Revised technical description

WEINIG Unicontrol 12

machine no. 105.743

with inlet mechanization no. 105.785,

as shown on Weinig's drawing no. 033L105743-002.3

1 piece WEINIG window system Unicontrol 12

with inlet mechanization

**Long + Cross transport stystem LKF 1**

For transporting and storing workpieces of equal and different lengths

on the inlet side of the machine

Runway with operation

Transport length: 2300 mm

Roll width 230 mm

Rolling distance, stepped 120 – 825 mm

Transport speed, fixed 20 m/min

Motor 0.2 kW

Impact height 30 mm

Cross conveyor with 7 chains

height-controlled on the feed end

Adjustment path 25 mm

Transport distance 3000 mm

Installation width 2000 mm

Working height adjustable 820 – 1050 mm

Transport speed, fixed 10 m/min

Motor with brake 0.37 kW

2 x Frequency-regulated feed speed

2 x Extra photocell

5 x Extension of the runway with 1 roller

2 x Additional automatic buffer zone for 6 additional subjects

Max. workpiece length 3500 mm

Transport extension 650 mm

Buffer zone length 1000 mm

Single-piece feed for transfer to cross-cutting

Conveyor belt with operation (TB 250)

Without centering and deflection of the glass strip

Transport length: 1000 mm

Belt width 250 mm

Adjustable working height 820 – 1050 mm

Height right guide stop 70 mm

Transport speed, fixed 20 m/min

Motor 0.2 kW

Extension of the conveyor belt by 500 mm

Frequency-regulated feed speed

Operating keyboard for emergency stop and subject acknowledgment

Additional photocell

Facilities management, IBN costs

**UNICONTROL 12**

for transverse and longitudinal processing of individual parts

in individual or serial production.

Consisting of machine center with a cross and a

longitudinal processing unit which is connected by a conveyor belt

The workpiece width must be such that it enables safe transport

during automatic operation of the facility.

Subjects that will "guess" due to profile-related conditions,

must have a minimum construction and transport area,

to ensure safe transport through the machine.

Capacity data:

The capacity depends on the tooling, and

method of production.

Up to a subject length of approx. 1500 mm is the cross processing

capacity determining.

Prerequisite: Cross-processable without contra

For a standard window with the following parameters

the capacity is approx. 120 individual parts/hour with 1 tap spindle,

and 80% operation

based on the following standard window with the following dimensions:

Frame size 1.2 m2 (max. subject 1500 mm)

8 Parts/window (4 frame and 4 frame parts)

100% Double-part production

Feed rates:

Finishing: 5 m/min

Long processing: 10 m/min

Optimal tooling and tool quality

Continuous feeding of operator

(does not apply to slanted windows)

**Technical data:**

Working width: 28 – 140 mm

Working height: 50 - 110 mm

workpiece lengths crosswise: 275 mm + 1 x Pin length

workpiece lengths longitudinal processing: 220 mm + 2 x Tap length

Workpiece lengths max.: approx. 3500 mm

(not for slanted windows)

Workpiece dimension depends on machine specification,

tool specification and method of production.

A final determination of subject dimensions can only be determined after

complete tooling drawings are provided.

**CROSS PROCESSING:**

Table food:

Motor power: 0.30 kW

Feed rate when sawing,

profiling and in return: 3 - 25 m/min

Workpiece clamping:

By means of tension bridges, operated by a safety tension cylinder,

built-in under the table.

Band table with radial axis

Length stop, fixed for lengths 3,500 mm

Special production of billets 4,500 mm with manual operation,

and changed security technology

Tear-out protection with accompanying counter-profile

which covers the entire tool area of ​​the spindle

at 90° processing

Extra construction work due to changed mechanical engineering.

