

# UTP – Balancing damper



## Overview

- For balancing of air intake and exhaust
- Available as ATEX approved. Shock tested.
- Leakage class of a closed damper according to EN1751:2014 class 1. Tested size 1000×1000 mm.
- Classification of casing leakage EN 1751:2014 class B.
- Outer frame of galvanized, painted or stainless steel. Blades of galvanized or stainless steel with double sheet construction. Maintenance-free stainless steel bearings and shafts.
- Electrical, pneumatic or manual operation system available.
- UTP dampers can be supplied with connection pieces for round duct.
- Maximum duct pressure for damper construction 5000 Pa and maximum air velocity 15 m/s. In case of high duct pressure, contact Halton Marine for finding the most suitable solution.
- Temperature operation range up to +100 Celsius degrees, optionally up to +180 Celsius degrees.

## Specification

Halton UTP dampers are used to balance airflow rates in high pressure ductwork. Dampers meet international standards for rectangular and round ducts. In the open position, the blades face the direction of flow and do not cause a significant pressure loss. The UTP is used as a balancing damper in applications where reliability is important.

# Dimensions and Material Thickness

UTP balancing dampers are manufactured to international standards for both rectangular (width B 100-1200 mm and height H 100-1600 mm, 1 mm division) and circular ducts (Ø100-1250 mm).

Non-standard dimensions available on request.

Standard flange width 27 mm. Flanges and drilling also available according to ISO 15138 standards.

Modular construction sizes available up to 2400×3200 mm. Frame thicknesses from 3 mm to 10 mm. Standard frame thickness is 3 mm.

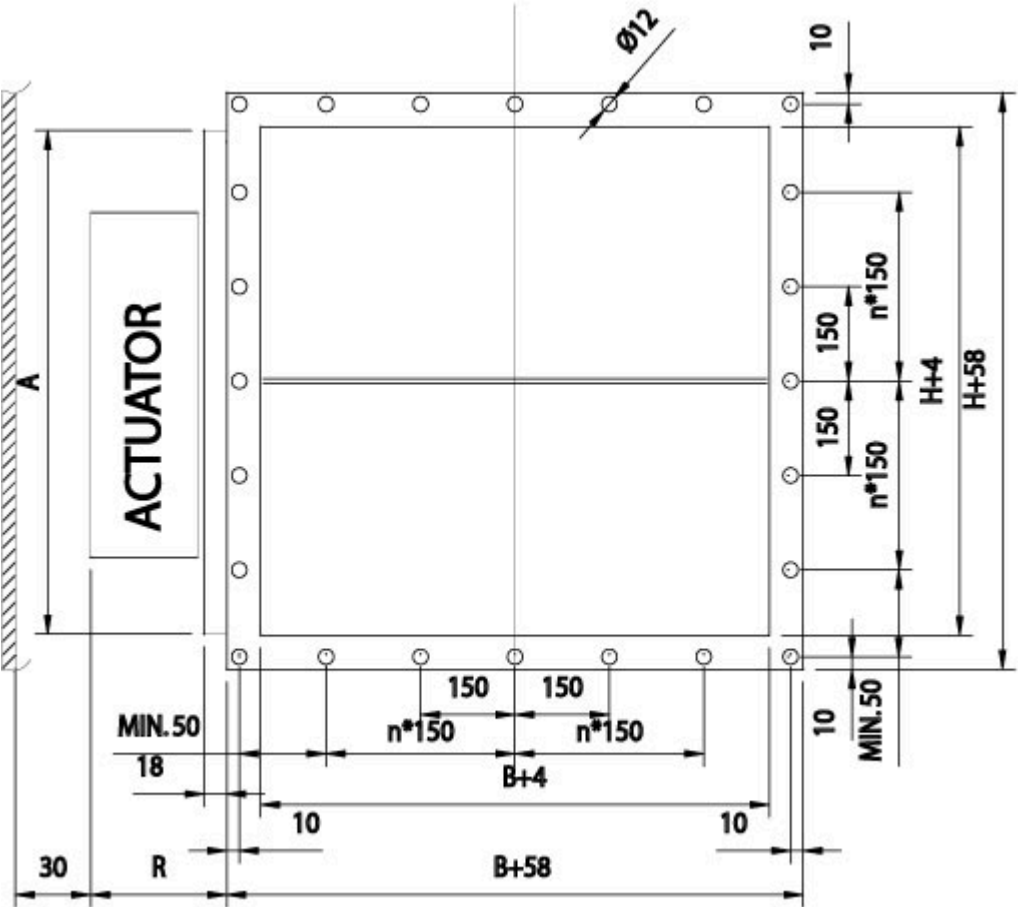
Blades are made of two sheets, each of them being 1 mm thick (sandwich design).

