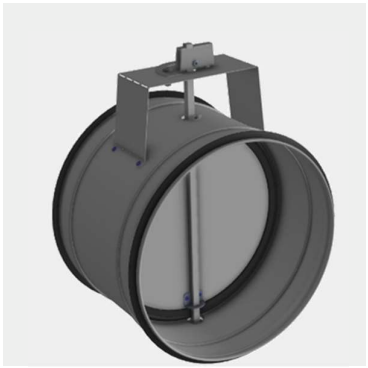
komfovent®

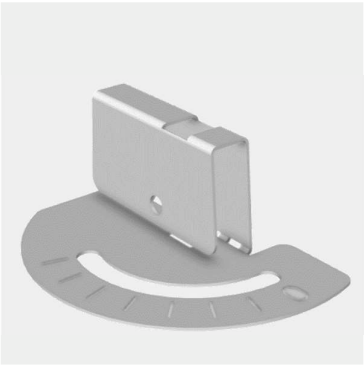


REGULATING DAMPERS AGRJ-R (DR)

SHUT-OFF DAMPERS AGUJ-R (DT), AGUJ-M (DTF)

Product specification







ENG

Version 10.4
03-2024

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1. Product description

Circular regulating AGRJ-R (DR) and shut-off AGUJ-R (DT), AGUJ-M (DTF) dampers are utilized in ventilation systems to regulate or completely shut off airflow as needed. These dampers come in various materials, including galvanized steel and stainless steel (AISI304 / AISI316), catering to different applications and environments.

With an operating angle ranging from 0° (fully open) to 90° (fully closed), these dampers offer precise control over airflow. Circular shut-off dampers are available in both manual AGUJ-R (DT) and motorized AGUJ-M (DTF) options for ease of operation.

To ensure maximum efficiency and safety, these dampers are designed with leak-tightness. The leakage class through the casing is rated as C, indicating that the air leakage rate through the air duct system is within specified limits even when the damper is closed. The shut-off AGUJ dampers are rated as leakage class 4 according to EN1751 standards, ensuring complete shut-off of airflow when necessary.

Main performances of the product:

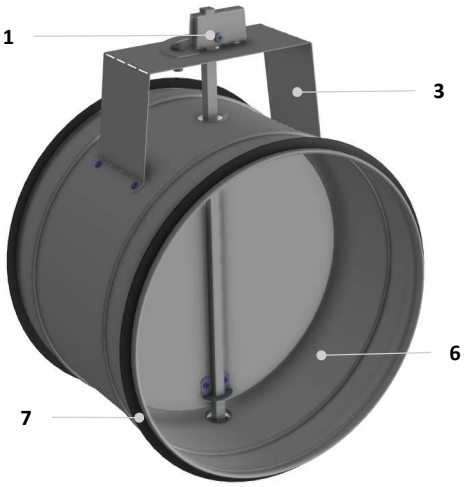
Nominal diameter range:	From d100 to d630 mm (for AGUJ-R (DT), AGUJ-M (DTF) versions) From d100 to d1250 mm (for AGRJ-R (DR) version)
Length of the casing:	From 156 to 936 mm
Maximal velocity of the airflow:	13 m/s
Conformity to the EU Standards:	**Leakage classification defined in accordance with EN 1751 Ventilation for buildings** – Air terminal devices **Dimensions for the damper connection parts are in accordance with EN 1506:2007** Ventilation for buildings. Sheet metal air ducts and fittings with circular cross-section. Dimensions **Sheet metal parts (for galvanized steel version) used in the product are in accordance with** EN 10346:2015 Continuously hot-dip coated steel flat products for cold forming. Technical delivery conditions **Sheet metal parts (for stainless steel version) used in the product are in accordance with** EN 10028-7:2016 Flat products made of steels for pressure purposes. Stainless steels

2. Designs and Dimensions

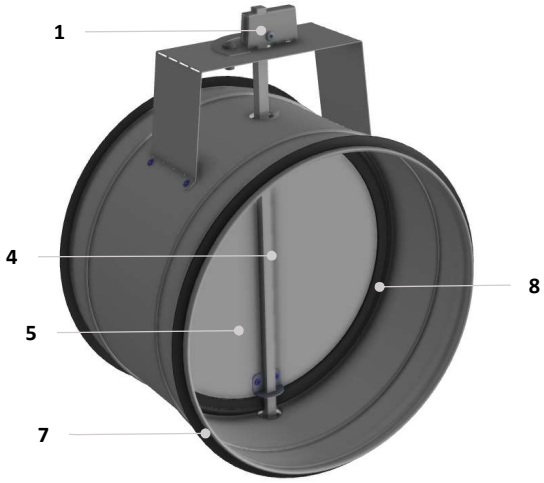
2.1. AGRJ-R (DR) and AGUJ-R (DT) dampers design and dimensions

A manually regulating damper AGRJ-R (DR) consists of a circular sheet metal casing with a diameter ranging from 100 mm to 1250 mm, a robust blade that can be adjusted to regulate the flow of air through the damper, and metal handle. The casing and blade are made of a galvanized steel, stainless steel is available on request. Square 8x8 mm axle of the damper and blade locking washers are made of stainless steel to additionally protect the junction against corrosion. The damper admits an insulation thickness of approx. 50 mm. AGUJ-R (DT) is a shut-off damper with an identical design, bet equipped with blade insulating rubber profile and available in size 100 mm to 630 mm.

