



# CNC ROTARY TRANSFER MACHINES

The engagement during the **planning phase**, the particular care for essential and **simple assemblies**, the **high quality standards** with constantly up-to-date technology: Vignotto has over 35 years of experience in serial machinings for the sectors of **taps, links, automotive and valves**.

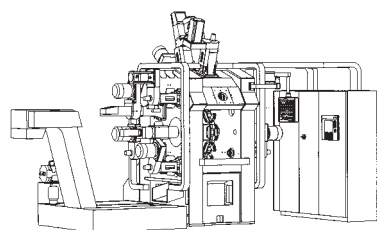
Every Transfer Machine is made up by:

- The **rotary table**, with horizontal or vertical axis, actuated by a brushless motor and high accuracy reductor (except for ViTorque, which has a direct drive motor)
- The fixed or linear/angular movable CNC operating units (drilling/threading or recessing)

The **PLC/CNC Beckhoff** allows moreover a **modular development** of the machine. In other words, every Transfer can be developed with further operative units with least additions of hardware material. All this allows checking the machining with the maximum **precision** and guarantees the **remote assistance** to the machine.

The **Vignotto services** assist you from design to re-planning of your Transfer:

- Planning and realization of dedicated fixtures
- Quality control and operators training
- Machine installation and start-up
- After sale and spare parts service
- Remote customer care
- Retrofitting and modification of our machine-tools



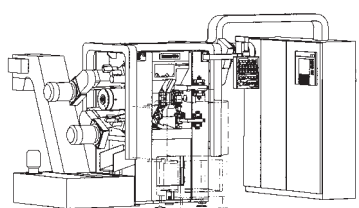
Vi03

**THE MOST VERSATILE.** The classic model.

- Horizontal axis rotary table.
- 3 working directions.
- From 6 to 10 working stations
- Transfer time 0.4-0.8" (light/heavy workpieces)

The most requested models:

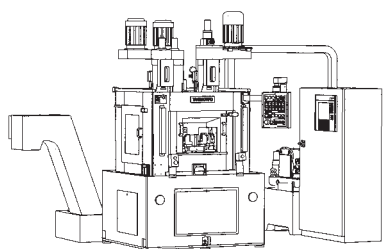
- 10 stations: for complex particulars of valves, fittings and press fittings
- 9 stations: for automotive, valves, fittings
- 8 stations: for special valves, collectors, gate valves, water filters
- 6 stations: for fittings and valves



ViTorque

**THE FASTEST.** For large stocks of small pieces. Ideal for caps, nipples and small reductions.

- High performances thanks to Torque motor direct drive actuated rotary table, no Hirth ring gears
- 2000 cycles/hour, one piece in 1.8 seconds
- 2 working directions
- 6 stations, 5 operating units



Vi11

**THE SMALLEST** for details touch-ups.

- Rotating table with vertical axis and one working direction
- Available with 4 and 5 stations
- Ideal for fittings, valves, and taps

### Robotics

**THE LOADING/UNLOADING ROBOTIC CELL** is ideal to complete the automation of your factory.

On demand, Vignotto installs 6 axis articulated robots with integrated vision system for machine servo/system on every model.



**10 STATIONS CNC TRANSFER MACHINE** with 3 working directions per for complex particulars of valves, fittings and press fittings

<b>BASE UNIT</b>	built with welded steel sheets and normalized
<b>ROTARY TABLE</b>	
axis	horizontal
nr. of stations	10
motor drive	brushless servomotor high accuracy reductor
final positioning	on HIRTH ring gears +/- 3 arcsec accuracy
transfer time	0.55-0.8s (2 speeds selectable for load of light / heavy workpieces)
chucks	self centering built in cemented / tempered steel
jaws overall stroke	26 mm
clamp force adjustment	via independent chucks pressure regulator
<b>WORKING DIRECTIONS</b>	3

<b>HYDRAULIC PACK</b>	
oil tank capacity	120 lt
pump type	piston pump with variable delivery capacity

<b>CNC hardware</b>	BECKHOFF on PC platform
servomotors / drives	Danaher Motion
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC
operator Interface	developed under Windows XP environment
remote service	via DSL / Ethernet

