

Vessel Maintenance

These instructions are used to help clarify the maintenance required on the Maintenance Sheet:

- Replace interior chlorine feed line annually or as needed
- After installing a new interior chlorine feed line, perform the leak test (See O&M Manual) and purge the feed line with nitrogen before connecting to chlorine container/cylinder
- Rebuild fail-safe ball valve annually or as needed (See O&M Manual)
- If the vessel interior has any rust, lightly sand the area and coat with ZEP, Alpha Gold Enriched Zinc Primer #0190
- Replace vessel door o-ring annually or as needed:
 - Remove old o-ring
 - With clean cloth wipe down o-ring groove, both faces of door closure
 - Using only Halocarbon grease lightly pre-grease o-ring and install
 - **Lightly** grease both faces of door closure using only Halocarbon grease
- Perform scheduled scale maintenance as per Force Flow Manual (See O&M Manual)

MAINTENANCE SHEET

Equipment Description	CHLORTAINER® TOTAL CONTAINMENT SYSTEM	Date Installed		Date Started	
TGO TECHNOLOGIES, INC. 3471-B REGIONAL PARKWAY SANTA ROSA, CA 95403-8247			Phone No. 707-567-7778		
			Toll Free 800-543-6603		
			Fax No. 707-576-7516		
Equipment Location: CHLORINE STORAGE / USE AREA			e-mail sales@tgotech.com		
Equipment Tag: FED. A.S.M.E. 'U' Stamped					
PART	LUBE TYPE	MAINTENANCE DETAIL			
WEEKLY FAIL-SAFE VALVE FUNCTION TEST	NONE	MANUALLY TURN OFF AND ON USING MAINTENANCE SWITCH			
YOKE ADAPTER	NONE	USE NEW GASKET WITH EACH CYLINDER CHANGE			
INTERIOR CHLORINE FEED LINE	NONE	INSPECT WITH EACH CYLINDER CHANGE REPLACE ANNUALLY			
BOTH FACES OF DOOR CLOSURE	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED			
VESSEL DOOR O-RING	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED REPLACE ANNUALLY			
FAIL-SAFE BALL VALVE	HALOGENATED GREASE	REBUILD ANNUALLY			
VESSEL INTERIOR ROLLERS	HALOGENATED GREASE	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE BOLTS	NEVER SEEZ	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE	NEXT SAFETY SOLVENT	REMOVE SURFACE RUST			
VESSEL LOCK NUT GASKET	NONE	REPLACE ANNUALLY			
NITROGEN RELIEF VALVE	NONE	REPLACE ANNUALLY			
RECOMMENDED SPARE PARTS			RECOMMENDED SPARE PARTS		
PART NO.	PART NAME	QUANTITY	PART NO.	PART NAME	QUANTITY
.275 INCH X 23 INCH ID	DOOR O-RING (VITON)	1	72 INCH LENGTH	NITROGEN PIGTAIL ASSEMBLY	1
24 IN LENGTH	INTERIOR CHLORINE FEED LINE	2	NONE 1214X1-B1	LEAK TEST ASSEMBLY WITH CHLORINE TON VALVE	1
TYPE 628	YOKE	2	25-500C-580	TESTING NITROGEN REGULATOR	1
5888-D	YOKE ADAPTER	2	WMV-4-100	NITROGEN SAFETY RELIEF VALVE	1
635X3	TWISTED CHLORINE WRENCH	2	HIGH PRESSURE	FILLED 55 cu. ft. NITROGEN BOTTLE	1
RKN348XT RKN354XT	JAMESBURY VALVE REBUILD KIT	1	1214 X1-B1	CHLORINE TON VALVE	1
001-0806-73	JAMESBURY HASTELLOY BALL	1	CHLORTAINER® TOTAL CONTAINMENT SYSTEM		
4513247	LOCKNUT GASKET	2	MODEL: TWIN 150 VESSEL		
25-10M	HALOCARBON GREASE	6 oz. Cartridge	SERIAL NO:		
ASHCROFT 30/100	VACUUM / PRESSURE GAUGE	1	ID NO:		
660	CGA FITTING	1	YEAR BUILT:		

