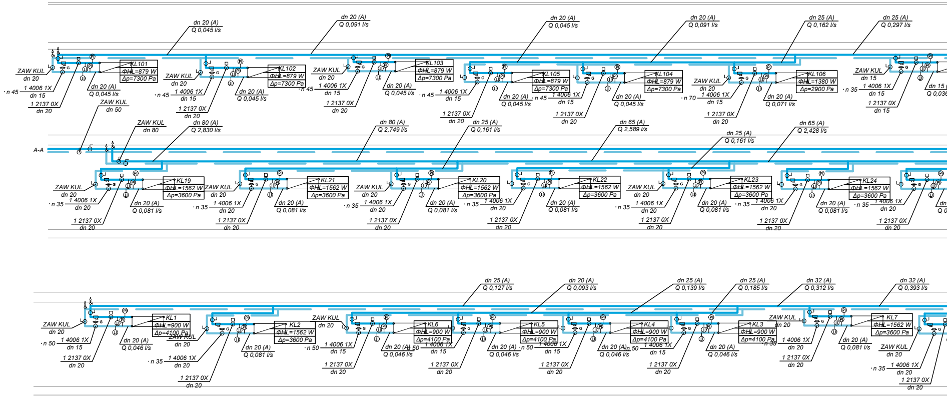
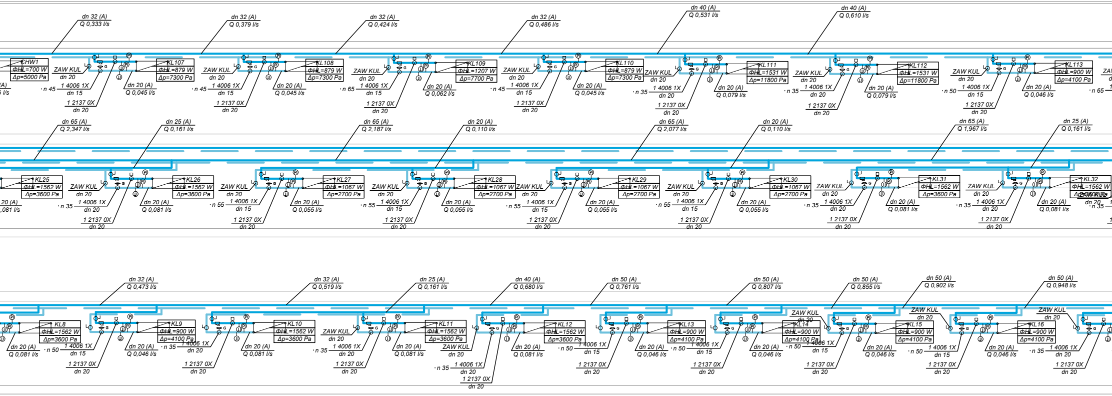
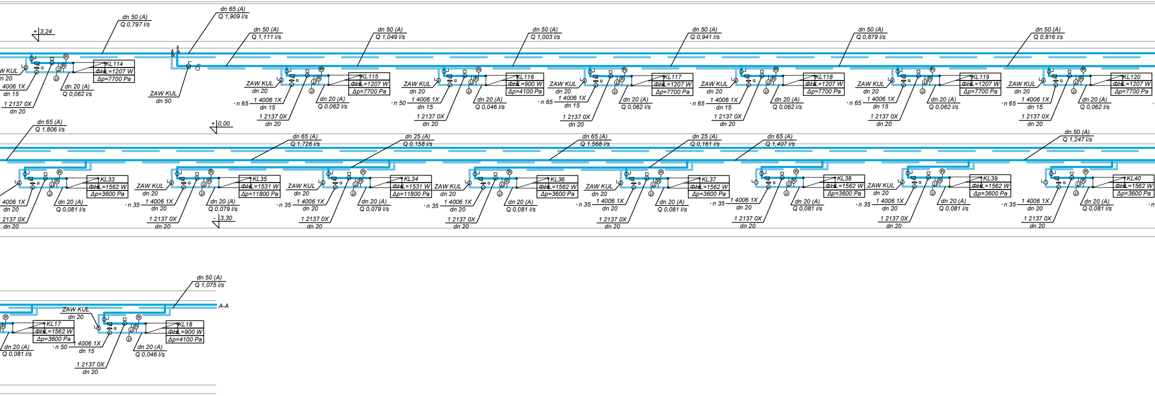
