

## DESIGN CHANGES OF 800 SERIES VALVES

DATE	CHANGES/ADVANTAGES	VISUAL DIFFERENCES	SERVICE/PARTS/COMMENTS
09/01/1994	Redesign of pressure control. (New P/N 9366-XXX)	Calibrated stem.	All new parts; all new schematic drawings. Replace whole unit.
10/24/1995	Four-digit stamp of month and year on pressure control. (P/N 9366-XXX)	Date stamped on flat mounting surface of the control.	Number used for easier parts replacement.
11/03/1995	Started grooving of 6" (old style) cages. (P/N 8894)	Grooves on outside of struts after cage removed from valve.	Need grooved cages for <u>regulating valves</u> under 1000 GPM.
01/01/1996	6" valve redesign. (P/N 9678-XXX)	Same length as previous valve. Large o-rings on wafer ends.	All new parts.
01/09/1996	Started using nylon-locking nuts on 4" valve.	Eliminated bending washers.	Upgraded stud with nuts P/N 9756. Replace complete.
02/19/1996	Freeze resistant redesign of external filter. Update available. (P/N 9698)	Overall smaller size. Freeze core inside screen.	Buy upgrade. Recommend still draining during winter time.
03/04/1996	Nine-digit stamp of model number, month, day and year of manufacture on pressure control. (P/N 9366-XXX)	Model number and date stamped on flat mounting surface of the control.	Need number for easier parts replacement.
03/21/1996	Redesign high-pressure 6" sleeve. (P/N 9697-001)	Slightly shorter overall length than previous 1995 design.	For use on valves built starting 01/01/1996. High-pressure sleeves have an "A" stamp.
03/22/1996	Nylon-locking nuts on 3" valve.	Eliminated bending washers.	Upgraded stud with nuts P/N 9755. Replace complete.
04/01/1996	Small pressure control used on 2" valve. (P/N 9689-XXX)	Large hex on spring housing.	New product.
07/12/1996	Nylon-locking nuts of 6" valve.	Eliminated bending washers.	Upgraded stud with nuts P/N 9757 for all 6" valves after 01/01/1996. Replace complete.
08/01/1996	Updated E40 solenoid from Skinner to Gem-Sol.	Tall blue square coil on Gem-Sol versus long rectangular blue cover on Skinner.	Purchase whole new E40 if dated before 08/01/1996. Better in humid conditions.
08/30/1996	Redesigned low-pressure 6" sleeve. (P/N 9697-002)	Slightly shorter than previous 1995 design.	For use on valves built starting 01/01/1996 low-pressure sleeves have a "B" stamp.
09/01/1996	3" valve switch to small pressure control.	Smaller pressure control.	Both large and small controls can be used on 3" valves.
09/01/1996	New Rate-of-flow for 6" and 8" valves.	Probe inserts in pipe/valve.	Can be installed in valve or remote.
09/03/1996	New low-pressure 2" sleeve. (P/N 9501-002)	Low durometer soft sleeve.	For use only on 2" valves built after 09/03/1996.
01/09/1997	New shuttle check valve.	Attaches directly to manual selector valve.	New product replaces double check valves used previously on upstream and downstream ports.
04/26/1997	8" nylon-locking nuts.	Eliminated bending washers.	Upgraded stud with nuts with P/N 9758. Replace complete.
04/30/1997	4" nylon-locking nuts.	Eliminated bending washers. Acorn nut replaced with nylon-locking nut.	No interchangeability problems. Can buy stud with nuts under P/N 9756.
05/27/1997	New 6" valve jacket.	Smaller mounting bars and pre-threaded parts. Slightly thinner wall.	Reduce overall weight.
07/30/1997	Enlarged I.D. on 3" valve jacket.	Internal ribs machined out. Only noticeable when valve disassembled.	Increased CV of valve.
08/19/1997	Switched E43 solenoid from Skinner to Baccara.	Skinner solenoid used small black square coil. Baccara solenoid has cylinder-shaped coil with red manual override.	Skinner solenoid uses a Part #3139_____. Baccara solenoid is marked with "3W 1.2NO 24VAC"
11/18/1997	Brass center barrier on 3" valve.	Brass metal versus white plastic.	No P/N change. Brass will interchange with plastic.
