

Price list 2012

**TROX<sup>®</sup> TECHNİK**

 **Auranor**



Tore Holthe

## Dear customer/business partner

Another year has come to an end, and 2011 has presented us with a range of exciting challenges. As a company, we have strengthened our products and solutions platform - primarily in terms of large projects with prefabricated and system-integrated solutions. Undoubtedly, this will provide major savings for contractors and builders when compared to the former practice of buying individual components with subsequent expensive assembly processes.

Our main area of development has been VAV solutions with ancillary management systems, but we have also focused on our new chilled beams now available with fully integrated solutions for supply and extract air, lighting, sprinklers, commissioning and cabling.

With signs of optimism after the 2009 and 2010 downturn, forecasting for 2011 was initially very difficult. The financial crisis in Europe in 2011 has resulted in some stagnation in the building industry.

However, based on contracts secured in 2010 and 2011 there are signs of more stability in the building sector for 2012. We are, of course, also dependent on a less volatile Europe - and this is far from guaranteed. With a low interest rate and increased pressure on the Norwegian Krone, we still need some scaling down in the Norwegian economy in order to regain our competitiveness in the export market.

2011 has also seen a number of bankruptcies in the sector, and this creates uncertainty and increased focus on control and stability among customers.

TROX Auranor will continue its efforts to strengthen its competitive edge through more effective factory procedures. Major investments in automatic/robotic production cells have been made in 2011. This has enabled us to keep costs at an acceptable level.

The new VIP-X new management systems for VAV have also been developed, and this is a further step towards more effective building processes. Our main objective is to improve effectiveness at the assembly and installation stage, including commissioning, in order to ensure that the total cost of the building process is reduced by using prefabricated and system-integrated solutions. With the new VIP-X, contractors are provided with a competitive advantage compared to other players in the sector using more conventional systems.

With an exciting year ahead, we are committed to strengthen our market position by giving our customers the opportunity to utilise our expertise and solutions to their own advantage and thus providing them with even better chances to succeed.

There are signs of some industry convergence as more and more companies in the sector become involved in building automation. Hence, it is important to move in the right direction in order to prevent other disciplines from gaining control over what was originally ventilation management. TROX Auranor will do its utmost to ensure that ventilation companies are competitive in terms of high-quality product solutions for management and control.

A HVAC trade show will be held in October 2012, and we will of course be participating with new and exciting products.

One of our objectives is to extend our network of contacts across disciplines and sectors as this will expand the pool of knowledge for all parties involved.

**We would like thank you for your custom and support in 2011, and we wish you all a prosperous 2012.**

Yours sincerely,

TROX Auranor Norge AS  
Tore Holthe  
Managing Director

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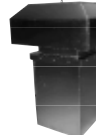

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# Externally mounted ATDs

	 <b>JTA-1-R</b> w/damper and mounting ring	 <b>JTA-1-F</b> w/damper and base plate	 <b>JTA-1-D</b> Additional charge for circular top	 <b>JTA-1-L</b> Additional charge for sound-attenuating top cover	 <b>JTA-2</b> Complete w/top cover, cone and damper housing	 <b>RAT</b> Inlet /exhaust unit	 <b>TGF</b> Feed-through connection for RAT/ JTA-1
Dim.	Price	Price	Price	Price	Price	Price	Price
160	1 552	2 007	622	1 899	–	–	2 100
200	1 683	2 170	680	2 050	4 964	–	2 491
250	2 202	2 855	884	2 690	6 010	–	2 876
315	2 753	3 573	1 100	3 353	6 819	11 205	3 269
400	3 875	4 942	1 443	4 559	8 617	13 519	3 665
500	5 373	6 964	1 783	6 056	11 054	16 028	4 709
630	7 544	10 205	2 788	8 507	15 324	21 649	6 957
800	10 702	13 911	3 934	12 230	20 551	26 805	8 692
1000	13 622	18 136	4 887	13 862	27 495	36 075	10 717
1250	18 834	23 897	6 377	17 154	34 494	47 411	13 033

		 <b>KAI</b> Combined inlet/exhaust unit	 <b>KAI</b> Complete w/ TGF	 <b>ITH/AKH</b> Inlet or exhaust	 <b>ITH/AKH</b> w/TGF
Type	Duct dim.	Price	Price	Price	Price
B	160	5 775	–	–	–
1	200-315	13 575	19 172	9 987	14 093
2	400 - 500	17 302	24 761	12 714	18 205
2 B	500 - 630	19 425	26 884	14 281	20 156
3	630 - 800	25 860	34 108	19 039	25 101
4	1000	28 418	39 795	22 983	31 343

