

VESSELS AND COVERS



Vessels and Covers

Soffieria Sestese offer a wide range of vessels, reactors and covers in borosilicate glass 3.3 in the following sizes:

- Spherical vessels from 5 to 200 liters capacity.
- Cylindrical vessels from 5 to 400 liters capacity.

Reactors and their components have been designed to meet the requirements of better manufacturing chemical engineering. Thus, balloons and covers reactors have multiple nozzles which are consistent with feeding line, vapor line, connections instrumentation or the set up of our stirrer sets.

Spherical vessels and reactors can be graduated and provided with a protecting coating surface, see chapter 1 (Technical Information).

For mixing operations such as liquid / liquid or solid / liquid and for improving the efficiency of heating systems, we propose a stirrer set adapted perfectly to our range of spherical vessels and reactors for use in pressure or vacuum range.

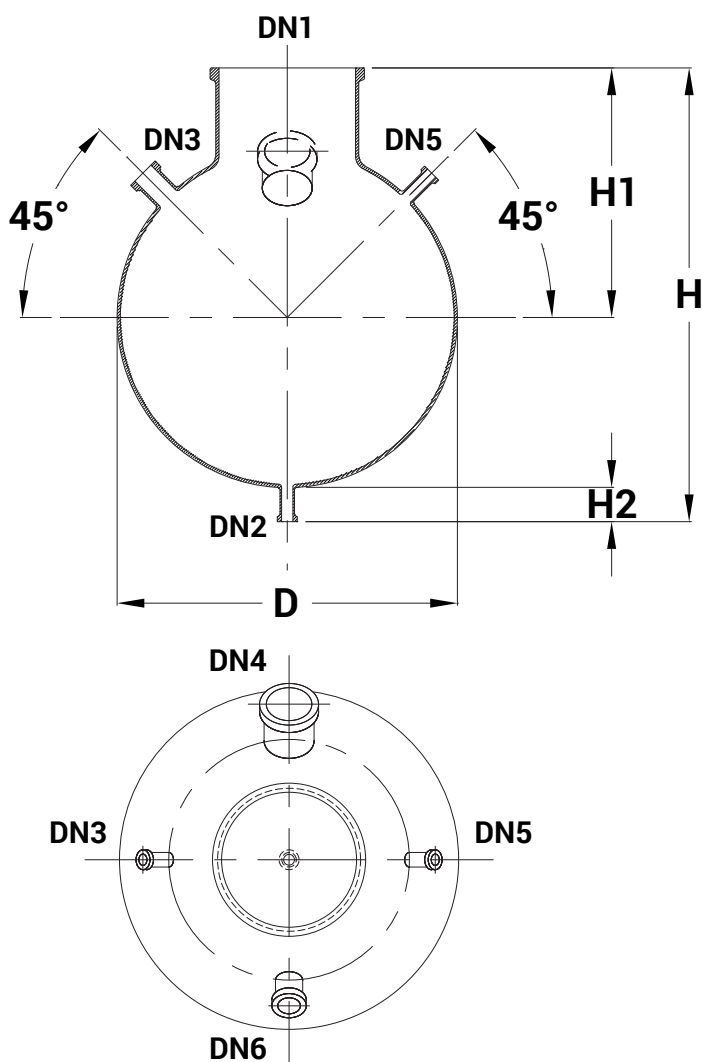
In this chapter we present also:

- Horizontal separators with or without overflow valve.
- Cyclones.
- Diathermic oil heating baths.
- Electric heaters.



Soffieria Sestese may alter detail specifications at its discretion and without notice, in line with its policy of continuous development.

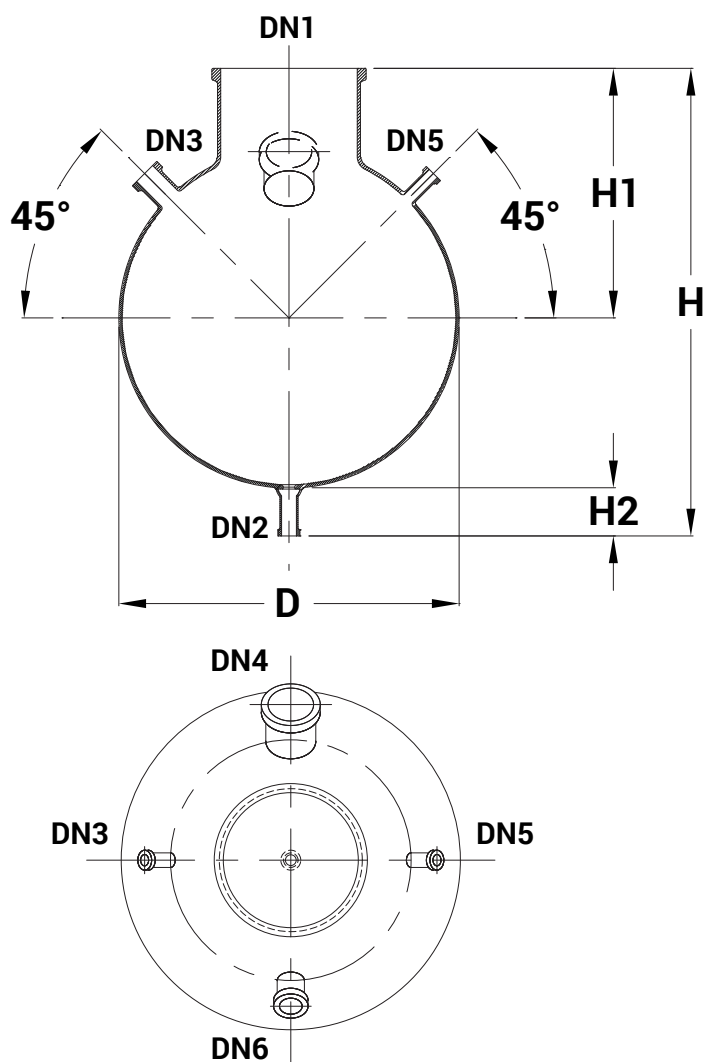
Spherical reaction vessels with 5 branches and drain



CAP.(L)	D	DN1	DN2	DN3 DN5	DN4	DN6	H	H1	H2	CODE
10	280	50	15	25	50	50	455	250	50	SGEK010/5/3
20	350	50	25	25	50	80	565	325	60	SGEK020/5/3
50	490	200	40	40	100	50	710	400	70	SGEK050/5/3
100	610	200	40	50	100	50	825	450	70	SGEK100/5/3
200	750	300	50	50	100	50	1000	550	70	SGEK200/5/3