## Actuator effect on dimensions

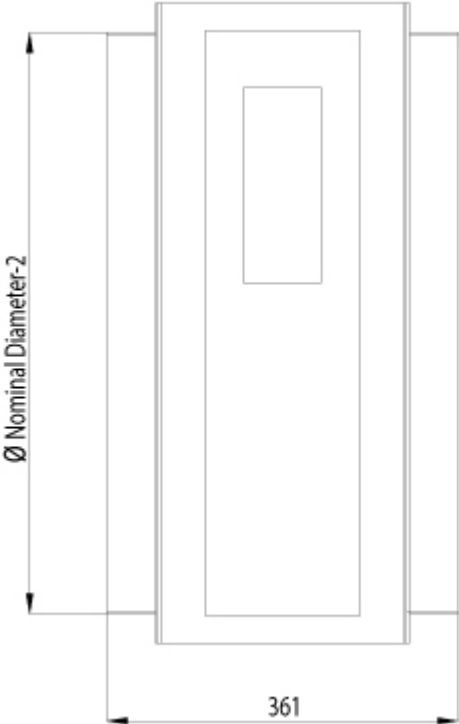
ACTUATOR		DIMENSIONS	
		R	A
Manual	Handle	95	H
Electrical	BF230, BF24, BF120	100	$H \leq 300 = 300$ , $H > 300 = H$
Pneumatic PNR	Pneumatic rotating actuator AT100	170	$H \leq 300 = 300$ , $H > 300 = H$

The above table contains only some examples of actuators and their effect on dimensions.

UTP, general drawings



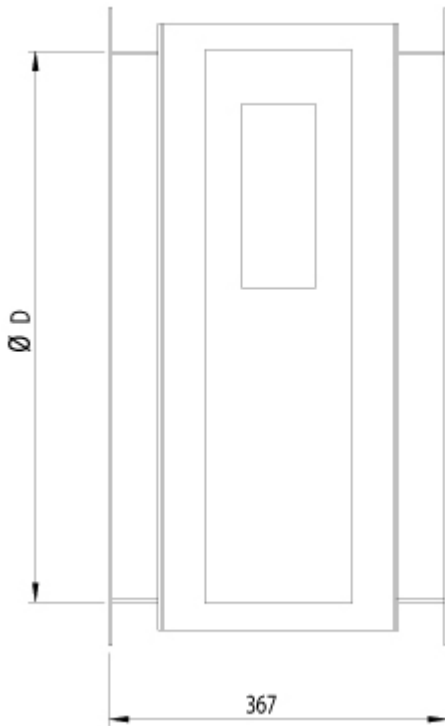
# UTP circular connections



# UTP, top



## UTP circular, with connection flanges



DAMPER HEIGHT	TOTAL DEPTH WITH BLADES OPEN
< 350 mm	210 mm
≥ 350 mm	240 mm

## Material and Finishing

PART	MATERIAL	FINISHING
Frame	Carbon steel	Painted or galvanized
Frame	Stainless steel EN 1.4301 (AISI304), EN 1.4404 (AISI316L), EN 1.4432 (AISI316L)	–
Blades	Steel	Galvanized
Blades	Stainless steel EN 1.4301 (AISI304), EN 1.4404 (AISI316L), EN 1.4432 (AISI316L)	–
Maintenance-free bearings and shafts	Stainless steel EN 1.4404 (AISI316L)	–
Shafts	Stainless steel EN 1.4404 (AISI316L)	–

# Product Models

Halton UTP is available with following actuators:

- UTP-EL: Electrical spring return actuator; standard actuators being 24 VAC/DC or 230 VAC or 120 VAC. Depending on the choice of actuator, the actuator might contain built-in open-closed limit switches. A wide range of Ex actuators available, including a one second closing time function as an option (for limited sizes).
- UTP-PNR: Pneumatic rotating actuator
- UTP-MAN: Manual handle

HSO: Halton Smart Override function for HVAC damper black-start available for PNR and EL models. With automatic reset function when power and/or pneumatic air supply is reinstated. A wide range of accessories available.

