

This manual contains **IMPORTANT WARNINGS AND INSTRUCTIONS**  
READ AND RETAIN FOR REFERENCE

## Tamper-Resistant CIRCULATING 'Y' RESTRICTOR VALVE

300 psi (21 bar) MAXIMUM INBOUND FLUID PRESSURE

Restricts fluid flow to the gun in a circulating system  
Compatible with water-base fluids.

### Model 223-617, Series B

1/4 npsm inlet and return ports;  
Twist-lock coupler

### Model 223-618, Series B

3/8 npsm inlet and return ports;  
Twist-lock coupler

### Model 223-619, Series B

1/4 npsm inlet and return port;  
3/8 npsm swivel coupler

### Model 223-620, Series B

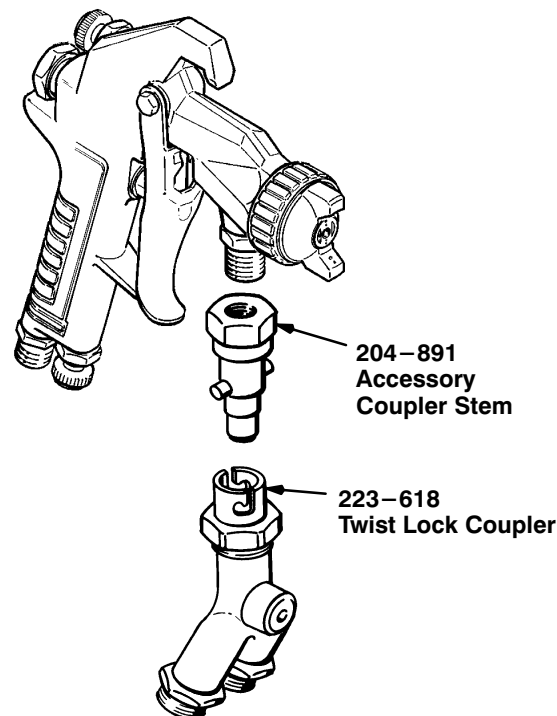
3/8 npsm inlet and return ports;  
3/8 npsm swivel coupler

U.S. Patent No. 4,615,485

U.K. Patent No. 2,176,265

Foreign Patents Pending

**WETTED PARTS:** Stainless steel, Acetal,  
Homopolymer, PTFE



## INSTALLATION & OPERATION

### WARNING

This valve is for use **ONLY** in low pressure circulating systems. To reduce the risk of serious bodily injury, which could result from over-pressurizing and rupturing the valve, **NEVER** supply more than 300 psi (21 bar) fluid pressure to the valve.

To reduce the risk of splashing, always relieve the air and fluid pressure to the gun before removing this valve for any reason.

Connect the circulating fluid hoses to the valve.

Connect the valve to the gun.

*For twist-lock couplers*, align the pins on the stem with the coupler slots and push the coupler onto the stem. Turn the stem clockwise to lock it.

*To adjust the fluid flow*, insert the adjustment tool (A) as shown in Fig 1. Turn the tool clockwise to decrease flow and counterclockwise to increase flow.

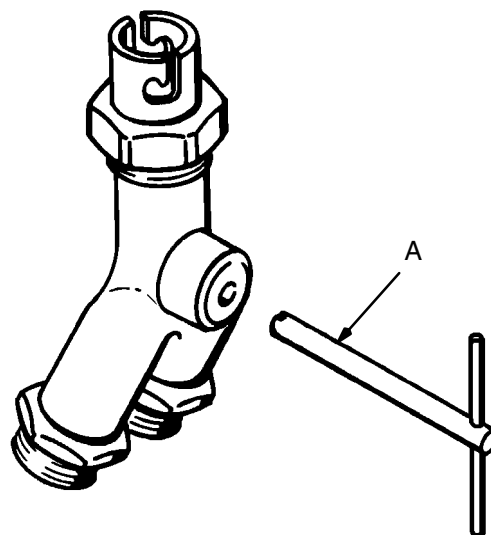


Fig 1

## SERVICE

Before removing the restrictor from the system, shut off the power to the pump and relieve air and fluid pressure.

Remove the coupler from the valve. Pry out the packing cartridge (2 or 7). See Parts Drawing. Thoroughly clean the valve and install a new cartridge. Reinstall the coupler.

If your valve has a twist lock coupler, position the slot in the housing on the center line of the valve. See Fig 2. Tighten the nut (5) firmly to 15 to 25 ft-lb (20 to 34 N•m).