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Equipment Location: CHLORINE STORAGE / USE AREA			e-mail sales@tgotech.com		
Equipment Tag: FED. A.S.M.E. 'U' Stamped					
PART	LUBE OR SOLVENT TYPE	MAINTENANCE DETAIL			
WEEKLY FAIL-SAFE VALVE FUNCTION TEST	NONE	MANUALLY TURN OFF AND ON USING MAINTENANCE SWITCH			
YOKE ADAPTER	NONE	USE NEW GASKET WITH EACH CYLINDER CHANGE			
INTERIOR CHLORINE FEED LINE	NONE	INSPECT WITH EACH CYLINDER CHANGE REPLACE ANNUALLY			
BOTH FACES OF DOOR CLOSURE	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED			
VESSEL DOOR O-RING	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED REPLACE ANNUALLY			
FAIL-SAFE BALL VALVE	HALOGENATED GREASE	REBUILD ANNUALLY			
VESSEL INTERIOR ROLLERS	HALOGENATED GREASE	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE BOLTS	NEVER SEEZ	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE	NEXT SAFETY SOLVENT	REMOVE SURFACE RUST			
VESSEL LOCK NUT GASKET	NONE	REPLACE ANNUALLY			
NITROGEN RELIEF VALVE	NONE	REPLACE ANNUALLY			
RECOMMENDED SPARE PARTS			RECOMMENDED SPARE PARTS		
PART NO.	PART NAME	QUANTITY	PART NO.	PART NAME	QUANTITY
.313 INCH X 39 INCH ID	DOOR O-RING (VITON)	1	72 INCH LENGTH	NITROGEN PIGTAIL ASSEMBLY	1
38 IN LENGTH	INTERIOR CHLORINE FEED LINE	1	NONE 1214X1-B1	LEAK TEST ASSEMBLY WITH CHLORINE TON VALVE	1
TYPE 628	YOKE	1	25-500C-580	TESTING NITROGEN REGULATOR	1
5888-D	YOKE ADAPTER	1	WMV-4-100	NITROGEN SAFETY RELIEF VALVE	1
635X3	TWISTED CHLORINE WRENCH	2	HIGH PRESSURE	FILLED 55 cu. ft. NITROGEN BOTTLE	1
RKN348XT RKN354XT	JAMESBURY VALVE REBUILD KIT	1			
001-0806-73	JAMESBURY HASTELLOY BALL	1	CHLORTAINER® TOTAL CONTAINMENT SYSTEM		
4513247	LOCKNUT GASKET	2	MODEL: TON VESSEL		
25-10M	HALOCARBON GREASE	6 oz. Cartridge	SERIAL NO:		
ASHCROFT 30/100	VACUUM/PRESSURE GAUGE	1	ID NO:		
660	CGA FITTING	1	YEAR BUILT:		

MAINTENANCE SHEET

Equipment CHLORTAINER®	Date	Date
Description TOTAL CONTAINMENT SYSTEM	Installed	Started
TGO TECHNOLOGIES, INC. 3471-B REGIONAL PARKWAY SANTA ROSA, CA 95403-8247	Phone No.	707-567-7778
	Toll Free	800-543-6603
	Fax No.	707-576-7516
Equipment Location: CHLORINE STORAGE / USE AREA	e-mail	sales@tgotech.com
Equipment Tag: FED. A.S.M.E. 'U' Stamped		
PART	LUBE OR SOLVENT TYPE	MAINTENANCE DETAIL
WEEKLY FAIL-SAFE VALVE FUNCTION TEST	NONE	MANUALLY TURN OFF AND ON USING MAINTENANCE SWITCH
YOKE ADAPTER	NONE	USE NEW GASKET WITH EACH CYLINDER CHANGE
INTERIOR CHLORINE FEED LINE	NONE	INSPECT WITH EACH CYLINDER CHANGE REPLACE ANNUALLY
BOTH FACES OF DOOR CLOSURE	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED
VESSEL DOOR O-RING	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED REPLACE ANNUALLY
FAIL-SAFE BALL VALVE	HALOGENATED GREASE	REBUILD ANNUALLY
VESSEL INTERIOR ROLLERS	HALOGENATED GREASE	RE-GREASE ANNUALLY
VESSEL DOOR YOKE BOLTS	NEVER SEEZ	RE-GREASE ANNUALLY
VESSEL DOOR YOKE	NEXT SAFETY SOLVENT	REMOVE SURFACE RUST
VESSEL LOCK NUT GASKET	NONE	REPLACE ANNUALLY
NITROGEN RELIEF VALVE	NONE	REPLACE ANNUALLY
RECOMMENDED SPARE PARTS		
PART NO.	PART NAME	QUANTITY
.275 INCH X 23 INCH ID	DOOR O-RING (VITON)	1
24 IN LENGTH	INTERIOR CHLORINE FEED LINE	1
TYPE 628	YOKE	1
5888-D	YOKE ADAPTER	1
635X3	TWISTED CHLORINE WRENCH	2
RKN348XT RKN354XT	JAMESBURY VALVE REBUILD KIT	1
001-0806-73	JAMESBURY HASTELLOY BALL	1
4513247	LOCKNUT GASKET	2
25-10M	HALOCARBON GREASE	6 oz. Cartridge
ASHCROFT 30/100	VACUUM/PRESSURE GAUGE	1
660	CGA FITTING	1
CHLORTAINER® TOTAL CONTAINMENT SYSTEM		
MODEL: SINGLE 150 VESSEL		
SERIAL NO:		
ID NO:		
YEAR BUILT:		

