



BAND SAVING MACHINES

CONTENTS

1. Bandsaw MOST.....	242
1.1. Light bandsaw machines for workshops.....	243
1.2. Semi-automatic bandsaw machines with hydraulic brake.....	244
1.3. Semi-automatic hydraulic bandsaw machines.....	246
2. Bandsaw.....	248
3. Cooling liquid.....	251

1. Bandsaw MOST



Light bandsaw machines for workshops: MOST UE-712 C, MOST WE-275 SH

- The units are designed to work under low and medium load.
- The solid construction enable single side and angular cutting.
- The units are equipped with control system of falling the cutting arm by means of hydraulic brake.
- The cutting arm is placed on a metal base made of welded elements (UE- 712 C version on wheels).
- Closed-cycled liquid cooling system provides the proper cooling of cutting blade and a cutting element.
- Edges switch turns the machine off when the cutting operation is finished.
- Installed metal brush helps to clean the space between teeth on the cutting blade from chips.
- The units are equipped with professional bimetallic cutting blades MOST Multicut 20 mm or 27 mm wide.

Semi-automatic bandsaw machines with hydraulic brake: MOST WE-260 SH, MOST WE-275 DS, MOST WE-310 DS, MOST WE-350 DS

- Stable machines designed to work in production operations under medium load.
- Thanks to solid construction the cutting arm is precise and perpendicular.
- The units are equipped with control system of falling the cutting arm by means of hydraulic brake.
- The cutting arm is placed on a metal base made of welded elements.
- Two speeds of cutting blade enable to cut both common and alloy steel.
- Swivel cutting head provides precise angular cutting either single-sided (SH version) or double-sided (DS Version).
- Built-in extensometer enables to measure the tension of cutting band.
- Closed-cycled liquid cooling system provides the proper cooling of cutting band and a cutting element.
- Edges switch turns the machine off when cutting operation is finished.
- Installed metal brush helps to clean the space between teeth in the cutting blade form chips.
- The units are equipped with professional bimetallic cutting blades MOST mulitcut 27 mm wide.

Semi-automatic full hydraulic bandsaw machines: MOST UE-331 DSA, MOST UE-460 DSA, MOST UE-530 DSA




- Stable machines designed to work in production operations under heavy load.
- Thanks to solid construction the cutting is precise and perpendicular.
- Hydraulic lifting and dropping of cutting arm controlled from control-panel.
- Hydraulic instantaneous grip vice (660 mm jaw opening) with clamping force selection.
- Additional hydraulic clamp for stack cutting (also enables to cut material grouped in bundles).
- Speed control of cutting blade (from 26 to 80 m/min).
- High cutting precision at 0°- 45°-60° angle both on the left and right side.
- Built-in extensometer enables to measure the tension of cutting band.
- Steel base made of welded plates with the tank for cooling liquid.
- Installed metal brush helps to clean the space between teeth on the cutting band from chips.
- The units are equipped with professional bimetallic cutting blades MOST Multicut 34 mm or 41 mm wide.

MOST roller conveyors




- For automatic bandsaw machines with hydraulic brake MOST.
- Versatile roller-conveyor table – its height adjust from 580-1030 mm.
- Segments of 1 or 2 m length, that can be combined to form the overall layout.
- Available as single conveyor support with one horizontal roller or two V-type rollers.

1.1. Light bandsaw machines for workshops


MOST UE-712 C
Workshop cutting machine with hydraulic brake


Model	MOST UE-712C		
Bandsaw blade dimensions	2360 x 20 x 0,9 mm		
Cutting speed	22/33/45/65 m/min		
Engine	3~; 0,75 kW		
Net weight	130 kg		
Catalogue no.	94 55 007120		
Cutting range [mm]			
			
0°	178	178	178x280
45°	110	110	180x110




MOST WE-275 SH
Workshop cutting machine with hydraulic brake


Model	MOST WE-275 SH		
Bandsaw blade dimensions	2460 x 27 x 0,9 mm		
Cutting speed	36/72 m/min		
Engine	3~; 1,1 kW		
Net weight	195 kg		
Catalogue no.	94 55 002760		
Cutting range [mm]			
			
0°	225	195	120x245
45°	150	150	135x200
60°	100	90	-

1.2. Semi-automatic bandsaw machines with hydraulic brake






MOST WE-260 SH Semi-automatic cutting machine with hydraulic brake

Model	MOST WE-260 SH		
Bandsaw blade dimensions	2460 x 27 x 0,9 mm		
Cutting speed	36/72 m/min		
Engine	3~; 1,1 kW		
Net weight	216 kg		
Catalogue no.	94 55 002600		
Cutting range [mm]			
			
