



Precision RS- HS

Double-head cutting-off
machines



Twin head cutting-off machine with 5 NC axes for aluminium 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. The radial mode takes advantage of a wide stroke that exceeds the vertical reference plate and generates a large diagram in the horizontal direction, for profiles up to 240 mm wide. The machine is supplied in two versions: PRECISION RS L for cutting light profiles with large section and ordinary thickness; PRECISION RS H for heavy profiles with high cut resistance and high thickness, or design that requires a large contact arc with the blade. The blade feed is controlled by two NC axis, assuring the best adjustment of the blade feeding speed and travel. The HS (High Speed) version envisions an X axis with higher speed and all necessary protections for the automatic work, even unattended.



Virtual axis for cutting units inclination

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.



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.



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 workpieces loading-unloading.



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.



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.



Label printer (Optional)

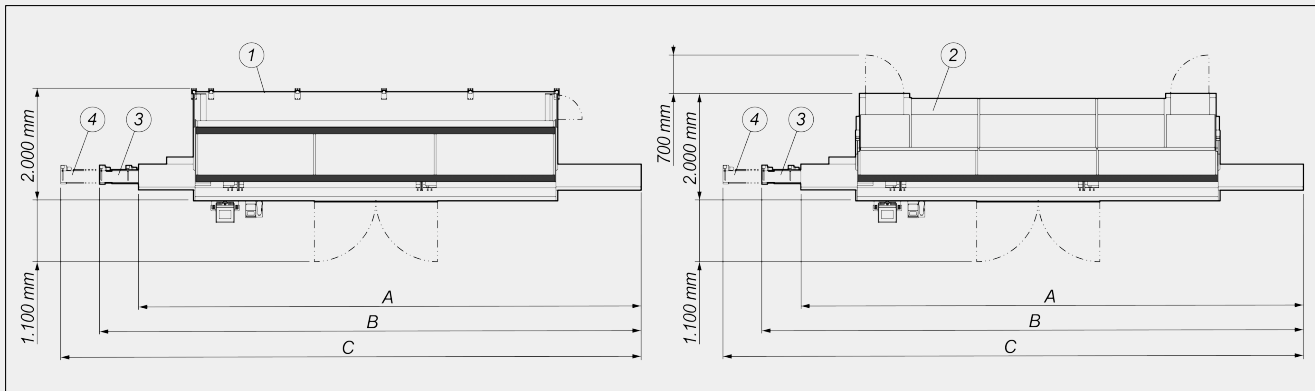
The industrial label printer allows each cut profile to be identified with identifying features from the cutting list. In addition, barcode printing enables easy identification of the profile itself, which is particularly useful for subsequent machining steps on Machining Centres or assisted assembly lines.





PRECISION RS-HS / DOUBLE-HEAD CUTTING-OFF MACHINES

LAYOUT



	A	B	C
Precision RS HS - 5m (mm)	9.100	9.700	10.300
Precision RS HS - 6m (mm)	10.100	10.700	11.300

1. Enclosure guard of the 4th side (optional)
2. Soundproofed integral protection cabin with internal lighting (optional)
3. Conveyor belt for step-by-step or automatic cut L=1.900 mm (optional)
4. Conveyor belt for step-by-step or automatic cut L=2.500 mm (optional)

The overall dimensions may vary depending on the product configuration.

MACHINE CHARACTERISTICS

Electronic control of the X axis	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>
Detection of cutting unit tilting through direct measurement system with absolute magnetic strip	<input checked="" type="checkbox"/>
Electronic control of intermediate angles	<input checked="" type="checkbox"/>
Maximum internal inclination	22°30'
Maximum external inclination	45°
CN electronic axis of the blade feed	<input checked="" type="checkbox"/>
Electronic profile thickness gauge	<input type="checkbox"/>



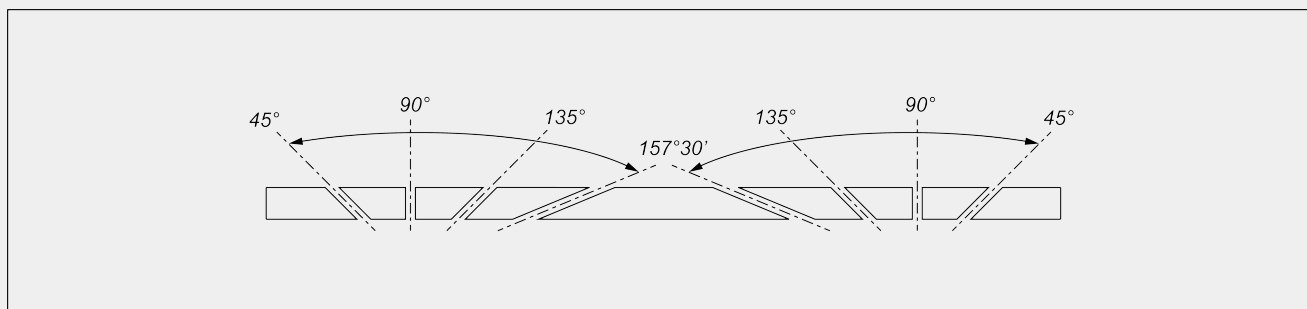
CUTTING UNIT

Cemented carbide blade	2
Brushless blade motor rated power - L version (kW)	1,5
Brushless blade motor peak power - L version (kW)	4,5
Brushless blade motor rated power - H version (kW)	2,5
Brushless blade motor peak power - H version (kW)	7,5

CUTTING DIAGRAM



CUTTING UNIT TILTING



Electronic adjustment of intermediate angles



CONTACT ARC LENGTH

Maximum contact arc length to cut aluminium (mm) (L version)	35 (*)
Maximum contact arc length to cut aluminium (mm) (H version)	130 (*)



A = contact arc (mm) V = blade feed rate (mm/s)

(*) Data measured with a blade feed rate of 5 mm/s. Performances close to the limit must be verified by analyzing specific profiles

WORK AREA

Effective cut, according to model (mm)	5.000 / 6.000
Minimum cut with PRO software with 2 heads at 90° (mm)	280
Standard minimum cut with 2 heads at 90° (mm)	390
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 external 45° radial cut (mm)	90
Maximum profile height with internal 45° radial cut (mm)	150
Maximum profile width with radial cut (mm)	240

SAFETY DEVICES AND PROTECTIONS

Electrically operated fully enclosed front guarding	<input checked="" type="checkbox"/>
Soundproofed integral protection cabin with internal lighting	<input type="checkbox"/>

**PROFILE POSITIONING AND CLAMPING**

Pair of horizontal pneumatic vices with "low pressure" device	<input checked="" type="radio"/>
Pair of horizontal vertical vices	<input type="radio"/>
Pair of additional horizontal vices	<input type="radio"/>
Manual vices position adjustment on graphic interface	<input type="radio"/>
DIGICLAMP - digital vices supervision and positioning control system	<input type="radio"/>
Intermediate pneumatic profile support	<input checked="" type="radio"/>
Roller conveyor on the mobile head with servo-controlled pneumatically operated profile supports	<input checked="" type="radio"/>
Conveyor belt for step-by-step or automatic cut (HS version only)	<input type="radio"/>

Included ● Available ○