02/01/1998	New victolic cages with outside bolts.	Three galvanized bolts tie two cages together.	Increased strength for high load applications.
02/05/1998	Improved sawtooth cages for 2" valve.	Deeper cut windows on cage.	Performs better in regulating applications.
02/19/1998	New style selector valve P/N 9905 replaces old style (P/N 8927).	Nylon-locking nut on top replaced acorn nut holding handle down.	Reduction of parts in new assembly. Adjustable seal tension by slightly tightening up nylon-locking nut.
05/11/1998	Added four support struts to inside cone on 3" valve.	Struts come out and touch center barrier.	Prevents bending on center barrier due to high load force caused by water hammer and water freezing inside cone.
08/24/1998	New 6" sleeve material.	Sleeve is stiffer and added additional dot inside date code.	Higher strength sleeve with exceptional long cycle life.

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11/09/1998	New 2" sleeve material.	Stiffer sleeve.	Higher strength sleeve with greater crack resistance.
11/10/1998	New 3" sleeve material.	Stiffer sleeve.	Higher strength sleeve with greater crack resistance.
11/24/1998	Enlarged diaphragm area on small pressure control.	Larger radius on inside diameter where diaphragm is trapped.	All parts interchangeable. Enlarged area increases accuracy of pressure control.
11/24/1998	New 4" sleeve material.	Stiffer sleeve.	Higher strength sleeve with greater crack resistance.
01/04/1999	Use only 1/4" tubing on all 2" and 3" valves.	Larger tubing than previous 5/32" tubing.	Simplified to one tubing size. Greater bend and kink resistance.
04/21/1999	Universal 6" shaft for new/old style valve.	Shaft has additional thread length.	P/N 9757 can be used on any age 6" valve.
06/10/1999	Non-slotted 4" center barrier.	No bleed slots on downstream side of center barrier.	Center barrier on older valves can be simply turned around if leakage through slots occurs.
08/04/1999	Reduced flattened area of 6" center barrier.	Flat area reduced to half with chamfer on edges.	Increases shut-off forces. New style center barrier with retrofit back to valves manufactured starting 01/01/1996.
09/30/1999	Full radius on 6" center barrier.	Full round radius.	Increase shut-off. Retrofits back to 01/01/1996.
11/17/1999	Full radius on 2" center barrier.	Full round radius.	Increase shut-off. Completely interchangeable.
01/14/2000	Full radius on 3" center barrier.	Full round radius.	Increase shut-off. Completely interchangeable.
05/05/2000	3" two-piece jacket.	Die-cast dark gray.	P/N 10365 jacket. Assembly completely interchangeable.
05/12/2000	Added P/N 10685 metal sheathing.	Metal braid covers over black tubing.	Protects from coyotes and rodents.
07/12/2000	Started using 110VAC Snap-Tite E52 solenoid.	Black cover with brass base.	Less cost; improved availability.
01/25/2001	Add internal rib to 6" sleeve.	Half o-ring at smallest inside diameter.	Better shut-off.
04/05/2001	2" brass center barrier.	Brass versus white plastic.	Ease of manufacturing.
09/13/2001	Add drain slots to 6" cages.	Located on end face of cage internally.	Drains out inside water pocket.
06/01/2002	Modified P/N 9325 bracket.	Aluminum versus steel.	Easier to bend to needed angle.
04/14/2003	Added P/N 10645 restrictor assembly.	#6 nozzle size.	Ease of assembly.
11/25/2003	Add drain slots to 2" cages.	Located on end face of cage internally.	Drains out inside water pocket.
12/29/2003	Modified P/N 8983 and P/N 9188 with keyhole slots.	Keyhole slot.	Easily bend bracket to different angles.
07/07/2004	Split P/N 9790 into two-piece design for Rate-of-Flow.	Now use P/N 9600 Spool and P/N 9790.	Easier to manufacture. Less load and wear in vertical direction on P/N 9790.
12/09/2004	Added P/N 10923 extension bracket kit.	Uses P/N 9325 bracket.	Lifts controls on valves up and away from valve.
05/10/2005	Label for manual selector valve.	"Auto", "Open", & "Close" instead of engraved lettering.	New label can be added to any selector valve.
