



Description and application:

Rectangular duct damper with double flange, multi-blade type, equipped with an extended shaft suitable for both manual operation and motorized actuation.

Designed for balancing, setting and regulating airflow in HVAC systems, it is suitable for installation in air distribution networks and in rectangular ducts, whether main, secondary or terminal, in ventilation and air conditioning systems, for both civil and industrial applications.

Construction:

- Execution made of natural extruded aluminium alloy EN AW-6060;
- Frame extruded, screwed, depth 120 mm;
- Flange 30mm undrilled;
- Blades extruded without gasket;
- Blade pitch 100 mm with opposed movement operation;
- Central separator with "C" profile for dependent double field when Width > 1700 mm;
- Side sealing strips in aluminium;
- Nylon bushings;
- Stub shafts Ø12 mm in galvanized steel;
- Blades movement by external linkage in galvanized steel;
- Control shaft Ø12 extended L=100mm;
- Control plate suitable for manual operation and/or motorized actuator (for models with anti-rotation rod);
- Metal stops on the frame for blade end position;
- Silicone free.

Available execution:

- Flanges drilled Ø9, pitch 300mm with BM=15mm;
- Atex version (see page 7).

Operating limits:

- Maximum dimensions WxH: 3000x2010 mm;
- Temperature range: from -20* to +80 °C (see option page 2);
- Dimensional drawing and drilling pattern: page 3;
- V max recommended: 15 m/s (see table page 5);
- Pressure: see graph page 5.

* Negative temperature is achievable only if ice formation is prevented.

Certifications and Testing:

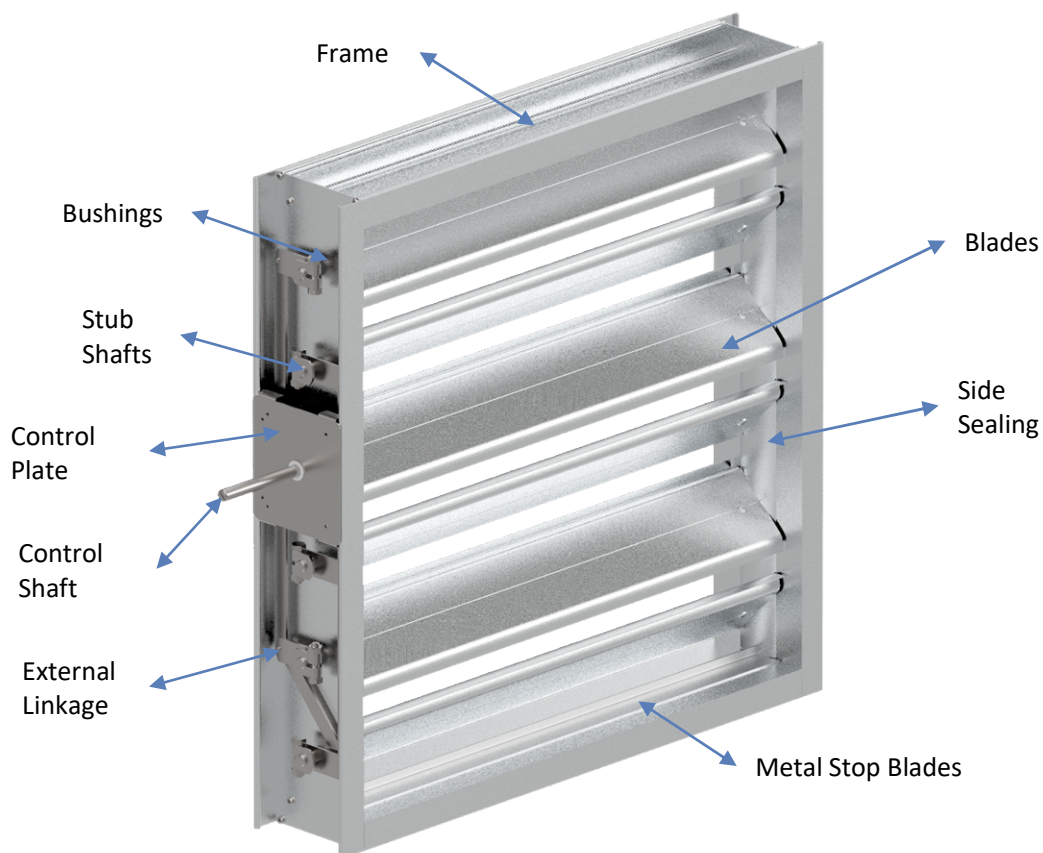
- Pressure drop tests carried out in accordance with ISO 7244 at Istituto Giordano (test report no. 136363);
- Self-generated noise tests carried out in accordance with UNI EN 25135 at Istituto Giordano (test report no. 148829);
- Air leakage tests carried out in accordance with DIN 1946/4;
- Air leakage tests carried out in accordance with EN 1751.



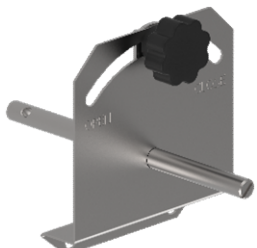
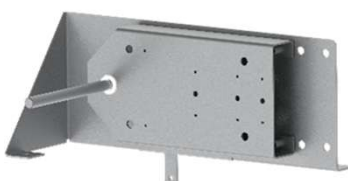
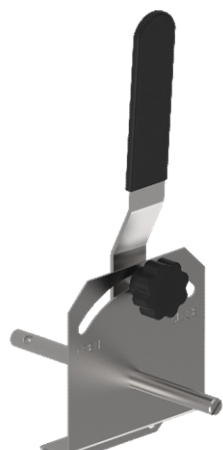
DLT100 AN

Regulation damper 100 mm pitch in natural aluminium

Additional Construction Details



Available Controls, Options, Accessories and Actuators

Manual Control R11 ZN for $A < 1,2m^2$ 	Option Bronze Bushings ($T_{max} +200^{\circ}C$)  Teflon Bushings ($T_{max} +250^{\circ}C$) 	Accessories Control shaft with extended end $\varnothing 18 - R20 \times 4$ (<u>AISI304 shaft</u>)  Internal control plate support R21 ZN 	
R12 ZN for $A > 1,2m^2$ 	Actuators On/Off electric actuators with or without spring return Modulating On/Off electric actuators with or without spring return - Belimo - Siemens - Schischek  Double-acting pneumatic pistons/cylinders with flow regulators - Waircom Integrable accessories: - 5-way solenoid valve + 24V or 230V coil 		