# Fire/smoke dampers

## FK-SE

Rectangular EI 120  
Fire/smoke damper



H/W	200	300	400	500	600	700	800	900	1000	1100	1200
200	11 399	11 771	12 081	12 453	12 700	13 134	13 444	15 736	16 232	16 479	16 913
250	11 647	11 895	12 205	12 638	13 072	13 506	13 815	15 984	16 479	16 913	17 223
300	11 771	12 081	12 391	12 824	13 258	13 754	14 063	16 294	16 789	17 223	17 533
350	11 895	12 205	12 576	13 010	13 506	14 001	14 311	16 541	17 099	17 533	17 904
400	12 081	12 391	12 762	13 258	13 754	14 249	14 621	16 851	17 409	17 904	18 276
450	13 939	14 311	14 745	15 364	15 736	16 232	16 665	17 285	17 842	18 338	18 710
500	14 125	14 559	14 993	15 612	15 984	16 541	16 975	17 657	18 338	18 710	19 205
600	–	14 869	15 488	16 046	16 603	17 161	17 595	18 152	18 896	19 329	19 887
700	–	15 364	15 922	16 603	17 099	17 657	18 152	18 834	19 453	20 073	20 506
800	–	15 736	16 479	17 099	17 719	18 338	18 834	19 453	20 073	20 692	21 188

Largest dim: 1500 x 800

Prices above incl. 24V actuator. Additional charge for 230V: NOK 558

## TNR-SE

Circular EI 120  
Fire/smoke damper



Dim	Price incl. 24V actuator	Price incl. 230V actuator
200	9 950	10 398
250	10 348	10 796
315	10 845	11 293
400	11 492	11 940
500	12 537	12 985
630	14 228	14 676

## FKR-SE

Circular EI 60  
Fire/smoke damper



Dim	Price incl. 24V actuator	Price incl. 230V actuator
200	9 901	10 378
250	10 219	10 696
315	10 642	11 119
400	11 066	11 543
500	11 966	12 443

## FKRS-SE

Circular EI 60  
Fire/smoke damper







Dim	Price incl. 24V actuator	Price incl. 230V
100	6 608	7 104
125	6 663	7 159

## Accessories, fire/smoke dampers



Accessories, fire/smoke dampers	Price
FMS-A - Control cabinets	18 776
BKN 230-24 Trafo/Communication unit	2 025
SDD-S65-R Smoke detector 24V	6 900

# Extract air terminal devices

	 <b>LVS</b> w/mounting frame KKT	 <b>KSO</b> w/mounting frame KKT	 <b>INTER</b> Exhaust valve mounting kit for lightweight ceilings	 <b>Space-1</b>
Dim.	Price	Price	Price	Price
100	187	241	163	366
125	213	267	170	366
160	247	309	178	366
200	320	375	185	366
250	–	–	–	–
315	–	–	–	–

	Price
 <b>Space-4A/B</b> 160-200	366
<b>Space-5</b>	366

## RIA-SA



H / W	400	600	800	1 000	1 200	1 400	1 600	1 800	2 000
200	961	1 190	1 394	1 611	1 890	2 082	2 311	2 815	3 388
400	1 336	1 665	1 932	2 233	2 625	2 930	3 223	3 618	4 108
600	1 969	2 345	2 755	3 144	3 694	3 836	4 502	4 903	5 458
800	2 432	2 917	3 372	3 862	4 148	4 586	5 612	6 184	6 252
1000	2 887	3 436	4 007	4 611	5 497	6 056	6 602	7 073	7 372
1200	3 491	4 209	4 925	5 630	6 292	7 010	7 693	7 774	8 519
1400	3 970	4 680	5 574	6 501	7 183	7 967	8 807	9 207	9 863
1600	4 447	5 368	6 260	7 183	8 034	8 995	9 863	10 358	10 588
1800	4 925	5 917	6 907	7 902	8 963	9 916	10 943	11 504	12 065
2000	5 368	6 501	7 571	9 008	9 847	10 943	12 036	12 784	13 476

## UPK

w/mounting frame




H / W	200	300	400	500	600	800
100	496	572	650	742	820	989
150	542	628	719	820	911	1 099
200	592	705	789	902	1 002	1 212
300	–	848	986	1 103	1 228	1 487
400	–	–	1 067	1 223	1 364	1 658
500	–	–	–	1 397	1 575	1 952
600	–	–	–	–	1 792	2 181

Colour: All products delivered in white as standard. Alternative colours available on request.

Other dimensions available without mounting frame and with pre-drilled holes in flange. Largest dim: 1000 1000.

Price on request.

# Extract air terminal devices

UPK-H-S/B w/ ATK plenum box	Dim.	Price
	160	2 859
	200	3 000
	250	3 136
	315	3 276
	400	3 415

UPK-H-600-600:	Price
Mesh grilles for modular ceiling systems	1 158
	

ATK-plenum box (for UPK)		
WxH		Price
200-100 ansl. Ø100		1 026
200-100 ansl. Ø125		1 026
300-100 ansl. Ø160		1 078
300-150 ansl. Ø200		1 309
400-100 ansl. Ø160		1 309
400-150 ansl. Ø250		1 347
400-200 ansl. Ø250		1 945
500-100 ansl. Ø200		1 663
500-150 ansl. Ø250		1 800
500-200 ansl. Ø315		2 121
500-300 ansl. Ø315		2 519
600-200 ansl. Ø315		2 426

Dim.	ESNU galv*	ESNU w/decorative flange
	Price	Price
100	302	714
125	375	760
160	435	854
200	450	923
250	630	1 022
315	820	1 212
400	1 200	1 425
500	1 275	1 805
630	1 665	2 274
800	2 050	–
1 000	2 440	–

\* ESNU w/o decorative flange comes in a galvanised finish.