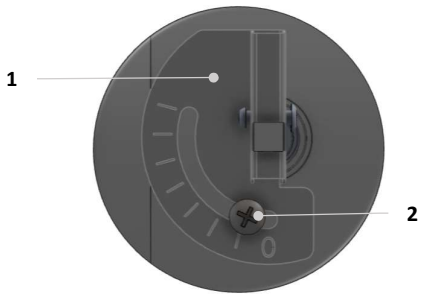
AGRJ-R (DR)



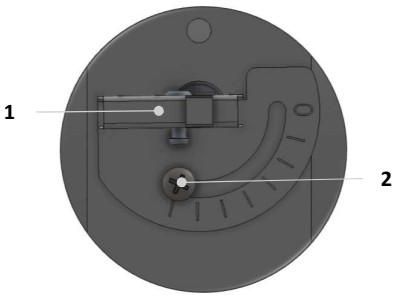
AGUJ-R (DT)

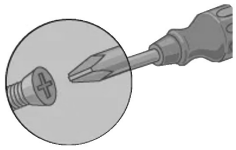


Blade Closed



Blade Open





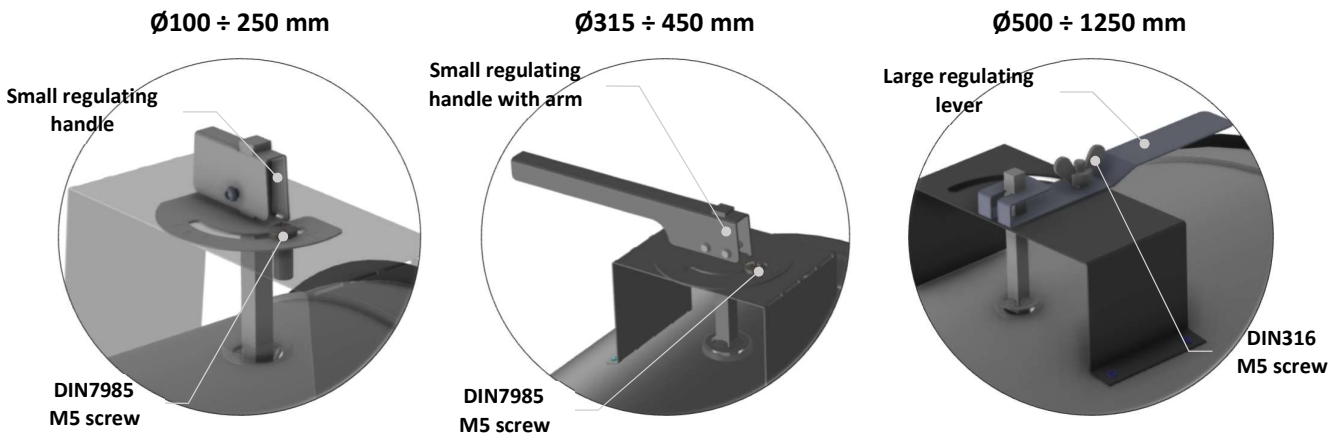
Required tool for blade adjustment – Philips-head screwdriver

1 - 90° rotating metal handle; **2** - handle fixing screw, **3** - handle bracket, **4** - rotating axle,

5 - steel blade, **6** - steel casing, **7** - lip seal, **8** – blade sealing rubber

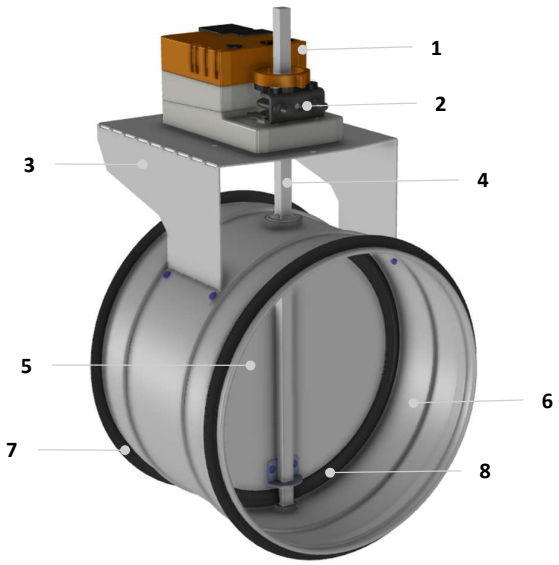
Three versions of the regulating handle are in use depending on the diameter of the damper to provide a smooth opening of the blade: for diameter range d100÷250 mm small metal handle is used; for diameter range

d315÷450 mm small metal handle with and arm is used; starting with damper diameter of 500 mm large metal lever with a wing nut is used (no tool is required for adjusting):



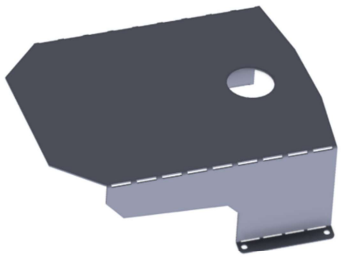
2.2. AGUJ-M (DTF) damper design and dimensions

An automatically shut-off damper AGUJ-M (DTF) consists of a circular sheet metal casing with a diameter ranging from 100 mm to 630 mm, a robust blade that can be adjusted to regulate the flow of air through the damper, and electric actuator. The damper admits an insulation thickness of approx. 50 mm. The casing and blade are made of a galvanized steel, stainless steel is available on request. Square 8x8 mm axle of the damper and blade locking washers are made of stainless steel to additionally protect the junction against corrosion.



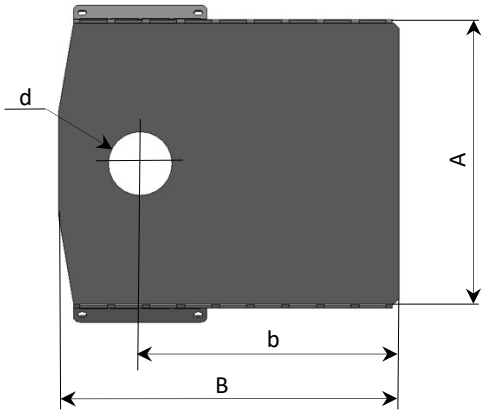
1 – actuator; **2** – fixing ring of the actuator, **3** – actuator's bracket, **4** – metal axle, **5** - steel blade, **6** - steel casing, **7** - lip seal, **8** – blade sealing rubber

Brackets for the actuators are manufactured in different designs and sizes to be able to mount LM, CM, LF, SMQ, LMQ and NMQ actuators:



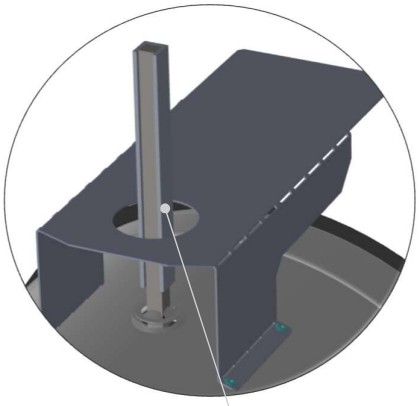


The dimensions of the actuator's bracket vary depending on the diameter of the damper:

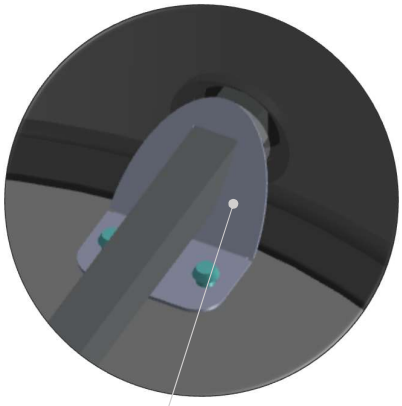


D_{nom}, mm	A, mm	B, mm	b, mm	d, mm
100	92	173	135	30
125	92	173	135	30
160	92	173	135	30
200	92	173	135	30
250	92	173	135	30
315	92	228	190	40
400	92	228	190	40
450	92	228	190	40
500	148	228	190	40
560	148	228	190	40
630	148	228	190	40

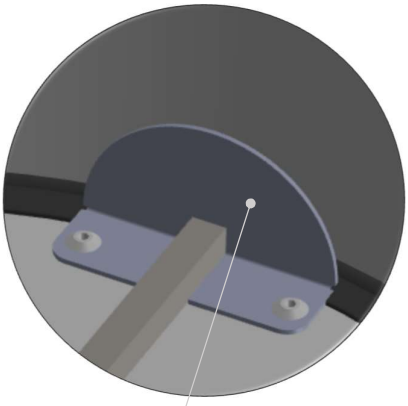
For damper diameters d315 ÷ d630 mm and additional aluminum profile is used as axle transition to 12x12 mm rod. Also, different types of the blade mounting brackets are used for d100 ÷ d250 mm and d315 ÷ d630 mm dampers:



Aluminum C-profile12x12x2



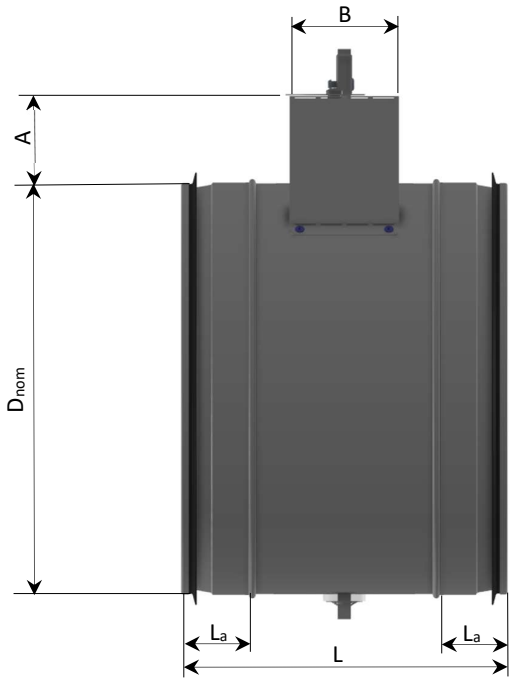
Blade mounting bracket for d100 ÷ d250 mm dampers

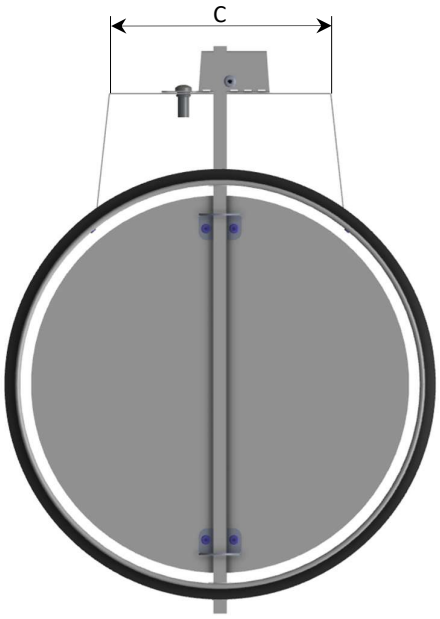


Blade mounting bracket for d315 ÷ d630 mm dampers

3. Technical data

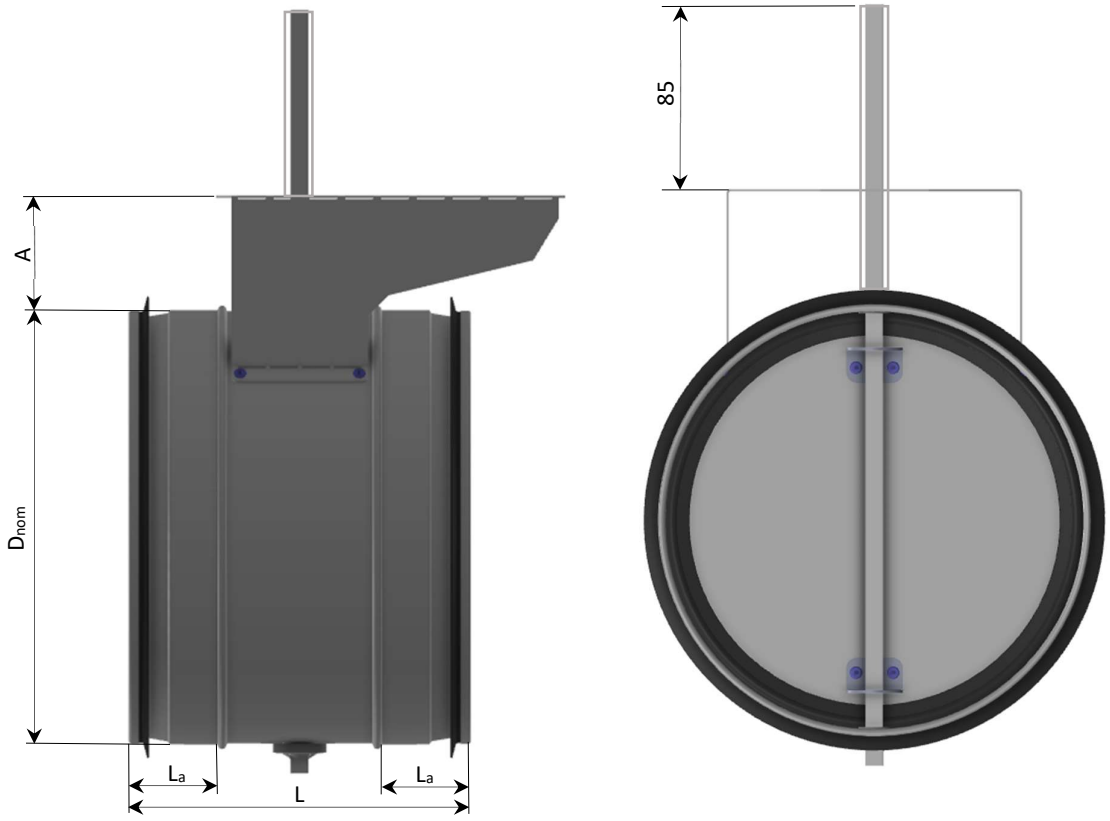
3.1. AGRJ-R (DR) regulating damper sizes





