

System QuadroFlex

**CNC-processing
+ edge banding**

**= complete processing
in one location**



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System QuadroFlex =

What the future will look like depends on the decisions we make today.

Where reliability and flexibility are as important as great variety, the QuadroFlex offers a convincing concept – for the future of your workshop.

The processing center with 4 axes manages a maximum of processing possibilities and concentrates its efficiency on 1 stop, 1-man-operation.

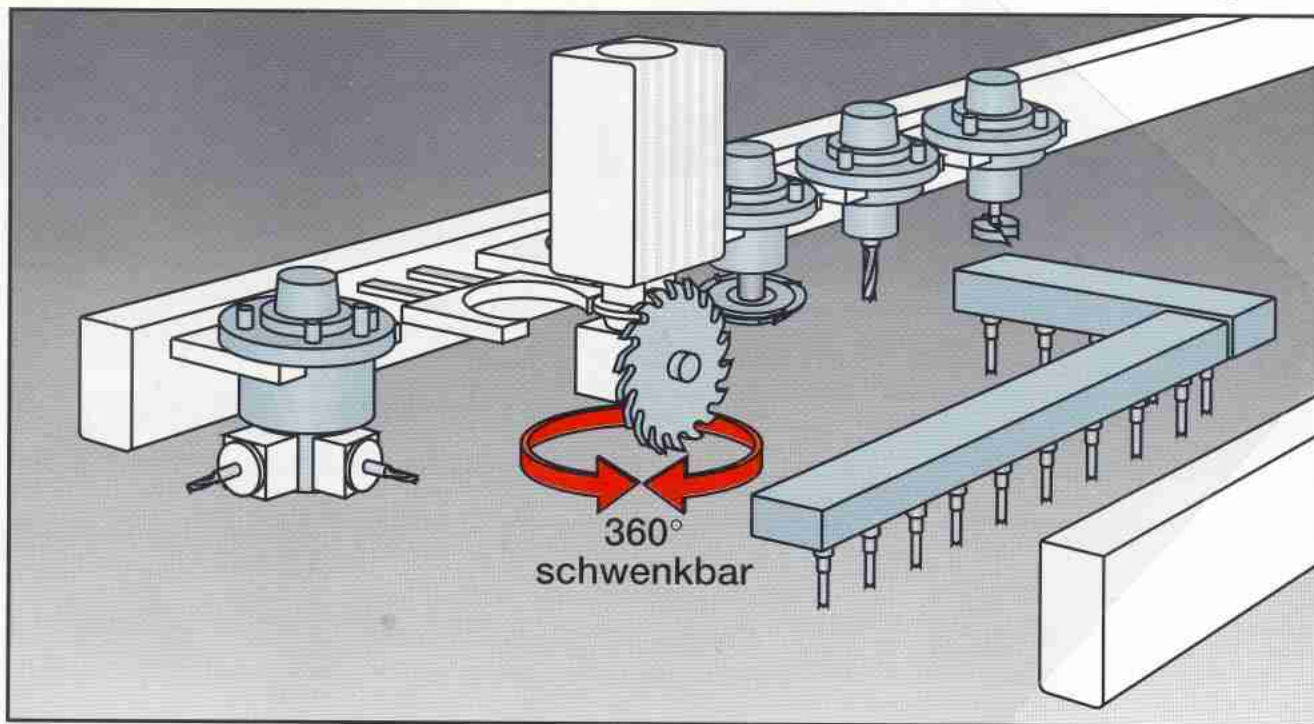
QuadroFlex means CNC-processing and edge banding in one construction.

Whether in special areas such as stair construction and door production – the QuadroFlex not only shapes your panel perfectly but processes it completely. Should your business be furniture construction, interior furnishing or shop fitting, the QuadroFlex puts the finishing touch to your workpiece – with a 3 mm edge, fully glued, end trimmed and flush trimmed.

IMATRONIC is the new control with storage-retrievable processing cycles. This assures shortest set-up times – even with one-off production.

Whatever your requirements – speed and flexibility is the future.

