

Installation TBBD mixing section GOLD/SILVER C SD

1. General

The TBBD mixing section is available for the GOLD/SILVER C SD in sizes 04-80.

The mixing section can be used when it is desirable use recirculated air for completely or partially heating a building while it is unoccupied.

Supply air units should be provided with a downstream electric air heater or air heater for hot water.

The TBBD consists of a spiral tubular T-piece (sizes 000-031 – 000-050) or a rectangular duct with three connections for slip-clamp jointing (sizes 060-030 – 180-100).

The spiral duct joints (sizes 000-031 – 000-050) in required quantity and the sets of slip clamps (sizes 060-030 – 180-100) respectively are included in the supply.

The dampers for GOLD units are always supplied with mounted damper actuator. For the SILVER C units the dampers are optional with or without mounted damper actuator. The damper actuators, if supplied, have modulated action.

The mixing section can be ordered with two or three dampers depending on its range of application. See the example to the right and below.

Circular duct connections

Example 1, two dampers

The mixing section consists of two unmounted dampers, two joints and one spiral tubular T-piece. The connecting rod for the common damper motor is included in the supply.

Example 2, three dampers

As example 1 + one unmounted damper with its own damper motor, two joints and one spiral tubular T-piece.

Rectangular duct connections

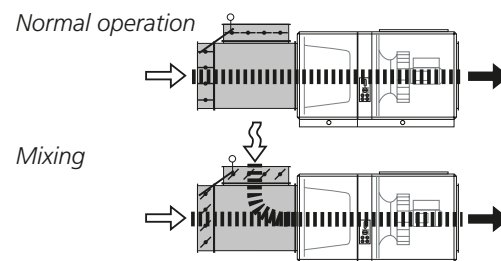
Example 1, two dampers

The mixing section consists of two unmounted dampers and one rectangular duct with three connections for slip-clamp jointing. The connecting rod for the common damper motor is included in the supply of sizes 060-030 – 120-050. Dampers in sizes 140-060 – 180-100 each have their own damper motor. The mixing section can be installed for connection on the right-hand or left-hand side.

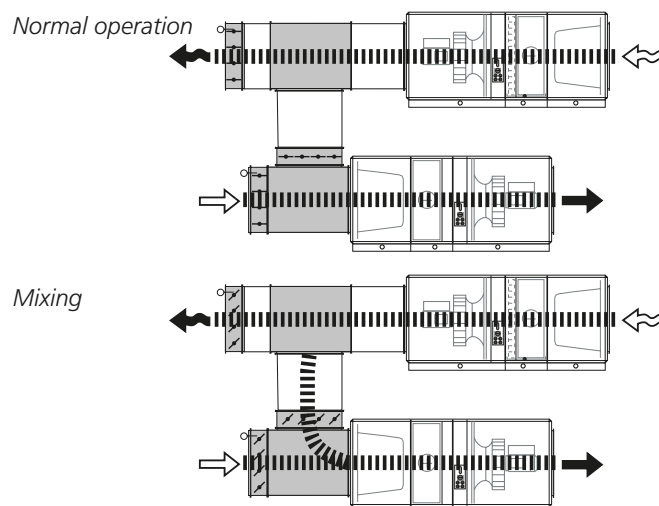
Example 2, three dampers

As example 1 + one unmounted damper with its own damper motor and one rectangular duct with three connections for slip-clamp jointing.

Example 1 (two dampers)



Example 2 (three dampers)



The items supplied from Swegon are shaded in grey.

