TLV QuickStation®

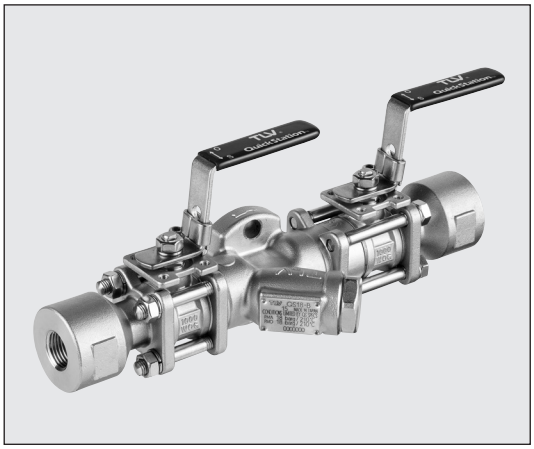
MODEL QS18

COMPACT ALL STAINLESS STEEL STEAM TRAP STATION WITH BUILT-IN BALL VALVES

Benefits

Compact, reliable steam trap station for steam mains, tracers, and light processes. QuickStation enables condensate drainage from a wide range of applications, and inline replacement of universal flange steam traps in minutes.

1. Two-bolt flange universal connector allows quick trap replacement or cleaning without disturbing piping.
2. All-in-one design, featuring upstream and downstream isolation valves.
3. Built-in check valve with tight closure ensures long service life.
4. Wetted parts are stainless steel and high-grade rubber or resin for high durability and corrosion resistance.
5. Optional elbow-type blowdown valve available for safer condensate blowdown and scale removal.
6. Equipped with handle locks for prevention of valve misoperation.
7. Enables installation of steam traps on horizontal or vertical lines.
8. Models with double upstream isolation valves and with 90° double isolated piping section also available.
9. Complies with FDA 21 CFR 177.1550, USP Class VI and EC 1935/2004.



Specifications

Model		QS18-B	QS18-D	QS18-T	QS18-TD
Connection		Screwed, Socket Welded, Flanged			
Valve Port		Full Bore			
Number of Valves	Primary Side	1	2	3	3
	Secondary Side	1	1	1	2
Size (in)		½, ¾, 1	½, ¾, 1	½, ¾, 1	½, ¾, 1
Maximum Operating Pressure (psig)	PMO	250			
Maximum Operating Temperature (°F)	TMO	410			
Maximum Allowable Pressure (psig)	PMA	250*			
Maximum Allowable Temperature (°F)	TMA	410*			

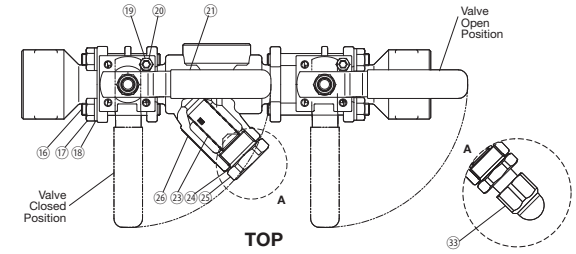
* For trap station only; further restricted by mounted trap unit.

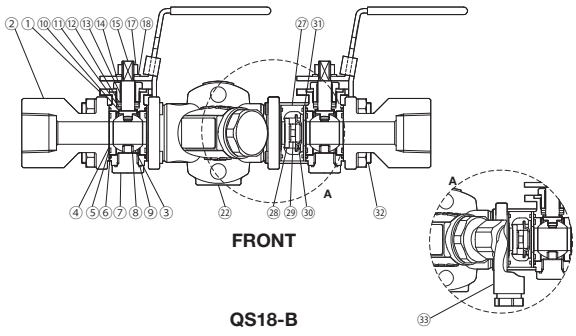
Connections and sizes in bold are standard.