If you are replacing the inlet and return adapters (1), apply thread sealant to the threads of the new adapters before installing, and torque to 15 to 25 ft-lb (20 to 34 N•m). See Parts Drawing.

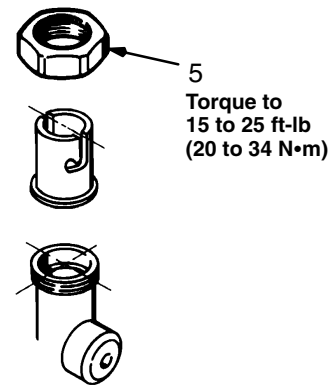
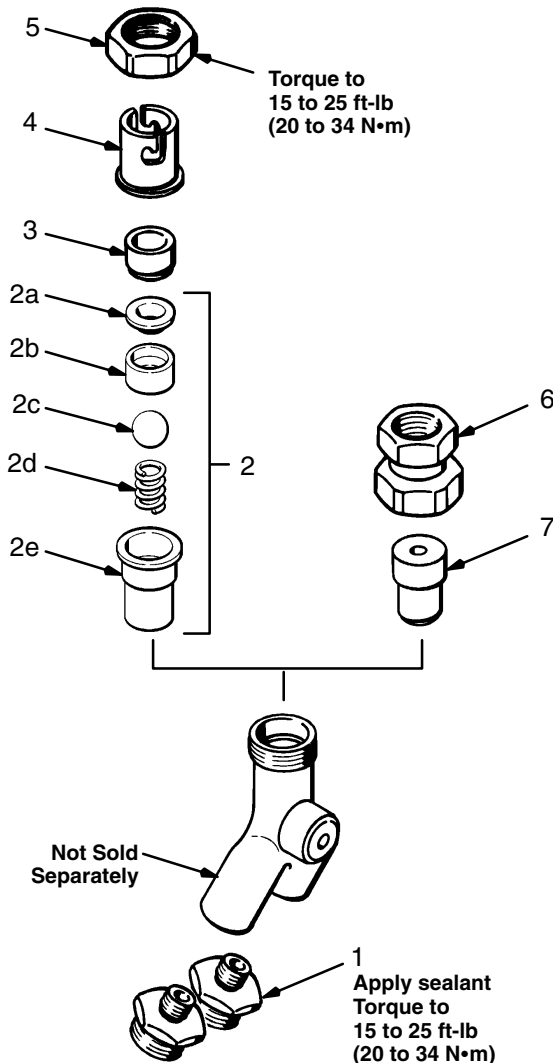


Fig 2

## PARTS DRAWING AND LIST



### Model 223-617 and 223-618 Series A With Twist-lock Coupler

REF NO.	PART NO.	DESCRIPTION	QTY
1	171-234	ADAPTER, 1/4 npsm; <i>Model 223-617</i>	2
	180-403	ADAPTER, 3/8 npsm; <i>Model 223-618</i>	2
2*	220-103	CARTRIDGE, packing; Includes items 2a to 2e	1
2a	178-846	• SEAL	1
2b	178-848	• SEAT, ball	1
2c	111-279	• BALL	1
2d	168-890	• SPRING, compression	1
2e	181-282	• SLEEVE	1
3	178-847	GUIDE, coupler stem	1
4	186-202	HOUSING, coupling	1
5	186-203	NUT, coupling	1

### Model 223-619 and 223-620 Series A With Swivel Coupler

REF NO.	PART NO.	DESCRIPTION	QTY
1	171-234	ADAPTER, 1/4 npsm; <i>Model 223-619</i>	2
	180-403	ADAPTER, 3/8 npsm; <i>Model 223-620</i>	2
6	223-892	UNION, 3/8 npsm swivel x 3/8 npt(f)	1
7*	181-283	CARTRIDGE, packing	1

\*Keep on hand to reduce down time

## ACCESSORIES

Accessories must be purchased separately

### Adjustment Tool 220-102

Required for adjusting the restrictor valve.

### Coupler Stem 204-891

Required to adapt the 3/8 npsm(m) fluid inlet of the air spray gun for use with twist-lock coupler

**SERVICE NOTE:** Series letter changed on all models.

**Sales Offices:** Atlanta, Chicago, Dallas, Detroit, Los Angeles, Mt. Arlington (N.J.)  
**Foreign Offices:** Canada; England; Korea; Switzerland; France; Germany; Hong Kong; Japan

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