



## **Description**

1. The water inside the jet mixing with the steam fully, ensure that the heating process to be quiet, efficient and safe.
2. Reduce chemical oxygen demand.
3. Stainless steel, long life, maintenance-free.
4. To avoid the water tank temperature stratification and maintain efficient.

## **Selection of possible applications**

steam injectors use steam to raise the temperature of water or other liquids. The injector draws in cold liquid, mixes it with steam inside the injector and distributes the heated liquid in the tank. In many applications the circulation induced by the injector is an advantage ensuring thorough mixing and avoiding temperature stratification.

## **Selection of possible flow media**

*Steam*

## SI Steam injectors

Dimensions and Weights(m m/kg)

Type	A	B	C	Weights
<b>SI15</b>	½"	205	28	0.4
<b>SI25</b>	1"	84	71	0.8
<b>SI40</b>	1½"	115	88	1.6

### Materials

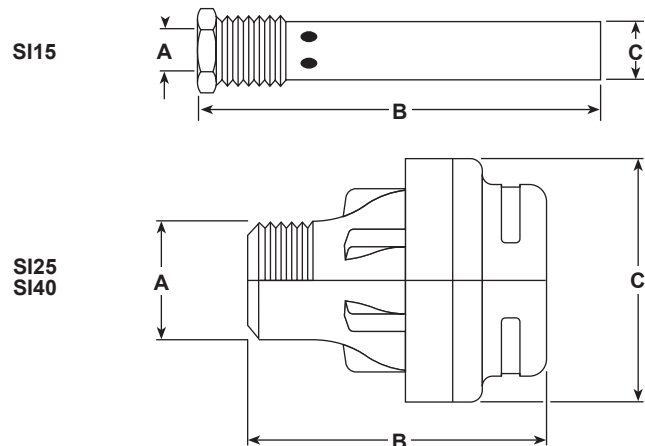
Austenitic stainless steel ASTM A351 CF3M.

### Size and connections

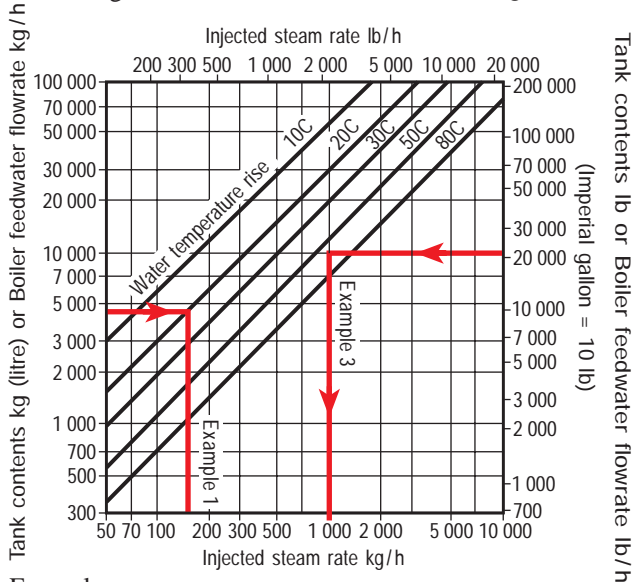
½", 1", 1½"BSP or NPT 1", 1½" Butt-weld

### Temperature and Pressure limits

Body design rating	362.6 psi/PN25
Minimum operating pressure	7.25 psi g/0.5 bar g
Maximum saturated steam condition	246 psi-404°F/17 bar-207°C
Maximum heated liquid temperature	194 °F/90 °C



### Estimating steam flowrates for water heating



#### Example

1. My tank size is 1.5 m x 2 m x 1.5 m.  
I want to heat it from 10 to 40C in one hour'. Assume the tank is full.  
The tank volume = 4.5 m<sup>3</sup> = 4 500 litre (4 500 kg).  
From the graph the required injected steam rate = 155 kg/h.
2. My tank is the same as example 1, but I want to heat it in 20 minutes'. Since it is required to heat it up 3 times faster, then the injected steam rate will be three times as great i.e. 465 kg/h.
3. I want to heat up my boiler hotwell from 30 to 90C, I have two boilers steaming all year round. They are each generating

### Capacity - selecting a steam injector

Injector type	SI15	SI25	SI40
<b>System pressure</b> psi/bar g	<b>Saturated steam capacity kg/h</b>		
7.25/0.5	11	75	222
14.5/1	20	135	400
29/2	48	175	580
43.5/3	66	280	805
58/4	84	350	970
72.5/5	102	410	1125
87/6	120	500	1295
101.5/7	138	580	1445
116/8	156	640	1620
130.5/9	174	700	1820
145/10	192	765	1950
159.5/11	210	830	2250
174/12	228	900	2370
188.5/13	246	975	2595
203/14	264	1045	2710
217.5/15	282	1095	2815
232/16	300	1170	3065
246.5/17	318	1225	3200