

DATA SHEET

ADJUSTABLE CHEMICAL INJECTORS



Brass Models: **7182, 7183, 7184, 7192, 7193, 7194, 7224**

Stainless Steel Models: **7722, 7723, 7724**



Model 7183 Shown

FEATURES

- Durable stainless steel orifice ensures long life.
- Convenient top handle controls the chemical draw.
- Lightweight and compact design.
- Configurations available for mounting downstream from the unloader, or directly to the unloader discharge port.

SELECTION

Select the Chemical Injector that meets the flow requirements of the system and mounts most conveniently to your system. For mounting downstream from the Unloader on the discharge line, select the brass injector models 7182, 7183 or 7184, or stainless steel models 7722, 7723 or 7724. For mounting directly to the 7500S, 7500XS, 7600S and 7581 Unloaders, select Chemical Injector models 7192, 7193 or 7194 and for mounting directly to the 7620 Unloader, select the Chemical Injector model 7224.

INSTALLATION

The Adjustable Chemical Injector should be mounted downstream from the system regulating device or directly onto the discharge port of one of the various unloaders.

To install the Unloader mounted injectors, remove the male discharge fitting, check valve and spring from the Unloader. Reinstall the spring, then the check valve into the new injector and thread onto Unloader. **NOTE:** Discard the original Unloader discharge fitting and O-ring.

SPECIFICATIONS

	U.S. Measure	Metric Measure
7182, 7192, 7722		
Flow Range	2–4 gpm	7.6–15 lpm
Nozzle Orifice	1.8 mm	1.8 mm
7183, 7193, 7723		
Flow Range	3–5 gpm	11.4–19 lpm
Nozzle Orifice	2.1 mm	2.1 mm
7184, 7194, 7224, 7724		
Flow Range	3–6 gpm	11.4–23 lpm
Nozzle Orifice	2.3 mm	2.3 mm

COMMON

SPECIFICATIONS	U.S. Measure	Metric Measure
Maximum Pressure:		
Brass Models	4050 psi	280 bar
Stainless Steel Models	5100 psi	350 bar
Maximum Temperature	195° F	90° C
Barb Hose	¼"	¼"
Inlet Ports:		
*7182, 7183, 7184, 7722, 7723, 7724	¾" NPT(M)	¾" NPT(M)
**7192, 7193, 7194	M18 x 1.0	M18 x 1.0
***7224	M22 x 1.5	M22 x 1.5
Discharge Port	¾" NPT(M)	¾" NPT(M)
Weight	5.74 oz	0.16 kg
Dimensions	2 x 1 x 3"	51 x 25 x 76 mm

*Plumb on the discharge line, downstream from any unloader

**Use only with unloader models 7500S, 7500XS, 7581 and 7600S

***Use only with unloader model 7620

OPERATION

The Chemical Injector is designed to draw chemicals only under low pressure. It should be used with a double lance fitted with a low and a high-pressure nozzle, dual nozzle, adjustable nozzle or a variable nozzle. When the chemical is desired, switch the system over to the low-pressure nozzle to draw the chemical. The chemical draw may be varied by turning the adjustment collar entirely into the body to stop the draw, and approximately 1½ turns counter-clockwise for the maximum chemical draw. There will be a pressure drop across the injector during normal high-pressure operation. See the performance chart on page two for information regarding Chemical Injector performance.

NOTE: Flush system after chemical application to prevent clogging and to prolong life.

