

## Beräkningsrapport 2-Rör

Projekt: **Glödgaren 11**  
 Ansvarig: **ME - Mikael Elm**

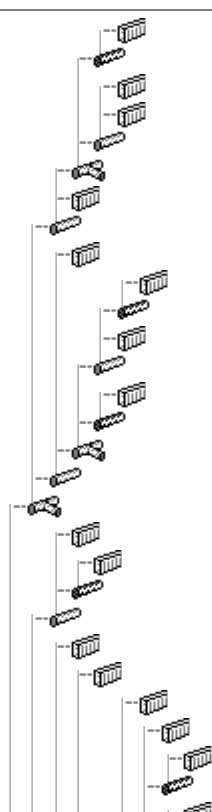
### Grunddata

DUT: -24 °C  
 Tillopp: 55 °C  
 Retur: 45 °C

Ventil: MMA FLEX  
 Termostat: MTW 28°C

Rörmaterial  
 Koppl.ledn: Prisolrör  
 Övrig.ledn: Koppar SMS 1890  
 Riktvärde: 80 Pa/m

### g11

| Typ  | Bet        | Rör dim. | Flöde l/h | Del kPa | S:a kPa | Rum °C | Effekt Watt | R-tal Pa/m | Radiator |    | Ventil |              |      | Rör |    |   | Anm |     |
|--|------------|----------|-----------|---------|---------|--------|-------------|------------|----------|----|--------|--------------|------|-----|----|---|-----|-----|
|  |            |          |           |         |         |        |             |            | typ      | ±% | ans    | typ          | kv   | ins | ID | L |     | B   |
|  | ev-hall    | 12       | 39        | 0,0     | 9,1     | 20     | 458         | 30,4       | C21-5008 | +3 | HS     | MMA FLEX0,13 | FN-2 | 1   | 0  | 0 | 0   |     |
|  | stam-24    | 12       | 39        | 0,1     | 9,2     |        |             | 30,4       |          |    |        |              |      | 1   | 2  | 2 | 0   |     |
|  | öv-hall-ö  | 12       | 37        | 0,0     | 8,8     | 20     | 433         | 25,5       | C22-5006 | +3 | HS     | MMA FLEX0,13 | FN-2 | 1   | 1  | 2 | 0   |     |
|  | öv-bad     | 12       | 39        | 0,0     | 8,8     | 20     | 458         | 30,4       | C21-5008 | +3 | VS     | MMA FLEX0,13 | FN-2 | 1   | 1  | 0 | 0   |     |
|  | stam-18    | 12       | 77        | 0,4     | 9,2     |        |             | 138,4      |          |    |        |              |      | 1   | 3  | 0 | 0   |     |
|  | stam-17    | 15       | 116       | 0,1     | 9,2     |        |             | 81,9       |          |    |        |              |      | 1   | 1  | 0 | 0   |     |
|  | kv-hall    | 12       | 44        | 0,2     | 9,2     | 20     | 514         | 42,9       | C11-6010 | +1 | HS     | MMA FLEX0,15 | FN-2 | 1   | 4  | 1 | 0   |     |
|  | stam-16    | 15       | 160       | 0,1     | 9,4     |        |             | 144,9      |          |    |        |              |      | 1   | 1  | 0 | 0   |     |
|  | kv-toa     | 12       | 26        | 0,1     | 9,2     | 20     | 308         | 16,4       | C11-6006 | +1 | HS     | MMA FLEX0,09 | FN-2 | 1   | 4  | 2 | 0   |     |
|  | ev-trapp   | 12       | 43        | 0,0     | 8,7     | 20     | 505         | 40,7       | C22-5007 | +3 | VS     | MMA FLEX0,15 | FN-2 | 1   | 1  | 0 | 0   |     |
|  | stam-22    | 12       | 43        | 0,0     | 8,7     |        |             | 40,7       |          |    |        |              |      | 1   | 1  | 0 | 0   |     |
|  | ev-toa     | 12       | 12        | 0,0     | 8,7     | 20     | 138         | 7,3        | H10-5005 | -1 | VS     | MMA FLEX0,04 | FN-2 | 1   | 0  | 0 | 0   |     |
