



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 EN AW-6060;
- Frame extruded, screwed, depth 160 mm;
- Flange 40mm drilled Ø9 pitch 300mm with BM=20mm;
- Blades extruded without gasket;
- 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: 4000x2260 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:

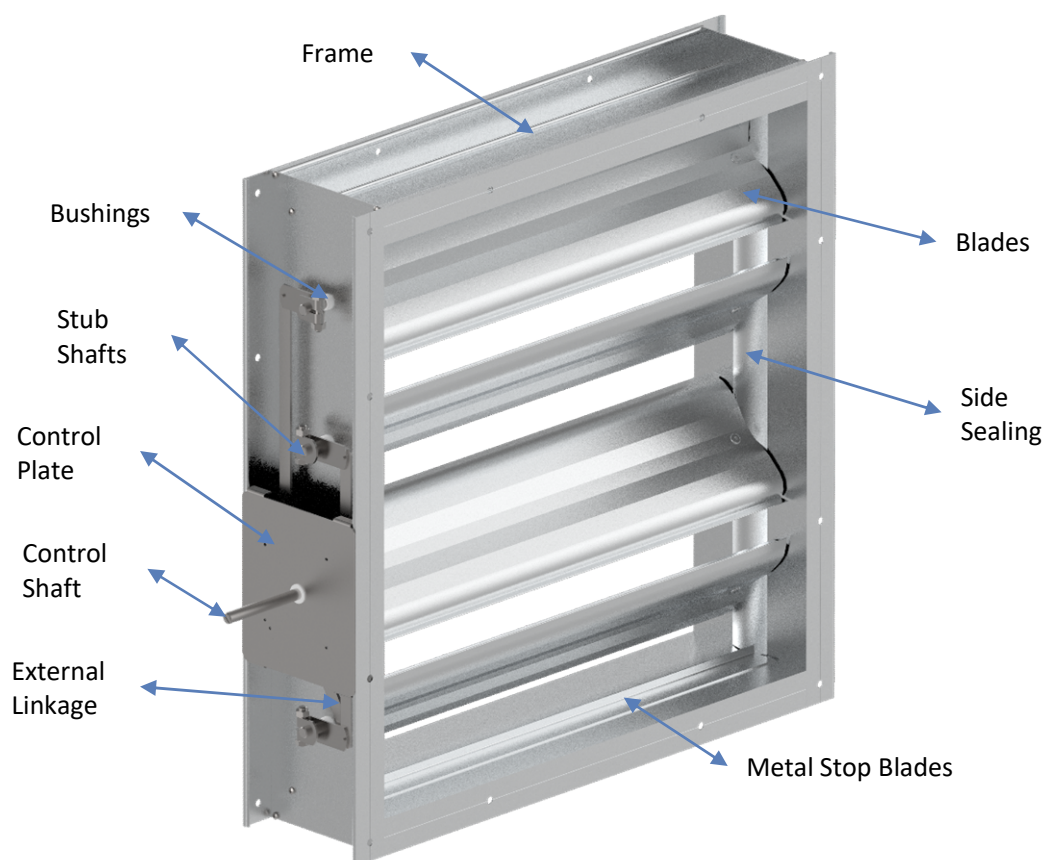
- Pressure drop tests carried out in accordance with ISO 7244 at Istituto Giordano (test report no. 136363);
- Self-generated noise tests carried out in accordance with UNI EN 25135 at Istituto Giordano (test report no. 148829);
- Air leakage tests carried out in accordance with DIN 1946/4;
- Air leakage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



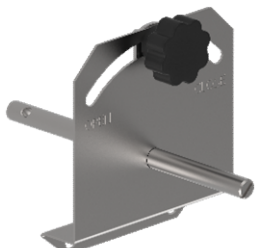
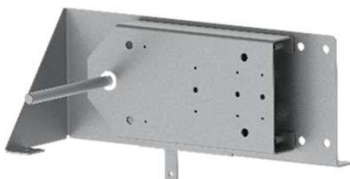
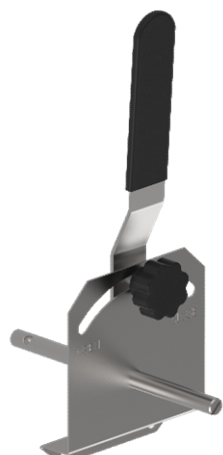
DLT150 AN