CNC-processing +



Processing with 4 axes

By means of the main spindle with integrated rotational axis the QuadroFlex is a heavy duty top router as well as a complete four-axis processing centre with 4 axes.

The 8-receptical automatic tool change cannot only change the milling tools up to \varnothing 150 mm, but also the horizontal drilling (or milling) lower milling, sawing and edge flush milling tools while processing.

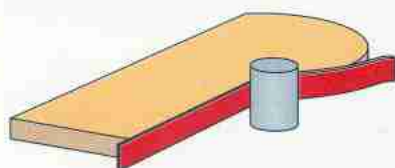
The unit can work from 0-360 degrees on either X or Y direction, and the capacity of the main spindle (5,5 kW with 18000 rpm) can be programmed for the required rotational speed and direction.

Apart from the main spindle the standard equipment of the QuadroFlex is a milling unit with 5 spindles in x-direction and a milling unit with 9 spindles in y-direction. Rotational speed, programmable from 6000-9000 rpm, free programming of direction of rotation.

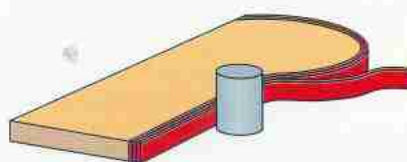




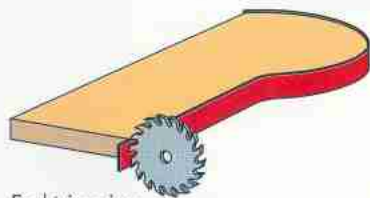
... edge banding



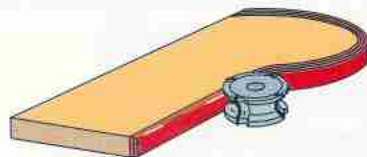
Edge banding



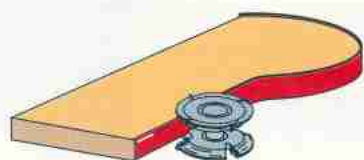
Multiple-glued edge



End trimming



Profile milling (multiple-glued edge)



Flush milling

3-sided edge banding in one location

The optional gluing unit of the QuadroFlex offers new possibilities in furniture design. Only few minutes are needed to produce parts economically in any form requested.

Three sides of a panel can be glued, end trimmed and flush-milled on one panel at a time. Laborious manual edge banding can therefore be considered a thing of the past.

Design-variety

Production has always been challenged by new tasks relating to design and furniture. Use of our technique allows you not only to produce individually, but also to produce economically.

Competence on the market place is demanded. New production methods are a must.

In today's furniture function and design have become more important. This in turn has created pressure on production and planning facilities. The QuadroFlex can satisfy this demand with any special tasks or operations undertaken.



Vario table 90 "Servizio", rewarded on the occasion of the contest Wood + Form

Design – producer: Helmut Heppeler

Furniture – joinery, 88631 Beuron – Hausen im Tal



Adapter unit lower milling, CNC-controlled, 360 degrees, tool diameter 20 mm, rotation max. 12000 rpm, milling depth 25 mm, distance between outer panel edge and middle of the tool 58 mm.



Adapter unit, horizontal boring, 4-spindles, CNC-controlled, 360 degrees, boring diameter up to 12 mm, rotation max. 6000 rpm.



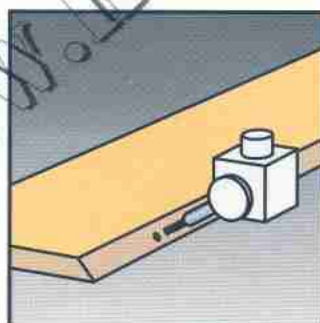
Adapter unit, saw, CNC-controlled, 360 degrees, diameter 200 mm, rotation max. 9000 rpm, cutting height 55 mm.

without limits

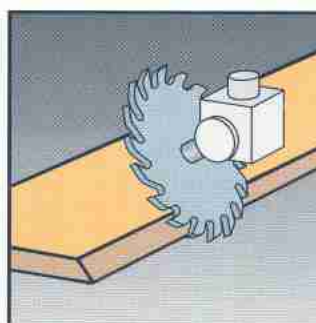
Carcases with bevelled edges

An optional sawing unit, which is manually adjustable, makes it possible to saw any bevel edge required from 0-45 degrees. Unlike the usual panel sawing, the parts to be processed are pre-scored and cut to length by one saw only, which means that the coordination of the pre-scoring and the main saw (common for panel saws) does not have to be carried out any more. The swivelable unit is used for veneered or solid wood parts. Plastic-coated panels are mainly bevel cut.