0°	227	220	260x110
45°	150	145	200x125
60°	90	85	-



MOST WE-275 DS Semi-automatic cutting machine with hydraulic brake

Model	MOST WE-275 DS		
Bandsaw blade dimensions	2460 x 27 x 0,9 mm		
Cutting speed	36/72 m/min		
Engine	3~; 1,1 kW		
Net weight	315 kg		
Catalogue no.	94 55 002750		
Cutting range [mm]			
			
0°	227	220	260x110
45°	150	145	200x125
60°	90	85	-
45° (L)	110	110	160x110








MOST WE-310 DS

Semi-automatic cutting machine with hydraulic brake






Model	MOST WE-310 DS		
Bandsaw blade dimensions	2725 x 27 x 0,9 mm		
Cutting speed	36/72 m/min		
Engine	3~; 1,1 kW		
Net weight	310 kg		
Catalogue no.	94 55 003100		
Cutting range [mm]			
			
0°	250	240	310x210
45°	200	180	200x140
60°	120	120	120x95
45° (L)	150	150	170x90

MOST WE-350 DS

Semi-automatic cutting machine with hydraulic brake



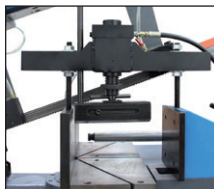
Model	MOST WE-350 DS		
Bandsaw blade dimensions	3160 x 27 x 0,9 mm		
Cutting speed	34/68 m/min		
Engine	3~; 1,5 kW		
Net weight	360 kg		
Catalogue no.	94 55 003500		
Cutting range [mm]			
			
0°	270	260	350x220
45°	240	220	240x160
60°	160	150	-
45° (L)	210	180	-




1.3. Semi-automatic hydraulic bandsaw machines



MOST UE-331 DSA

Semi-automatic, hydraulic cutting machine for heavy-duty production






Model	MOST UE-331 DSA		
Bandsaw blade dimensions	4180 x 34 x 1,1 mm		
Cutting speed	26-80 m/min		
Engine	3~; 2,20 kW		
Net weight	850 kg		
Catalogue no.	94 55 003310		
Cutting range [mm]			
			
0°	331	320	510x260
45°	315	315	-
60°	215	195	-
45° (L)	315	315	-



MOST UE-460 DSA

Semi-automatic, hydraulic cutting machine for heavy-duty production






Model	MOST UE-460 DSA		
Bandsaw blade dimensions	5330 x 41 x 1,3 mm		
Cutting speed	26-80 m/min		
Engine	3~; 3,70 kW		
Net weight	1320 kg		
Catalogue no.	94 55 004600		
Cutting range [mm]			
			
0°	460	460	440x600
45°	445	445	-
60°	295	295	-









MOST UE-530 DSA Cutting machine for heavy-duty production



Model	MOST UE-530 DSA		
Bandsaw blade dimensions	6030 x 41 x 1,3 mm		
Cutting speed	20-85 m/min		
Engine	3~; 5,0 kW		
Net weight	1350 kg		
Catalogue no.	94 55 005300		
Cutting range [mm]			
			
0°	530	530	700x335
45°	490	435	500x300
60°	335	320	305x400
45° (L)	480	435	480x300
60° (L)	335	320	305x400

Universal roller conveyors MOST

Type		Roller diameter [mm]	Roller thickness [mm]	Height [mm]	Weight [kg]	Maximum load [kg]	Roll number	Length [mm]	Catalogue no.
	MOST HRS 52-1	52	350	580-790	16	400	1	-	94 55 250001
	MOST HRS 52V	52	220	580-790	17	400	2	-	94 55 250002
	MOST HRT 60-4	60	360	580-1030	40	300	4	1030	94 55 250004
	MOST HRT 60-7	60	360	580-1030	53	400	7	2030	94 55 250005

2. Bandsaw

Blades safety guideline



For your own safety, follow the instructions below before operating the machine:

- Be careful opening welded loops (blades) as they are packed under tension. Manual instruction on request.
- Wear safety glasses, protective gloves and footwear when unpacking and assembling.
- It is recommended to remove the protective coating of the bandsaw blade only after assembly of blade to the bandsaw machine.
- Make sure to close the band saw cover while operating the machine.
- If possible, turn off the main switch when changing the bandsaw blade.
- For further instruction, please read the manual of bandsaw manufacturer.



Defining the optimal cutting parameters (cutting conditions)

Step 1 - choose the right blade that comply with the machine specifications (refer to the product description).

Step 2 - choose a tooth pattern (see next page).

Step 3 - choose operating speed V_c (m/min) based on the cutting parameter values (cutting conditions).

Step 4 - choose the efficiency production rate V_z (cm²/min) based on the cutting parameters values (cutting conditions).

