Adjustable Blade Curved Frame Swirl - RSW-TR

RSW-TR is a rotation diffuser particularly suitable for rooms with a high ceiling.

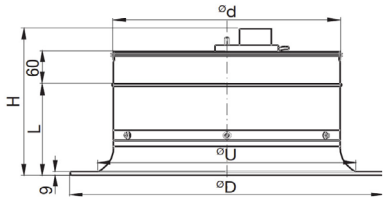
The diffuser is equipped with adjustable blades, so the supply air pattern can be changed from vertical to horizontal.

The blade settings can be adjusted manually, or the function can be automated using various types of motor. RSW with manual blade adjustment is supplied as standard with a blade setting of 30°.

The motorized models are supplied as standard with a blade setting from 30° to 75°. In the motorized versions, RSW can be supplied with an electric on/off motor, a modulating motor or a thermal actuator, where the supply air pattern is changed in step with the supply air temperature

- Suitable for both cooling and heating
- Horizontal and vertical dispersal pattern
- High induction
- Can be supplied with an electric motor
- Can be supplied with a thermal actuator





Maintenance

The visible parts of the diffuser can be wiped with a damp cloth. For other maintenance, see installation instructions.

Dimensions

Ød Size	ØD mm	H mm	L mm	ØU mm	Weight * kg
250	360	240	143	285	2.4
315	460	267	168	365	3.1
400	560	292	178	450	4.4
500	670	341	226	570	6.8
630	870	391	273	740	9.9

* Motorized models weigh approx. 1 kg more than the weight stated in the table above.

Motor Type

RSW-1 Ød	Motor
315-400	NM24A-MF-F
500-630	LH24A-MF60

RSW-2 Ød	Motor
250-400	NM24A-F
500-630	LH24A60

Order Code

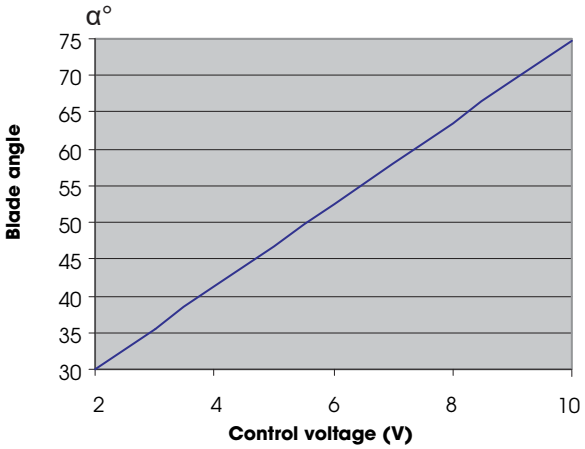
Product	RSW	a	b	c
Type				
Manual	M			
Motorized - modulating	M1			
Motorized- on/off	M2			
Thermal actuator	TR			
Size				
Version				

Materials and finish

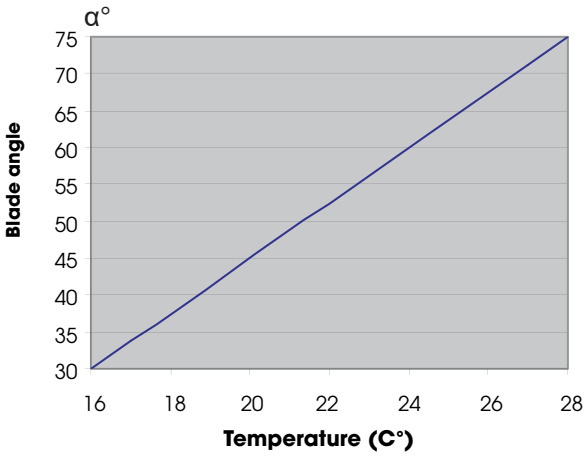
Material: Aluminium & steel
Standard finish: Powder-coated
Standard colour: RAL 9010 Gloss 30

