

TURNING CENTERS

[International LT, BT and BTX Series]



High Efficiency CNC Turn-Mill Centers





World Class CNC Machine Tool Manufacturer

A YCM Alliance Partner

founded in 1954, the YCM company specializes in the manufacturing of High Speed Vertical Machining Centers & Versatile Turning Centers and is recognized worldwide for technological advancements, manufacturing capabilities and superior product design. With over 66 years of experience, YCM machines are relied upon by quality conscious customers who have become accustomed to their uncompromising performance and renowned reliability. YCM products are unique and represent a differentiated approach to machine design.



Quality, Precision, Speed, and Reliability

The YCM Turning Centers deliver top end quality and excellent value. Every machine tool is precision built and hand crafted for rigidity, thermal stability, and repeatability. These products produce consistent high quality results from the first part to the last.

Rigid Design

During the design process, Finite Element Analysis (FEM) is used to ensure the best placement of mass and rib structures to provide constant stability under the intensive load of heavy duty cutting. High quality, rugged machine castings ensue high stiffness, rigidity, and vibration dampening that results in superior thermal stability, and cutting performance.

Spindle

The spindle is the critical union between the machine, cutting tool, and workpiece. At YCM, we test every spindle to ensure optimum performance and longevity that results in overall machine quality and reliability.

Designed for Versatility

The YCM Turning Centers are designed with versatility in mind. These platforms are ideal for the demands of shops performing general to high end parts machining across a large spectrum of industries, including job shop, automotive, medical, energy, and more.

Sales, Service and Parts Departments

Are all well experienced departments with people who care about our customers daily needs and prove it.

Make it Better, Together

**TURNING
CENTERS**

State of the Art Foundry

YCM Machine Tools are Built From the Ground Up

Unlike many machine tool manufacturers that purchase components and merely assemble them, YCM is a true machine tool builder. This commitment to quality begins at the YCM foundry where the heart of every machine the base, is perfectly cast resulting in a rigid Meehanite® casting. All mating surfaces are then hand scraped by expert craftsmen. This establishes a quality base which is precise, rigid, and very stable. This build process is inherent with every YCM machine tool produced.

- Castings are poured and formed.
- Advanced Karl Fischer moisture and pH metering.
- Spectrum analysis to ensure consistent quality.
- Annealing and aging process to relieve casting stress.
- Handcrafted scraping of all mating surfaces.

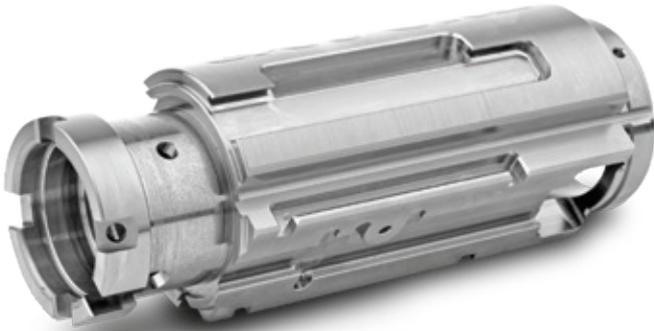


Turning Centers Quick Reference Guide

New Model	Control	Linear/Box	Chuck Size or Draw Tube Size	Milling (Live Tooling)	Spindle Sub or Twin	Y Y1 of 2 Y2 of 2 (w/Y-Axis)	Tailstock
B6	Fanuc	B	6"				yes
L6-M	Fanuc	L	6"	M	S		yes
L8-M	Fanuc	L	8"	M			yes
B8-SY	Fanuc	B	8"	yes		Y	
L10-M	Fanuc	L	10"	M			yes
B10-SY	Fanuc	B	10"	yes	S	Y	
L8-SY	Fanuc	L	8"	yes	S	Y	
L78-SY1	Fanuc	L	78 mm	yes	S	Y1	

From Basic Parts to Complex Applications, YCM Turning Centers Deliver High Quality Parts!

- Automotive, motorcycle and bicycle parts.
- Electronic and electrical parts.
- Medical and instrument parts.
- Pneumatic and hydraulic parts.
- Hardware accessories parts.
- Job-shop parts.



Make Better Parts

B6



Basic 2 axes machine (X/Z Axis with tailstock) for simple to middle range components.

Robust One-Piece Base Structure

- One-piece flat bed, box way design made from high quality cast-iron helps with distribution of cutting forces throughout the machine bed providing better absorption of vibration and reduced structural deformation, while also enhancing chips and coolant flow.

Spindle Benefits

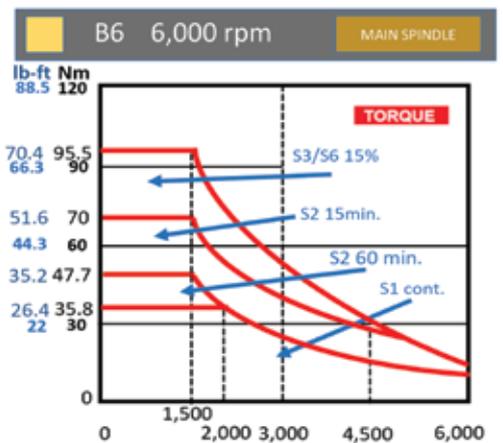
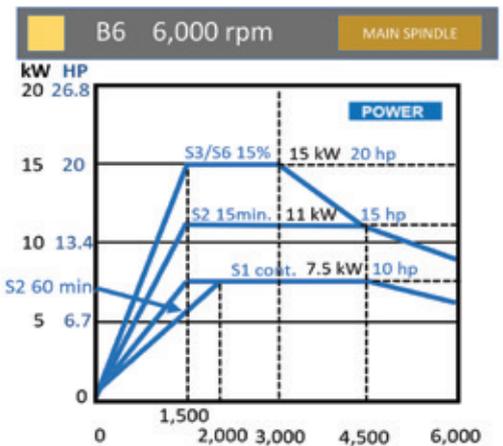
- This turning center is equipped with up to 20 hp (15 kW) spindle with rotation of up to 6,000 rpm. The spindle includes a 6" chuck, $\phi 1.811"$ ($\phi 46$ mm) through the draw tube. The short 11.02" (280 mm) Z axis provides a small machine footprint.

Static Turret

- The 12-station static turret provides high reliability and ensures a fast and stable index time. Next tool index time is 0.45 seconds and 180° is 1.0 second.

Tailstock

- The MT4 tailstock has 2.95" (75 mm) of programmable quill stroke with a quill diameter of 3.14" (80 mm) and manual travel of 10.82" (275 mm) allowing shaft work to be performed on this versatile machine.



kW: 7.5/11 (cont./15 min.)
 Hp: 10/15 (cont./15 min.)
 Nm: 35.8/70 (cont./15 min.)
 Ft-lb: 22/51.6 (cont./15 min.)

MACHINING RANGE

Swing Over Bed	ø16.53" (ø420 mm)
Std. Turning Diameter (Max.)	ø4.0" (ø6.30") ø101.6 (ø160 mm)
Max. Turning Length	11.02" (280 mm)

SPINDLE

Spindle Speed	6,000 rpm
Max. Spindle Motor Power	20 hp (15 kW)
Max. Spindle Torque	70.4 ft-lb (95.5 Nm)
Chuck Size	6"
Through Draw Tube	1.811" (46 mm)

TRAVEL

X-Axis Travel	4.72" (120 mm)
Z-Axis Travel	13.78" (350 mm)

FEEDRATE

Rapid Feedrate (X / Z)	472 / 708 ipm (12 / 18 m/min)
Cutting Feedrate (X / Z)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	Static Turret
Tool Capacity	12T
Shank Height for Square Tool	□ .750" (□ 19.05 mm)
Shank Diameter for Boring Bar	ø1.0" (ø25 mm)
Live Tooling	N/A

TAILSTOCK

Type	Manual
Quill Taper	MT4

ACCURACY

Positioning w/o scales X / Z	.00031" (.008 mm)
Repeatability w/o scales X / Z	.00019" (.005 mm)

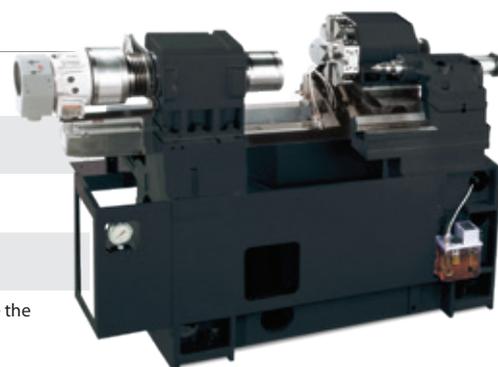
COOLANT

Tank Capacity	29.05 gal (110 L)
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GENERAL

Machine Weight	5,070 lb (2,300 kg)
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- A2 5, 6" Chuck
- 6,000 rpm 20 hp (Max) Spindle,
- 1.811" (46 mm) Trough Draw Tube
- 12 Tool Static Turret
- Manual Tailstock
- Oil Skimmer
- Parts Catcher w/Parts Conveyor, Chip Conveyor
- Bar Feed Interface
- Includes 12 Tool Wedges, 6 ID Tool holders, Tool Sleeves Φ 1/4", 1/2", 5/8", 3/4" (2pcs each)
- Fanuc 0iTf Control



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

L6-M



Mid range 2 axes machine (X/Z axis, live tooling and tailstock) for middle to upper range components.

International LT Series

Robust One-Piece Base Structure

- One-piece 45° slant bed design made from high quality Meehanite® cast iron helps with distribution of cutting forces throughout the machine bed providing better absorption of vibration and reduced structural deformation, while also enhancing chips and coolant flow.

Spindle Benefits

- The in-house built spindle is equipped with up to 20.1 hp (15 kW), rotation of up to 6,000 rpm. It includes a 6" chuck, $\varnothing 2.04"$ ($\varnothing 52$ mm) through the draw tube. The expanded travel of Z-axis provides a spacious working area for large workpiece up to $\varnothing 10" \times 23.62"$ ($\varnothing 254 \times 600$ mm).

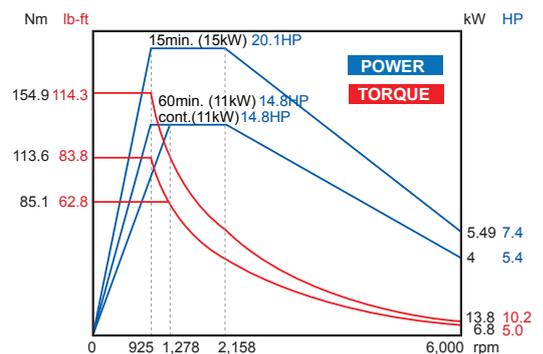
BMT45 Turret with Live Tooling

- The BMT45 turret ensures a fast and stable rotation of up to 6,000 rpm and outputs 5.0 hp (3.7 kW). The 12-station servo-driven turret provides high reliability and reduces tool change time. Next tool index is 1.3 sec. and 180 index is 1.7 sec.

Tailstock

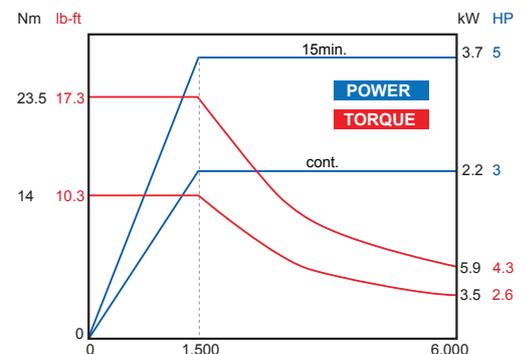
- The MT4 tailstock has 3.93" (100 mm) of programmable quill stroke with a quill diameter of 2.95" (75 mm) and a manual stroke of 19.68" (500 mm) allowing long shaft work to be performed on this versatile machine.

L6-M 6,000 rpm MAIN SPINDLE



kW: 11/15 (cont./15 min.)
 Hp: 14.8/20.1 (cont./15 min.)
 Nm: 85.1/113.6 (cont./15 min.)
 Ft-lb: 62.8/83.8 (cont./15 min.)

L6-M 6,000 rpm LIVE TOOLING



kW: 2.2/3.7 (cont./15 min.)
 Hp: 3/5 (cont./15 min.)
 Nm: 14/23.5 (cont./15 min.)
 Ft-lb: 10.3/17.3 (cont./15 min.)

MACHINING RANGE

Swing Over Bed	ø21.65" (ø550 mm)
Std. Turning Diameter (Max.)	ø8.0" (ø10.0") ø200 (ø254 mm)
Max. Turning Length	23.62" (600 mm)

SPINDLE

Spindle Speed	6,000 rpm
Max. Spindle Motor Power	20.1 hp (15 kW)
Max. Spindle Torque	83.8 ft-lb (113.6 Nm)
Chuck Size	6"
Through Draw Tube	2.04" (52 mm)

TRAVEL

X-Axis Travel	6.96" (177 mm)
Z-Axis Travel	23.62" (600 mm)

FEEDRATE

Rapid Feedrate (X / Z)	1,181 / 1,417 ipm (30 / 36 m/min)
Cutting Feedrate (X / Z)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT45
Tool Capacity	12T
Shank Height for Square Tool	□ .750" (□ 19.05 mm)
Shank Diameter for Boring Bar	ø1.25" (ø32 mm)
Live Tooling	60–6,000 rpm

TAILSTOCK

Type	Manual
Quill Taper	MT4

ACCURACY

Positioning w/o scales X / Y / Z / B	.00031" (.008 mm)
Repeatability w/o scales X / Y / Z / B	.00019" (.005 mm)

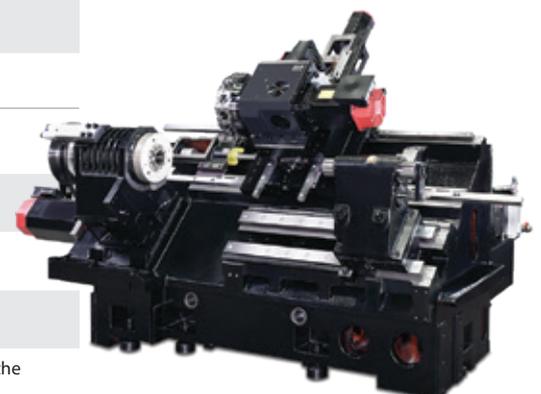
COOLANT

Tank Capacity	43.5 gal (163 L)
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GENERAL

Machine Weight	8,598 lb (3,900 kg)
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- A2-5, 6" Chuck, 20.1 hp (Max), 6,000 rpm
- 2.04" (52 mm) Through Draw Tube Spindle
- 12 Station BMT45
- 5,000 rpm Live Tooling Turret
- Tailstock, Oil Skimmer, ATLM, Chip Conveyor
- Includes 4-Live Tool Holders (2 Axial, 2 Radial)
- Includes 8 Static Tool holders: 1 Face TH, 1 Cutoff TH, 2 OD TH, 4 BB TH. 7 Boring Bar Sleeve: Ø1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1". 7 Throw away drill socket: Ø1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1". 3 MT Drill Socket: MT1, MT2, MT3
- Fanuc TXP-200FB+ Control



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

L8-M

Mid-range 2-axes machine (X/Z axis, live tooling and tailstock) for middle to upper range components.



Robust One-Piece Base Structure

- One-piece 45°slant bed design made from high quality cast-iron helps with distribution of cutting forces throughout the machine bed providing better absorption of vibration and reduced structural deformation, while also enhancing chips and coolant flow.

Spindle Benefits

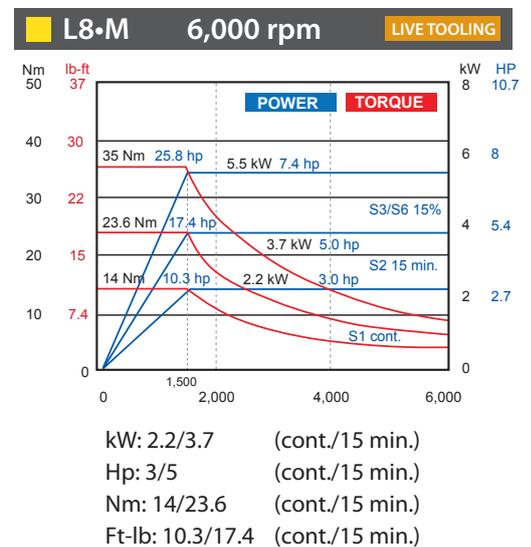
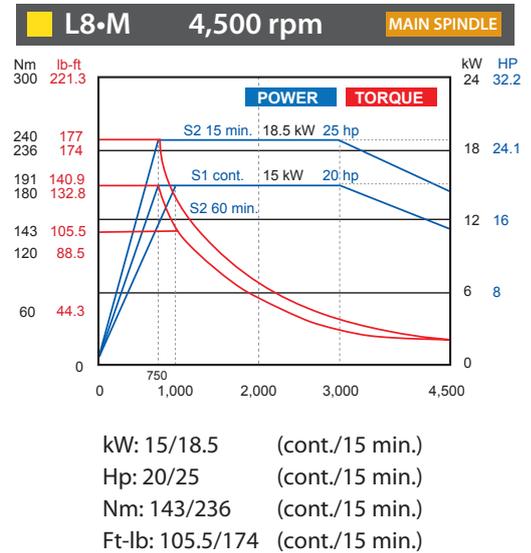
- The turning center is equipped with up to 25 hp (18.5 kW) spindle with rotation of up to 4,500 rpm. It includes an 8" chuck, $\varnothing 2.04"$ ($\varnothing 52$ mm) hole through draw tube and expanded travel of Z-axis that means a spacious working area is provided for large workpiece up to $\varnothing 15.74" \times 23.62"$ ($\varnothing 400 \times 600$ mm).

BMT55 Turret with Live Tooling

- The BMT55 turret ensures a fast and stable rotation of up to 6,000 rpm and outputs 5.0 hp (3.7 kW). The 12-station servo-driven turret provides high reliability and reduces tool change time. Next tool index is 0.4 sec. and 180° index is 1.5 sec.

Tailstock

- This fully programmable MT5 tailstock has 3.93" (140 mm) of quill stroke with a quill diameter of 3.34" (85 mm) and a stroke of 23.62" (600 mm) allowing long shaft work to be performed on this versatile machine.



MACHINING RANGE

Swing Over Bed	ø23.22" (ø590 mm)
Std. Turning Diameter (Max.)	ø8.0" (ø15.74") ø200 (ø400 mm)
Max. Turning Length	23.62" (600 mm)

SPINDLE

Spindle Speed	4,500 rpm
Max. Spindle Motor Power	25 hp (18.5 kW)
Max. Spindle Torque	174 ft-lb (236 Nm)
Chuck Size	8"
Through Draw Tube	ø2.04" (ø52 mm)

TRAVEL

X-Axis Travel	8.85" (225 mm)
Z-Axis Travel	23.62" (600 mm)

FEEDRATE

Rapid Feedrate (X / Z)	787 / 944 ipm (20 / 24 m/min)
Cutting Feedrate (X / Z)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT55
Tool Capacity	12T
Shank Height for Square Tool	□ 1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.25" (ø32 mm)
Live Tooling	60~6,000 rpm

TAILSTOCK

Type	Programmable
Quill Taper	MT5

ACCURACY

Positioning w/o scales X / Z	.00031" (.008 mm)
Repeatability w/o scales X / Z	.00019" (.005 mm)

COOLANT

Tank Capacity	89.8 gal (340 L)
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GENERAL

Machine Weight	11,464 lb (5,200 kg)
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- A2-6, 8" Chuck, 25 hp (Max), 4,500 rpm
- 2.04" (52 mm) Through Draw Tube Spindle
- 12 Station BMT55
- 6,000 rpm Live Tooling Turret
- Programmable Tailstock, Parts Catcher w/Parts Conveyor, Oil Skimmer
- Auto Renishaw Tool Probe, Chip Conveyor, Bar Feed Interface
- Includes 4 OD TH, 1 Facing TH, 4 Boring TH, 1 Cutoff TH, Tool Sleeves Ø1/4", 1/2", 5/8", 3/4" (1 pcs each)
- Fanuc Type 0iTF Control



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

L10-M

Mid-range two axes machine (X/Z axis, live tooling and tailstock) for middle to upper range components.



Robust One-Piece Base Structure

- One-piece 45° slant bed design made from high quality cast-iron helps with distribution of cutting forces throughout the machine bed providing better absorption of vibration and reduced structural deformation, while also enhancing chips and coolant flow.

Spindle Benefits

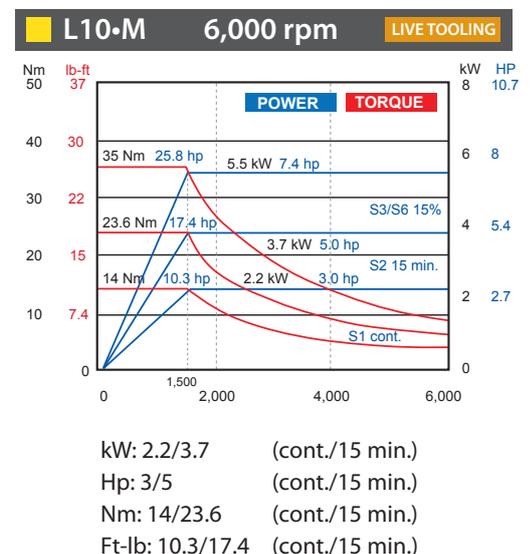
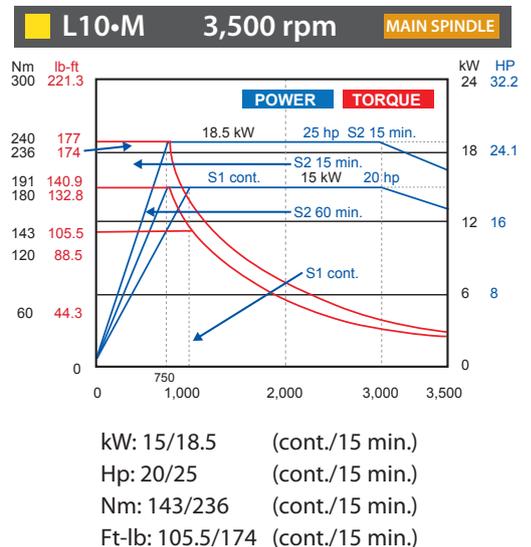
- The turning center is equipped with up to 25 hp (18.5 kW) spindle with rotation of up to 3,500 rpm. It includes a 10" chuck, $\varnothing 3.07"$ ($\varnothing 78$ mm) hole through draw tube and expanded travel of Z-axis that means a spacious working area is provided for large workpiece up to $\varnothing 15.74" \times 23.62"$ ($\varnothing 400 \times 600$ mm).

BMT55 Turret with Live Tooling

- The BMT55 turret ensures a fast and stable rotation of up to 6,000 rpm and outputs 5.0 hp (3.7 kW). The 12-station servo-driven turret provides high reliability and reduces tool change time. Next tool index is 0.4 sec. and 180° index is 1.5 sec.

Tailstock

- This fully programmable MT5 tailstock has 3.93" (140 mm) of quill stroke with a quill diameter of 3.34" (85 mm) and a stroke of 23.62" (600 mm) allowing long shaft work to be performed on this versatile machine.



MACHINING RANGE

Swing Over Bed	ø23.22" (ø590 mm)
Std. Turning Diameter (Max.)	ø10.84" (ø15.74") ø250 (ø400 mm)
Max. Turning Length	23.62" (600 mm)

SPINDLE

Spindle Speed	3,500 rpm
Max. Spindle Motor Power	25 hp (18.5 kW)
Max. Spindle Torque	174 ft-lb (236 Nm)
Chuck Size	10"
Through Draw Tube	ø3.070" (ø78 mm)

TRAVEL

X-Axis Travel	8.85" (225 mm)
Z-Axis Travel	23.62" (600 mm)

FEEDRATE

Rapid Feedrate (X / Z)	787 / 944 ipm (20 / 24 m/min)
Cutting Feedrate (X / Z)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT55
Tool Capacity	12T
Shank Height for Square Tool	□ 1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.25" (ø32 mm)
Live Tooling	60–6,000 rpm

TAILSTOCK

Type	Programmable
Quill Taper	MT5

ACCURACY

Positioning w/o scales X / Z	.00031" (.008 mm)
Repeatability w/o scales X / Z	.00019" (.005 mm)

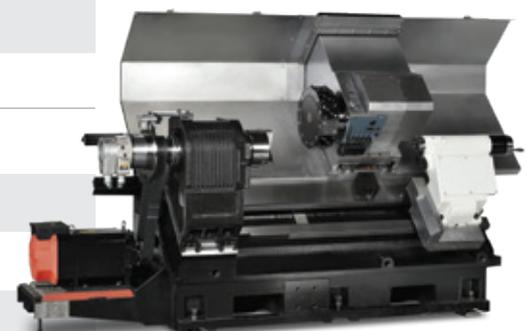
COOLANT

Tank Capacity	89.8 gal (340 L)
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GENERAL

Machine Weight	11,464 lb (5,200 kg)
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- A2-8, 10" Chuck, 25 hp (Max), 3,500 rpm
- 3.07" (78 mm) Through Draw Tube Spindle
- 12 Station BMT55, 6,000 rpm Live Tooling Turret
- Programmable Tailstock, Parts Catcher w/Parts Conveyor, Oil Skimmer
- Auto Renishaw Tool Probe, Chip Conveyor, Bar Feed Interface
- Includes 4 OD TH, 1 Facing TH, 4 Boring TH, 1 Cutoff TH, Tool Sleeves Ø1/4", 1/2", 5/8", 3/4" (1 pcs each)
- Fanuc Type 0iTF Control



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

B8-SY



Mid-high range 6-axes machine (X/Y/Z/B/C1/C2 C2-axes, live tooling and sub spindle) for middle to upper range components.

Robust One-Piece Base Structure

- One-piece 30° slant bed design made from high quality Meehanite® cast-iron. Turcite-B on X/Z axis provides superior rigidity, low friction coefficient, reduced vibration, and superior damping characteristics without stick slip, while still maintaining machining accuracy.

Spindle Benefits

- This turning center is equipped with up to 40.2 hp (30 kW) in-house built spindle with rotation of up to 5,000 rpm. It includes an 8" chuck, $\varnothing 2.6"$ ($\varnothing 66$ mm) hole through draw tube and expanded travel of Z-axis that means a spacious working area is provided for large workpiece up to $\varnothing 12.2" \times 22.44"$ ($\varnothing 310 \times 570$ mm).

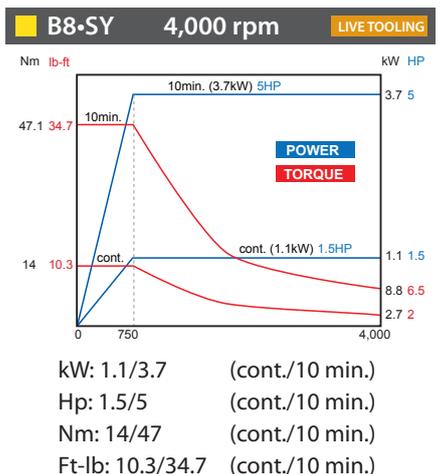
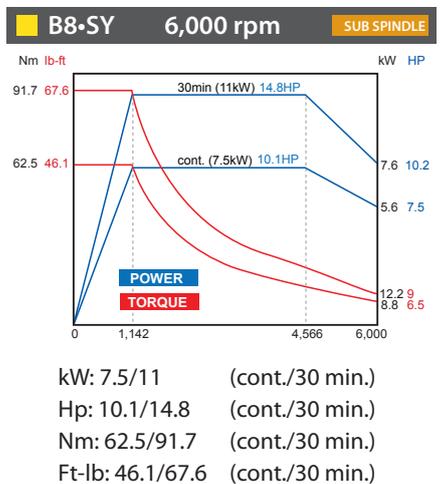
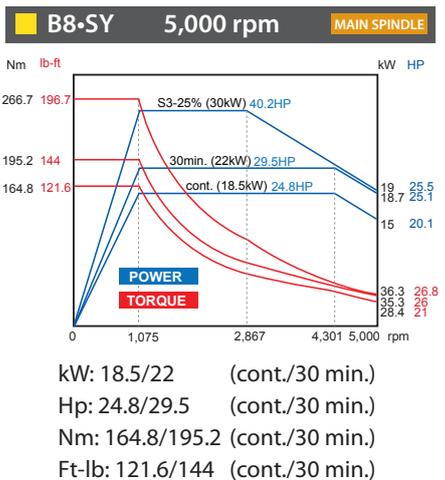
Integrated Sub Spindle and Y-axis for Complete Part Machining

- The orthogonal design applied on Y-axis maintains machining accuracy during complex off center milling, drilling and tapping in a single setup. 6" sub spindle with up to 14.8 hp (11 kW) motor can generate rotation speed up to 6,000 rpm. The combination of sub spindle, Y-axis, C-axis and live tool turret allow the complete machining of complex parts in a single setup improving efficiency and accuracy due to less part handling. The sub spindle incorporates a rotary encoder, ensuring high resolution positioning and repeatability for done in one part machining processes.

BMT55 Turret with Live Tooling

- The BMT55 turret ensures a fast and stable rotation of up to 4,000 rpm and outputs 5.0 hp (3.7 kW). The 12-station servo-driven turret provides high reliability and reduces tool change time. Next tool index is 0.7 sec. and 180° index is 1.1 sec.

International BT Series



MACHINING RANGE

Swing Over Bed	ø27.95" (ø710 mm)
Max. Turning Diameter	ø12.2" (ø310 mm)
Max. Turning Length	22.44" (570 mm)

SPINDLE

Spindle Speed – Main / Sub	5,000 rpm / 6,000 rpm
Max. Spindle Motor Power Main / Sub	40.2 hp (30 kW) / 14.8 hp (11 kW)
Max. Spindle Torque – Main / Sub	196.5 / 67.6 lb-ft (266.4 / 91.6 Nm)
Chuck Size – Main / Sub	8" / 6"
Through Draw Tube	ø2.6" / ø1.77" (ø66 / ø45 mm)

TRAVEL

X-Axis Travel	6.3" (160 mm)
Y-Axis Travel	+1.97" / -1.57" (+50 / -40 mm)
Z-Axis Travel	22.44" (570 mm)
B-Axis Travel	25.59" (650 mm)

FEEDRATE

Rapid Feedrate (X / Z / Y / B)	1,181 / 1,417 / 394 / 787 ipm (30 / 36 / 10 / 20 m/min)
Cutting Feedrate (X / Z / Y / B)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT55
Tool Capacity	12T
Shank Height for Square Tool	□ 1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.57" (ø40 mm)
Live Tooling	100–4,000 rpm

ACCURACY

Positioning w/o scales X / Z / Y / B	.00031" (.008 mm)
Repeatability w/o scales X / Z / Y / B	.00019" (.005 mm)

COOLANT

Tank Capacity	92.47 gal (350 L)
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GENERAL

Machine Weight (w/Chip Conveyor)	13,889 lb (6,300 kg)
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Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

- A2-6, 8" Chuck, 40.2 hp (Max), 5,000 rpm, Main Spindle w/2.6" (66 mm) Through Draw Tube,
- A2-5, 6" Chuck, 14.8 hp (Max), 6,000 rpm Sub Spindle w/1.77" (45 mm) Through Draw Tube, and Y-Axis
- One Upper 12 Station BMT55 Live Tooling Turret with 4,000 rpm
- Oil Skimmer, ATLM, Chip Conveyor
- 4-Live Tool Holders (2-Axial & 2 Radial)
- Includes 11 Static Tool holders: 1-Face TH, 1-Cutoff TH, 3-OD TH, 1-dual OD TH, 4-1.5" ID BB TH, 1-1.25" ID BB TH. 10 1.5" O.D. Boring Bar Sleeves: Two 1/4" long type, two 5/16" long type, 1/4" short type, 5/16" short type, 3/8" short type, 1/2" short type, 5/8" short type, 3/4" short type, 1" short type, 3/8" std. typ type, 1/2" std. type, 5/8" std. type, 3/4" std. type, Two 1-1/4" O.D. Throw-Away Drill Socket 3/4" type: 1" type, 1-1/4 O.D. MT1 Drill Socket, 1-1/4 O.D MT2 Drill Socket, 3 MT Drill Sockets: MT1, MT2, MT3. (No parts catcher).
- Fanuc TXP-200FB+ Control



B10-SY



Mid-high range 6-axes machine (X/Y/Z/B/C1/C2-axes, live tooling and sub spindle) for middle to upper range components.

International BTX Series

Robust One-Piece Base Structure

- One-piece 30° slant bed design made from high quality Meehanite® cast-iron. Turcite-B on X/Z-axis provides superior rigidity, low friction coefficient, reduced vibration, and superior damping characteristics without stick-slip, while still maintaining machining accuracy.

Spindle Benefits

- This turning center is equipped with up to 46.9 hp (35 kW) in-house built spindle with rotation of up to 3,500 rpm. It includes a 10" chuck, $\varnothing 3.07"$ ($\varnothing 78$ mm) hole through draw tube and expanded travel of Z-axis that means a spacious working area is provided for large workpiece up to $\varnothing 13.77" \times 28.70"$ ($\varnothing 350 \times 729$ mm).

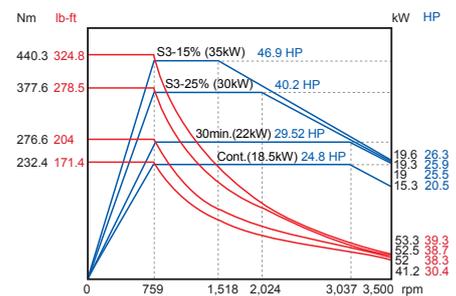
Integrated Sub Spindle and Y-axis for Complete Part Machining

- The wedge type Y-axis design maintains machining accuracy during complex off center milling, drilling and tapping in a single setup. 6" sub spindle with up to 14.75 hp (11 kW) motor can generate rotation speed up to 6,000 rpm. The combination of sub spindle, Y-axis, C-axis and live tool turret allow the complete machining of complex parts in a single setup improving efficiency and accuracy due to less part handling. The sub spindle incorporates a rotary encoder, ensuring high resolution positioning and repeatability for done-in-one part machining processes.

BMT65 Turret with Live Tooling

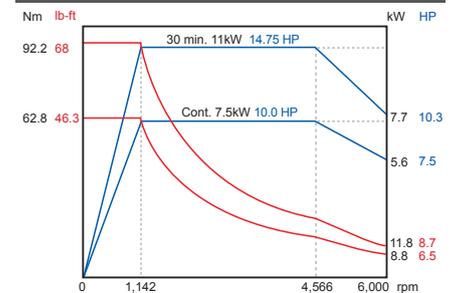
- The BMT65 turret ensures a fast and stable rotation of up to 4,500 rpm and outputs 7.4 hp (5.5 kW). The 12-station servo-driven turret provides high reliability and reduces tool change time. Next tool index is 0.95 sec. and 180° index is 2.05 sec.

B10-SY 3,500 rpm MAIN SPINDLE



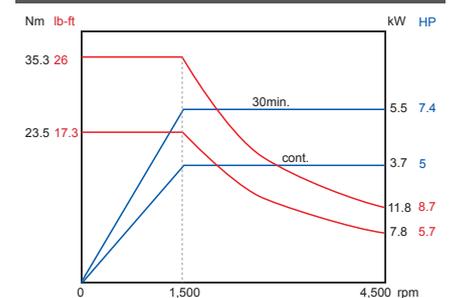
kW: 18.5/22 (cont./30 min.)
 Hp: 24.8/29.5 (cont./30 min.)
 Nm: 232.4/276.6 (cont./30 min.)
 Ft-lb: 171.4/204 (cont./30 min.)

B10-SY 6,000 rpm SUB SPINDLE



kW: 7.5/11 (cont./30 min.)
 Hp: 10.1/14.8 (cont./30 min.)
 Nm: 62.8/92.2 (cont./30 min.)
 Ft-lb: 46.3/68 (cont./30 min.)

B10-SY 4,500 rpm LIVE TOOLING



kW: 3.7/5.5 (cont./30 min.)
 Hp: 5/7.4 (cont./30 min.)
 Nm: 23.5/35.3 (cont./30 min.)
 Ft-lb: 17.3/26 (cont./30 min.)

MACHINING RANGE

Swing Over Bed	ø39.37" (ø1,000 mm)
Std. Turning Diameter (Max.)	ø10.0" (ø13.77") 250 mm (ø350 mm)
Max. Turning Length	28.70" (729 mm)

SPINDLE / SUB SPINDLE

Spindle Speed – Main / Sub	3,500 rpm / 6,000 rpm
Max. Spindle Motor Power – Main / Sub	46.9 hp (35 kW) / 14.75 hp (11 kW)
Max. Spindle Torque – Main / Sub	24.8 / 68 lb-ft (440.3 / 92.2 Nm)
Chuck Size – Main / Sub	10" / 6"
Through Draw Tube	ø3.07" / ø1.77" (ø78 / ø45 mm)

TRAVEL

X-Axis Travel	10.23" (260 mm)
Y-Axis Travel	+1.97" / -1.97" (+50 / -50 mm)
Z-Axis Travel	30.70" (780 mm)
B-Axis Travel	29.92" (760 mm)

FEEDRATE

Rapid Feedrate (X / Z / Y / B)	787 / 945 / 394 / 787 ipm (20 / 24 / 10 / 20 m/min)
Cutting Feedrate (X / Z / Y / B)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT65
Tool Capacity	12T
Shank Height for Square Tool	□ 1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.57" (ø40 mm)
Live Tooling	100–4,500 rpm

ACCURACY

Positioning w/o scales X / Y / Z / B	.00031" (.008 mm)
Repeatability w/o scales X / Y / Z / B	.00019" (.005 mm)

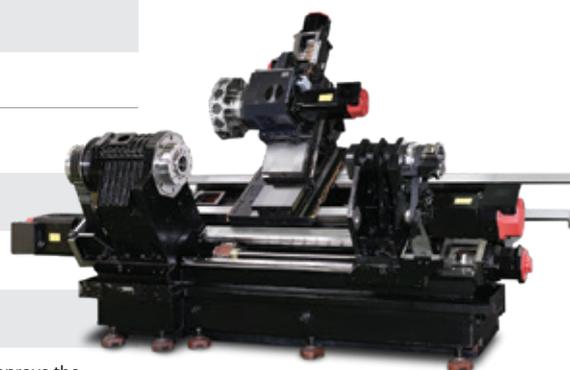
COOLANT

Tank Capacity	111 gal (420 L)
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GENERAL

Machine Weight (w/Chip Conveyor)	16,645 lb (7,550 kg)
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- A2-8, 10" Chuck, 46.9 hp (Max), 3,500 rpm, Main Spindle w/3.07" (78 mm) Through Draw Tube
- A2-5, 6" Chuck, 14.75 hp (Max) 6,000 rpm Sub Spindle w/1.77" (45 mm) Through Draw Tube, and Y-Axis
- One Upper 12 Station BMT65 6,000 rpm Live Tooling Turret
- Oil Skimmer, ATLM, Chip Conveyor
- 4 Live Tool Holders (2 Axial & 2 Radial)
- Includes 12 Static Tool holders: 2 Face and ID TH, 1 Cutoff TH, 1 OD TH, 2 Dual OD TH, 3 1.25" BB TH, 3 1.5" BB TH. 10 1.5" O.D. Boring Bar Sleeves: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", Two 1", Two 1-1/4". 13 1.25" O.D. Boring Bar Sleeves: Two 1/4" long type, Two 5/16" long type, 1/4" short type, 5/16" short type 3/8" short type, 1/2" short type, 5/8" short type, 3/4" short type, 1" short type, 3/8" std. type, 1/2" std. type, 5/8" std. type, 3/4" std. type, 2 1-1/4" O.D. Throw Away Drill Socket: 3/4" type, 1" type. 2 1 1/2" O.D. Throw Away Drill Socket 3/4" type: 1" type. 1-1/4 O.D. MT1 Drill Socket. 1-1/4 O.D MT2 Drill Socket. 3 MT Drill Sockets: MT1, MT2, MT3. (No parts catcher).
- Fanuc TXP 200FB+ Control



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

L8-SY



Mid-high range 6-axes machine
(X/Y/Z/B/C1/C2 axes, 16 stations,
live tooling and twin spindles)
for middle to high range
components.

High Efficiency and Productivity

- Packed with 8" chucks, with up to 33.5 HP, 4,000-rpm twin spindles, Y-axis, 16 station live tool turret, C-axis, chip conveyor, and bar feed interface, this machine allows the completion of complex finished parts machining in just one setup, while also improving efficiency, accuracy, and profitability.

16 Station Turret

- Designed with one 16-station turret allowing up to 16 fully driven tool positions. This allows the completion of complex parts with a huge range of tooling options to best suit your work piece requirements. Index time to adjacent station is 0.5 seconds and 180° index time is 1.5 seconds.

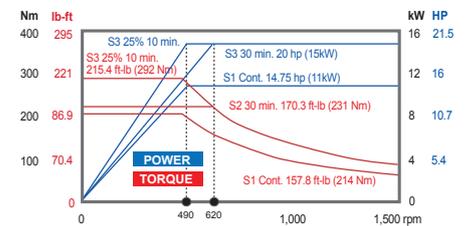
Increased Stability with 90° Structure

- The special structure design of the L8-SY series uses a rigid 90° angle for the turret carriage so you maintain superb rigidity and stability during machining. Additionally, this allows you to use a simpler control specification, reducing programming complexity and saving your money at the same time.

Turret Chiller and Oil Mist Lubrication Systems

- The efficient chiller system helps to avoid thermal deformation and the integrated oil mist lubrication system constantly renews the oil which is a significant advantage to the live tooling system over older grease-based lubrication systems that need to be regularly cleaned and replaced. These enhancements make sure the turrets run smoothly for years.

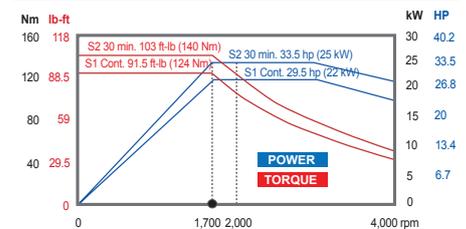
Low Speed Winding SPINDLE 1 & SPINDLE 2



Low Range – 1500 rpm

kW: 11/15 (cont./30 min.)
Hp: 14.75/20 (cont./30 min.)
Nm: 214/231 (cont./30 min.)
Ft-lb: 157.8/170.3 (cont./30 min.)

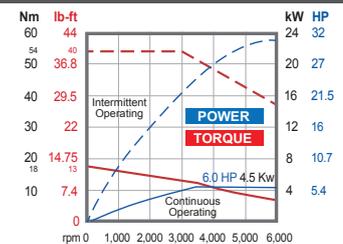
High Speed Winding SPINDLE 1 & SPINDLE 2



High Range – 4000 rpm

kW: 22/24 (cont./30 min.)
Hp: 29.5/33.5 (cont./30 min.)
Nm: 124/140 (cont./30 min.)
Ft-lb: 91.5/103 (cont./30 min.)

L8-SY 6,000 rpm LIVE TOOLING



60 – 6000 rpm

kW: 4.5 (cont.)
Hp: 6 (cont.)
Nm: 18 (cont.)
Ft-lb: 1.3 (cont.)

MACHINING RANGE

Swing Over Bed	ø32.67" (ø830 mm)
Std. Turning Diameter (Max.)	ø8.26" (ø12.79") ø210 (ø325 mm)
Max. Turning Length	22.04" (560 mm)

SPINDLES

Spindle Speed (Spindle 1 & 2)	4,000 rpm
Max. Spindle Motor Power (Spindle 1 & 2)	33.5 hp (25 kW)
Max. Spindle Torque (Spindle 1 & 2)	215.4 ft-lb (292 Nm)
Chuck Size (Spindle 1 & 2)	8"
Through Draw Tube (Spindle 1 & 2)	ø3.07" / ø2.795" (ø78 / ø71 mm)

TRAVEL

X-Axis Travel	8.85" (225 mm)
Y-Axis Travel	+1.97" / -1.97" (+50 / -50 mm)
Z-Axis Travel	25.04" (636 mm)
B-Axis Travel	27.185" (690.5 mm)

FEEDRATE

Rapid Feedrate (X / Z / Y / B)	630 / 1,575 / 236 / 1,575 ipm (16 / 40 / 6 / 40 m/min)
Cutting Feedrate (X / Z / Y / B)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT65
Tool Capacity	16T
Shank Height for Square Tool	□1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.0" (ø25 mm)
Live Tooling	60–6,000 rpm

ACCURACY

Positioning w/o scales X / Y / Z / B	.00031" (.008 mm)
Repeatability w/o scales X / Y / Z / B	.00019" (.005 mm)

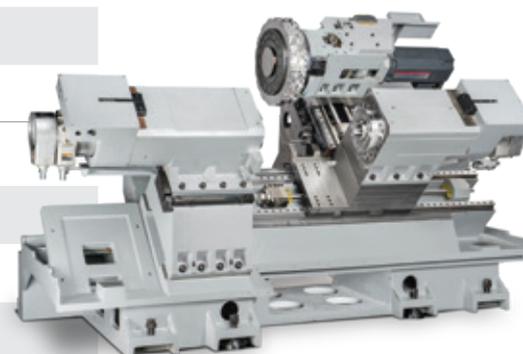
COOLANT

Tank Capacity	85 gal (325 L)
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GENERAL

Machine Weight	17,637 lb (8,000 kg)
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- Built-in A2-6, 33.5 hp (Max), 4,000 rpm Spindle #1, w/3.07" (78mm) Through Draw Tube, and 8" Chuck
- Built-in A2-6, 33.5 hp (Max), 4,000 rpm Spindle #2, w/2.795" (71 mm) Through Draw Tube, and 8" Chuck.
- Y-Axis, One Upper 16 Station BMT65
- 6,000 rpm Live Tooling Turret, Live Tooling Turret Chiller and Oil Mist Lubrication
- Parts Gripper w/Parts Conveyor, Oil Skimmer
- Manual Renishaw Tool Probe
- Right Side Discharge Chip Conveyor, Bar Feed Interface.
- Includes 1 Double Hole ID TH, 4 Single Hole ID TH, 1 Cutoff TH, 5 OD TH, 1 Cross Side TH, Tool Sleeves Ø1/4", 5/16", 3/8", 1/2", 5/8", 3/4" each of 2pcs
- Fanuc Type 0iTF Control
- **Built on a Twin Turn Base**



Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

L78-SY1



Mid-high range 8-axes machine (X1/X2/Y/Z1/Z2/B/C1/C2-axes, 2 x 16 stations, live tooling and twin spindles) for middle to high range components.

Robust One-Piece Base Structure

- One-piece 45° slant bed design enhances rigidity and precision as well as ensuring an excellent surface finish. These castings are stress relieved to ensure long term, deformation free performance. The castings are also heavily ribbed to minimize vibration and increase structural strength while still maintaining machining accuracy.

Twin Spindles Twin Turrets

- Featuring twin 4,000 rpm spindles, with up to 33.5 hp (25 kW), Spindle-1 w/3.07" (78 mm) Through Draw Tube, Spindle-2 w/2.795" (71 mm) Through Draw Tube, combined with twin BMT65 16-position upper and lower oil mist lubricated 6,000 rpm live tool turrets with fast index time to adjacent station of 0.5 seconds and 180° index time is 1.5 seconds allowing the operation, and completion of the most complex components in a single setup.

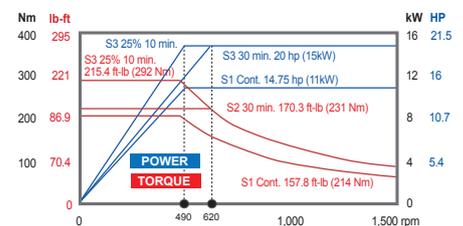
Orthogonal Y-axis for Complete Part Machining

- The Y-axis orthogonal design maintains machining accuracy during complex off center milling, drilling and tapping operations while improving efficiency and accuracy due to less part handling for done-in-one part machining processes in a single setup.

Live Tool Turret Chiller and Oil Mist Lubrication Systems

- The efficient chiller system helps to avoid thermal deformation and the integrated oil mist lubrication system constantly renews the oil which is a significant advantage over older grease based lubrication systems that need to be regularly cleaned and replaced. These enhancements make sure the turrets run smoothly for years.

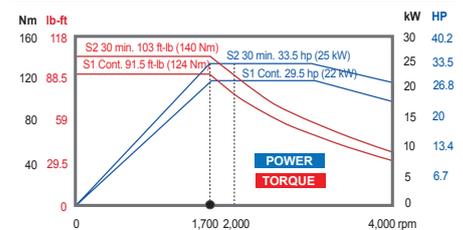
Low Speed Winding SPINDLE 1 & SPINDLE 2



Low Range – 1500 rpm

kW: 11/15 (cont./30 min.)
 Hp: 14.75/20 (cont./30 min.)
 Nm: 214/231 (cont./30 min.)
 Ft-lb: 157.8/170.3 (cont./30 min.)

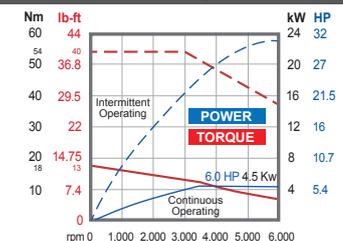
High Speed Winding SPINDLE 1 & SPINDLE 2



High Range – 4000 rpm

kW: 22/25 (cont./30 min.)
 Hp: 29.5/33.5 (cont./30 min.)
 Nm: 124/140 (cont./30 min.)
 Ft-lb: 91.5/103 (cont./30 min.)

L78-SY1 6,000 rpm LIVE TOOLING

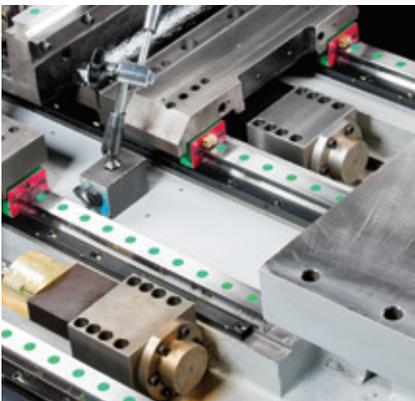
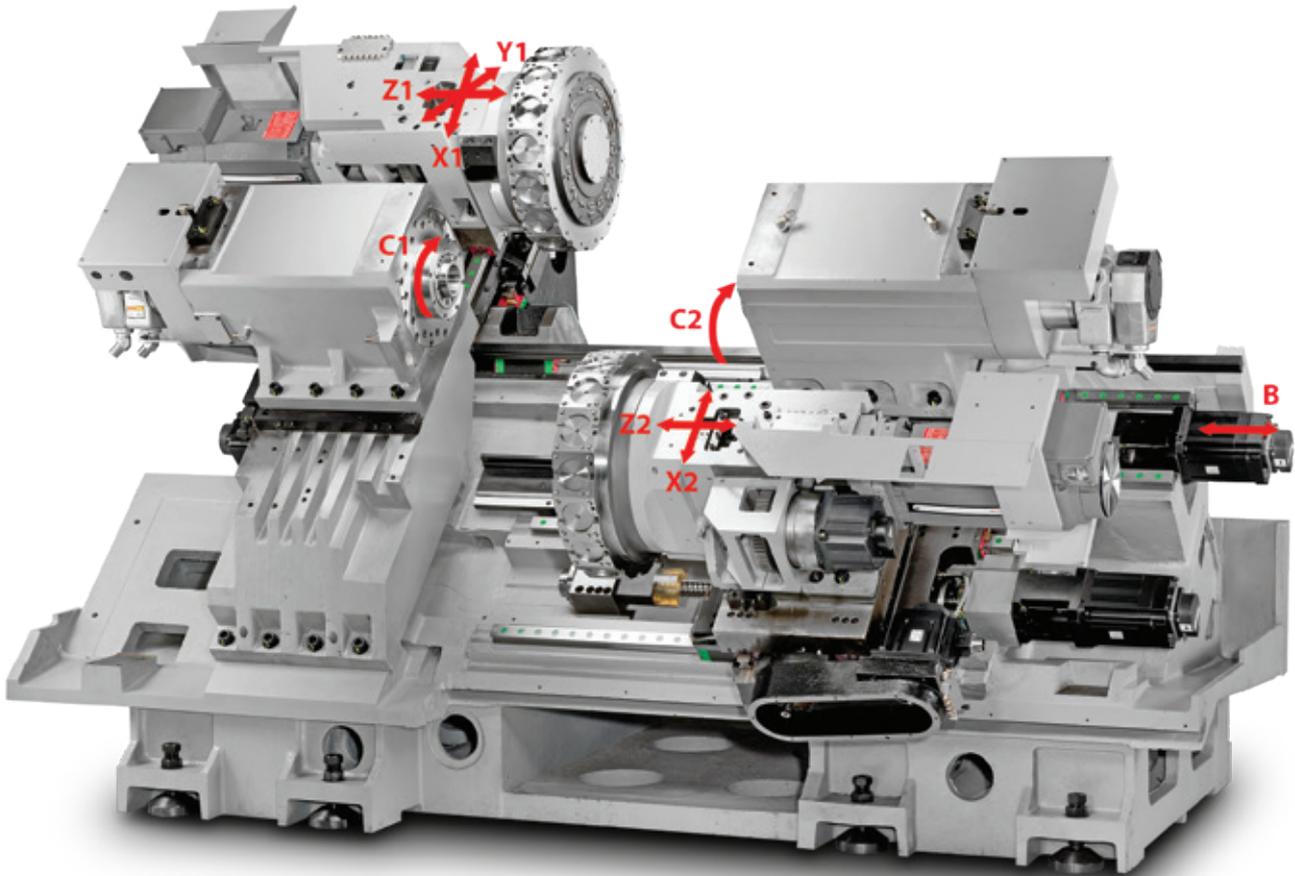


60 – 6000 rpm

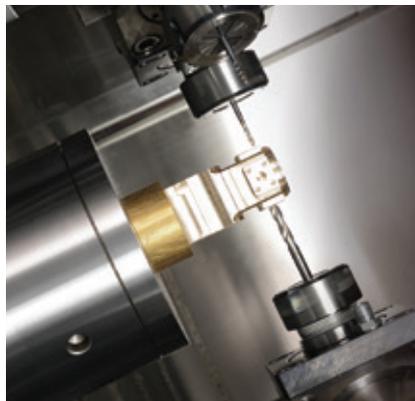
kW: 4.5 (cont.)
 Hp: 6 (cont.)
 Nm: 18 (cont.)
 Ft-lb: 1.3 (cont.)

Synchronized for Balanced Cutting

- The Twin Turn L78-SY1 features synchronization for balanced cutting allowing for pinch turning and threading operations with both upper and lower turrets reducing cycle time up to 30%. Every tool on both turrets can service either spindle to machine features on the part in first or second operation for maximum tooling flexibility.



X/Y/Z/B Axes Roller Guideways provides rigidity and smooth axial movement for excellent machining and repeatability accuracy.



Twin spindles and twin 16 position upper and lower power turrets allow you to complete complex components in a single operation.



Spindle No. 2 is on the B-Axis and is servo motor driven for thrust and feedrate to help provide high precision movement and easy set-up. This feature alone can save up to 20% in operating efficiency over conventional designs.