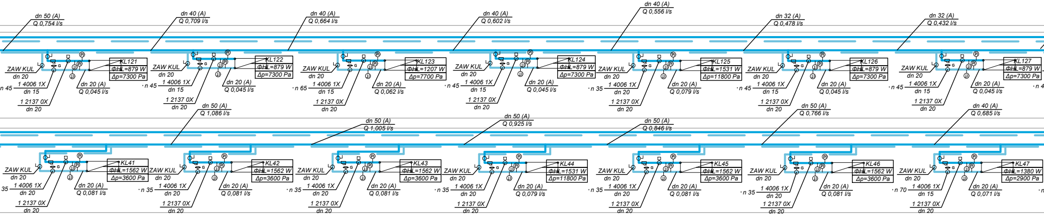
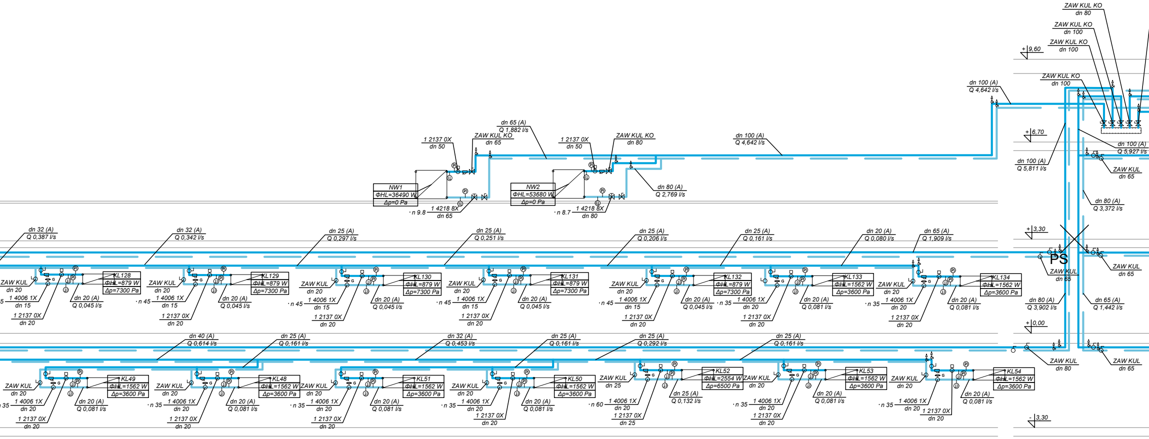


