Vary Control VAV Box
Type ‘TVL’

TROX® TECHNIK
The art of handling air

Equipment features and characteristics

- TROX Vary Control VAV type ‘TVL’ volume flow control unit is suitable for variable or constant air volume control
- Multiple aerofoil blade
- Suitable for small or large supply or extract air volumes
- Electronic volume flow control
- Differential pressure range 20 Pa to 1000 Pa
- Electric or hot water coil heating facilities are available
- TVL units can be operated with any DDC, electronic or pneumatic VAV controller

- TVL units are suitable for an airflow ranging from 45 l/s to 10,100 l/s
  A typical airflow accuracy of ± 5% depending on the airflow rate and Type of controller used

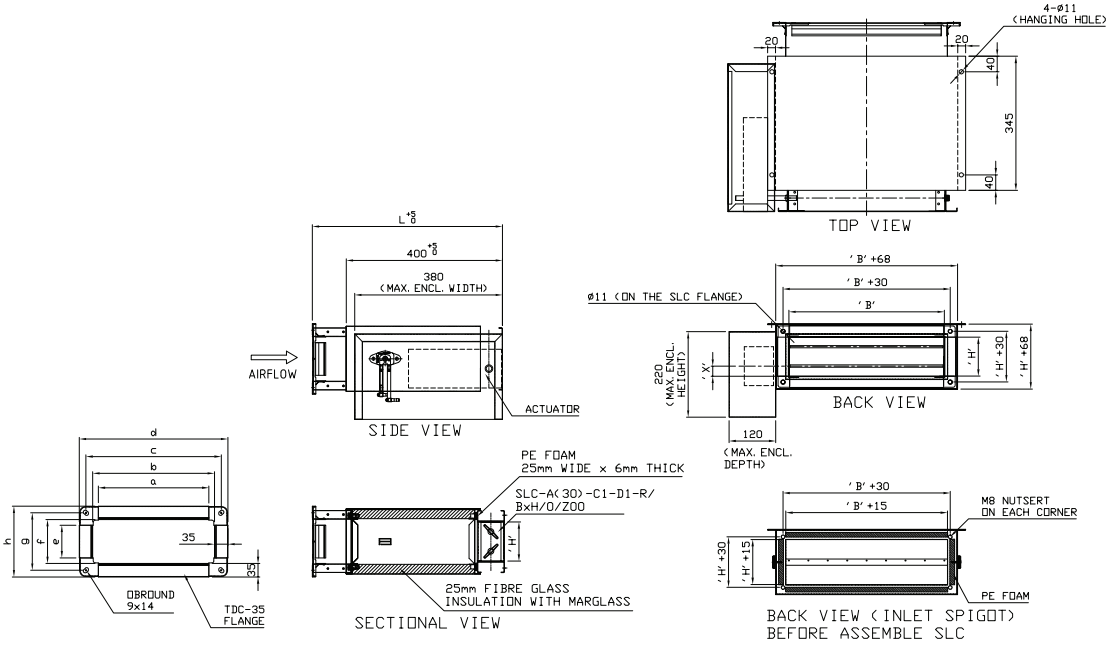
- The unit is tested to:
  - ISO 5220 for “Aerodynamic testing and rating of constant and variable dual or single units”
  - ISO 3741 for “Determination of sound levels of noise sources – Precision methods for broad-band sources in reverberation rooms”
  - The insulation material is tested to BS 470:Part 6 and 7 and is classified as Class ‘O’ under the British Building Regulations

Casing Construction

- The casing is made from 1mm thick galvanised sheet steel with and acoustic rectangular inlet spigot fitted with a complete aluminium multipoint airflow measuring grid. The TVL VAV unit is fitted with an aerofoil shaped blade.

