DATA SHEET
MAG-JET VALVE*

The Pumps with Nine Lives

Model: 31804 Use with Pump Models: 3CP1110CS, 3CP1120, 3CP1120G, 3CP1130, 3CP1140

Model: 31810 Use with Pump Models: 56, 56G1, 56G118, 56HS, 56HSG1, 56HSG118, 57, 60, 60G1, 60G118

Model: 31814 Use with Pump Models: 310, 340, 350, 5CP2120W, 5CP2140WCS, 5CP2150W

Model: 31815 Use with Pump Models: 45, 45G1, 5CP3120, 5CP3120CSS, 5CP3120CSSG1, 5CP5120, 5CP5120CSS, 5CP5135CSS, 5CP5135CSSG1, 5CP5140, 5CP5140CSS, 5CP5140CSSG1, 5CP5140CSSG118

Model: 31845 Use with Pump Models: 530, 550, 660, 1050, 5CP6120, 5CP6120CSSG1, 7CP6110CS, 7CP6110CSG1, 7CP6160CS, 7CP6160CSG1, 7CP6170, 7CP6170G1

FEATURES

- Easily converts a standard high-pressure pump to a pulsating water jetting pump.
- A special magnetic stainless steel valve and a strong, corrosion-resistant magnet keep one inlet valve open, creating a pulsating action. The open valve allows fluid to flow through the pump, preventing it from running dry.
- Pushing the Mag-Jet handle activates the jetting action, and pulling returns the pump smoothly to full flow and high-pressure operation.
- The pumping chamber stays continuously filled with liquid, which prevents exposure to extreme vacuum conditions, reduces the risk of cavitation, and extends the lifespan of both the seals and the pump.
- The Mag-Jet valve can be quickly mounted in the manifold inlet plug on most models for a straightforward field retrofit.

*U.S. Patent No's 7278, 443, and 7290, 561

SELECTION:

Each Mag-Jet valve has been designed for a specific pump or group of pumps and conveniently mounts into any of the inlet valve plug ports.

Note: Plunger pump model 3560 must be converted to 3560J in-shop due to its stacked valve design. The Mag-Jet hardware needs to be installed into a specially machined discharge manifold by a trained technician. To convert to 3560J, order Stem and Valve Kit PN 899910 and machined discharge manifold PN 899917.

INSTALLATION:

To install the Mag-Jet valve, remove the standard inlet valve plug and valve assembly from the inlet valve from any of the three valve chambers. Then, insert the preassembled Mag-Jet valve assembly (items 162–168) and press completely into the valve chamber. Next, thread the Mag-Jet body and handle assembly (items 169–195) into the valve chamber and torque to specifications (see Tech Bulletin 074).

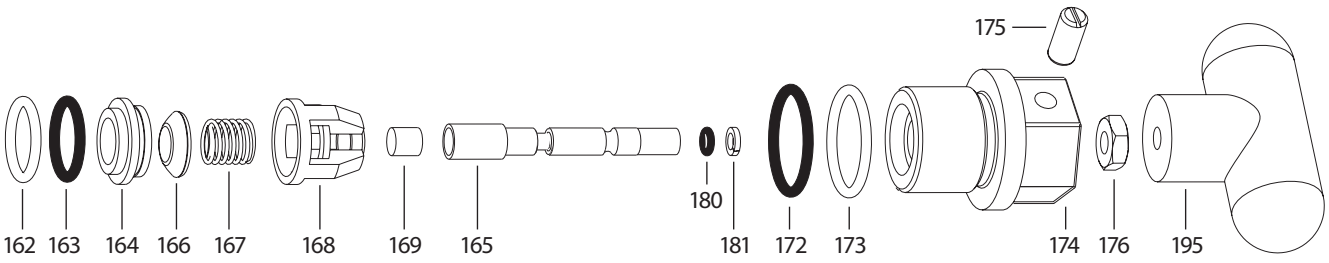
OPERATION:

Note: When in jetting mode, the pump output is reduced by ⅓, and discharge pressure will drop.

Release the gun trigger to activate the bypass mode. Push the handle in to engage the magnet that holds the inlet valve open, starting the jetting action. Pull the Mag-Jet handle out to return the pump to full flow, high-pressure operation. Squeeze gun trigger to begin high-pressure jetting.

Note: On model 3560J, the detent holds the inlet valve open when the Mag-Jet valve is pushed in.

EXPLODED VIEW



PARTS LIST

			Mag-Jet Valve Assembly					
ITEM	**MATL**	**DESCRIPTION**	**31804**	**31810**	**31814**	**31815**	**31845**	**QTY**
162	PTFE	Backup Ring, Seat	N/A	43248	—	N/A	43248	1
	D	Backup Ring, Seat	N/A	—	48361	N/A	—	1
163	NBR	O-Ring, Seat	**17547**	**43249**	**43358**	**17547**	**43249**	1
164	S	Seat, Inlet	**45790**	**43722**	**43725**	**45790**	**44718**	1
165	S	Stem	**899926**	**899935**	**899926**	**899926**	**899938**	1
166	SSSS	Valve (Magnet)	**899929***	**899937***	**899929***	**899929***	**899937***	1
167	S	Spring	**43750**	**43751**	**43750**	**43750**	**43751**	1
168	PVDF	Retainer, Valve	**899928**	**899936**	**899928**	**899928**	**31131**	1
169	CP	Magnet (¼" x ¼")	**899923**	**899923**	**899923**	**899923**	—	1
	CP	Magnet (⅜" x ⅜")	—	—	—	—	**899939**	1
172	NBR	O-Ring, Valve Plug	**49382**	**14179**	**49382**	**142807**	**17617**	1
173	PTFE	Backup Ring, Valve Plug	N/A	**20213**	N/A	—	N/A	1
	D	Backup Ring, Valve Plug	N/A	—	N/A	**48365**	N/A	1
174	BB	Body, Valve Plug	**899930**	**899931**	**899930**	**899933**	**899934**	1
175	S	Detent Assembly	899925	899925	899925	899925	899925	1
176	STZP	Nut, Jam (¼"–20)	899927	899927	899927	899927	899927	1
180	NBR	O-Ring, Stem–70D	899921	899921	899921	899921	899921	1
181	PTFE	Backup Ring, Stem	899922	899922	899922	899922	899922	1
195	POP	Handle, Jetter	899920	899920	899920	899920	899920	1
310	—	*Kit, Stem and Valve (Includes: 162–169, 172, 173, 180, 181)*	***899904***	***899906***	***899907***	***899908***	***899909***	*1*

***Note:** Mag-Jet assembly uses a special magnetic valve. Do not use standard valve from valve kits.

Bold print part numbers are unique to a particular pump model. *Italics are optional items.* MATERIAL CODES (Not Part of Part Number):
BB=Brass CP=Chrome Plated D=Acetal NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene POP=Polypropylene
PVDF=Polyvinylidene Fluoride S=304SS SSSS=440SS STZP=Steel/Zinc Plated

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Won't pulsate	• Detent assembly nut set incorrectly	• Secure detent assembly setting by threading in, and then backing out ⅛ turn
Leaking at Stem	• Worn O-ring on stem	• Replace stem O-ring,
Won't resume to high-pressure	• Debris in valve • Damaged valve	• Check jetter valve and seal for damage or trapped debris • Replace stem and valve kit as needed.

⚠ CAUTIONS AND WARNINGS
All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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

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