



### Delivering high speed, high volume precision machining

Italy Precision has now invested in two Triflex modular multi-station CNC machines to meet your needs for high volume machining.

Triflex machines offer simultaneous five-sided machining without re-clamping, spindles with up to eight tools, tool changes during the machining process, extremely short

chip-to-chip time, and separate loading and unloading stations. The modular machine consists of four fixtures mounted on a central trunnion, which indexes 90 degrees. The fixtures can index independently in increments of 1 degree. These fixtures are serviced by five machining stations consisting of CNC spindle units that hold eight tools and have independent X, Y and Z axis



movements. The result is that customers can see an increase in production output of a remarkable 300%. Compared to the latest stand-alone machines, the Triflex is several times faster, producing parts at a much lower cost.

Although already renowned for our combination of in-house cold forming, precision CNC machining and assembly techniques, Italy Precision now offers yet greater speed and efficiency with Triflex Modular multi-station CNC machining.

	TRIFLEX U	TRIFLEX U/G
<b>Work Area</b>		
Traverse path X mm	300 / 1,260	400 / 1,720
Traverse path Y mm	460	460
Traverse path Z mm	220	320
<b>Turret Head Unit</b>		
	<b>Uniflex 210</b>	<b>Uniflex 308</b>
Divisions	8	8
Indexing system	HIRTH ring diameter 300	HIRTH ring diameter 300
Indexing accuracy	± 3 (arc s)	± 3 (arc s)
Lifting and index	hydraulic	hydraulic
Spindle clamping device	HSK 40-63	HSK 40-63
Max. number of spindles	8	8
Drilling head weight kg	15 (complete turret 60)	15
Current type	AC	AC
Power output kW	9 (100% duty cycle) / 13 (40% duty cycle)	12 (100% duty cycle) / 18,5 (40% duty cycle), opt. 17/25
Direct drive	direct i = 0.5278	direct i = 0.5278
Max. spindle rotational speed 1/min	10,500	10,500
Z-working axis	with spindle sleeve diameter 180	with spindle sleeve diameter 230
Traverse path Z mm	220	320
Fast traverse speed m/min	30	30
Feed force N	10,000	10,000
Spindle sleeve feed electro-mechanical	AC servo motor, ball screw	AC servo motor, ball screw
Direct path measurement	with glass scale	with glass scale
Chip-to-chip time (VDI 2852) s	1.5	< 1.5
Tool changeover time s	1	1.2
<b>Cross Slide, X and Y Axes with Linear Guides</b>		
Traverse path X mm	300 / 1,260	400 / 1,720
Traverse path Y mm	400	460
Traverse speed X/Y m/min	30 / 40	30 / 40
Feed force N	7,500	7,500
Carriage feed electro-mechanical	AC servo motor, ball screw	AC servo motor, ball screw
Direct path measurement	with glass scale	with glass scale
<b>Rotary Transfer Unit</b>		
	<b>RTHV 630 M</b>	<b>RTHV 800 M</b>
Table dia. mm	630	800
Indexing/Hirth ring	ø 630	ø 800
Indexing accuracy	± 3 (arc s)	± 3 (arc s)
Divisions	4	4
Rotation	AC servo motor	AC servo motor
Indexing time 90° s	< 2.5	< 3
<b>Horizontal Planetary Table</b>		
Table dia. mm	320	400
Indexing/Hirth ring	ø 280	ø 360
Indexing accuracy	± 3 (arc s)	± 3 (arc s)
Programmable indexing step deg	360 x 1	360 x 1
Rotation	AC servo motor	AC servo motor
Table clamping	hydraulic	hydraulic
Indexing time 90° s	1.2	1.2
Number of tables	4	4
<b>Horizontal Planetary Table CNC</b>		
Table diameter mm	320	400
Programmable indexing step deg	0,001	0,001
Rotation	AC servo motor	AC servo motor
Table clamping	hydraulic	hydraulic
Indexing time 90° s	1.2	1.2
Number of tables	4	4
<b>Control System</b>		
	<b>SIEMENS 840 D</b>	<b>SIEMENS 840 D</b>

**Option:** Tool and process control **OMATIVE ACM** (Adaptive Control & Monitoring): Automatic feed control, feed power control (Z-axis) during machining and torque control of main spindle motor