SINGER VALVE

Result-Based Solutions. Globally.™

singervalve.com

SPS

Singer Packaged Systems

Singer Packaged Systems (SPS) offers a complete line of standard and custom designed, pre-tested, pre-packaged valve stations, ready for site installation and mainline connection. SPS will work with you to design a package to meet the needs of your application and will provide complete and accurate AutoCad drawings for your design and layout approval. Contact us to discuss your unique application requirements!

The Advantages Of A Pre-Packaged System

LESS MONEY: Save up to 60% or more on capital costs compared with on-site construction.

LESS WORK: One stop shopping - designed and pre-packaged to meet your application requirements.

LESS WORRY: The complete package is fully tested, calibrated and ready for installation.

LESS TIME: Installation can be completed in as little as 8 hours compared with several days for on-site construction with minimal service & site disruption.

LESS RESPONSIBILITY / INCREASED EFFICIENCY: Single source accountability means you don't have to worry.

Singer Packaged Systems (SPS) is backed by 50 years of design and manufacturing experience. SPS is a division of Singer Valve Inc., which offers a full line of world-class automatic control valve solutions. This relationship creates a unique synergy in the superior application, design and production of our packaged systems - and SPS passes this experience, quality and cost savings on to you!

Many options may be incorporated into our packaged systems, using a diverse line of proven and trusted Singer components, as well as a variety of nationally recognized brands to meet your flow control requirements. Our Packaged Systems come complete with industry-leading standard features as well as many unique and innovative options.

Singer is known in the industry for our commitment to customer service, which has won us the confidence and loyalty of our customers worldwide. Our global network of representatives provide factory trained support and are fully backed by SPS's technical experts.

100% Factory Tested

MEET Regulatory Requirements*

FM APPROVED

NSF

WRAS APPROVED PRODUCT

c UL us

ISO 9001:2000 Registered Company

** Not available in all size/model combinations. Consult with factory.*

Types of Singer Packaged Systems

PRESSURE REDUCING PACKAGED SYSTEMS

• A complete package designed to maintain a constant downstream pressure.

PRESSURE RELIEF / SUSTAINING / SURGE CONTROL PACKAGED SYSTEMS

• Pressure relief packages ensure inlet pressure equals or exceeds a pre-determined (adjustable) pilot setting, maintaining a constant minimum supply pressure. Pressure Sustaining Packages ensure that the supply (inlet) pressure equals or exceeds a pre-determined (adjustable) pilot setting and closes slowly (adjustable) to minimize surging.

PUMP CONTROL PACKAGED SYSTEMS

• Pump control packages are designed to prevent surges associated with the starting and stopping of pumps. They are available in double chamber design for both in-line and by-pass applications. As an economical alternative, single chamber pump control valves are also available.

LEVEL CONTROL PACKAGED SYSTEMS

• Level control packages are designed to maintain and prevent overflow in tanks, towers, and reservoirs. Float Control Packages use direct-acting, lever-operated pilots to directly control the maximum water level. Altitude Packages control the level from ground level using the hydrostatic head. These packages are available with fixed or adjustable draw-downs and as one-way or two-way flow control.

FLOW METERING CONTROL PACKAGED SYSTEMS

• Singer's Metering Valves control and maintain standard hydraulic valve functions while providing the ability to accurately monitor and control flow rates through the metering valve without the requirement of a dedicated flow meter. Integrated with Singer's Electronic Metering Panel, flow rates and system operation can be monitored and controlled through SCADA ready panels.

BACKFLOW CONTROL PACKAGED SYSTEMS

• Backflow control packages prevent the reverse flow (backflow) of liquid, from entering the supply system, minimizing risk of contamination or system damage. Packaged systems can be supplied with certified double check and reduced pressure backflow prevention assemblies, complete with gate valve isolation, or with certified fire flow detector check assemblies.

