

The AX6 series of swirl diffusers are designed to be applied in air conditioning and ventilation schemes where a mounting height diffuser of more than four metres is desirable. They can also handle elevated temperatures on heating and cooling up to 15°C differential to the room. They are suitable for both industrial use and commercial use such as shopping centres, airports, factory bays and auditoriums.

The round spun casing together with the helical design of vane cause the rotation of diffusion of the air stream, which obtains a high induction index and thus reduces stratification. The air pattern can be changed by regulating the angle of the internal vane, either manually which can be pre-set according to the supply air temperatures or by use of an electric motor.

When the motors are employed the discharge can be sequenced to provide a steep vertical supply on heating and gradually as the room reaches temperature and the loads within the room build up the vanes can be feathered to provide a horizontal flow on cooling. They are suitable for mounting directly on to circular droppers, from spiral ductwork, or can be used with our own plenum boxes, which come complete with circular connections.

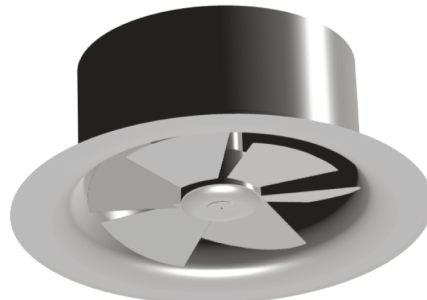
### Specification & Construction:

The units are manufactured from spun aluminium and sheet steel with nylon geared blade adjustment being concealed behind spun aluminium hub. The smallest unit starts at 250mmØ neck and goes right up to 830mm.

Swirl Diffuser//Type AX6  
Typical installation



Swirl Diffuser//Type AX6



Swirl Diffuser//Type AX6

### Sizes:

From 250mm to 830mm.

### Finish:

Polyester powder-coated in the following colours:  
RAL 9010 - White, RAL - Other colours at an additional cost.

### Fixing:

Standard connection into metal duct.

### Classification:

**AX6-MA** - Manually adjustable swirl diffuser.

**AX6-MO** - Swirl Diffuser adjustable by means of an electric motor.

**MO6** - Electrical motor for the diffuser AX6, MO6-24 v or MO6-220/230 v.

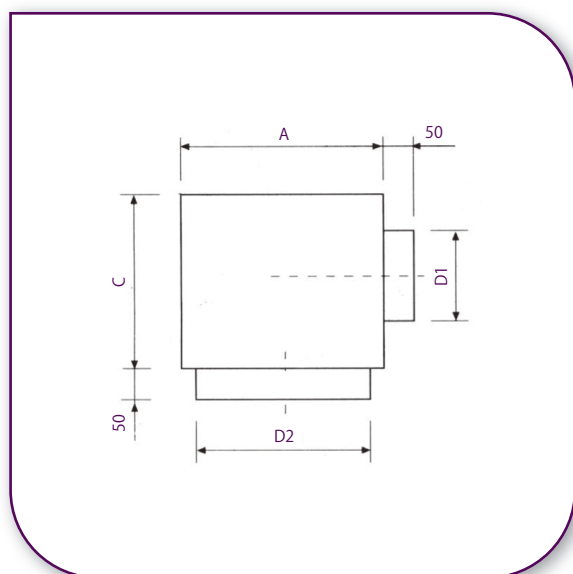
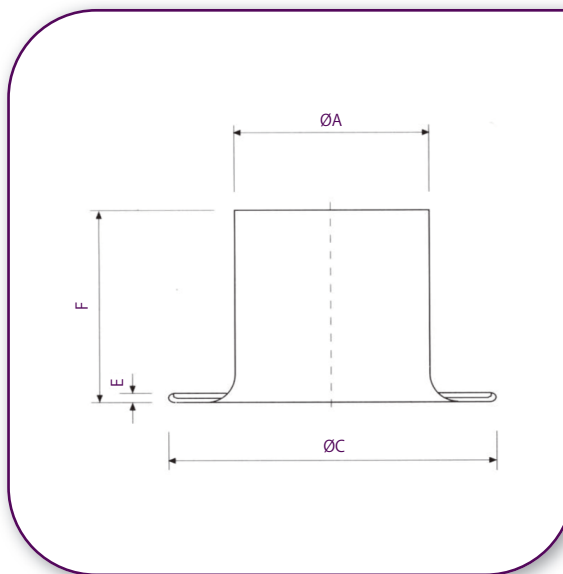
### Material:

Diffuser nozzle made from spun aluminium and plates made from fabricated aluminium. The transmission capsule is made from aluminium and the pinions and gears are made of ABS plastic.

