

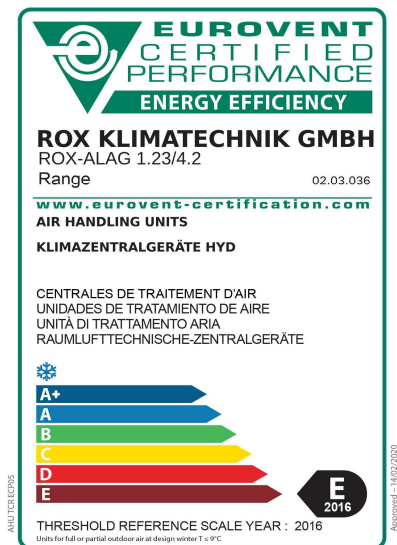
Datasheet: 02037560
Project: Mc Donalds DK
Kalundborg
Location:
Unit: Kitchen

Position: 756002
Side: 1 by 8
Date: 23.07.2025
Tender Position:



Clerk: S.Reifenröther
Construction: HYD S Outside installation, VDI
6022
Base Frame: reinforced 120 mm, 224,55 kg
Base Frame top unit: Without
Total Weight: 1114 kg
Thermal Decoupling: T2/TB4
CAL (R)@-400 Pa: 0,327 dm³/(sm²)
CAL (R)@+400 Pa: 0,403 dm³/(sm²)
Accessories: Roof overhang 100mm
Transport Steel Pipes
insulation strips

Cert. No: 02.03.036
Efficiency Factor Winter: 1,00
Efficiency Factor Summer: 1,00
Reference city: DK-Hvide Sande
Dry bulb temperature: 25,30
Wet bulb temperature: 20,20
Dew point temperature: 17,80



Datasheet:	02037560	Position:	756002
Project:	Mc Donalds DK Kalundborg	Side:	2 by 8
Location:		Date:	23.07.2025
Unit:	Kitchen	Tender Position:	



Technical Data Supply Air

Outside Metal Sheet:	mm	1,0 galvanized coated RAL 9002	Unit Size:	Special
Inside Metal Sheet:	mm	1,0 galvanized	Position of Access Side:	Left
Inside Floor Metal Sheet:	mm	53,0 galvanized	Position of Piping Side:	Left
Wall Thickness:	mm	53,0 galvanized	Insulation Roof/Floor:	Mineral Wool 99kg/m³
Dimensions (L x W x H):	mm	3900x1046x825	Insulation Walls:	Mineral Wool 99kg/m³
Air velocity:	m/sec	1,67	Class of Velocity:	V2
Weight:	kg	998	Design:	VDI 6022

(SUP) Air Inlet Section	GSC/GSC/GS	Weight: 93 kg	Length: 494 mm	Pressure Drop: 20 Pa
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Connection:

Layer	Roof
Material:	galvanized
Design:	Damping Connection VDI6022
Potential Equalisation:	Yes

Damper Size:

Assembly:	Inside
Material:	Aluminium
Design:	Gear
Tightness:	Class 2
Shaft Position:	Inside
Actuator:	Open/Close 24V
Dimensions (W x H x D):	687 x 314 x 115

Dimensions (W x H)	687 x 314
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Grating:	Without
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Design:	Access Door
Lockers:	Lockers
Hinges:	3D-Hinges

Condensate Trough:	RAL/V2A (AISI304)
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Accessories

Item Number	Description	Weight
	Door locker	

Additional air duct components

1x	Straight section 762mm x 314mm x 700mm
1x	Straight section 762mm x 314mm 1000mm slanted with grid as suction side
1x	90°duct elbow 762mm x 314mm

Datasheet: 02037560
Project: Mc Donalds DK Kalundborg
Location:
Unit: Kitchen
Position: 756002
Side: 3 by 8
Date: 23.07.2025
Tender Position:



(SUP) Filter		GSC/GSC/GS	Weight: 76 kg	Length: 605 mm	Pressure Drop: 135 Pa
Brand:	Rox		Filter Maintenance:	Clamp Rail	
Spare Filter:	No		Frame:	V2A (AISI304)	
			Manometer:	DPA2500 with display	
1st Filter step					
Filter Type:	Bag Filter short		Energy Efficiency Class:	C	
Filter Class EN779:2012:	F7		Filter Surface:	m²	6,5
Filter Class ISO16890:	ePM1 60%		Medium:	Glass Fibre	
ΔP Initial:	Pa	71			
ΔP End:	Pa	200			
Max. Pressure Drop:	Pa	250			
ΔP Dim:	Pa	135			
Type/Size/Quantity	Hi-Flo XLT 7/370 50+		592*592*370 mm	1 Piece	
	Hi-Flo XLT 7/370 50+		287*592*370 mm	1 Piece	
Design:	Access Door		Condensate Trough:	RAL/V2A (AISI304)	
Lockers:	Lockers		Condensate Drain:	Yes	
Hinges:	3D-Hinges				
Accessories					
Item Number	Description			Weight	
	Siphon SN				
	Door locker				

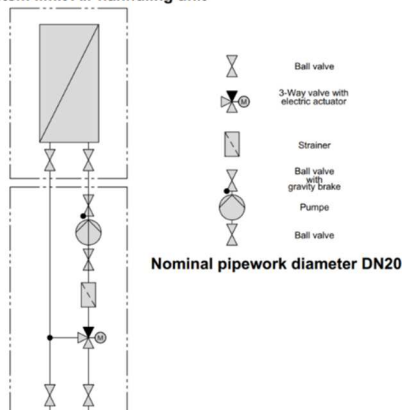
(SUP) Heat recovery	GSC/GS/GS	Weight: 62 kg	Length: 660 mm	Pressure Drop: 0 Pa
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Empty section for run around Coil system heat exchanger

Design: Fixed Panel

(SUP) Piping Chamber	GSC/GS/GS	Weight: 42 kg	Length: 425 mm	Pressure Drop: 0 Pa
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System limit Air hanhdling unit



Warm Water Control group.
 Piped according to the following scheme and piped to the outside on the operating side through a wide profile.
 Ball valve in DN 20 on the outside of the appliance on the supply and return lines.
 Pipe cross section DN20

2x Kugelhahn DN25 – 1"
 2x Kugelhahn DN20 – 3/4"
 1x Schmutzfänger DN20 – 3/4"
 1x 3-Wege Ventil
 1x Elektrischer Stellantrieb VA500C.1

Design: Access Panel
Lockers: Lockers

Datasheet:	02037560	Position:	756002
Project:	Mc Donalds DK Kalundborg	Side:	4 by 8
Location:		Date:	23.07.2025
Unit:	Kitchen	Tender Position:	



(SUP) Heater		GSC/GS/GS	Weight: 68 kg	Length: 445 mm	Pressure Drop: 49 Pa
Brand:		Rox	Type:		W / 27 / 701 / 3 R / 11 K / 2,9 Cu,9.5x0.50/Al-L1
Pipes:		Copper/Aluminium	Weight Heat Exchanger:	kg	16
Fin:		Aluminium	Medium		
Collector:		Copper	Heat Transfer Medium:		Water glycol 34%
Frame:		Galvanized Steel	Flow-Rate:	m³/h	1,43
Separation (A x B):	mm	22x25	Temp. In:	°C	50
Quantity Pipe Rows:		2	Temp. Out:	°C	30,00
Fin Distance:	mm	2,9	Charge:	l	5
Connections:		Straight	Pressure Drop:	kPa	12,2
Connection Inlet:		DN 25	Medium Velocity:	m/s	0,58
Connection Outlet:		DN 25	Air		
Finned height:	mm	675	Air Volume:	m³/h	4000
Finned width:	mm	701	Temp. In:	°C	-12,00
Pressure Stage:			Temp. Out:	°C	10,00
Freeze protection:	°C	-20	Pressure Drop:	Pa	49
Frost Protection Support Frame:		Fixing eyelets	Air velocity:	m/s	2,4
			Surface Reserve:	%	10,31
			Capacity:	kW	29,62
Design:		Access Panel			
Lockers:		Lockers			