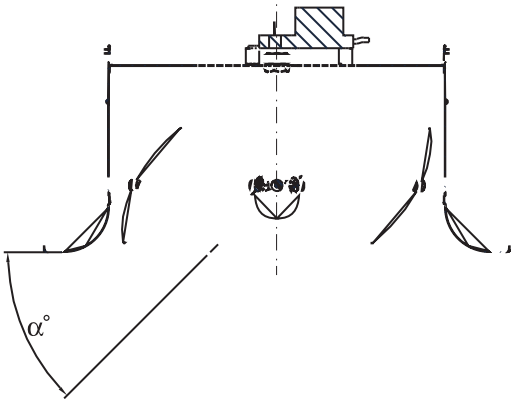
Technical data

RSW with electric modulating motor



RSW with thermal actuator





RSW with electric modulating motor / RSW with thermal actuator

Capacity
Volume flow qv(l/s) and (m3/h), total pressure Δpt(Pa), throw l0.2(m) and sound power level LWA (dB(A)) can be seen in the diagrams.

Throw l0.2 / turning point l0.0

Throw l0.2(m) can be seen in the diagrams for isothermal air at a speed of 0.2 m/s. Turning point l0.0(m) can be seen in the diagrams for heated air, +5 K, +10 K and +15 K respectively.

Frequency-related sound effect level

The sound effect level in the frequency band is defined as LWA+Kok. Kok values are specified in charts beneath the diagrams on the following pages.

Quick selection

LWA = 40

Quick selection

LWA = 40

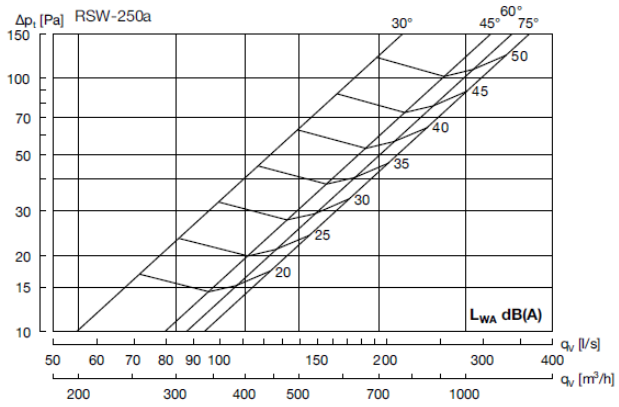
Size	Angle	qv (l/s)	qv (m^3/h)	Pt (Pa)	l0.2 isoterm (m) / l0.0 +10K (m)
250	30°	138	498	63	10
250	75°	138	498	22	5
315	30°	237	854	65	6
315	75°	237	854	24	6
400	30°	361	1299	60	5
400	75°	361	1299	22	6
500	30°	453	1630	52	5
500	75°	453	1630	13	5
630	30°	818	2943	57	6
630	75°	818	2943	17	7

LWA = 50

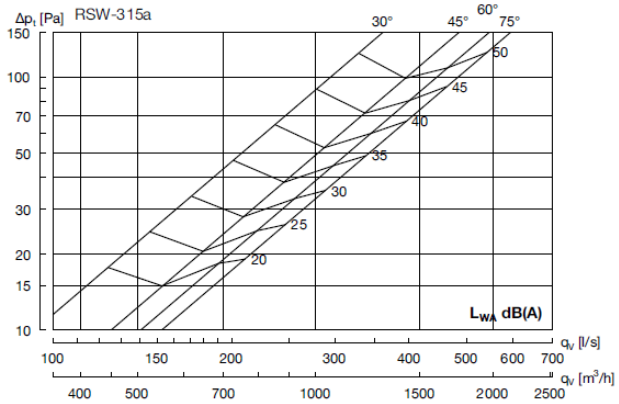
Size	Angle	qv (l/s)	qv (m^3/h)	Pt (Pa)	l0.2 isoterm (m) / l0.0 +10K (m)
250	30°	192	692	121	13
250	75°	192	692	42	7
315	30°	329	1183	124	8
315	75°	329	1183	46	8
400	30°	513	1846	122	7
400	75°	513	1846	44	8
500	30°	636	2290	103	6
500	75°	636	2290	25	6
630	30°	1136	4088	110	8
630	75°	1136	4088	32	9