Regulation damper 150 mm pitch in natural aluminium

Additional Construction Details



Available Controls, Options, Accessories and Actuators

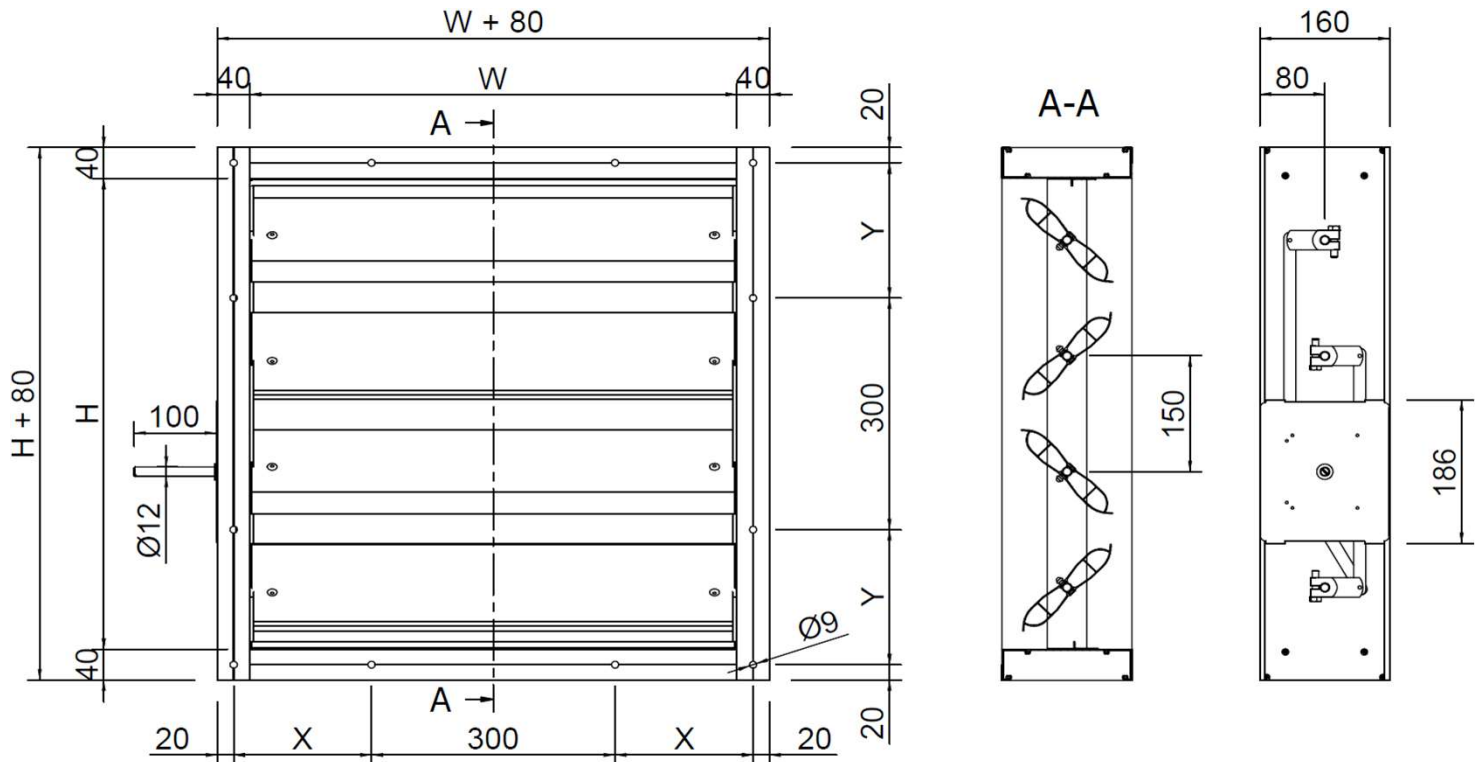
Manual Control R11 ZN for $A < 1,2m^2$ 	Option Bronze Bushings ($T_{max} +200^{\circ}C$)  Teflon Bushings ($T_{max} +250^{\circ}C$) 	Accessories Control shaft with extended end $\varnothing 18 - R20 \times 4$ (<u>AISI304 shaft</u>)  Internal control plate support R21 ZN 	
R12 ZN for $A > 1,2m^2$ 	Actuators 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   		