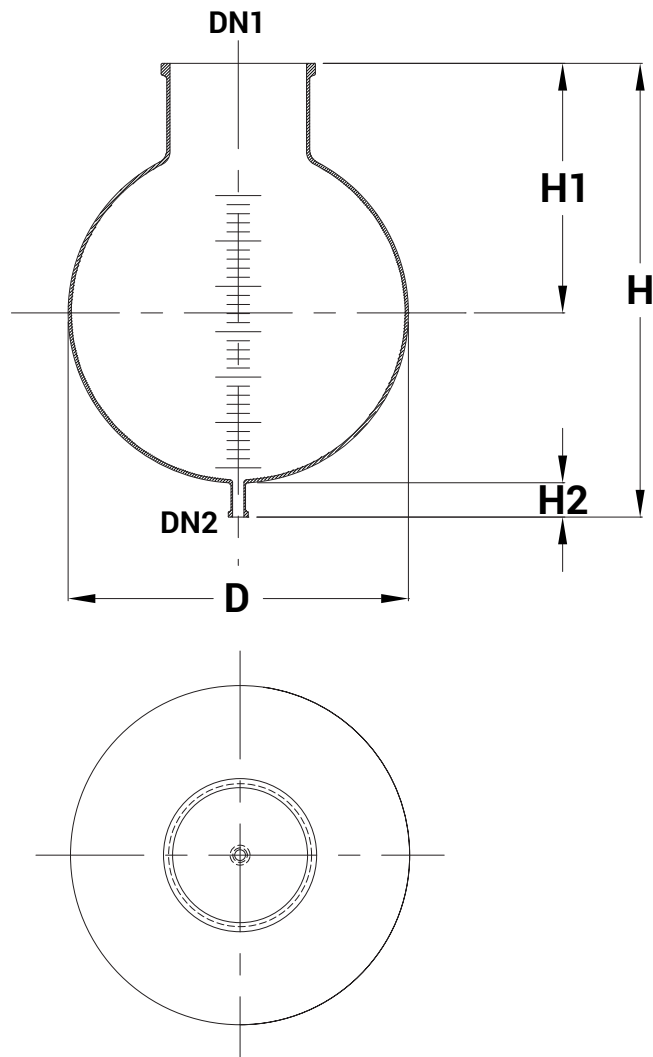
Spherical reaction vessels with 5 branches and bottom valve seat



CAP.(L)	D	DN1	DN2	DN3 DN5	DN4	DN6	H	H1	H2	CODE
10	280	50	15	25	50	50	455	250	170	SGEKVF010/5/3
20	350	50	25	25	50	80	565	325	170	SGEKVF020/5/3
50	490	200	40	40	100	50	710	400	170	SGEKVF050/5/3
100	610	200	40	50	100	50	825	450	170	SGEKVF100/5/3
200	750	300	50	50	100	50	1090	550	170	SGEKVF200/5/3



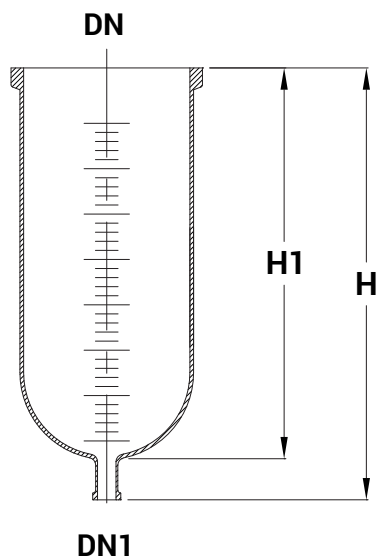
Graduated spherical vessels



CAP.(L)	D	DN1	DN2	H	H1	H2	GRADUAT. (X LITER)	CODE
5	225	50	15	340	180	50	1	SGEKR005/3/G
10	280	50	15	400	250	50	1	SGEKR010/3/G
20	350	50	15	565	325	60	2	SGEKR020/3/G
50	490	200	25	700	395	60	2	SGEKR050/3/G
100	610	200	40	825	450	70	5	SGEKR100/3/G
200	750	300	40	1000	550	70	5	SGEKR200/3/G



Cylindrical reactors

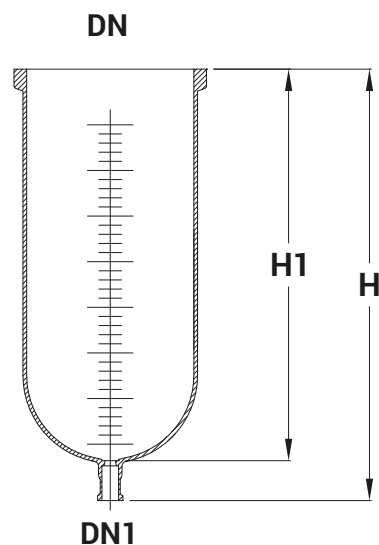


CAP.(L)	DN	DN1	H	H1	CODE	GRADUATED VERSION CODE
5	150	25	460	400	SGER005/150/3	SGER005/150/3/G
10	200	25	550	490	SGER010/200/3	SGER010/200/3/G
20	300	25	500	440	SGER020/300/3	SGER020/300/3/G
30	300	25	650	585	SGER030/300/3	SGER030/300/3/G
50	300	25	900	835	SGER050/300/3	SGER050/300/3/G
50	400	40	700	635	SGER050/400/3	SGER050/400/3/G
100	400	40	1000	935	SGER100/400/3	SGER100/400/3/G
100	450	40	890	825	SGER100/450/3	SGER100/450/3/G
150	450	40	1195	1130	SGER150/450/3	SGER150/450/3/G
200	450	40	1500	1435	SGER200/450/3	SGER200/450/3/G
400	600	50	1700	1625	SGER400/600/3	SGER400/600/3/G

