

TLV®

QuickStation®

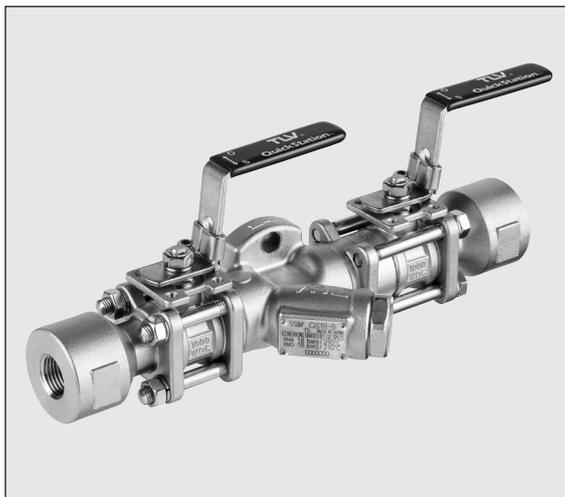
MODEL QS18

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

Features

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 (mm)		15, 20, 25			
Maximum Operating Pressure (MPaG)		PMO 1.8*			
Maximum Operating Temperature (°C)		TMO 210*			

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

1 MPa = 10.197 kg/cm²

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 1.8
Maximum Allowable Temperature (°C) TMA: 210
Minimum Allowable Temperature (°C): -40

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

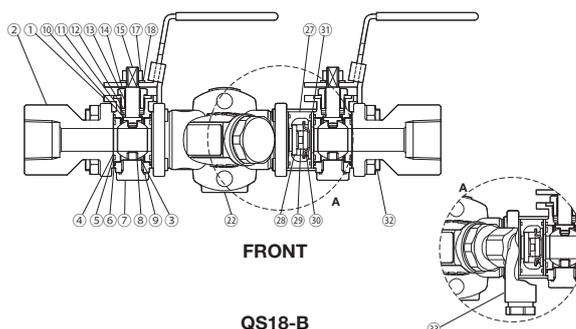
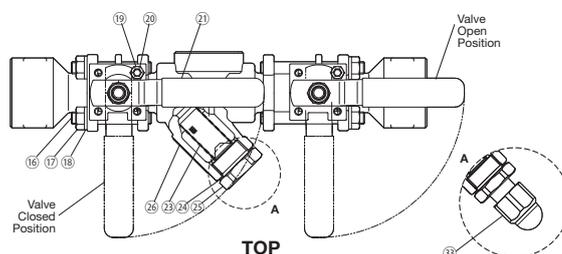
Replacement kits available: (M) maintenance parts, (R) repair parts



CAUTION

To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range.

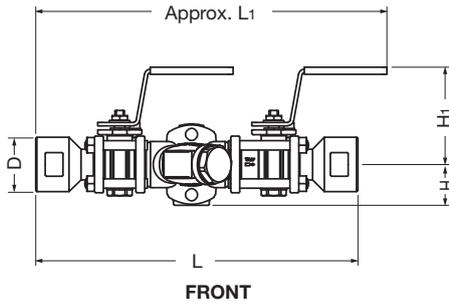
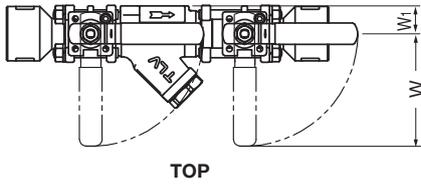
Local regulations may restrict the use of this product to below the conditions quoted.



