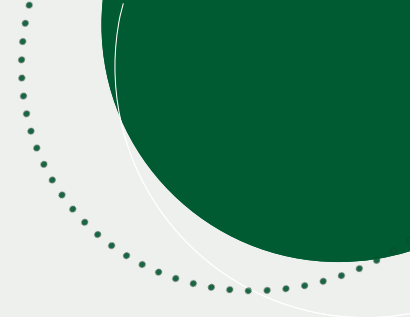
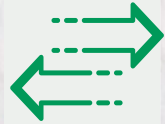


TEMPLATE FOR ENERGY OPTIMIZATION



Date

Company

Project name

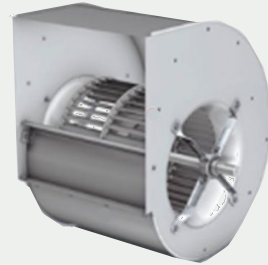
Unit

Manufacturer

Fan type



01



Centrifugal fan

F-IMPELLER

Select



02



Centrifugal fan

B-IMPELLER

Select



03



Centrifugal plug fan

Select



Take a photo of the fan nameplate if possible

Unit type

Existing fan data	Supply	Extract
1 Suction pressure	_____ Pa	_____ Pa
2 Discharge pressure	_____ Pa	_____ Pa
3 Total pressure*	_____ Pa	_____ Pa
4 Airflow*	_____ m ³ /h	_____ m ³ /h
5 Airflow max	_____ m ³ /h	_____ m ³ /h

Template for energy optimization of AHU

Date _____

Company _____

Project name _____

Unit name _____

Manufacturer _____

Fan type _____

Take a photo of the fan and motor nameplate if possible

Existing fan data

	Supply	Extract
1 Suction pressure	_____ Pa	_____ Pa
2 Discharge pressure	_____ Pa	_____ Pa
3 Total pressure*	_____ Pa	_____ Pa
4 Airflow*	_____ m ³ /h	_____ m ³ /h
5 Airflow max	_____ m ³ /h	_____ m ³ /h

Motor data

	Supply	Extract
1 Total power	_____ W	_____ W
2 Rated power	_____ W	_____ W
3 Rated torque	_____ Nm	_____ Nm
4 Rated current/power factor	_____ A	_____ A

Fan compartment dimensions

	Supply	Extract
1 Length	_____ mm	_____ mm
2 Width	_____ mm	_____ mm
3 Height	_____ mm	_____ mm
4 Fan discharge (Inlet or outlet)	_____ mm	_____ mm
5 Connecting duct inlet or outlet	_____ mm	_____ mm
6 Discharge orientation (Horizontal/Vertical)	_____	_____

Operating hours

	Supply	Extract
1 Operating hours	_____ h/yr	_____ h/yr
2 Weekly use	_____ h/week	_____ h/week