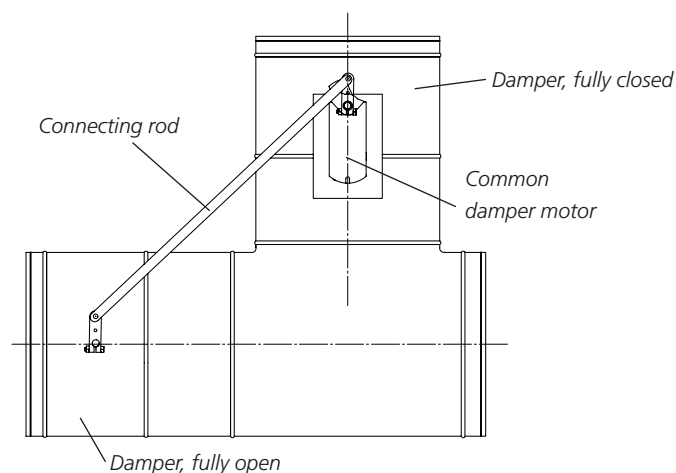


2. Installation

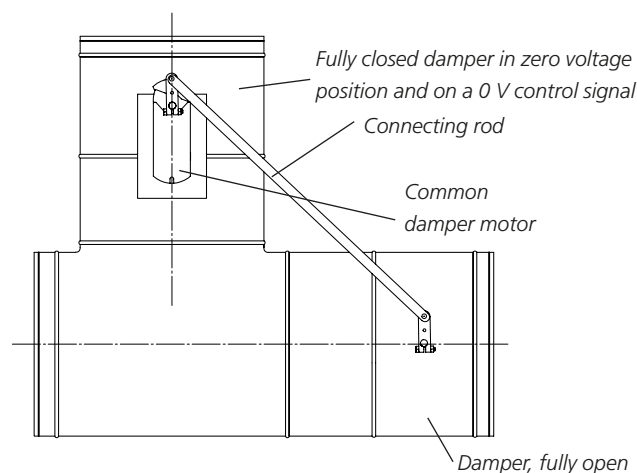
1. The mixing section must be installed where it will be accessible for inspection and the replacement of parts.
2. Install the mixing section against the air handling unit/ duct. Spiral joints for sizes 000-031 – 000-050, and sets of slip-clamps for sizes 060-030 – 180-100 are to be used for installation. Fit the dampers to the mixing section or duct. For particulars of the variants, see the sketches on the previous page and the next page.
3. When fitting the connecting rod to the actuating arms, make sure that one damper is fully open and the other damper is fully closed to insure correct mixture ratio. Make sure that the connecting rod's actuating arm does not slip on the damper spindle.
4. Insulate the mixing section/duct in accordance with local standards for ventilation ductwork.