MAINTENANCE SHEET

Equipment Description	CHLORTAINER® TOTAL CONTAINMENT SYSTEM	Date Installed		Date Started	
TGO TECHNOLOGIES, INC. 3471-B REGIONAL PARKWAY SANTA ROSA, CA 95403-8247			Phone No. 707-567-7778		
			Toll Free 800-543-6603		
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Equipment Location: CHLORINE STORAGE / USE AREA			e-mail sales@tgotech.com		
Equipment Tag: FED. A.S.M.E. 'U' Stamped					
PART	LUBE OR SOLVENT TYPE	MAINTENANCE DETAIL			
WEEKLY FAIL-SAFE VALVE FUNCTION TEST	NONE	MANUALLY TURN OFF AND ON USING MAINTENANCE SWITCH			
YOKE ADAPTER	NONE	USE NEW GASKET WITH EACH CYLINDER CHANGE			
INTERIOR CHLORINE FEED LINE	NONE	INSPECT WITH EACH CYLINDER CHANGE REPLACE ANNUALLY			
BOTH FACES OF DOOR CLOSURE	HALOGENATED GREASE	INSPECT WITH EACH CYLINDER CHANGE CLEAN AND LIGHTLY RE-GREASE AS NEEDED			
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FAIL-SAFE BALL VALVE	HALOGENATED GREASE	REBUILD ANNUALLY			
VESSEL INTERIOR ROLLERS	HALOGENATED GREASE	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE BOLTS	NEVER SEEZ	RE-GREASE ANNUALLY			
VESSEL DOOR YOKE	NEXT SAFETY SOLVENT	REMOVE SURFACE RUST			
VESSEL LOCK NUT GASKET	NONE	REPLACE ANNUALLY			
NITROGEN RELIEF VALVE	NONE	REPLACE ANNUALLY			
Estimated annual maintenance time requirement: 2 hours					
RECOMMENDED SPARE PARTS			RECOMMENDED SPARE PARTS		
PART NO.	PART NAME	QUANTITY	PART NO.	PART NAME	QUANTITY
.275 INCH X 23 INCH ID	DOOR O-RING (VITON)	1	72 INCH LENGTH	NITROGEN PIGTAIL ASSEMBLY	1
18 IN LENGTH	INTERIOR CHLORINE FEED LINE	2	NONE 1214X1-B1	LEAK TEST ASSEMBLY WITH CHLORINE TON VALVE	1
TYPE 628	YOKE	2	25-500C-580	TESTING NITROGEN REGULATOR	1
5888-D	YOKE ADAPTER	2	WMV-4-100	NITROGEN SAFETY RELIEF VALVE	1
635X3	TWISTED CHLORINE WRENCH	2	HIGH PRESSURE	FILLED 55 cu. ft. NITROGEN BOTTLE	1
RKN348XT RKN354XT	JAMESBURY VALVE REBUILD KIT	2			
001-0806-73	JAMESBURY HASTELLOY BALL	2	CHLORTAINER® TOTAL CONTAINMENT SYSTEM		
4513247	LOCKNUT GASKET	2	MODEL: DUAL 150 VESSEL		
25-10M	HALOCARBON GREASE	6 oz. Cartridge	SERIAL NO: 08-0449-1		
ASHCROFT 30/100	VACUUM / PRESSURE GAUGE	1	ID NO: 123		
660	CGA FITTING	1	YEAR BUILT: 2008		

After Interior Leak Maintenance

- to be performed in event of a chlorine cylinder/container failure

1. Be sure chlorine has been evacuated from vessel prior to opening vessel door (See Operations Manual).
2. Disconnect interior chlorine feed line from cylinder/container. Plug line to prevent moisture intrusion.
3. If vessel is for 150 cylinder, place vessel into the loading position.
4. Remove chlorine cylinder/container and tag
5. Dry vessel with warm air fan, if needed.
6. Remove interior roller trunnions and wipe the interior of the vessel clean.
7. Inspect interior for rust or spoiled zinc coating, lightly sand and repaint with ZEP, Alpha Gold Enriched Zinc Primer #0190.
8. Re-grease studs with Halocarbon grease, then reinstall roller trunnions.
9. Perform nitrogen leak test. (See O&M Manual).
10. Remove o-ring and discard. Clean groove area and very lightly grease with Halocarbon grease. Install new o-ring.
11. Lightly grease both faces of the door with Halocarbon grease.
12. Load a new cylinder/container and restart system (See O&M Manual).