Datasheet: 02037560 Position: 756002
 Project: Mc Donalds DK Side: 5 by 8
 Location: Kalundborg Date: 23.07.2025
 Unit: Kitchen Tender Position:



(SUP) Cooler/Heater		GSC/GS/GS	Weight: 483 kg	Length: 230 mm	Pressure Drop: 95 Pa		
Brand:		Rox	Type:		DV / 20 / 723 / 6 R / 10 K / 3.1 Cu,12x0.70/Al-L1		
Pipes:		Copper 9,5x0,5	Weight Heat Exchanger:	kg	26,1		
Fin:		Aluminium	<u>Medium</u>				
Collector:		Copper	Refrigerant:		R32		
Frame:		Aluminium	Flow-Rate:	kg/h	357,4		
Separation (A x B):	mm	22x25	Evaporation temperature:	°C	8,5		
Quantity Pipe Rows:		6	Condensation temperature:	°C	45		
Number of Circuits:		12	Charge:	l	7		
Fin Distance:	mm	3,0	Pressure Drop:	kPa	103		
Connections:		Straight	<u>Air</u>		<u>Cooling</u>	<u>Heating</u>	
Connection Inlet:		2x 16mm	Air Volume:	m³/h	4000		
Connection Outlet:		2x 22 mm	Temp. In:	°C	34	10	
Finned height:	mm	600	Rel. Humidity In:	%	35		
Finned width:	mm	743	Temp. Out:	°C	18,4	24	
Freeze protection:	°C	0	Rel. Humidity out:	%	86,4		
			Pressure Drop:	Pa	95		
			Pressure Drop dry:	Pa	94		
			Dehumidification:	kg/h	1		
			Surface Reserve:	%	12,17		
			Capacity:	kW	22,16	18,85	

Design: Access Panel Condensate Trough: RAL/V2A (AISI304)
 Lockers: Lockers

Accessories

Item Number	Description	Weight
Heat Pump	2x Samsung AM 040DXMDNG	
EEV-Kit	2x Samsung MXD K 050AN	
The heat pump will be mounted on the Roof of the Unit and will be delivered piped and pre-filled at the Rox factory.		

(SUP) Droplet Eliminator		GSC/GS/GS	Weight: 63 kg	Length: 475 mm	Pressure Drop: 18 Pa
Brand:	Rox				
Material:	PPTV	Guiding Rail:	V2A (AISI304)		
Design:	Access Panel	Condensate Trough:	RAL/V2A (AISI304)		
Lockers:	Lockers	Condensate Drain:	Yes		

Accessories

Item Number	Description	Weight
	Siphon SN	

Datasheet: 02037560
Project: Mc Donalds DK Kalundborg
Location:
Unit: Kitchen
Position: 756002
Side: 6 by 8
Date: 23.07.2025
Tender Position:



(SUP) Fan		GSC/GS/GS	Weight: 80 kg	Length: 370 mm	Pressure Drop: 0 Pa
Brand:		Rox	Construction:		Free Running
Fan Type:		1 x GKHM 355-CII.118.6FF IE Gen3	Drivetrain:		Motor in Airstream
SFP-Data with FC:	m³/s	1091	SFP-Class with FC:		SFP3
Air Volume:	m³/h	4000	Motor type:		EC
ΔP ext.:	Pa	300	Voltage / Frequency:	V/Hz	3~200-240 / 50/60
Dyn. Pressure Drop:	Pa	33	Nominal Power:	kW	2,77
Installation loss:	Pa	20	Nominal Current:	A	7,25
Static Pressure Drop:	Pa	650	Nominal Rotation Speed:	1/min	3115
Total Pressure Drop:	Pa	683	Frequency Converter:		Integrated
electrical Power Input:	kW	1,19 / P1	Nozzle Pressure Difference:	Pa	725,90
Reference Power Input:	kW	1,59	k-Factor:	m²s/h	115
Nominal Rotation Speed:	1/min	2311			
Maximum Rotation Speed:	1/min	3115			
Rotation Speed Spare:	%	25,12			
Total Efficiency:	%	62,90			
Static System Efficiency:	%	59,90			
Total Efficiency in Efficiency Optimum:	%	69			
Air Volume Measuring Point:		Air Volume Measuring Point with Pressure Sensor DPA 2500			
Total Sound Power level:	dB(A)	76,9			