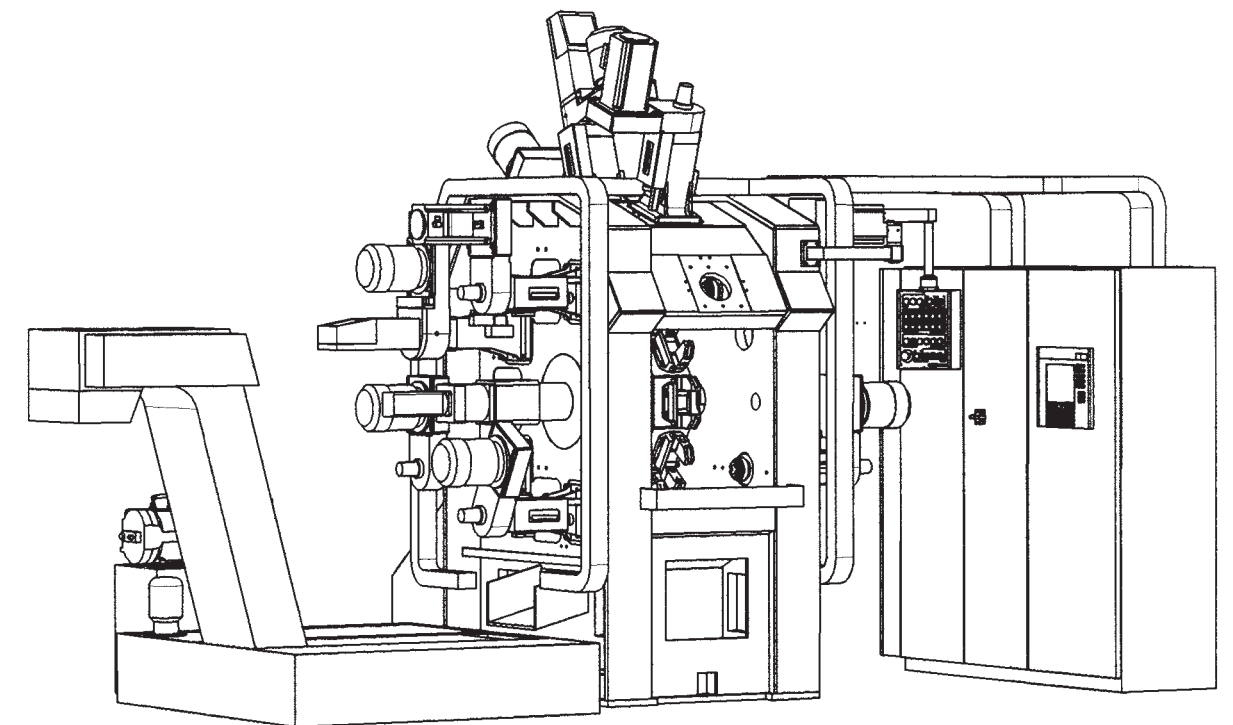
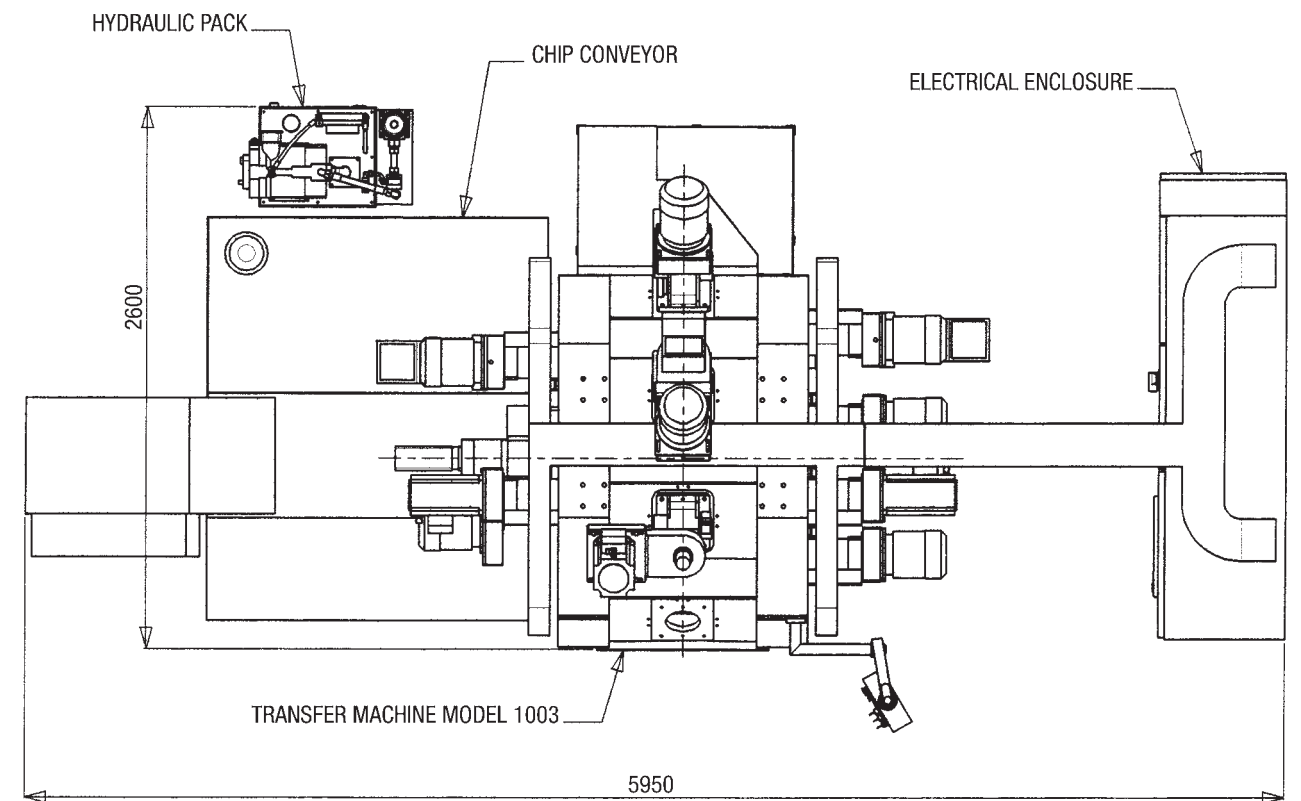
<b>CNC MACHINING UNITS</b>	<b>standard config.:</b>	<b>max installable units:</b>
right side	5	9
left side	5	9
radials	5	5

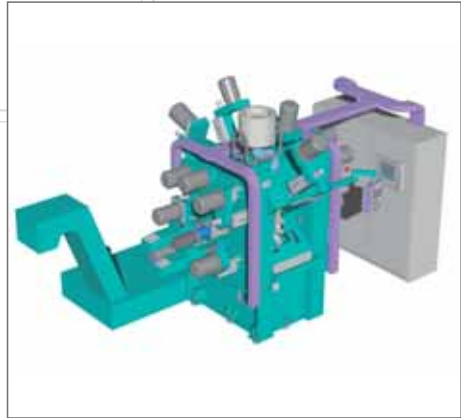
### CNC MACHINING UNITS TYPES

<b>CNC DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
executable machinings	drilling / boring / neck (with dedicated mechanical head)

<b>CNC TAPPING / DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	brushless
motor power	up to 7,5 Kw
speed regul.	Continuous via PC panel
executable machinings	rigid tapping / drilling / boring / neck (with dedicated mechanical head)

<b>CNC RECESSING UNIT</b>	
type	SF95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
recess head	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air The recess head can be removed in order to use the unit as normal drilling unit
slide stroke	17 mm
executable machinings	drilling / boring / simple recess / recess while forwarding