DN600 available custom made



Cylindrical reactors with bottom valve seat

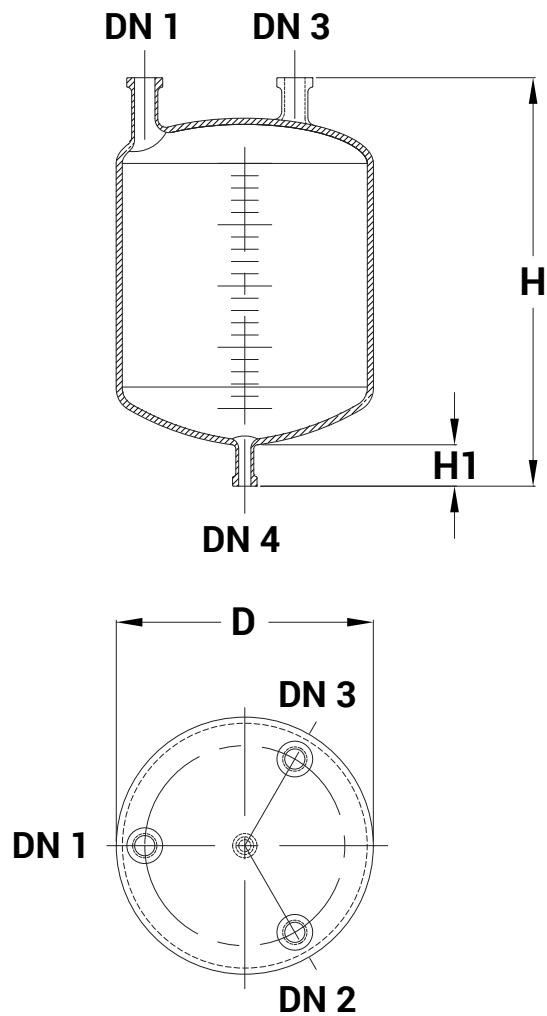


CAP.(L)	DN	DN1	H	H1	CODE	GRADUATED VERSION CODE
5	150	25/S	450	400	SGERVF005/150/3	SGERVF005/150/3/G
10	200	25/S	540	490	SGERVF010/200/3	SGERVF010/200/3/G
20	300	50	540	440	SGERVF020/300/3	SGERVF020/300/3/G
30	300	50	685	585	SGERVF030/300/3	SGERVF030/300/3/G
50	300	50	935	835	SGERVF050/300/3	SGERVF050/300/3/G
50	400	50	735	635	SGERVF050/400/3	SGERVF050/400/3/G
100	400	50	1035	935	SGERVF100/400/3	SGERVF100/400/3/G
100	450	50	925	825	SGERVF100/450/3	SGERVF100/450/3/G
150	450	50	1230	1130	SGERVF150/450/3	SGERVF150/450/3/G
200	450	50	1535	1435	SGERVF200/450/3	SGERVF200/450/3/G

DN600 available custom made



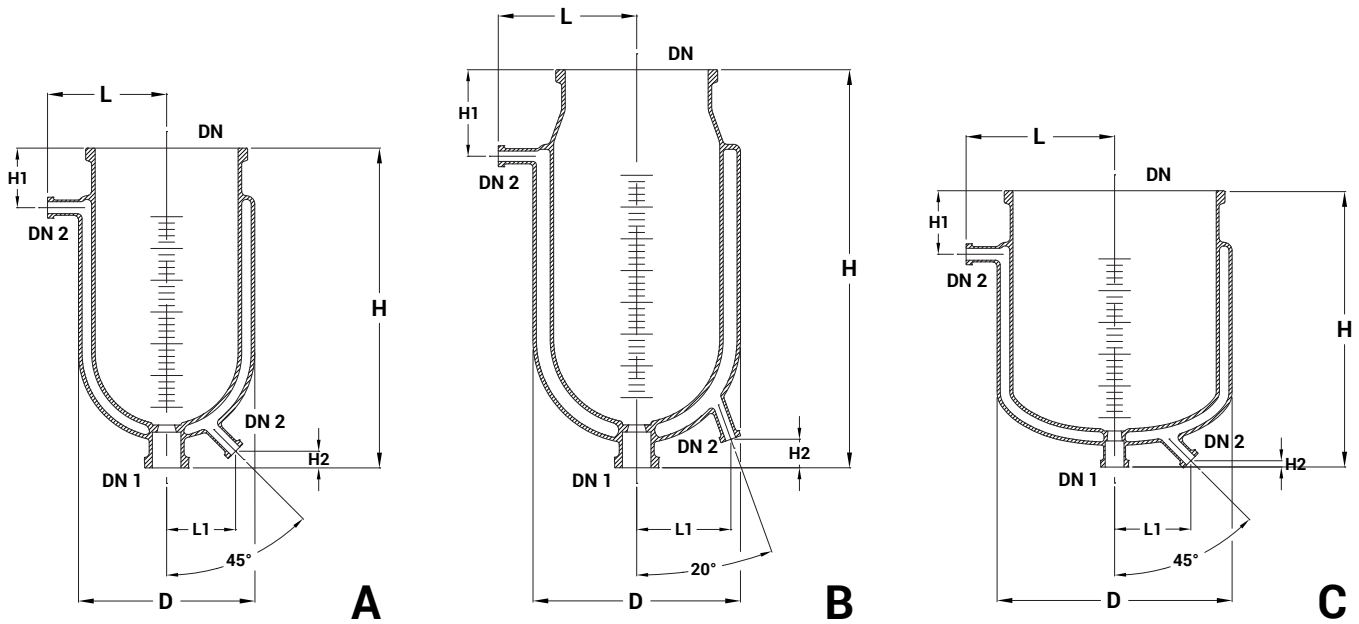
Graduated vessels



CAP.(L)	D	DN1/2/3	DN4	H	H1	GRADUAT. (X LITER)	CODE
5	185	15	15	400	50	1	SRC005/3/G
10	215	25	15	500	50	1	SRC010/3/G
20	315	25	15	500	50	2	SRC020/3/G
50	415	40	25	700	60	2	SRC050/3/G



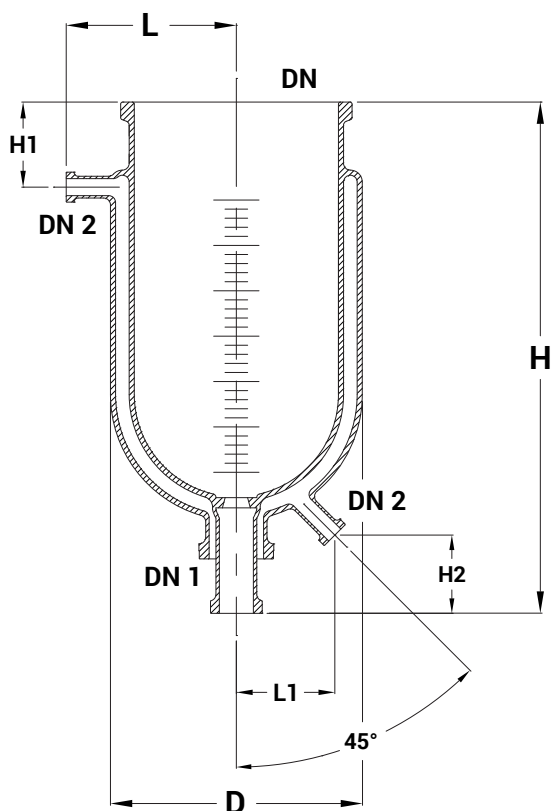
Jacketed graduated reactors welded with bottom seat valve



CAP.(L)	DN	DN1	DN2	D	H	H1	H2	L	L1	TYPE	CODE
5	150	25/S	15	215	450	90	20	155	95	A	SRIS005/150/3/G
5	200	25/S	15	250	340	90	10	175	75	A	SRIS005/200/3/G
10	200	25/S	15	250	500	80	20	175	95	A	SRIS010/200/3/G
15	200	25/S	15	315	575	125	40	200	135	B	SRIS015/200/3/G
15	300	25/S	15	370	435	100	10	235	120	C	SRIS015/300/3/G