### Plenum:

**PLX6** - Plenum with a round neck connection. It has supports for the box to be hung from the ceiling and is made from galvanised steel.

**/M/** - Plenum for the inspection of the motor.



Sizes

	A	B	C	D
250	248	360	8	202
315	313	464	8	225
400	401	560	8	250
500	497	690	8	306
630	627	870	8	350

**/S/** - Plenum with an upper connection.

**/L/** - Plenum with lateral connection.

**/AIS/** - Plenum thermoacoustically insulated by foam with a coefficient of thermal conductivity of 0.04 w/mk. The foam meets the fire reaction standards: Class 'O'.

### Fastening Systems:

**DIRECT** - Riveted directly to the metal duct. Diffuser riveted to the plenum and suspended from the ceiling by means of rods.

### Finishes:

Polyester powder-coated in the following colours:  
**RAL 9010** - White, **RAL** - Other colours at an additional cost.

### Packing:

Individual packing with a polystyrene file and boxed.

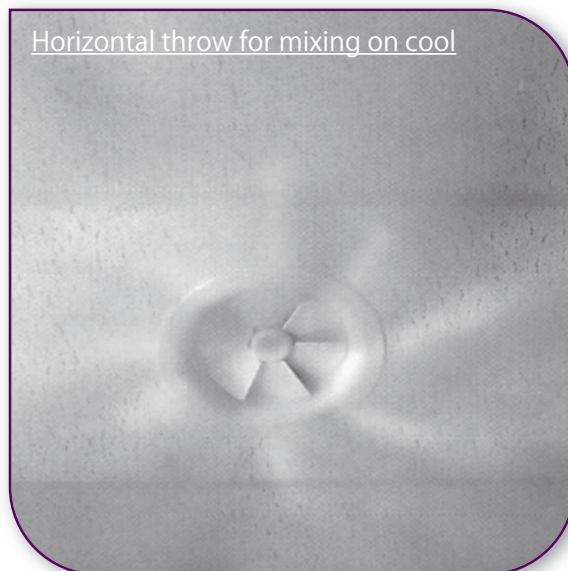
Sizes

	D2	A	C	D1
250	250	320	285	248
315	315	385	350	313
400	400	500	450	313
500	500	600	500	448
630	630	730	500	498

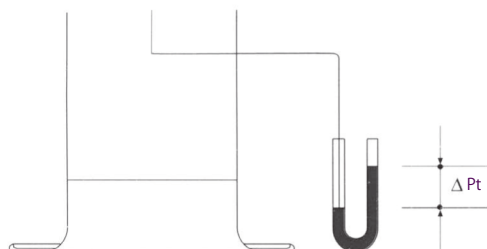
### Smoke tests showing air patterns on heating and cooling



