

# DIN 28151:2021-10 (E)

## Nozzles of jacket on agitated vessels, of glass lined steel - Position of nozzles

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	5
4	Designation .....	5
5	Nozzle arrangement .....	6
5.1	General .....	6
5.2	Arrangements A 1 and A 2, without agitation nozzles .....	6
5.3	Arrangements B 1 and B 2, with agitation nozzles .....	11
6	Examples of design features .....	16
6.1	Nozzles N 13 for arrangements A 1, A 2, B 1 and B 2 .....	16
6.2	Detail Z in Figure 1 and Figure 4 .....	17
6.3	Detail Y in Figure 2, Figure 3, Figure 5 and Figure 6 .....	18
6.4	Detail X in Figure 3 and Figure 6 .....	19
6.5	Detail W in Figure 3 .....	20
6.6	Detail V in Figure 5 (agitation nozzle) .....	20
6.7	Nozzles N 16 to N 19 (agitation nozzles) .....	21
6.8	Materials for baffle plates .....	22
6.9	Baffle plates for nozzles N 11 and N 12 .....	22
7	Vessels with a half pipe coil jacket .....	22
Annex A (informative) Explanatory notes .....		23
Bibliography .....		24
Figures Figure 1 -- Vessels with legs or bracket supports and a nominal capacity of 63 l to 40 000 l ..		6
Figure 2 -- Vessels with support ring and a nominal capacity of 250 l to 1 000 l .....		7
Figure 3 -- Vessels with support ring and a nominal capacity of 1 600 l to 40 000 l .....		8
Figure 4 -- Vessels with legs or bracket supports and a nominal capacity of 250 l to 40 000 l .....		11
Figure 5 -- Vessels with support ring and a nominal capacity of 250 l to 1 000 l .....		12
Figure 6 -- Vessels with support ring and a nominal capacity of 1 600 l to 40 000 l .....		13
Figure 7 -- Vent socket N 13 .....		16
Figure 8 -- Design and arrangement of the baffle plate .....		17
Figure 9 -- Design with vapour pocket .....		18
Figure 10 -- Arrangement of baffle plates for nozzle N 14 (see Figure 3) and nozzle N 15 (see Figure 6) .....		19

<b>Figure 11 -- Arrangement A 2 of the baffle plate, see detail W in Figure 3 .....</b>	<b>20</b>
<b>Figure 12 -- Arrangement of the agitation nozzle for arrangement B 2 .....</b>	<b>20</b>
<b>Figure 13 -- Agitation nozzle in arrangement B 1 .....</b>	<b>21</b>
<b>Figure A.1 -- Conversion of vertical dimensions referring to jacket nozzles .....</b>	<b>23</b>
<b>Tables Table 1 -- Arrangements A 1 and A 2 .....</b>	<b>9</b>
<b>Table 2 -- Arrangements B 1 and B 2 .....</b>	<b>14</b>
<b>Table 3 -- Diameter of the nozzle neck (position 2 in Figure 13) .....</b>	<b>22</b>