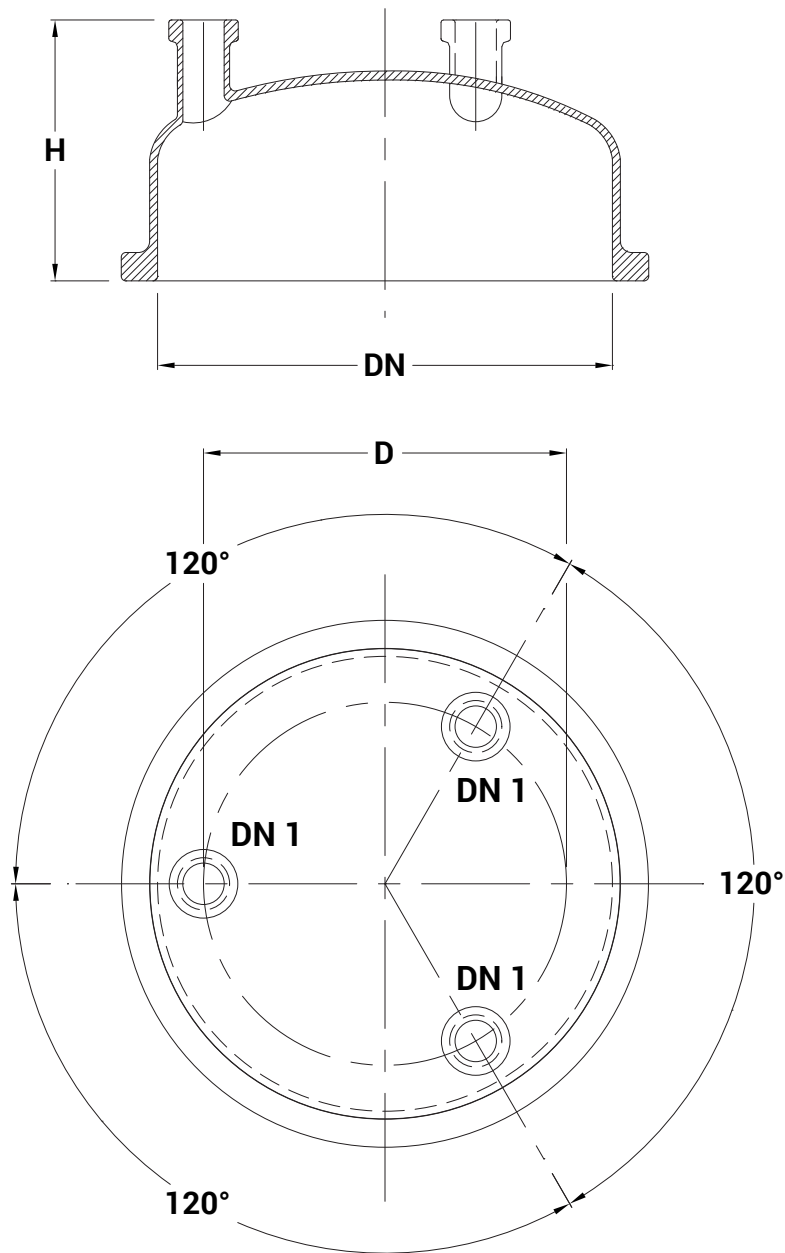
Jacketed graduated reactors welded (up side) with bottom seat valve



CAP.(L)	DN	DN1	DN2	D	H	H1	H2	L	L1	CODE
15	300	50	25	370	575	125	115	250	145	SRIF015/300/3/G
20	300	50	25	370	650	125	115	250	145	SRIF020/300/3/G
30	300	50	25	370	800	125	115	250	145	SRIF030/300/3/G
50	300	50	25	370	1080	125	115	250	145	SRIF050/300/3/G
50	400	50	25	465	800	125	85	300	145	SRIF050/400/3/G
100	400	50	25	465	1200	150	115	300	145	SRIF100/400/3/G
100	450	50	25	520	1040	165	115	330	145	SRIF100/450/3/G