|  | stam-21    | 12       | 55        | 0,1     | 8,8     |        |             | 78,2       |          |    |        |              |      | 1   | 1  | 1 | 0   |     |
|  | öv-hall-n  | 12       | 62        | 0,1     | 8,4     | 20     | 721         | 95,5       | C22-5010 | +3 | HS     | MMA FLEX0,22 | FN-2 | 1   | 1  | 2 | 0   |     |
|  | stam-23    | 12       | 62        | 0,4     | 8,8     |        |             | 95,5       |          |    |        |              |      | 1   | 3  | 3 | 0   |     |
|  | stam-20    | 15       | 117       | 0,4     | 9,2     |        |             | 83,5       |          |    |        |              |      | 1   | 4  | 3 | 0   |     |
|  | stam-19    | 15       | 144       | 0,2     | 9,4     |        |             | 119,6      |          |    |        |              |      | 1   | 1  | 1 | 0   |     |
|  | stam-2     | 22       | 304       | 0,1     | 9,5     |        |             | 57,1       |          |    |        |              |      | 1   | 2  | 0 | 0   |     |
|  | kv-bad     | 12       | 57        | 0,4     | 7,7     | 20     | 664         | 82,7       | C21-6010 | +2 | HS     | MMA FLEX0,21 | FN-2 | 1   | 4  | 2 | 0   |     |
|  | ev-kök     | 12       | 68        | 0,1     | 7,6     | 20     | 793         | 112,8      | C22-5011 | +3 | VS     | MMA FLEX0,25 | FN-2 | 2   | 1  | 0 | 0   |     |
|  | stam-31    | 12       | 68        | 0,1     | 7,7     |        |             | 112,8      |          |    |        |              |      | 1   | 1  | 0 | 0   |     |
|  | stam-30    | 12       | 125       | 0,3     | 8,0     |        |             | 331,3      |          |    |        |              |      | 1   | 1  | 0 | 0   | **1 |
|  | kv-tvätt   | 12       | 72        | 0,6     | 7,7     | 20     | 836         | 123,8      | C22-6010 | +3 | VS     | MMA FLEX0,27 | FN-2 | 1   | 4  | 2 | 0   |     |
|  | ev-mrum-s  | 12       | 49        | 0,1     | 7,5     | 20     | 570         | 57,5       | C21-5010 | +3 | HS     | MMA FLEX0,18 | FN-2 | 2   | 1  | 0 | 0   |     |
|  | ev-mrum-v  | 12       | 49        | 0,1     | 6,8     | 20     | 570         | 57,5       | C21-5010 | +3 | HS     | MMA FLEX0,19 | FN-2 | 2   | 1  | 0 | 0   |     |
|  | öv-sovsv-v | 12       | 44        | 0,0     | 6,3     | 20     | 515         | 43,1       | C21-5009 | +3 | VS     | MMA FLEX0,18 | FN-2 | 1   | 0  | 1 | 0   |     |
|  | öv-hall-v  | 12       | 62        | 0,0     | 6,1     | 20     | 721         | 95,5       | C22-5010 | +3 | VS     | MMA FLEX0,25 | FN-2 | 1   | 0  | 0 | 0   |     |
|  | stam-9     | 12       | 62        | 0,2     | 6,3     |        |             | 95,5       |          |    |        |              |      | 1   | 2  | 0 | 0   |     |
|  | öv-sovsv-s | 12       | 19        | 0,0     | 5,9     | 20     | 218         | 11,6       | C11-5005 | +1 | VS     | MMA FLEX0,08 | FN-2 | 1   | 0  | 1 | 0   |     |