Vertical throw for warm air on start



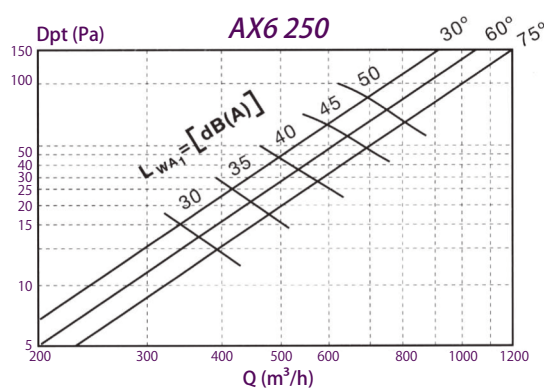
Horizontal throw for mixing on cool



### Sizes

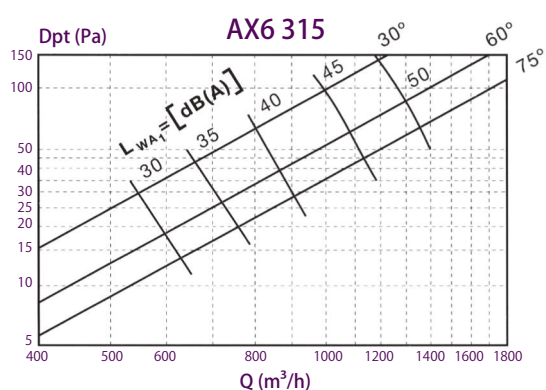
Dn	Area m <sup>2</sup>	Q min	Q max
250	0.049	250	1000
315	0.0779	450	1500
400	0.126	850	2400
500	0.196	1400	4200
630	0.312	2400	6000

### Pressure Loss & Sound Power Level

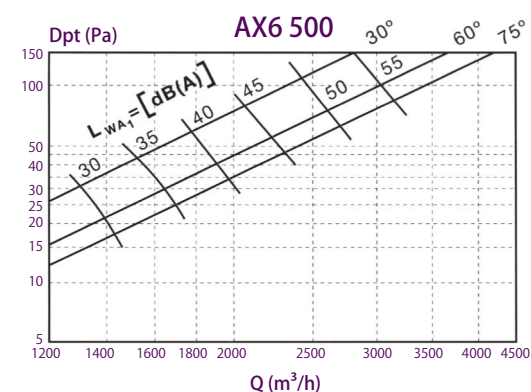
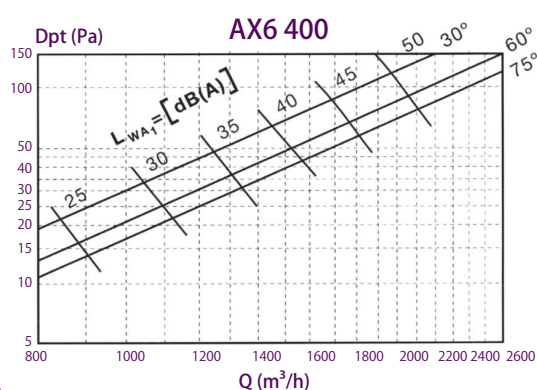