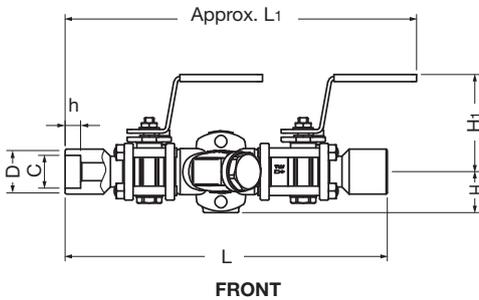
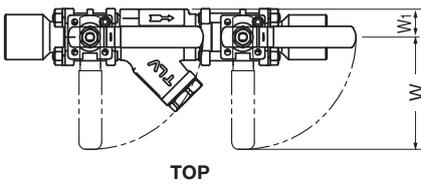
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Dimensions

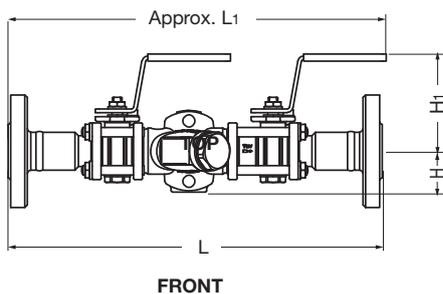
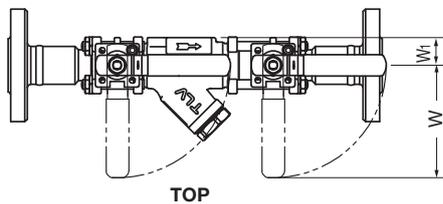
● **QS18-B Screwed**



● **QS18-B Socket Welded**



● **QS18-B Flanged**



QS18-B Screwed* (mm)

Size	L	L1**	H	H1	W***	W1	φ D	Weight (kg)
15	270	300	35	85	95	23.5	46	2.8
20								2.7
25								2.6

* Rc(PT); other standards available

** At full-open position *** At full-close position

QS18-B Socket Welded* (mm)

Size	L	L1**	H	H1	W***	W1	φ D	φ C	h	Weight (kg)
15	270	300	35	85	95	23.5	30	21.8	13	2.8
20							36	27.2		2.7
25							44	33.9		2.6

* ASME B16.11-2005, other standards available

** At full-open position *** At full-close position

QS18-B Flanged (mm)

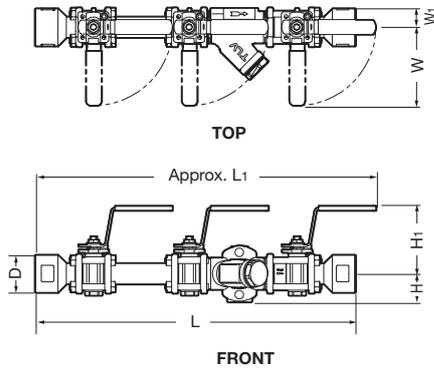
Size	L		L1*	H	H1	W**	W1	Weight*** (kg)
	ASME Class							
	150RF	300RF						
15	337	337	330	35	85	95	23.5	4.5
20	357	357	340					5.7
25	377	377	350					5.8

Other standards available, but length and weight may vary

* At full-open position ** At full-close position *** Weight is for Class 300RF

Dimensions

● **QS18-D Screwed**

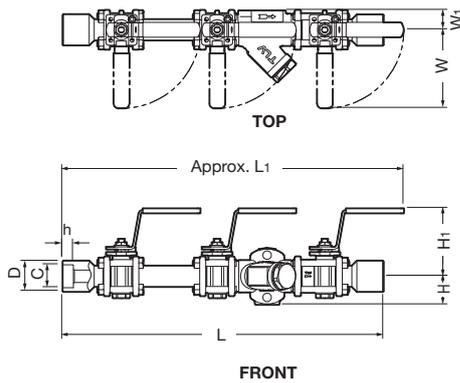


QS18-D Screwed* (mm)

Size	L	L1**	H	H1	W***	W1	φ D	Weight (kg)
15	385	415	35	85	95	23.5	46	3.6
20								3.5
25								3.4

* Rc(PT); other standards available
 ** At full-open position *** At full-close position