Like for sawing, a manually adjustable boring unit is also available. The complete processing of a bevel combination using sawing and boring unit is therefore made possible.



Bevel boring



Bevel sawing

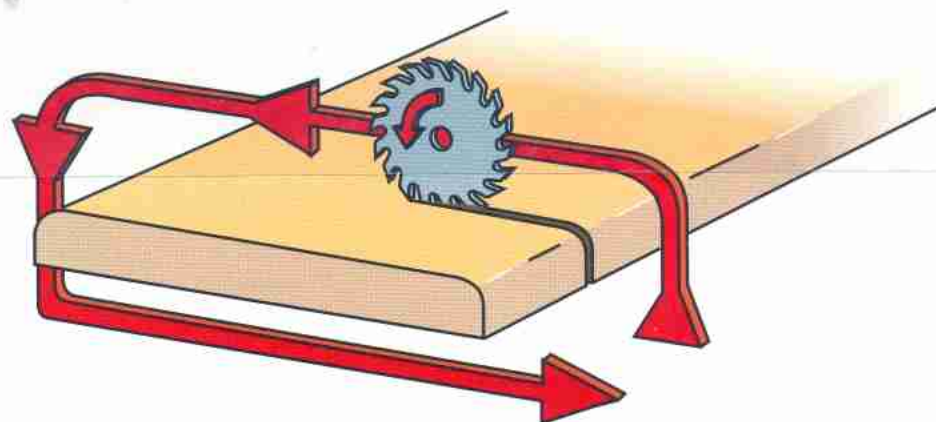
To cut to length postforming panels

In practice it is such a problem to cut to length postforming strips – especially on premilling saws – that very often special postforming saws have to be used for large quantities. The QuadroFlex solves this problem too and may under

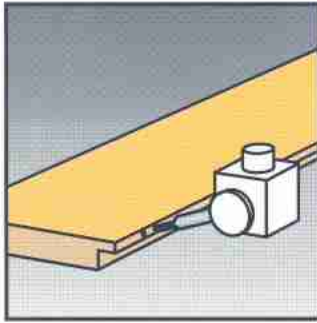
certain circumstances spare the purchase of such a saw – a proof of the enormous economy being achieved by the QuadroFlex. Again variable programmes see to it that the QuadroFlex will be ready for postforming in less than a moment.



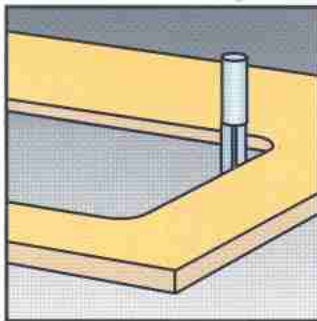
Adapter unit, horizontal grooving, tracing, CNC-controlled, 360 degrees, max. 5 mm tracing tolerance, rotation max. 9000 rpm.