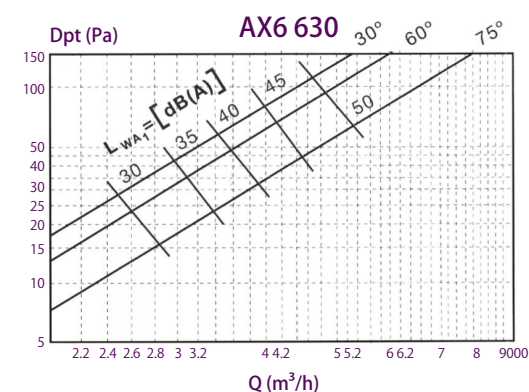
Pressure Loss & Sound Power Level



Pressure Loss & Sound Power Level

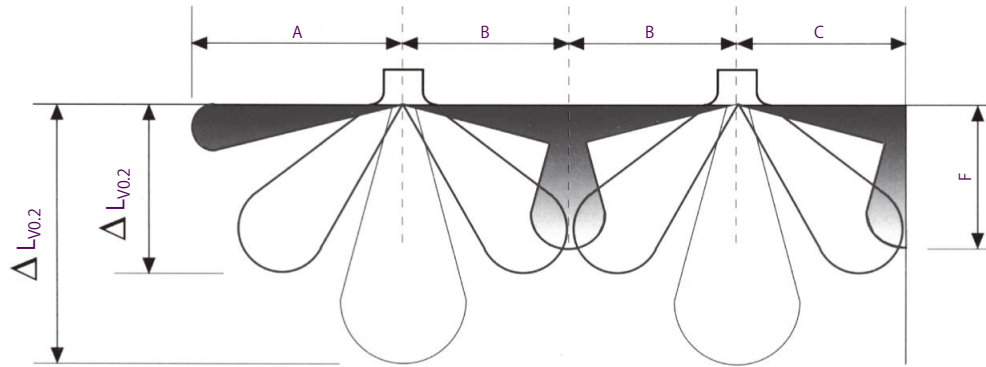


Pressure Loss & Sound Power Level



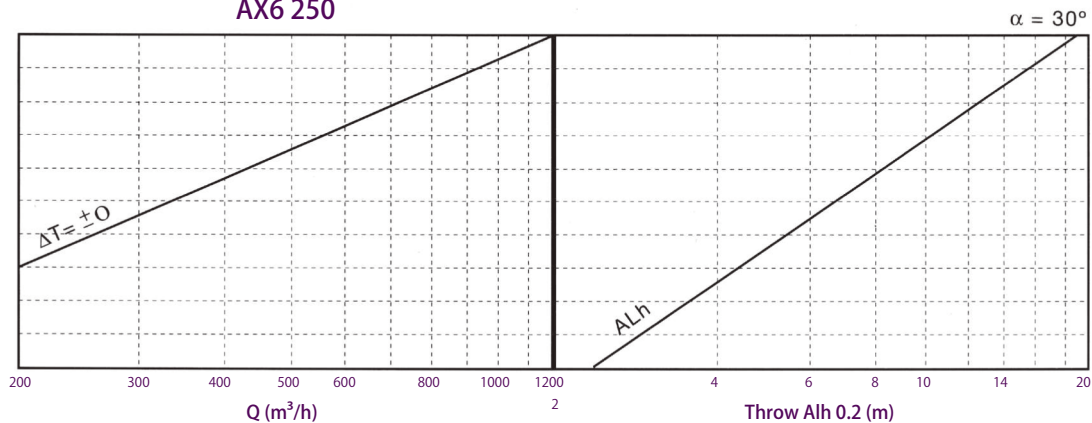