TBBD sizes 000-031 – 000-050

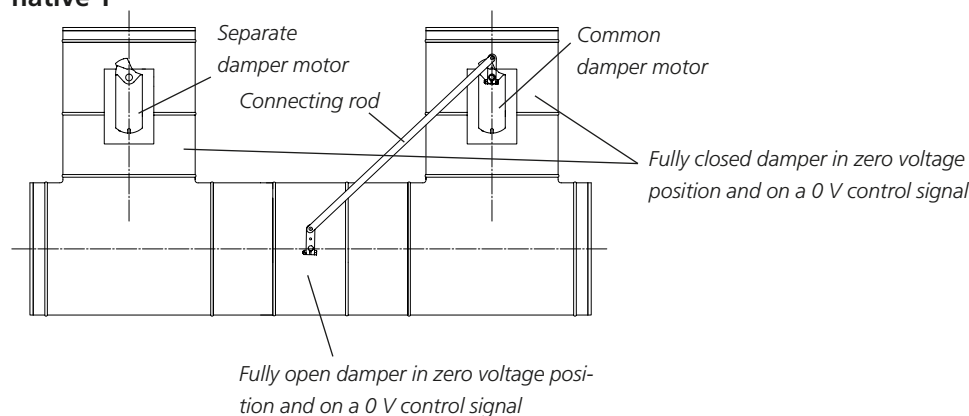
Right-hand connection side



Left-hand connection side

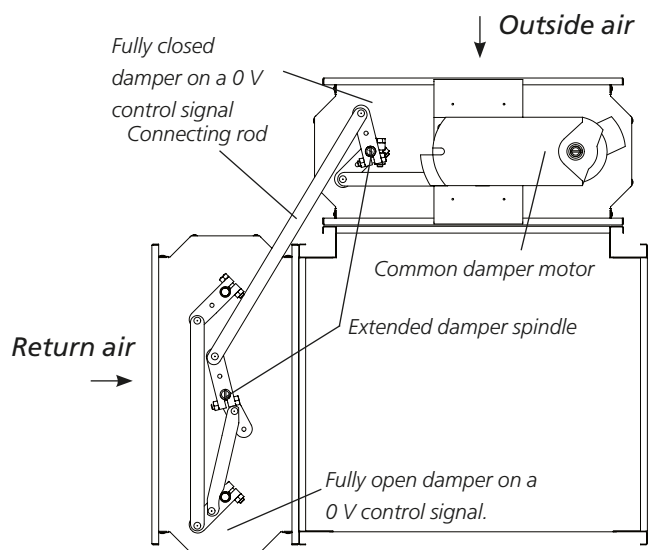


Mixing section with three dampers, alternative 1

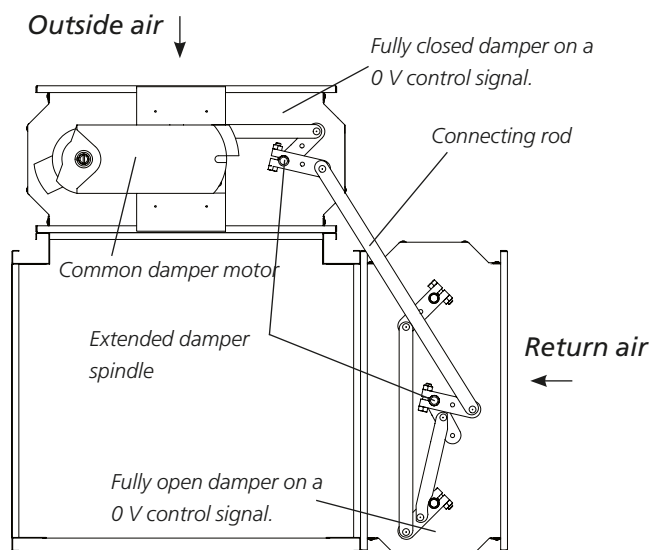


TBBD sizes 060-030 – 120-050

Right-hand connection side

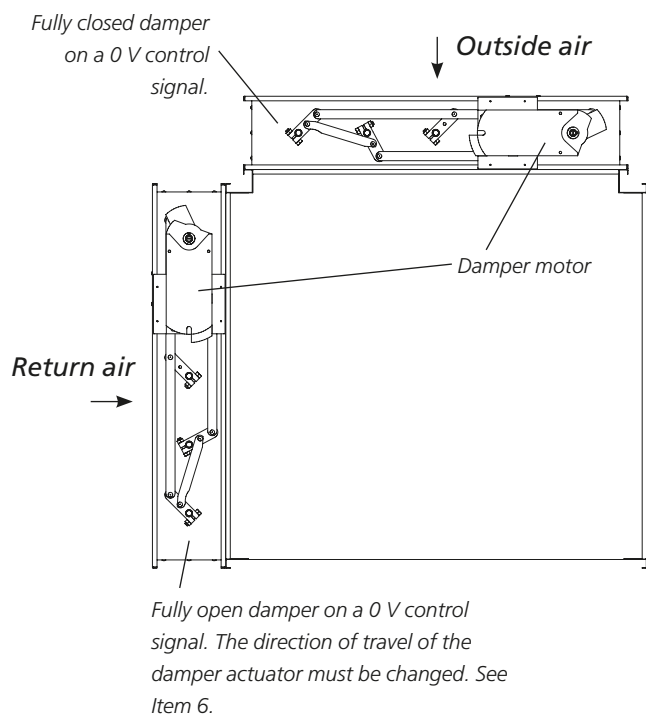


Left-hand connection side

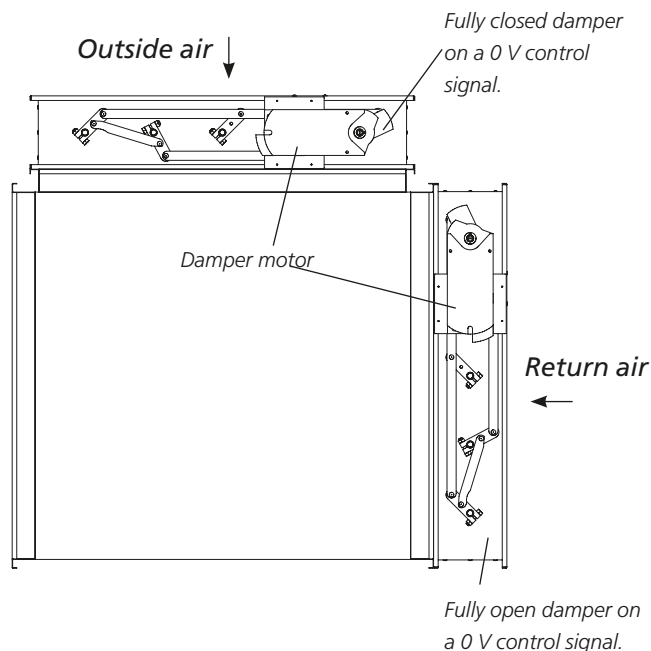


TBBD sizes 140-060 – 180-100

Right-hand connection side



Left-hand connection side

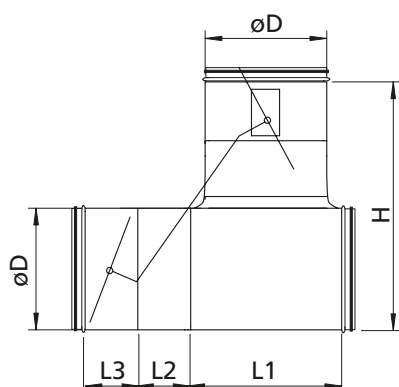


3. Dimensions

TBBD circular duct connections

Two dampers

GOLD with standard end connection frame:
 TBBD 000-031, matches GOLD size 04/05
 TBBD 000-040, matches GOLD size 07/08
 TBBD 000-050, matches GOLD size 11/12



TBBD	L1	L2	L3	H	øD
000-031	363	140	140	620	315
000-040	510	180	210	825	400
000-050	552	180	210	930	500

Three dampers

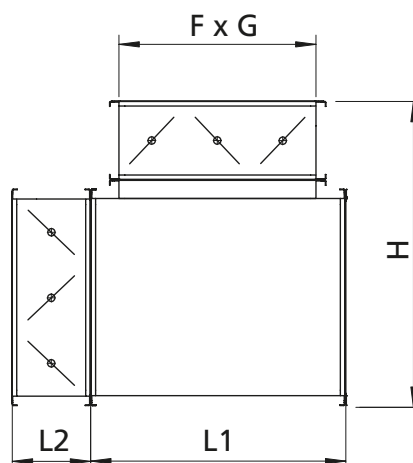
The dimensions of the component parts supplied by Swegon can be read in the sketches above.

TBBD rectangular duct connections

Two dampers

GOLD with standard end connection frame:
 TBBD 100-040, matches GOLD size 14/20
 TBBD 120-050, matches GOLD size 25/30
 TBBD 140-060, matches GOLD size 35/40
 TBBD 160-080, matches GOLD size 50/60
 TBBD 180-100, matches GOLD size 70/80

GOLD with full face connection frame (accessory TBXZ):
 TBBD 060-030, matches GOLD sizes 04, 05
 TBBD 080-040, matches GOLD sizes 07, 08
 TBBD 100-040, matches GOLD, sizes 11, 12
 TBBD 120-050, matches GOLD, sizes 14, 20
 TBBD 140-060, matches GOLD, sizes 25, 30
 TBBD 160-080, matches GOLD sizes 35, 40
 TBBD 180-100, matches GOLD, sizes 50, 60



TBBD	L1	L2	H	F x G
060-030	420	220	570	300 x 600
080-040	520	220	670	400 x 800
100-040	520	220	670	400 x 1000
120-050	620	220	770	500 x 1200
140-060	720	220	870	600 x 1400
160-080	920	220	1070	800 x 1600
180-100	1120	220	1270	1000 x 1800

The dimensions of the component parts supplied by Swegon can be read in the sketch above.