DLT150 AN

Regulation damper 150 mm pitch in natural aluminium

Dimensional Drawing and Standard Drilling Pattern (size in mm, always referred to the inside of the flanges)



Nr. 4 HOLES CENTERED IN THE CORNERS ALWAYS PRESENT

WIDTH DRILLING						HEIGHT DRILLING					
W	N°HOLES	X	W	N°HOLES	X	H	N°HOLES	Y	H	N°HOLES	Y
200	\	\	2200	7	220	160	\	\	1150	3	295
300	\	\	2300	7	270	200	\	\	1210	3	325
400	1	220	2400	7	320	250	\	\	1250	3	345
500	1	270	2500	8	220	310	\	\	1300	4	220
600	1	320	2600	8	270	350	\	\	1360	4	250
700	2	220	2700	8	320	400	1	220	1400	4	270
800	2	420	2800	9	220	460	1	250	1450	4	295
900	2	470	2900	9	270	500	1	270	1510	4	325
1000	3	520	3000	9	320	550	1	295	1550	4	345
1100	3	570	3100	10	220	610	1	325	1600	5	220
1200	3	320	3200	10	270	650	1	345	1660	5	250
1300	4	220	3300	10	320	700	2	220	1700	5	270
1400	4	270	3400	11	220	760	2	250	1750	5	295
1500	4	320	3500	11	270	800	2	270	1810	5	325
1600	5	220	3600	11	320	850	2	295	1900	6	220
1700	5	270	3700	12	220	910	2	325	1960	6	250
1800	5	320	3800	12	270	950	2	345	2000	6	270
1900	6	220	3900	12	320	1000	3	220	2110	6	325
2000	6	270	4000	13	220	1060	3	250	2200	7	220
2100	6	320				1100	3	270	2260	7	250

Note : For sizes not listed in the table, the number of holes and the starting position X or Y (Width or Height) are determined by referring to the next lower standard dimension.

N.B. If the resulting value of X or Y is greater than 369.5 mm, the number of holes must refer to the next higher dimension .



DLT150 AN

Regulation damper 150 mm pitch in natural aluminium

mm W\H	Actuator Torque Selection Table DLT150 AN [Nm]														
	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	15	15	20	20	20	20	25	25	30	30	30	30
2800	10	10	10	15	15	20	20	20	20	25	25	30	30	30	30
2900	10	10	10	15	15	20	20	20	20	25	25	30	30	30	30
3000	10	10	10	15	15	20	20	20	25	25	25	30	30	30	30
3100	10	10	10	15	15	20	20	20	25	25	25	30	30	30	30
3200	10	10	10	15	15	20	20	20	25	25	25	30	30	30	30
3300	10	10	10	15	15	20	20	20	25	25	30	30	30	30	30
3400	10	10	10	15	15	20	20	25	25	25	30	30	30	30	30
3500	10	10	15	15	15	20	20	25	25	30	30	30	30	30	30
3600	10	10	15	15	15	20	20	25	25	30	30	30	30	30	30
3700	10	10	15	15	20	20	20	25	25	30	30	30	30	30	30
3800	10	10	15	15	20	20	20	25	25	30	30	30	30	30	30
3900	10	10	15	15	20	20	25	25	25	30	30	30	30	30	30
4000	10	10	15	15	20	20	25	25	25	30	30	30	30	30	30