Pressure Loss & Sound Power Level

### Throw Details

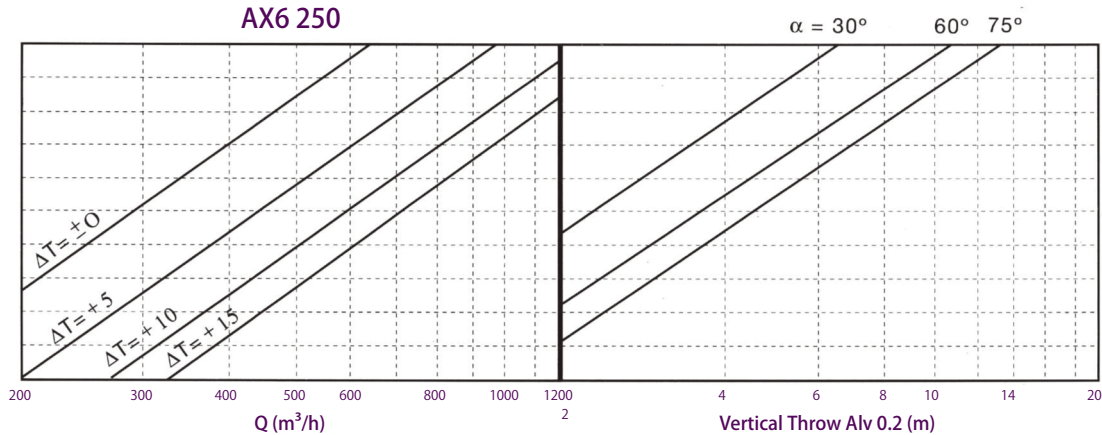


### Isotherm Throw

AX6 250

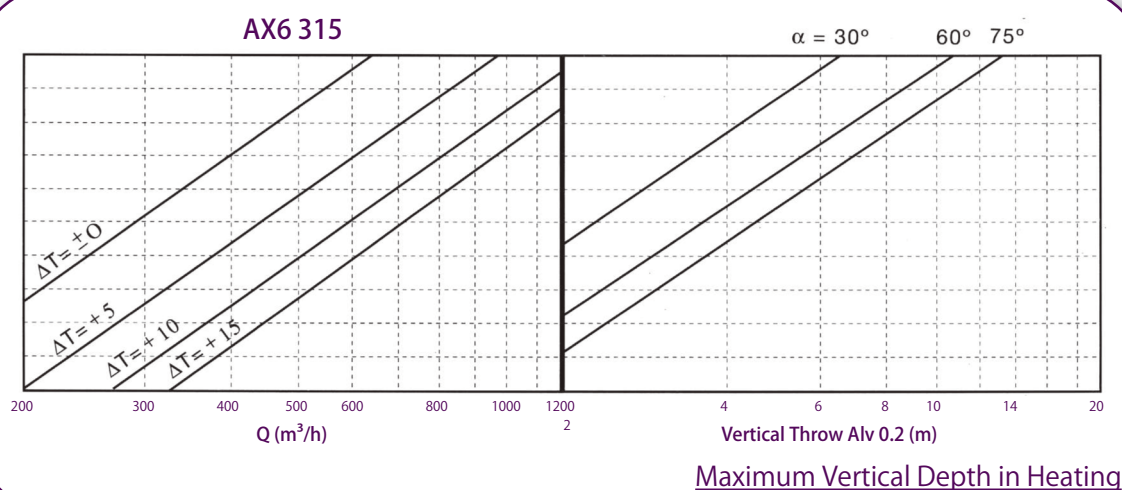
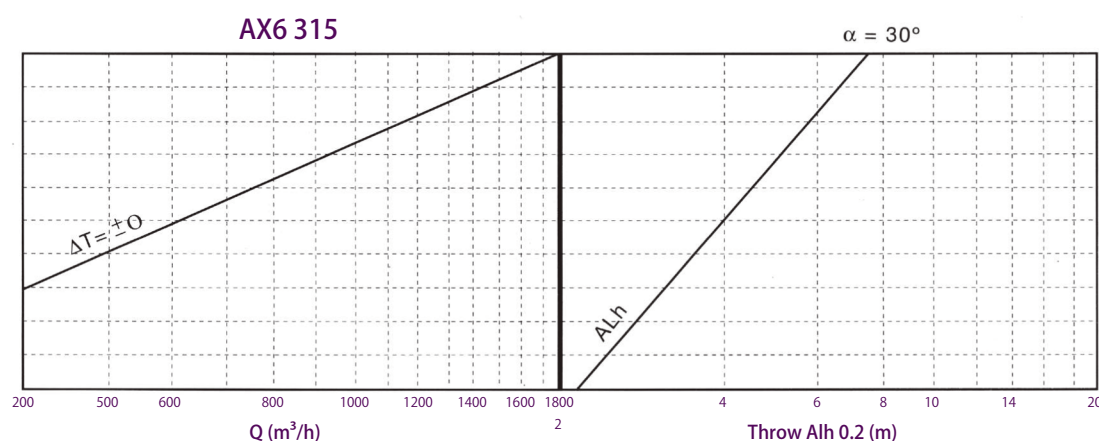