D_{nom}, mm	L, mm	La, mm	A, mm	B, mm	C, mm	Cross-section area, m^2	Weight, kg
100	156	40	51±2	70	91.4	0,0075	0,7
125	156	40	51±2	70	91.4	0,0119	0,9
160	156	40	51±2	70	91.4	0,0196	1,1
200	156	40	51±2	70	135	0,0308	1,4
250	196	40	51±2	70	135	0,0483	2,1
315	246	40	51±2	70	91.4	0,0769	3,1
355	293	40	51±2	70	91.4	0,0979	4,8
400	316	65	51±2	70	91.4	0,1244	5,9
450	370	65	51±2	70	91.4	0,1576	7,2
500	385	65	51±2	90	142	0,1948	8,6
560	457	65	51±2	90	142	0,2445	11,0
630	507	65	51±2	90	142	0,3097	13,0
710	568	65	51±2	90	142	0,3937	17,0
800	610	65	51±2	90	142	0,5001	21,0
900	836	65	51±2	90	142	0,6333	26,0
1000	836	100	51±2	90	142	0,7823	32,0
1250	936	100	51±2	90	142	1.2266	40,0

3.2. AGUJ-M (DTF) shut-off damper sizes

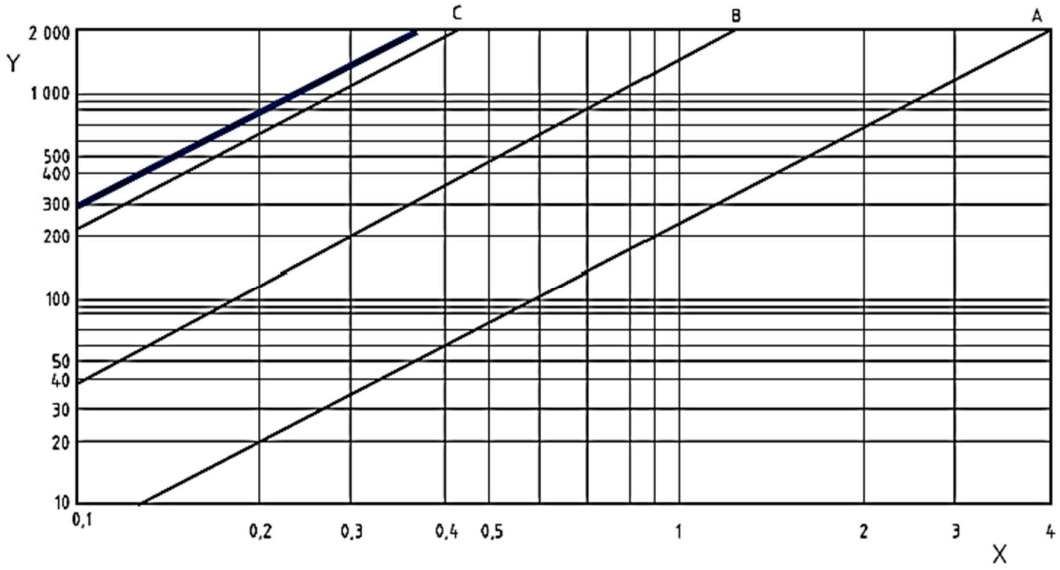


D_{nom}, mm	L, mm	La, mm	A, mm	Cross-section area, m^2	Weight*, kg
100	156	40	51±2	0,0075	0,7
125	156	40	51±2	0,0119	0,9
160	156	40	51±2	0,0196	1,1
200	156	40	51±2	0,0308	1,4
250	196	40	51±2	0,0483	2,1
315	246	40	51±2	0,0769	3,1
355	293	40	51±2	0,0979	4,8
400	316	65	51±2	0,1244	5,9
450	370	65	51±2	0,1576	7,2
500	385	65	51±2	0,1948	8,6
560	457	65	51±2	0,2445	11,0
630	507	65	51±2	0,3097	13,0

* without actuator

3.3. Casing leakage

Casing leakage class offers the best result* for both regulating and shut-off dampers - Class C:



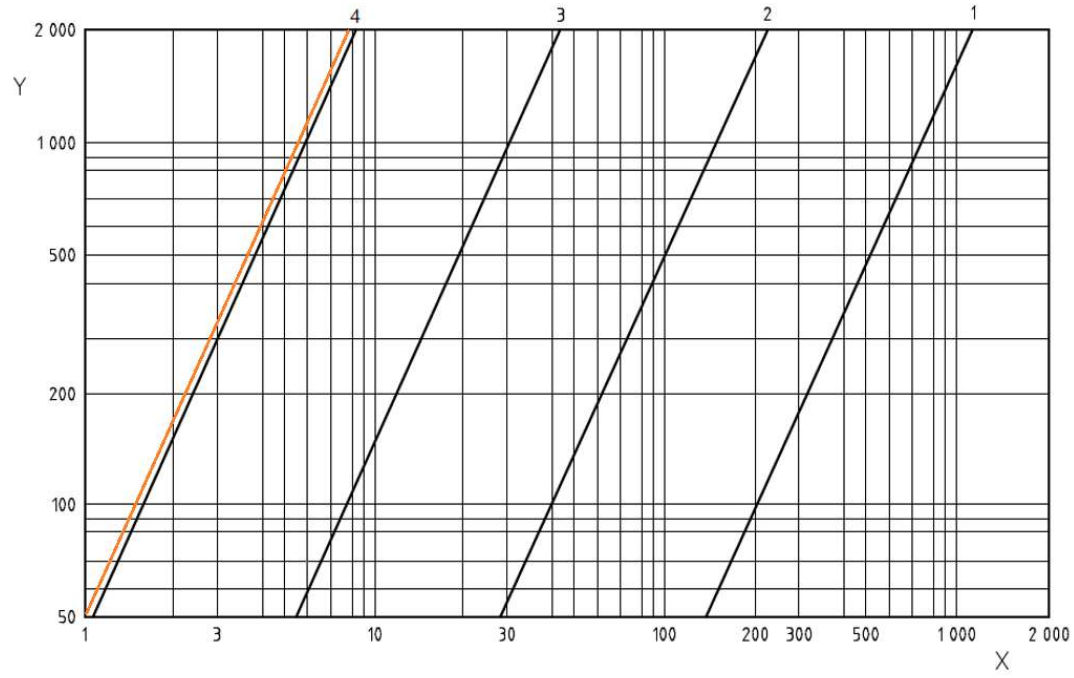
Casing leakage parameters

A, B, C – leakage class

X – leakage factor corrected to $1m^2$, l/s

Y – duct pressure, Pa

Blade leakage characteristics* for AGUJ damper offers Class 4:



Blade leakage parameters

1, 2, 3, 4 – leakage class

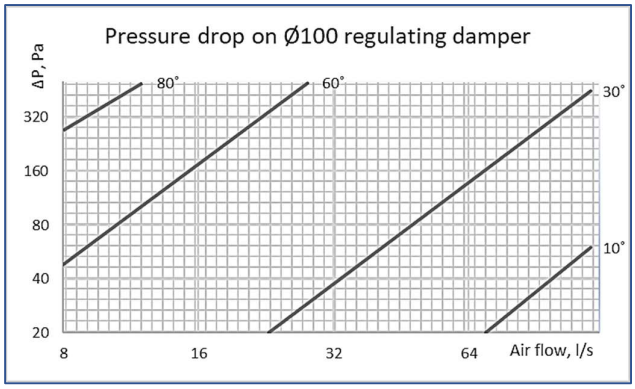
X – leakage factor corrected to $1m^2$, l/s

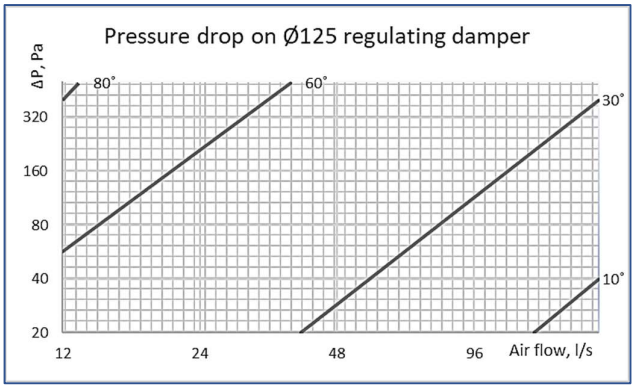
Y – duct pressure, Pa

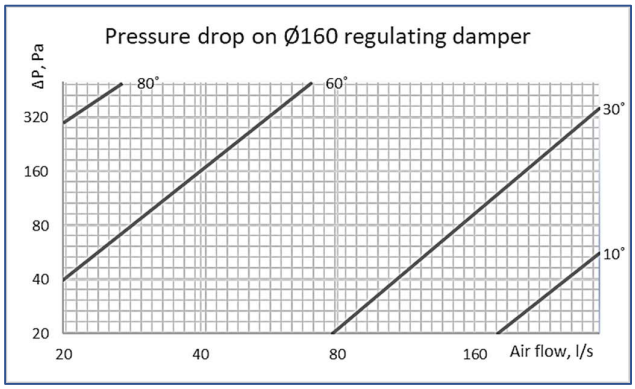
** Classification obtained using a verified leakage tester and 100 mm damper leakage testing in accordance with EN 1751 specifications.*

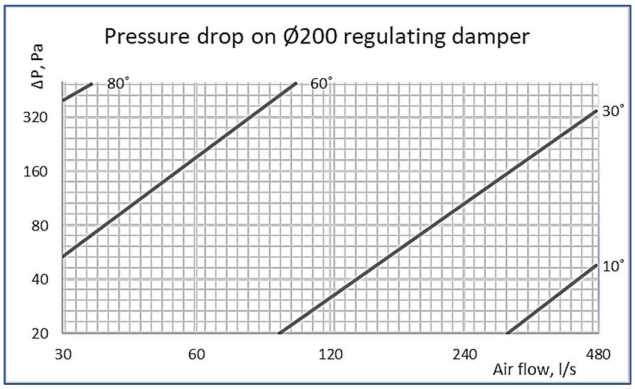
3.4. Pressure drop data

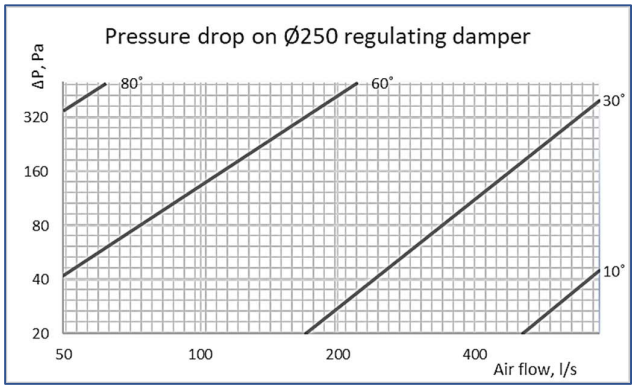
Below pressure drop graphs are show for various opening angles (0° = open blade, 90° = closed blade).