07/13/2005	Enlarged holes for 9602-xxx.	Added black sensitivity bushing for small control.	Increased pressure sensitivity & water flow.
08/23/2005	3/8" tubing now polyethylene instead of nylon.	More flexible.	Improved kink and resistance and weatherability.
11/09/2005	P/N 9358 spool with wrench flats.	Two flats in center of spool	Easier to assemble and disassemble.
03/23/2006	New tool to mold P/N 9800 drain.	Less flash on parting line. Button added on 1" diameter disk.	Seals better and has increased pressure rating.
03/27/2007	New blue, red and black sensitivity inserts.	Drilled holes inserted into slots.	More accurate machining. Less o-ring shear under high pressures.

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09/07/07	2" marine-grade aluminum cages.	No longer need to anodize which left dark gray surface finish.	Greater corrosion resistance. Anodizing made assembly harder.
02/13/08	Return back to one-piece 3" jacket.	Extruded surface versus die-cast two-piece.	P/N 9381 for one-piece. Machine in one operation and no assembly required.
03/21/08	White label for small pressure control.	No engraving.	Easier to read as pressure control weathers. Less machining.
05/29/08	Plastic 6" center barrier.	White plastic UHMW instead of brass.	Less weight. Large 6" diameter brass rod hard to find.
06/20/08	Plastic 2" center barrier.	White plastic UHMW instead of brass.	Better corrosion resistance for die cast aluminum cages.
09/15/08	Plastic 3" center barrier.	White plastic UHMW instead of brass.	Better corrosion resistance for experimental die cast aluminum cages.
01/21/09	Updated P/N 9789-002 high flow rate-of-flow stem.	Slot replaced with round hole.	Totally interchangeable. Ease of machining.
07/10/09	New Window+ Controllers.	Window+ stamped on front cover.	More programming capabilities.
07/14/09	Revised P/N 9790 with taller wall o-ring groove.	Taller groove wall.	Retrofits. Holds o-ring in place better.
9/22/09	Use some plastic fittings.	Mostly black color.	Testing greater corrosion resistance
1/11/10	First new style 4" valve. (Aluminum cages)	1" longer and sleeve like 6" and 8" Valves.	Higher CV and throttling capability.
4/21/10	New style 2" shaft with wrench flat.	Wrench flat.	Easier to install nut on shaft.
4/29/10	New die cast spring housing for large controls.	Gray color instead of brass.	Interchangeable with any large control. *Use 10-24 screw: Brass uses 10-32 screw.
5/4/10	P/N 9358 new style spool for large control.	Taller ribs for o-ring grooves.	Holds o-rings better inside sensitivity bushing.
6/1/10	First test of Delta P.	Brass pilot with shortened spring housing.	Eliminates need for solenoid.
1/19/11	P/N 8983 Bracket updated.	Additional holes punched.	Attach pilots in additional positions.
8/8/11	P/N 9333 Label changed to stick-on label.	White instead of aluminum and adhesive backing.	Will fit any valve, any cage.
9/28/11	Started using some die cast P/N 9355 spring housings.	Charcoal gray in color.	Lighter and lower cost.
1/5/12	New style 4" Valves.	O-ring on end face. Wrap out sleeve.	Easier to assemble. One plus inch longer.
5/16/12	First updated pressure control all Teflon mating parts put out for testing.	Sensitivity bushing has long Teflon extension.	Update kits available to upgrade.
6/21/12	First plastic Delta P.	Plastic instead of brass.	Cost reduction updated internal spool.
11/1/13	P/N 9333 o-ring for large pressure control made of 80 duro rubber.	Feels slightly stiffer.	Previous production was 70 duro. Better water hammer and freeze dislodging resistance.
1/1/14	Large and small pressure control has new style update internal parts.	Large pilot no longer uses red/blue/black colored retainer nut.	Update kits can retrofit back to pilot made after 1994.
4/22/14	P/N 11894 spool for small pilot was converted to 17-4 stainless steel.	Only a shine difference since originally SS 304.	Much stronger and does not bend or break easily.
9/2/14	Re-started using 4-rib P/N 9800 drain.	8 ribs on similar looking P/N 9800 drain.	Drain does not seal off as quickly allowing more air to escape out of pump volute.