The Singer Packaged Systems Difference

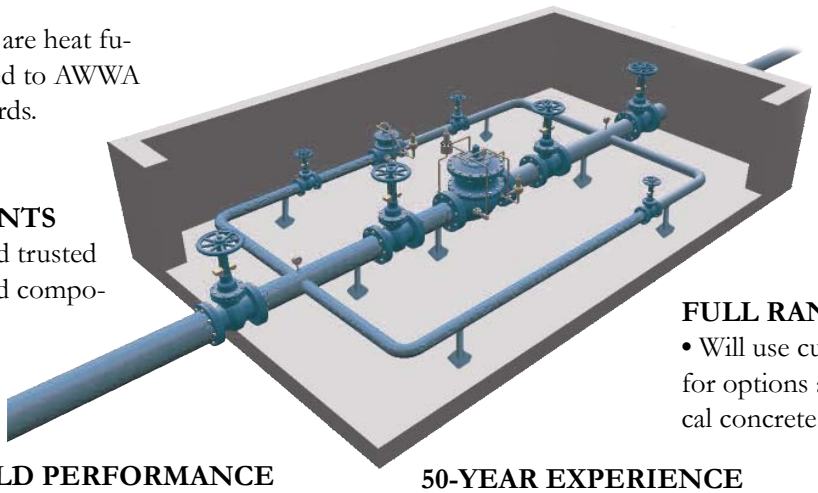
Singer Packaged Systems offers cost-effective, high quality, superior designed packaged systems.

EPOXY COATING

• Piping and Singer valves are heat fusion epoxy coated and lined to AWWA C-116 and NSF 61 Standards.

QUALITY COMPONENTS

• SPS uses only proven and trusted NSF and AWWA approved components.



SUPERIOR DESIGN DETAILS • Anchored in place, adjustable pipe support stands. Mainline thrust plates anchored to vault walls. Couplings provided for ease of installation and maintenance.

FULL RANGE OF OPTIONS

• Will use customer preferred vendors for options and accessories, such as local concrete suppliers

GUARANTEE OF FIELD PERFORMANCE

• SPS guarantees its recommended solution will meet the agreed functional and performance expectations of your application.

50-YEAR EXPERIENCE

• SPS is backed by 50 years of Singer design and manufacturing experience.

Commonly Included Components

The following are commonly included components of a SPS packaged system. (SPS will use customer preferred vendors for options and accessories, such as local concrete suppliers when requested.)

Automatic Control Valves (ACVs): SPS uses the highest quality Singer valves to control and regulate the flow in the system. Singer offers a complete range of ACVs as well as many unique and patented, high performance ACV options to meet the specific requirements of your application.

Backflow Preventers: SPS systems will meet all standards of backflow protection requirements in waterworks and fire protection supply systems. Fire flow detector check assemblies, double-check cross connection control assemblies, and single check assemblies can be provided to meet system and equipment protection requirements.

Isolation Valves: SPS will specify and utilize only industry recognized and approved isolation valves, to include butterfly valves, NRS and OS&Y gate valves, and industrial ball valves, to provide system isolation for maintenance as well as throttling or balancing purposes. SPS will recommend the right isolation valves to best meet the needs of your application.

Inline Strainers: SPS will specify and utilize only industry recognized and approved in-line strainer equipment, to provide particulate contamination protection and equipment protection. SPS will recommend the best suited 'Y' or basket strainer to meet the needs of your application. Strainer blowdown valves can also be included. Differential pressure gauge assemblies can be supplied as an option.

Meters: SPS will provide complete meter flow assemblies to meet your industrial, municipal or residential water metering requirements. Singer will provide water meter, instrumentation and assist in flow meter selection to provide an optimized and cost effective solution to your water metering needs.

Other Accessories - Other common components include: air, vacuum and combination air release valves, pressure gauges, test, sample, and hosebib connections, to meet future flow control and monitoring equipment. Duplex pilot strainer assemblies and automatic sump drain assemblies are also available options.