Covers for spherical and cylindrical vessels

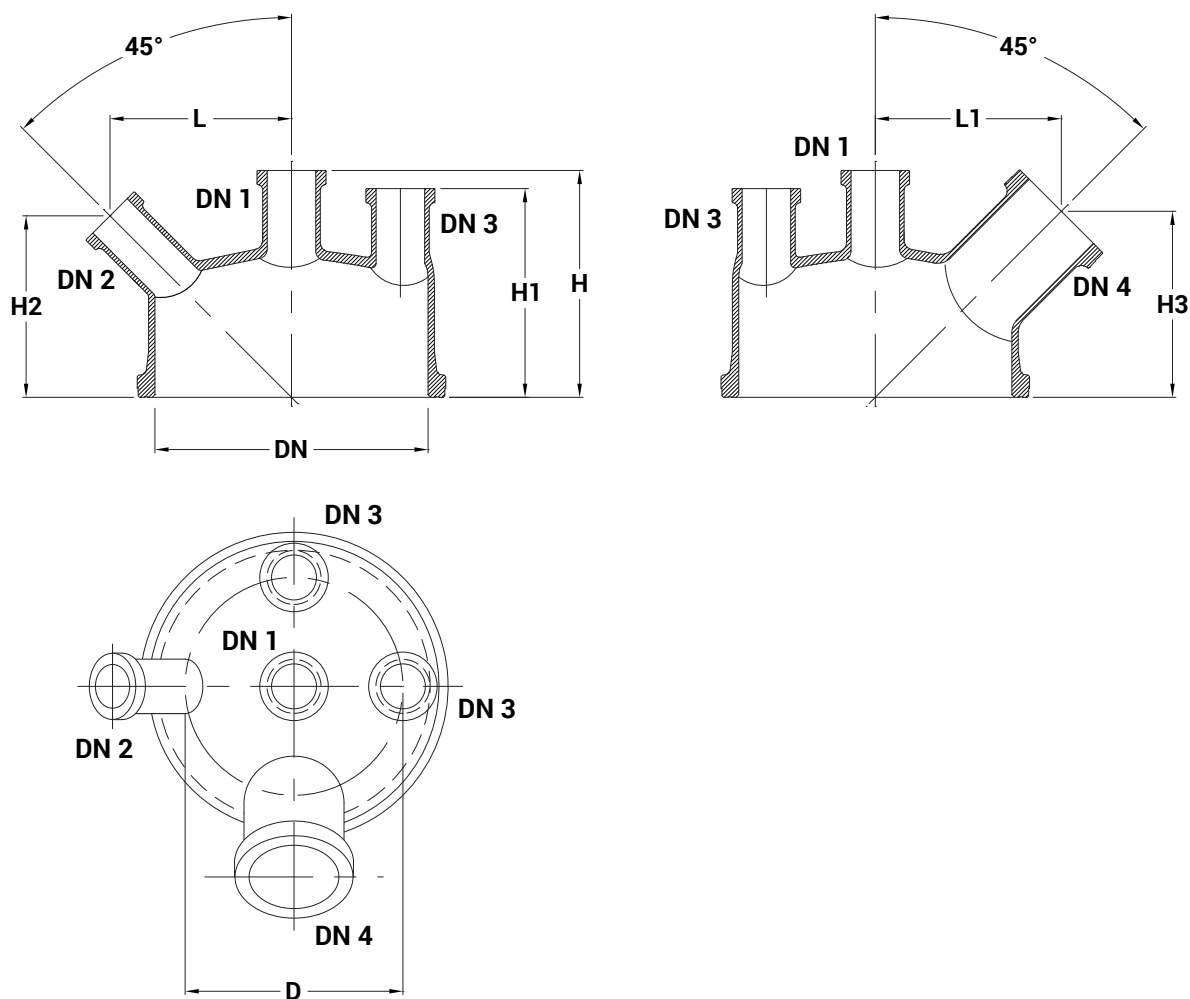


DN	DN1	H	D	CODICE
150	3x15	200	100	SHAU150/3/3
200	3x25	175	180	SHAU200/3/3
300	3x50	240	250	SHAU300/3/3
400	3x50	300	300	SHAU400/3/3
450	3x50	325	350	SHAU450/3/3

DN600 available custom made



Covers with 5 branches



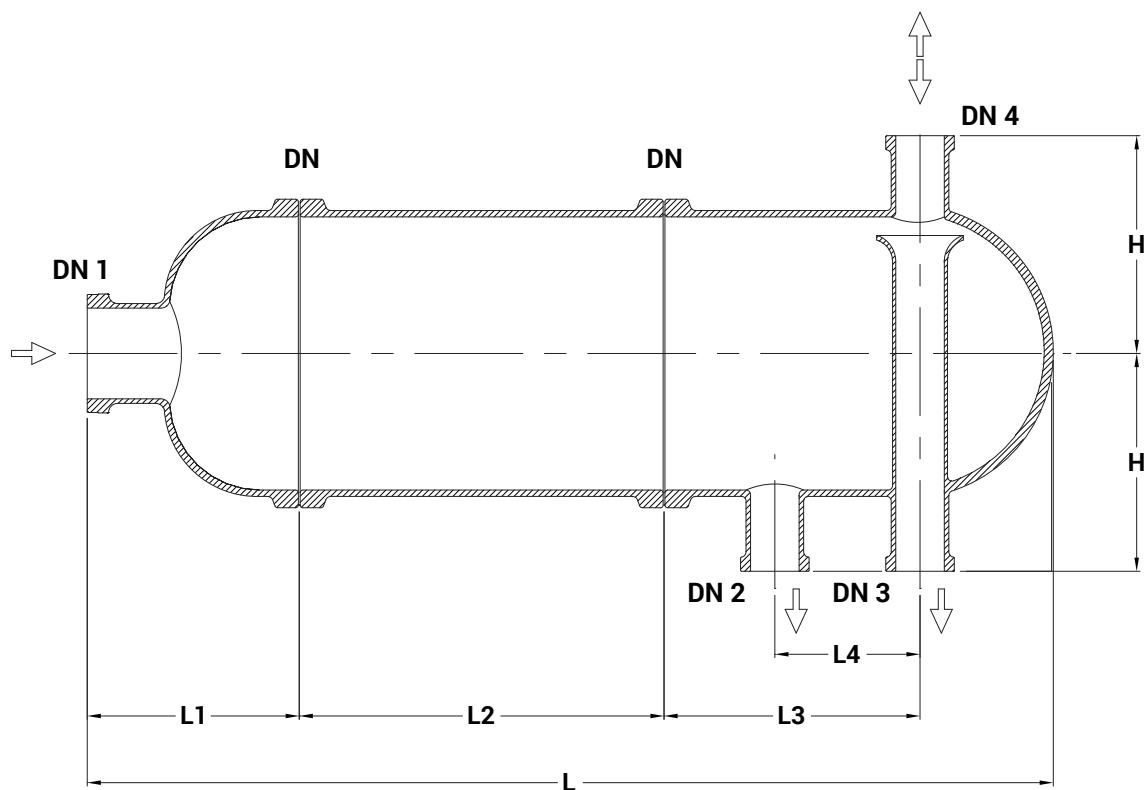
DN	DN1	DN2	DN3	DN4	D	H	H1	H2	H3	L	L1	CODE
200	25	40	25x2	50	180	175	175	125	125	125	125	SAHA200/5/3
300	50	50	50x2	80	250	250	240	175	190	175	190	SAHA300/5/3
400	50	80	50x2	100	300	275	240	205	205	225	240	SAHA400/5/3
400	80	80	50x2	100	300	275	240	205	205	225	240	SAHA400/080/5/3
450	50	100	50x2	100	350	325	300	240	240	230	230	SAHA450/5/3
450	80	100	50x2	100	350	325	300	240	240	230	230	SAHA450/080/5/3
600	80	100	50x2	150	440	400	350	350	350	350	350	SAHA600/5/3



Horizontal separators without overflow valve

Horizontal separators are used to separate two liquid phases of different density. The separation layer is regulated by using an external overflow valve (see chapter 3 of this catalog) or with an internal overflow valve (SAOF).

The horizontal separator is supplied with a couple of brackets for fixing the unit in the structure.