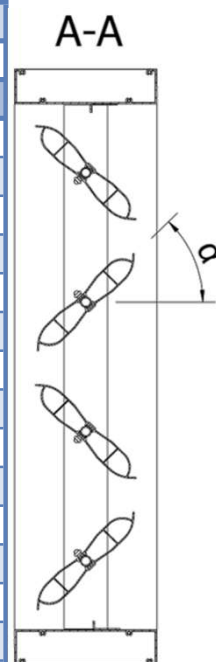
Pneumatic Cylinder Selection Table								
Cylinder Type	Operating air pressure [Bar]	2	3	4	5	6	7	8
Piston rod $\varnothing 27$ stroke L=100mm	Torque [Nm]	4	6	8	10	12	14	16
Piston rod $\varnothing 35$ stroke L=150mm	Torque [Nm]	10	15	20	25	30	36	41



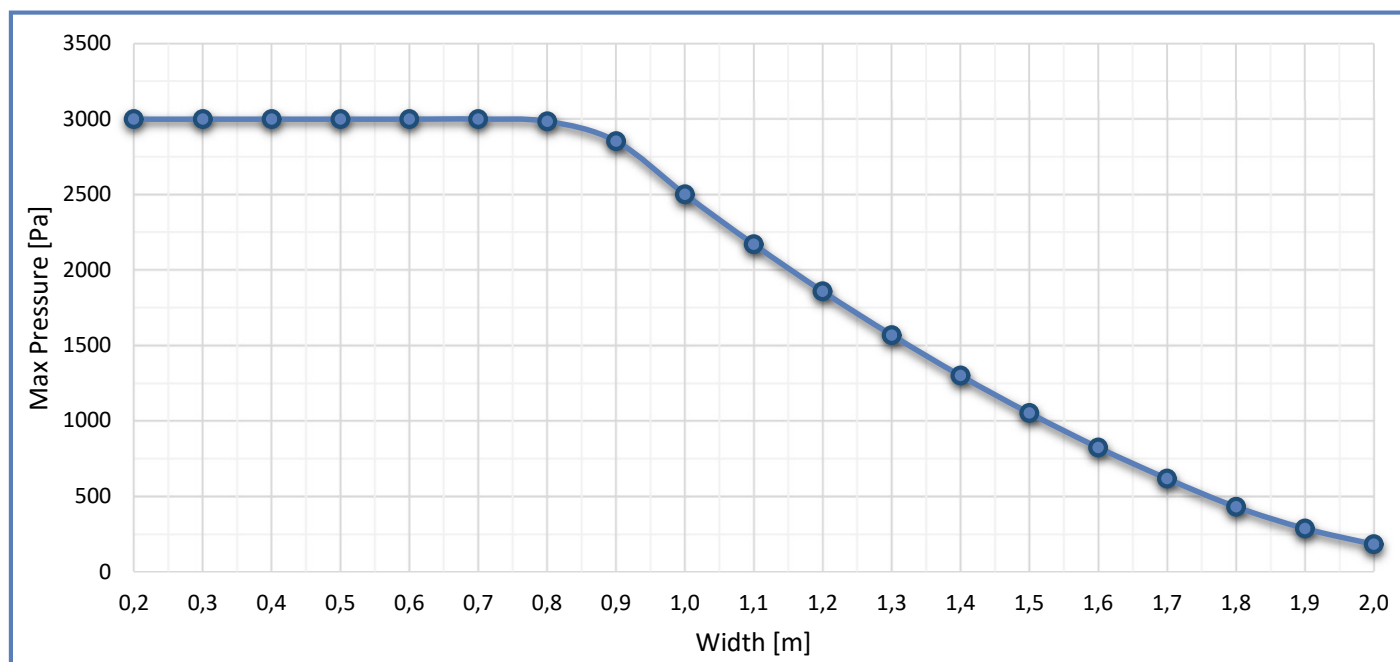
DLT150 AN

Regulation damper 150 mm pitch in 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 AN