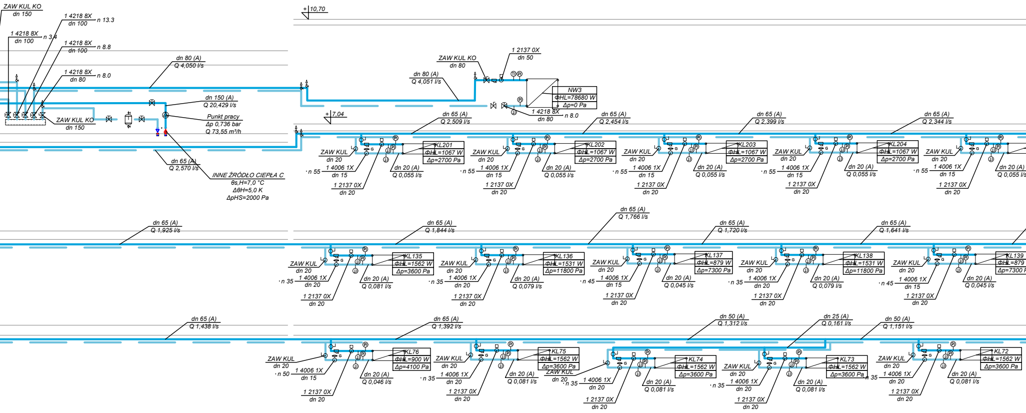
dn 20 (A)
Q 0,045 l/s
dn 20 (A)
Q 0,091 l/s
dn 20 (A)
Q 0,045 l/s
dn 20 (A)
Q 0,091 l/s
dn 25 (A)
Q 0,162 l/s
dn 25 (A)
Q 0,297 l/s
KL101
ΦHL=879 W
Δp=7300 Pa
KL102
ΦHL=879 W
Δp=7300 Pa
KL103
ΦHL=879 W
Δp=7300 Pa
KL105
ΦHL=879 W
Δp=7300 Pa
KL104
ΦHL=879 W
Δp=7300 Pa
KL106
ΦHL=1380 W
Δp=2900 Pa
ZAW KUL
dn 20
1 4006 1X
dn 15
1 2137 0X
dn 20
n 45
n 70
n 35
dn 20 (A)
Q 0,045 l/s
dn 20 (A)
Q 0,071 l/s
ZAW KUL
dn 15
dn 15
1 2137 0X
dn 15
dn 15
Q 0,036
ZAW KUL
dn 50
ZAW KUL
dn 80
dn 80 (A)
Q 2,830 l/s
dn 80 (A)
Q 2,749 l/s
dn 25 (A)
Q 0,161 l/s
dn 65 (A)
Q 2,589 l/s
dn 25 (A)
Q 0,161 l/s
dn 65 (A)
Q 2,428 l/s
A-A
KL19
ΦHL=1562 W
Δp=3600 Pa
KL21
ΦHL=1562 W
Δp=3600 Pa
KL20
ΦHL=1562 W
Δp=3600 Pa
KL22
ΦHL=1562 W
Δp=3600 Pa
KL23
ΦHL=1562 W
Δp=3600 Pa
KL24
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
dn 25 (A)
Q 0,127 l/s
dn 20 (A)
Q 0,093 l/s
dn 25 (A)
Q 0,139 l/s
dn 25 (A)
Q 0,185 l/s
dn 32 (A)
Q 0,312 l/s
dn 32 (A)
Q 0,393 l/s
KL1
ΦHL=900 W
Δp=4100 Pa
KL2
ΦHL=1562 W
Δp=3600 Pa
KL6
ΦHL=900 W
Δp=4100 Pa
KL5
ΦHL=900 W
Δp=4100 Pa
KL4
ΦHL=900 W
Δp=4100 Pa
KL3
ΦHL=900 W
Δp=4100 Pa
KL7
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,046 l/s
n 50
G