### 9 STATIONS CNC TRANSFER MACHINE with 3 working directions for valves, fittings and fitting-taps

<b>BASE UNIT</b>	built with welded steel sheets and normalized
<b>ROTARY TABLE</b>	
axis	horizontal
nr. of stations	9
motor drive	brushless servomotor high accuracy reductor on HIRTH ring gears +/- 3 arcsec accuracy
final positioning	0.55-0.8s (2 speeds selectable for load of light / heavy workpieces)
transfer time	
chucks	self centering built in cemented / tempered steel
jaws overall stroke	26 mm
clamp force adjustment	via independent chucks pressure regulator
<b>WORKING DIRECTIONS</b>	3

<b>HYDRAULIC PACK</b>	
oil tank capacity	120 lt
pump type	piston pump with variable delivery capacity

<b>CNC</b>	
hardware	BECKHOFF on PC platform
servomotors / drives	Danaher Motion
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC
operator Interface	developed under Windows XP environment
remote service	via DSL / Ethernet

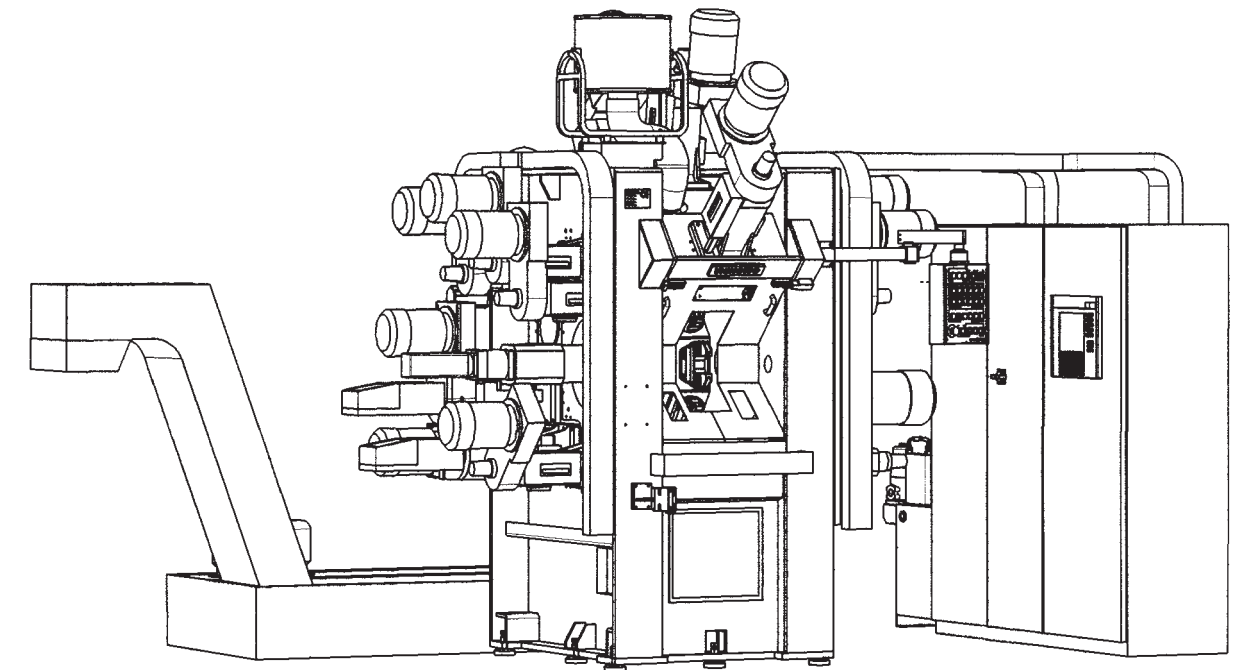
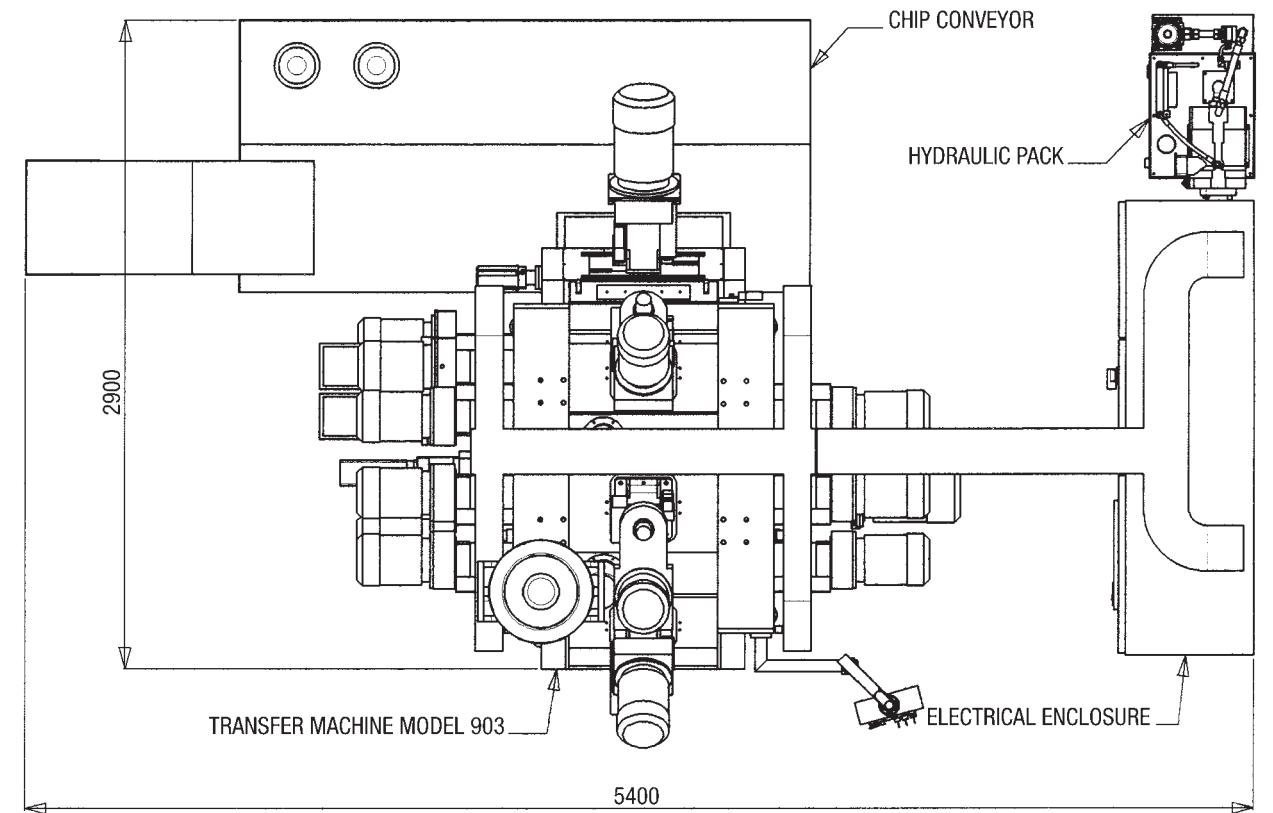
<b>CNC MACHINING UNITS</b>	<b>standard config.:</b>	<b>max installable units:</b>
right side	5	8
left side	5	8
radials	4	4