Distance from unit to component/obstacle after fan _____

Provided data

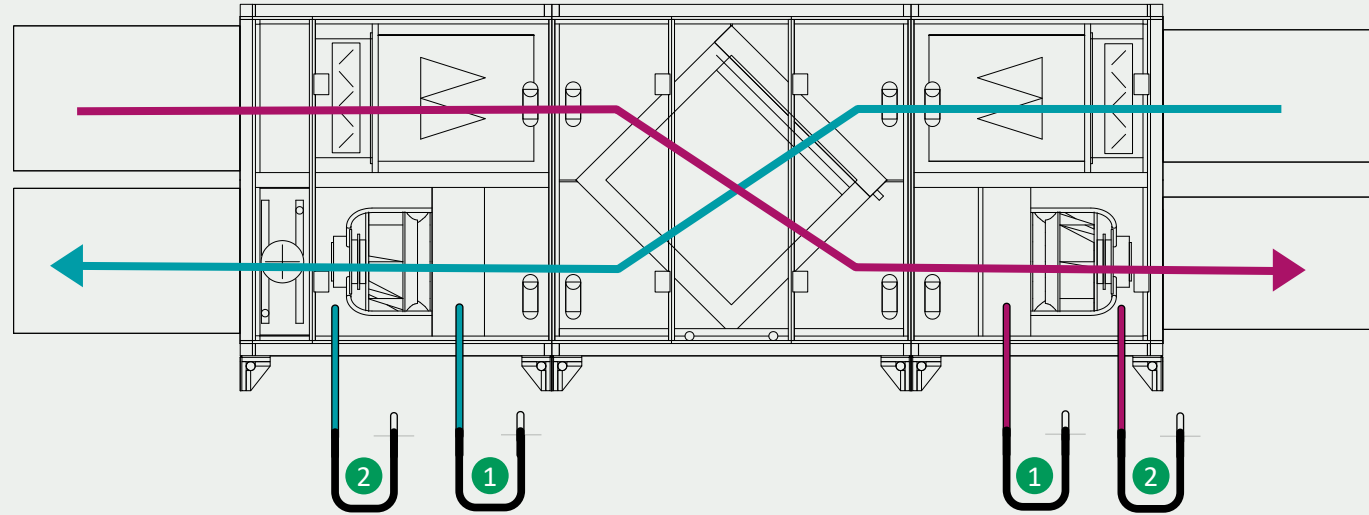
1 Airflow based on 1 function

2 Airflow adjustment

3 Cooling/heating coil or filter

* For other data is available, total pressure and airflow is an absolute minimum. Other units allowed include m³/s, ft³/min, mmWC and inWC.

Existing fan data – centrifugal plug fans



Supply

Extract

1 Suction pressure _____ Pa

_____ Pa

2 Discharge pressure _____ Pa

_____ Pa

Appearance in terms of fan position, single/double deck, and configuration of components may differ depending on manufacturer and unit type

If no other data is available, total pressure and airflow is an absolute minimum. Other units allowed include m³/s, ft³/min, mmWC and inWC.

Unit type

Existing fan data		Supply	Extract
1	Suction pressure	_____ Pa	_____ Pa
2	Discharge pressure	_____ Pa	_____ Pa
3	Total pressure*	_____ Pa	_____ Pa
4	Airflow*	_____ m ³ /h	_____ m ³ /h
5	Airflow max	_____ m ³ /h	_____ m ³ /h

Template for energy optimization of AHU

NOVENCO
SCHAKO GROUP

Date: _____
 Company: _____
 Project name: _____
 Unit name: _____
 Manufacturer: _____
 Fan type: _____

Take a photo of the fan and motor nameplate if possible

Existing fan data		Supply	Extract
1	Suction pressure	_____ Pa	_____ Pa
2	Discharge pressure	_____ Pa	_____ Pa
3	Total pressure*	_____ Pa	_____ Pa
4	Airflow*	_____ m ³ /h	_____ m ³ /h
5	Airflow max	_____ m ³ /h	_____ m ³ /h

Motor data

1	2	3	4	5
Rated power	_____ kW	_____ kW	_____ kW	_____ kW
Rated power	_____ kW	_____ kW	_____ kW	_____ kW
Rated torque	_____ Nm	_____ Nm	_____ Nm	_____ Nm
Rated current/power factor	_____ A	_____ A	_____ A	_____ A

Fan compartment dimensions

1	2	3	4	5
Length	_____ mm	_____ mm	_____ mm	_____ mm
Width	_____ mm	_____ mm	_____ mm	_____ mm
Height	_____ mm	_____ mm	_____ mm	_____ mm
Fan discharge (Inlet or 0)	_____ mm	_____ mm	_____ mm	_____ mm
Connecting duct (Inlet or 0)	_____ mm	_____ mm	_____ mm	_____ mm
Discharge orientation (Horizontal/Vertical)	_____	_____	_____	_____

Operating hours

1	2	
Operating hours	_____ h/yr	_____ h/yr
Weekly use	_____ days/week	_____ days/week