DLT150 AN

Regulation damper 150 mm pitch in natural aluminium

mm	General Weight Table DLT150 AN [Kg]														
W\H	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810	1960	2110	2260
200	2,5	3,5	4,5	5,6	6,6	7,7	8,7	9,7	10,8	11,8	12,9	13,9	15,0	16,0	17,0
300	3,0	4,1	5,3	6,5	7,6	8,8	10,0	11,1	12,3	13,5	14,6	15,8	17,0	18,1	19,3
400	3,5	4,7	6,0	7,3	8,6	9,9	11,2	12,5	13,8	15,1	16,4	17,7	19,0	20,2	21,5
500	4,0	5,4	6,8	8,2	9,6	11,0	12,5	13,9	15,3	16,7	18,1	19,5	21,0	22,4	23,8
600	4,5	6,0	7,5	9,1	10,6	12,2	13,7	15,2	16,8	18,3	19,9	21,4	23,0	24,5	26,0
700	5,0	6,6	8,3	10,0	11,6	13,3	15,0	16,6	18,3	20,0	21,6	23,3	25,0	26,6	28,3
800	5,5	7,2	9,0	10,8	12,6	14,4	16,2	18,0	19,8	21,6	23,4	25,2	27,0	28,7	30,5
900	6,0	7,9	9,8	11,7	13,6	15,5	17,5	19,4	21,3	23,2	25,1	27,0	29,0	30,9	32,8
1000	6,5	8,5	10,5	12,6	14,6	16,7	18,7	20,7	22,8	24,8	26,9	28,9	31,0	33,0	35,0
1100	7,0	9,1	11,3	13,5	15,6	17,8	20,0	22,1	24,3	26,5	28,6	30,8	33,0	35,1	37,3
1200	7,5	9,7	12,0	14,3	16,6	18,9	21,2	23,5	25,8	28,1	30,4	32,7	35,0	37,2	39,5
1300	8,0	10,4	12,8	15,2	17,6	20,0	22,5	24,9	27,3	29,7	32,1	34,5	37,0	39,4	41,8
1400	8,5	11,0	13,5	16,1	18,6	21,2	23,7	26,2	28,8	31,3	33,9	36,4	39,0	41,5	44,0
1500	9,0	11,6	14,3	17,0	19,6	22,3	25,0	27,6	30,3	33,0	35,6	38,3	41,0	43,6	46,3
1600	9,5	12,2	15,0	17,8	20,6	23,4	26,2	29,0	31,8	34,6	37,4	40,2	43,0	45,7	48,5
1700	10,0	12,9	15,8	18,7	21,6	24,5	27,5	30,4	33,3	36,2	39,1	42,0	45,0	47,9	50,8
1800	10,5	13,5	16,5	19,6	22,6	25,7	28,7	31,7	34,8	37,8	40,9	43,9	47,0	50,0	53,0
1900	11,0	14,1	17,3	20,5	23,6	26,8	30,0	33,1	36,3	39,5	42,6	45,8	49,0	52,1	55,3
2000	11,5	14,7	18,0	21,3	24,6	27,9	31,2	34,5	37,8	41,1	44,4	47,7	51,0	54,2	57,5
W	Central Separator with 40mm Box-Section "[]" Profile for Double Dependent Field														
2100	12,4	16,2	20,0	23,8	27,6	31,4	35,2	39,1	42,9	46,7	50,5	54,3	58,1	61,9	65,7
2200	12,9	16,8	20,8	24,7	28,6	32,6	36,5	40,4	44,4	48,3	52,2	56,2	60,1	64,0	68,0
2300	13,4	17,4	21,5	25,6	29,6	33,7	37,7	41,8	45,9	49,9	54,0	58,0	62,1	66,2	70,2
2400	13,9	18,1	22,3	26,4	30,6	34,8	39,0	43,2	47,4	51,5	55,7	59,9	64,1	68,3	72,5
2500	14,4	18,7	23,0	27,3	31,6	35,9	40,2	44,6	48,9	53,2	57,5	61,8	66,1	70,4	74,7
2600	14,9	19,3	23,8	28,2	32,6	37,1	41,5	45,9	50,4	54,8	59,2	63,7	68,1	72,5	77,0
2700	15,4	19,9	24,5	29,1	33,6	38,2	42,7	47,3	51,9	56,4	61,0	65,5	70,1	74,7	79,2
2800	15,9	20,6	25,3	29,9	34,6	39,3	44,0	48,7	53,4	58,0	62,7	67,4	72,1	76,8	81,5
2900	16,4	21,2	26,0	30,8	35,6	40,4	45,2	50,1	54,9	59,7	64,5	69,3	74,1	78,9	83,7
3000	16,9	21,8	26,8	31,7	36,6	41,6	46,5	51,4	56,4	61,3	66,2	71,2	76,1	81,0	86,0
3100	17,4	22,4	27,5	32,6	37,6	42,7	47,7	52,8	57,9	62,9	68,0	73,0	78,1	83,2	88,2
3200	17,9	23,1	28,3	33,4	38,6	43,8	49,0	54,2	59,4	64,5	69,7	74,9	80,1	85,3	90,5
3300	18,4	23,7	29,0	34,3	39,6	44,9	50,2	55,6	60,9	66,2	71,5	76,8	82,1	87,4	92,7
3400	18,9	24,3	29,8	35,2	40,6	46,1	51,5	56,9	62,4	67,8	73,2	78,7	84,1	89,5	95,0
3500	19,4	24,9	30,5	36,1	41,6	47,2	52,7	58,3	63,9	69,4	75,0	80,5	86,1	91,7	97,2
3600	19,9	25,6	31,3	36,9	42,6	48,3	54,0	59,7	65,4	71,0	76,7	82,4	88,1	93,8	99,5
3700	20,4	26,2	32,0	37,8	43,6	49,4	55,2	61,1	66,9	72,7	78,5	84,3	90,1	95,9	101,7
3800	20,9	26,8	32,8	38,7	44,6	50,6	56,5	62,4	68,4	74,3	80,2	86,2	92,1	98,0	104,0
3900	21,4	27,4	33,5	39,6	45,6	51,7	57,7	63,8	69,9	75,9	82,0	88,0	94,1	100,2	106,2
4000	21,9	28,1	34,3	40,4	46,6	52,8	59,0	65,2	71,4	77,5	83,7	89,9	96,1	102,3	108,5



