



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 Z200 galvanized steel + natural aluminium;
- Frame thickness 1,5 mm, riveted, depth 160 mm, in galvanized steel;
- Flange 40mm drilled Ø9 pitch 300mm with BM=20mm;
- Blades in natural aluminium extruded EN AW-6060;
- Blade pitch 150 mm with opposed movement operation;
- Central separator with 40mm box-section "[]" profile for dependent double field when Width > 2000 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:

- Atex version (see page 7).

Operating limits:

- Maximum dimensions WxH: 2800x2260 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:

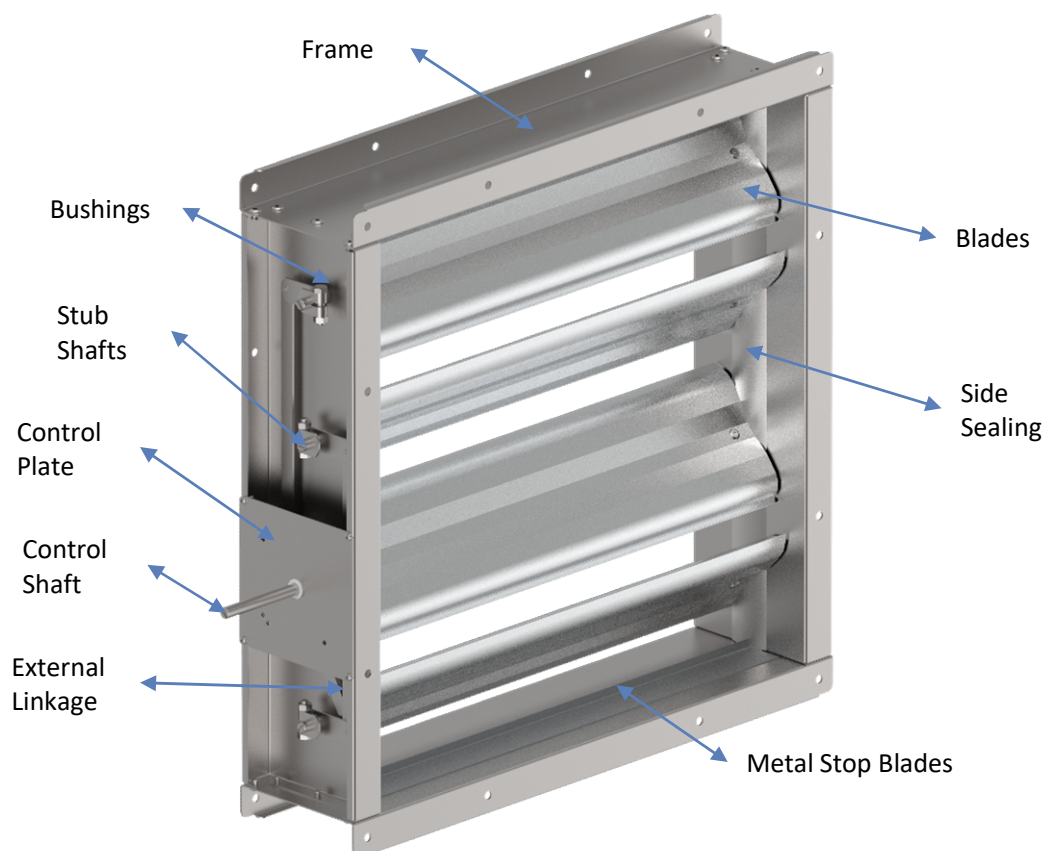
- Pressure drop tests carried out in accordance with ISO 7244 at Istituto Giordano (test report no. 136363);
- Self-generated noise tests carried out in accordance with UNI EN 25135 at Istituto Giordano (test report no. 148829);
- Air leakage tests carried out in accordance with DIN 1946/4;
- Air leakage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



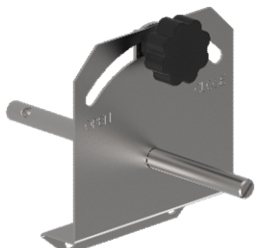
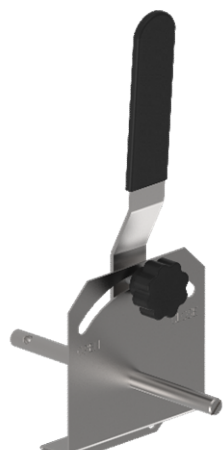
DLT150 ZA

