*	Sealing Tape	5 ft	LF3121	All†
15*	Adhesive	1 gal.	Field-Supplied**	All†

LEGEND

Econ. — Economizer

*Not shown.

†Included in all accessory package numbers.

**Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 7 — 30GX900045 and 30HX900020, 021, 024 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	1-Pass Water Head Cover	2	30HX500771	30HX900021
	1-Pass Water Head Cover (Duplex)	2	30GX504472	30GX900045
	4-Pass Water Head Cover	1	30HX500773	30HX900020, 024
2	4-Pass Return Head Cover	1	30HX500772	30HX900020, 024
3	Head Spacer	4	30HX500767	All†
4	Water Head Wrap	2	30HX500766	All†
5	Outside Tubesheet Face	8	30HX500765	All†
6	End Tubesheet Wrap	2	99KK301200260640	All†
7	Inside Tubesheet Face	8	10HX500188	All†
8	Center Tubesheet Wrap	1	99KK301200340640	All†
9	Economizer Front Wrap	2	30HX500759	30GX900045; 30HX900020, 021
10	Economizer Wedge	8	30HX500779	30GX900045; 30HX900020, 021
11	Economizer Back Wrap	2	30HX500788	30GX900045; 30HX900020, 021
12	Economizer Bottom Wrap	2	30HX500770	30GX900045; 30HX900020, 021
13	Econ. Top/Bottom Cover	4	30HX500760	30GX900045; 30HX900020, 021
14*	Sealing Tape	7 ft	LF3121	All†
15*	Adhesive	1 gal.	Field-Supplied**	All†

LEGEND

Econ. — Economizer

*Not shown.

†Included in all accessory package numbers.

**Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 8 — 30GX900032, 046, and 30HX900023 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	1-Pass Water Head Cover	2	30HX500781	30HX900023
	1-Pass Water Head Cover (Duplex)	1	30GX504473	30GX900046
	1-Pass Water Head Cover (Duplex)	1	30GX504474	30GX900046
	3-Pass Water Head Cover	2	30HX500918	30GX900032
3	Head Spacer	4	30HX500777	All†
4	Water Head Wrap	2	30HX500776	All†
5	Outside Tubesheet Face	8	30HX500775	All†
6	End Tubesheet Wrap	2	99KK301200260700	All†
7	Inside Tubesheet Face	8	10HX500190	All†
8	Center Tubesheet Wrap	1	99KK301200340700	All†
9	Economizer Front Wrap — Ckt. A	1	30HX500797	All†
	Economizer Front Wrap — Ckt. B	1	30HX500759	All†
10	Econ. Wedge — Ckt. A	4	30HX500787	All†
	Econ. Wedge — Ckt. B	4	30HX500779	All†
11	Econ. Back Wrap — Ckt. A	1	30HX500780	All†
	Econ. Back Wrap — Ckt. B	1	30HX500788	All†
12	Econ. Bottom Wrap — Ckt. A	1	30HX500786	All†
	Econ. Bottom Wrap — Ckt. B	1	30HX500770	All†
13	Econ. Top/Bottom Cover — Ckt. A	2	30HX500784	All†
	Econ. Top/Bottom Cover — Ckt. B	2	30HX500760	All†
14*	Sealing Tape	7 ft	LF3121	All†
15*	Adhesive	1 gal.	Field-Supplied**	All†

LEGEND

Econ. — Economizer

*Not shown.

†Included in all accessory package numbers.

**Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Table 9 — 30GX900036 and 038 Package Contents

ITEM NUMBER	PART NAME	QTY	PART NUMBER	PACKAGE NUMBER
1	1-Pass Water Head Cover	2	30GX503123	30GX900038
	3-Pass Water Head Cover	2	30GX503126	30GX900036
3	Head Spacer	4	30HX500777	All
4	Water Head Wrap	2	30GX503127	All
5	Outside Tubesheet Face	8	30GX503253	All
6	End Tubesheet Wrap	2	99KK301200260744	All
7	Inside Tubesheet Face	4	10HX500268	All
9	Econ. Front Wrap — Ckt. A and B	2	30HX500797	All
11	Econ. Back Wrap — Ckt. A and B	2	30HX500780	All
12	Econ. Bottom Wrap — Ckt. A and B	2	30HX500786	All
13	Econ. Top/Bottom Cover — Ckt. A and B	4	30HX500784	All
14*	Sealing Tape	7 ft	LF3121	All
15*	Adhesive	1 gal.	Field-Supplied†	All

LEGEND

Econ. — Economizer

*Not shown.

†Adhesive is field-supplied. Use general-purpose rubber contact cement. Follow all manufacturer's precautions and instructions.

Step 3 — Insulate Water Heads — After the end tubesheets have been insulated, apply insulation to the water heads.