● **QS18-D Socket Welded**

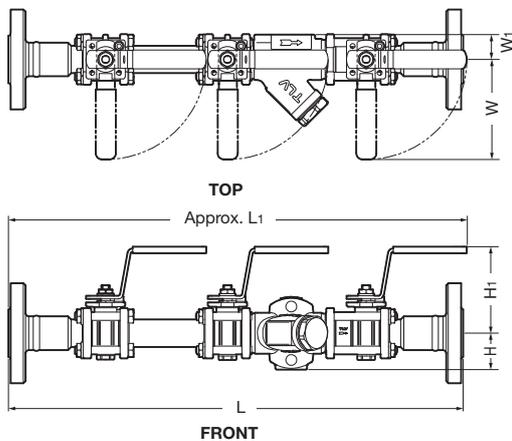


QS18-D Socket Welded* (mm)

Size	L	L1**	H	H1	W***	W1	φ D	φ C	h	Weight (kg)
15	385	415	35	85	95	23.5	30	21.8	13	3.6
20							36	27.2		3.5
25							44	33.9		3.4

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

● **QS18-D Flanged**



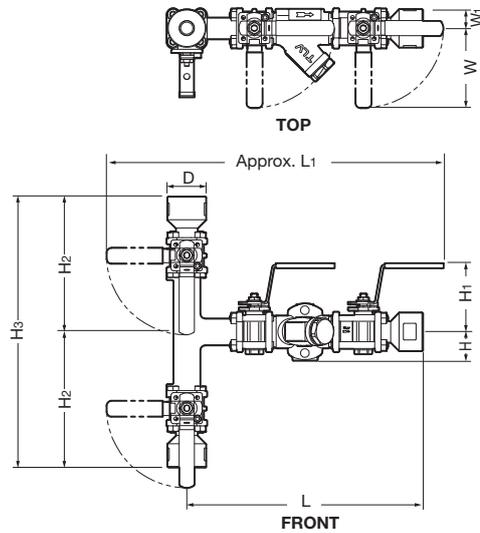
QS18-D Flanged (mm)

Size	L		L1*	H	H1	W**	W1	Weight*** (kg)
	ASME Class 150RF	ASME Class 300RF						
15	452	452	445	35	85	95	23.5	5.3
20	472	472	455					6.5
25	492	492	465					6.6

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

Dimensions

● **QS18-T Screwed**

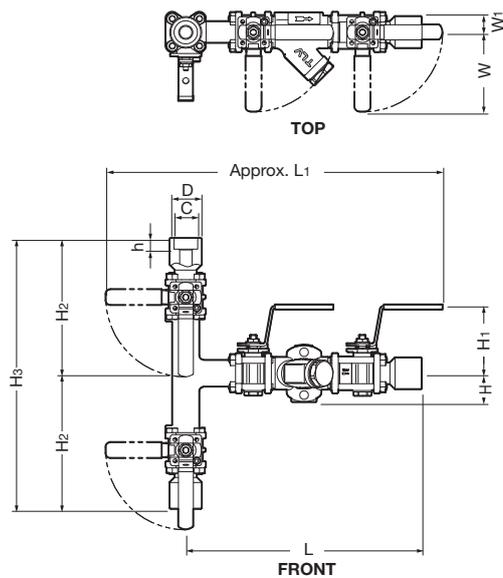


QS18-T Screwed* (mm)

Size	L	L1**	H	H1	H2	H3	W***	W1	phi D	Weight (kg)
15	280	400	35	85	161.5	323	95	23.5	46	5.0
20										4.9
25										4.8

* Rc(PT); other standards available ** Maximum possible length *** At full-close position