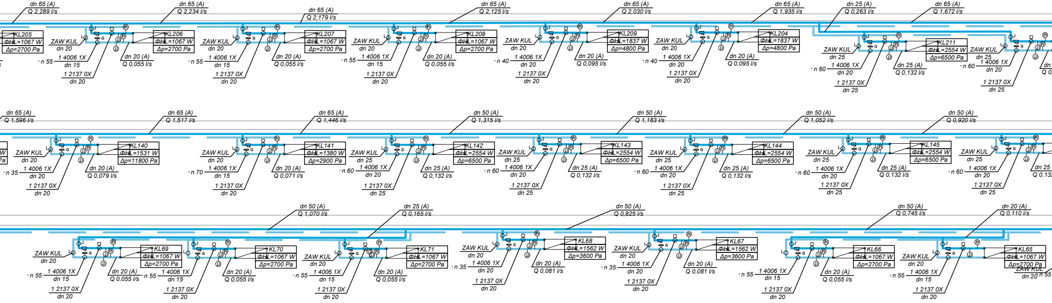

dn 32 (A)
Q 0,333 l/s
CHW1
ΦHL=700 W
Δp=5000 Pa
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL107
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
dn 32 (A)
Q 0,379 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 32 (A)
Q 0,424 l/s
KL108
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL109
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A)
Q 0,062 l/s
dn 32 (A)
Q 0,486 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL110
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
dn 40 (A)
Q 0,531 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL111
ΦHL=1531 W
Δp=11800 Pa
dn 20 (A)
Q 0,079 l/s
dn 40 (A)
Q 0,610 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL112
ΦHL=1531 W
Δp=11800 Pa
dn 20 (A)
Q 0,079 l/s
ZAW KUL
dn 20
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL113
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
n 65
dn 65 (A)
Q 2,347 l/s
dn 25 (A)
Q 0,161 l/s
KL25
ΦHL=1562 W
Δp=3600 Pa
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL26
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
dn 65 (A)
Q 2,187 l/s
dn 20 (A)
Q 0,110 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL27
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL28
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
dn 65 (A)
Q 2,077 l/s
dn 20 (A)
Q 0,110 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL29
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL30
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
dn 65 (A)
Q 1,967 l/s
dn 25 (A)
Q 0,161 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL31
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL32
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
n 35
dn 32 (A)
Q 0,473 l/s
KL8
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL9
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
dn 32 (A)
Q 0,519 l/s
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL10
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
dn 25 (A)
Q 0,161 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL11
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 40 (A)
Q 0,680 l/s
KL12
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
dn 50 (A)
Q 0,761 l/s
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL13
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
dn 50 (A)
Q 0,807 l/s
ZAW KUL
dn 20
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL14
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
dn 50 (A)
Q 0,855 l/s
ZAW KUL
dn 20
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL15
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
dn 50 (A)
Q 0,902 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL16
ΦHL=900 W
Δp=4100 Pa
dn 20 (A)
Q 0,046 l/s
dn 50 (A)
Q 0,948 l/s
ZAW KUL
dn 20
1 2137 0X
dn 20

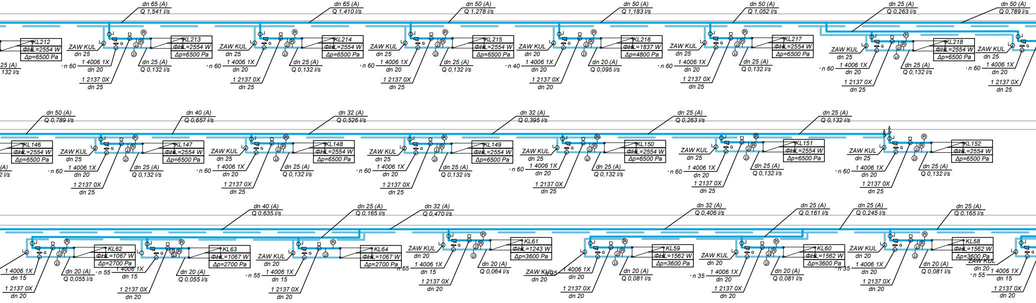

+3,24
dn 50 (A) Q 0,797 l/s
dn 65 (A) Q 1,909 l/s
W KUL
n 20
4006 1X
dn 15
1 2137 0X
dn 20
KL114
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
ZAW KUL
dn 50
dn 50 (A) Q 1,111 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL115
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
dn 50 (A) Q 1,049 l/s
ZAW KUL
dn 20
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL116
ΦHL=900 W
Δp=4100 Pa
dn 20 (A) Q 0,046 l/s
dn 50 (A) Q 1,003 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL117
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
dn 50 (A) Q 0,941 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL118
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
dn 50 (A) Q 0,879 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL119
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
dn 50 (A) Q 0,816 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
KL120
ΦHL=1207 W
Δp=7700 Pa
dn 20 (A) Q 0,062 l/s
dn 65 (A) Q 1,806 l/s
+0,00
4006 1X
dn 20
2137 0X
dn 20
KL33
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
dn 65 (A) Q 1,726 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL35
ΦHL=1531 W
Δp=11800 Pa
dn 20 (A) Q 0,079 l/s
-3,30
dn 25 (A) Q 0,158 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL34
ΦHL=1531 W
Δp=11800 Pa
dn 20 (A) Q 0,079 l/s
dn 65 (A) Q 1,568 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL36
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
dn 25 (A) Q 0,161 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL37
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
dn 65 (A) Q 1,407 l/s
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL38
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
dn 50 (A) Q 1,247 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL39
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL40
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
dn 50 (A) Q 1,075 l/s
A-A
KL17
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A) Q 0,081 l/s
ZAW KUL
dn 20
n 50
1 4006 1X
dn 15
1 2137 0X
dn 20
KL18
ΦHL=900 W
Δp=4100 Pa
dn 20 (A) Q 0,046 l/s


