

Precision creates value.



# Machining of thermoplastics



# Tools for the machining of thermoplastics

## Introduction

Thermoplastics and especially acrylic glass represent a particular challenge when machining due to their low melting temperatures. They require a special tool design with regard to the grade of carbide, cutting geometry and chip deflector.

JSO tools always achieve so-called CLEARCUT quality.

## Applications

For polish cutting, grooving, sizing and severing thermoplastics (e.g. acrylic glass). First, clean the surface of the machined edges by pre-cutting against feed and then finish-cutting (with low chip removal) with feed.

## Technical details

Single and multi-tooth solid carbide router cutters made of standard (HW 04) or micro-grain carbide (HW 08) with special cutting edge geometry for the best surface quality.

Micro-grain carbide (HW 08) for near polished surface finishes.

All cutters with polished flutes and also with polished clearance. Right-hand rotation – up-cut.

## 93103 End mill cutter Z1 HW04

D (mm)	L2 (mm)	L1 (mm)	S (mm)	Part-No.
2	2	50	6	93103-6-02050-R
4	15	50	6	93103-6-04150-R
6	20	60	6	93103-6-06200-R
8	25	70	8	93103-6-08250-R
10	30	70	10	93103-6-10300-R

## 93113 End mill cutter Z1 HW08

D (mm)	L2 (mm)	L1 (mm)	S (mm)	Part-No.
6	20	60	6	93113-6-06200-R
8	25	70	8	93113-6-08250-R

## 93303 Multi-tooth end mill cutter Z3 HW04

D (mm)	L2 (mm)	L1 (mm)	S (mm)	Part-No.
6	20	50	6	93303-6-06200-R

## 93503 Multi-tooth end mill cutter Z5 HW04

D (mm)	L2 (mm)	L1 (mm)	S (mm)	Part-No.
8	30	70	8	93503-6-08300-R
10	40	70	10	93503-6-10400-R

## Important features at a glance:

- + CLEARCUT MILLING SURFACE
- + OPTIMUM CHIP REMOVAL
- + SPECIAL CUTTING EDGE GEOMETRY
- + POLISHED FLUTES
- + POLISHED CLEARANCE
- + SPECIAL TUNGSTEN CARBIDE GRADE FOR THERMOPLASTICS

### Pre-cutting / roughing / profiling

For subordinate cutting operations, almost any popular woodworking tools can be used, however preferably tungsten carbide cutting edges. To obtain shiny surfaces, pre-cut and profiled surfaces must be finished by polishing or flaming.

### Drilling

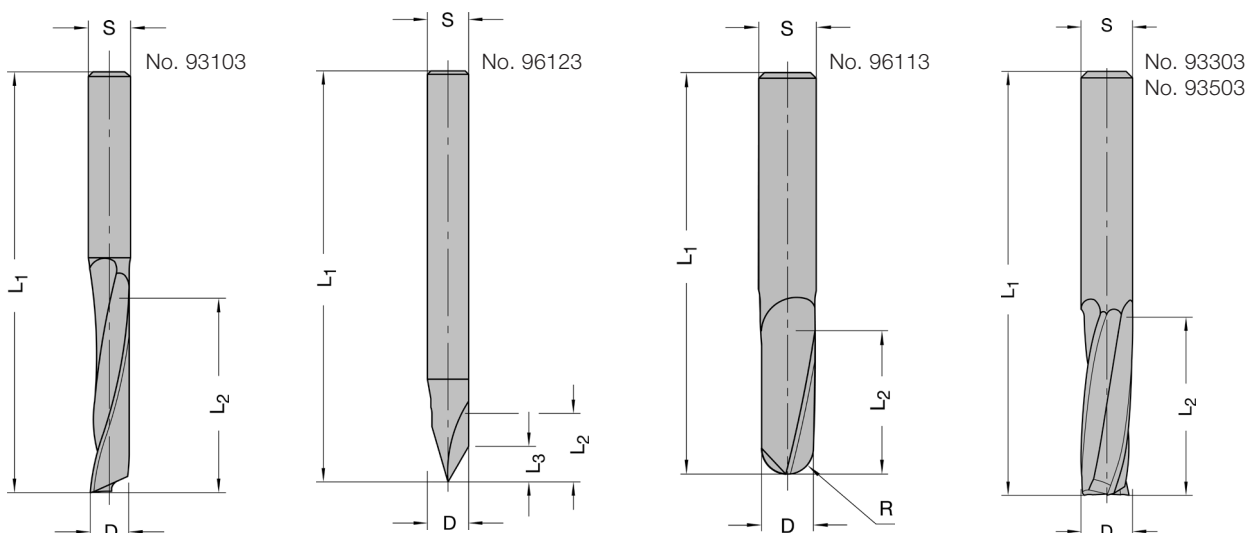
For the cleaning of through holes, use JSO # 30586-6 drills. Tear-free holes with clean side walls can be achieved by observing the correct operating parameters. Blind holes can easily be produced with finishing cutters.

## 96113 Ball nose cutter Z1 HW04

D (mm)	L2 (mm)	R (mm)	L1 (mm)	S (mm)	Part-No.
2	5	1	50	6	96113-6-02050-R
4	15	2	50	6	96113-6-04150-R
6	20	3	60	6	96113-6-06200-R
8	25	4	70	8	96113-6-08250-R
10	30	5	70	10	96113-6-10300-R

## 96123 V-groove cutter Z1 HW04

D (mm)	L2 / L3 (mm)	Grad	L1 (mm)	S (mm)	Part-No.
6	10 / 5	60°	60	6	96123-6-06600-R
6	10 / 3	90°	60	6	96123-6-06900-R



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