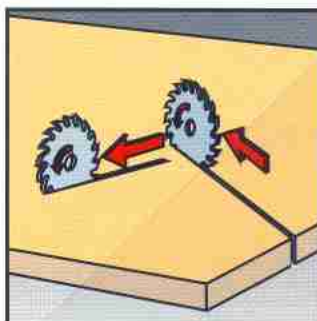
Complete processing of doors



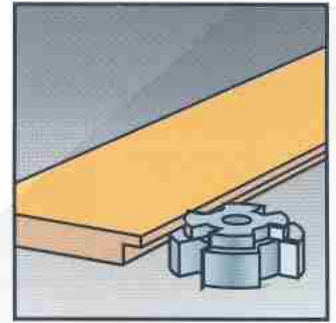
Boring of metal fittings



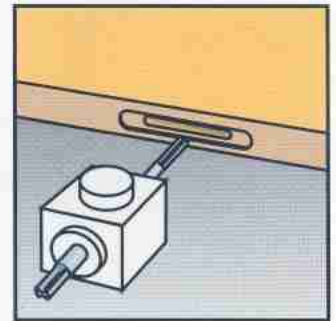
Milling of door windows



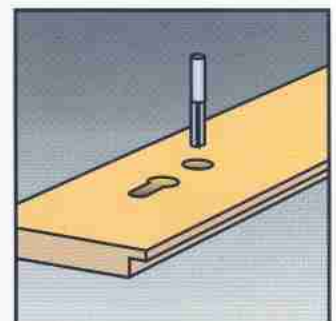
Formating with a saw 0-360°



Formating and milling of folds



Milling of lock cases and cuffs



Milling of door handles and profiled cylinder holes

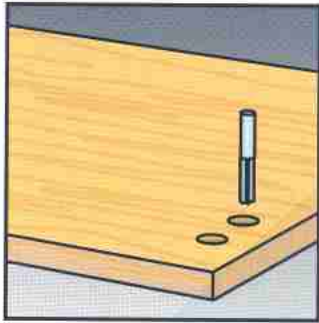
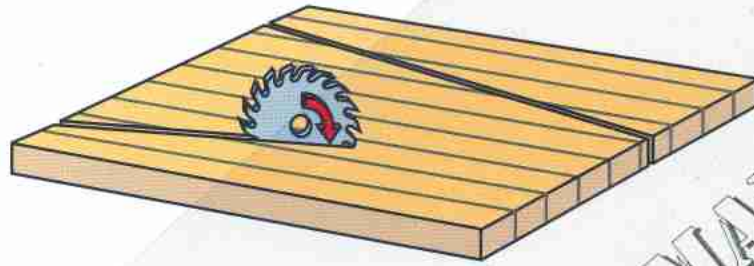


Available is also an extensive processing programme for the door production. Stored variable programmes see to it that inside doors as well as outside doors may be processed completely with a minimum of setting times.

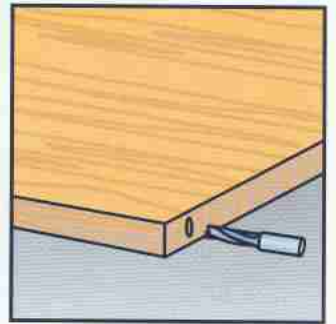
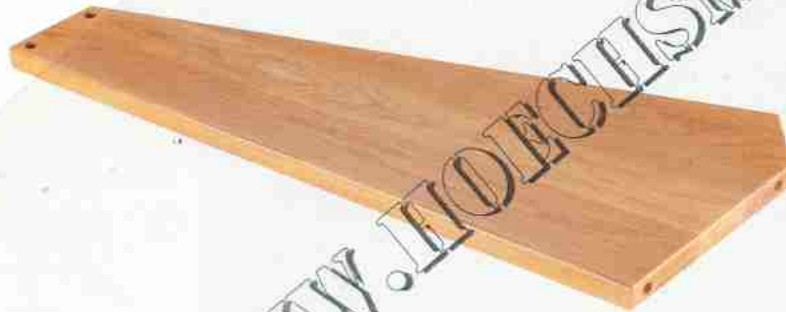
As for the other production areas, almost no limits are set to design requests here. Within 3-4 minutes your doors are machined and sized accurately; door windows can be milled as well as lock openings and hinges; door handles and profiled cylinder holes.