- VAV Box Size Selections available from 200 x 200 to 1000 x 1000 with air flow rates of 45 l/s to 10100 l/s

Damper Width B	Damper Height H	Shaft Height X	a	b	c	d	e	f	g	h	L
200	100	25	184	213	248	283	84	113	148	183	488
300	100	25	284	313	348	383	84	113	148	183	488
400	100	25	384	413	448	483	84	113	148	183	488
500	100	25	484	513	548	583	84	113	148	183	488
600	100	25	584	613	648	683	84	113	148	183	488

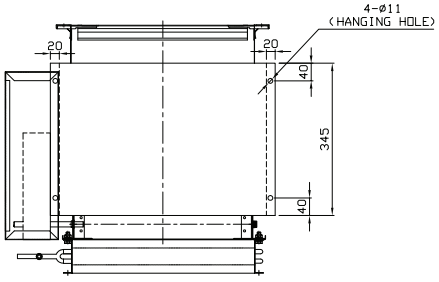


TROX® TECHNIK
The art of handling air

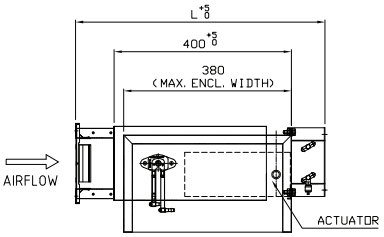
Vary Control VAV Box
Type 'TVL'

TVL VAV Box with hot water coil

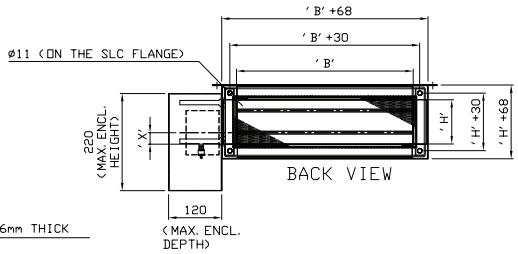
Damper Width B	Damper Height H	Shaft Height X	a	b	c	d	e	f	g	h	L
200	100	25	184	213	248	283	84	113	148	183	565
300	100	25	284	313	348	383	84	113	148	183	565
400	100	25	384	413	448	483	84	113	148	183	565
500	100	25	484	513	548	583	84	113	148	183	565
600	100	25	584	613	648	683	84	113	148	183	565



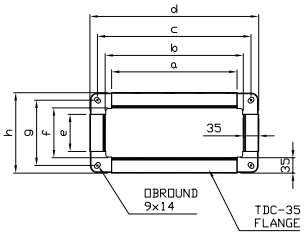
TOP VIEW

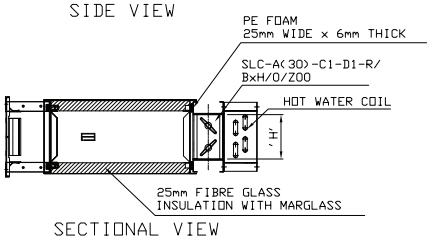


SIDE VIEW

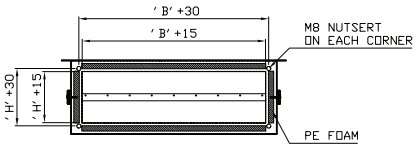


BACK VIEW





SECTIONAL VIEW



BACK VIEW (INLET SPIGOT)
BEFORE ASSEMBLE SLC

Vary Control VAV Box
Type ‘TVL’

TROX® TECHNIK
The art of handling air

Aerodynamic Data – H = 100 to 300

Volume flow ranges and minimum pressure differentials				
B x H mm	l/s	m/s	Δ V ± %	Δ Pg min in Pa
200 x 100	45	2	14	20
	85	4	8	20
	150	7	5	30
	215	10	5	40
300 x 100	65	2	14	20
	120	4	8	20
	210	7	5	30
	320	10	5	40
400 x 100	85	2	14	20
	170	4	8	20
	300	7	5	30
	425	10	5	40
500 x 100	105	2	14	20
	200	4	8	20
	350	7	5	30
	535	10	5	40
600 x 100	130	2	14	20
	260	4	8	20
	450	7	5	30
	650	10	5	40
200 x 200	85	2	14	20
	160	4	8	20
	280	7	5	30
	415	10	5	40
300 x 200	125	2	14	20
	240	4	8	20
	420	7	5	30
	620	10	5	40
400 x 200	165	2	14	20
	330	4	8	20
	580	7	5	30
	825	10	5	40
500 x 200	205	2	14	20
	400	4	8	20
	700	7	5	30
	1035	10	5	40
600 x 200	250	2	14	20
	500	4	8	20
	870	7	5	30
	1250	10	5	40
700 x 200	290	2	14	20
	560	4	8	20
	980	7	5	30
	1450	10	5	40
800 x 200	330	2	14	20
	660	4	8	20
	1160	7	5	30
	1650	10	5	40

