YORK®

Long-Term Storage Requirement
Field Preparation
Air-Cooled Screw/Scroll Chillers

Service Policy and Procedures	Supersedes: 50.20-NM7 (1023)	Form 50.20-NM7 (1024)

Failure to comply with these requirements will render any written or implied YORK® or Johnson Controls® warranty null and void.

I. Supplementary documentation

The following documentation is required to fully comply with the long-term storage requirements:

- *Long-Term Storage Requirements - General* (*Form 50.20-NM1*)
- *Long-Term Storage Requirements Periodic Checklist and Logs Air-Cooled Chillers* (*Form 50.20-CL7*)
- *Failure to Perform Long-Term Storage Requirements – Instructions for partial or full non-compliance or periods exceeding 1 year with Long-Term Storage Requirements* (*Form 50.20-NM13*)

II. Field preparation for long-term storage

A. Prepping the unit for long-term storage

1. Remove and dispose of the shipping bag.
2. Verify that all the shipped loose items are present. Note any missing items on the Periodic Checklist and Logs Air-Cooled Chillers. Refer to *Form 50.20-CL7*.
3. Inspect the chiller for damage. Note any damage in the field comments section of the Periodic Checklist and Logs Air-Cooled Chillers. Refer to *Form 50.20-CL7*.
4. Repaint any worn or chipped areas on the unit with the paint supplied in the shipped loose items. Report any paint damage and contact the warranty department for further action.

B. Maximum storage ambient

See *Table 1* for the maximum acceptable storage ambient values for each product. These values are based on the pressure relief valve (PRV) setting.

Table 1 - Maximum storage ambient

Product classification	Model	Refrigerant	Maximum ambient °F (°C)
Air-cooled screw chiller	YVAA	R-134a	125 (51.7)
	YVFA open loop		
	YVFA closed loop		
	YCIV		
	YCAV		
	YVAA	R-513A	125 (51.7)
	YVFA open loop and closed loop		
	YVFA open loop and closed loop	R-1234ze	131 (55)
Water-cooled screw chiller	YVWA	R-134a	125 (51.7)
		R-513A	

Table 1 - Maximum storage ambient, continued

Product classification	Model	Refrigerant	Maximum ambient °F (°C)
Air-cooled and water-cooled scroll chiller	YLAA	R-454B	118 (47.8)
	YCAL	R-410A	112 (44.4)
	YCWL		
	YLPA		
	YLPB		

Product classification	Model	Refrigerant	Maximum ambient °F (°C)
Heat pumps and mini-chillers	YMAE	R-454B	125.6 (52)
	YMAA	R-410A	117 (47.2)
	YMPA	R-410A	117 (47.2)
	YVAE	R-410A	118 (47.8)
	YCAG	R-410A	118 (47.8)
	YCAE	R-410A	118 (47.8)
	YCWE	R-410A	118 (47.8)
	YVAG	R-410A	118 (47.8)
	YVAS	R-410A	118 (47.8)
	YVAT	R-410A	118 (47.8)
	YVAF	R-410A	118 (47.8)
	YCWF	R-410A	118 (47.8)

NOTE

Johnson Controls is not responsible for any refrigerant loss or leakage during the long-term storage period.

C. Preparing electrical equipment and components for long-term storage

Use this procedure to prepare the following components for long-term storage:

- Control panels
- Power panels
- Option panels
- Motors
- Similar components

1. Do not leave electrical enclosures open. Ensure that enclosure doors are closed and latched correctly.
2. Install the YORK vapor emitters inside each electrical and electronic components' cabinets to protect them against corrosion. Tape the openings in cabinets closed to minimize air infiltration during the storage period. To determine the quantity of the emitters, measure the gross volume of the space the component occupies. P/N 026-37705-000 protects a volume up to 5 ft^3. P/N 026-37706-000 protects a volume up to 11 ft^3. Both emitters have a service life of 12 months.
3. If storing the variable-frequency drives (VFD) for at least 12 months, ensure that a qualified technician reforms the capacitors of the VFDs. If the drive does not have power applied to it for long periods of time, it is at risk of catastrophic failure. Refer to the manufacturer's instructions in *Form 50.20-NM12* for more information on capacitor reforming.

D. Preparing the refrigerant side for long-term storage

1. Record pressure in Long-Term Storage Periodic Checklist and Logs Air-Cooled Chillers in *Form 50.20-CL7*.
2. To prevent dirt and moisture from entering the valve, ensure that the plastic caps are installed on all relief valves and ensure that the U-Tube located at the top of the pressure relief valve is in the correct position.
3. Place masking tape over the sight glass.
4. Split systems are shipped with a nitrogen holding charge. Split systems that require field piping of the refrigerant system, such as YCUL, YLUA, YCRL, and units with remote evaporators, are all shipped with a 15 psi nitrogen holding charge.
5. Ensure that all seal cap valves are tightly closed according to *SI404*. Verify that holding charge is present.

E. Preparing the waterside for long-term storage

1. Remove the existing nozzle shipping enclosures.
2. Inspect the inside of the waterbox to ensure that no moisture, corrosion, or debris is present. Note any damage on *Long Term Storage Periodic Checklist and Logs Air-Cooled Chillers* (*Form 50.20-CL7)*.
3. Replace the shipping enclosures with suitable enclosures from *Table 3*, *Table 4* and *Table 5.*

NOTE

Machines are shipped with plastic nozzle caps.

CAUTION

The nozzle shipping enclosures that are shipped standard from the factory are not designed to hold a positive pressure. They must be replaced.

