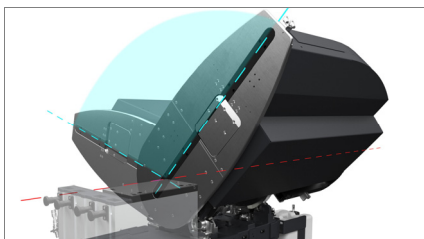




emmegi

Aluminium  
S  
Steel  
P  
Pvc

en #3



Virtual axis for cutting units inclination 01



Radial cut 02

## Precision RS

twin head cutting-off machine with 600 mm dia. radial blade



Twin head cutting-off machine with 5 controlled axes for aluminium, PVC and lightweight alloys, with automatic mobile head movement and electronic management of all angles from 22°30' (internal) to 45° (external) with a resolution of 280 positions per degree. The 600 mm cemented carbide blades have two different feed modes. Standard feed optimises the cutting chart in the vertical direction for cutting profiles of more than 450 mm in height. Radial mode, protected by one of the several patents covering this machine, makes use of an extremely generous cutting stroke that surpasses the vertical reference surface and produces ample working dimensions in the horizontal direction. This solution allows 45° mitre cuts of profiles of up to 240 mm in width. Blade feed is controlled by two NC axes to ensure optimal adjustment of the blades exit speed and stroke.

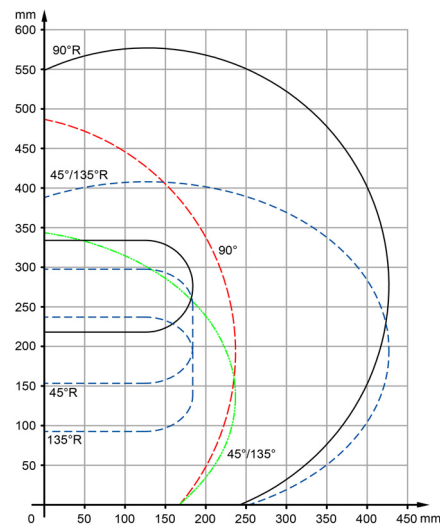
All axis movements are supported on guideways and recirculating ball shoes. The automatic fully enclosed cutting area guarding, the design of the operator panels, and frontal access to the electric and pneumatic panel, confirm the advanced nature of this machine also from the perspective of safety and ergonomics.

The machine is available in two versions: PRECISION RS L for cutting lightweight profiles with large sections and standard thickness; PRECISION RS H for heavyweight profiles with high cutting resistance and wide thickness or geometries that require large contact arcs with the blade.

PRECISION RS has 5 ultra-high precision NC axes for mobile head positioning, inclination of the two cutting units and for the blades feed movement during cutting operations. Positioning is achieved using an absolute linear magnetic strip measuring system, capable of storing the required position in the memory and dispensing with the need for axes homing procedures. Numerical control of all movements makes it possible to manage all operating parameters – including the blades exit stroke length – from a state-of-the-art touchscreen control console.

The HS (High Speed) version has a higher speed X axis and all the protections required for automatic machining operations, also with the machine unattended.

Cutting chart



Profile clamping 03



Control 04



HS – High Speed 05



# Precision RS

Twin head cutting-off machine with 600 mm dia. radial blade

## 01

### Cutting units inclination virtual axis

Inclination of each head of up to 22°30' inwards is provided by two circular guides mounted on four pairs of steel rollers. This patented solution makes it possible to eliminate obstructions in the cutting area, all to the benefit of profile positioning and clamping, while also offering greater rigidity than traditional systems. The absolute magnetic strip positioning system dispenses with the need for axes homing procedures, with the associated idle times.

## 02

### Radial cut

With suitable adjustments, the blade exit stroke can be extended beyond the front surface thus greatly increasing the horizontal axis of the cutting angle chart. Protected by another Emmegi Patent, the radial operating mode enables cutting of large section extrusions or simultaneous cutting of multiple profiles. The optimised geometrical design of the new cutting units makes it possible to obtain a cutting angle chart with generous dimensions also in terms of height.

## 03

### Profile clamping

Making use of the ample space provided by the use of the virtual axis, clamping of the profile to be cut is performed by two horizontal hold-down devices with extreme precision and in absolute safety. For vertical clamping, particularly for special cuts, the machine can be equipped with a patented system of horizontal hold-down devices. The Precision cutting-off machine can be equipped with a roller conveyor on the mobile head, for standard feeding and unloading, or on the fixed head for feeding from the left-hand side.

## 04

### Control

The ergonomic state-of-the-art control panel features a 10.4" touchscreen display and fully customised software and is packed with functions developed in the Microsoft Windows® environment specifically for this machine. The machining cycle can be optimised by creating cutting lists, thereby reducing scrap and cycle times for parts loading-unloading.

## 05

### HS – High Speed

The HS – High Speed version is equipped with a faster X axis (mobile head positioning), and features an integral protection on the sides and at the back, to operate in complete safety, increasing productivity. The safety characteristics of this version, fully inaccessible during operation, allow using automatic cutting cycles, even not supervised, at maximum operational performance.

#### MACHINE CHARACTERISTICS

Electronic control of the X axis	•
Standard X axis positioning speed (m/min)	25
HS version X axis positioning speed (standard) (m/min)	35
HS version X axis positioning speed (optional) (m/min)	50
Mobile head position reading with absolute magnetic strip direct measuring system	•
Mobile head inclination reading with absolute magnetic strip direct measuring system	•
Electronic control of intermediate angles	•
Maximum internal inclination	22°30'
Maximum external inclination	45°
Blade feed with electronic axis	•
Effective cut, according to model (m)	5 / 6
Maximum contact arc length to cut aluminium (mm) for L version / H version	35 / 130 (*)
Standard minimum cut with 2 heads at 90° (mm)	390
Minimum cut with PRO software with 2 heads at 90° (mm)	280
Minimum cut with PRO software with 2 heads at 45° internal (mm)	520
Minimum push feed cut with SLICE software (mm)	0
Maximum profile width with standard cut (mm)	167
Maximum profile height with 90° radial cut (mm)	215
Maximum profile height with 45° radial cut (external inclination) (mm)	90
Maximum profile height with 45° radial cut (internal inclination) (mm)	150
Maximum profile width with radial cut (mm)	240
Cemented carbide blade	2
Blade diameter	600
Brushless blade motor rated power (kW) for L version	1.5
Brushless blade motor peak power (kW) for L version	4.5
Brushless blade motor rated power (kW) for H version	2.5
Brushless blade motor peak power (kW) for H version	7.5
Electronic profile thickness gauge	○

#### SAFETY DEVICES AND PROTECTIONS

Electrically operated fully enclosed front guarding	•
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#### PROFILE POSITIONING AND CLAMPING

Pair of horizontal pneumatic clamps with "low pressure" device	•
Pair of horizontal vertical clamps	○
Pair of additional horizontal clamps	○
Manual clamps position adjustment on graphic interface	○
DIGICLAMP - digital clamps supervision and positioning control system	○
Intermediate pneumatic profile support	•
Roller conveyor on the mobile head with servo-controlled pneumatically operated profile supports	○
Profile support roller conveyor on fixed head for profile infeed from left	○
Pneumatic reference stop on the mobile head for profile infeed from left	○

• included ○ available (\*) performance to be verified after analysing the specific profiles