The Singer Valve Difference

Discover Singer's Impressive Performance Advantages

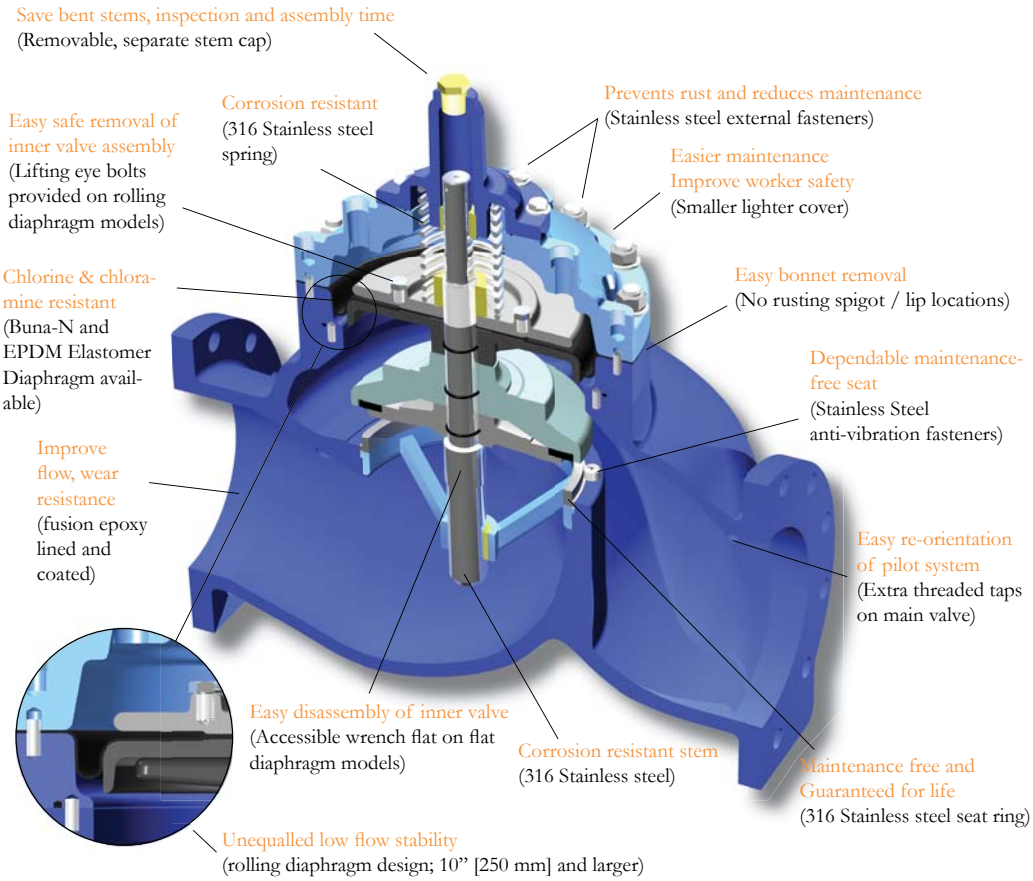
Reduce service calls
Install, set-up and forget it's that simple
(Precise and repeatable pilots)

ISO 9001:2000
Registered Company

See pg. 2 for other certifications.

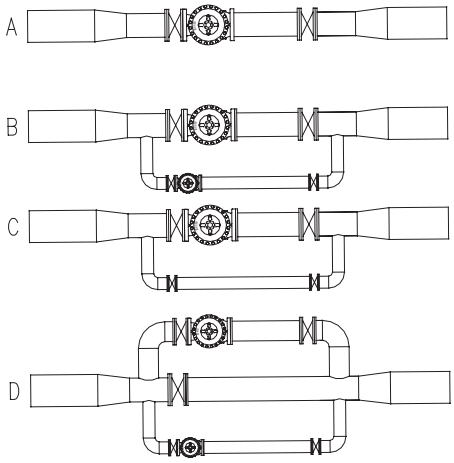
100% FACTORY TESTED
MEET Regulatory Requirements*

** Not available in all size / model combinations. Consult with factory.*



Design Options

Design Configurations



SPS offers a variety of design configurations to meet the needs of your application. Heat fusion epoxy lined and coated schedule 40 steel construction is standard. Heavy wall, stainless steel or ductile iron fabrication is available upon request. Typical configurations include straight run, single by-pass or double by-pass options.

Configurations can include an ACV or Backflow Preventer on its own, or together with a combination of other options such as strainers, isolation valves, meters or other accessories.