LWA = 60

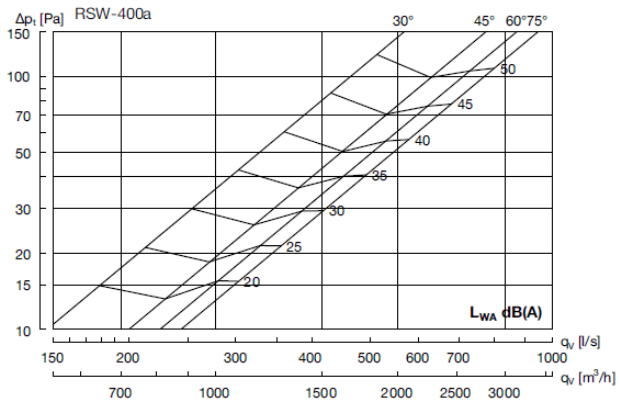
Size	Angle	qv (l/s)	qv (m^3/h)	Pt (Pa)	l0.2 isoterm (m) / l0.0 +10K (m)
250	30°	267	962	234	18
250	75°	267	962	81	10
315	30°	455	1638	238	10
315	75°	455	1638	88	11
400	30°	729	2623	247	11
400	75°	729	2623	89	12
500	30°	893	3216	203	8
500	75°	893	3216	49	9
630	30°	1577	5679	213	11
630	75°	1577	5679	62	12



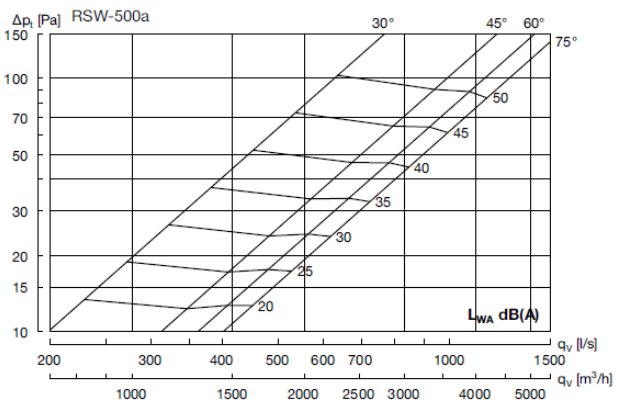
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	7	1	-2	-2	-4	-9	-18	-21



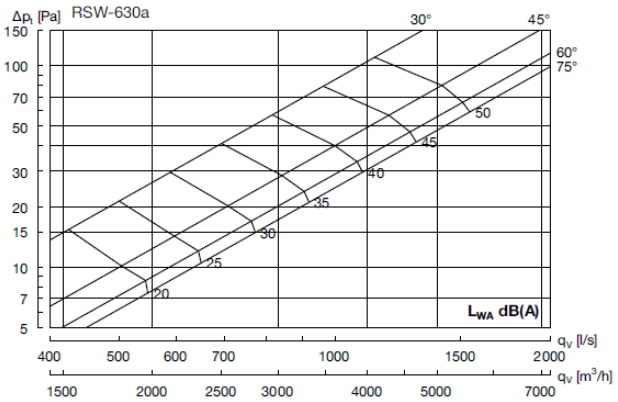
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	2	-1	-3	-4	-10	-17	-21