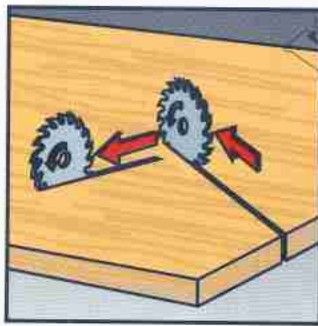
Utilization for stair construction



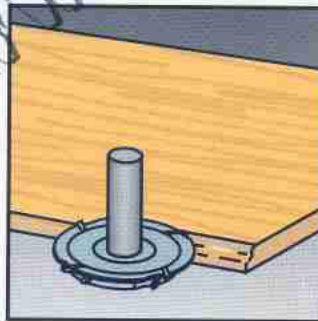
Milling of step holes



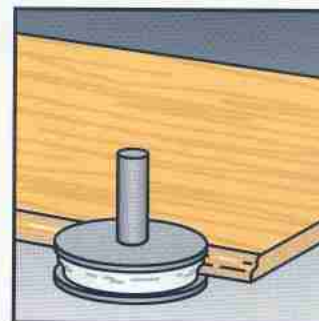
Horizontal milling



Formating 0-360°



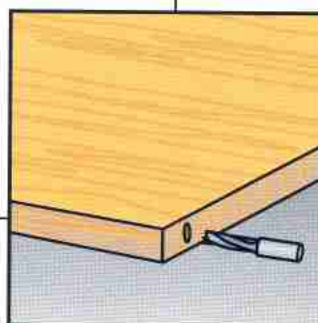
Profile milling



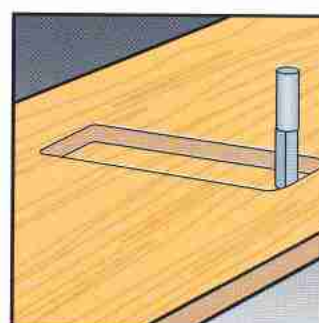
Profile sanding



Steps and stringers of stairs – right from the solid wooden block up to the finished stairs – are processed by the QuadroFlex with precision. The stairs are cut out from the glued wooden block by a CNC-controlled sawing unit and machined and profile milled afterwards accurately to size. To machine the equivalent stringer as required, the QuadroFlex may also be delivered for a processing length of 5 m or more, as a special execution for staircase execution.



Milling of step holes



Mortising of a frame

Technical Data

QuadroFlex

Standard equipment

Displacing area

x-axis 3770 mm
 y-axis 1380 mm
 z-axis 250 mm

Processing area

x-axis 3000 mm
 y-axis 1000 mm
 panel thickness max. 75 mm

Area of alternating field

with pendulum processing 2 x 1000 mm
 without pendulum processing .. 2 x 1400 mm

Rapid traverse rates

x-axis 80 m/min
 y-axis 60 m/min
 z-axis 25 m/min

Feed speed

(path operation) 20 m/min

Main drive (AC-motor)

capacity 100% ED 8,5 kW
 rotation, programmable
 1500 - 18000 UpM
 tool carrier HSK F63 DIN 69893

Automatic tool changer magazine

number of magazine places 8
 panel length 150 mm
 panel diameter
 - in case of full equipment 145 mm
 - in case of free side places 180 mm
 panel weight max. 5 kg

Aspiration

1 connection for main spindle \varnothing 200 mm
 1 connection for
 table aspiration \varnothing 120 mm
 aspiration volume app. 5400 m³/h