Typical Configurations include:

(A) Straight Run: Such as single control valve

(B) Single By-Pass: Such as a Dual control valve

(C) Single By-Pass: Such as a Single control valve with manual by-pass

(D) Double By-Pass: Such as a Dual control valve with manual by-pass

Or any Combination of ACVs, Backflow Preventers, isolation valves, strainers, meters or other accessories to meet the needs of your application.

Fabrication And Assembly

Pre-assembled and tested control valve piping arrangements in 1-1/2" to 12" sizes. Fabrication capabilities to 36". End connections can be provided as flanged, threaded, grooved or plain end.

For specific flow capacities, pressure ratings, control valve data, and specifications please refer to the Singer Valve Inc. product catalog or visit the online catalog at singervalve.com.

Vault & Utility Building Options

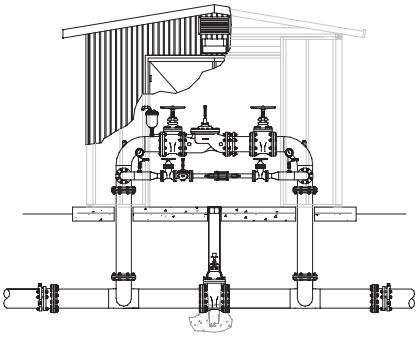
SPS Packaged systems can be designed for above grade or below grade construction to meet the needs of your flow control application.

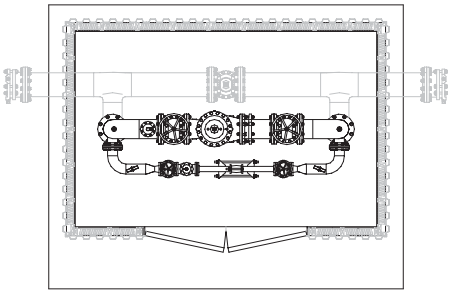
Typical below grade pre-cast vault sizes (interior dimensions) include:

1. 2.3m (90")L x 1.4m (55")W x 2.0m (78")H
2. 3.0m (120")L x 1.5m (60")W x 2.0m (78")H
3. 4.0m (160")L x 2.1m (84")W x 2.0m (78")H

Other sizes and configurations are available upon request. SPS may provide coordination and engineering assistance with locally available pre-cast utility vault manufacturers, to minimize shipping costs and utilitize locally approved suppliers/vendors.

For above grade construction SPS provides quality pre-engineered enclosures, in a wide variety of sizes and styles, with available environmental control equipment. SPS will provide design assistance in specifying size, and service requirements of utility buildings, or provide design solutions to match existing structures.





Packaged systems can be designed for above grade or below grade construction.

Vault & Utility Building Options

SPS will supply fully assembled control valve or meter valve assemblies in modular two section pre-cast concrete chambers.

Concrete chambers are available in a variety of sizes and configurations customized to suit mainline pipe entrances, manhole openings, sumps discharge lines and electrical conduit to suit any application or specified requirements.

Pre-cast reinforced concrete chambers are specified to meet all relevant codes, ratings and specifications to meet anticipated traffic, mainline thrust, backfill soil and hydrostatic loads. Lifting lugs or loops are provided to permit ready and safe transportation and site installation into the excavated site. Chamber sections are watertight sealed at all seams, mainline pipe, and sump discharge and conduit penetrations prior to backfilling. Exterior damproof coating is available, as is interior white painting for increased visibility and cleanliness. Spray-on applied polyurethane foam insulation may be provided to meet frost protection requirements.

A wide range of manhole access covers can be provided to meet specified load requirements, environmental protection, security and safety concerns, and available budgets, which may include: cast iron manhole frame and cover and aluminum or steel checker plate hinged, sealed and lockable covers. Manhole and access covers may be supplied pre-cast into concrete riser sections to meet specified grade heights. Approved chamber access ladders or cast-in ladder rungs will be provided complete with ladder safety poles as required.

Chamber drainage is provided through adequate grading towards cast-in sumps. Sump configuration, location and size may be provided as specified to include depth and drainage requirements. Sump gratings are available or may be provided to meet customized configurations. Chambers may be pre-equipped with electrical sump pumps complete with discharge piping or with a non-electrical, float operated, pressure ejector assembly, using mainline pressure to discharge sump accumulation to storm water drainage.