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	1	-2	-2	-3	-13	-20	-23



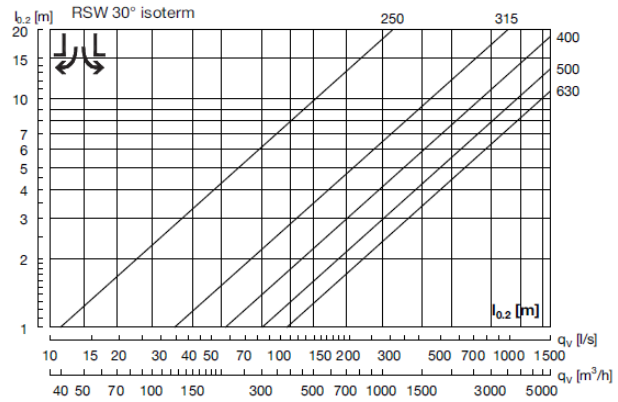
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	1	-2	-1	-4	-12	-20	-22

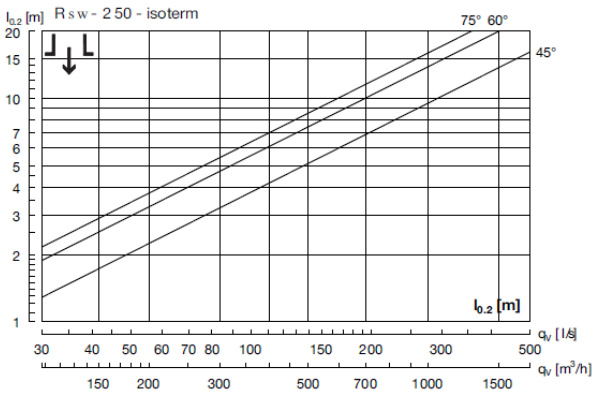


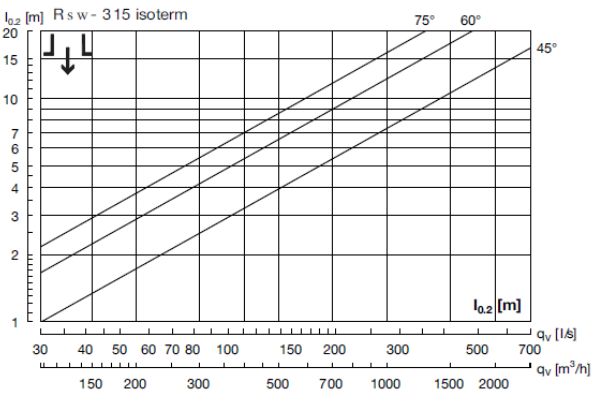
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	5	0	-2	-5	-12	-18	-22

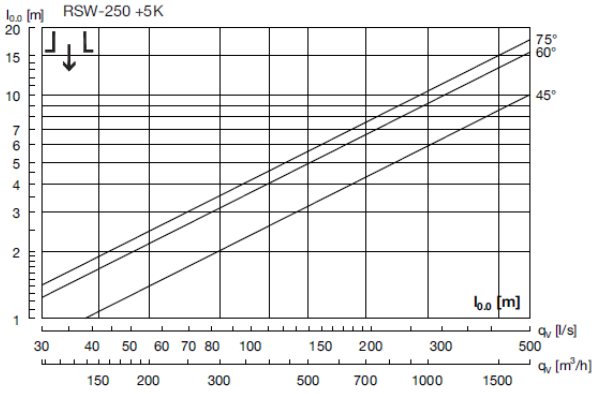
Throw $l_{0.2}$ horizontal

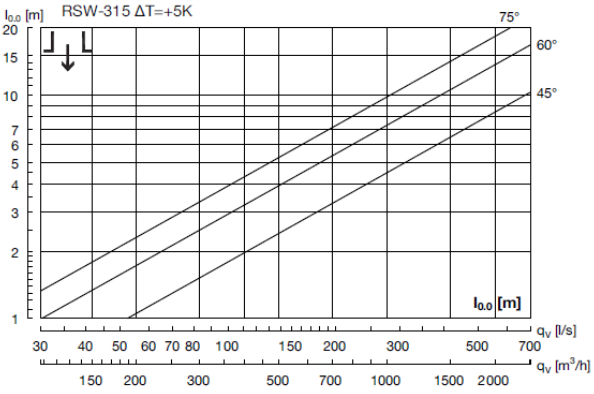
Horizontal throw $l_{0.2}$ is specified for free suspension. If the diffuser is installed < 300 mm from the ceiling, the value must be multiplied by 1.4.