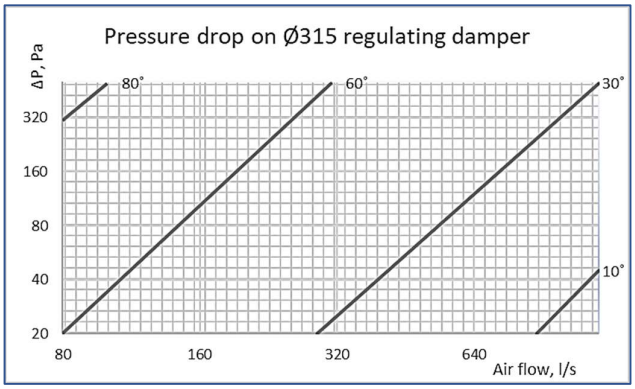


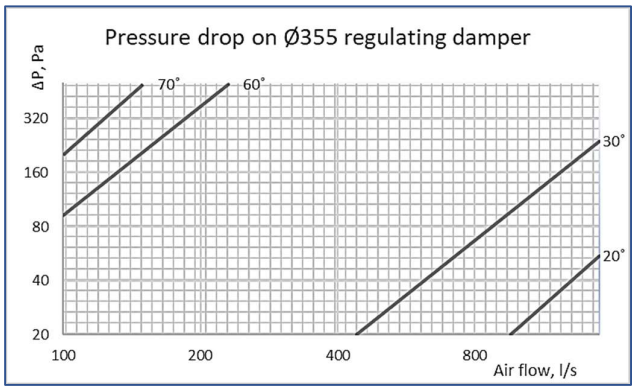


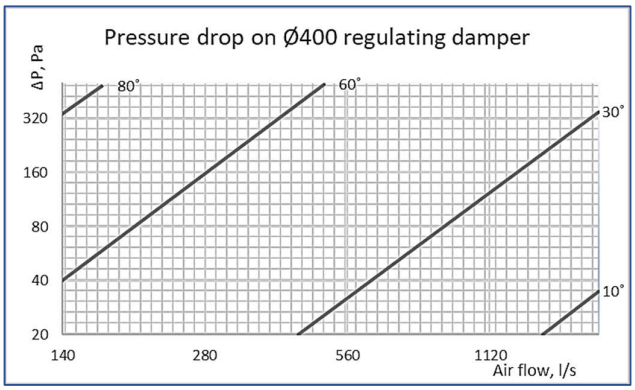


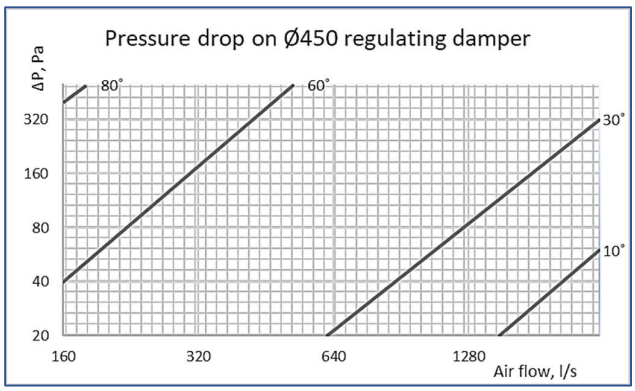


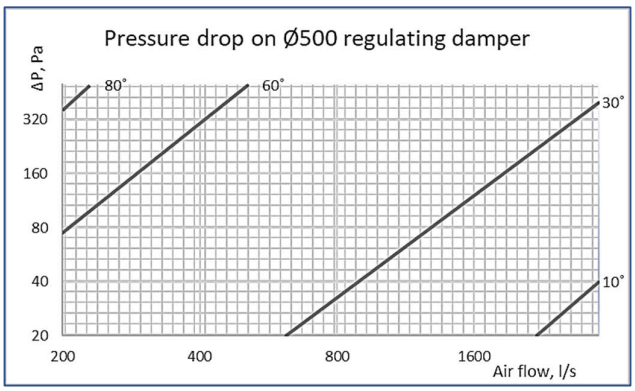


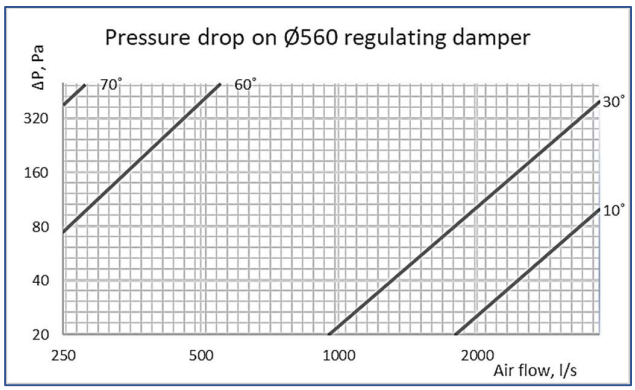


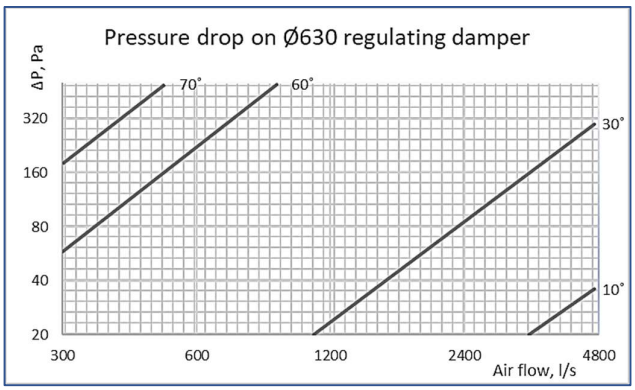

Pressure drop on Ø355 regulating damper
ΔP, Pa
320
160
80
40
20
70°
60°
30°
20°
100
200
400
800
Air flow, l/s