dn 50 (A)
Q 0,754 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,045 l/s
KL121
ΦHL=879 W
Δp=7300 Pa
dn 40 (A)
Q 0,709 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,045 l/s
KL122
ΦHL=879 W
Δp=7300 Pa
dn 40 (A)
Q 0,664 l/s
ZAW KUL
dn 20
n 65
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,062 l/s
KL123
ΦHL=1207 W
Δp=7700 Pa
dn 40 (A)
Q 0,602 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,045 l/s
KL124
ΦHL=879 W
Δp=7300 Pa
dn 40 (A)
Q 0,556 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,079 l/s
KL125
ΦHL=1531 W
Δp=11800 Pa
dn 32 (A)
Q 0,478 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,045 l/s
KL126
ΦHL=879 W
Δp=7300 Pa
dn 32 (A)
Q 0,432 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,045 l/s
KL127
ΦHL=879 W
Δp=7300 Pa
n 4
dn 50 (A)
Q 1,086 l/s
ZAW KUL
dn 20
35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,081 l/s
KL41
ΦHL=1562 W
Δp=3600 Pa
dn 50 (A)
Q 1,005 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,081 l/s
KL42
ΦHL=1562 W
Δp=3600 Pa
dn 50 (A)
Q 0,925 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,081 l/s
KL43
ΦHL=1562 W
Δp=3600 Pa
dn 50 (A)
Q 0,846 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,079 l/s
KL44
ΦHL=1531 W
Δp=11800 Pa
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,081 l/s
KL45
ΦHL=1562 W
Δp=3600 Pa
dn 50 (A)
Q 0,766 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,081 l/s
KL46
ΦHL=1562 W
Δp=3600 Pa
dn 40 (A)
Q 0,685 l/s
ZAW KUL
dn 20
n 70
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,071 l/s
KL47
ΦHL=1380 W
Δp=2900 Pa
n
G
PI
TI


ZAW KUL KO
dn 80
ZAW KUL KO
dn 100
ZAW KUL KO
dn 100
+ 9,60
ZAW KUL KO
dn 100
dn 100 (A)
Q 4,642 l/s
+ 6,70
dn 100 (A)
Q 5,927 l/s
dn 100 (A)
Q 5,811 l/s
ZAW KUL
dn 65
dn 80 (A)
Q 3,372 l/s
dn 65 (A)
Q 1,882 l/s
1 2137 0X
dn 50
ZAW KUL KO
dn 65
1 2137 0X
dn 50
ZAW KUL KO
dn 80
dn 100 (A)
Q 4,642 l/s
NW1
ΦHL=36490 W
Δp=0 Pa
n 9.8
1 4218 8X
dn 65
NW2
ΦHL=53680 W
Δp=0 Pa
n 8.7
1 4218 8X
dn 80
dn 80 (A)
Q 2,769 l/s
+ 3,30
PS
ZAW KUL
dn 65
ZAW KUL
dn 65
dn 80 (A)
Q 3,902 l/s
dn 65 (A)
Q 1,442 l/s
dn 32 (A)
Q 0,387 l/s
dn 32 (A)
Q 0,342 l/s
dn 25 (A)
Q 0,297 l/s
dn 25 (A)
Q 0,251 l/s
dn 25 (A)
Q 0,206 l/s
dn 25 (A)
Q 0,161 l/s
dn 20 (A)
Q 0,080 l/s
dn 65 (A)
Q 1,909 l/s
ZAW KUL
dn 20
5
1 4006 1X
dn 15
1 2137 0X
dn 20
KL128
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL129
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL130
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL131
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
ZAW KUL
dn 20
n 45
1 4006 1X
dn 15
1 2137 0X
dn 20
KL132
ΦHL=879 W
Δp=7300 Pa
dn 20 (A)
Q 0,045 l/s
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL133
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL134
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
+ 0,00
ZAW KUL
dn 80
ZAW KUL
dn 65
dn 40 (A)
Q 0,614 l/s
dn 25 (A)
Q 0,161 l/s
dn 32 (A)
Q 0,453 l/s
dn 25 (A)
Q 0,161 l/s
dn 25 (A)
Q 0,292 l/s
dn 25 (A)
Q 0,161 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL49
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL48
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL51
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL50
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL52
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL53
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL54
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
- 3,30


