

Double blade flange

The DBF double blade is an accessory to the Pentruder wall saws. This accessory is often requested for cutting grooves.

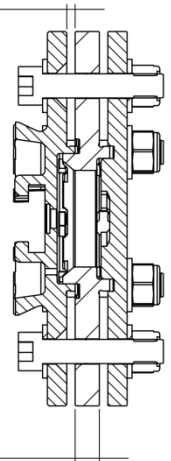
Features and benefits and technical data

- Good water cooling to both sides of both blades.
- Use with up to 800 mm blades.
- The DBF double blade flange is meant for two blades. It cannot be used for more blades.
- The flange is made for 60 mm Ø center bore blades.
- The flange has double bolt patterns, 110/130. Screws and nuts for both 110 and 130 mm P.C.D. are included in the DBF sets.
- The blade bolt pattern should be 110 or 130 mm. The holes should not be countersunk.
- To achieve safe and good clamping and alignment of the blade the blade core width should be between 2.0 mm and 4.5 mm.
- There are six different DBF (double blade flange) configurations with different thickness of the spacers, from 5 mm thickness up to 30 mm thickness with 5 mm increments. See also spare parts drawing.
- Cut a groove from approximately 12.4 mm up to 40 mm.



*Pictures shows screws and nuts for 110 mm P.C.D.
The middle piece will be made in aluminium*

Blade Core width Min 2.0mm
Max 4.5mm



5mm Part Number: 42080200-05
10mm Part Number: 42080200-10
15mm Part Number: 42080200-15
20mm Part Number: 42080200-20
25mm Part Number: 42080200-25
30mm Part Number: 42080200-30

Formula for calculating width of cut groove.

Example: $5+(2 \times 4,2)-(4,2-3,2)=12,4$

Spacer width, T=5 mm

Blade core width, C=3.2 mm

Segment width, S=4.2 mm

Groove width, G=12.4 mm

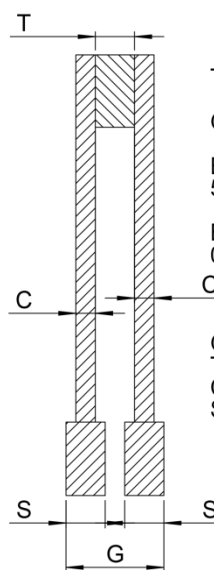
Example: $30+(2 \times 5,5)-(5,5-4,5)=40$

Spacer width, T=30 mm

Blade core width, C=4.5 mm

Segment width, S=5.5 mm

Groove width, G=40 mm



To Calculate groove width

$$G=T+(2 \times S)-(S-C)$$

Example Metric

$$5+(2 \times 4.8) - (4.8-3.6)=13.4\text{mm}$$

Example Inch

$$0.197''+(2 \times 0.187'') - (0.187'' - 0.160'')=0.543''$$

G=Groove width
T=Spacer width
C=Blade core width
S=Segment width

Pentrunder [®]		DBF Double blade flange	Sida 2/4
Unit Accessory for Pentrunder Wall Saws	Datum 2016-09-01	Rev	File DBF double blade flange.docx

Comments on spare parts drawing and spare parts list

Comments:

- The inner flange is the 42040500 Flush cutting flange BC=110/130. Please note that other inner flanges cannot be used due to the water distribution.
- The DB flanges are sold as a complete package but all parts can be ordered separately as spare parts.
- If an old inner flange 42040501 is used, the 16420100 center washer has to be removed and the flange very thoroughly cleaned to achieve good enough alignment.
- The complete DBF sets include screws, nuts and plain washers for both bolt pattern 110 (M10) and bolt pattern 130 (M8).

Blade guard for double blade flange

- A blade guard for up to Ø 800 mm blades is available. Standard blade guards do not fit as the six nuts on the back side of the flange will interfere with the guard.