#### CNC MACHINING UNITS TYPES

<b>CNC DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
executable machinings	drilling / boring / neck (with dedicated mechanical head)

<b>CNC TAPPING / DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	brushless
motor power	up to 7,5 Kw
speed regul.	Continuous via PC panel
executable machinings	rigid tapping / drilling / boring / neck (with dedicated mechanical head)

<b>CNC RECESSING UNIT</b>	
type	SF95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
recess head	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air The recess head can be removed in order to use the unit as normal drilling unit
slide stroke	17 mm
executable machinings	drilling / boring / simple recess / recess while forwarding





**8 STATIONS CNC TRANSFER MACHINE** with 3 working directions for special valves, collectors, in-line strainers, ported gate valves, wedges for ported gate valves

<b>BASE UNIT</b>	built with welded steel sheets and normalized	
<b>ROTARY TABLE</b>	horizontal	
axis	8	
nr. of stations	brushless servomotor high accuracy reductor on HIRTH ring gears +/- 3 arcsec accuracy	
motor drive	0.55-0.8s (2 speeds selectable for load of light / heavy workpieces)	
final positioning	self centering built in cemented / tempered steel	
transfer time	26 mm	
chucks	via independent chucks pressure regulator	
jaws overall stroke	3	
clamp force adjustment	120 lt	
<b>WORKING DIRECTIONS</b>	piston pump with variable delivery capacity	
<b>HYDRAULIC PACK</b>	120 lt	
oil tank capacity	piston pump with variable delivery capacity	
pump type		

<b>CNC hardware</b>	BECKHOFF on PC platform	
servomotors / drives	Danaher Motion	
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard	
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC	
operator Interface	developed under Windows XP environment	
remote service	via DSL / Ethernet	