ZAW KUL KO dn 150
1 4218 8X dn 100 n 13.3
1 4218 8X dn 100 n 3.4
1 4218 8X dn 100 n 8.8
1 4218 8X dn 80 n 8.0
dn 80 (A) Q 4,050 l/s
dn 150 (A) Q 20,429 l/s
ZAW KUL KO dn 150
Punkt pracy Δp 0,736 bar Q 73,55 m³/h
dn 65 (A) Q 2,570 l/s
INNE ŹRÓDŁO CIEPŁA C θs,H=7,0 °C ΔθH=5,0 K ΔpHS=2000 Pa
+10,70
ZAW KUL KO dn 80
1 2137 0X dn 50
dn 80 (A) Q 4,051 l/s
NW3 ΦHL=78680 W Δp=0 Pa
1 4218 8X dn 80 n 8.0
+7,04
dn 65 (A) Q 2,509 l/s
KL201 ΦHL=1067 W Δp=2700 Pa
ZAW KUL dn 20
n 55 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,055 l/s
dn 65 (A) Q 2,454 l/s
KL202 ΦHL=1067 W Δp=2700 Pa
ZAW KUL dn 20
n 55 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,055 l/s
dn 65 (A) Q 2,399 l/s
KL203 ΦHL=1067 W Δp=2700 Pa
ZAW KUL dn 20
n 55 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,055 l/s
dn 65 (A) Q 2,344 l/s
KL204 ΦHL=1067 W Δp=2700 Pa
ZAW KUL dn 20
n 55 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,055 l/s
ZAW KUL dn 20
n 55 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,055 l/s
dn 65 (A) Q 1,925 l/s
dn 65 (A) Q 1,844 l/s
KL135 ΦHL=1562 W Δp=3600 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,081 l/s
dn 65 (A) Q 1,766 l/s
KL136 ΦHL=1531 W Δp=11800 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,079 l/s
dn 65 (A) Q 1,720 l/s
KL137 ΦHL=879 W Δp=7300 Pa
ZAW KUL dn 20
n 45 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,045 l/s
dn 65 (A) Q 1,641 l/s
KL138 ΦHL=1531 W Δp=11800 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,079 l/s
KL139 ΦHL=879 Δp=7300
ZAW KUL dn 20
n 45 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,045 l/s
dn 65 (A) Q 1,438 l/s
dn 65 (A) Q 1,392 l/s
KL76 ΦHL=900 W Δp=4100 Pa
ZAW KUL dn 20
n 50 1 4006 1X dn 15
1 2137 0X dn 20
dn 20 (A) Q 0,046 l/s
KL75 ΦHL=1562 W Δp=3600 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,081 l/s
dn 50 (A) Q 1,312 l/s
dn 25 (A) Q 0,161 l/s
KL74 ΦHL=1562 W Δp=3600 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,081 l/s
KL73 ΦHL=1562 W Δp=3600 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,081 l/s
dn 50 (A) Q 1,151 l/s
KL72 ΦHL=1562 W Δp=3600 Pa
ZAW KUL dn 20
n 35 1 4006 1X dn 20
1 2137 0X dn 20
dn 20 (A) Q 0,081 l/s