SPS may provide pre-installed electrical, instrumentation and control conduit, wiring and equipment, to include circuit breaker distribution panels within the chamber to suit lighting, receptacles, sump pump, heating and ventilation equipment as required. For external customer supplied electrical distribution and SCADA connection, pre-wired conduit and junction box connections, for installed electrical and control equipment, may be supplied as required.

For Design Assistance Or More Information

Simply fill in the adjacent Design/Quotation Worksheet and
Fax: 604 594 8845 or Toll-Free Fax 1 800 663 7266
Or contact us directly at 604 594 5404 or on-line at singervalve.com.

DESIGN / QUOTATION WORKSHEET

Project Name _____
Project Location _____
Singer Rep _____

Company Name _____
Contact Person _____
Address _____
Phone _____ Fax _____
Email _____

ORDER DESCRIPTION

SYSTEM APPLICATION

- ☐ Pressure Control System
- ☐ Level Control System
- ☐ Pump Control System
- ☐ Flow Control System
- ☐ Relief, Sustaining, Surge Control System
- ☐ Flow Metering System
- ☐ Backflow Control System

MAINLINE DETAILS

Mainline Pipe Diameter _____
Mainline Pipe Material _____
☐ Mainline to Provide Fire Protection

DESIGN FLOW RATES

Minimum _____(LPS or USGPM)
Normal _____(LPS or USGPM)
Maximum _____(LPS or USGPM)

DESIGN PRESSURE DATA

Max Inlet _____(PSI or Bar)
Min Inlet _____(PSI or Bar)
Max Outlet _____(PSI or Bar)
Min Outlet _____(PSI or Bar)
Desired Outlet _____(PSI or Bar)

MAINLINE CONNECTION

- ☐ Inlet and Outlet Flange Connection
- ☐ Inlet and Outlet Transition Coupling
- ☐ Inlet and Outlet Plain End
- ☐ Other:_____

ISOLATION VALVES

- ☐ Resilient Seat Gate Valves
- ☐ AWWA Butterfly Valves
- ☐ Wafer or Lug Style Butterfly Valves
- ☐ Other _____

INLINE STRAINERS

- ☐ None Required
- ☐ Wye Strainers with Blowdown
- ☐ Basket Strainers with Blowdown
- ☐ Other _____

ACCESSORIES

- ☐ Inlet Air Release Valve with Isolation
- ☐ Outlet Combination Valve with Isolation
- ☐ Other _____

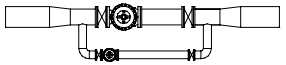
_____

CONFIGURATION

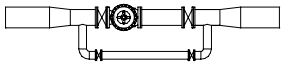
- ☐ (A) Single Control Valve
- ☐ (B) Dual Control Valve
- ☐ (C) Single Control Valve with Manual Bypass
- ☐ (D) Dual Control Valve with Manual Bypass
- ☐ Configuration as per supplied detail

(A)

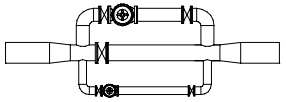
(B)



(C)



(D)



SYSTEM LOCATION

- ☐ Above Grade Construction
- ☐ Below Grade Concrete Vault Application
  -approximate mainline pipe bury depth _____(m or ft)
- ☐ Ventilation Pipes Required

STANDARD EQUIPMENT AND SPECIFICATIONS

-All fabricated pipe sections shall be sandblasted and heat fusion epoxy coated and lined to AWWA C-116 and NSF 61 Standards.