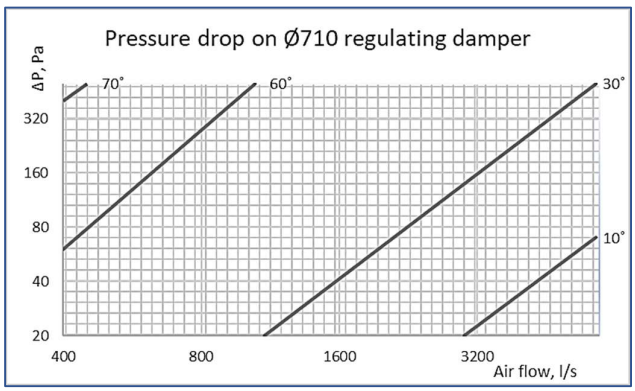

Pressure drop on Ø400 regulating damper
ΔP, Pa
320
160
80
40
20
80°
60°
30°
10°
140
280
560
1120
Air flow, l/s

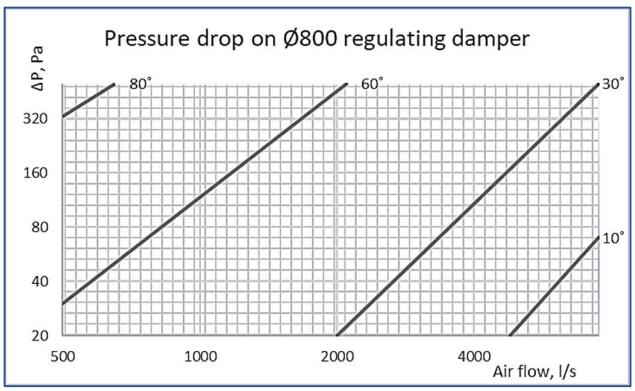

Pressure drop on Ø450 regulating damper
ΔP, Pa
320
160
80
40
20
80°
60°
30°
10°
160
320
640
1280
Air flow, l/s

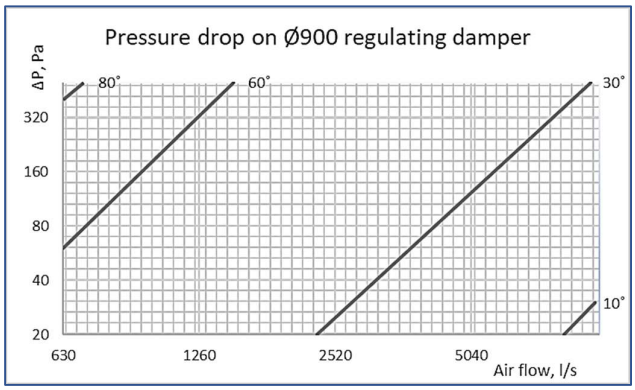

Pressure drop on Ø500 regulating damper
ΔP, Pa
320
160
80
40
20
80°
60°
30°
10°
200
400
800
1600
Air flow, l/s

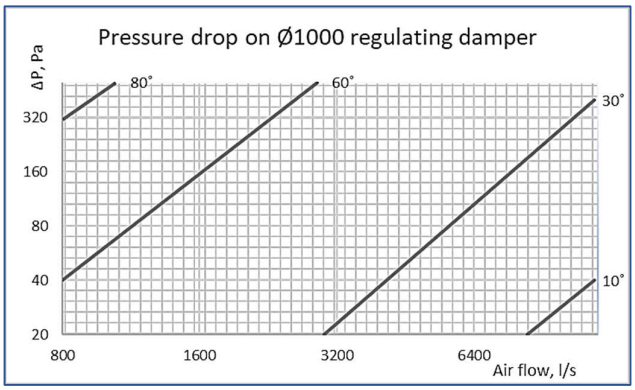

Pressure drop on Ø560 regulating damper
ΔP, Pa
320
160
80
40
20
70°
60°
30°
10°
250
500
1000
2000
Air flow, l/s


Pressure drop on Ø630 regulating damper
ΔP, Pa
320
160
80
40
20
70°
60°
30°
10°
300
600
1200
2400
4800
Air flow, l/s


Pressure drop on Ø710 regulating damper
ΔP, Pa
320
160
80
40
20
70°
60°
30°
10°
400
800
1600
3200
Air flow, l/s


Pressure drop on Ø800 regulating damper
ΔP, Pa
320
160
80
40
20
80°
60°
30°
10°
500
1000
2000
4000
Air flow, l/s





3.5. Available accessories

Various range of actuators is available for an order for motorized AGUJ-M (DTF) damper model:

Diameter of the damper, mm	Basic adjusting damper actuator type and torque	Rotary fail-safe damper actuator type and torque	Fast-running adjusting damper actuator type and torque	Size of the axle, □
100	CM24/230 2Nm	TF24/230 2,5Nm	LMQ 24/230 4Nm	8mm
125	CM24/230 2Nm	TF24/230 2,5Nm	LMQ 24/230 4Nm	8mm
160	CM24/230 2Nm	TF24/230 2,5Nm	LMQ 24/230 4Nm	8mm
200	LM24/230A 5Nm	LF24/230 4Nm	LMQ 24/230 4Nm	8mm
250	LM24/230A 5Nm	LF24/230 4Nm	LMQ 24/230 4Nm	8mm
315	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
355	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
400	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
450	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
500	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
560	NM24/230A 10Nm	NF24/230 10Nm	NMQ 24/230 8Nm	12mm
630	SM24/230A 20Nm	SF24/230 20Nm	SMQ 24/230 16Nm	12mm

