



## High Pressure Industrial Dump Gun

Model 33700



### FEATURES

- Eliminates the need for Regulator or Unloader Valves, keeping system costs down.
- Directs flow to dump lance when gun is shut off, eliminating pressure spikes to the pump.
- Acts as a weep gun to prevent freezing.
- Heavy-duty, durable, stainless steel lances and internal wear parts offer long life.

**SELECTION:** Select a gun to match your system flow and pressure requirements, temperature and function being performed. The Dump Gun is designed to operate in systems without a regulator or unloader to help prevent over-pressure damage to the pump.

**INSTALLATION:** For safety, the Dump Gun should be connected to a properly sized and pressure rated hose. For optimum performance, check the Water Line Pressure Loss chart in the *High Pressure Guide*. It is recommended not to exceed 100 feet of high pressure hose.

### SPECIFICATIONS

	U.S. Measure	Metric Measure
Maximum Flow .....	25 GPM	(95 L/M)
Maximum Pressure .....	10,000 PSI	(700 BAR)
Inlet Port .....	1/2" NPT	(1/2" NPT)
Discharge Port .....	1/2" NPT	(1/2" NPT)
w/ adapter .....	1/4" NPT	(1/4" NPT)
Maximum Temperature .....	140°F	(60°C)
Dimensions (Gun Only) .....	5"	(127 mm)
(Lance Only) .....	42.5"	(1080 mm)
(Gun and Lance) .....	47.5"	(1207 mm)
Weight (Gun Only) .....	5.29 lb.	(2.4 kg)
(Gun and Lance) .....	9.44 lb.	(4.3 kg)

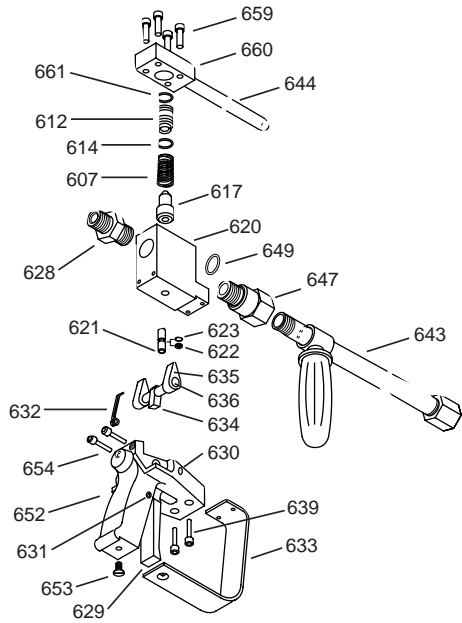
#### CAUTION:

A safety relief valve should be used in the event the lance becomes plugged to prevent damage to the pump.

**OPERATION:** The dual lance is designed with a hi-pressure lance at the bottom to hold the high pressure nozzle and an upper lo-pressure dump lance to direct the fluid during periods when the gun is closed but the system is running (by-pass). This unique by-pass system prevents pressure spikes to the pump and offers freeze protection in cold climates.

*“Customer confidence is our greatest asset”*

## EXPLODED VIEW



## PARTS LIST

ITEM	PART NO	MATL	DESCRIPTION	QTY
607	35302	S	Spring	1
612	35309	SS	Seat	1
614	35311	NBR	O-Ring, Seat	1
617	—	SS	Spool, Valve	1
620	—	SS	Body, Valve	1
621	—	SS	Spool w/Ball, Pilot Valve	1
623	35313	FPM	O-Ring, Pilot Spool	1
622	35315	PTFE	Back-up-Ring, Pilot Spool	1
628	—	STL	Fitting, Inlet (M22x1/2" M)	1
629	—	STL	Trigger	1
630	—	S	Pin, Trigger	1
631	—	S	Pin, Spiral (M5x28)	1
632	—	—	Spring, Trigger	1
633	—	STL	Guard, Trigger	1
634	—	—	Cam	1
635	—	STL	Thumb Lever	1
636	—	S	Pin, Spiral	1
637	—	—	Spindle	1
638	—	—	Bushing	2
639	—	ZP	Grubscrew (M8x25)	2
643	—	S	Lance, High Pressure w/Hex Adapter (1/2"x40")	1
644	—	S	Lance, Dump (16.5")	1
647	—	STL	Adapter, Lance to Valve Block (M22x1/2" F)	1
649	35319	CU	Washer	2
652	—	AL	Grip	1
653	—	STZP	Screw, Flat Head (M6x20)	1
654	—	STZP	Screw, Socket Head (M5x25)	4
659	—	STZP	Screw, Socket Head (M6x22)	4
660	35307	—	Cap, Valve Block	1
661	35317	NBR	O-Ring, Cap	1
663	35298	—	Assembly, Lever (Incls: 635, 636, 637, 638)	1
668	35299	—	Kit, Gun Repair (Incls: 607, 612, 614, 617, 621, 622, 623, 660, 661)	1
—	991627	SS	Bushing, Reducer (1/2"x1/4")	1
—	34357	STL	Hose, High Pressure 50 ft.-1/2"NPTMx1/2"NPTM Swivel	1
—	34381	STL	Quick Disconnect (Hose to Hose) 1/2" NPTF	1

Material Codes (Not Part of Part No.): AL=Aluminum CU=Copper  
 FPM=Fluorocarbon (Viton) NBR=Medium Nitrile (Buna-N)  
 PTFE=Polytetrafluoroethylene (Teflon) S=304SS SS=316SS STL=Steel  
 STZP=Steel/Zinc Plated ZP=Zinc Plated

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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The Pump with "Nine Lives"

**MAINTENANCE:** Regularly clean the dump gun, especially the trigger assembly and safety catch. Do not immerse the dump gun in solvent as this may effect the seal. Lubricate all moving parts and attend to any leakage immediately. When not in use, seal inlet of dump gun.

### Disassembly

1. Remove 4 socket head screws (Item 654) and separate trigger (Item 629) and valve assembly (Items 620, 621, 622 and 623).
2. Place valve block in vice, remove 4 socket head screws (Item 659) and remove valve block cap (Item 660).
3. Examine the valve seat (Item 612) and o-rings (Items 614, 661) and replace as needed.
4. Invert valve block (Item 620) and remove spring (Item 607) and valve spool (Item 617) and push pilot valve spool out (Item 621).

### Reassembly

1. Thoroughly clean valve block and replace the valve spool and spring. Install a new o-ring (Item 612) on the valve block cap. Lightly lubricate all components before assembly.
2. Clean the pilot valve spool (Item 621) and bore. Replace o-ring and back-up ring (Items 622 and 623). Lubricate and insert valve spool into the block.
3. Replace socket head screws (Item 614) and tighten down to seat valve block cap onto valve block. Torque to 100 in.lbs. [14 Nm].
4. Reassemble valve block and trigger assembly and replace 4 socket head screws. Torque to 100 in.lbs. [14 Nm].

## WARNING

Severe injury can occur with high pressure spray.  
 Do not allow spray to contact any part of body.

## WARNING

Read safety instructions by the  
 U.S. Waterjet Association before using.

## TROUBLESHOOTING

**Note: Water will always weep from nozzle lance when gun is in OFF position.**

Trigger sticks	• Spring deflected	• Replace as needed.
Water discharges from dump lance during normal high pressure use	• Foreign matter preventing valve closure	• Clean or replace as needed.
Leakage from under trigger assembly	• Worn Valve Spool or Seat	• Clean or replace as needed.
	• Leaking O-ring or Pilot Valve	• Service with repair kit or Lever assy.

## WARRANTY

### 90 Day Warranty

Refer to complete Cat Pump Warranty for further information.

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