Calculating of cutting time (t) and cutting feed (f)

$$\text{Cutting time (t)} = \frac{\text{Surface of cutting element (cm}^2\text{)}}{\text{Efficiency rate } V_z \text{ (cm}^2\text{/min)}}$$

$$\text{Cutting feed } V_f \text{ (mm/min)} = \frac{\text{Height of cutting element (mm)} \times \text{Efficiency rate } V_z \text{ (cm}^2\text{/min)}}{\text{Surface of cutting element (cm}^2\text{)}}$$

Blade break-in

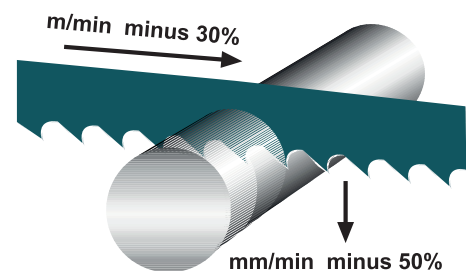
A proper break-in on a new bandsaw blade will dramatically increase its blade life. How to break in blade:

Step 1 – select the appropriate cutting speed (m/min) and efficiency (rate) V_z (cm²/min) based on the cutting parameter values – presented in chart.

Step 2 – adjust the speed of cutting to about 70 % of normal cutting rate and about 50% the regular cutting rate (check graphics beside).

Step 3 – if noise and vibration occur, change speed carefully until vibration stops. A permanent chip formation is important during the whole cutting process.

Step 4 – after cutting approximately of 400-600 cm² or at least 15 minutes of effective real cutting time for tubes and profiles, you can first slowly turn up to the final speed and then up to the normal cutting speed (rate).

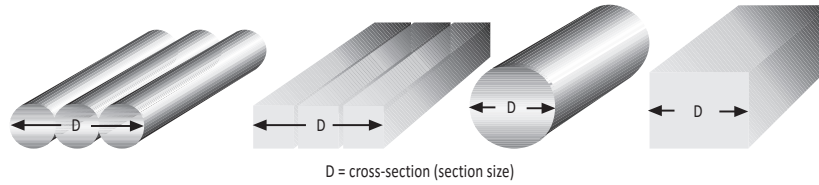


Cooling liquids

With a properly mixed and maintained sawing coolant (oil content), the blade life can be significantly extended. When using an emulsion, measure the concentration with refractometer. For low and medium-alloyed steel cutting, we recommend coolants of 8-12% concentration, and for high and very high-alloyed steel cutting – 13-18%.

Tooth pitch selection (number of teeth per inch)

Solid Materials

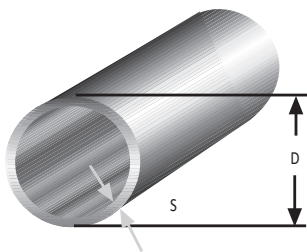


Bimetal bandsaw		Carbon steel bandsaw	
Variable pitch		Variable pitch	
Section size	Tooth pitch	Section size	Tooth pitch
do 25 mm	10/14	50-120 mm	3/4
15-40 mm	8/12	100-250 mm	2/3
25-50 mm	6/10	150-400 mm	1,5/2
35-70 mm	5/8	350-600 mm	1,1/1,6
40-90 mm	5/6	>500 mm	0,85/1,5
50-120 mm	4/6		
80-180 mm	3/4		
130-350 mm	2/3		
150-450 mm	1,5/2		
200-600 mm	1,1/1,6		
>500 mm	0,75/1,25		

Guidelines:

- As the cross section limits in the chart are broad, for stainless steel cutting, we recommend to choose a finer pitch (more teeth per inch).
- For heat-treated materials (tempered materials) ($>1200 \text{ N/mm}^2$), we recommend to choose coarser pitch (fewer teeth per inch).

Pipes and profiles



Wall thickness S [mm]	Variable pitch									
	Outside diameter of tube D [mm]									
	20	40	60	80	100	120	150	200	300	500
2	14	10/14	10/14	10/14	10/14	8/12	8/12	8/12	8/12	5/8
3	14	10/14	10/14	8/12	8/12	8/12	6/10	6/10	6/10	5/8
4	10/14	10/14	8/12	8/12	8/12	6/10	5/8	5/8	5/8	4/6
5	10/14	10/14	8/12	8/12	6/10	6/10	5/8	4/6	4/6	4/6
6	10/14	8/12	8/12	6/10	6/10	5/8	4/6	4/6	4/6	4/6
8	10/14	8/12	8/12	6/10	5/8	5/8	4/6	4/6	4/6	4/6
10		8/12	6/10	5/8	4/6	4/6	4/6	4/6	4/6	4/5
12		8/12	6/10	4/6	4/6	4/6	4/6	4/6	4/6	4/5
15		8/12	6/10	4/6	4/6	4/6	4/6	4/5	4/5	4/5
20			4/6	4/6	4/6	4/6	4/6	4/5	4/5	3/4
30				4/6	4/6	4/5	4/5	4/5	4/5	2/3
50							4/5	3/4	2/3	2/3
80								3/4	2/3	2/3
>100									2/3	1,5/2