# Weights

## Weights of standard Halton Marine UTP dampers without an actuator (kg)

H / HEIGHT (mm)	B / WIDTH (mm)											
	100	200	300	400	500	600	700	800	900	1000	1100	1200
100	4	6	7	9	10	12	13	15	16	17	19	20
200	6	8	9	11	13	14	16	17	19	21	22	24
300	8	10	12	14	15	17	19	21	22	24	26	28
400	10	12	14	16	18	20	22	23	25	27	29	31
500	13	15	17	19	21	23	25	28	30	32	34	36
600	15	17	19	21	24	26	28	30	33	35	37	39
700	17	20	22	25	27	29	32	34	37	39	42	44
800	19	22	24	27	29	32	35	37	40	43	45	48
900	21	24	27	30	33	36	38	41	44	47	50	53
1000	23	26	29	32	35	38	41	44	47	50	53	56
1100	26	29	32	35	38	42	45	48	51	55	58	61
1200	27	31	34	37	41	44	48	51	54	58	61	64
1300	30	33	37	41	44	48	51	55	58	62	66	69
1400	32	35	39	43	47	50	54	58	61	65	69	73
1500	34	38	42	46	50	54	58	62	66	70	74	77
1600	36	40	44	48	52	56	60	65	69	73	77	81

D2 ØD	WEIGHT
(mm)	kg
100	7
125	8
160	11
200	12
250	17
315	19
400	26
500	34
630	44
800	59
1000	80
1250	110

## Product Code

### **(S)=Shape of Connection**

- (A) Circular on one side
- (C) Circular on two sides
- (R) Rectangular

### **(W)=Width**

100-1200

### **(H)=Height**

100-1600

### **(D)=Diameter**

100-1250

### **(EX)=Atex Class**

- (NA) No
- (X1) ATEX certified damper

### **(SF)=Flange Option**

- (H0) Eurovent flange in circular connections
- (H1) Eurovent flange + loose flange in circular connections
- (HA) Eurovent flanges
- (HB) Eurovent flanges + counter flanges (2 sides)
- (HC) Eurovent flanges + counter flange (1 side)

- (N0) ISO15138 flange drilling in circular connection
- (N1) ISO15138 flange drilling + Loose flange in circular connection
- (NA) Circular connections without flanges
- (NR) ISO15138 flange drilling

**(MA)=Material Blades**

- (AS) Stainless steel 1 mm EN1.4404
- (CS) Carbon steel 1 mm
- (LS) Stainless steel 1 mm EN1.4432
- (SS) Stainless steel 1 mm EN1.4301

**(FM)=Frame Material**

- (A3) Stainless steel 3 mm EN1.4404
- (A5) Stainless steel 5 mm EN1.4404
- (C3) Carbon steel 3 mm
- (C5) Carbon steel 5 mm
- (L3) Stainless steel 3 mm EN1.4432
- (L5) Stainless steel 5 mm EN1.4432
- (S3) Stainless steel 3 mm EN1.4301
- (S5) Stainless steel 5 mm EN1.4301

**(FI)=Finishing**

- (HG) Hot galvanized
- (NA) Acid treatment
- (PN) Standard painting grey RAL7001
- (PX) Special Painting C5-M ISO12944