MACHINING RANGE

Swing Over Bed	ø32.67" (ø830 mm)
Std. Turning Diameter (Max.)	ø8.26" (ø14.17") ø210 mm (ø360 mm)
Max. Turning Length	16.339" (415 mm)

SPINDLES

Spindle Speed (Spindle 1 & 2)	4,000 rpm
Max. Spindle Motor Power (Spindle 1 & 2)	33.5 hp (25 kW)
Max. Spindle Torque (Spindle 1 & 2)	215.4 ft-lb (292 Nm)
Chuck Size (Spindle 1 & 2)	INDEX 80 / BA70 Collet Adaptors
Through Draw Tube (Spindle 1 & 2)	ø3.07" / ø2.795" (ø78 mm / ø71 mm)

TRAVEL

X1 & X2-Axis Travel	8.95" / 9.075" (227.5 / 230.5 mm)
Y-Axis Travel	+1.97" / -1.97" (+50 / -50 mm)
Z1 & Z2-Axis Travel	15.04" / 15.04" (382 / 382 mm)
B-Axis Travel	20.86" (530 mm)

FEEDRATE

Rapid Feedrate (X / Z / Y / B)	630 / 1,575 / 236 / 1,575 ipm (16 / 40 / 6 / 40 m/min)
Cutting Feedrate (X / Z / Y / B)	0.04~394 ipm (1~10,000 mm/min)

TURRET

Tool Standard	BMT65
2 Turret Capacity	16T / 16T
Shank Height for Square Tool	□ 1.0" (□ 25 mm)
Shank Diameter for Boring Bar	ø1.0" (ø25 mm)
Live Tooling	60~6,000 rpm

ACCURACY

Positioning w/ scales X1 / X2 / Y	.00011" (.003 mm)
Repeatability w/ scales X1 / X2 / Y	.00003" (.001 mm)
Positioning w/o scales Z1 / Z2 / B	.00031" (.008 mm)
Repeatability w/o scales Z1 / Z2 / B	.00019" (.005 mm)

COOLANT

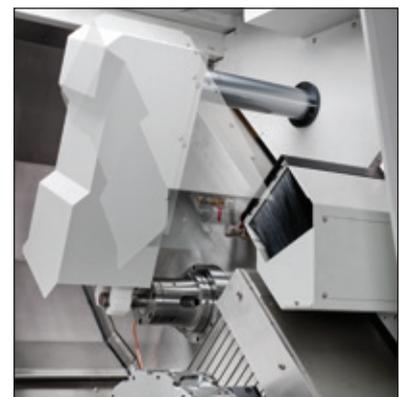
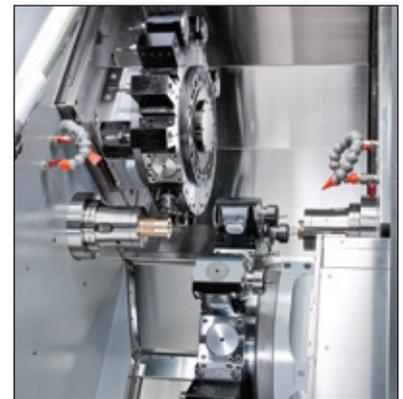
Tank Capacity	95 gal (360 L)
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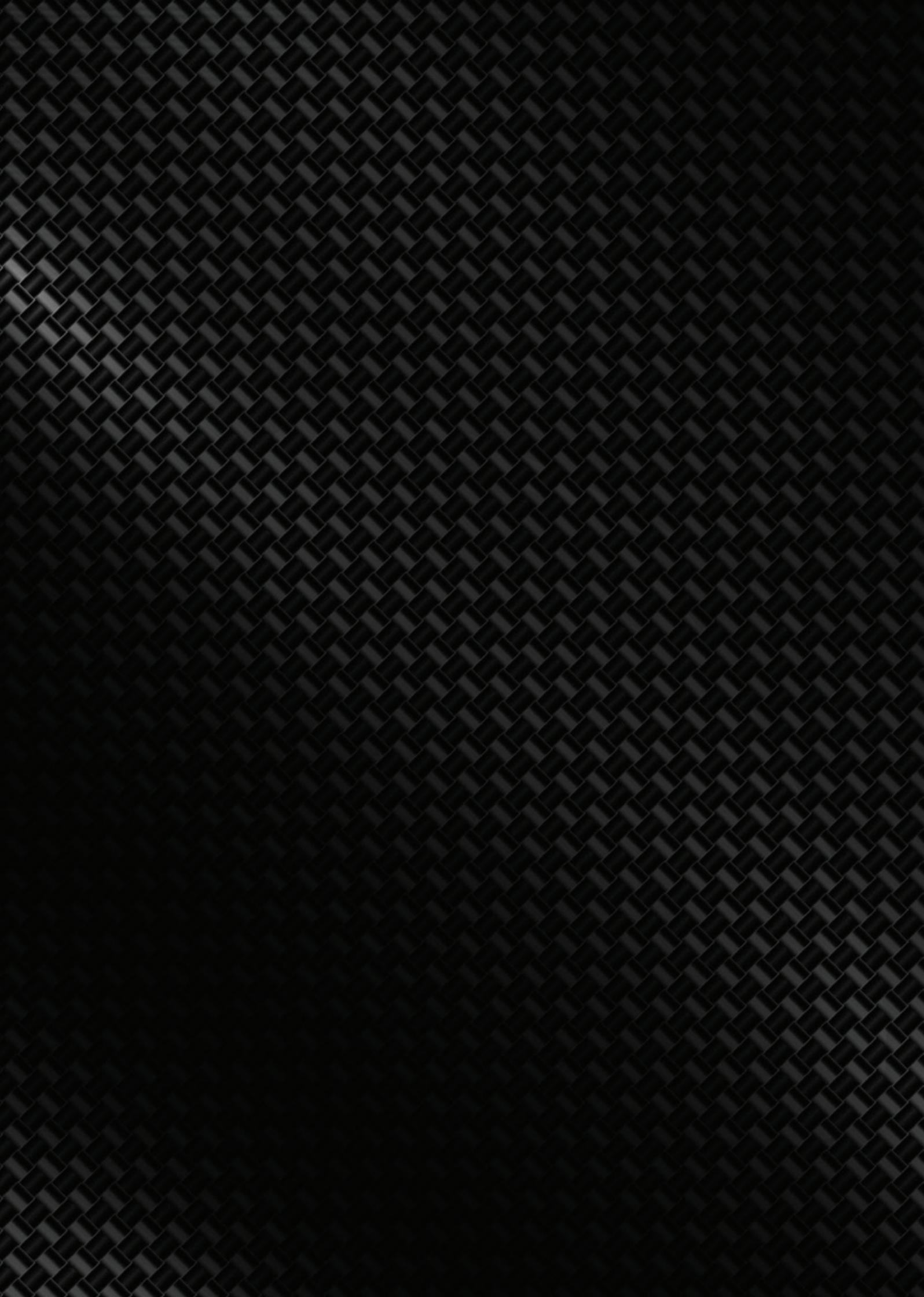
GENERAL

Machine Weight	22,707.6 lb (10,300 kg)
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Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All specifications shown above are for reference.

- Twin Turn w/Built in A2-6, 33.5 hp (Max), 4,000 rpm Spindle #1, w/3.07" (78 mm) Through Draw Tube, and INDEX 80 Collet Adaptor.
- Built in A2-6, 33.5HP (Max), 4,000 rpm Spindle #2, w/2.795" (71 mm) Through Draw Tube, and BA70 Collet Adaptor.
- One Upper Y-Axis, Two 16 Station BMT65, 6,000 rpm Live Tooling Turrets (One Upper/One Lower)
- Parts Gripper w/Parts Conveyor
- Oil Skimmer, Manual Renishaw Tool Probe
- Right Side Discharge Chip Conveyor, Bar Feed Interface, Linear Encoders on X1, X2, Y1
- Live Tooling Turret Chiller and Oil-Mist Lubrication
- Includes 2 Double Hole ID TH, 8 Single Hole ID TH, 1 Cutoff TH, 10 OD TH, 2 Cross Side TH, Tool Sleeves Ø1/4", 5/16", 3/8", 1/2", 5/8", 3/4" each of 4pcs.
- Fanuc 32i B Control







Make it Better, Together

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