Volume flow ranges and minimum pressure differentials				
B x H mm	l/s	m/s	Δ V ± %	Δ Pg min in Pa
300 x 300	185	2	14	20
	360	4	8	20
	630	7	5	25
	920	10	5	35
400 x 300	245	2	14	20
	480	4	8	20
	840	7	5	25
	1230	10	5	35
500 x 300	305	2	14	20
	600	4	8	20
	1050	7	5	25
	1535	10	5	35
600 x 300	370	2	14	20
	740	4	8	20
	1290	7	5	25
	1850	10	5	35
700 x 300	430	2	14	20
	840	4	8	20
	1470	7	5	25
	2150	10	5	35
800 x 300	490	2	14	20
	980	4	8	20
	1720	7	5	25
	2450	10	5	35
900 x 300	555	2	14	20
	1080	4	8	20
	1890	7	5	25
	2770	10	5	35
1000 x 300	620	2	14	20
	1240	4	8	20
	2150	7	5	25
	3100	10	5	35

TROX® TECHNIK
The art of handling air

Vary Control VAV Box
Type 'TVL'

Aerodynamic Data – H = 400 to 1000

Volume flow ranges and minimum pressure differentials				
B x H mm	l/s	m/s	Δ V ± %	Δ Pg min in Pa TVL
400 x 400	325	2	14	20
	640	4	8	20
	1120	7	5	25
	1630	10	5	35
500 x 400	410	2	14	20
	800	4	8	20
	1400	7	5	25
	2040	10	5	35
600 x 400	490	2	14	20
	980	4	8	20
	1720	7	5	25
	2450	10	5	35
700 x 400	570	2	14	20
	1120	4	8	20
	1960	7	5	25
	2850	10	5	35
800 x 400	650	2	14	20
	1300	4	8	20
	2280	7	5	25
	3250	10	5	35
900 x 400	735	2	14	20
	1440	4	8	20
	2520	7	5	25
	3670	10	5	35
1000 x 400	820	2	14	20
	1640	4	8	20
	2850	7	5	25
	4100	10	5	35
500 x 500	510	2	14	20
	1000	4	8	20
	1750	7	5	30
	2540	10	5	40
600 x 500	610	2	14	20
	1200	4	8	20
	2100	7	5	30
	3050	10	5	40
700 x 500	710	2	14	20
	1400	4	8	20
	2450	7	5	30
	3550	10	5	40
800 x 500	810	2	14	20
	1600	4	8	20
	2800	7	5	30
	4050	10	5	40
900 x 500	915	2	14	20
	1800	4	8	20
	3150	7	5	30
	4570	10	5	40
1000 x 500	1020	2	14	20
	2000	4	8	20
	3500	7	5	30
	5100	10	5	40

Volume flow ranges and minimum pressure differentials				
B x H mm	l/s	m/s	Δ V ± %	Δ Pg min in Pa TVL
600 x 600	730	2	14	20
	1440	4	8	20
	2520	7	5	30
	3650	10	5	40
800 x 600	970	2	14	20
	1920	4	8	20
	3360	7	5	30
	4850	10	5	40
1000 x 600	1220	2	14	20
	2400	4	8	20
	4200	7	5	30
	6100	10	5	40
800 x 800	1300	2	14	20
	2560	4	8	20
	4480	7	5	30
	6500	10	5	40
1000 x 800	1620	2	14	20
	3200	4	8	20
	5600	7	5	30
	8100	10	5	40
1000 x 1000	2020	2	14	20
	4000	4	8	20
	7000	7	5	30
	10100	10	5	40