4. Install the caps or fittings on water connections as shown in *Figure 1, Figure 2,* and *Figure 3*.
5. Drain and dry the bundles.
6. Remove the drain plugs and caps.
7. Attach a nitrogen regulator to a nitrogen cylinder using a suitable hose.
8. Purge dry nitrogen, approximately 112 psig, through the bundle for at least 20 min to ensure that no moisture is present in the bundles.
9. When the bundles are dry, shut off the nitrogen supply.
10. Reinstall the drain fitting using a cleaner, primer, and sealant.
11. Pressurize the bundles to approximately 5 psig nitrogen holding charge.
12. Record the pressure on the Long-Term Storage Periodic Checklist and Logs Air-Cooled Chillers in *Form 50.20-CL7*.

Table 2 - Waterbox connections

#	Description	YORK P/N
1	Valve	022-09539-000
5	Gauge	026-18920-000
8	3/4 to 1/4 reducer	023-01039-000

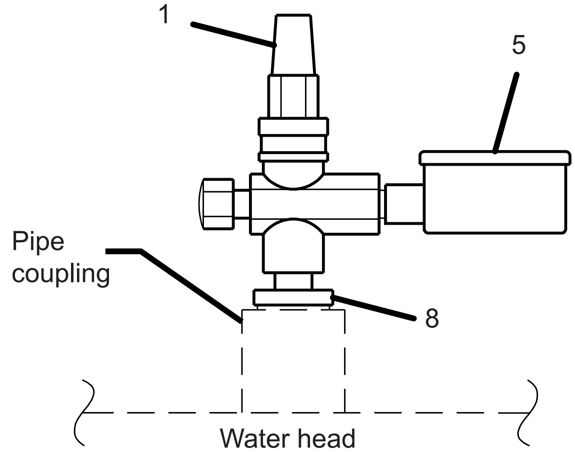

Figure 1 - Waterbox connections

Table 3 - Grooved closure*

Size, in.**	Grooved coupling part number	Pipe cap part number
3	023-12512-000	—
4	023-15215-000	023-15222-000
6	023-15216-000	023-15223-000
8	023-15217-000	023-15224-000
10	023-15218-000	023-15218-000
12	023-15219-000	023-15219-000
14	023-15220-000	023-15227-000
16	023-15221-000	023-15228-000
18	023-17129-000	023-17130-000
20	023-18953-000	023-18945-000

* Grooved nozzles are designed according to ANSI / AWWA C-606.

** For 2 1/2 in. nozzle connections the grooved coupling and pipe cap must be locally sourced.

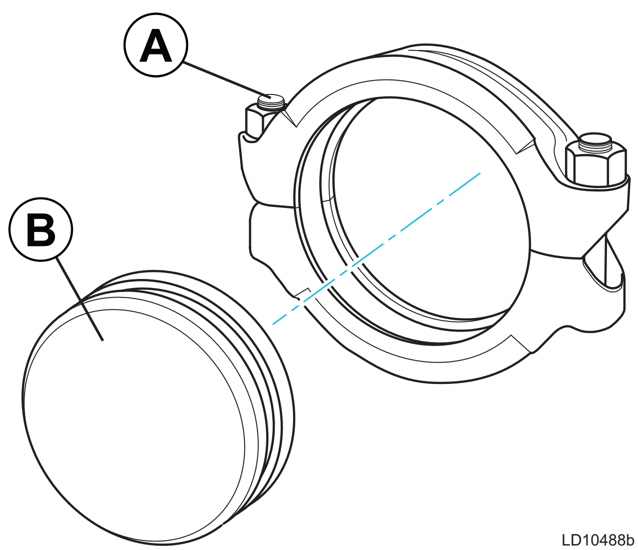

Figure 2 - Grooved closure

Callout	Description
A	Grooved coupling
B	Pipe cap

Table 4 - Flange closures, 150 lb

Flange size (in.)	Closure part number	Gasket part number
4	075-46450-004	028-10385-010
6	075-46450-006	028-10385-012
8	075-46450-008	028-10385-013
10	075-46450-010	028-10385-014
12	075-46450-012	028-10385-015
14	075-46450-014	028-10385-016
16	075-46450-016	028-10385-017

Table 5 - Flange closures, 300 lb

Flange size (in.)	Closure part number	Gasket part number
4	075-46450-104	028-10385-010
6	075-46450-106	028-10385-012
8	075-46450-108	028-10385-013
10	075-46450-110	028-10385-014
12	075-46450-112	028-10385-015
14	075-46450-114	028-10385-016
16	075-46450-116	028-10385-017

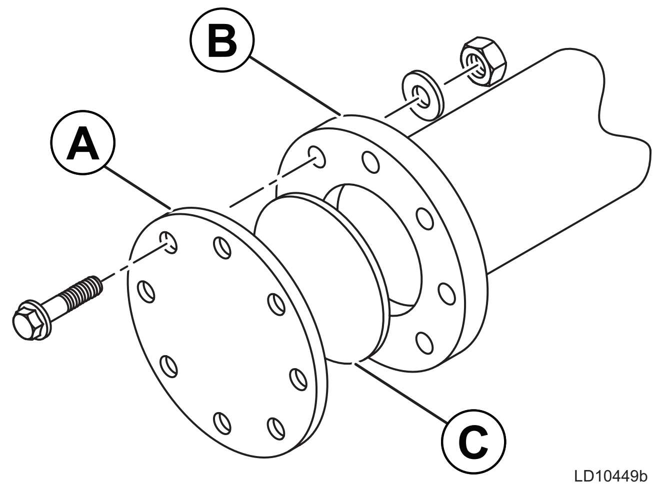

Figure 3 - Flange closures, 4 in. shown

Callout	Description
A	Closure
B	Flange
C	Gasket

Note:

- Not all flange closures use the same bolt pattern.
- Not all flange closures use the same quantity of hardware.

5000 Renaissance Drive, New Freedom, Pennsylvania USA 17349
1-800-524-1330
www.johnsoncontrols.com
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