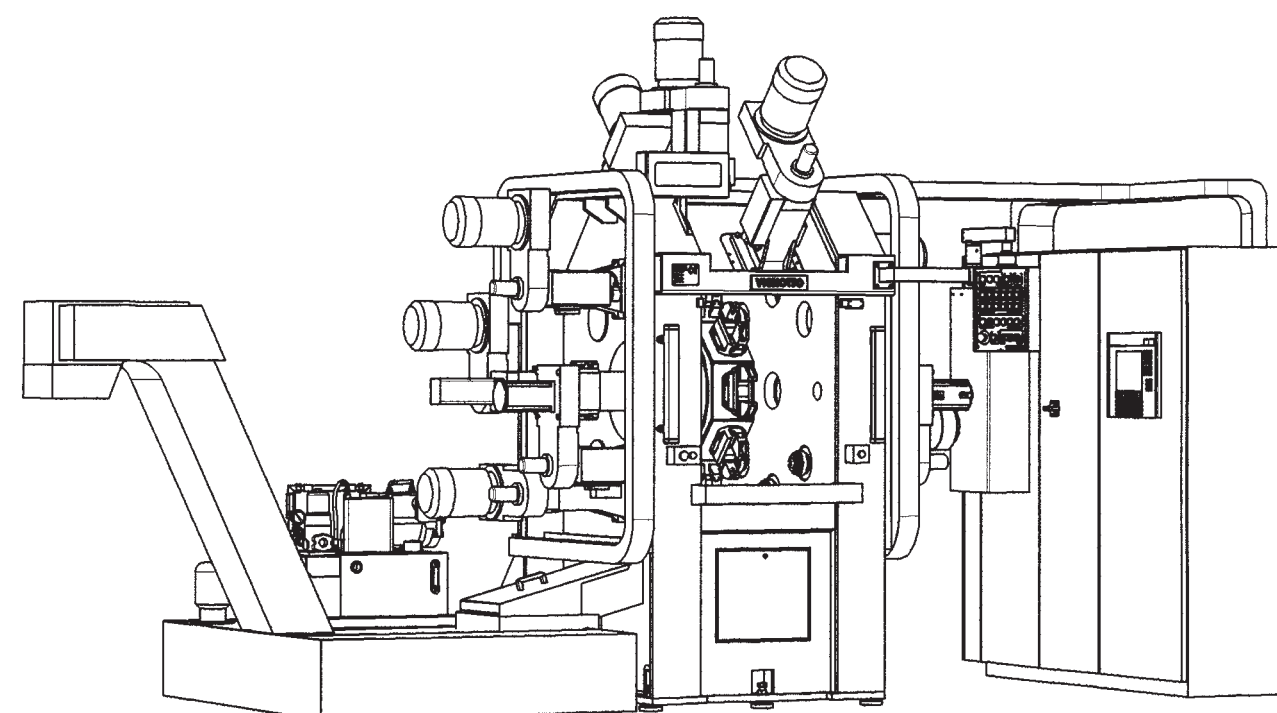
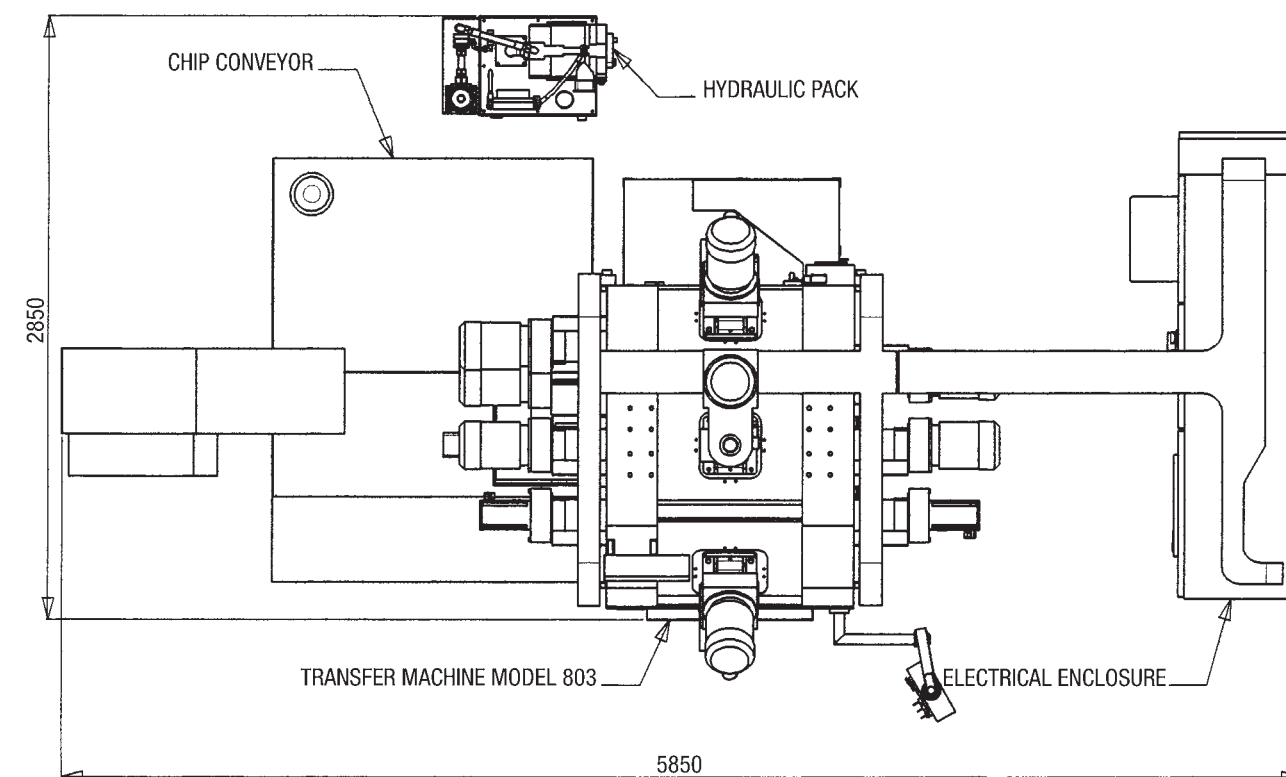
CNC MACHINING UNITS	standard config.:	max installable units:
right side	4	7
left side	4	7
radials	4	4

### CNC MACHINING UNITS TYPES

<b>CNC DRILLING UNIT</b>	F95-40	
type	95 mm	
housing diameter	135 mm	
housing nominal stroke		
spindle:	ISO 40	
nose	asynchronous or vectorial	
motor	up to 7,5 Kw	
motor power	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)	
speed regul.	drilling / boring / neck (with dedicated mechanical head)	
executable machinings		

<b>CNC TAPPING / DRILLING UNIT</b>	F95-40	
type	95 mm	
housing diameter	135 mm	
housing nominal stroke		
spindle:	ISO 40	
nose	brushless	
motor	up to 7,5 Kw	
motor power	Continuous via PC panel	
speed regul.	rigid tapping / drilling / boring / neck (with dedicated mechanical head)	
executable machinings		

<b>CNC RECESSING UNIT</b>	SF95-40	
type	95 mm	
housing diameter	135 mm	
housing nominal stroke		
spindle:	ISO 40	
nose	asynchronous or vectorial	
motor	up to 7,5 Kw	
motor power	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)	
speed regul.	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air	
recess head	The recess head can be removed in order to use the unit as normal drilling unit	
slide stroke	17 mm	
executable machinings	drilling / boring / simple recess / recess while forwarding	





**10 STATIONS CNC TRANSFER MACHINE** with 3 working directions per for complex particulars of valves, fittings and press fittings

<b>BASE UNIT</b>	built with welded steel sheets and normalized
<b>ROTARY TABLE</b>	
axis	horizontal
nr. of stations	6
motor drive	brushless servomotor high accuracy reductor on HIRTH ring gears +/- 3 arcsec accuracy
final positioning	0.4-0.7s (2 speeds selectable for load of light / heavy workpieces)
transfer time	
chucks	self centering built in cemented / tempered steel
jaws overall stroke	26 mm
clamp force adjustment	via independent chucks pressure regulator
<b>WORKING DIRECTIONS</b>	3

<b>HYDRAULIC PACK</b>	
oil tank capacity	120 lt
pump type	piston pump with variable delivery capacity

<b>CNC hardware</b>	BECKHOFF on PC platform
servomotors / drives	Danaher Motion
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC
operator Interface	developed under Windows XP environment
remote service	via DSL / Ethernet