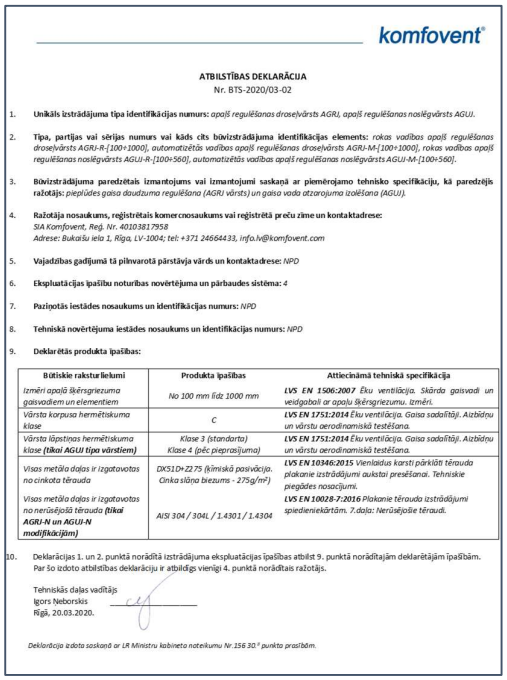
4. Order example

AGRJ-R (DR) damper type

AGRJ	- R	-(DR)	- d
Circular regulating damper			
	Manual rotating handle		
		Handle and axle are made of steel	
			Nominal diameter, mm

Order example: AGRJ-R (DR) - 100

KOMFOVENT provides manufacturer's Declaration of Conformity and material certificates for all types of the dampers.



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ATBILSTĪBAS DEKLARĀCIJA
Nr. BTS-2020/03-02

1. **Unikāls izstrādājuma tipa identifikācijas numurs:** *apaļš regulēšanas droselvārsts AGRJ, apaļš regulēšanas noslēgvārsts AGUJ.*
2. **Tipa, partijas vai sērijas numurs vai kāds cits būvizstrādājuma identifikācijas elements:** *rokas vadības apaļš regulēšanas droselvārsts AGRJ-R-[100÷1000], automatizētās vadības apaļš regulēšanas droselvārsts AGRJ-M-[100÷1000], rokas vadības apaļš regulēšanas noslēgvārsts AGUJ-R-[100÷560], automatizētās vadības apaļš regulēšanas noslēgvārsts AGUJ-M-[100÷560].*
3. **Būvizstrādājuma paredzētais izmantojums vai izmantojumi saskaņā ar piemērojamo tehnisko specifikāciju, kā paredzējis ražotājs:** *pieplūdes gaisa daudzuma regulēšana (AGRJ vārsts) un gaisa vada atzarojuma izolēšana (AGUJ).*
4. **Ražotāja nosaukums, reģistrētais komercnosaukums vai reģistrētā preču zīme un kontaktadrese:** *SIA Komfovent, Reģ. Nr. 40103817958 Adrese: Bukaišu iela 1, Rīga, LV-1004; tel: +371 24664433, info.lv@komfovent.com*
5. **Vajadzības gadījumā tā pilnvarotā pārstāvja vārds un kontaktadrese:** *NPD*
6. **Ekspluatācijas īpašību noturības novērtējuma un pārbaudes sistēma:** *4*
7. **Paziņotās iestādes nosaukums un identifikācijas numurs:** *NPD*
8. **Tehniskā novērtējuma iestādes nosaukums un identifikācijas numurs:** *NPD*
9. **Deklarētās produkta īpašības:**

Būtiskie raksturlielumi	Produkta īpašības	Attiecināmā tehniskā specifikācija
Izmēri apaļā šķērsgriezuma gaisvadiem un elementiem	*No 100 mm līdz 1000 mm*	***LVS EN 1506:2007*** *Ēku ventilācija. Skārda gaisvadi un veidgabali ar apaļu šķērsgriezumu. Izmēri.*
Vārsta korpusa hermētiskuma klase	*C*	***LVS EN 1751:2014*** *Ēku ventilācija. Gaisa sadalītāji. Aizbīdņu un vārstu aerodinamiskā testēšana.*
Vārsta lāpstiņas hermētiskuma klase ***(tikai AGUJ tipa vārstiem)***	*Klase 3 (standarta)* *Klase 4 (pēc pieprasījuma)*	***LVS EN 1751:2014*** *Ēku ventilācija. Gaisa sadalītāji. Aizbīdņu un vārstu aerodinamiskā testēšana.*
Visas metāla daļas ir izgatavotas no cinkota tērauda	*DX51D+Z275 (ķīmiskā pasivācija. Cinka slāņa biezums - 275g/m²)*	***LVS EN 10346:2015*** *Vienlaidus karsti pārklāti tērauda plakanie izstrādājumi aukstai presēšanai. Tehniskie piegādes nosacījumi.*
Visas metāla daļas ir izgatavotas no nerūsējošā tērauda ***(tikai AGRJ-N un AGUJ-N modifikācijām)***	*AISI 304 / 304L / 1.4301 / 1.4304*	***LVS EN 10028-7:2016*** *Plakanie tērauda izstrādājumi spiedieniekārtām. 7.daļa: Nerūsējošie tēraudi.*

10. Deklarācijas 1. un 2. punktā norādītā izstrādājuma ekspluatācijas īpašības atbilst 9. punktā norādītajām deklarētajām īpašībām. Par šo izdoto atbilstības deklarāciju ir atbildīgs vienīgi 4. punktā norādītais ražotājs.

Tehniskās daļas vadītājs
Igors Neborskis
Rīgā, 20.03.2020.

Deklarācija izdota saskaņā ar LR Ministru kabineta noteikumu Nr.156 30.¹ punkta prasībām.

AGUJ-R (DT) damper type

AGUJ	- R	- (DT)	-d
Circular shut-off damper			
	Manual rotating handle		
		Handle and axle are made of steel	
			Nominal diameter, mm

Order example: AGUJ-R – 250

AGUJ-M (DTF) damper type

AGUJ	- M	- (DTF)	-d	-A
Circular shut-off damper				
	Electric actuator			
		Axle is made of steel		
			Nominal diameter, mm	
				Actuator model

Order example: AGUJ-M (DTF) – 250 - NFA

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