dn 65 (A)
Q 2,289 l/s
dn 65 (A)
Q 2,234 l/s
dn 65 (A)
Q 2,179 l/s
dn 65 (A)
Q 2,125 l/s
dn 65 (A)
Q 2,030 l/s
dn 65 (A)
Q 1,935 l/s
dn 25 (A)
Q 0,263 l/s
dn 65 (A)
Q 1,672 l/s
KL205
ΦHL=1067 W
Δp=2700 Pa
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,055 l/s
KL206
ΦHL=1067 W
Δp=2700 Pa
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,055 l/s
KL207
ΦHL=1067 W
Δp=2700 Pa
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,055 l/s
KL208
ΦHL=1067 W
Δp=2700 Pa
ZAW KUL
dn 20
n 40
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,095 l/s
KL209
ΦHL=1837 W
Δp=4800 Pa
ZAW KUL
dn 20
n 40
1 4006 1X
dn 20
1 2137 0X
dn 20
dn 20 (A)
Q 0,095 l/s
KL204
ΦHL=1837 W
Δp=4800 Pa
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
dn 25 (A)
Q 0,132 l/s
KL211
ΦHL=2554 W
Δp=6500 Pa
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
dn 65 (A)
Q 1,596 l/s
dn 65 (A)
Q 1,517 l/s
dn 65 (A)
Q 1,446 l/s
dn 50 (A)
Q 1,315 l/s
dn 50 (A)
Q 1,183 l/s
dn 50 (A)
Q 1,052 l/s
dn 50 (A)
Q 0,920 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL140
ΦHL=1531 W
Δp=11800 Pa
dn 20 (A)
Q 0,079 l/s
ZAW KUL
dn 20
n 70
1 4006 1X
dn 15
1 2137 0X
dn 20
KL141
ΦHL=1380 W
Δp=2900 Pa
dn 20 (A)
Q 0,071 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL142
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL143
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL144
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL145
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
dn 50 (A)
Q 1,070 l/s
dn 25 (A)
Q 0,165 l/s
dn 50 (A)
Q 0,825 l/s
dn 50 (A)
Q 0,745 l/s
dn 20 (A)
Q 0,110 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL69
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL70
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL71
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL68
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
ZAW KUL
dn 20
n 35
1 4006 1X
dn 20
1 2137 0X
dn 20
KL67
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL66
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL65
ΦHL=1067 W
Δp=2700 Pa
ZAW KUL
dn 20
n 55
G


dn 65 (A)
Q 1,541 l/s
dn 65 (A)
Q 1,410 l/s
dn 50 (A)
Q 1,278 l/s
dn 50 (A)
Q 1,183 l/s
dn 50 (A)
Q 1,052 l/s
dn 25 (A)
Q 0,263 l/s
dn 50 (A)
Q 0,789 l/s
KL212
ΦHL=2554 W
Δp=6500 Pa
25 (A)
132 l/s
ZAW KUL
dn 25
n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
dn 25 (A)
Q 0,132 l/s
KL213
ΦHL=2554 W
Δp=6500 Pa
KL214
ΦHL=2554 W
Δp=6500 Pa
KL215
ΦHL=2554 W
Δp=6500 Pa
n 40
dn 20 (A)
Q 0,095 l/s
KL216
ΦHL=1837 W
Δp=4800 Pa
KL217
ΦHL=2554 W
Δp=6500 Pa
KL218
ΦHL=2554 W
Δp=6500 Pa
dn 50 (A)
Q 0,789 l/s
dn 40 (A)
Q 0,657 l/s
dn 32 (A)
Q 0,526 l/s
dn 32 (A)
Q 0,395 l/s
dn 25 (A)
Q 0,263 l/s
dn 25 (A)
Q 0,132 l/s
KL146
ΦHL=2554 W
Δp=6500 Pa
KL147
ΦHL=2554 W
Δp=6500 Pa
KL148
ΦHL=2554 W
Δp=6500 Pa
KL149
ΦHL=2554 W
Δp=6500 Pa
KL150
ΦHL=2554 W
Δp=6500 Pa
KL151
ΦHL=2554 W
Δp=6500 Pa
KL152
ΦHL=2554 W
Δp=6500 Pa
dn 40 (A)
Q 0,635 l/s
dn 25 (A)
Q 0,165 l/s
dn 32 (A)
Q 0,470 l/s
dn 32 (A)
Q 0,406 l/s
dn 25 (A)
Q 0,161 l/s
dn 25 (A)
Q 0,245 l/s
dn 25 (A)
Q 0,165 l/s
KL62
ΦHL=1067 W
Δp=2700 Pa
1 4006 1X
dn 15
1 2137 0X
dn 20
dn 20 (A)
Q 0,055 l/s
n 55
KL63
ΦHL=1067 W
Δp=2700 Pa
KL64
ΦHL=1067 W
Δp=2700 Pa
n 65
ZAW KUL
dn 20
KL61
ΦHL=1243 W
Δp=3600 Pa
dn 20 (A)
Q 0,064 l/s
n 35
KL59
ΦHL=1562 W
Δp=3600 Pa
dn 20 (A)
Q 0,081 l/s
KL60
ΦHL=1562 W
Δp=3600 Pa
KL58
ΦHL=1562 W
Δp=3600 Pa
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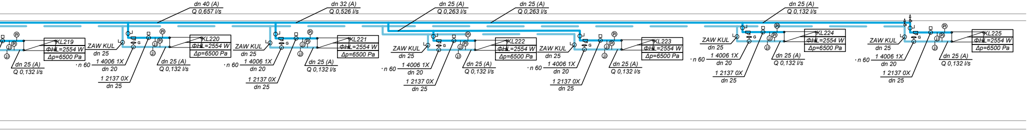
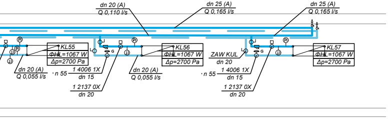