AX6 250



Maximum Vertical Depth in Heating

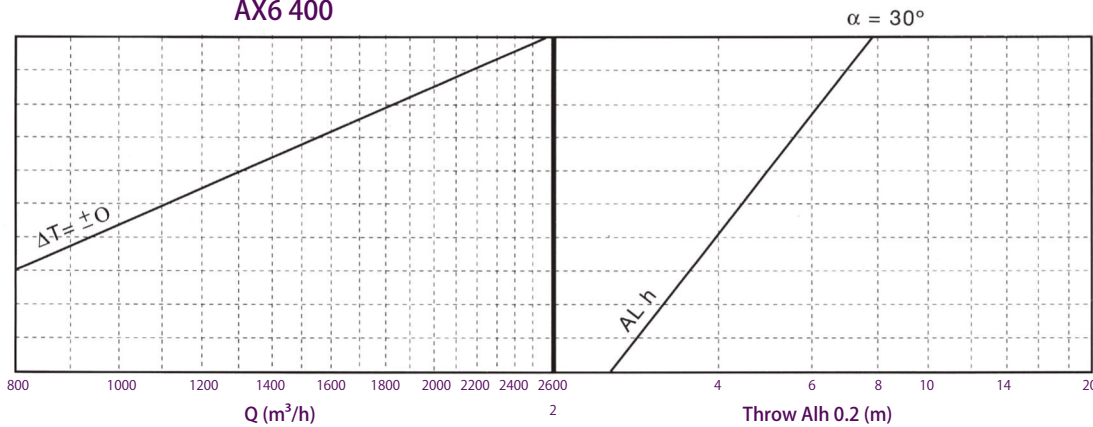
### Isotherm Throw



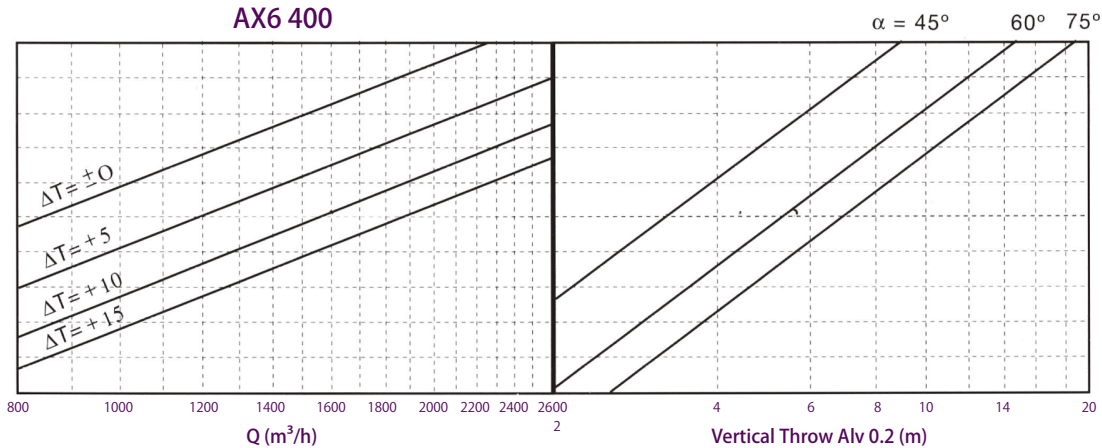
Maximum Vertical Depth in Heating

### Isotherm Throw

AX6 400



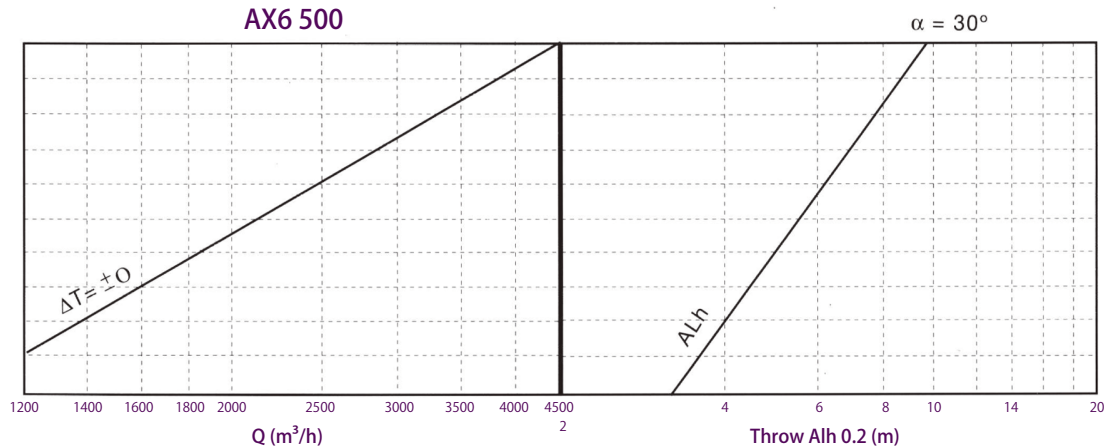