-Couplings and adapters supplied to enable valve and equipment removal for service

-Inlet and outlet pressure gauges complete with isolation and bleed test assembly

-Inlet and outlet NPT sample, test or wash down ball valves

-Adjustable pipe support stands rated for equipment and line size

CONCRETE VAULT FINISH AND COATINGS

- ☐ Standard Interior Wall and Ceiling White Paint
- ☐ Exterior Bitumastic Tar Damp-Proofing
- ☐ Spray-on Polyurethane Foam Insulation

Notes _____

HATCHWAY AND MANHOLE OPTIONS

- ☐ Manhole Frame and Cover
- ☐ Aluminum Hatchway
- ☐ Steel Hatchway
  - ☐ Pedestrian Load Rated
  - ☐ Vehicle Load Rated

Notes _____

SUMP DRAINAGE OPTIONS

- ☐ Sump Knockout for Gravity Filtration
- ☐ Cast-in Sump Basin
  - ☐ No Drain Hole
  - ☐ Daylight Drain Hole
- ☐ Line Pressure Sump Discharge Assembly
- ☐ Submersible Sump Pump (power required)

Notes _____

ELECTRICAL OPTIONS

- ☐ Lighting and Receptacles
- ☐ Forced Ventilation
- ☐ Electrical Heaters
- ☐ Control and/or Monitoring Panels
- ☐ Other _____

SPECIAL NOTES - APPLICATION DETAILS - REQUESTED OPTIONS NOTES - PERTINENT INFORMATION _____

SINGER PACKAGED SYSTEMS • Fax: 604 594 8845 or Toll-Free Fax 1 800 663 7266

SINGER VALVE

Result-Based Solutions. Globally.™

Canada Head Office
12850 - 87th Avenue
Surrey, British Columbia, Canada V3W 3H9
Tel: 604 594 5404
Fax: 604 594 8845
Toll-Free Fax (US & Canada): 1 800 663 7266
E-Mail: singer@singervalve.com
singervalve.com

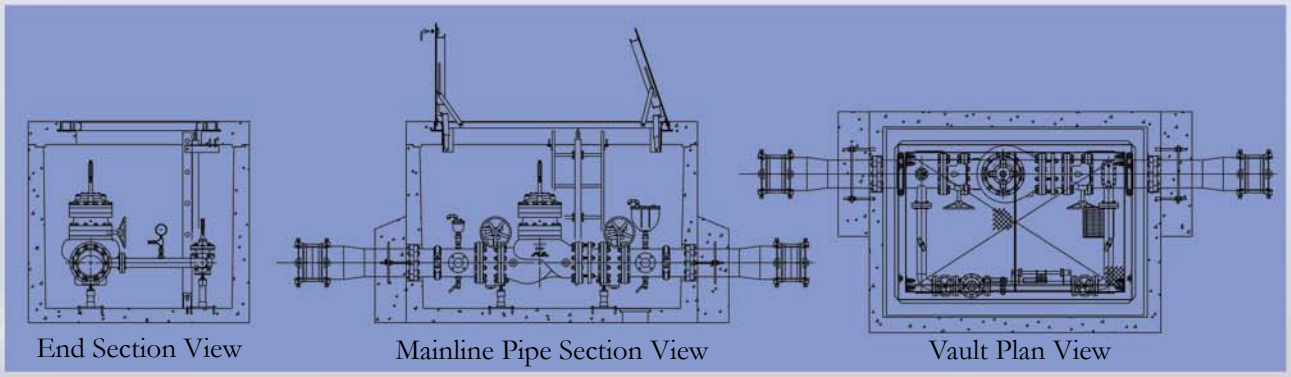
USA Office
Cell: 518 232 2333
Toll Free Fax (US & Canada): 1 800 663 7266
E-Mail: singer@singervalve.com
singervalve.com

South East Asia Office
SVM Water Controls Sdn.Bhd.
No 6, Jalan MJ 4, Medan Maju Jaya,
Batu 7, Jalan Kelang Lama,
46200 Petaling Jaya,
Selangor Darul Ehsan, Malaysia.
Tel: 603 7784 4043 / 7784 4044
Fax: 603 7781 8312
E-Mail: svmwc@tm.net.my
singervalve.com

Middle East Office
Canadian National Valves
Sharjah, United Arab Emirates
Tel: +971 6 574 0805
Fax: +971 6 574 7431
E-Mail: canadian@singervalve.com
singervalve.com

ISO 9001:2000 CERTIFICATION Intertek

An ISO 9001:2000 Registered Company



End Section View

Mainline Pipe Section View

Vault Plan View