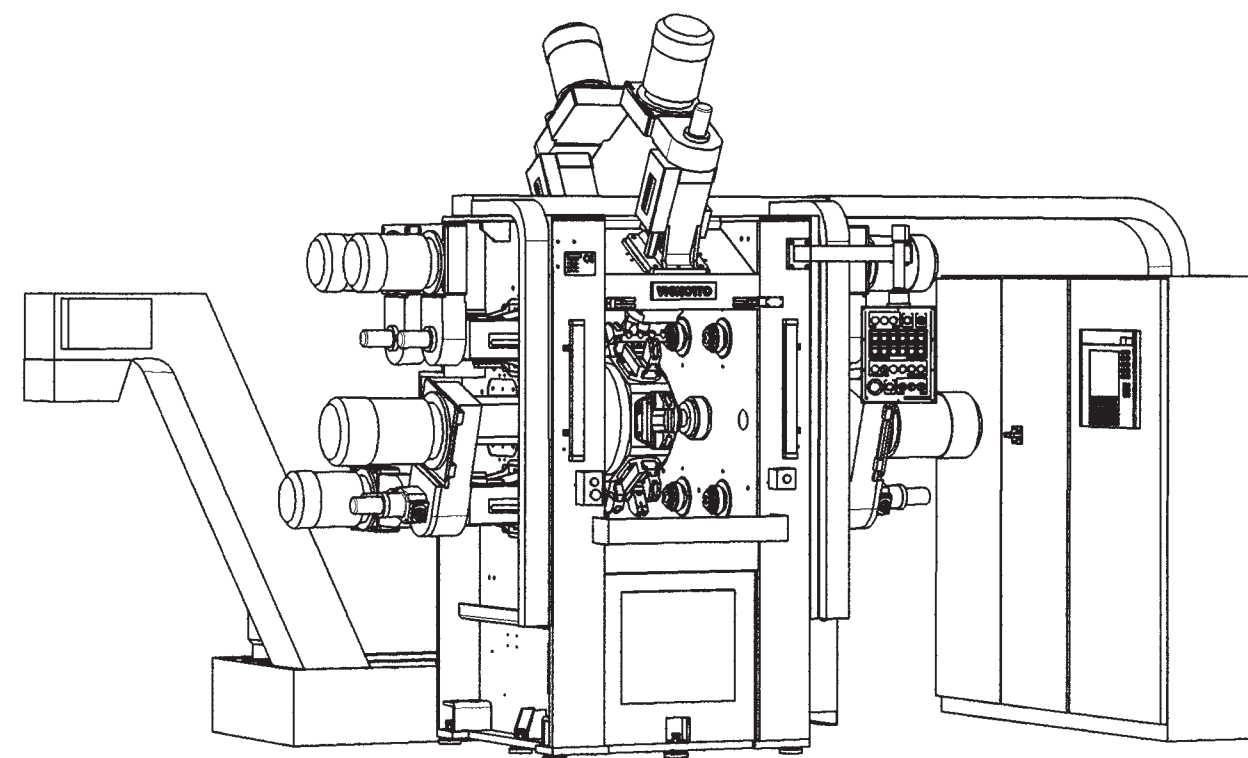
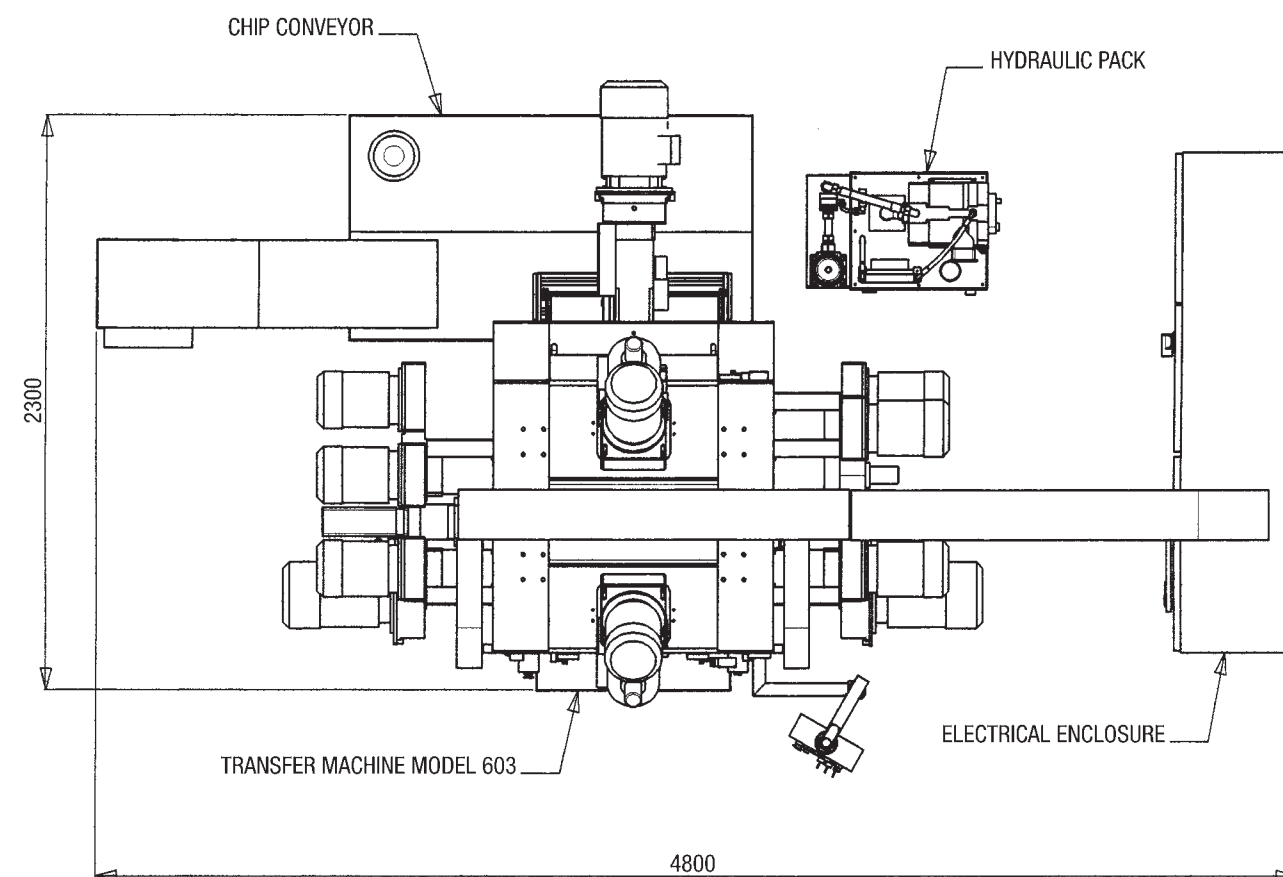
<b>CNC MACHINING UNITS</b>	<b>standard config.:</b>	<b>max installable units:</b>
right side	3	5
left side	3	5
radials	3	3