Distance from unit to component/obstacle after fan

Provided data

RP based on T junction

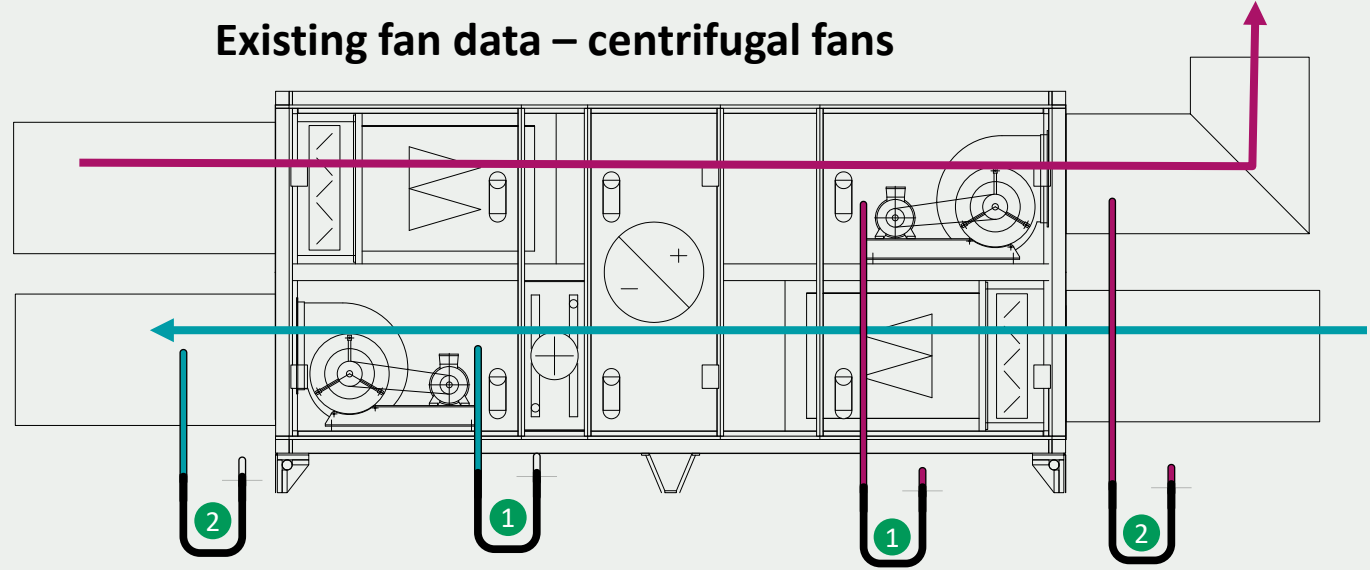
RP/LS selection

RP/LS selection

Cooling/heating coil or filter

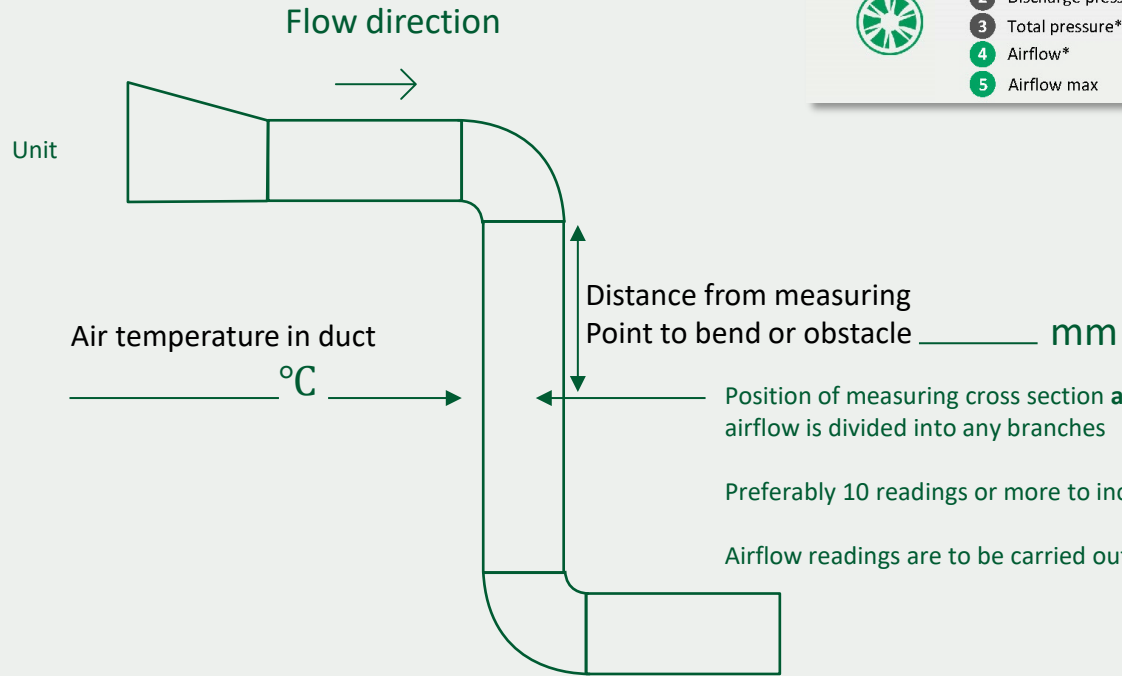
* For other data: available, total pressure and airflow in absolute minimum
 Other units allowed include m³/h, CFM, mmSP, and static

