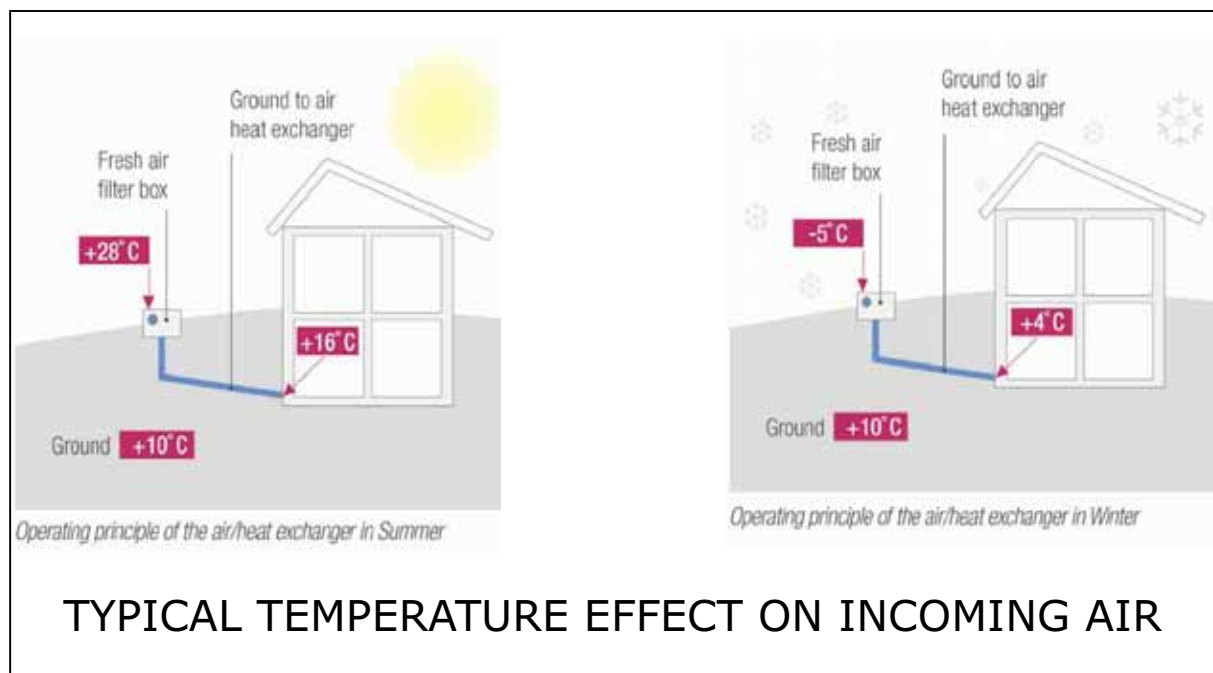
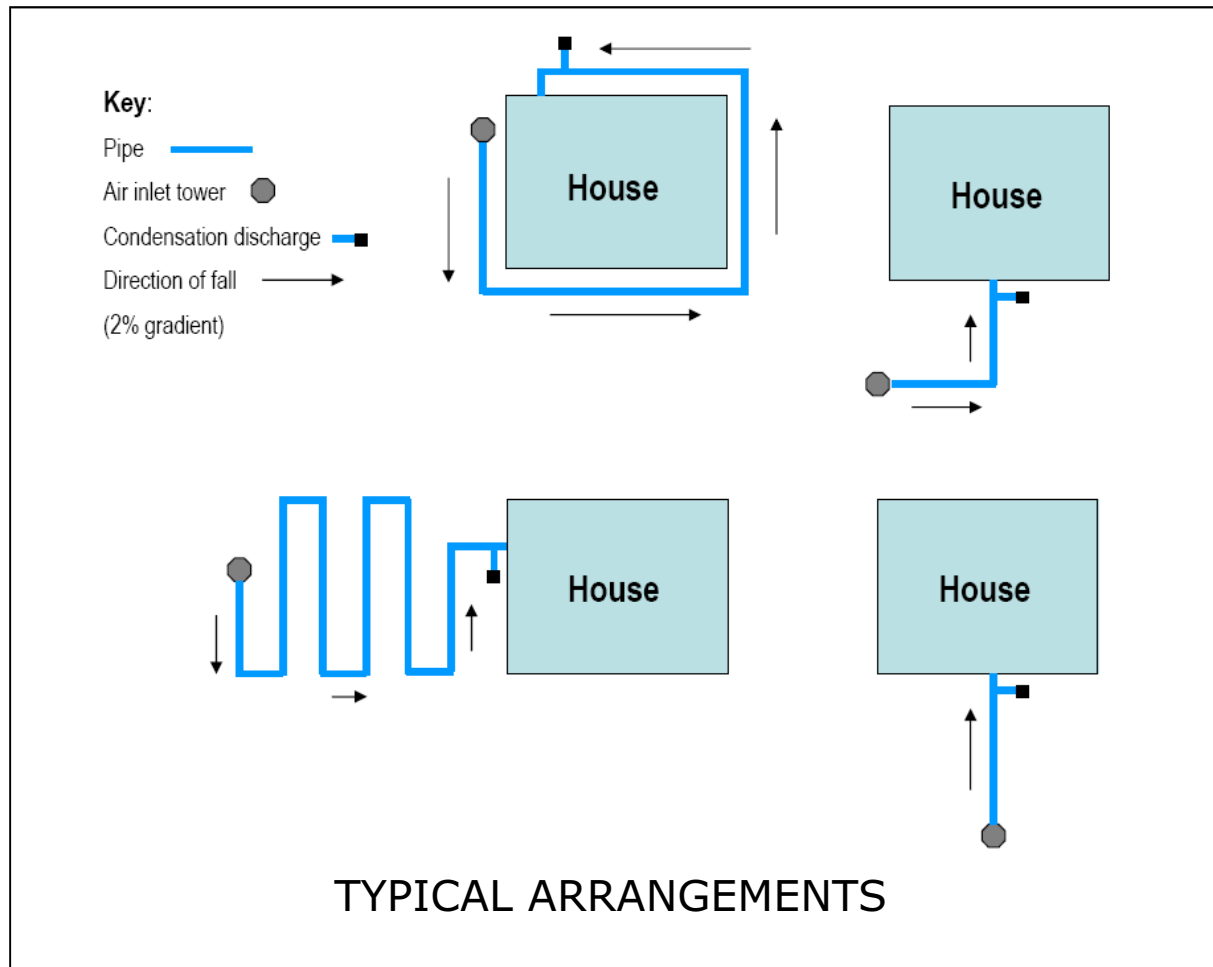


GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

TYPICAL ARRANGEMENTS AND PACKAGES



GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS



GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

Package 1

42m of DN 200 pipe for air flow rates < 293 m³h (80 l/sec)

Package contents:

Article No.	Description	Quantity
170961-002	Awadukt Thermo pipe DN 200 6m	7
247651-056	Awadukt Thermo DN 200 elbow 90°	6
247751-056	Awadukt Thermo DN 200/200 45° branch	1
247851-056	Awadukt Thermo double-fit sleeve joint DN 200	3
227785-003	Condensation collection chamber DN 315/200	1
175584-001	Manhole cover for condensation chamber	1
172290-050	Wall inlet DN 200	1
176510-002	Lubricant 150g	1
170188-002	Air inlet tower DN 200	1
170198-001	G4 filter set for DN 200 air inlet	1

Estimated Energy Savings for Package 1:

Assumptions:

Average England & Wales weather data
Standard soil type
Installation depth 1.5m

Air flow rate (m ³ /h)	Heating saving (kWh/a)	Min. outlet temperature (°C)	Cooling saving (kWh/a)	Max. outlet temperature (°C)	Coefficient of Performance (COP)
150	568.7	2.7	270.7	18.6	167
200	668.9	1.1	318.3	20.0	87
250	746.9	-0.3	355.4	21.1	51
293	801.4	-1.2	381.4	21.9	35

Additional pipe and fittings can be ordered separately for any project specific requirements.



GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

Package 2

60m of DN 200 pipe for air flow rates < 293 m³/h (80 l/sec)

Package contents:

Article No.	Description	Quantity
170961-002	Awadukt Thermo pipe DN 200 6m	10
247651-056	Awadukt Thermo DN 200 elbow 90°	6
247751-056	Awadukt Thermo DN 200/200 45° branch	1
247851-056	Awadukt Thermo double-fit sleeve joint DN 200	3
227785-003	Condensation collection chamber DN 315/200	1
175584-001	Manhole cover for condensation chamber	1
172290-050	Wall inlet DN 200	1
176510-002	Lubricant 150g	1
170188-002	Air inlet tower DN 200	1
170198-001	G4 filter set for DN 200 air inlet	1

Estimated Energy Savings for Package 2:

Assumptions:

Average England & Wales weather data

Standard soil type

Installation depth 1.5m

Air flow rate (m ³ /h)	Heating saving (kWh/a)	Min. outlet temperature (°C)	Cooling saving (kWh/a)	Max. outlet temperature (°C)	Coefficient of Performance (COP)
150	670.0	5.2	319.3	16.4	148
200	811.5	3.7	386.6	17.7	79
250	926.0	2.4	441.1	18.8	48
293	1008.1	1.4	480.1	19.6	33

Additional pipe and fittings can be ordered separately for any project specific requirements.



GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

Package 3

42m of DN 250 pipe for air flow rates < 457 m³h (127 l/sec)

Package contents:

Article No.	Description	Quantity
170971-001	Awadukt Thermo pipe DN 250 6m	7
247691-002	Awadukt Thermo DN 250 elbow 90°	5
247651-056	Awadukt Thermo DN 200 elbow 90°	1
246457-004	Awadukt Thermo DN 250/200 45° branch	1
247861-002	Awadukt Thermo double-fit sleeve joint DN 250	3
227785-003	Condensation collection chamber DN 315/200	1
175584-001	Manhole cover for condensation chamber	1
172330-003	Wall inlet DN 250	1
176510-002	Lubricant 150g	1
170408-002	Air inlet tower DN 250	1
170448-001	G4 filter set for DN 250 air inlet	1

Estimated Energy Savings for Package 3:

Assumptions:

Average England & Wales weather data

Standard soil type

Installation depth 1.5m

Air flow rate (m ³ /h)	Heating saving (kWh/a)	Min. outlet temperature (°C)	Cooling saving (kWh/a)	Max. outlet temperature (°C)	Coefficient of Performance (COP)
300	809.0	-1.4	384.7	22.0	92
350	863.1	-2.2	410.5	22.7	63
400	908.7	-3.0	432.2	23.3	45
457	952.7	-3.7	453.2	23.9	33

Additional pipe and fittings can be ordered separately for any project specific requirements.



GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

Package 4

60m of DN 250 pipe for air flow rates < 457 m³/h (127 l/sec)

Package contents:

Article No.	Description	Quantity
170971-001	Awadukt Thermo pipe DN 250 6m	10
247691-002	Awadukt Thermo DN 250 elbow 90°	5
247651-056	Awadukt Thermo DN 200 elbow 90°	1
246457-004	Awadukt Thermo DN 250/200 45° branch	1
247861-002	Awadukt Thermo double-fit sleeve joint DN 250	3
227785-003	Condensation collection chamber DN 315/200	1
175584-001	Manhole cover for condensation chamber	1
172330-003	Wall inlet DN 250	1
176510-002	Lubricant 150g	1
170408-002	Air inlet tower DN 250	1
170448-001	G4 filter set for DN 250 air inlet	1

Estimated Energy Savings for Package 4:

Assumptions:

Average England & Wales weather data

Standard soil type

Installation depth 1.5m

Air flow rate (m ³ /h)	Heating saving (kWh/a)	Min. outlet temperature (°C)	Cooling saving (kWh/a)	Max. outlet temperature (°C)	Coefficient of Performance (COP)
300	1019.6	1.3	485.3	19.8	89
350	1101.5	0.3	524.3	20.6	62
400	1171.7	-0.5	557.7	21.3	45
457	1240.3	-1.3	590.4	21.9	33

Additional pipe and fittings can be ordered separately for any project specific requirements.



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GROUND TO AIR HEAT EXCHANGER TO COMPLEMENT HEAT RECOVERY SYSTEMS

PACKAGE PRICES (July 2008)

PACKAGE 1	£2630
PACKAGE 2	£3084
PACKAGE 3	£3417
PACKAGE 4	£3848

PRICE INCLUDES SHIPPING BUT EXCLUDES VAT