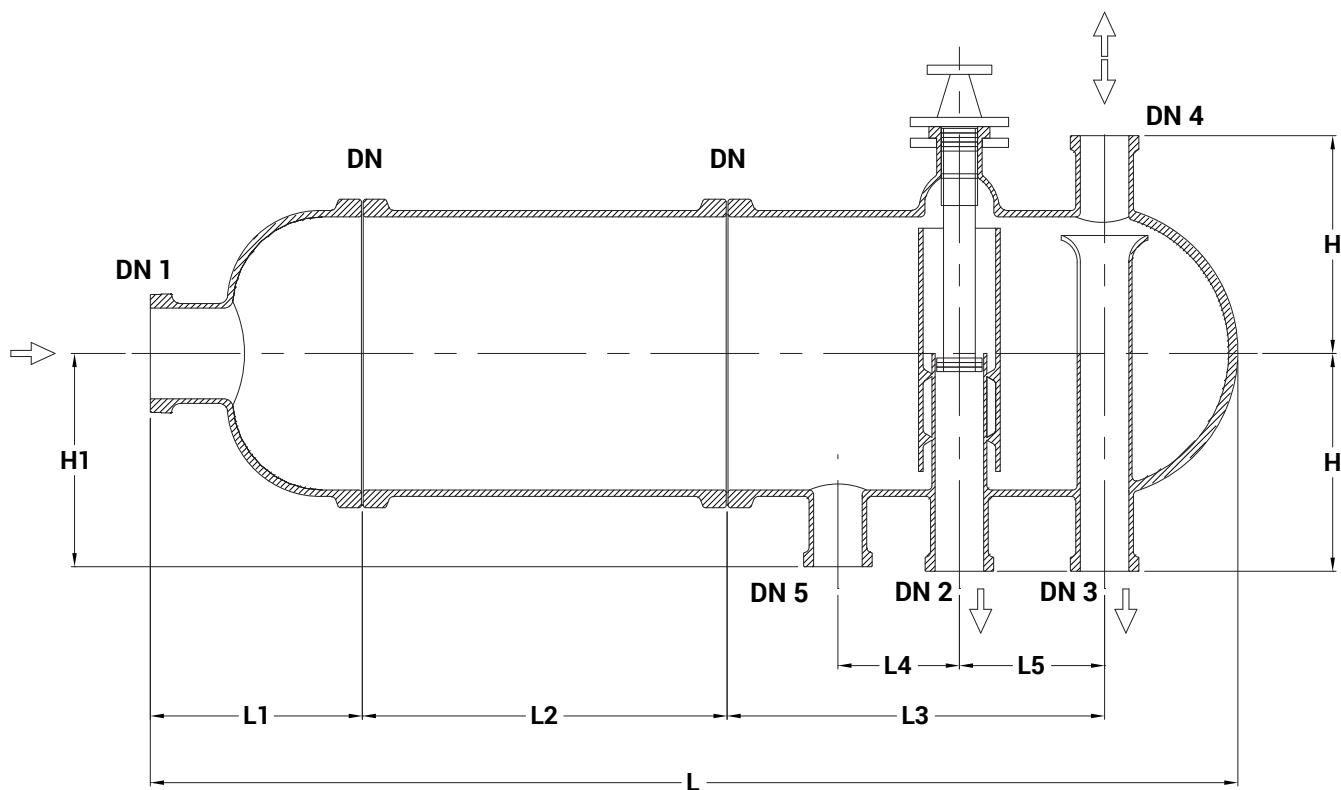
DN	DN1	DN2 DN3 DN4	L	L1	L2	L3	L4	H	CODE
100	25	15	950	150	500	200	100	120	SA0100/3
150	40	25	1000	200	500	200	100	140	SA0150/3
200	80	40	1580	200	1000	245	120	175	SA0200/3
300	100	50	2190	250	1500	300	150	230	SA0300/3
450	150	80	2950	350	2000	355	175	330	SA0450/3



Horizontal separators with overflow valve

The incorporate overflow valve allows a simple, safe and accurate adjustment of the interface level. It avoids the disadvantage of a pipelines connected in parallel.

The horizontal separator is supplied with a couple of brackets for fixing the unit in the structure.

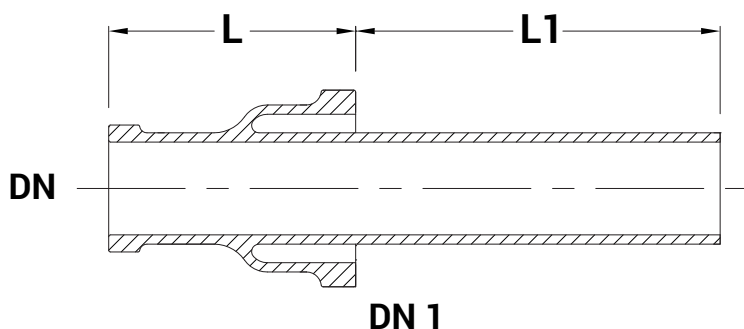


DN	DN1	DN2 DN3 DN4	DN5	L	L1	L2	L3	L4	L5	H	H1	CODE
100	25	15	15	950	150	500	220	70	70	110	110	SAOF100/015/3
150	40	25	25	1100	200	500	300	100	100	140	140	SAOF150/025/3
200	80	40	25	1680	200	1000	345	100	120	175	175	SAOF200/040/3
300	100	50	40	2310	250	1500	405	120	150	230	230	SAOF300/050/3
450	150	80	40	3075	350	2000	475	150	175	330	305	SAOF450/080/3

DN600 available custom made

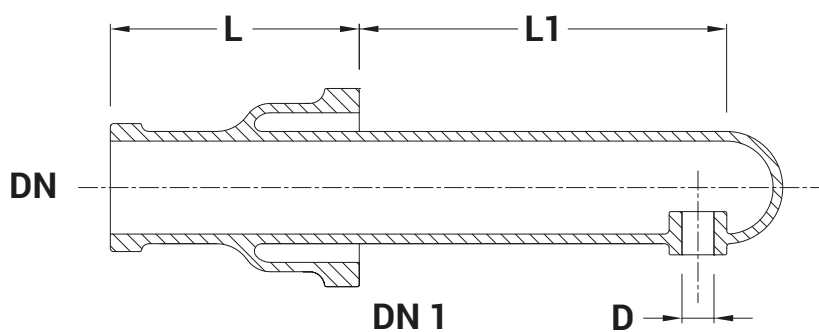


Straight dip pipes and angled feed pipes



DN	DN1	D	L	L1	CODE
25	15	22	100	...	SEIN025/015/3/...
40	25	32	100	...	SEIN040/025/3/...
50	25	32	100	..	SEIN050/025/3/...
80	50	60	125	...	SEIN080/050/3/...
100	80	90	150	...	SEIN100/080/3/...