Regulation damper 150 mm pitch in galvanized steel + 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 $\varnothing 18 - R20 \times 4$ (AISI shaft)  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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<i>mm</i>	Actuator Torque Selection Table DLT150 ZA [Nm]														
W\H	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810	1960	2110	2260
200	3	3	3	3	5	5	5	5	5	5	5	10	10	10	10
300	3	3	3	3	5	5	5	5	5	5	10	10	10	10	10
400	3	3	3	3	5	5	5	5	5	5	10	10	10	10	10
500	3	3	3	3	5	5	5	5	5	10	10	10	10	10	10
600	3	3	3	3	5	5	5	5	5	10	10	10	10	10	10
700	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10
800	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10
900	5	5	5	5	5	5	5	10	10	10	10	10	10	15	15
1000	5	5	5	5	5	5	10	10	10	10	10	10	15	15	15
1100	5	5	5	5	5	5	10	10	10	10	10	15	15	15	15
1200	5	5	5	5	5	5	10	10	10	10	15	15	15	15	15
1300	5	5	5	5	5	5	10	10	10	15	15	15	15	15	15
1400	5	5	5	5	10	10	10	10	10	15	15	15	15	15	20
1500	5	5	5	5	10	10	10	10	15	15	15	15	15	20	20
1600	5	5	5	5	10	10	10	15	15	15	15	20	20	20	20
1700	5	5	5	5	10	10	10	15	15	15	15	20	20	20	20
1800	5	5	10	10	10	10	15	15	15	15	20	20	20	20	20
1900	5	5	10	10	10	10	15	15	15	20	20	20	20	20	25
2000	5	5	10	10	10	10	15	15	15	20	20	20	20	25	25
W	Central Separator with 40mm Box-Section "[]" Profile for Double Dependent Field														
2100	5	5	10	10	10	10	15	15	15	20	20	20	20	25	25
2200	5	10	10	10	10	15	15	15	15	20	20	20	20	25	25
2300	5	10	10	10	10	15	15	15	20	20	20	20	25	25	30
2400	10	10	10	10	10	15	15	20	20	20	20	25	25	25	30
2500	10	10	10	10	15	15	15	20	20	20	20	25	25	30	30
2600	10	10	10	10	15	15	20	20	20	20	25	25	30	30	30
2700	10	10	10	10	15	20	20	20	20	25	25	30	30	30	30
2800	10	10	10	10	15	20	20	20	20	25	25	30	30	30	30

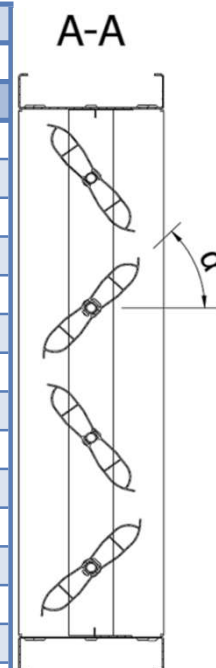
Pneumatic Cylinder Selection Table		
Operating air pressure [Bar]	Cylinder Type	
	Piston rod Ø27 stroke L=100mm	Piston rod Ø35 stroke L=150mm
	Torque [Nm]	Torque [Nm]
2	4	10
3	6	15
4	8	20
5	10	25
6	12	30
7	14	36
8	16	41