PARTS LIST

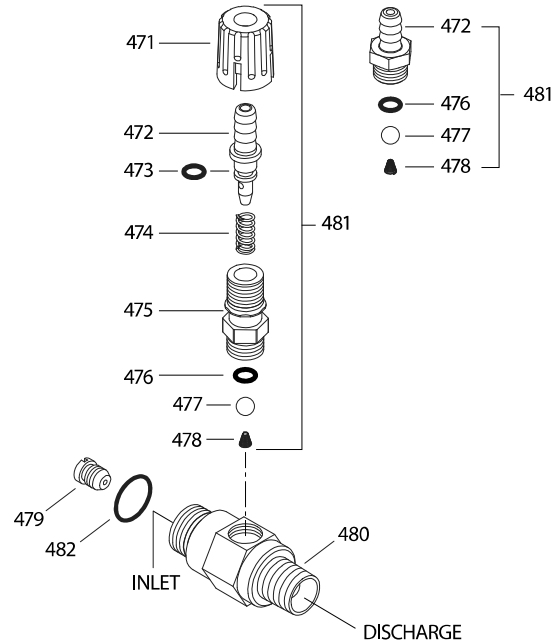
ITEM	P/N	MATL	DESCRIPTION	MODEL USED	QTY
471	33949	NY	Handle, Adjustment	All	1
472	32941	BB	Barb, Adjustable with O-Ring	All	1
	—	S	Barb, Adjustable	7722, 7723, 7724	1
	33505	BB	Barb, Fixed	All	1
473	—	NBR	O-Ring, Hose Barb	All	1
	33955	FPM	O-Ring, Hose Barb	7722, 7723, 7724	1
474	33500	S	Spring, Retainer	All	1
475	33946	BB	Retainer, Ball/Seat	All	1
	39906	S	Retainer, Ball/Seat	7722, 7723, 7724	1
476	33504	FPM	O-Ring, Retainer	All	1
	33956	PTFE	O-Ring, Retainer	7722, 7723, 7724	1
477	34620	SS	Ball, Seat ¼"	All	1
	33502	SS	Ball, Seat ⅜"	7722, 7723, 7724	1
478	33501	SS	Spring, Ball	All	1
479	32072	SSS	Injector Orifice (1.8 mm)	7182	1
	32073	SSS	Injector Orifice (2.1 mm)	7183	1
	32074	SSS	Injector Orifice (2.3 mm)	7184	1
	32372	S	Injector Orifice (1.8 mm)	7192	1
	32373	S	Injector Orifice (2.1 mm)	7193	1
	32374	S	Injector Orifice (2.3 mm)	7194	1
	32074	SSS	Injector Orifice (2.3 mm)	7224	1
480	—	BB	Body	All	1
481	33481	BBNY	Barb Assembly, Adjustable (Includes: 471–478)	All	1
	33480	BB	Barb Assembly, Fixed (Includes: 472, 476–478)	All	1
482	13969	NBR	O-Ring, Body–70D	All	1

Bold part numbers are unique to a particular pump model.

Italics are optional items. Material Codes (Not Part of Part No.):

BB=Brass FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) NY=Nylon
PTFE=Pure Polytetrafluoroethylene S=304SS SS=316SS SSS=416SS

EXPLODED VIEW



TROUBLESHOOTING

No Chemical Draw:

- Low-pressure nozzle sized for too high of a pressure
- Air leak in suction line
- Worn injector orifice

Leaking Around Adjusting Collar:

- Worn O-ring
- Foreign material in injector

PERFORMANCE CHART

Model	Pump Flow	Orifice Size (mm)	Maximum Injecting Pressure (PSI)	Maximum Chemical Draw (oz/min)	Pressure Drop Across Orifice (PSI)
7182, 7192, 7722	2 gpm	1.8	225	60	150
7182, 7192, 7722	3 gpm	1.8	275	60	300
7182, 7192, 7722	4 gpm	1.8	450	60	500
7183, 7193, 7723	3 gpm	2.1	225	54	150
7183, 7193, 7723	4 gpm	2.1	375	54	250
7183, 7193, 7723	5 gpm	2.1	600	54	400
7184, 7194, 7224, 7724	3 gpm	2.3	150	50	125
7184, 7194, 7224, 7724	4 gpm	2.3	225	50	220
7184, 7194, 7224, 7724	5 gpm	2.3	300	50	350
7184, 7194, 7224, 7724	6 gpm	2.3	340	50	500

NOTE: Optimum performance of Chemical Injector occurs with a 35 ft. high-pressure hose with a minimum ⅜" ID. The type of hose, extended lengths, reduced ID and fittings may create additional backpressure above the maximum injecting pressure rating of the injector and prevent it from drawing chemicals.

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty