



SPEED VERSATILITY ADAPTABILITY

Achieving Unparalleled Cycle Times and Superior Part Quality
with Rotary Transfer Technology and Mill/Turn Machining Centers

Discover how Hydromat can Improve Efficiency and Profit Potential in Part Family Manufacturing

Speed, Versatility, and Adaptability

Global production supply chains demand reliability, flexibility, and most of all, productivity. Hydromat embraces these principles with the renowned ECLIPSE 12-100, EPIC II and EPIC HF FANUC CNC rotary transfer machines and ICON Technologies Mill/Turn machines.



How does Hydromat's equipment achieve unparalleled cycle times and quality consistency?

Multi-tasking and the flexibility of multiple stations give us the ability to finish a complex part in one chucking or one presentation to the machine.

Multi-tasking in most machines means two tools in the cut with two stations, a main and a sub-spindle. With an EPIC II or EPIC HF platform it is extreme multi-tasking achieving the highest throughput possible; employing up to 16 horizontal stations and as many as eight vertical spindles to achieve up to 24 tools in the cut simultaneously.

Plug-n-play control architecture and quick-change pre-settable heads offer easy change-over. Modularity of equipment supports lean manufacturing so users stay competitive at small, medium, and large production quantities.

The ICON mill/turn centers are the epitome of the term "total flexibility", each of the four or six machining stations operates like single-spindle machines, but with the ability to transfer the work piece from station to station. Designed with a versatile tooling system, the ICON platforms achieve maximum tooling flexibility through tool change capabilities. Each station is equipped with 12 or 16 tool positions. In-process operations such as robotic A/B loading and gauging are easily integrated.

Flexible Quick Change-Over Maximizing Production Throughput

Workholding Quick-Change collets have replaced threaded screw-in collets, gauge pins, and all the labor & time required with older change-over procedures. Chuck jaw inserts have replaced solid jaws resulting in quick change-over for similar part families. The savings in time is savings in cost.

Legacy:

Threaded Collet Change

6:00 X (12 UNITS) = 72 MINUTES



EPIC:

Quick-Change Collet Change

2:00 X (12 UNITS) = 24 MINUTES



Tool Heads and Tool Offset Quick-Change HSK or traditional VDI/PCM toolhead? If your goal is decreased run-out, increased rigidity, truer grip, better accuracy and a quicker change-over, then the answer is clear. Setting the tool length offset is another factor in tool head change-over:

Legacy:

Setting the Tool Length

12:00 X (12 UNITS) = 144 MINUTES



EPIC:

Setting the Tool Length Offset

2:00 X (12 UNITS) = 24 MINUTES



Manual vs. On-Screen Adjustments Tweak settings, test, tweak settings, test, and on and on. The process is much faster when it's on-screen as opposed to time consuming manual adjustments and testing. Trouble shooting and preventative maintenance intervals also play a huge role.

Legacy:

Change Valves

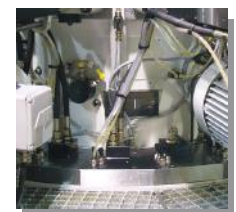
25:00 X (4 UNITS) = 100 MINUTES



EPIC:

Change Valves

0 X (12 UNITS) = 0 MINUTES



Precision • Productivity • Profit

Hydromat's philosophy incorporates exceptional design, innovation, and technological advances that push ROI past your requirements. No other precision machine tool company is more ideally suited to increase profit potential than Hydromat, your flexible solutions partner.

Changeovers Per Week:	2	2
Hours Per Change-Over:	10	2
Hours Per Week:	20	4
Hours Per 52 Weeks:	1040	208
Machine Hours Per Year:	5000	5000
Percentage of Time Spent on Change-Over Sequence:	20.8%	4.2%

208 hrs **832 hrs**

1040 hrs

Reduced in Change-Over Per Year

4.20% **16.6%**

20.8%

Additional Production Gained Per Year

Additional ROI Calculator

Reduced Hours:	832
Total Number of Seconds:	2,995,200
Pieces Produced (based on 5.0 sec cycle time):	599,040
Additional Revenue:	\$449,280.00

Put additional production hours into a dollar amount: assuming for this example an average cycle time is 5.0 seconds and sale price per part is \$0.75. Additional Revenue goes directly to Return on Investment.

Annual Material Savings Examples | Sample Bar Stock Savings Calculator

1" Round x 3/8" Long Brass Part

lbs of Material Required to Make 1000 Parts:	Cost of Material to Produce 1000 Parts	
Screw Machine	125.3 lbs x \$1.50	\$188.00
Hydromat Rotary Transfer Machine	105.2 lbs x \$1.50	\$157.80
Cost Savings Per 1000 Parts		\$30.20
Annual Material Savings on 5.0 Second Cycle Time (Run 2 Shifts / Day)		\$91,325.00

3/4" Round x 1/2" Long Stainless Part

lbs of Material Required to Make 1000 Parts:	Cost of Material to Produce 1000 Parts	
Screw Machine	80.7 lbs x \$1.50	\$185.61
Hydromat Rotary Transfer Machine	70.3 lbs x \$1.50	\$161.69
Cost Savings Per 1000 Parts		\$23.92
Annual Material Savings on 5.0 Second Cycle Time (Run 2 Shifts/Day)		\$36,167.00

ECLIPSE 12+100



HYDROMAT



ICON TECHNOLOGIES
ADVANCED MACHINING SOLUTIONS
A DIVISION OF HYDROMAT LLC



WITZIG & FRANK
by **HYDROMAT**



FLEXIBILITY

A Message from the President of Hydromat, Matthias Walter:

I take great pride in introducing you to the industry leader in the design and manufacture of precision rotary transfer machines and mill/turn centers for the precision metal cutting marketplace, Hydromat Inc. For 40+ years, Hydromat has continued to build a reputation on a commitment to quality, customer service and technological innovation. Our goal is to assess customers' machining needs and then create the best solution for future production. The Hydromat team strives to offer our customers the finest machine tool for their unique needs, the one that will make their company competitive in the marketplace.

Through exceptional innovations, created right here at Hydromat, Inc. we provide our customers with the ultimate in productivity, resulting in exceptional profit making potential. All across the country, with these advancements, small batch and part family production is an everyday occurrence as job lots get smaller and JIT inventory programs change the dynamics of what production means. Efficiency, in the form of flexibility and quick change-over ability, is a competitive edge. Hydromat's machine line-up incorporates accuracy and enhanced performance to generate faster production. Together with streamlined change-overs, you will create that efficiency, leading to both increased revenue and the profitability you have been searching for.

Committed to Excellence



Matthias Walter
President of Hydromat

Industries Served

All across the globe Rotary Transfer and Mill/Turn technology is being applied to produce the most sophisticated components imagined. A machine from the Hydromat machine lineup can improve your production operations for a profitable return on investment. Hydromat has manufactured durable, flexible machines for a multitude of industries, including:

- Automotive
- Defense & Aerospace
- Medical
- Electrical
- HVAC
- Consumer Products
- Small Engine
- Fittings/Connectors
- Plumbing
- Hardware

Contact Us

If you are interested in a manufacturing solution for producing parts or part families with the highest throughput, look no further than the quality and craftsmanship of a Hydromat Rotary Transfer machine or an ICON Technologies Mill/Turn Machine.

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