



obomodulan® – machining data

Type	roughing cut	finishing cut, contour cut
1700 1600 1550	n = 10.000 - 15.000 1/min v _f = 4.500 - 7.500 mm/min a _p = 3,0 - 6,0 mm carbide milling cutter	n = 14.000 - 18.000 1/min v _f = 3.500 mm/min a _p = 0,2 - 0,3 mm ball nose carbide milling cutter
1400 1200 1000 850	n = 8.000 - 15.000 1/min v _f = 2.000 - 3.000 mm/min a _p = 1,0 - 3,0 mm 2 flute carbide milling cutter	n = 8.000 - 18.000 1/min v _f = 1.000 - 3.000 mm/min a _p = 0,2 - 0,5 mm 2 or 3 flute ball nose carbide milling cutter
750 700 652 630 502 500	n = 8.000 - 15.000 1/min v _f = 2.000 - 3.000 mm/min a _p = 3,0 - 5,0 mm 2 flute carbide milling cutter	n = 8.000 - 18.000 1/min v _f = 1.000 - 3.000 mm/min a _p = 0,2 - 0,5 mm 2 or 3 flute ball nose carbide milling cutter
302 240 210	n = 8.000 - 15.000 1/min v _f = 2.000 - 4.000 mm/min a _p = 3,0 - 10,0 mm 2 flute carbide milling cutter	n = 8.000 - 18.000 1/min v _f = 2.000 - 5.000 mm/min a _p = 0,2 - 2,5 mm 2 or 3 flute ball nose carbide milling cutter

Key: n=spindle speed, v_f=feed rate, a_p=depth of cut

All mentioned data are recommended indicative values where OBO is achieving the best results.

According to the machine type, tool and work piece all parameter have to be proven by the person in charge of machining.

The working values should not exceed the recommended max. values of the machine manufacturer.

Recommended Reference Data

Wood or plastic working machines

e.g. Carbide milling cutter

Diameter : 10 mm, face-cutting
Speed : n = 2000 - 15000 rpm⁻¹
Feed : v_f = 3 - 5 m/min
Depth of cut : Roughing 10 - 15 mm
Finishing : up to max. 3 mm

1.2 Finishing: Carbide spherical cutter

a) Diameter : 6 mm
Speed : n = 3000 - 6000 rpm⁻¹
Feed : v_f = 0,8 - 2 m/min
b) Speed : n = 2000 - 5000 rpm⁻¹
Feed : v_f = 1 - 2 m/min

High speed milling

e.g. Carbide milling cutter

Diameter : 20 mm,
Radius R : = 10 mm
Speed : n > 20000 rpm⁻¹
Feed : v_f = 12 bis 15 m/min
Cell spacing : 0,5 mm
Depth of cut : 1 mm

General Remarks:

The cutting speed v = n x Jt d (m/min) should not exceed 250 m/min for HSS cutters and 1000 m/min for carbide cutters. Refer to and comply with the manufacturer's specifications.

Metal working machines

1.1 Roughing: Straight-shank milling cutter, carbide or HSS

Diameter : 25 - 40 mm
Speed : n = 1500 - 2000 rpm⁻¹
Feed : v_f = 2 - 3 m/min
Depth of cut : 10 -15 mm, up to 100 mm depth

Circular saw

For the sawing of obomodulan® 210 up to 1200 we recommend the following parameter:

- diameter of saw blade für boards of 100 up to 150 mm thickness: Ø 400 up to 450 mm
- 2400 up to 2800 rpm
- use proper wedge
- hard metal tipped saw blade with trapezoidal/flat tooth with an amount of 48-60 teeth
- please also observe any safety code regulations

All data relating to the material as well as machining and processing are provided to the best of our knowledge without obligation and should not be considered as an assurance of either material properties or as machining and processing options in individual cases.