Dim.	T = top spigot S = side spigot	
	Price	Price
160	1 141	1 940
200	1 227	2 086
250	1 413	2 403
315	1 588	2 700
400	1 886	3 205

Systems for other ceiling types available

Dim.	USI	USI w/attenuator
	Price	Price
200	4 066	4 853
250	4 325	5 244
315	4 593	5 900
400	5 900	7 602
500	7 209	9 176

Colour: All products, including USI, delivered in white as standard. Other colours available on request.

# Grilles and air transfer devices

## OVA

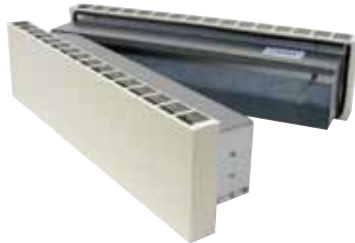
Protruding air transfer grille



W x H	Price	W x H	Price	W x H	Price
100-100	356	400-100	504	500-500	935
150-100	364	400-150	529	600-200	694
150-150	389	400-200	581	600-300	823
200-100	413	400-250	645	600-400	892
200-150	441	400-300	673	600-500	1 074
200-200	468	400-400	702	600-600	1 173
250-250	561	500-100	528	-	-
300-100	480	500-150	550	-	-
300-150	514	500-200	593	-	-
300-200	540	500-250	682	-	-
300-250	613	500-300	814	-	-
300-300	633	500-400	848	-	-

## LOV

Air transfer device w/sound attenuation



Type	Price
612	1 029
613	1 121
812	1 228
813	1 320

## TOG-R

per set



Type	Price
125	991
160	1 144
200	1 294

## OVF

Ei-60 approved air transfer

Dim.	Price
500 x 100	6 859
500 x 150	7 292

All valves delivered in white as standard.

Other colours available, price on request.



# Grilles and air transfer devices

## RIA-1

Inlet/exhaust grille



W \ B	400	600	800	1 000	1 200	1 400	1 600	1 800	2 000
200	641	794	929	1 074	1 260	1 388	1 541	1 877	2 259
400	891	1 111	1 289	1 488	1 750	1 953	2 149	2 413	2 739
600	1 312	1 564	1 837	2 096	2 463	2 557	3 001	3 269	3 639
800	1 621	1 943	2 247	2 574	2 765	3 058	3 742	4 123	4 168
1000	1 925	2 291	2 672	3 074	3 665	4 037	4 401	4 715	4 914
1200	2 328	2 806	3 283	3 753	4 195	4 674	5 129	5 182	5 679
1400	2 647	3 120	3 716	4 335	4 789	5 311	5 871	6 138	6 576
1600	2 965	3 580	4 174	4 789	5 356	5 997	6 576	6 906	7 058
1800	3 283	3 945	4 605	5 269	5 975	6 611	7 296	7 670	8 043
2000	3 580	4 335	5 048	6 006	6 564	7 296	8 024	8 523	8 985

Material: seawater-resistant aluminium.

Delivered with 50mm module as standard. Price as per above dimensions.

RIA frame: calculation factor 0.25

RIA-2 (without flange): calculation factor 1.2

RIA-3 (w/ sound attenuator): calculation factor 3.0

RIA-circular BxHx: calculation factor 3.0

Anodized finish: calculation factor 1.8

RIA special: Price on request.

Max. single-piece grille dimension: 2400x2400 mm

Additional charge for heating cable: RIA price x 3

## VSR

Waterproof inlet grille



W \ B	600	800	1000	1200	1400	1600	1800	2000
600	10 372	10 627	10 883	12 894	13 189	13 487	15 451	15 787
800	10 613	10 913	11 316	13 511	13 917	14 325	16 410	16 872
1000	10 859	11 307	11 753	14 124	14 642	15 163	17 366	17 961
1200	12 853	13 482	14 111	14 743	17 569	18 277	18 322	22 673
1400	13 137	13 878	14 637	17 585	20 496	21 294	22 953	29 550
1600	13 416	14 271	15 117	18 290	23 423	24 133	24 057	31 148
1800	15 368	16 345	20 617	26 353	26 854	27 149	29 716	31 940
2000	15 696	16 796	21 305	27 890	29 279	30 166	31 124	32 473

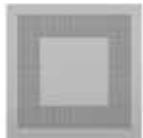

Material: seawater resistant aluminium.

Delivered with 50mm module as standard. Price as per above dimensions.

Charge per millimetre: calculation factor 1.25

Enamel finish: Price on request.

# Supply diffusers and plenum boxes

							
	Orion-LØV	Orion-Opus	Orion-PTV	TLG-LØV	TLG-LØV S	RFD-R-D-K	DUK-V
Dim.	Price	Price	Price	Price	Price	Price	Price
100	–	–	–	600	1 006	–	1 867
125	908	1 031	981	636	1 050	1 062	1 978
160	913	1 036	986	671	1 091	1 062	2 087
200	982	1 115	1 061	733	1 166	1 298	2 362
250	1 130	1 283	1 221	1 167	1 686	1 475	2 691
315	1 270	1 441	1 372	1 338	1 892	2 243	3 350
400	1 508	1 712	1 629	–	–	3 246	4 119

					
	Tellus LØV	Tellus LØV HD	Tellus LØV-S	Tellus Opus	Tellus Opus-D
Dim.	Price	Price	Price	Price	Price
100	1 241	–	–	–	–
125	1 381	–	–	1 517	–
160	1 502	–	1 802	1 761	–
200	1 728	2 588	2 074	2 324	3 103
250	2 224	3 327	2 668	3 188	4 190
315	2 793	4 188	3 352	–	–

All supply diffusers delivered in white as standard.  
Other colours available on request.

		Price
For Spiro duct	<b>Opus-4/5D</b> Single nozzle row Ø 200–1000	686
	<b>Opus-4/5-DD</b> Double nozzle row Ø 315–1250	907
For rectangular duct		

All supply diffusers delivered in white as standard.  
Other colours available on request.

<b>Luna</b> Galvanised finish	
Dim.	Price
100-100	706
100-125	706
100-160	735
125-125	735
125-160	735
125-200	863
160-160	863
160-200	863
160-250	1 026
200-200	1 026
200-250	1 026
200-315	1 308
250-250	1 308
250-315	1 308
250-400	1 390
315-315	1 390
315-400	1 390

FBA Floor diffuser	150	200	150	200
	1- Upolert		3 - Polert, sortlakkert	
FBA K-SM	929	1 114	1 300	1 548
FBA K-SV	1 053	1 238	1 424	1672

# Supply diffusers and plenum boxes

<b>TLK</b>							
	<b>K / L</b>	<b>V</b>	<b>TLH</b>				<b>JBV</b>
	Rear spigot (B)	Side spigot (S)	Rear spigot (B)	Side spigot (S)		Front	Complete
Dim.	Price	Price	Price	Price	Price	Price	Price
100	1 152	1 279	1 248	1 375	430	589	1 220
125	1 279	1 419	1 407	1 546	449	613	1 272
160	1 485	1 635	1 769	1 919	488	784	1 628
200	1 767	1 973	2 168	2 374	-	-	-
250	2 208	2 465	2 460	2 716	-	-	-







	<b>TUB 1/4 -1/2</b>			<b>TUB Cover</b>			
Dim.	L=2m	L=4m	L=6m	L=1m	L=2m	L=3m	L=4m
	Price	Price	Price	Price	Price	Price	Price
160	5 972	9 873	12 836	1 646	2 470	3 294	4 113
200	7 259	11 368	14 727	1 718	2 577	3 436	4 295
250	8 256	12 847	16 750	1 791	2 684	3 578	4 482

<b>DKW</b>			
<b>Duct diffuser</b>			<b>Blanked-off duct</b>
incl. connection nipples and end cap			
Dim.	Activ L=2m	Activ L=4m	Per meter
160	4 237	7 582	1 515
200	5 095	9 116	1 820
250	5 640	10 092	2 021
315	6 777	12 125	2 426
400	8 506	15 220	2 936
500	10 633	19 025	3 805

	<b>TIR</b>	<b>TIH</b>
	Galvanized	Galvanisert
	Additional charge for deflector: fact.1.3	
Dim.	Price	Price
315	3 522	4 654
400	4 148	5 652
500	5 152	6 780
630	6 532	-
800	7 782	-

All supply diffusers delivered in white as standard. Other colours available on request. TIR and TIH can be supplied in galv. finish.

# Siv-inn Comfort

									
<b>Siv-inn-1-1/4 and 1/2R</b>					<b>Telescopic cover</b>	<b>Base</b>	<b>Decorative cover</b>	<b>LSM</b>	<b>Siv-inn-2000</b>
H = 600   H = 900   H = 1200   H = 1500					Adjustable	H = 75			Complete unit ¼ and ½ cover
Dim.	Price	Price	Price	Price	Price	Price	Price	Price	Price
100	1 934	–	–	–	1 702	187	187	1 233	–
125	2 100	–	–	–	1 892	222	222	1 296	5 284
160	2 306	–	–	–	2 077	271	271	1 490	5 870
200	–	3 124	–	–	2 453	303	303	1 782	7 355
250	–	3 498	–	–	2 694	344	344	1 952	8 142
315	–	–	4 710	–	2 939	386	386	2 120	–
400	–	–	–	6 279	4 188	639	–	2 938	–

**Siv-inn School**




Cover  
L = 1000

Dim.	Price	Price
125	6 295	1 145
160	6 905	1 332
200	7 918	1 521
250	9 339	1 713
315	11 164	1 902


**Siv-inn Aula**

**Aula - 100/125**



Without mounting

**Aula - 400-500-600 and**




Connection box   Front grille   Complete w/o damper

Dim.	Price	Price	Price	Price
100	748	–	–	–
125	832	–	–	–
400	–	327	434	761
500	–	359	450	809
600	–	393	476	869

Aula 2000 incl. one splice connector and two end pieces. NOK 1 056.-

**Siv-inn Embedded**



w/front grille   Duct connect   Complete without moulding

B x H	Price	Price	Price
300-600	1 812	855	2 667
600-300	1 812	855	2 667
400-400	1 812	855	2 667
600-600	2 126	1 063	3 189
600-900	2 760	1 275	4 035

**Siv-inn panel**




**Siv-inn - PP** w/flush flange   **Siv-inn - PK** w/bracket flange

Siv-inn Panel is available complete with box or custom-made to fit pre-installed box.  
Price on request

All Siv-inn 1 units are delivered in white as standard.  
Other colours available on request.

# Siv-inn Comfort / Siv-inn-2 Industry

## Siv-inn T/V



Type	Price
0312	5 086
0612	6 022
0618	7 155
1212	8 280
1218	9 409
1224	11 664

Additional charge for perforated sides: 10% per side.  
 Additional charge for altered spigot position: 5%  
 Colour: standard white.

## Siv-inn-2



H = 2000	
Type	Price
206	6 956
2010	7 552
2012	10 330

Delivered in a galvanized finish.  
 Additional charge for standard white: 20%







## Siv-inn-2



Dim.	1/4.R		1/2.R		1/1.R	
	H=2000 Price	H=1500 Price	H=2000 Price	H=1500 Price	H=2000 Price	H=1500 Price
315	8 260	7 530	8 260	7 530	8 260	7 530
400	10 913	9 786	10 913	9 786	10 913	9 786
500	13 008	11 429	13 008	11 429	13 008	11 429
630	15 964	13 951	15 964	13 951	15 964	13 951
800	18 809	16 552	18 809	16 552	18 809	16 552

Delivered in a galvanized finish. Additional charge for standard white: 20%

# Dampers-Circular-VAV

									
	<b>DRS</b>	<b>DRS-T</b> KI.4	<b>DRS-M</b>	<b>DRS-TM</b> CI.4	<b>Rego-T</b> w/circular spigot	<b>Iris</b>	<b>EPS</b>	<b>RN</b>	<b>VFC</b>
<b>Dim.</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>
100	*164	410	-	586	-	503	346	-	*1 663
125	*185	436	-	631	-	532	385	-	*1 775
160	*212	490	-	643	-	570	483	-	*1 775
200	*242	529	-	693	-	640	500	-	*1 942
250	*291	545	-	835	-	1 182	614	-	*2 108
315	*416	558	-	877	-	1 321	781	2 606	-
400	714	1 022	963	1 207	1 714	3 107	-	3 475	-
500	919	1 227	1 098	1 350	2 072	4 870	-	-	-
630	1 139	1 468	1 341	1 597	2 823	6 404	-	-	-
800	-	-	-	-	3 577	9 950	-	-	-
1 000	-	-	-	-	4 824	-	-	-	-
1 250	-	-	-	-	6 969	-	-	-	-

\*NB! DRS and VFC can be fitted with actuator. Type: CM

Mounting kit for actuator RN: NOK 712.-

General design: Galvanized steel. Other material available, price on request.

						
	<b>Leo</b> not encased	<b>Leo-D</b> encased	<b>LEV-K</b> Type 1-4	<b>LEV-L</b> Type 1-4	<b>ASN</b>	<b>TVJ/ TVT</b> Rectangular
<b>Dim.</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	<b>Price</b>	
100	5 026	6 344	618	786	661	Price on request
125	5 121	6 581	640	870	703	
160	5 235	6 792	707	908	787	
200	5 351	7 005	808	1 036	855	
250	5 651	7 493	967	1 236	951	
315	6 051	8 107	1 275	1 973	1 133	
400	6 842	9 422	1 695	2 226	1 331	
500	7 641	10 518	-	2 789	1 694	
630	8 363	11 513	-	3 438	2 134	

Additional charge for LON actuator 100 - 400 NOK 2 053.-

500 - 630 NOK 3 005.-

General design: Galvanized steel. Other material available, price on request.



<b>VAV accessories</b>	<b>Price</b>
CR-24 B1 Temp.regulator	1 926
CR-24 B2 Temp.regulator	2 216
IR24-P Movement detector wall	1 995
IR24-PC Movement detector ceiling	2 495
Optosense-IAQ Sensor CO2 temp	5 250
Optosense-IAQ Controller CO2 temp	9 250
UK 24-LON	4 875
UK 24-KNX	7 780
UK 24-BacNet	7 020
UK 24-Modbus	5 975
COU24-A-MP Optimizer	8 265
DTT150-010 Pressure sensor	2 950
OP5U Pressure control complete	8 950
<b>Commissioning tool</b>	
PC-Tool complete	15 053
ZTH-GEN Service tool	5 044

# Dampers - rectangular

## TSK

TSK shut-off damper  
Class 3



H \ W	400	600	800	1 000	1 200	1 400	1 600	1 800	2 000	2 200	2 400	2600
200	2 407	2 621	2 883	3 257	3 706	4 127	5 766	6 085	6 515	6 879	7 412	7 939
400	3 175	3 440	3 706	4 048	4 550	5 293	7 412	7 829	8 097	8 571	9 100	9 897
600	3 839	4 048	4 605	5 768	6 190	6 720	9 210	10 267	11 535	11 907	12 381	12 806
800	4 367	4 895	5 424	6 483	7 674	8 335	10 848	11 907	12 966	14 293	15 348	16 142
1000	5 160	5 691	6 483	7 277	8 421	9 207	12 966	13 761	14 553	15 878	16 842	17 729
1200	5 691	6 614	7 674	8 360	8 865	9 923	15 348	15 878	16 721	16 935	17 729	18 784
1400	6 351	7 277	8 071	9 262	10 583	11 376	16 142	16 935	18 524	20 373	21 165	21 962
1600	6 881	7 939	8 865	10 449	11 510	12 436	17 729	19 319	20 898	21 690	23 019	-
1800	7 408	8 865	10 318	11 642	12 568	13 230	20 636	22 225	23 284	24 341	-	-
2000	8 202	9 659	11 246	12 436	13 230	14 287	22 492	23 807	24 871	-	-	-

### Class 4: factor 1.2

Additional charge for damper actuator: NOK 472.-

Charge per millimetre: calculation factor 1.25

## Rego-T

Adjustable damper



H \ W	400	600	800	1 000	1 200	1 400	1 500
200	974	1 026	1 126	1 429	1 681	2 100	2 519
400	1 203	1 369	1 501	1 697	2 100	2 519	2 939
600	1 544	1 719	1 908	2 104	2 391	2 834	3 357
800	1 886	2 061	2 206	2 499	3 303	3 743	3 948
1000	2 303	2 646	3 027	3 303	3 872	4 182	4 845
1200	2 519	3 086	3 525	4 182	4 830	5 284	5 726
1400	2 939	3 398	3 853	4 402	5 835	6 170	6 707
1500	3 323	3 858	4 292	5 284	5 975	6 707	7 545

Delivered with 50mm module as standard. Price as per above dimensions.

Charge per millimetre: factor 1.25

## Belimo

Damper actuator



Type	Function	Price	Damper dim.
CM 230/24-F-R	Off-On	1 115	DRS 100-315 and VFC 100-250
CM 24-SR-F-R-2	Modulating	2 188	DRS 100-315 and VFC 100-250
LM 230/24-AF	Off-On	1 233	DRS-TM Ø100-315
LM 24A-SRF	Modulating	1 779	DRS-TM Ø100-315
LM 230A-SRF	Modulating	2 068	DRS-TM Ø100-315
NM 230/24A	Off-On	1 527	DRS-M Ø400-630 / Tett spj. <1,5 m2
NM 24A-SR	Modulating	2 330	DRS-M Ø400-630 / Tett spj. <1,5 m2
NM 230A-SR	Modulating	2 642	DRS-M Ø400-630 / Tett spj. <1,5 m2
SM 24A	Off-On	1 745	DRS-TM Ø400-630 / Tett spj. >1,5<3,6m²
SM 230A	Off-On	1 810	DRS-TM Ø400-630 / Tett spj. >1,5<3,6m²
SM 24A-SR	Modulating	2 663	DRS-TM Ø400-630 / Tett spj. >1,5<3,6m²
SM 230A-SR	Modulating	3 077	DRS-TM Ø400-630 / Tett spj. >1,5<3,6m²
LF 230/24	Spring system	2 154	DRS-M/TM Ø100-630 / Damper cl. >1,5<3,6m²
SF 230/24	Spring system	3 368	DRS-M/TM Ø400-630 / Damper cl. >1,5<3,6m²

Additional charge for installation of damper actuators, DRS, RN and VFC: NOK 149.-

# Attenuators – circular/rectangular



	LKR L = 300	LKR L = 600	LKR L = 900	LKR L = 1200	LKR L = 1500
Dim.	Price	Price	Price	Price	Price
80	408	434	–	–	–
100	350	385	497	608	–
125	370	501	589	667	–
160	394	542	630	700	–
200	492	558	684	797	–
250	550	704	832	946	–
315	631	981	1 254	1 515	–
400	–	1 406	1 857	2 063	–
500	–	1 697	2 374	2 636	–
630	–	–	2 967	3 298	–
800	–	–	3 756	4 175	–
1 000	–	–	–	–	6 417
1 250	–	–	–	–	8 670

LKR-V calculation factor 1.35 (min. NOK 125.- per unit)