**(BR)=Bearing Material**

- (BR) Bronze JN5
- (MS) Brass
- (AS) Stainless steel EN1.4404

**(RE)=Actuator**

- (E1) Electric – Belimo, BF24-2-HL
- (E3) Electric – Belimo, BF230-2-HL
- (E7) Electric – Belimo, BF120-HL
- (I1) InMax – Schischek, 15-SF
- (I2) InMax – Schischek, 15-SF VAS
- (I3) InMax – Schischek, 15-SF1 VAS
- (I4) InMax – Schischek, 8-SF-1
- (I6) InMax – Schischek, 15-SF-1
- (I9) InMax – Schischek, 5.10-SF
- (I10) InMax – Schischek, 5.10-SF VAS
- (I11) InMax – Schischek, 8-SF-1 VAS
- (P0) Pneumatic – Air Torque, AT101, Aluminium
- (P3) Pneumatic – Air Torque, AT104, AISI316
- (Q1) Pneumatic – Air Torque, AT201, Aluminium
- (Q2) Pneumatic – Air Torque, AT204, AISI316
- (Z2) Electric (EX) – Schischek, ExMax 15-SF
- (Z3) Electric (EX) – Schischek, ExMax 5-10SF
- (Z4) Electric (EX), Schischek, ExMax 15-SF VAS



(Z5) Electric (EX) – Schischek, ExMax 15-SF1 VAS  
(Z6) Electric (EX) – Schischek, ExMax 8-SF1  
(Z7) Electric (EX) – Schischek, ExMax 15-SF1  
(Z10) Electric (EX) – Schischek, ExMax 5.10-SF VAS  
(Z11) Electric (EX) – Schischek, ExMax 8-SF1 VAS  
(C1) Electric – Elodrive, CSQP-05A1E 24V  
(C2) Electric – Elodrive, CSQP-05A2E 120/230V  
(C3) Electric – Elodrive, CSQP-10A1E 24V  
(C4) Electric – Elodrive, CSQP-10A2E 120/230V  
(C5) Electric – Elodrive, CSQP-15A1E 24V – Blocked  
(C6) Electric – Elodrive, CSQP-15A2E 120/230V – Blocked  
(A7) Electric – Belimo, SF24A-S2  
(A9) Electric – Belimo, SF230A-S2  
(MA) Manual handle  
(NA) Not Assigned

**(AC)=Accessories**

(BC) Belimo Casing  
(E1) Junction box – Ensto, Plastic, IP66 & 67  
(E2) EX junction box – Cooper, GRP, IP66, T6  
(E5) Cable connectors – Wieland & Hensel (Shutoff)  
(L2) Limit switch 2 pcs – Bernstein, Plastic, IP66, Mechanical  
(L4) EX Limit switch 2 pcs – Bartec, Plastic, IP66, Mechanical  
(L5) EX Limit switch 4 pcs – Bartec, Plastic, IP66, Mechanical  
(L6) EX Magnetic switch 2 pcs – Elobau, AISI6118, Magnetic  
(L7) EX Magnetic switch 4 pcs – Elobau, AISI6118, Magnetic  
(L8) EX Magnetic switch 2 pcs – Pepperl & Fuchs, AISI303, Inductive  
(L9) EX Magnetic switch 4 pcs – Pepperl & Fuchs, AISI303, Inductive  
(M1) Solenoid valve – SMC, Aluminium, 24 VDC  
(M2) Solenoid valve – SMC, Aluminium, 230 VAC  
(M3) EX solenoid valve – ASCO, Brass, 24 VDC  
(M4) EX solenoid valve – ASCO, Brass, 230 VAC  
(M5) EX solenoid valve – Bifold, AISI316, 24 VDC  
(P1) Manual pneumatic valve – SMC, Aluminium  
(P2) Manual pneumatic valve – Bifold, AISI316  
(S3) Limit switch open/Close – Belimo, SN2, Mechanical  
(SC) Cover box – Stainless steel  
(ST) Pneumatic tubing & fittings – AISI316  
(ED) Manual over-ride handle – Halton DOT or HV-SKU  
(O1) Smart override handle – Halton, HSO Schischek  
(O2) Smart override handle – Halton, HSO Pneumatic

**Code example**

UTP/R-500-500,SF=HA,MA=CS,FM=C3,FI=HG,BM=AS,RE=MA,ZT=N,AC=E1