No.	Description	Material	ASTM/AISI[1]	JIS
①	Body	Cast Stainless Steel	A351/A351M Gr.CF8	—
②M	Cap	Cast Stainless Steel	A351/A351M Gr.CF8	—
③R	Ball	Stainless Steel	AISI316	SUS316
④MR	Valve Seat[2]	Polyetheretherketone	—	PEEK
⑤R	Valve Seat Gasket[2]	Fluorine Resin	—	PTFE
⑥R	Body Gasket[2]	Fluorine Resin	—	PTFE
⑦	Plug	Cast Stainless Steel	A351/A351M Gr.CF8	—
⑧R	Pin[2]	Polyetheretherketone	—	PEEK
⑨R	Plug Gasket[2]	Fluorine Resin	—	PTFE
⑩R	Valve Stem Gasket[2]	Fluorine Resin	—	PTFE
⑪R	Gland Packing[2]	Fluorine Resin	—	PTFE
⑫R	Gland Packing[2]	Fluorine Resin	—	PTFE
⑬R	Pin[2]	Polyetheretherketone	—	PEEK
⑭R	Gland Nut	Stainless Steel	AISI304	—
⑮R	Valve Stem	Stainless Steel	AISI316	—
⑯	Inlet Cover Bolt	Stainless Steel	AISI304	SUS304
⑰	Handle Nut	Stainless Steel	AISI304	SUS304
⑱	Spring Washer	Stainless Steel	AISI304	SUS304
⑲	Handle Stop Bolt	Stainless Steel	AISI304	SUS304
⑳	Stop Bolt Nut	Stainless Steel	AISI304	SUS304
㉑	Handle	Stainless Steel	AISI304	SUS304
㉒	Connector Body	Cast Stainless Steel	A351/A351M Gr.CF8	—
㉓R	Screen Inside/Outside	Stainless Steel	AISI304/430	SUS304/430
㉔R	Screen Holder Gasket	Stainless Steel	AISI316L	SUS316L
㉕	Screen Holder	Cast Stainless Steel	A351/A351M Gr.CF8	—
㉖	Nameplate	Stainless Steel	AISI304	SUS304
㉗	Check Valve	Cast Stainless Steel	A351/A351M Gr.CF8	—
㉘	Disc	Stainless Steel	AISI303	SUS303
㉙	Coil Spring	Stainless Steel	AISI304	SUS304
㉚	Spring Holder	Stainless Steel	AISI304	SUS304
㉛	Spacer	Stainless Steel	AISI304	SUS304
㉜	Outlet Cover Bolt	Cast Stainless Steel	A351/A351M Gr.CF8	—
㉝	BD2 Blowdown Valve[3]	Stainless Steel	SUS304	AISI304
㉞	Extension[4]	Cast Stainless Steel	A351/A351M Gr.CF8	—

[1] Equivalent materials [2] Complies with FDA 21 CFR 177.1550, USP Class VI and EC 1935/2004. [3] Option [4] Shown on reverse
Replacement kits available: (M) maintenance parts, (R) repair parts

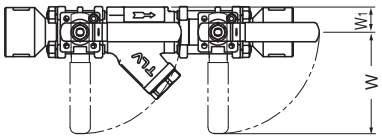
⚠ CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range.
Local regulations may restrict the use of this product to below the conditions quoted.





Dimensions

- **QS18-B** Screwed



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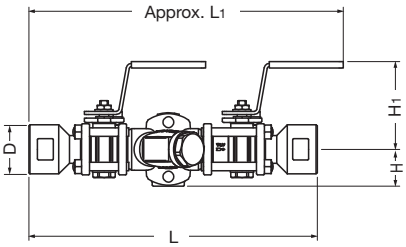


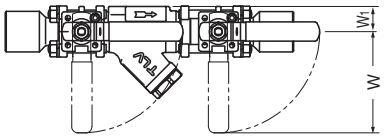
FRONT

QS18-B Screwed* (in)

Size	L	L_1**	H	H_1	W***	W_1	ϕD	Weight (lb)
½	$10^{5}/_{8}$	$11^{13}/_{16}$	$1^{3}/_{8}$	$3^{3}/_{8}$	$3^{3}/_{4}$	$^{15}/_{16}$	$1^{13}/_{16}$	6.2
¾								6.0
1								5.7

* NPT; other standards available
** At full-open position *** At full-close position