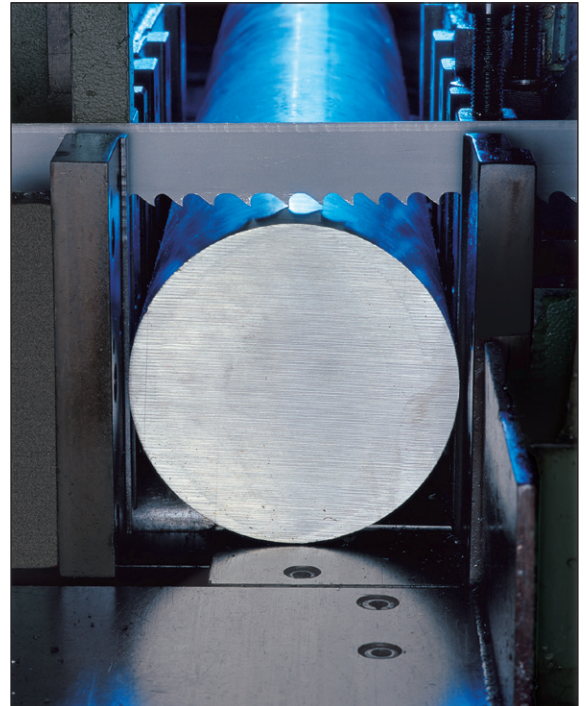


MOST Multicut

High efficiency bimetallic blade MOST Multicut

- Universal and perfect for cutting of carbon, stainless, alloyed and tool steel, etc.
- Blades cutting edges made of high-speed steel M42 provide high durability.
- Special design of toothing prevents chipping of cutting edges.
- Special shapes between teeth guarantees accurate cutting capability.
- Precision distance between teeth provides smooth surfaces during cutting.
- Manufacturing blades from high quality steel provides optimum results and long term use.

Available dimensions and scale								
Width x thickness [mm]	Pitch (teeth per inch)							
	2/3	3/4	4/6	5/8	6/8	6/10	8/12	10/14
13 x 0,6						•	•	•
19 x 0,9			•	•	•	•	•	•
27 x 0,9	•	•	•	•	•	•	•	•
34 x 1,1	•	•	•	•	•	•	•	
41 x 1,3	•	•	•	•				
54 x 1,3	•	•	•					
54 x 1,6	•	•	•					



MOST M42

Economic bimetal bandsaw blades is dedicated for general use (application).
Designed for cutting of wide range of different materials and different shapes of metal.
Variable toothing pitch guarantees limited vibration during cutting. Cobalt high speed steel blade ensures long service life.

Available dimensions and scale							
Width x thickness [mm]	Pitch (teeth per inch)						
	2/3	3/4	4/6	5/8	6/10	8/12	10/14
20 x 0,9			•	•	•	•	•
27 x 0,9	•	•	•	•	•	•	•
34 x 1,1	•	•	•	•			
41 x 1,3	•	•					



3. Cooling liquid



MOST Coolmax

MOST Coolmax is semi-synthetic metal working fluid concentrate, made of highly refined mineral oils. It eliminates the formation of nitrosamines, it does not contain chlorine, secondary amines, sodium nitride, PCB and heavy metals. The concentrate is virtually sculpture free. MOST COOLMAX fluid is formulated for a wide range of metal working operations which include: turning, milling, drilling, threading, grinding and for a wide range of work pieces such as cast iron, steel including alloy steel and yellow metals. Emulsions made with MOST COOLMAX concentrate are stable without formal deposits for long periods of use. If the concentrate is used with a filtering system it can last up to 2 years. Emulsions with the correct concentration enable a smooth finished surface and prolong the life of tools. Emulsions do not have a tendency to foam.

NOTE: Be sure to add concentrate to water and not vice versa.



Packages and catalogue no.

94 53 999001	Canister	1 l
94 53 999005	Canister	5 l
94 53 999020	Canister	20 l
94 53 999205	Drum	205 l

Another package can be agreed with customer.

Dosage	
Grinding	3-4%
Pre turning	3-5%
Finish turning	5-8%
Band saw cutting	5-8%
Finish boring	5-8%
Tapping	6-10%