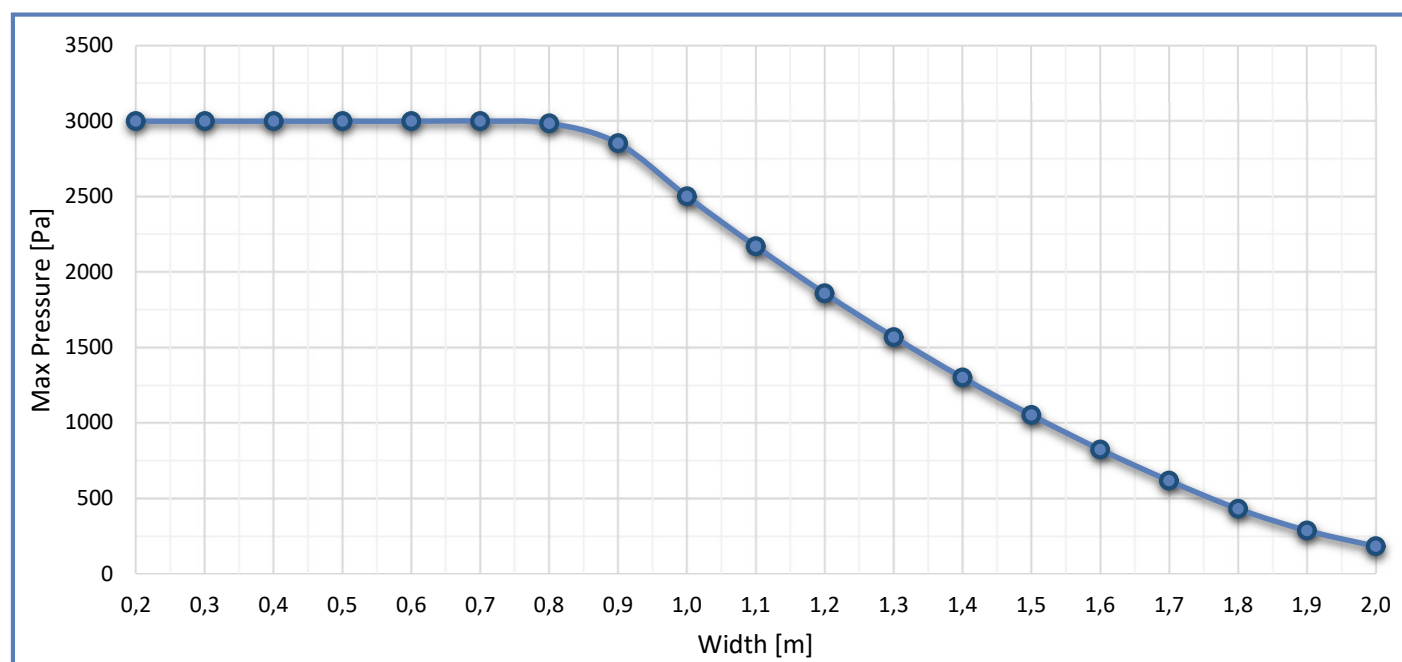
DLT150 ZA

Regulation damper 150 mm pitch in galvanized steel + natural aluminium

Vel. [m/s]	Pressure Loss and Generated Noise Data Table DLT150					
	$\alpha = 0^\circ$		$\alpha = 30^\circ$		$\alpha = 60^\circ$	
	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]
1	<5	<20	5	32	65	47
2	<5	23	18	48	270	63
3	<5	34	44	57	625	72
4	<5	43	75	64	1110	77
5	<5	48	120	70	>1500	83
6	<5	54	170	74	>1500	87
7	5	58	240	77	>1500	90
8	7	62	320	80	>1500	93
9	9	66	400	83	>1500	95
10	11	69	480	85	>1500	98
11	13	72	590	88	>1500	100
12	15	75	700	90	>1500	>100
13	18	77	820	92	>1500	>100
14	21	79	950	93	>1500	>100
15	25	81	1120	95	>1500	>100