**PROCESSING UNITS:**

Cut-off saw (Pos. A):

Motor power: 3.7 kW

Spindle diameter: 40 mm

Clamping length: 13 mm

Spindle speed, electronic, with brake 3000 - 6000 rpm

Tool outer diameter max.: 450 mm

Axial setting: 150 mm with NC axis

Radial adjustment: 8 positions

Laser light indicating cut

Rounding unit horizontally below (Pos. B):

Motor with brake 1.5 kW

Diameter 20 mm

Clamping length 25 mm

Tool diameter max. 130 mm

Spindle speed: 9000 rpm

Axial adjustment: Mechanical, connected to the miter saw

Additional axial adjustment for position 2,

pneumatic

Radial setting: on/off pneumatic

1. Tapping and slotting spindle (Pos. C):

With hydraulically centered support bearing

Motor power: 15 kW

Spindle diameter: 50 mm

Tool span length: 640 mm

Spindle speed: 2800 rpm

Tool outer diameter max.: 380 mm

Profile depth, counter profile: 50 mm

Axial setting: 580 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5-10 mm below table

Setting radial: fixed

2. Tapping and slotting spindle (Pos. D):

With hydraulically centered support bearing

Motor power: 15 kW

Spindle diameter: 50 mm

Tool span length: 640 mm

Spindle speed: 2800 rpm

Tool outer diameter max.: 380 mm

Profile depth, counter profile: 50 mm

Axial setting: 580 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5-10 mm below table

Setting radial: fixed

3. Tapping and slotting spindle (Pos. E):

With hydraulically centered support bearing

Motor power: 15 kW

Spindle diameter: 50 mm

Tool span length: 640 mm

Spindle speed: 2800 rpm

Tool outer diameter max.: 380 mm

Profile depth, counter profile: 50 mm

Axial setting: 580 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5-10 mm below table

Setting radial: fixed

Conveyor belt (Pos. 1)

for transferring the workpieces from cross processing

for longitudinal processing.

Including separation of double parts

Motor with brake: 0.2 kW

Transport length: 2500 mm

Max. length double parts: 3000 mm

**LONG PROCESSING:**

Feeding:

Continuous chainless feeding with rubber-coated feed rollers

The feeder is stored on a column, which can be manually adjusted in height.

Motor power 3.0 kW

Frequency-controlled speed: 4 – 18 m/min

Feed roller distance: 100/120 mm

Feed roller width: 30/50 mm

Feed roller diameter: 95 mm

Height adjustment of feeder with NC axis

Machine stand, table, projection:

Machine hull made of solid, stress-free and vibration-free elements. Table tops and projections made of HWG material.

Height of HWG stop 110 mm

Chip removal on the right side 1 mm

Working height 950 – 970 mm

Left ruler split, pneumatic,

for workpiece widths: 40 – 140 mm

in a setting

Blowing system of the entire table top.

PROCESSING UNIT:

Profiling spindle (Pos. K)

Engine power: 11 kW

Spindle diameter: 50 mm

Spindle revolution: 7000 rev.

Tool outer diameter min. 140 mm

Tool outer diameter max. 232 mm

Tool span length: 400 mm

Axial setting: 350 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5 – 10 mm below table

Radial adjustment: 80 mm with NC axis

2 feed rollers against the spindle

axial pneumatics controlled to 8 positions

Profiling spindle (Pos. L)

Engine power: 11 kW

Spindle diameter: 50 mm

Spindle revolution: 7000 rev.

Tool outer diameter min. 140 mm

Tool outer diameter max. 232 mm

Tool span length: 400 mm

Axial setting: 350 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5 – 10 mm below table

Radial setting: 80 mm with NC axis

2 feed rollers against the spindle

axially pneumatically controlled to 8 positions

Bar support strip from the upper side, pneumatically controlled

for a fold depth

Profiling unit horizontally above (Pos. M)

Motor power: 3.7 kW

Spindle diameter: 40 mm

Clamping length: 40 mm

Spindle revolution: 9000 rev.

Tool outer diameter max.: 130 mm

Axial adjustment: 44 mm to 8 positions

Radial adjustment: 100 mm CNC axis

1 feed roller at the spindle

axially pneumatically controlled to 8 positions

Dive automation for diving in and out

Minimum dimension between entry and exit 80 mm

Dive goals must be transferred online.