- **QS18-B** Socket Welded



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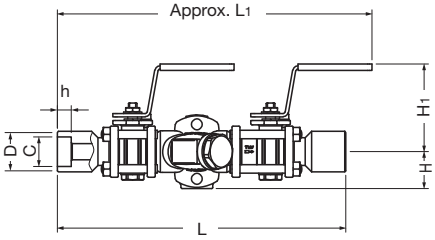


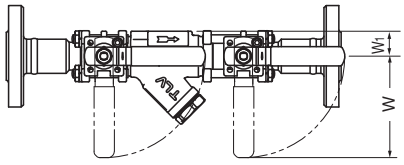
FRONT

QS18-B Socket Welded* (in)

Size	L	L_1**	H	H_1	W***	W_1	ϕD	ϕC	h	Weight (lb)
½	$10^{5}/_{8}$	$11^{13}/_{16}$	$1^{3}/_{8}$	$3^{3}/_{8}$	$3^{3}/_{4}$	$^{15}/_{16}$	$1^{13}/_{16}$	0.855	½	6.2
¾							$1^{7}/_{16}$	1.065		6.0
1							$1^{3}/_{4}$	1.330		5.7

* ASME B16.11-2005, other standards available
** At full-open position *** At full-close position

- **QS18-B** Flanged



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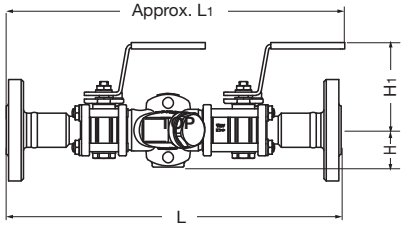


FRONT

QS18-B Flanged (in)

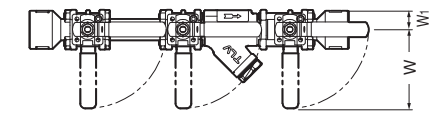
Size	L Connects to ASME Class 150RF	L Connects to ASME Class 300RF	L_1*	H	H_1	W**	W_1	Weight*** (lb)
½	13¼	13¼	13	$1^{3}/_{8}$	$3^{3}/_{8}$	$3^{3}/_{4}$	$^{15}/_{16}$	9.9
¾	$14^{1}/_{16}$	$14^{1}/_{16}$	$13^{3}/_{8}$					13
1	$14^{13}/_{16}$	$14^{13}/_{16}$	13¾					13

Other standards available, but length and weight may vary
* At full-open position ** At full-close position *** Weight is for Class 300 RF

Flange classes in bold are standard.

Dimensions

- **QS18-D** Screwed



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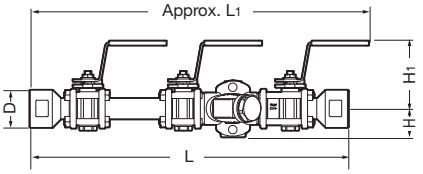


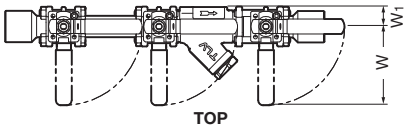
FRONT

QS18-D Screwed* (in)

Size	L	L1**	H	H1	W***	W1	ϕD	Weight (lb)
½	15 1/8	16 5/16	1 5/8	3 3/8	3 3/4	15/16	1 13/16	7.9
¾								7.7
1								7.5

* NPT; other standards available
** At full-open position *** At full-close position

- **QS18-D** Socket Welded



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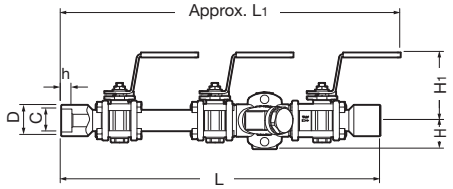


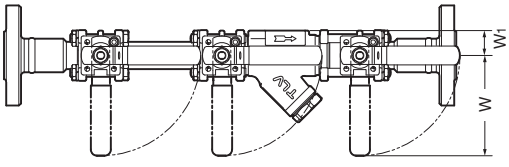
FRONT

QS18-D Socket Welded* (in)