### CNC MACHINING UNITS TYPES

<b>CNC DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
executable machinings	drilling / boring / neck (with dedicated mechanical head)

<b>CNC TAPPING / DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	brushless
motor power	up to 7,5 Kw
speed regul.	Continuous via PC panel
executable machinings	rigid tapping / drilling / boring / neck (with dedicated mechanical head)

<b>CNC RECESSING UNIT</b>	
type	SF95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
recess head	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air
slide stroke	17 mm
executable machinings	The recess head can be removed in order to use the unit as normal drilling unit drilling / boring / simple recess / recess while forwarding





**6 STATIONS CNC TRANSFER MACHINE** with two working directions  
suitable for caps, nipples and small reductions

<b>BASE UNIT</b>	built with welded steel sheets and normalized
<b>ROTARY TABLE</b>	
axis	horizontal
nr. of stations	6
motor drive	direct drive torque motor
transfer time	0.25 sec. total
chucks	self centering built in cemented / tempered steel
jaws overall stroke	20 mm variable
clamp force adjustment	via independent chucks pressure regulator
<b>WORKING DIRECTIONS</b>	3

<b>HYDRAULIC PACK</b>	
oil tank capacity	120 lt
pump type	piston pump with variable delivery capacity

<b>CNC hardware</b>	BECKHOFF on PC platform
servomotors / drives	Danaher Motion
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC
operator Interface	developed under Windows XP environment
remote service	via DSL / Ethernet

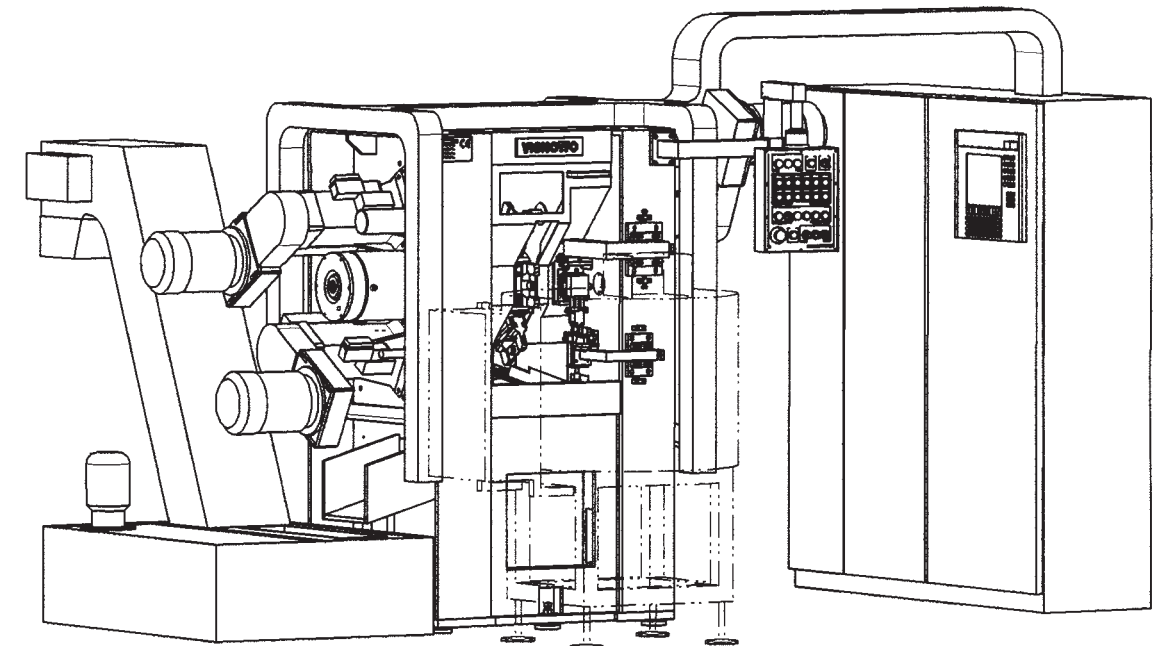
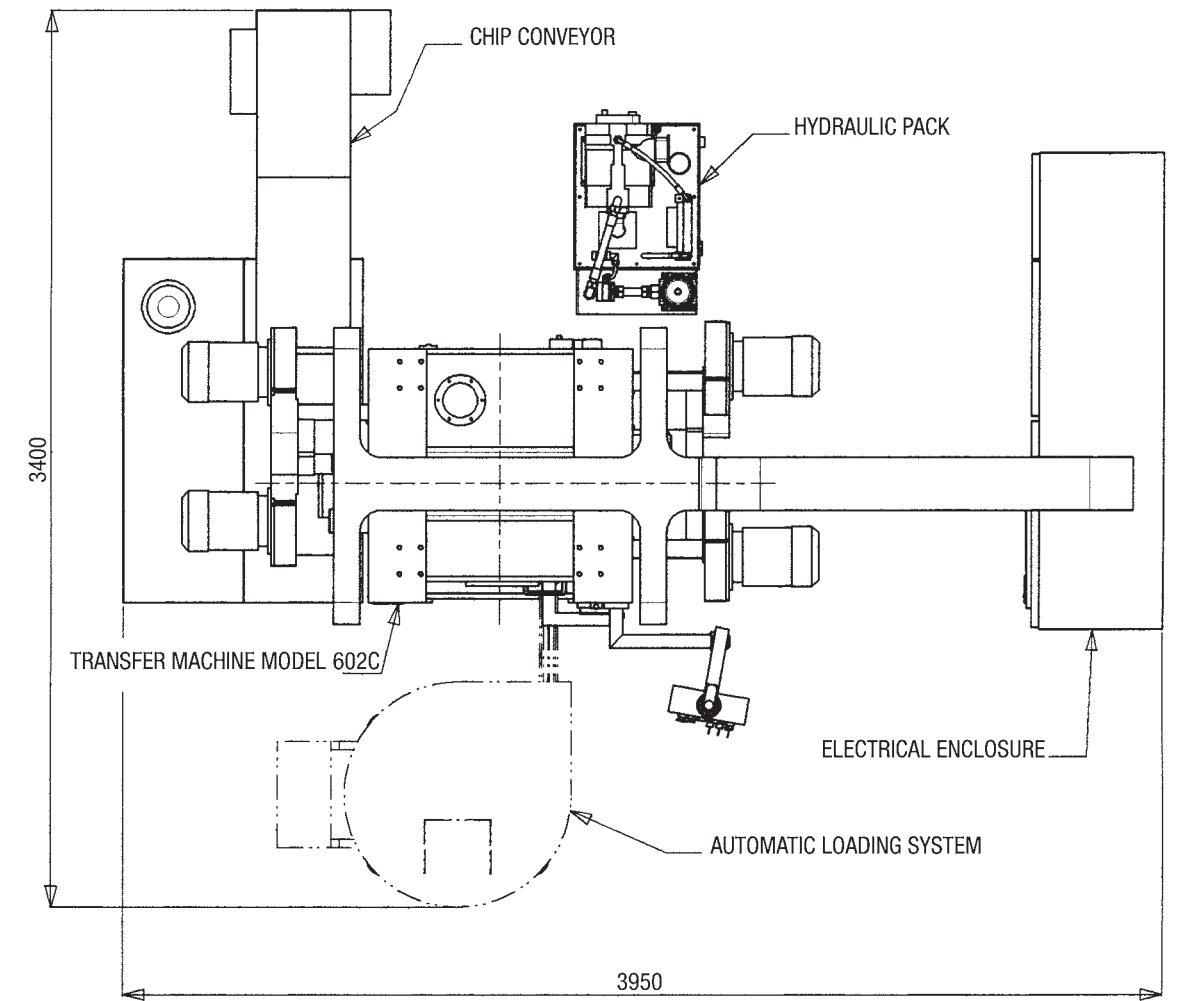
<b>CNC MACHINING UNITS</b>	<b>standard config. / max installable units:</b>
right side	3
left side	2
radials	0

