

GENERAL INSTRUCTIONS

for

Steam Jet Heaters

BAL 112 E	
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Assembly:

These steam jet heaters are for installation in a tank/vessel. When assembling the unit, please observe that the steam pipelines are installed at least in the same nominal width as the heater connection.

The steam pipelines must be well insulated and installed in such a way as to prevent the accumulation of condensate. Condensate or water in the steam pipelines will affect the heater's functioning and may lead to premature wear in the motive nozzles and pipelines (erosion).

The water level in the vessels should only be of such a height that the water column above the heaters is considerably lower than the steam pressure. This is to prevent water from the vessels entering the steam pipelines.

Valves or control devices must be installed directly at the steam nozzles of the heaters. Control devices must be quick-acting so that the nozzles operated immediately with the total steam quantity. Slow-acting control devices could cause water to reflux.

The corresponding air nozzle is lifted above liquid level by means of a tube to prevent liquid exiting through the bore-hole.

Commissioning:

First open the air nozzle and then the steam valve completely. As soon as the heaters start to operate, throttle the steam valve to such an extent that the steam pressure corresponds to the required performance. Finally, throttle the air nozzle so far that it is just possible to achieve a low-noise operation of the heater.

The heaters heat up the liquid by circulating it repeatedly until it reaches the desired temperature. A temperature rise of approx. 5 °C can be expected with each completed circulation. It is recommended to dimension the vessels sufficiently so that a complete heating is possible.

Shut-down:

Shut-down is effected by closing the steam valve.

The air nozzle can remain in the set position.

Remarks:

When operating with air supply please note that with increasing temperatures the automatic air intake capacity is reduced and then at approx. 80 °C finally becomes impossible. If noise abatement procedures are still required in this range then it will be necessary to supply the air nozzle with compressed air.

FED srl via dei Valtorta 2 20127 MILANO

tel. +39-02-26826332 fax +39-02-26140150



FED STI 20127 MILANO
Tel. 02-26826332-Fax 02-26140150
Cod. Fisc. e P. IVA 02390900963
CCIAA 141218-TRIBURALE DI MONZA 5449

Dampfstrahl-Flüssigkeits-Erhitzer aus GG, zum Einbau in Behälter

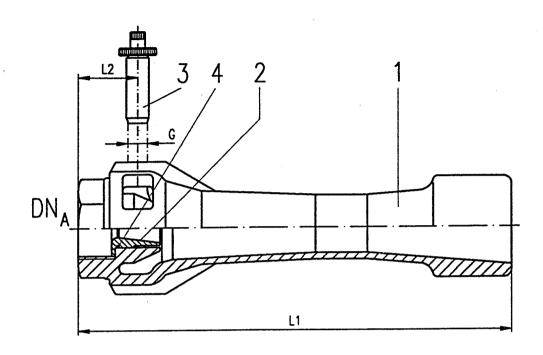
Steam jet liquid heater made of cast iron, for installation in vesssel

Technisches Datenblatt Techn. Data Sheet

TD 1040 24

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Treibdruck/motive-pressure 2...9 bar abs.



Pos./item	Benennung	designation	Werkstoff	material
1	Körper	body	GG	cast iron
2	Düse	i nozzle	Rq	ı tin bronze
3	Luftventil	l air valve	Ms	l brass
4	0-Ring	o-ring	NBR	NBR

Größe size	Bezugs-DN reference DN DN _A 1)	Bestell—Nr. purchase—order—no	Baumaße structural dimensions			Gewicht weight kg
01	G 3/4	104024 471620	192	28	G 1/8	1,0
 02	G 1	471630	235	34	G 1/8	1,5
03	G 1 1/4	471640	294	40	G 1/8	2,0
04	G 1 1/2	471650	366	42	G 1/8	5,0
05	G 2	471660	449	47	G 3/8	7,0

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1) ISO 228/1

Subject to change !

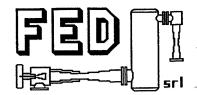
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19.03.98 Szepan

Revision: Prallblech entfernt

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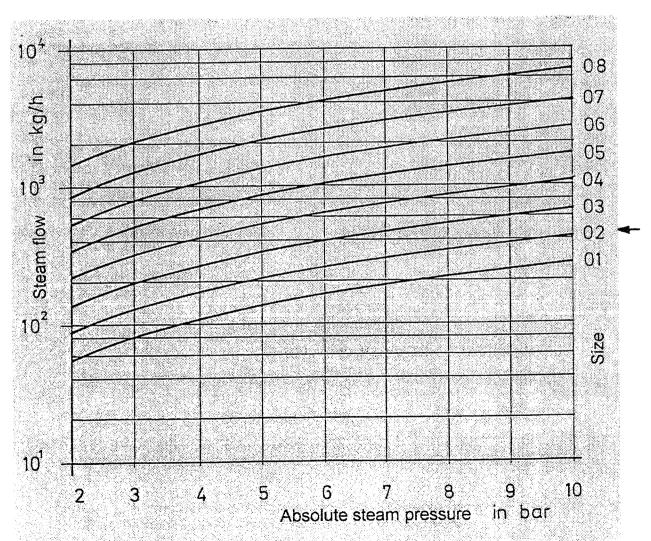




Steam Jet Heater for installation in a tank

The diagram 1 shows the heating flow rate of the steam in function of the size of the heater and of the inlet pressure from 2 to 10 bar abs., measured directly at the connection. The diagram is valid for dry saturated steam and for overcritical pressure ratio, i.e. steam pressure 2 times or more higher than the pressure of the liquid to be heated in the installation point in the tank.

Diagram 1
Steam flow for absolute steam pressure > 2 bar



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FFD srl	telefono	02-26826332	C. F. e partita IVA 02390900963
via Dei Valtorta 2	telefax	02-26140150	Tribunale di Monza 54449
20127 MILANO	cellulare	335-6149282	C.C.I.A.A. n. 1441213
ITALY	e-mail	fed@fed.it	indirizzo internet www.fed.it