Part numbers	Code	Description
Complete set		
DBF05	DBF05	Double blade flange 5 mm spacer, P.C.D. 110/130 cpl
DBF10	DBF10	Double blade flange 10 m spacer, P.C.D. 110/130 cpl
DBF15	DBF15	Double blade flange 15 mm spacer, P.C.D. 110/130 cpl
DBF20	DBF20	Double blade flange 20 mm spacer, P.C.D. 110/130 cpl
DBF25	DBF25	Double blade flange 25 mm spacer, P.C.D. 110/130 cpl
DBF30	DBF30	Double blade flange 30 mm spacer, P.C.D. 110/130 cpl
11054001	GPE-800-DBF40	Blade guard full for DBF Double blade flange, Parallel, Eccentric lock, Ø 800 mm / 32"

User instructions DBF Double blade flange for Pentrunder wall saws

1. Fitting the blades on the double blade flange

Follow the instructions on the spare parts for Double blade flange and the instructions in the Operator's manual.

The saw blade should have a hole with diameter 60 mm -0 +0.1 mm, and be free from cracks, dents, burrs and dirt.

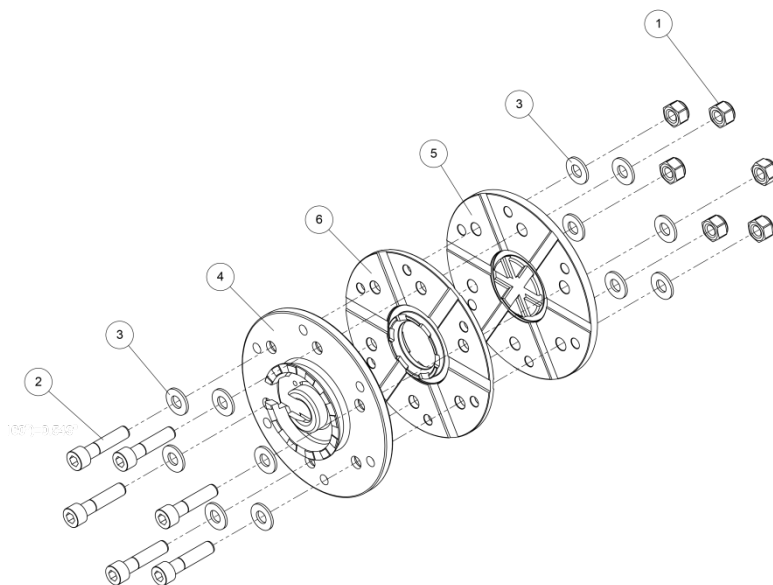
The blade must be clamped with screws of quality 10.9, DIN912. The nuts must be of type "Nyloc".

The fasteners must be torqued with a torque wrench to 35 Nm for M8 screws and to 65 Nm for M10 and 3/8" screws. The threads must be lubricated with grease or oil. The torque should be applied to the nuts, not the screw heads to get the best clamping force.

Torque setting applied to nuts:

M8 or 5/16", 10.9
35 Nm

M10 or 3/8", 10.9:
65 Nm



WARNING!