dn 40 (A)
Q 0,657 l/s
dn 32 (A)
Q 0,526 l/s
dn 25 (A)
Q 0,263 l/s
dn 25 (A)
Q 0,263 l/s
dn 25 (A)
Q 0,132 l/s
KL219
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL220
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL221
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL222
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL223
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL224
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
ZAW KUL
dn 25
· n 60
1 4006 1X
dn 20
1 2137 0X
dn 25
KL225
ΦHL=2554 W
Δp=6500 Pa
dn 25 (A)
Q 0,132 l/s
PI
TI
G


dn 20 (A)
Q 0,110 l/s
dn 25 (A)
Q 0,165 l/s
dn 25 (A)
Q 0,165 l/s
KL55
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
· n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL56
ΦHL=1067 W
Δp=2700 Pa
dn 20 (A)
Q 0,055 l/s
ZAW KUL
dn 20
· n 55
1 4006 1X
dn 15
1 2137 0X
dn 20
KL57
ΦHL=1067 W
Δp=2700 Pa
PI
TI
G

LEGENDA

425 / Sluza / 1250W
- numer pomieszczenia
- nazwa pomieszczenia
- obciążenie cieplne pomieszczenia

klimakonwektor kanałowy z kanałami izolowanymi z kratami nawiewną i wywiewną

KL8 Qch=1,54kW *klimakonwektor sufitowy*

KL8 Qch=1,54kW *klimakonwektor ścienny*

CH KL2 Pion chłodniczy instalacji klimakonwektorów

PS *PUNKT STAŁY*

━━━ - inst. chłodu zasilenie- projektowana

- - - - inst. chłodu powrót - projektowana

━━━ - inst. CT zasilenie- projektowana

- - - - inst. CT powrót - projektowana

▬ przejścia rurociągów przez przegrody oddzielenia pożarowego

JEDNOSTKA PROJEKTOWA:
WOJEWÓDZKIE PRZEDSIĘBIORSTWO USŁUG INWESTYCYJNYCH
ul. Tadeusza Wyrzykowskiego 3, 06-400 Ciechanów
www.wpui.cnow.pl, email: biuro@wpui.pl, tel : (23) 672 29 64

ZADANIE:
Budowa nowego budynku z przeznaczeniem na Centrum Zdrowia Psychicznego
wraz z wyposażeniem oraz przebudowa
Kliniki Psychiatrii, Stresu Bojowego i Psychotraumatologii WIM PIB

INWESTOR:
WOJSKOWY INSTYTUT MEDYCZNY PAŃSTWOWY INSTYTUT BADAWCZY
Warszawa 04-141, ul. Szaserów 128

ADRES INWESTYCJI: Warszawa, ul. Szaserów 128, dz. ew. nr. 8/4 z obrębu 3-04-03

BRANŻA: SANITARNA

STADIUM: PROJEKT TECHNICZNY

TREŚĆ RYSUNKU:
INSTALACJA CHŁODU -ROZWINIĘCIE

	PODPIS	
PROJEKTANT mgr inż. Wiesław Kamiński nr upr. Wa/256/01 do projekt. bez ograniczeń w spec. inst. sanitarnych		DATA: 21.11.2025
SPRAWDZIŁ mgr inż. Bartosz Kowalczyk nr upr. MAZ/0515/POOS/06 do projekt. bez ograniczeń w spec. inst. sanitarnych		SKALA: 1:100 NR RYS: IS24