Existing fan data – centrifugal fans



	Supply	Extract
1	Suction pressure _____ Pa	_____ Pa
2	Discharge pressure _____ Pa	_____ Pa

Information on airflow



Existing fan data	Supply	Extract
1 Suction pressure	_____ Pa	_____ Pa
2 Discharge pressure	_____ Pa	_____ Pa
3 Total pressure*	_____ Pa	_____ Pa
4 Airflow*	_____ m ³ /h	_____ m ³ /h
5 Airflow max	_____ m ³ /h	_____ m ³ /h

Template for energy optimization of AHU

Date _____

Company _____

Project name _____

Unit name _____

Manufacturer _____

Fan type _____

Take a photo of the fan and motor nameplate if possible

Existing fan data	Supply	Extract
1 Suction pressure	_____ Pa	_____ Pa
2 Discharge pressure	_____ Pa	_____ Pa
3 Total pressure*	_____ Pa	_____ Pa
4 Airflow*	_____ m ³ /h	_____ m ³ /h
5 Airflow max	_____ m ³ /h	_____ m ³ /h

Motor data

1 Rated power _____ kW

2 Rated power _____ kW

3 Rated torque _____ Nm

4 Rated current/power factor _____ A

Fan compartment dimensions

1 Length _____ mm

2 Width _____ mm

3 Height _____ mm

4 Fan discharge (Inlet or outlet) _____ mm

5 Connecting duct (Inlet or outlet) _____ mm

6 Discharge orientation (Horizontal/Vertical) _____

Operating hours

1 Operating hours _____ h/yr

2 Weekly duty cycle _____ h/week

Distance from unit to component/obstacle after fan _____ mm

Provided bend _____

90° bend or T junction _____

90° elbow _____

Cooling/heating coil or filter _____

Position of measuring cross section **approx. in the middle** of the longest possible stretch of ductwork – before the airflow is divided into any branches

← 4 Measured airflow _____ m³/h

Preferably 10 readings or more to increase overall accuracy

Airflow readings are to be carried out under the same operating conditions as the pressure readings

Is the unit operating with constant or variable airflow?

Select Variable (VAV) Konstant (CAV)

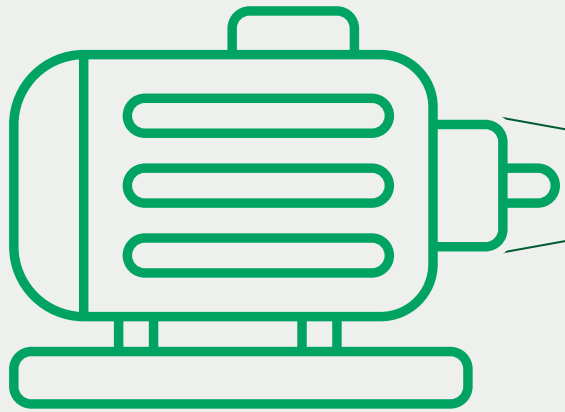
CUSTOMER REQUEST IF APPLICABLE:

5 Max. airflow – in case of future expansions etc. _____ m³/h

Information on electric motor

Motor data

- 6 Input power _____ kW
- 7 Rated power _____ kW
- 8 Rated voltage _____ V
- 9 Rated current/power factor _____ A



Three-phase induction motor						
Frame MS2 801-2 B3			NO. 1405037211			
INS.CL.	F	IP 55	S1	VSD Use Only	2014.5	
V Δ/Y	Hz	kW	rpm	A Δ/Y	cos(φ)	
230/400	50	0.75	2840	2.93/1.69	0.81	
276/480	60	0.9	3410	2.93/1.69	0.81	
IE2 - 77.4 (100%)			77.5 (75%)		74.6 (50%)	

Template for energy optimization of AHU **NOVENCO**

Date _____
 Company _____
 Project name _____
 Unit name _____
 Manufacturer _____
 Fan type _____

Take a photo of the fan and motor nameplate if possible

Existing fan data

	Supply	Extract
1 Suction pressure	Pa	Pa
2 Discharge pressure	Pa	Pa
3 Total pressure*	Pa	Pa
4 Airflow**	m³/s	m³/s
5 Airflow max	m³/s	m³/s

Motor data

6 Input power	kW	kW
7 Rated power	kW	kW
8 Rated voltage	V	V
9 Rated current/power factor	A	A

Fan compartment dimensions

10 Length	mm	mm
11 Width	mm	mm
12 Height	mm	mm
13 Fan discharge (Dfan or d)	mm	mm
14 Connection duct (Dduct or d)	mm	mm
15 Discharge orientation (Horizontal/Vertical)	Horizontal	Vertical