	LEV-K	LEV-L
Dim.	Price	Price
100	618	786
125	640	870
160	707	908
200	808	1 036
250	967	1 236
315	1 275	1 973
400	1 695	2 226
500	–	2 789
630	–	3 438



**LKL**  
Low-profile  
sound attenuator

H \ WxL	400-640	600-640	800-640	1000-640
150	1 347	1 347	1 347	1 347
200	1 347	1 347	1 347	1 347
250	1 347	1 347	1 353	1 516
300	1 448	1 448	1 653	1 853
350	1 582	1 582	1 972	2 191
400	2 021	2 021	2 275	2 527

H \ WxL	400-1240	600-1240	800-1240	1000-1240
150	1 347	1 347	1 347	1 347
200	1 347	1 365	1 550	1 736
250	1 502	1 736	1 961	2 172
300	1 819	2 122	2 375	2 645
350	2 105	2 491	2 789	3 039
400	2 527	2 863	3 200	3 537

	400-1500	600-1500	800-1500	1000-1500
	1 347	1 602	1 853	2 021
	1 685	1 811	2 324	2 524
	2 065	2 105	2 694	3 031
	2 479	2 527	3 251	3 537
	2 907	2 947	3 773	4 128
	3 368	3 873	4 297	4 716

# Attenuators - rectangular

## LKK



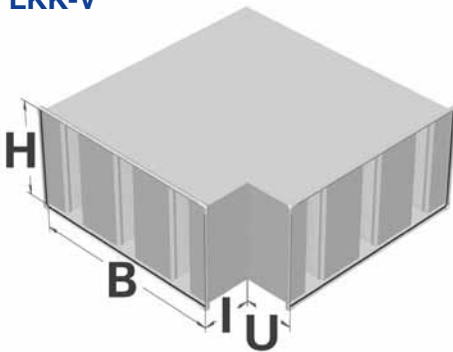
Price calculation example:

LKK: W = 800, H = 400 and L = 1240

For 800 width and 1240 length, the calculation factor equals 965

$$\text{Price} = \frac{965 \times 400 \text{ (height)}}{100} = \text{NOK } 3\,860.-$$

## LKK-V



Price calculation example:

LKK-V: B=800 H=400 I= 400 and U=300

**The following formula is used to determine the attenuator length:**

$$L = B + I + U$$

For 800 width and 1500 length, the calculation factor is 1305.

$$\text{Price} = \frac{1305 \times 400}{100} \times 1,5 = 7\,830.-$$

\* Additional charge for right-angle design: factor 1.5

W/L	L= 640	L=1240	L=1500	L=1880	L=2480
600	623	884	1 195	1 505	1 765
700	632	898	1 214	1 529	1 794
800	678	<sup>1)</sup> 965	<sup>2)</sup> 1 305	1 642	1 931
900	688	1 019	1 361	1 705	2 037
1000	694	1 027	1 373	1 719	2 054
1100	729	1 041	1 404	1 768	2 080
1200	737	1 051	1 419	1 786	2 099
1300	789	1 109	1 503	1 896	2 217
1400	811	1 156	1 560	1 966	2 310
1500	851	1 206	1 632	2 055	2 413
1600	876	1 253	1 689	2 127	2 504
1700	917	1 309	1 767	2 226	2 618
1800	962	1 327	1 849	2 288	2 653
1900	969	1 353	1 881	2 322	2 706
2000	999	1 422	1 920	2 419	2 843
2100	1 021	1 454	1 966	2 476	2 911
2200	1 062	1 514	2 043	2 574	3 027
2300	1 085	1 549	2 090	2 632	3 096
2400	1 137	1 586	2 153	2 722	3 170
2600	1 164	1 660	2 243	2 822	3 319
2800	1 239	1 768	2 388	3 005	3 536
3000	1 317	1 881	2 539	3 197	3 760

NB! Max. width for LKK-V = 2400

NB!

The values provided in this table are calculation factors only. Please see examples.

Standard design: Galvanised steel with sound absorbing material.  
Alternative design and material available on request.

Supplied with dust seal and KSA duct connector as standard.

LKK: Rectangular sound attenuator available in standard lengths of 640, 1240 and 1500 mm.  
1880 and 2480 mm lengths are delivered as two-piece units and are assembled on site.

# Complete control and monitoring system for VAV

## VIP-X

VENTILATION INTEGRATED PROCESSING

- Simplifies the start-up procedure
- Eliminates faulty connections
- No licence or software installation
- Acknowledged commissioning methods

Price on request

**We have the expertise!**

# Svalbard chilled beams

## SVALBARD - Simplifies logistics

Svalbard, our newly developed range of chilled beams, provides optimum indoor climate and introduces a revolutionary new and easy installation process.

With Svalbard we can offer a complete prefabricated solution tailored to suit both building and customer requirements.

SVALBARD - a system  
Where focus is on versatility  
and integrated functions.

- Easy modification of nozzle configuration -- a necessity for multi-use premises
- Available with integrated control equipment, light, sprinkler head and exhaust valve.