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mm	Actuator Torque Selection Table DLT100 AN [Nm]																		
W\H	210	310	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2010
200	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5	5	10	10	10
300	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5	10	10	10	10
400	3	3	3	3	3	5	5	5	5	5	5	5	5	5	10	10	10	10	10
500	3	3	3	3	3	5	5	5	5	5	5	5	5	10	10	10	10	10	10
600	3	3	3	3	3	5	5	5	5	5	5	5	5	10	10	10	10	10	10
700	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10
800	5	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10
900	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	10
1000	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	10	15
1100	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	15	15	15
1200	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	15	15	15	15
1300	5	5	5	5	5	5	10	10	10	10	10	10	10	10	10	15	15	15	20
1400	5	5	5	5	5	5	10	10	10	10	10	10	10	15	15	15	15	20	20
1500	5	5	5	5	5	10	10	10	10	10	10	10	15	15	15	15	20	20	20
1600	5	5	5	5	5	10	10	10	10	10	10	15	15	15	15	20	20	20	20
1700	5	5	5	5	10	10	10	10	10	10	15	15	15	15	20	20	20	20	20
W	Central Separator with "C" Profile for Double Dependent Field																		
1800	5	5	5	10	10	10	10	10	10	15	15	15	15	20	20	20	20	20	25
1900	5	5	5	10	10	10	10	10	10	15	15	15	15	20	20	20	20	25	25
2000	5	5	10	10	10	10	10	10	15	15	15	15	20	20	20	20	25	25	25
2100	5	5	10	10	10	10	10	10	15	15	15	20	20	20	20	25	25	25	30
2200	5	10	10	10	10	10	10	15	15	15	20	20	20	20	25	25	25	25	30
2300	5	10	10	10	10	10	10	15	15	15	20	20	20	20	25	25	25	30	30
2400	10	10	10	10	10	10	10	15	15	20	20	20	20	25	25	25	30	30	30
2500	10	10	10	10	10	10	15	15	15	20	20	20	25	25	25	30	30	30	30
2600	10	10	10	10	10	10	15	15	20	20	20	20	25	25	30	30	30	30	30
2700	10	10	10	10	10	10	15	15	20	20	20	25	25	30	30	30	30	30	30
2800	10	10	10	10	10	15	15	20	20	20	20	25	30	30	30	30	30	30	30
2900	10	10	10	10	10	15	15	20	20	20	25	25	30	30	30	30	30	30	30
3000	10	10	10	10	15	15	20	20	20	25	25	30	30	30	30	30	30	30	30

Pneumatic Cylinder Selection Table		
Operating air pressure [Bar]	Cylinder Type	
	Piston rod Ø27 stroke L=100mm	Piston rod Ø35 stroke L=150mm
	Torque [Nm]	Torque [Nm]
2	4	10
3	6	15
4	8	20
5	10	25
6	12	30
7	14	36
8	16	41

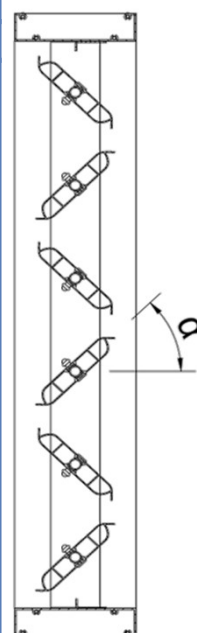


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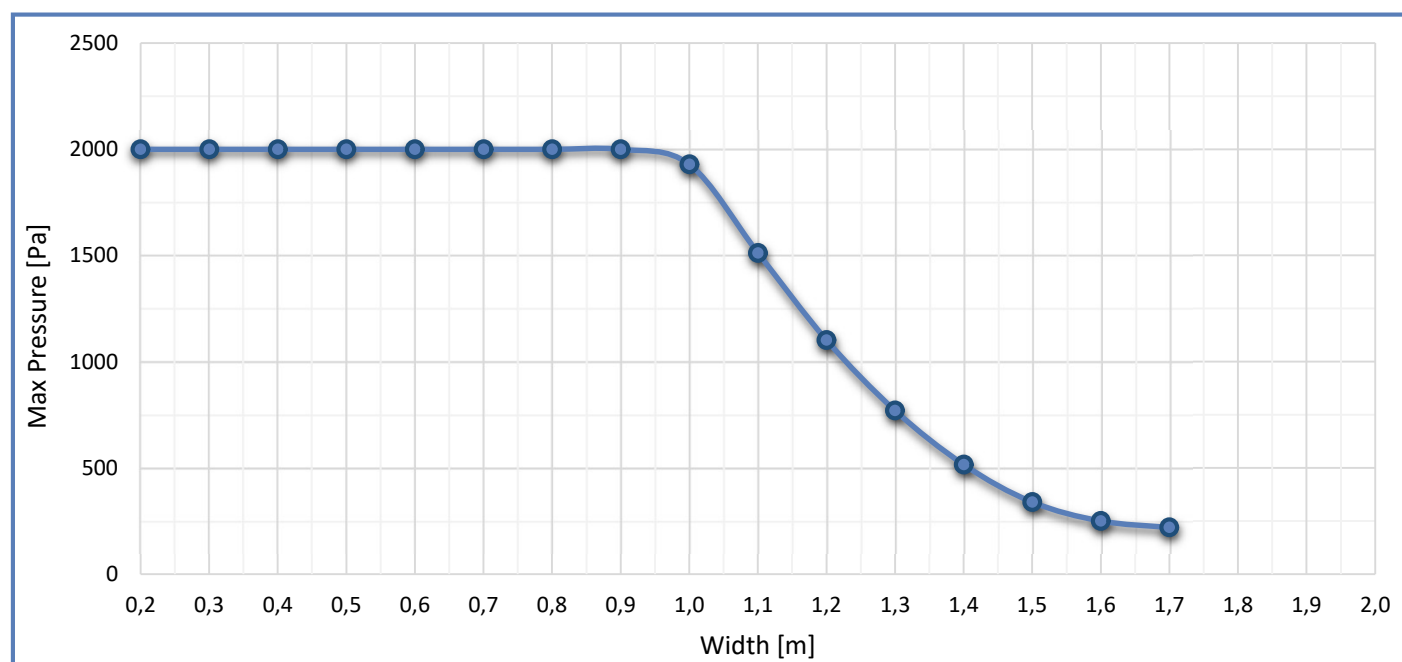
Regulation damper 100 mm pitch in natural aluminium

Vel. [m/s]	Pressure Loss and Generated Noise Data Table DLT100					
	$\alpha = 0^\circ$		$\alpha = 30^\circ$		$\alpha = 60^\circ$	
	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]
1	<5	<20	5	27	78	29
2	<5	23	23	43	320	50
3	<5	35	52	54	780	63
4	<5	43	90	62	1350	72
5	<5	49	150	66	>1500	78
6	<5	53	240	71	>1500	84
7	7	58	330	74	>1500	90
8	8	62	420	78	>1500	93
9	11	65	520	82	>1500	97
10	14	68	640	84	>1500	>100
11	17	71	800	86	>1500	>100
12	20	73	960	89	>1500	>100
13	23	75	1090	91	>1500	>100
14	27	77	1270	93	>1500	>100
15	32	79	1470	94	>1500	>100

A-A



Maximum Allowable Pressure Chart DLT100 AN





DLT100 AN

Regulation damper 100 mm pitch in natural aluminium

mm	General Weight Table DLT100 AN [Kg]																		
W\H	210	310	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2010
200	2,3	2,9	3,6	4,2	4,9	5,5	6,1	6,8	7,4	8,1	8,7	9,3	10,0	10,6	11,3	11,9	12,5	13,2	13,8
300	2,7	3,5	4,2	4,9	5,6	6,3	7,1	7,8	8,5	9,2	9,9	10,7	11,4	12,1	12,8	13,5	14,3	15,0	15,7
400	3,2	4,0	4,8	5,6	6,4	7,2	8,0	8,8	9,6	10,4	11,2	12,0	12,8	13,6	14,4	15,2	16,0	16,8	17,6
500	3,6	4,5	5,4	6,2	7,1	8,0	8,9	9,8	10,7	11,5	12,4	13,3	14,2	15,1	16,0	16,8	17,7	18,6	19,5
600	4,0	5,0	5,9	6,9	7,8	8,8	9,7	10,7	11,7	12,6	13,6	14,5	15,5	16,4	17,4	18,3	19,3	20,2	21,2
700	4,5	5,5	6,5	7,6	8,6	9,7	10,7	11,8	12,8	13,9	14,9	15,9	17,0	18,0	19,1	20,1	21,2	22,2	23,3
800	4,9	6,0	7,1	8,3	9,4	10,5	11,6	12,8	13,9	15,0	16,1	17,3	18,4	19,5	20,6	21,8	22,9	24,0	25,1
900	5,3	6,5	7,7	8,9	10,1	11,3	12,6	13,8	15,0	16,2	17,4	18,6	19,8	21,0	22,2	23,4	24,6	25,8	27,0
1000	5,7	7,0	8,3	9,6	10,9	12,2	13,5	14,8	16,0	17,3	18,6	19,9	21,2	22,5	23,8	25,1	26,3	27,6	28,9
1100	6,2	7,5	8,9	10,3	11,6	13,0	14,4	15,8	17,1	18,5	19,9	21,2	22,6	24,0	25,3	26,7	28,1	29,4	30,8
1200	6,6	8,1	9,5	11,0	12,4	13,9	15,3	16,8	18,2	19,7	21,1	22,6	24,0	25,5	26,9	28,4	29,8	31,3	32,7
1300	7,0	8,6	10,1	11,6	13,2	14,7	16,2	17,7	19,3	20,8	22,3	23,9	25,4	26,9	28,5	30,0	31,5	33,1	34,6
1400	7,5	9,1	10,7	12,3	13,9	15,5	17,1	18,7	20,4	22,0	23,6	25,2	26,8	28,4	30,0	31,6	33,3	34,9	36,5
1500	7,9	9,6	11,3	13,0	14,7	16,4	18,0	19,7	21,4	23,1	24,8	26,5	28,2	29,9	31,6	33,3	35,0	36,7	38,4
1600	8,3	10,1	11,9	13,6	15,4	17,2	19,0	20,7	22,5	24,3	26,1	27,8	29,6	31,4	33,2	34,9	36,7	38,5	40,3
1700	8,8	10,6	12,5	14,3	16,2	18,0	19,9	21,7	23,6	25,4	27,3	29,2	31,0	32,9	34,7	36,6	38,4	40,3	42,1
W	Central Separator with "C" Profile for Double Dependent Field																		
1800	9,6	11,7	13,8	15,9	18,0	20,1	22,2	24,3	26,4	28,5	30,7	32,8	34,9	37,0	39,1	41,2	43,3	45,4	47,5
1900	10,0	12,2	14,4	16,6	18,7	20,9	23,1	25,3	27,5	29,7	31,9	34,1	36,3	38,5	40,7	42,8	45,0	47,2	49,4
2000	10,4	12,7	15,0	17,2	19,5	21,8	24,0	26,3	28,6	30,9	33,1	35,4	37,7	39,9	42,2	44,5	46,8	49,0	51,3
2100	10,8	13,2	15,5	17,9	20,3	22,6	25,0	27,3	29,7	32,0	34,4	36,7	39,1	41,4	43,8	46,1	48,5	50,8	53,2
2200	11,3	13,7	16,1	18,6	21,0	23,4	25,9	28,3	30,7	33,2	35,6	38,0	40,5	42,9	45,3	47,8	50,2	52,6	55,1
2300	11,7	14,2	16,7	19,2	21,8	24,3	26,8	29,3	31,8	34,3	36,9	39,4	41,9	44,4	46,9	49,4	51,9	54,5	57,0
2400	12,1	14,7	17,3	19,9	22,5	25,1	27,7	30,3	32,9	35,5	38,1	40,7	43,3	45,9	48,5	51,1	53,7	56,3	58,9
2500	12,6	15,2	17,9	20,6	23,3	25,9	28,6	31,3	34,0	36,7	39,3	42,0	44,7	47,4	50,0	52,7	55,4	58,1	60,7
2600	13,0	15,7	18,5	21,3	24,0	26,8	29,5	32,3	35,1	37,8	40,6	43,3	46,1	48,8	51,6	54,4	57,1	59,9	62,6
2700	13,4	16,3	19,1	21,9	24,8	27,6	30,5	33,3	36,1	39,0	41,8	44,6	47,5	50,3	53,2	56,0	58,8	61,7	64,5
2800	13,9	16,8	19,7	22,6	25,5	28,5	31,4	34,3	37,2	40,1	43,1	46,0	48,9	51,8	54,7	57,7	60,6	63,5	66,4
2900	14,3	17,3	20,3	23,3	26,3	29,3	32,3	35,3	38,3	41,3	44,3	47,3	50,3	53,3	56,3	59,3	62,3	65,3	68,3
3000	14,7	17,8	20,9	24,0	27,0	30,1	33,2	36,3	39,4	42,4	45,5	48,6	51,7	54,8	57,9	60,9	64,0	67,1	70,2