Accuracy at constant feed ±3 mm

1 feed roller with pneumatic axial control 8 positions

Profiling spindle (Pos. N)

Engine power: 11 kW

Spindle diameter: 50 mm

Spindle revolution: 7000 rev.

Tool outer diameter min. 140 mm

Tool outer diameter max. 232 mm

Tool span length: 400 mm

Axial setting: 350 mm with NC axis

Setting speed: 100 mm/sec

Basic setting: 5 – 10 mm below table

Radial setting: 80 mm with NC axis

2 feed rollers against the spindle

axially pneumatically controlled to 8 positions

Holds down to prevent chipping

Profiling spindle (Pos. P) vertical right

Motor power: 3.7 kW

Spindle diameter: 40 mm

Tool span length: 160 mm

Spindle revolution: 5850 rev.

Tool outer diameter min. 112 mm

Tool outer diameter max. 210 mm

Axial adjustment: 115 mm to 8 positions

Radial adjustment: 100 mm to 8 positions, turret stop

1 feed roller against the spindle

axially pneumatically controlled to 8 positions

Profile milling unit (Pos. R) horizontally above

Clamping length 40 mm, (in extra stand)

Motor power: 3.7 kW

Spindle diameter: 40 mm

Axial adjustment: 30 mm to 8 positions

Radial adjustment: 125 mm, to 8 positions,

revolver impact

1 feed roller against the spindle

axially pneumatically controlled to 8 positions

Profile milling unit (Pos. T) horizontally below

(in extra stand)

Motor power: 3 kW

Spindle diameter: 40 mm

Tool span length: 125 mm

Spindle revolution: 5850 rev.

Tool outer diameter max. 200 mm

Axial adjustment: 100 mm to 8 positions

Radial adjustment: 100 mm to 8 positions, turret stop

MECHANISM:

Automatic turning system with clamping pliers (Pos. W)

for 3 spigot and slotted spindles

- Automatic build-up of duplicate parts

- Outlet runway after longitudinal machining

- Return runway

- Conveyor belt for slotted table

Cross conveyor QF 1 (Pos. X)

For transporting equal and different lengths in the machine outlet

Transport length 3000 mm

Automatic buffer zone

For hatchless buffering of workpieces, buffer zone 2700 mm

Electrical equipment:

Electrical equipment in hh. to DIN VDE 0113,

regulations for industrial machinery

EN60204, IEC-204-1.

Other regulations are not taken into account

Operating voltage 400 Volt, 50 Hz

Air conditioner in electrical cabinet

Freestanding electrical cabinet

cable length cabinet-machine 3 m

(cable extension at extra cost)

UC-Matic package

Machine operation and setting help:

PC control / NEXUS:

Computer: - Industrial PC, Pentium

- 3.5" floppy drive (1.44 MB)

- Foil keyboard

- TFT color display

- Network card (10/100 MB/TCP/IP)

- Modem

Programming: - Part programming and tool placement

via graphic screen dialog

- User manual in screen dialog

Production methods: - Comfortable single part, or

serial production

Data transfer: - per diskette or

Online (10/100 MB/TCP/IP)

- Remote diagnosis per modem

Operational and machine data registration BDE/MDE

Undervoltage compensation UPS

Inkjet printer Font size 1.7 – 11.8 mm

RS 232 / RS 485 interface

Pulse generator for different feed rates

Mechanical parts

Complete with ink cartridge

Automatic central lubrication

Safety and noise protection:

Safety cap that is easy to open in height, with window,

and which covers the entire working area at the spindles,

and protects against mechanical hazards.

When opening the safety cap, the spindles and feed are connected

automatically out.

The safety equipment is in accordance with the EU's machinery directive.

As far as noise reduction is concerned, this is at the operator's place in accordance

to ISO 7960, Part K.

If the assumption in this standard is deviated from, higher emission values ​​may occur.

In that case, any improved noise reduction must be carried out by the buyer.

The end.