Price on request



### SVALBARD I

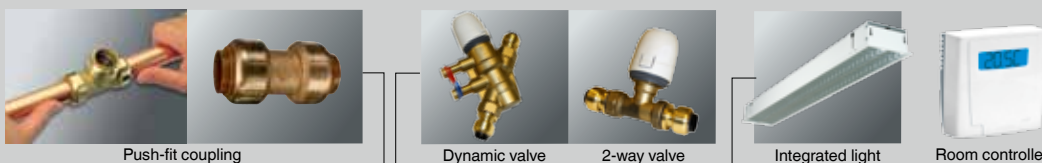
Integrated  
Length: 1200 – 3000 mm  
Suitable for modular ceiling systems

### SVALBARD F

Freely suspended  
Length: 210 cm – 3000 mm

### SVALBARD H

Corner solution  
Length: 1200 – 3000 mm



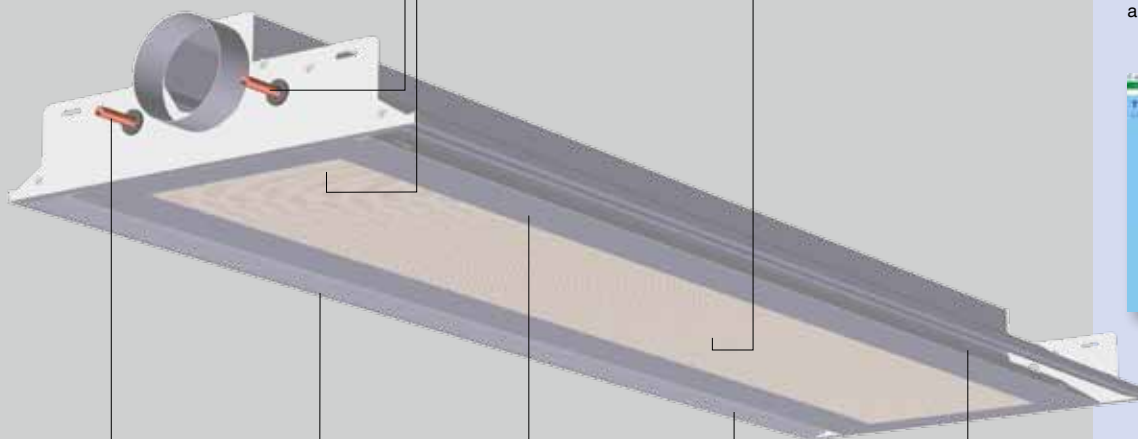
Push-fit coupling

Dynamic valve

2-way valve

Integrated light

Room controller



Flexible pipe connection



Integrated outlet



Adjustable nozzles



Sprinkler



Jet Split

## AURACOOL dimensjonerings- program

Chilled-beam design programmes  
are available at our website [www.trox.no](http://www.trox.no)

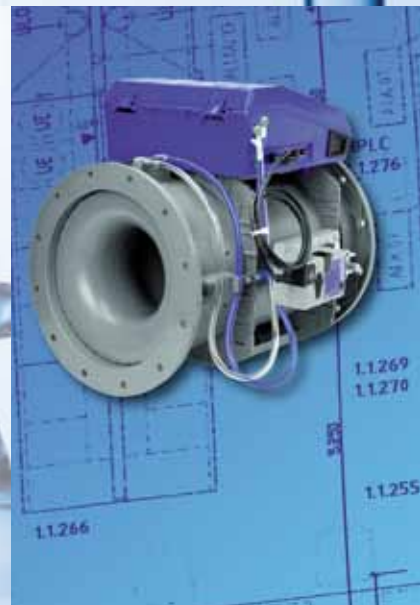


# TROX EASYLAB

## New management system for lab ventilation

- All units inter-communicate immediately
- No addressing required.
- Plug-and-play connections combine easy installation with excellent versatility.
- Damper angle controller option.
- LON/BacNet/Modbus

Price on request



# Terms of sale and delivery

## PRICELIST

Valid from 01/01/2012

Ex Works  
Ex VAT & TAX  
Incoterms 2000

## ALTERATIONS

TROX Auranor reserves the right to alter prices as well as design without prior notice.

## CANCELLATION

Orders for which the production process has commenced must be paid in full.

For standard products, a 70% cancellation fee will apply.

## GENERAL TERMS AND CONDITIONS

Goods are carried in accordance with NL 01, and at the expense and risk of the buyer. It is the responsibility of the consignee to check the goods upon delivery, and any claims must be specified on the consignment note immediately. Delivery of goods to a work site where the consignment cannot be signed for is carried out entirely at the risk of the buyer/consignee.

Late payments will incur interest on arrears at the current rate of 18% per annum.

NB! Goods will remain the SELLER'S PROPERTY until paid in full.

## CLAIMS

Any damaged or defective goods, or damages thereof, shall not be attempted repaired at our expense unless written consent has been obtained in advance, specifying details such as procedure, price etc.

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**Sales Office**

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**Sales Office**

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**TROX<sup>®</sup> TECHNIK**

 **Auranor**