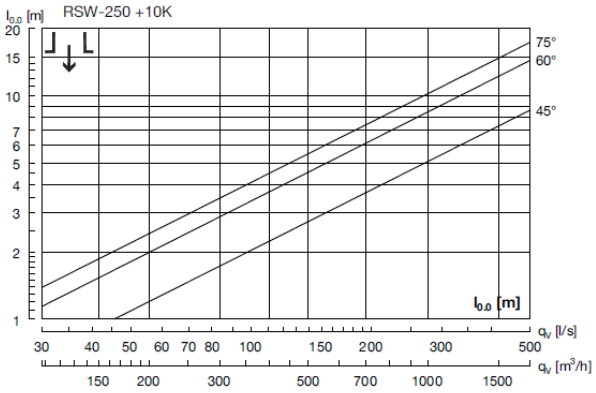


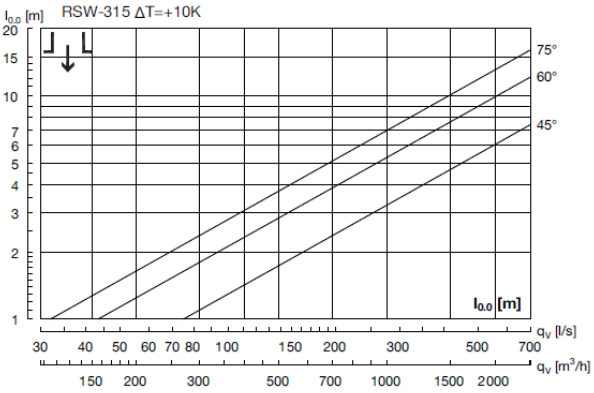

$l_{0.2}$ [m] Rsw - 250 - isoterm
75° 60°
45°
$l_{0.2}$ [m]
q_v [l/s]
q_v [m³/h]

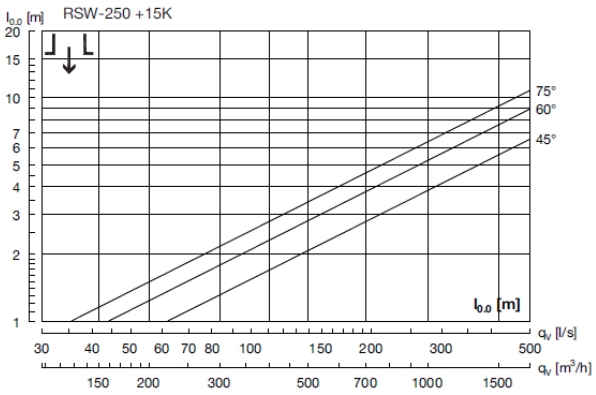

$l_{0.2}$ [m] Rsw - 315 isoterm
75° 60°
45°
$l_{0.2}$ [m]
q_v [l/s]
q_v [m³/h]