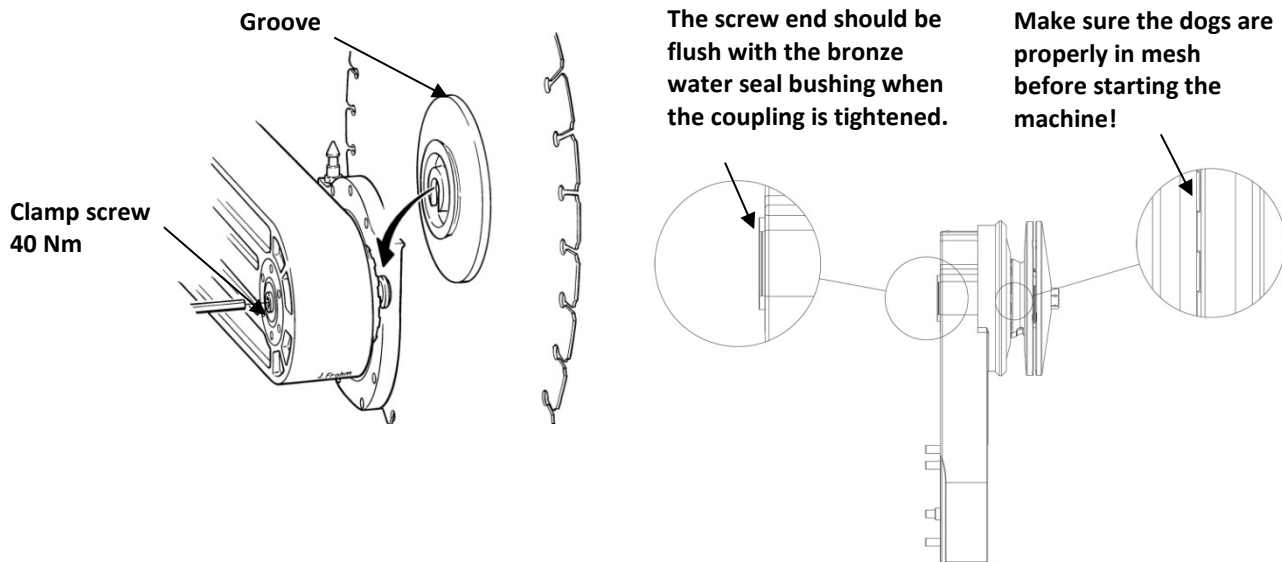


- The saw blade must always be fitted correctly to avoid danger. The instructions given above and in the operator's manual must always be followed to avoid faulty mounting of the blade, which can result in serious injury and even to fatal injuries to persons in close proximity of the machine.
- The blade must have a bolt circle where the holes are spaced on an even and exact pitch (P.C.D.) to prevent unequal load distribution on the screws, blade and flange. Look out for cracks around the counter sunk holes in the blade. Some blades are prone to crack and if that happens, it is potentially a very dangerous situation which can lead to fatal accidents. A faulty saw blade with cracks, dents, burrs or loose segments must never be used.
- The bolt or the female thread in the blade flange may never start to corrode. Corrosion of the threads or fasteners may cause failure which can result in serious injury and even to fatal injuries to persons in close proximity of the machine.
- Always keep all part of the quick disconnect coupling for the blade clean and lubricated! The safe operation of the coupling depends on cleanliness of all coupling parts on the machine, and the blade flange!
- Failure to follow the assembly instructions in this document and the Operator's manual may result in coupling overload and a failure can result in serious injury and even to fatal injuries to the operator or persons in close proximity of the machine.
- Before any kind of service or mounting on the machine is commenced, the machine must always be disconnected from the electric power supply.

2. Mounting the saw blade with flange on the machine spindle

If the procedure described above is followed, the blades and flange are now ready to be fitted on to the machine spindle with the quick coupling.

1. The blade flange is provided with a radial T-slot to the centre of the flange. On the opposite side of the T-slot, there is a groove and this groove should be positioned upwards when the blade flange is mounted on the saw head spindle / pull stud.
2. Turn the blade a little until the dogs on the blade flange and saw head spindle are in mesh, "click".
3. Use a ½" torque wrench to tighten the clamp bolt on the rear side of the spindle. Tighten to about 40 Nm. Do not over tighten the coupling clamp screw!
4. The screw should be flush with the bronze water seal bushing when the coupling is tightened.



Diamond saw blade

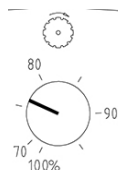
Always use a diamond blade well suited for the power of the machine and the material to be cut (concrete, stone material or masonry). Do not use a higher spindle speed than the saw blade is intended for. Follow the diamond blade manufacturer's recommendations.

For best cutting performance, check that the correct rotation direction is used. The cutting direction of the Pentruder HF-wall saws is clockwise.

Peripheral cutting speed and spindle speeds

Depending on what size of blade you are using, you achieve a suitable peripheral cutting speed by setting the potentiometer for blade speed control, and where it applies choose the correct gear.

The Pentruder 6-12HF is equipped with a 2-speed gearbox and the Pentruder 8-20iQ and 8-20HF are equipped with a 4-speed gearbox gearbox to give optimum power for different conditions and size of blade.



See charts in the Operator's manual to choose the correct gear and potentiometer setting.