Size	L	L1**	H	H1	W***	W1	ϕD	ϕC	h	Weight (lb)
½	15 1/8	16 5/16	1 5/8	3 3/8	3 3/4	15/16	1 13/16	0.855	½	7.9
¾							1 7/16	1.065		7.7
1							1 3/4	1.330		7.5

* ASME B16.11-2005, other standards available
** At full-open position *** At full-close position

- **QS18-D** Flanged



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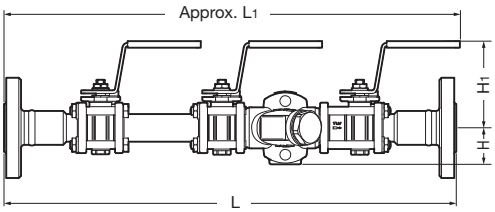


FRONT

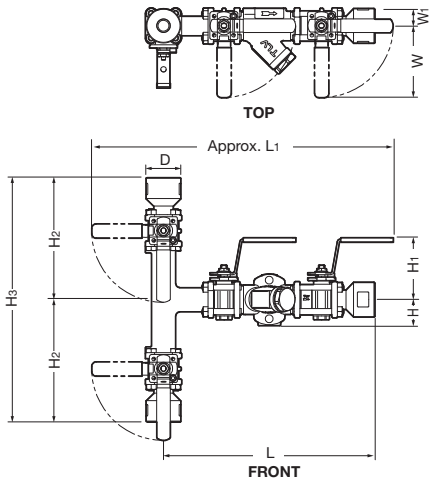
QS18-D Flanged (in)

Size	L Connects to ASME Class 150RF	L Connects to ASME Class 300RF	L1*	H	H1	W**	W1	Weight*** (lb)
½	17 13/16	17 13/16	16 15/16	1 3/8	3 3/8	3 3/4	15/16	12
¾	18 9/16	18 9/16						14
1	19 3/8	19 3/8	17 1/8					15

Other standards available, but length and weight may vary
* At full-open position ** At full-close position *** Weight is for Class 300 RF

Dimensions

- **QS18-T** Screwed

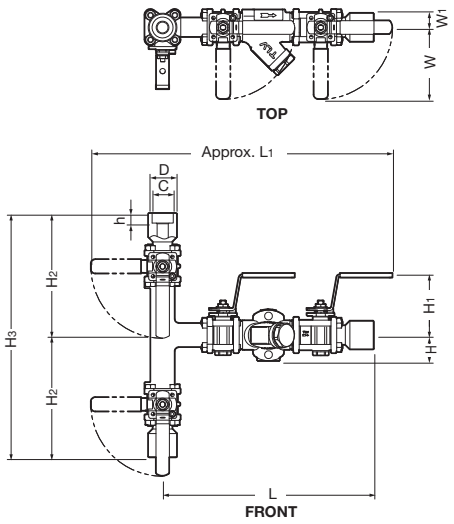


QS18-T Screwed* (in)

Size	L	L1**	H	H1	H2	H3	W***	W1	ϕD	Weight (lb)
½	11	15¾	1⅝	3⅜	6⅜	12¾	3¾	15/16	1 13/16	11
¾										
1										

* NPT; other standards available
** Maximum possible length *** At full-close position

- **QS18-T** Socket Welded



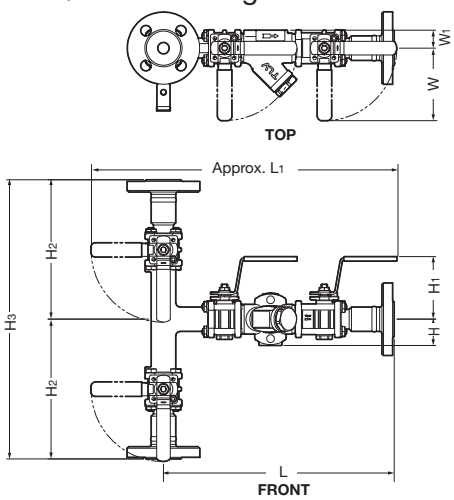
QS18-T Socket Welded* (in)

Size	L	L1**	H	H1	H2	H3
½	11	15¾	1⅝	3⅜	6⅜	12¾
¾						
1						

Size	W***	W1	ϕD	ϕC	h	Weight (lb)
½	3¾	15/16	1 13/16	0.855	½	11
¾			1 7/16	1.065		
1			1¾	1.330		