Operating hours

16 Operating hours	h/yr	h/yr
17 Weekly use	h/week	h/week

Distance from unit to component/obstacle after fan _____

Provided data

AWP based on 1 function

AWP utilization

Cooling/heating coil or filter

* For other data: available, total pressure and velocity in absolute minimum
 Other units allowed: include m³/h, ft³/min, mmHg, and mmWC



Take a photo of the motor nameplate if possible

From nameplate:

- 6 Input power (measured with 3-phase powermeter).
If a frequency drive is already installed, input power an is to be measured incl. the drive

_____ kW (may by read off the frequency drive)


7 Rated power _____ kW

8 Rated voltage _____ Δ/Y V

9 Rated current/power factor _____ Δ/Y A

Dimensions

Fan compartment dimensions



10 Length	_____ mm	_____ mm
11 Width	_____ mm	_____ mm
12 Height	_____ mm	_____ mm
13 Fan discharge (WxH or Ø)	_____ mm	_____ mm
14 Connecting duct (WxH or Ø)	_____ mm	_____ mm

Template for energy optimization of AHU

Date _____

Company _____

Project name _____

Unit name _____

Manufacturer _____

Fan type _____

Take a photo of the fan and motor nameplate if possible

	Supply	Extract
Existing fan data		
1 Suction pressure	_____ Pa	_____ Pa
2 Discharge pressure	_____ Pa	_____ Pa
3 Total pressure*	_____ Pa	_____ Pa
4 Airflow**	_____ m ³ /h	_____ m ³ /h
5 Airflow max	_____ m ³ /h	_____ m ³ /h
Motor data		
6 Rated power	_____ kW	_____ kW
7 Rated power	_____ kW	_____ kW
8 Rated torque	_____ N	_____ N
9 Rated current/power factor	_____ A	_____ A
Fan compartment dimensions		
10 Length	_____ mm	_____ mm
11 Width	_____ mm	_____ mm
12 Height	_____ mm	_____ mm
13 Fan discharge (WxH or Ø)	_____ mm	_____ mm
14 Connecting duct (WxH or Ø)	_____ mm	_____ mm
Discharge orientation (horizontal/vertical)	_____	_____
Operating hours		
10 Operating hours	_____ h/yr	_____ h/yr
11 Weekly use	_____ h/week	_____ h/week

Distance from unit to component/obstacle after fan _____ mm

Round/bend: _____

90° bend or T junction: _____

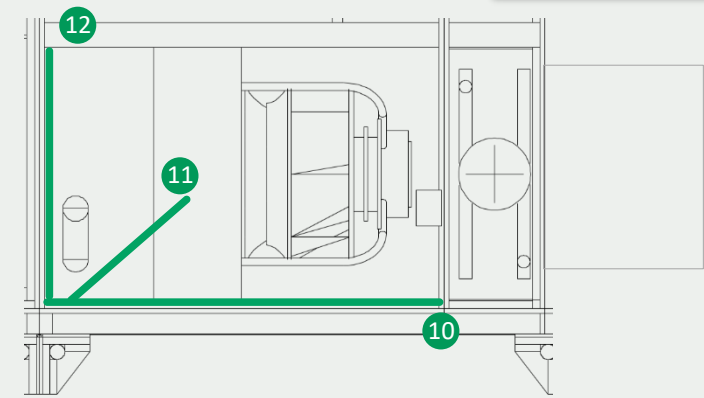
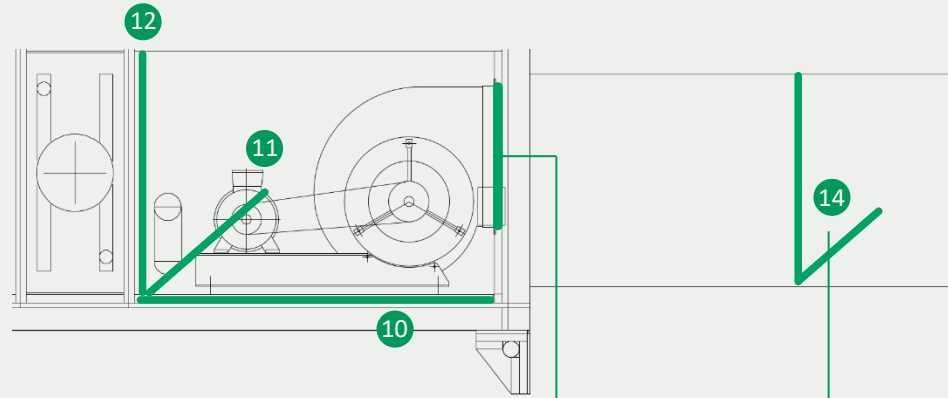
Baffle/obstacle: _____