● **QS18-T Socket Welded**



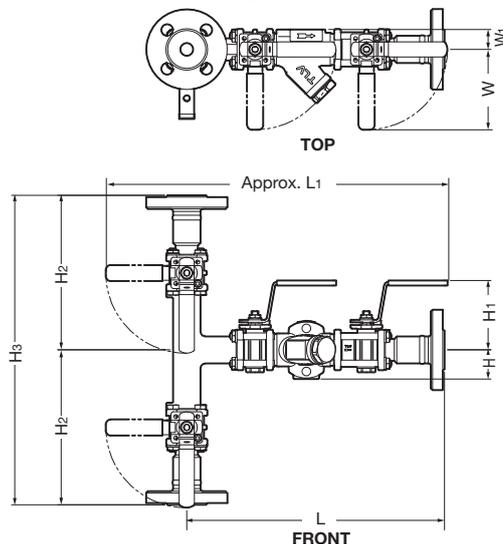
QS18-T Socket Welded* (mm)

Size	L	L1**	H	H1	H2	H3
15	280	400	35	85	161.5	323
20						
25						

Size	W***	W1	phi D	phi C	h	Weight (kg)
15	95	23.5	30	21.8	13	5.0
20			36	27.2		4.9
25			44	33.9		4.8

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

● **QS18-T Flanged**



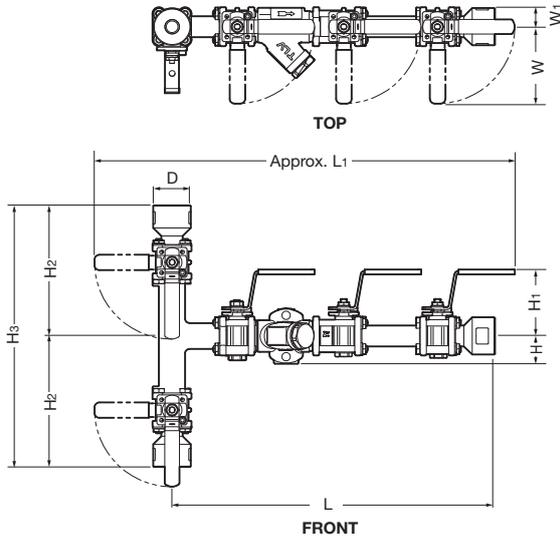
QS18-T Flanged (mm)

Size	L		L1*	H	H1	H2	H3	W**	W1	Weight*** (kg)
	ASME Class 150RF	ASME Class 300RF								
15	313.5	313.5	400	35	85	194	388	95	23.5	6.7
20	323.5	323.5				204	408			7.9
25	333.5	333.5				214	428			8.0

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**

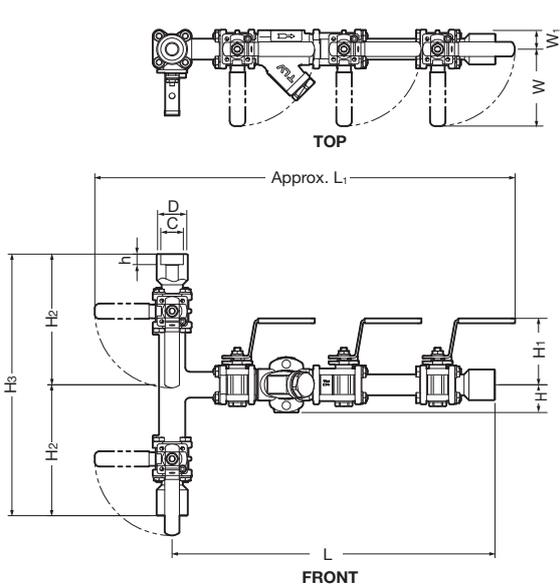


QS18-TD Screwed* (mm)

Size	L	L1**	H	H1	H2	H3	W***	W1	ϕ D	Weight (kg)
15	400	520	35	85	161.5	323	95	23.5	46	5.8
20										5.7
25										5.6

* Rc(PT); other standards available ** Maximum possible length *** At full-close position