* ASME B16.11-2005, other standards available
** Maximum possible length *** At full-close position

- **QS18-T** Flanged



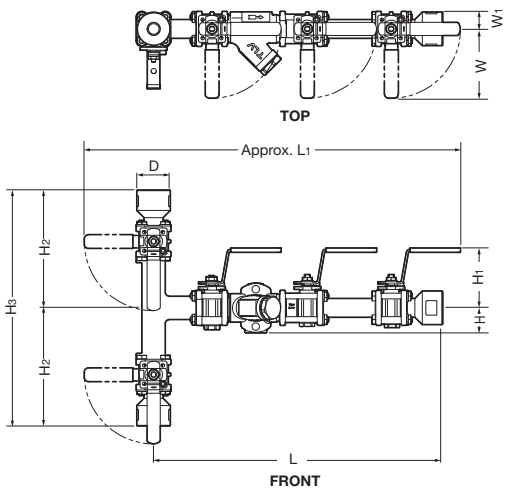
QS18-T Flanged (in)

Size	L Connects to ASME Class 150RF	L Connects to ASME Class 300RF	L1*	H	H1	H2	H3	W**	W1	Weight*** (lb)
½	12 5/16	12 5/16	15¾	1⅜	3⅜	7⅝	15¼	3¾	15/16	15
¾	12¾	12¾				8	16 1/16			17
1	13⅛	13⅛				8 7/16	16⅞			18

Other standards available, but length and weight may vary
* Maximum possible length ** At full-close position
*** Weight is for Class 300RF

Dimensions

- **QS18-TD** Screwed

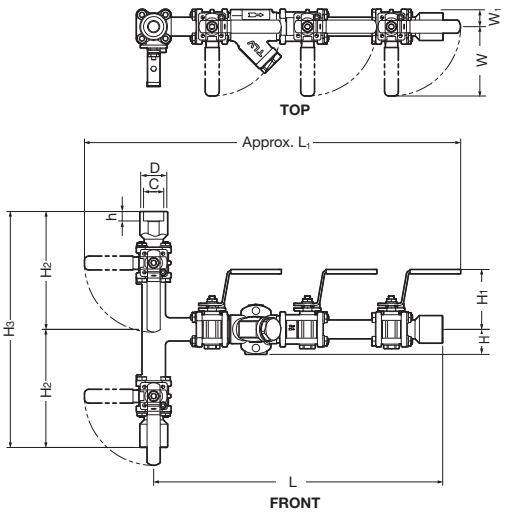


QS18-TD Screwed* (in)

Size	L	L1**	H	H1	H2	H3	W***	W1	ϕD	Weight (lb)
½	15¾	20½	1⅝	3⅜	6⅜	12¾	3¾	15/16	1 13/16	13
¾										
1										12

* NPT; other standards available
** Maximum possible length *** At full-close position

- **QS18-TD** Socket Welded



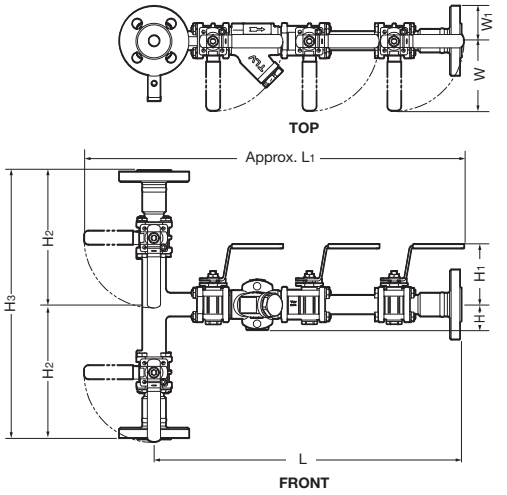
QS18-TD Socket Welded* (in)

Size	L	L1**	H	H1	H2	H3
½	15¾	20½	1⅝	3⅜	6⅜	12¾
¾						
1						

Size	W***	W1	ϕD	ϕC	h	Weight (lb)
½	3¾	15/16	1 13/16	0.855	½	13
¾			1 7/16	1.065		
1			1¾	1.330		12