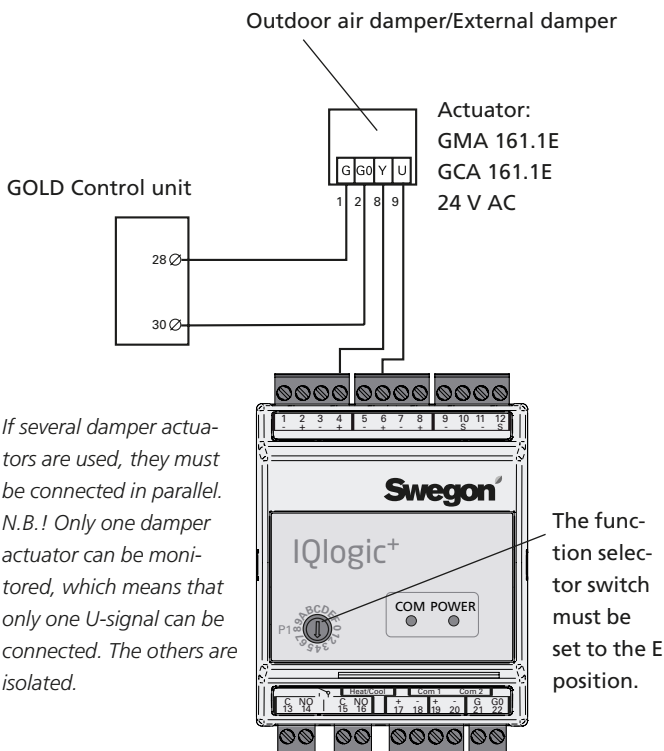
4. Electrical Connections

The electrical connections are to be wired by a qualified electrician in accordance with local electrical safety regulations.

The damper motor has a 0.9 metre long 4 x 0.75 mm power supply cable. ²

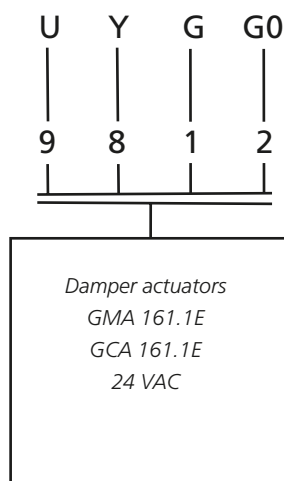
GOLD, version E/F

The damper closes if the air handling unit is stopped.



Under normal operating conditions, the damper opens and closes by means of the damper actuator's motor drive (actuating time: 90 seconds).

SILVER C

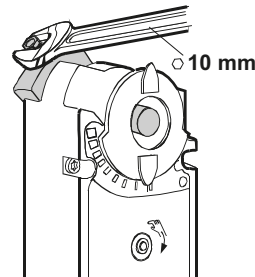


5. To activate the function in the hand-held terminal

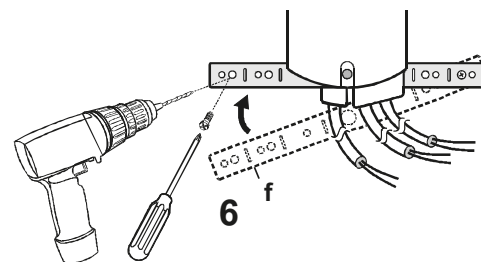
GOLD SD: The function must be activated in the hand-held micro terminal.

6. To change the direction of travel, damper actuator

1. Back off the damper spindle locking screw.



2. Remove the damper actuator from the damper spindle. It might be necessary to also remove the lower bracket.



3. Reverse the damper actuator and mount it with its rear side facing outward.
4. Adjust the damper blade(s) to the fully open position.
5. Tighten the locking screw against the damper spindle (7-10 Nm).
6. Check the end positions with a crank or a hexagon spanner.