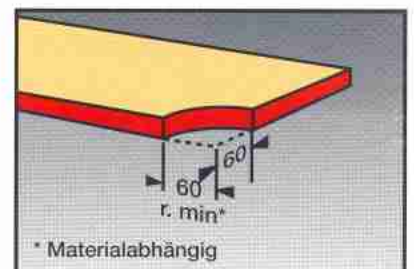
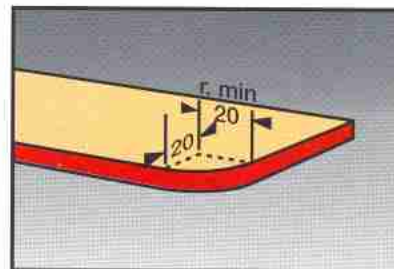
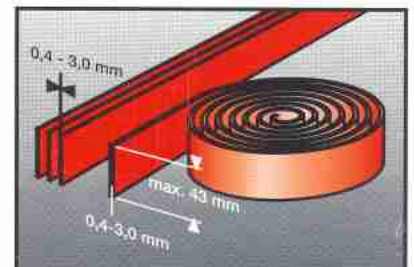
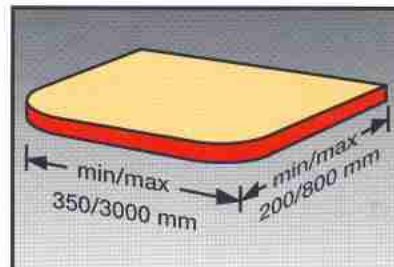
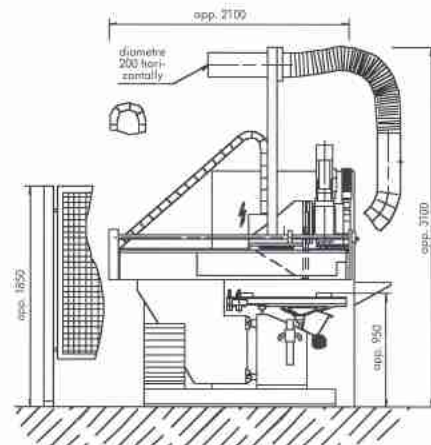
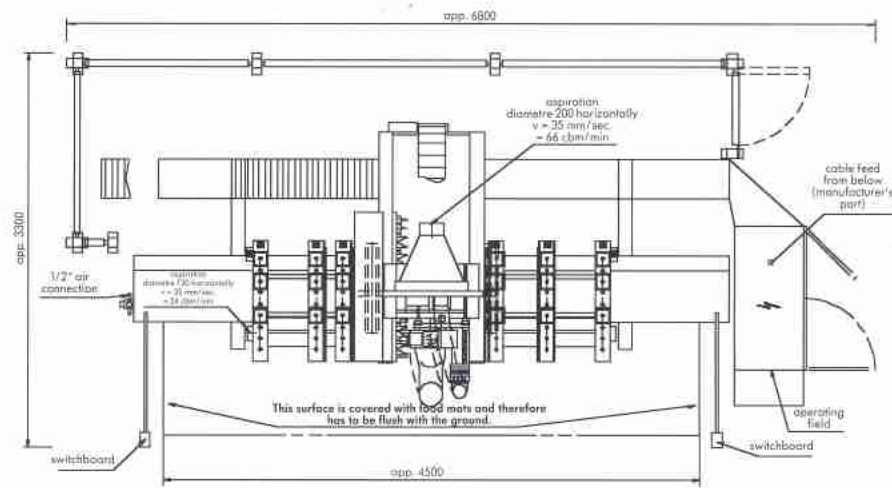
Electrics

Operating voltage 3 x 400 V, 50 Hz
 Control voltage 24 V =
 connection value 29 KVA

Compressed air

connection 1/2"
 min. pressure 6 bar
 consumption app. 200 NL/min.

Machine weight app. 6000 kg



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Subject to technical modifications

BIMA QuadroFlex 120/300 + 120/400 V

Machining center for complete processing with tool changing system and for edge processing

The experienced CNC-machining-center is equipped with a new tool changer for 12 tools. Convincing is the enlarged processing area up to 1200 x 4000 mm. The advantages of this new machining center are:

- quick processing cycles through motorical tool change
- alternating field processing without blocking the opposite pro-

cessing area through moving tool changer

- simple programming with CAD-aid and IMA-WOP (workshop orientated programming)
- safe accessibility through **safety mat**

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Technical data:

- Processing area in x = 3000 (4000) mm, y = 1200 mm, z = 60 mm
- high-capacity spindle 7,5 kW, 18000 rpm
- tool receptacle HSK F63
- C-axis 360 degrees rotatable, integrated in the main spindle
- Tool changer for 12 tools, moving with the x-support
- vertical boring spindle individually controllable, spindle distance 32 mm, 9000 rpm, 5 spindles in x-direction, 7 spindles in y-direction
- adapter units for ex. sawing, horizontal boring head 4 spindles, flush milling, horizontal milling (lock case), various special units



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