DLT100 AN

Regulation damper 100 mm pitch in natural aluminium

ATEX Compliance:

The product is available in a version compliant with ATEX Directive 2014/34/EU for installation in **potentially explosive atmospheres**, classified as Zone 1 or 2 (gas) or Zone 21 or 22 (dust), depending on the requirements.

If fully motorized versions are requested, it is mandatory to use **ATEX-certified components** (for our certification, only Schischek-Rotork actuators may be used) and to follow the installation instructions specified for these environments.

ATEX EXECUTION and available CERTIFICATIONS:

- Bronze bushings (maximum temperature +200 °C);
- For manual operation, round control shaft Ø12 mm, L=100 mm (standard shaft);
- For motorized versions, Schischek kit added with control square shaft 12x12 / 16x16 (AISI shaft);
- Grounding tab with corresponding label;
- ATEX certificate.



ATEX version damper simple without actuator equipped with free round control shaft Ø12 mm L=100mm and/or with manual control (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 1, 2, 21 e 22.

Marcatura / marking

CE  **II 2G Ex h IIC T6..T3 Gb**
II 2D Ex h IIIC T85°C..T200°C Db

ATEX version damper with ExMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 1, 21.

Marcatura / marking

CE  **II 2G Ex h IIC T6..T4 Gb**
II 2D Ex h IIIC T85°C..T135°C Db

ATEX version damper with RedMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 2, 22.

Marcatura / marking

CE  **II 3G Ex h IIC T6..T4 Gb**
II 3D Ex h IIIC T85°C..T135°C Db

ATEX version damper (Non-Certified) intended for safe areas and does not require certification. Available with free round control shaft Ø12 mm L=100mm and/or manual control mounted, or with InMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR SAFE AREAS.

Kit Schischek Tg.S - Plate support + Square shaft 12x12;



Kit Schischek Tg.M - Plate support + Square shaft 16x16;

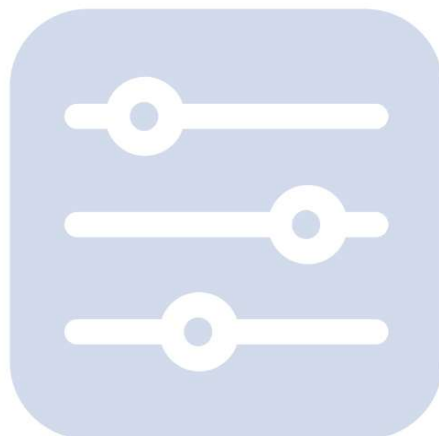
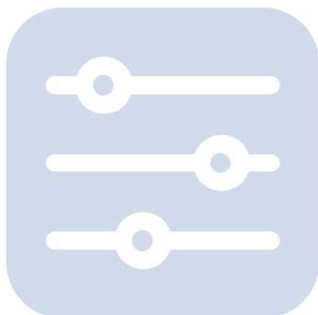
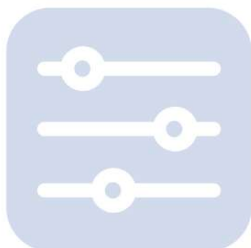
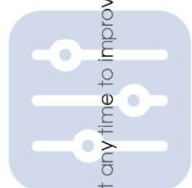


AZIENDA CON SISTEMA
DI GESTIONE QUALITÀ
CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON
SISTEMA DI GESTIONE
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DAMPERS