● **QS18-TD Socket Welded**



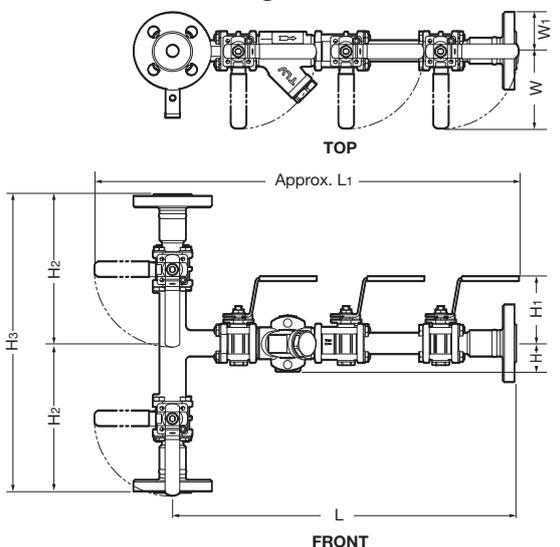
QS18-TD Socket Welded* (mm)

Size	L	L1**	H	H1	H2	H3
15	400	520	35	85	161.5	323
20						
25						

Size	W***	W1	ϕ D	ϕ C	h	Weight (kg)
15	95	23.5	30	21.8	13	5.8
20			36	27.2		5.7
25			44	33.9		5.6

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

● **QS18-TD Flanged**



QS18-TD Flanged (mm)

Size	L		L1*	H	H1	H2	H3	W**	W1	Weight*** (kg)
	ASME Class 150RF	300RF								
15	428.5	428.5	520	35	85	194	388	95	23.5	7.5
20	438.5	438.5				204	408			8.7
25	448.5	448.5				214	428			8.8

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

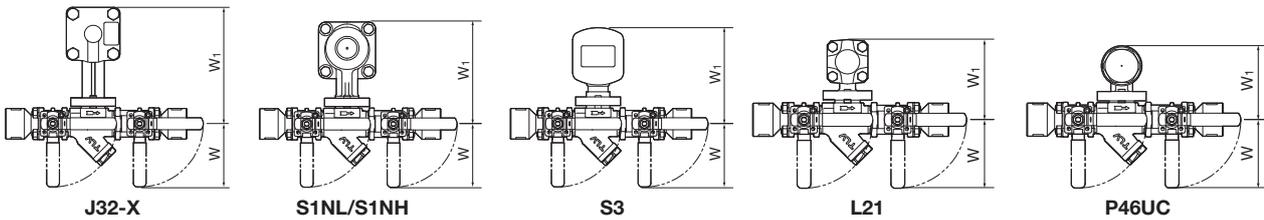
QuickStation QS18 accommodates steam trap units for condensate drainage from a wide range of applications, including process use and steam mains.

Dimensions with Mounted Steam Trap Units

(mm)

Model	W*	W ₁ **	Weight (kg)***
J32-X	95	175	5.0
S1NL/S1NH		155	4.9
S3		145	3.8
L21		110	3.9
P46UC		105	3.8

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



Steam Trap Unit Specifications*

Model	J32-X	S1NL/S1NH	S3	L21	P46UC
Steam Trap Type	Free Float	Free Float	Free Float	Thermostatic	Thermodynamic
PMO (MPaG)	3.2	2.1	2.1	2.1	4.6
TMO (°C)	240	220/400	400	235	425
Max. Discharge Capacity** (kg/h)	670	200	215	760	740
Trap Image					

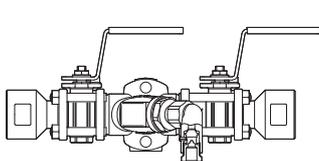
Contact TLV for availability of FDA 21 CFR 177.1550, USP Class VI and EC 1935/2004 compliant trap units.

* 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; L21 - FL21/FL32; P46UC - FP46UC. Contact TLV for details on S1NL/S1NH.

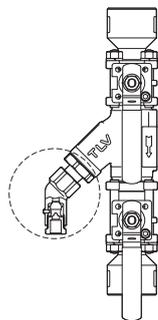
** Capacities shown here will vary depending on orifice numbers, type of X-element and/or pressure differential.

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.

Manufacturer

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