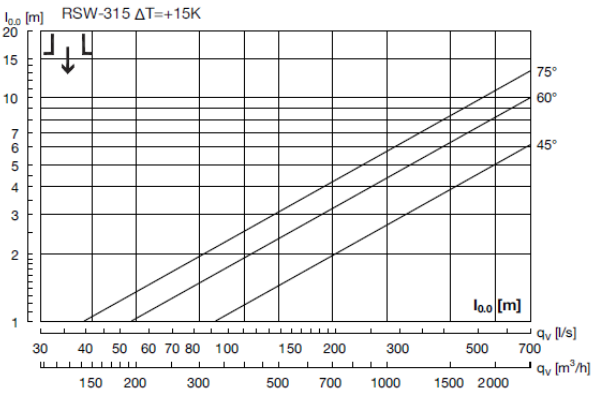

$l_{0.0}$ [m] RSW-250 +5K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

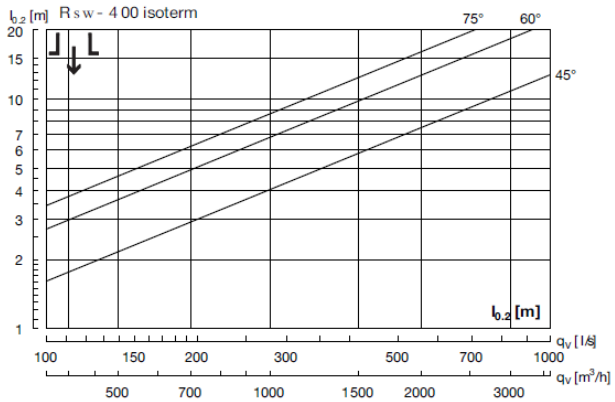

$l_{0.0}$ [m] RSW-315 ΔT=+5K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

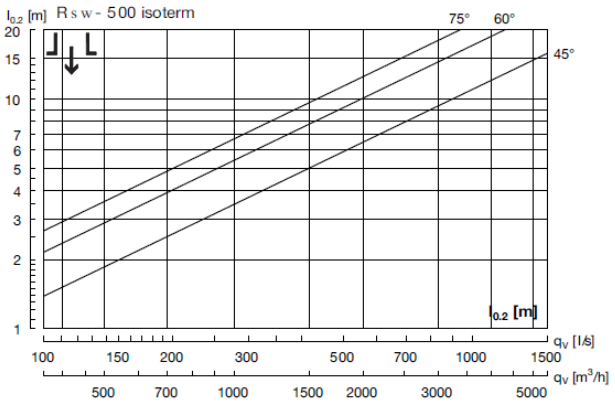

$l_{0.0}$ [m] RSW-250 +10K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

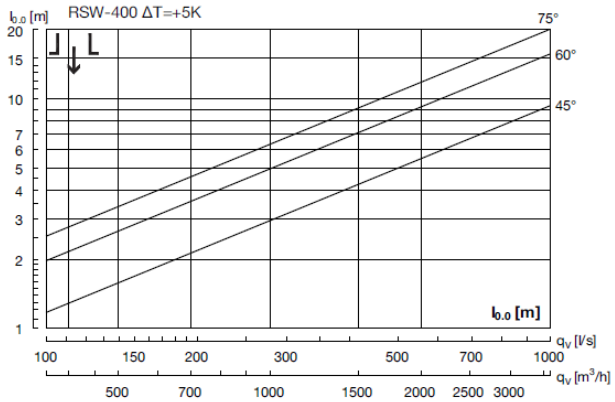

$l_{0.0}$ [m] RSW-315 ΔT=+10K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