* ASME B16.11-2005, other standards available
** Maximum possible length *** At full-close position

- **QS18-TD** Flanged



QS18-TD Flanged (in)

Size	L Connects to ASME Class 150RF	L Connects to ASME Class 300RF	L1*	H	H1	H2	H3	W**	W1	Weight*** (lb)
½	16 7/8	16 7/8	20½	1⅜	3⅜	7⅝	15¼	3¾	15/16	17
¾	17¼	17¼				8	16 1/16			19
1	17 11/16	17 11/16				8 7/16	16 7/8			19

Other standards available, but length and weight may vary
* Maximum possible length ** At full-close position
*** Weight is for Class 300RF

Mounted Steam Trap Units

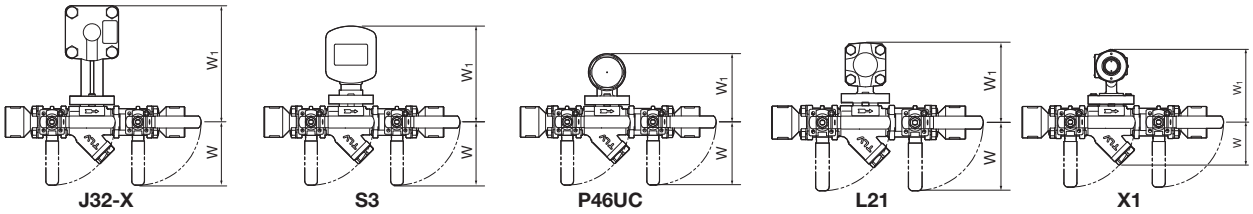
QuickStation QS18 accommodates steam trap units for condensate drainage from a wide range of applications, including process use and steam mains.

Dimensions with Mounted Steam Trap Units

(in)

Model	W*	W1**	Weight (lb)***
J32-X	$2^{9}/_{16}$	$6^{7}/_{8}$	11
S3		$5^{11}/_{16}$	8.4
P46UC		$4^{1}/_{8}$	8.4
L21		$4^{5}/_{16}$	8.6
X1		$4^{1}/_{8}$	8.8

* At full-close position ** At full-open position *** Combined weight of QS18-B with mounted steam trap unit

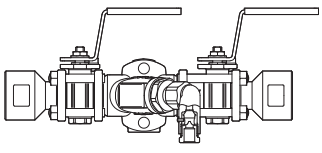


Steam Trap Unit Specifications*

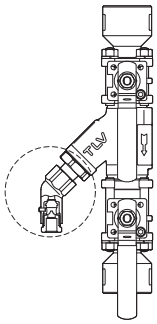
Model	J32-X	S3	P46UC	L21	X1
Steam Trap Type	Free Float	Free Float	Thermodynamic	Thermostatic	Thermostatic
PMO (psig)	450	300	650	300	300
TMO (°F)	464	752	750	455	662
Max. Discharge Capacity** (lb/h)	1470	475	1630	1050	See FX1 data sheet
Trap Image					

Contact TLV for availability of FDA 21 CFR 177.1550, USP Class VI and EC 1935/2004 compliant trap units.
* For more information, see the QuickTrap specifications data sheet for the steam trap employing the desired trap unit (trap unit - QuickTrap data sheet): J32-X - FJ32-X; S3 - FS3; P46UC - FP46UC; L21 - FL21/FL32; X1 - FX1.
** Capacities shown here will vary depending on orifice numbers, type of X-element and/or pressure differential.
Note: The operating pressure and temperature range of the trap unit is limited to that of the QuickStation.

Options



BD2N (Horizontal type)



BD2V (Vertical type)

BD2N (Horizontal type) BD2V (Vertical type)	The BD2 blowdown valve, installed in place of the screen holder, uses internal pressure to blow out condensate/steam, dirt and scale to the atmosphere.

CAUTION DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.
Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

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Member of FCI Fluid Controls Institute, Inc. Technical Resources for Instrumentation and Fluid Control

Manufacturer
TLV CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001
LRQA CERTIFIED