To insulate the water heads:

1. Apply two spacer pieces (Item 3) to the face of the head, as shown in Fig. 14.
2. Attach a head cover (Item 1 or Item 2, depending on unit configuration) to the spacer pieces that were applied in the previous step. To allow service access, apply adhesive only to the head spacers. Do not glue the head cover directly to the head.
3. Apply the head wrap (Item 4) around the circumference of the water head, making sure to align the holes in the head wrap with the thermistors and drain plugs in the side of the head.

Be sure to line up the nozzle and drain and vent openings in the insulation with those in the head.

4. Repeat the above steps for the opposite water head.

IMPORTANT: When insulating the water heads, be sure to allow for service access and removal of the heads.

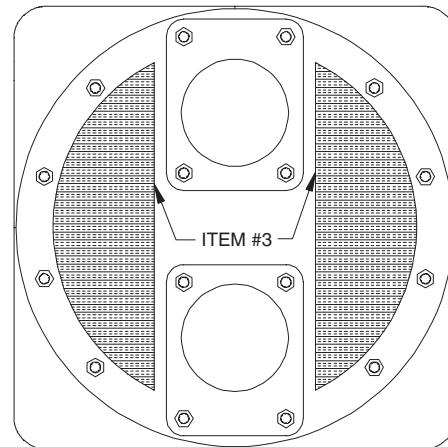


Fig. 14 — Head Spacers

Step 4 — Insulate Center Tubesheet — If necessary, insulate the center tubesheet using a similar procedure as was used for the end tubesheets.

To insulate the center tubesheet:

1. Apply two pieces of Item 7 to one face of the center tubesheet.
2. Apply two additional pieces of Item 7 to the opposite face of the center tubesheet. Refer to Fig. 5 and 6.
3. Once both faces of the center tubesheet have been fully insulated, complete the insulation of the center tubesheet by insulating the exposed edges of the tubesheet and face insulation, using the center tubesheet wrap (Item 8).

This is done in the same way that the end tubesheets were insulated.

Step 5 — Insulate Economizers (30GXN,R115-350, 220A, 240A/B-450A/B and 30HX161-271 Only)

NOTE: For the 30GXN,R204-268, 365A-395A, 410A/B, 415A, 418A, 440A/B, 450A/B, 453A/B, 470A/B, 475A/B, 478A/B, 495A/B, 500A/B, 503A/B, 520A/B, 525A/B, 528A/B, and 30HX206-271 units, the economizer insulation pieces are different for Circuit A and Circuit B. Refer to Table 8 for the correct insulation part numbers for the two circuits.

For all other units, the economizer insulation pieces are the same for both circuits.

To insulate the economizers:

1. Apply the economizer front wrap (Item 9) to the front surface of the economizer, as shown in Fig. 8. The bottom of the notched portion of the economizer front wrap should be aligned with the top of the economizer brackets.
2. Wrap the economizer bottom wrap (Item 12) around the bottom portion of the economizer. Align the liquid outlet tube from the economizer with the hole in the bottom wrap.

Glue the top edge of the bottom wrap to the bottom edge of the front wrap (Item 9). Apply adhesive to the seam where the two edges of the bottom wrap come together. See Fig. 9.

3. Apply two economizer wedge pieces (Item 10) to the top brackets of the economizer, as shown in Fig. 10.

Glue the wedges to the top of the economizer brackets, and to the cooler shell and economizer.

Repeat this process with two additional economizer wedge pieces on the bottom of the economizer brackets.

NOTE: It is *not* necessary to apply the economizer wedge pieces to the Circuit A economizer on 30GXN,R204-350 chillers or the Circuit B economizer on 30GXN, GXR281-350 chillers. The back surface of this economizer is fully exposed on these units, and can be completely covered using Item 11.

4. For the 30GXN,R204-350 Circuit A Economizer and the 30GXN,GXR281-350 Circuit B Economizer only, use the economizer back wrap (Item 11) to fully cover the rear surface of the economizer.

For all other economizers, trim the economizer back wrap (Item 11) as needed to cover the remaining exposed back surface of the economizer, up to the wedge pieces that were installed in the previous step.

5. Complete the insulation of the economizer by installing an economizer cover (Item 13) on the top and bottom of the economizer.

Glue the bottom edge of the top cover (Item 13) to the top edges of the front wrap and back wrap. Glue the top edge of the bottom cover (Item 13) to the bottom edge of the economizer bottom wrap. This will completely enclose the economizer. Figure 11 shows a fully insulated economizer.

6. Repeat the previous steps to insulate the economizer on the opposite refrigerant circuit.

Step 6 — Completing the Installation — To finish the job, apply sealing tape (Item 14) as needed, to fill all gaps and cover exposed seams. Touch-up the insulation, as required, using gray touch-up paint to match the chiller. Finally, insulate the chilled water supply and return lines, making sure to allow for service access.