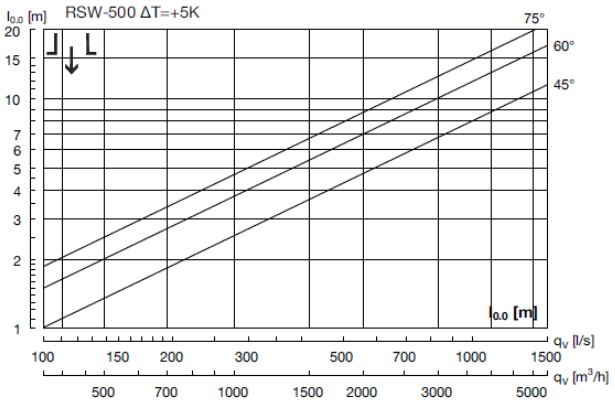

$l_{0.0}$ [m] RSW-250 +15K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

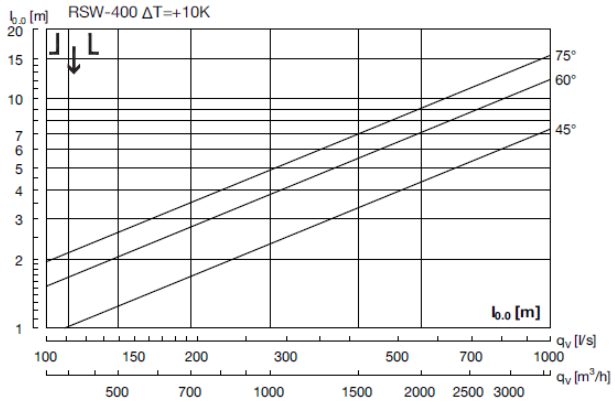

$l_{0.0}$ [m] RSW-315 ΔT=+15K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

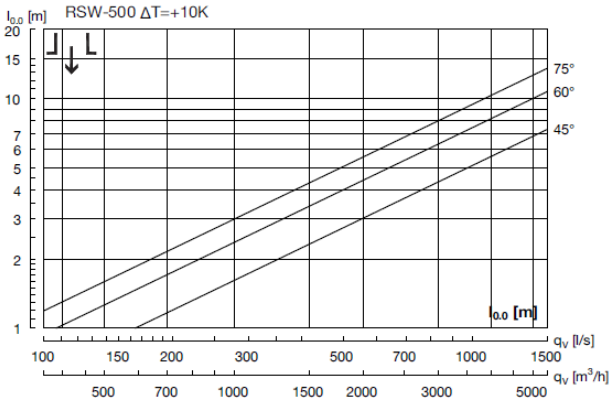

$l_{0.2}$ [m] Rsw - 400 isoterm
75°
60°
45°
$l_{0.2}$ [m]
q_v [l/s]
q_v [m³/h]

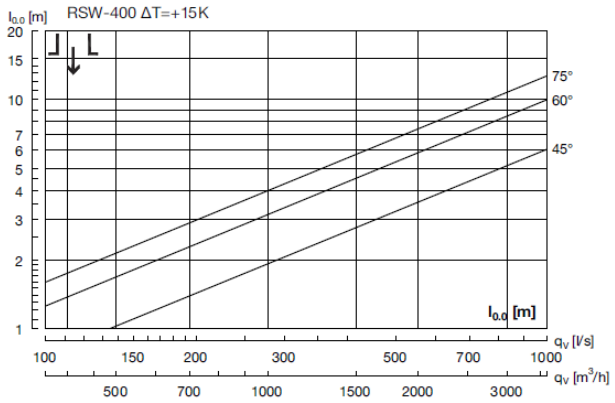

$l_{0.2}$ [m] Rsw - 500 isoterm
75°
60°
45°
$l_{0.2}$ [m]
q_v [l/s]
q_v [m³/h]

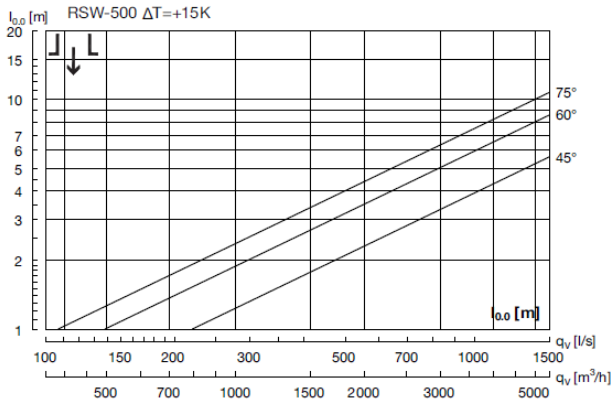

$l_{0.0}$ [m] RSW-400 ΔT=+5K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