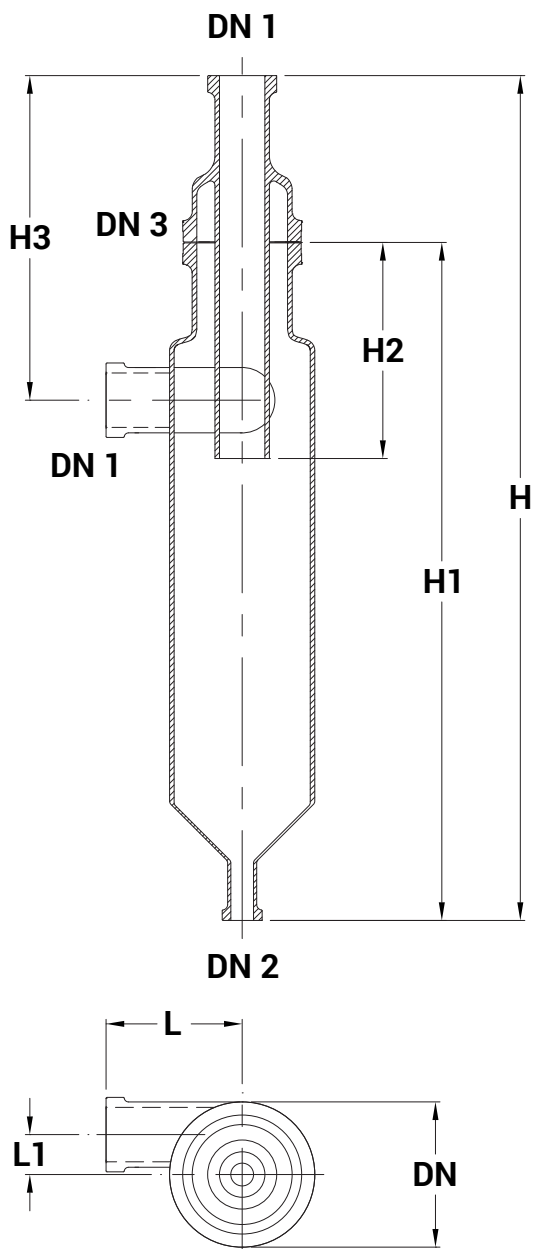
Dimensions "L1" required later



DN	DN1	L	L1	DN COLUMN	CODE
25	15	100	100	80	SEIN025/015/100/W/3
50	25	100	100	80	SEIN050/025/100/W/3
50	25	100	125	100	SEIN050/025/125/W/3
50	25	100	150	150	SEIN050/025/150/W/3
50	25	100	175	200	SEIN050/025/175/W/3
50	25	100	225	300	SEIN050/025/225/W/3
80	50	125	300	400	SEIN080/050/300/W/3
80	50	125	325	450	SEIN080/050/325/W/3
80	50	125	400	600	SEIN080/050/400/W/3



Cyclones



These cyclones are designed to separate not only the drop of gases and vapors, but also solid particles from gases.

The degree of separation can be as high as 99%, but this value depends to a large extent by the following parameters:

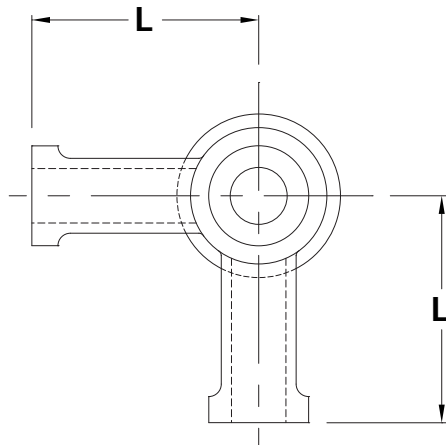
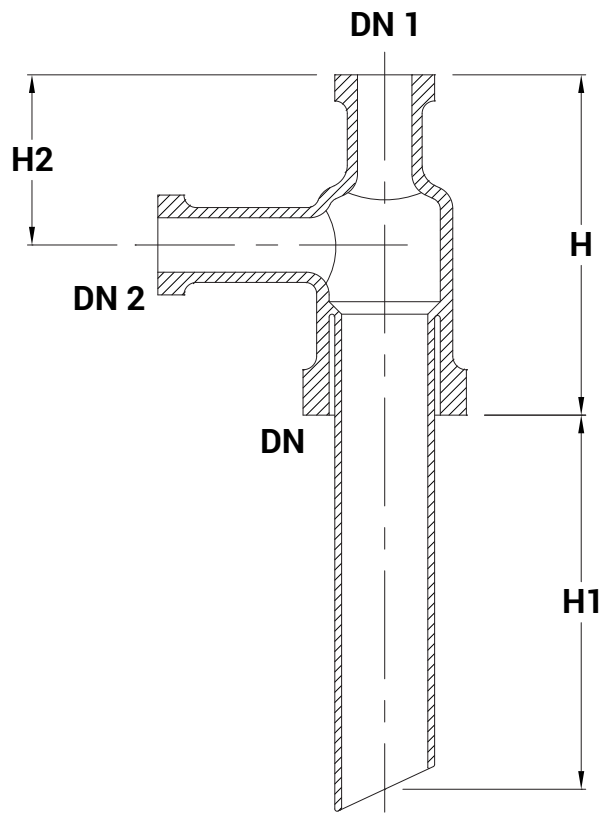
- Liquid loading of the gas or vapour or solids loading of the gas.
- Droplet or particle size range.
- Droplet or particle size distribution.

For the standard air/water system at ambient temperature and with a gas velocity of 15 m/s in the dip tube, limiting droplet diameters are approx. 2.5 μm for the SCY100/3 and SCY150/3 types and approx. 3.5 μm for types SCY200/3 and SCY300/3. The pressure drop in these cases is in the region of 25 to 30 mbar.

DN	DN1	DN2	DN3	H	H1	H2	H3	L	L1	CODE
100	40	25	80	714	560	180	284	125	35	SCY100/3
150	50	25	100	839	655	235	349	150	55	SCY150/3
200	80	25	150	1119	915	320	429	200	75	SCY200/3
300	100	25	150	1425	1225	405	485	275	100	SCY300/3