AX6 400



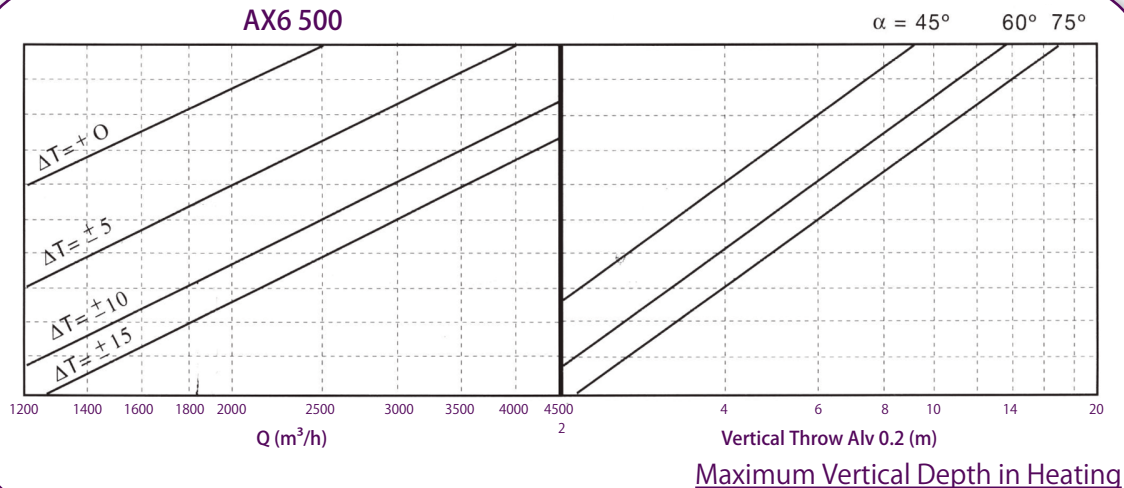
Maximum Vertical Depth in Heating

### Isotherm Throw

AX6 500



AX6 500

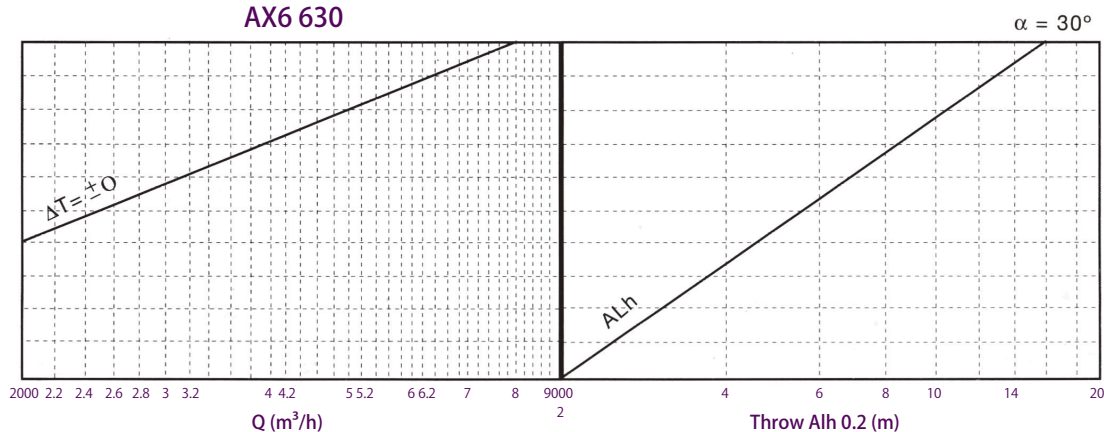


Maximum Vertical Depth in Heating



### Isotherm Throw

AX6 630



AX6 630