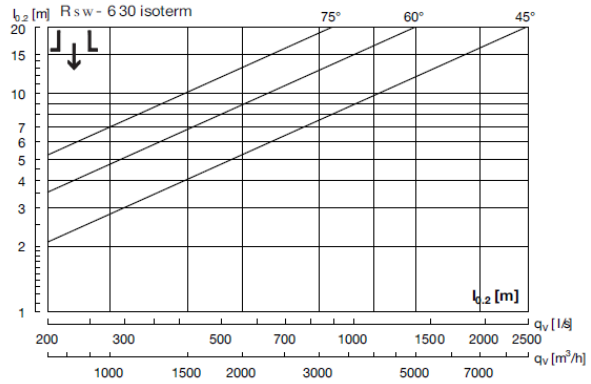

$l_{0.0}$ [m] RSW-500 ΔT=+5K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

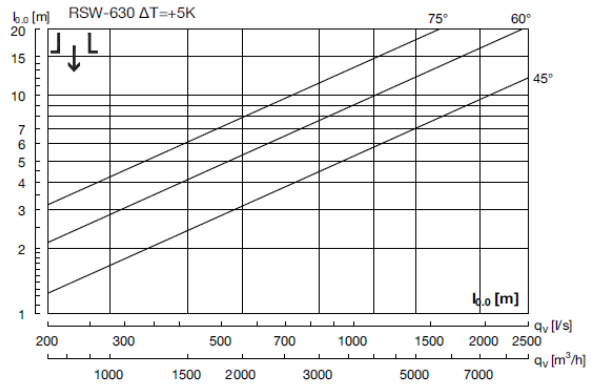

$l_{0.0}$ [m] RSW-400 ΔT=+10K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

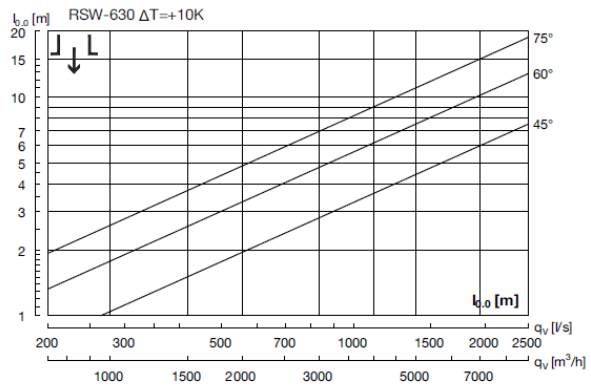

$l_{0.0}$ [m] RSW-500 ΔT=+10K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

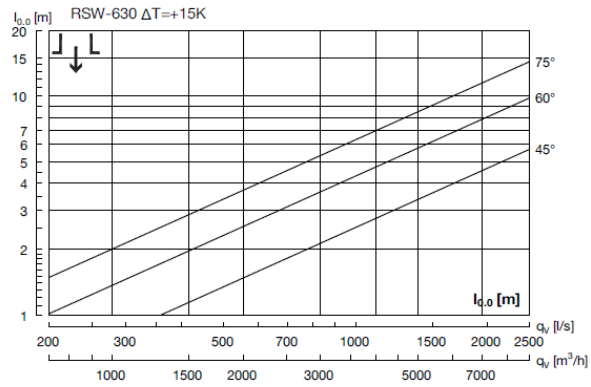

$l_{0.0}$ [m] RSW-400 ΔT=+15K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]


$l_{0.0}$ [m] RSW-500 ΔT=+15K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]


$l_{0.2}$ [m] Rsw - 630 isoterm
75°
60°
45°
$l_{0.2}$ [m]
q_v [l/s]
q_v [m³/h]


$l_{0.0}$ [m] RSW-630 ΔT=+5K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]


$l_{0.0}$ [m] RSW-630 ΔT=+10K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]


$l_{0.0}$ [m] RSW-630 ΔT=+15K
75°
60°
45°
$l_{0.0}$ [m]
q_v [l/s]
q_v [m³/h]

Please contact our Sales Office on for selection guidance on the above:

3-4 Torridge Close,
Telford Way Industrial Estate,
Kettering, Northants, NN16 8PY

P 01536 519 922

E sales@polyaire.co.uk