

# exact tools

## Tips for using Exact PipeCut saws

- Please, read the users manual and watch the CD-ram video presentation.
- When cutting a pipe, feed the machine forward while holding the pipe still with your left foot. Then pull both the machine and the pipe towards yourself rolling on the pipe holders. Press the pipe with your left foot to hold the pipe still and feed again forward. Repeat until pipe is cut. You can see this method shown on the video presentation. Smaller pipes are easy to cut by rotating the pipe by hand either on the a table or on the floor. Please note: rotate the pipe towards you when rotating by hand and be careful not rotate too fast.
- The cutting procedure is divided into two stages; first saw through the pipe wall, then complete the cut by sawing around it.
- Please consider that the feeding speed is correct. If the feeding speed is too low, the chips caused by sawing are too small and the saw blade will become blunt too fast. Too high feeding speed causes damages to the teeth of the saw blade (the teeth might be cracked or come off) and it might also overload the motor.
- Do not overload the saw by cutting continuously. The saw will be overheated and the metal parts can be burning hot. This will also damage the motor and the blade. the rule is 2.5 minutes in use and 7.5 minutes rest.
- The correct feeding speed is the key to avoid the blade to become blunt too soon. The feeding speeds shown in the video presentation attached are real for an experienced user. For example cutting time for a steel pipe diameter 170 mm (6"), wall thickness 5 mm (1/5"), is 15-20 seconds and for a cast-iron pipe diameter 110 mm (4"), wall thickness 4 mm (1/6"), 20-25 seconds.
- Respect the duty cycle
- Clean the inside of the blade guards after cutting plastic pipes.
- Check the condition of the blade regularly
- Always keep the motor unit in the upright position. The yellow mark of the unlock button is then visible. Never place the Pipe Cut Saw on the pipe in the locked/cutting position.

### Factors that affect the lifetime of the saw blade:

- material of the pipe
- correct blade type for material being cut
- correct motor speed setting (model 170E)
- wall thickness of the pipe
- feeding speed
- smoothness of the pipe
- user's general skills
- cleanness of the pipe
- rust on the pipe
- welded seam in the pipe
- blade speed

## Factors that affect the straightness of the cut:

- condition of the saw blade
- wall thickness of the pipe
- feeding speed
- smoothness of the feed
- user's general skills
- cleanness of the pipe
- roundness of the pipe
- gripper unit too loose or too tight
- blade assembled too tight

## Cutting speeds for Exact Pipe Cut 170E

Stainless steel	speed 4
Steel	speed 5
Cast iron	speed 6

## Basic information of saw blades

TCT saw blades are intended for cutting steel, copper and every kind of plastics.

Cermet saw blades are intended for cutting stainless and acid proof steel. It is possible to cut steel and other material with Cermet. Lifetime is always longer when compared to TCT.

When cutting with saw blade it is very important is the feeding speed. If feed speed is low, the blade grinds itself dull quite fast. Quite good way to know right feed speed is to examine the sizes of chips of cutted material. Chip size that you saw in our demonstration was good, chips should be quite big.

Exact special Diamond disk is intended Q.!.J.ly\_ for cutting cast iron or ductile pipes. Diamond disk worn out very quickly if you try to cut steel or stainless. Diamond disk runs very well till the end of its lifetime. You can't find any noticeable dulling process during its life time. When the diamonds are worn out, the disk stops cutting in a few seconds. That is the nature of diamond disk.

A few examples of recommendable cutting times for different pipes. Cutting time is total time measured from the first contact of the blade to the pipe till the end of the cut.

Material	OD / wall thickness mm	Blade type	New blade	Medium dull blade	Dull blade
			Time sec.	Time sec.	Time sec.
AISI 304, AISI 316	168 / 3.0	Cermet	15 -17	30 - 35	45 - 60
AISI 304, AISI 316	114 / 2.0	Cermet	10 -15	25 - 35	35 - 45
Fe 52 or softer	168 / 4.5	TCT	20 - 25	35 - 45	45 - 60
Fe 52 or softer	114 / 3.0	TCT	15 - 20	25 - 35	40 - 50
Cast iron	200 / 6.0	Diamond	90 - 120	90 - 120	90 - 120
Cast iron	114 / 3.0	Diamond	30 - 40	30 - 40	30 - 40

**X=** Total cuts with one blade before first sharpening

### Cutting depth for plastic pipes Exact PipeCut 360

Pipe (O.D.)	Blade 140 mm cutting depth mm	Blade 155 mm cutting depth mm
20	x	x
30	x	x
35	x	x
45	x	x
50	x	x
60	x	x
75	15,1	22,6
90	11,4	18,9
100	10,1	17,6
110	9,3	16,8
115	9,1	16,6
140	8,7	16,2
160	9,1	16,6
165	9,3	16,8
190	10,4	17,9
215	11,8	19,3
240	13,4	20,9
270	15,4	22,9
320	18,6	26,1
355	20,4	27,9