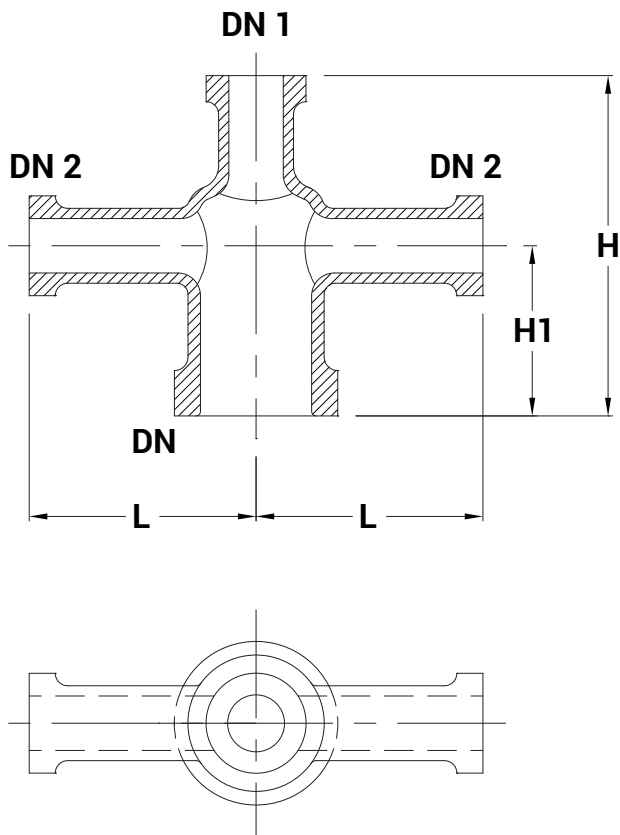
Manifold with dip pipes



DN	DN1	DN2	D	H	H1	H2	L	CODE
40	25	25	46	150	180	75	100	STCA40/25
50	40	25	46	150	180	75	100	STCA50/40



3 Ways manifold



DN	DN1	DN2	H	H1	L	CODE
40	25	25	150	75	75	STC40/3
50	25	25	150	75	100	STC50/3

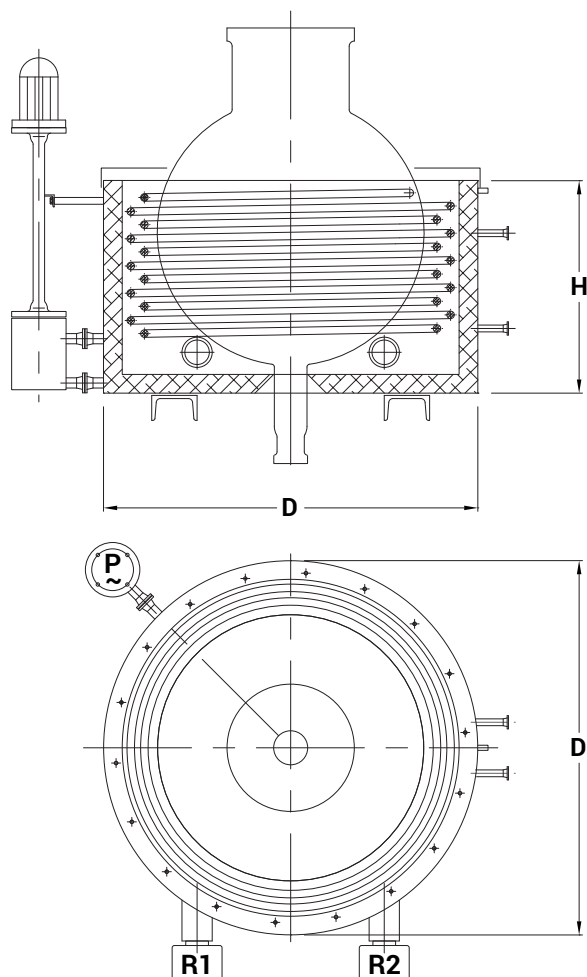


Diathermic oil heating bath for reactors and spherical vessels

The diathermic oil heating bath, are perfectly suited to the standard size of the Soffieria Sestese spherical or cylindrical vessels, offering the advantage of minimal amount of space.

The unit consist of:

- Recovery and diathermic fluid insulated tank complete of double heating/cooling coil in stainless steel.
- Heating electric resistance.
- Recirculating pump.



CAP. (L)	D	H	PUMP (kW)	CODE
50	740	420	0.12	SBT050L
100	860	520	0.18	SBT100L
200	1000	630	0.18	SBT200L

Electric heating power: 1000 ÷ 9000 Watt – ATEX execution EExd IIC T4 ÷ T1

Internal thermal insulation in rock wool

Shock resistant coating in stainless steel

Cylindrical reactors custom made



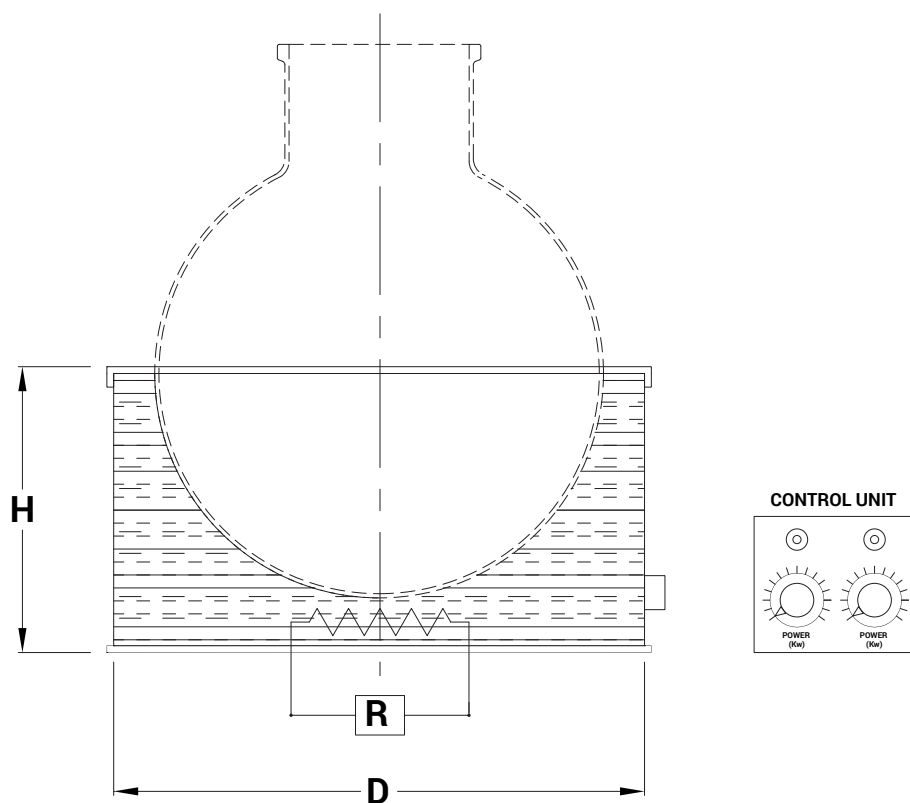
Electric heater for spherical vessels

The electric heater or heating mantles are employed in the pharmaceutical and chemical industry to allow chemical and biological reactions or distillation processes.

The unit consist of:

- Cylindrical body from painted plate resistant to more common chemical aggressors.
- Internal resistance in nickel-chromium wire, steatite lined, for high electric insulation.
- Internal thermal insulation in glass fibre and mineral rock wool.
- Heating at 1 / 2 / 3 heating sections.

- Max temperature range 350 °C.
- Precision ± 5 °C.
- Power supply 230/400V – 50/60Hz.
- IP 44 protection degree.
- Built in accordance to CEI+EN 66.5 e EN 61010.1.1.C.
- Control unit in separate box with:
On/Off pilot lamps, fuses.
- Electric controls available in 2 versions:
Voltage electronic variator/s (for 220V only).
Thermo-regulator/s with graduated range (230/400V).



CAP. (L)	D	H	POWER (kW)	CODE
10	390	200	1.6	SRE010L
20	490	230	2.4	SRE020L
50	650	300	4.0	SRE050L
100	830	380	6.0	SRE100L
200	930	450	9.0	SRE200L

Drain hole on request