**CNC MACHINING UNITS TYPES**

<b>CNC DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 3 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
executable machinings	drilling / boring / neck (with dedicated mechanical head)

<b>CNC TAPPING / DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	brushless
motor power	up to 3 Kw
speed regul.	Continuous via PC panel
executable machinings	rigid tapping / drilling / boring / neck (with dedicated mechanical head)

<b>CNC RECESSING UNIT</b>	
type	SF95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
recess head	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air The recess head can be removed in order to use the unit as normal drilling unit
slide stroke	17 mm
executable machinings	drilling / boring / simple recess / recess while forwarding





**4/5 STATIONS CNC TRANSFER MACHINE** with 1 working direction  
for resumptions of particulars, fittings, valves, taps particulars

<b>BASE UNIT</b>	built with welded steel sheets and normalized
<b>ROTARY TABLE axis</b>	horizontal
<b>nr. of stations</b>	4/5
<b>motor drive</b>	brushless servomotor high accuracy reductor
<b>final positioning</b>	on HIRTH ring gears +/- 3 arcsec accuracy
<b>transfer time</b>	0.6-0.8s (2 speeds selectable for load of light / heavy workpieces)
<b>chucks</b>	self centering built in cemented / tempered steel
<b>jaws overall stroke</b>	26 mm
<b>clamp force adjustment</b>	via independent chucks pressure regulator
<b>WORKING DIRECTIONS</b>	1

<b>HYDRAULIC PACK</b>	
oil tank capacity	120 lt
pump type	piston pump with variable delivery capacity

<b>CNC hardware</b>	BECKHOFF on PC platform
servomotors / drives	Danaher Motion
PC / display	BECKHOFF industrial PC with LCD 12.1" display and IP65 keyboard
development platform for CNC	BECKHOFF TwinCAT soft-NC / PLC
operator Interface	developed under Windows XP environment
remote service	via DSL / Ethernet

<b>CNC MACHINING UNITS</b>	
max installable units	3/4

**CNC MACHINING UNITS TYPES**

<b>CNC DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
executable machinings	drilling / boring / neck (with dedicated mechanical head)

<b>CNC TAPPING / DRILLING UNIT</b>	
type	F95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	brushless
motor power	up to 7,5 Kw
speed regul.	Continuous via PC panel
executable machinings	rigid tapping / drilling / boring / neck (with dedicated mechanical head)

<b>CNC RECESSING UNIT</b>	
type	SF95-40
housing diameter	95 mm
housing nominal stroke	135 mm
spindle:	
nose	ISO 40
motor	asynchronous or vectorial
motor power	up to 7,5 Kw
speed regul.	4 fixed speeds or continuous regulation with vectorial frequency inverter (selection via PC panel)
recess head	NTS125 type with single slide or NTS125E with twin slides, pressurized with lubricated air The recess head can be removed in order to use the unit as normal drilling unit
slide stroke	17 mm
executable machinings	drilling / boring / simple recess / recess while forwarding