Maximum Allowable Pressure Chart DLT150 ZA





DLT150 ZA

Regulation damper 150 mm pitch in galvanized steel + natural aluminium

mm	General Weight Table DLT 150 ZA [Kg]														
W \ H	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810	1960	2110	2260
200	3,9	5,5	7,0	8,6	10,2	11,8	13,3	14,9	16,5	18,0	19,6	21,2	22,7	24,3	25,9
300	4,7	6,4	8,1	9,8	11,5	13,2	14,9	16,6	18,3	20,0	21,7	23,4	25,1	26,8	28,5
400	5,5	7,4	9,2	11,0	12,8	14,6	16,5	18,3	20,1	21,9	23,7	25,6	27,4	29,2	31,0
500	6,4	8,3	10,3	12,2	14,1	16,1	18,0	20,0	21,9	23,9	25,8	27,8	29,7	31,6	33,6
600	7,2	9,3	11,3	13,4	15,5	17,5	19,6	21,7	23,7	25,8	27,9	30,0	32,0	34,1	36,2
700	8,0	10,2	12,4	14,6	16,8	19,0	21,2	23,4	25,6	27,8	30,0	32,1	34,3	36,5	38,7
800	8,8	11,1	13,5	15,8	18,1	20,4	22,7	25,1	27,4	29,7	32,0	34,3	36,7	39,0	41,3
900	9,6	12,1	14,5	17,0	19,4	21,9	24,3	26,8	29,2	31,6	34,1	36,5	39,0	41,4	43,9
1000	10,5	13,0	15,6	18,2	20,7	23,3	25,9	28,5	31,0	33,6	36,2	38,7	41,3	43,9	46,4
1100	11,3	14,0	16,7	19,4	22,1	24,8	27,5	30,1	32,8	35,5	38,2	40,9	43,6	46,3	49,0
1200	12,1	14,9	17,7	20,6	23,4	26,2	29,0	31,8	34,7	37,5	40,3	43,1	45,9	48,8	51,6
1300	12,9	15,9	18,8	21,8	24,7	27,6	30,6	33,5	36,5	39,4	42,4	45,3	48,3	51,2	54,2
1400	13,7	16,8	19,9	23,0	26,0	29,1	32,2	35,2	38,3	41,4	44,4	47,5	50,6	53,7	56,7
1500	14,6	17,8	21,0	24,1	27,3	30,5	33,7	36,9	40,1	43,3	46,5	49,7	52,9	56,1	59,3
1600	15,4	18,7	22,0	25,3	28,7	32,0	35,3	38,6	41,9	45,3	48,6	51,9	55,2	58,5	61,9
1700	16,2	19,6	23,1	26,5	30,0	33,4	36,9	40,3	43,8	47,2	50,7	54,1	57,5	61,0	64,4
1800	17,0	20,6	24,2	27,7	31,3	34,9	38,4	42,0	45,6	49,2	52,7	56,3	59,9	63,4	67,0
1900	17,8	21,5	25,2	28,9	32,6	36,3	40,0	43,7	47,4	51,1	54,8	58,5	62,2	65,9	69,6
2000	18,7	22,5	26,3	30,1	33,9	37,8	41,6	45,4	49,2	53,0	56,9	60,7	64,5	68,3	72,1
W	Central Separator with 40mm Box-Section "[]" Profile for Double Dependent Field														
2100	20,5	25,4	30,3	35,2	40,2	45,1	50,0	54,9	59,8	64,7	69,6	74,5	79,4	84,3	89,3
2200	21,3	26,4	31,4	36,4	41,5	46,5	51,5	56,6	61,6	66,6	71,7	76,7	81,8	86,8	91,8
2300	22,2	27,3	32,5	37,6	42,8	48,0	53,1	58,3	63,4	68,6	73,8	78,9	84,1	89,2	94,4
2400	23,0	28,3	33,5	38,8	44,1	49,4	54,7	60,0	65,3	70,5	75,8	81,1	86,4	91,7	97,0
2500	23,8	29,2	34,6	40,0	45,4	50,8	56,3	61,7	67,1	72,5	77,9	83,3	88,7	94,1	99,5
2600	24,6	30,1	35,7	41,2	46,8	52,3	57,8	63,4	68,9	74,4	80,0	85,5	91,0	96,6	102,1
2700	25,4	31,1	36,8	42,4	48,1	53,7	59,4	65,1	70,7	76,4	82,0	87,7	93,4	99,0	104,7
2800	26,3	32,0	37,8	43,6	49,4	55,2	61,0	66,7	72,5	78,3	84,1	89,9	95,7	101,5	107,2



DLT150 ZA

Regulation damper 150 mm pitch in galvanized steel + 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 IIC 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 IIC 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 IIC 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;



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DI GESTIONE QUALITÀ
CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON
SISTEMA DI GESTIONE
AMBIENTALE CERTIFICATO
DA DNV
ISO 14001



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