f	125	250	500	1000	2000	4000	8000	Hz
Lw o	50	74	74	75	73	72	69	dB
Lw i	44	70	71	70	69	68	65	dB

Design: Access Door
Lockers: Lockers
Hinges: 3D-Hinges

Accessories

Item Number	Description	Weight
	Door locker	

Hints: The Installation losses of the fan are considered in the Fan Performances
 Designed for wet conditions
 Motor wired to Repair Switch

Datasheet: 02037560 **Position:** 756002
Project: Mc Donalds DK **Side:** 7 by 8
Location: Kalundborg **Date:** 23.07.2025
Unit: Kitchen **Tender Position:**



(SUP) Air Outlet Section

GSC/GS/GS

Weight: 31 kg

Length: 1 mm

Pressure Drop: 15 Pa

Connection:

Layer: Front Side
Material: galvanized
Design: Damping Connection VDI6022
Potential Equalisation: Yes
Dimensions (W x H) 881 x 360

Grating: Without

Design: Fixed Panel

Supply Air Acoustic Data

Supply Air Connector

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	49	73	73	74	72	71	68	80
Residue Sound Power in dB(A)	33	64	70	74	73	72	67	79

Outside Air Connector

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	33	55	55	54	47	47	46	60
Residue Sound Power in dB(A)	17	46	52	54	48	48	45	58

Surrounding Acoustic Emission (Casing Emission)

Wall Thickness: 53 mm

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	36	64	62	54	45	35	28	66
Residue Sound Power in dB(A)	20	56	58	54	46	36	27	61

The Acoustic Data refer only on the inside fan
 Possibly the Supply Air and Extract Air Data have to be added together

Datasheet: 02037560
Project: Mc Donalds DK
 Kalundborg
Location:
Unit: Kitchen

Position: 756002
Side: 8 by 8
Date: 23.07.2025
Tender Position:



Unit Type	NRVU	Construction of Unit	UVU
Non residential ventilation unit		Unidirectional ventilation unit	

Total unit characteristics:

Type of HR:	None
Temperature ratio dry:	0,00 %
Highest External Leakage rate (+400Pa/-400Pa):	0,00 %
Highest Internal Leakage rate (250Pa):	0,00 %

SFPint:	123,19 [W/(m³/s)]
SFPint max. 2016:	250,00 [W/(m³/s)]
SFPint max. 2018:	230,00 [W/(m³/s)]



Supply air features

Air Volume:	1,11 m³/s
ΔP ext:	300 Pa
ΔP s, add:	249 Pa
ΔP s, int:	104 Pa
Filter:	ePM1 60% (F7)
Filter pressure drop beginning:	71 Pa
Heat recovery pressure drop dry:	0 Pa
Fan pressure drop total:	663 Pa
Fan pressure drop dynamic:	33 Pa
Fan electric power input:	1,19 kW
Fan efficiency static:	59,90 %
SFPv:	929,12 [W/(m³/s)]

Hints

Filter warn indication	The Filter warn indication is realized by a differential pressure manometer. According to the guideline 1253/2014/EU the filter monitoring has to be mounted onsite if it is not contained in the equipment.
Thermal Bypass	The required thermal bypass of the HRS according to the guideline 1253/2014/EU is realized by a bypass of the HR-System.
Drivetrain	If the unit is ordered and delivered without DDC, a governor or a cascade drive is provided to fulfil the requirements of the guideline 1253/2014/EU.
Disposal note	Further information under www.rox-online.de