DLT150 AN

Regulation damper 150 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;

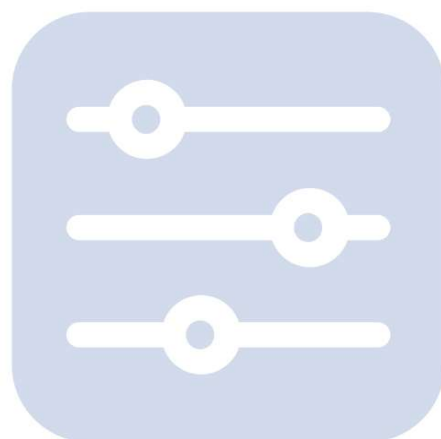
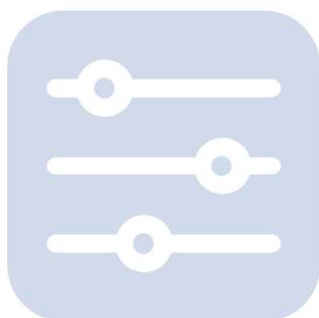
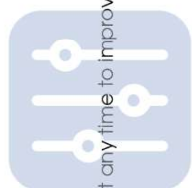


AZIENDA CON SISTEMA
DI GESTIONE QUALITÀ
CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON
SISTEMA DI GESTIONE
AMBIENTALE CERTIFICATO
DA DNV
ISO 14001



CLA & UTEK reserves the right to make any necessary changes at any time to improve the products, without prior notice.



C.L.A. S.r.l. Via Strada Artigianale Angelo Lapsus 310, 23036 San Giacomo di Teglio (So) Italy Tel.+39 0342 786116 | utek-air.it | cla-air.it

DAMPERS