| Typ    | Bet       | Rör dim. | Flöde l/h | Del kPa | S:a kPa | Rum °C | Effekt Watt | R-tal Pa/m | Radiador typ | ±% ans | Ventil |              |      | Rör |   |   | Anm |     |
|--------|-----------|----------|-----------|---------|---------|--------|-------------|------------|--------------|--------|--------|--------------|------|-----|---|---|-----|-----|
|        |           |          |           |         |         |        |             |            |              |        | typ    | kv           | ins  | ID  | L | B |     | A   |
|        | öv-sovs-s | 12       | 68        | 0,0     | 5,3     | 20     | 793         | 112,8      | C22-5011     | +3     | VS     | MMA FLEX0,30 | FN-2 | 1   | 0 | 1 | 0   |     |
|        | öv-klk    | 12       | 25        | 0,0     | 5,3     | 20     | 286         | 15,2       | C21-5005     | +3     | HS     | MMA FLEX0,11 | FN-2 | 1   | 0 | 2 | 0   |     |
|        | stam-12   | 12       | 25        | 0,0     | 5,3     |        |             | 15,2       |              |        |        |              |      | 1   | 2 | 0 | 0   |     |
|        | stam-11   | 12       | 93        | 0,6     | 5,9     |        |             | 194,1      |              |        |        |              |      | 1   | 3 | 0 | 0   | **1 |
|        | stam-10   | 15       | 112       | 0,3     | 6,3     |        |             | 76,4       |              |        |        |              |      | 1   | 4 | 1 | 0   |     |
|        | stam-8    | 15       | 218       | 0,5     | 6,8     |        |             | 250,7      |              |        |        |              |      | 1   | 2 | 0 | 0   | **1 |
|        | stam-7    | 15       | 267       | 0,4     | 7,1     |        |             | 361,0      |              |        |        |              |      | 1   | 1 | 0 | 0   | **1 |
|        | ev-vrum-v | 12       | 49        | 0,0     | 6,5     | 20     | 570         | 57,5       | C21-5010     | +3     | VS     | MMA FLEX0,19 | FN-2 | 1   | 0 | 0 | 0   |     |
|        | kv-sov    | 12       | 90        | 0,8     | 6,4     | 20     | 1041        | 182,2      | C33-5010     | -2     | HS     | MMA FLEX0,38 | FN-2 | 1   | 4 | 1 | 0   | **1 |
|        | ev-vrum-n | 12       | 49        | 0,1     | 6,4     | 20     | 570         | 57,5       | C21-5010     | +3     | VS     | MMA FLEX0,19 | FN-2 | 2   | 1 | 0 | 0   |     |
|        | stam-15   | 15       | 49        | 0,0     | 6,4     |        |             | 12,1       |              |        |        |              |      | 1   | 2 | 2 | 0   |     |
|        | stam-14   | 15       | 139       | 0,1     | 6,5     |        |             | 112,0      |              |        |        |              |      | 1   | 1 | 0 | 0   |     |
|        | stam-13   | 15       | 188       | 0,6     | 7,1     |        |             | 191,8      |              |        |        |              |      | 1   | 3 | 0 | 0   | **1 |
|        | stam-6    | 22       | 454       | 0,4     | 7,5     |        |             | 116,9      |              |        |        |              |      | 1   | 3 | 1 | 0   |     |
|        | stam-5    | 22       | 503       | 0,1     | 7,7     |        |             | 140,5      |              |        |        |              |      | 1   | 1 | 0 | 0   |     |
|        | stam-4    | 22       | 575       | 0,4     | 8,0     |        |             | 178,6      |              |        |        |              |      | 1   | 2 | 0 | 0   | **1 |
| stam-3 | 22        | 701      | 1,5       | 9,5     |         |        | 254,9       |            |              |        |        |              | 1    | 5   | 1 | 0 | **1 |     |
| stam-1 | 22        | 1004     | 0,5       | 10,0    | s:a     | 11682  | 491,1       |            |              |        |        |              | 1    | 1   | 0 | 0 | **1 |     |

\*\*1: Högt R-tal