Cooling/heating coil or filter: _____

* For other data: available, total pressure and velocity in absolute minimum
Other units allowed: include m³/s, ft³/min, mbar, and etc.

Fan section dimensions

10 Length	_____ mm
11 Width	_____ mm
12 Height	_____ mm



Fan discharge orientation

Select

Horizontal →


Vertical ↑↓





14 Connecting duct (WxH or Ø) _____ mm

13 Fan outlet (WxH) _____ mm

Operating hours

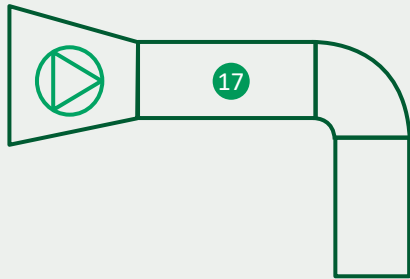

Operating hours
 15 Operating hours _____ h/yr
 16 Electricity rate _____ Currency/kWh

Template for energy optimization of AHU 
 Date _____
 Company _____
 Project name _____
 Unit name _____
 Manufacturer _____
 Fan type _____
 Take a photo of the fan and motor nameplate if possible 
 Existing fan data
 1 Suction pressure _____ Pa
 2 Discharge pressure _____ Pa
 3 Total pressure* _____ Pa
 4 Airflow* _____ m³/s
 5 Airflow max _____ m³/s
 Motor data
 6 Rated power _____ kW
 7 Rated power _____ kW
 8 Rated torque _____ Nm
 9 Rated current/power factor _____ A
 Fan compartment dimensions
 10 Length _____ mm
 11 Width _____ mm
 12 Height _____ mm
 13 Fan discharge (Inlet or outlet) _____ mm
 14 Connecting duct (Inlet or outlet) _____ mm
 15 Discharge orientation (Horizontal/Vertical) _____
 Operating hours
 16 Operating hours _____ h/yr
 17 Electricity rate _____ Currency/kWh
 Distance from unit to component/obstacle after fan _____ mm
 Rounded bend 90° bend or T-junction Baffle silencer Cooling/heating coil or filter
 Select Select Select Select
* For other data, if available, total pressure and airflow in absolute minimum
 Other units allowed include m³/h, CFM/min, mmSP, and mmWC

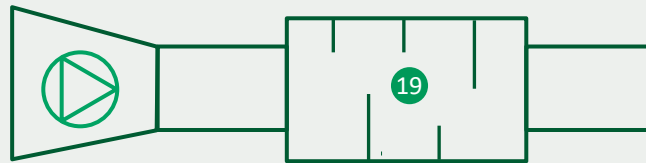
Components after the fan

Distance from fan to component _____ mm

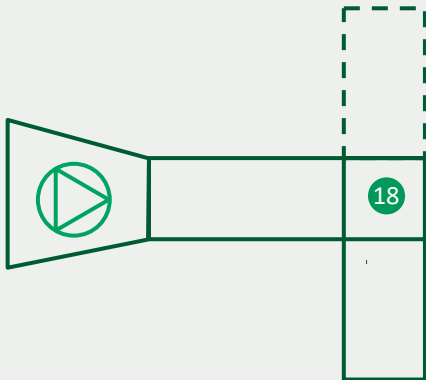
Rounded bend
Select



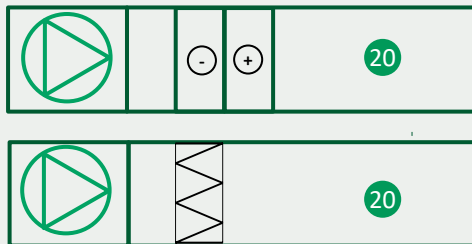
Baffle silencer
Select



90° bend or T-junction
Select



Cooling/heating coil or filter
Select



Rounded bend 17 Select
 90° bend or T-junction 18 Select
 Baffle silencer 19 Select
 Cooling/heating coil or filter 20 Select