More

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TAKISAWA TAIWAN

Distributor

2017.05

TAKISAWA TAIWAN

LS-SERIES

EXTRA HEAVY DUTY CNC LATHE

LS-800(M)(Y) | LS-1000(M) | LS-1100

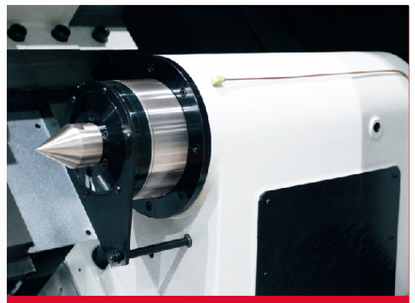
LS-SERIES

Extra heavy duty CNC turning center

LS-800(M) / (1000) (1500) (2000) (3000)
LS-800(Y) / (1000) (2000) (3000)
LS-1000(M) / (1000) (1500) (2000) (3000)
LS-1100 / (2000) (3000) (4000)

Max. turning length 2114~4464mm

- 45°slant bed design provides optimal cutting condition.
- The slideways, hardened by high frequency induction, offer ideal hardness characteristics.
- Our highly rigid spindle features deformation resistance, powerful turning capability and rugged durability.
- Taiwan Takisawa's produced extra heavy duty turret features rapid positioning and the largest available 18" diameter curvic coupling. This massive turret is 31.5" in diameter and 7.8" thick.
- The two-step gearbox offers extraordinarily high torque during low speed machining for outstanding extra heavy duty cutting performance.



High thrust and strong clamping force ensures maximum stability especially when working with long workpieces.

LS-800 Series Specifications

LS-800 Series A type / B type / C type

Max. swing	830 mm
Max. turning diameter	760 mm
Max. bar work capacity	90/105/180 mm
Spindle speed	2000/2000(1500)/1200 rpm
Chuck size	15"/15"(18")/20"

LS-800M Series MA type / MB type / MC type

Max. swing	830 mm
Max. turning diameter	680 mm
Max. bar work capacity	90/105/180 mm
Spindle speed	2000/2000(1500)/1200 rpm
Chuck size	15"/15"(18")/20"

LS-800Y Series

Max. swing	830 mm
Max. turning diameter	600 mm
Max. bar work capacity	105 mm
Spindle speed	2000 rpm
Chuck size	15"

LS-1000 Series Specifications

LS-1000 Series

Max. swing	1020 mm
Max. turning diameter	900 mm
Max. bar work capacity	180 mm
Spindle speed	1200(1000) rpm
Chuck size	20"(24")

LS-1000M Series

Max. swing	1020 mm
Max. turning diameter	850 mm
Max. bar work capacity	180 mm
Spindle speed	1200(1000) rpm
Chuck size	20"(24")

LS-1100 Series Specifications

LS-1100 Series

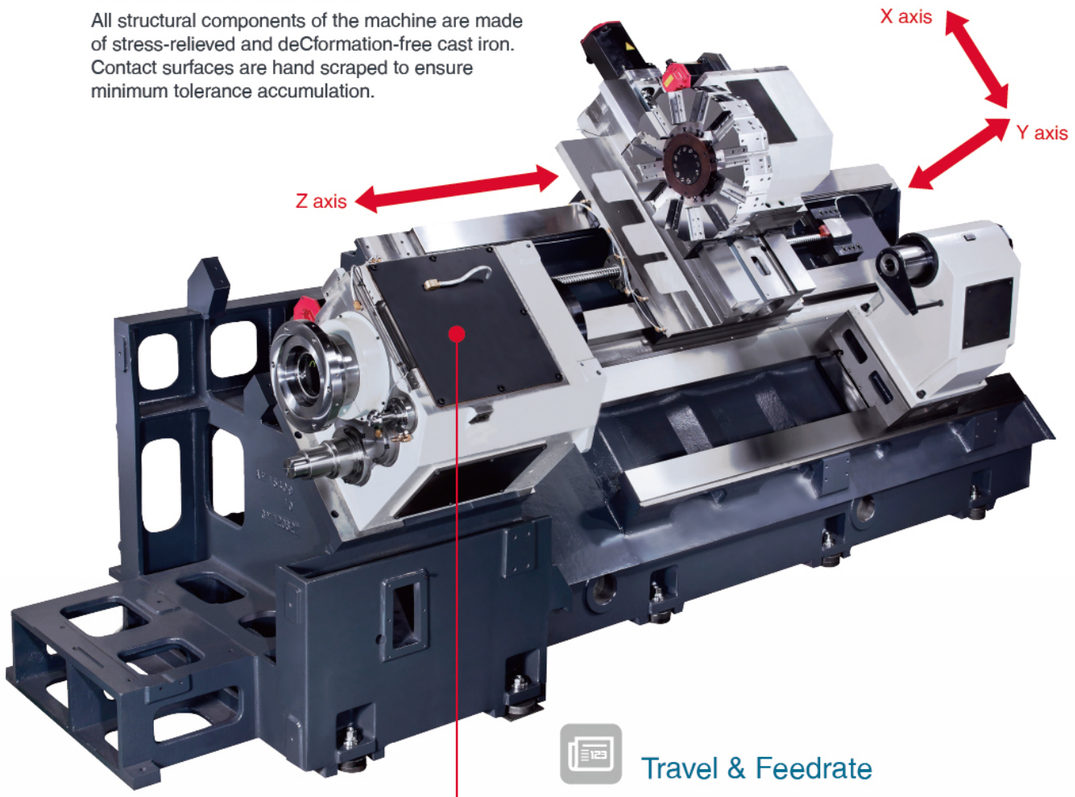
Max. swing	1120 mm
Max. turning diameter	900 mm
Max. bar work capacity	254 mm
Spindle speed	900 rpm
Chuck size	24"(28",32")

※ Specifications are subject to change without notice.

LS-Series

LS Series STRUCTURE

All structural components of the machine are made of stress-relieved and deCformation-free cast iron. Contact surfaces are hand scraped to ensure minimum tolerance accumulation.



GEAR BOX

All LS series CNC lathes have a gearbox made from 0-grade fine ground precision gears.

The Gearbox allows high cutting torque in its low speed range combined with a highly accurate surface finish.

Travel & Feedrate

LS-800 Series / LS-1000 Series / LS-1100 Series	
X axis travel	390 / 500 / 524 mm
X axis rapid traverse rate	12 / 12 / 12 m/min
Z axis travel	1048~3150 / 1100~3100 / 2200~4550 mm
Z axis rapid traverse rate	12~20 / 12~16 / 6~12 m/min
Y axis travel	±80 / -- / -- mm
Y axis rapid traverse rate	6 / -- / -- m/min

※Specifications are subject to change without notice.

Spindle specifications

Through hole diameter

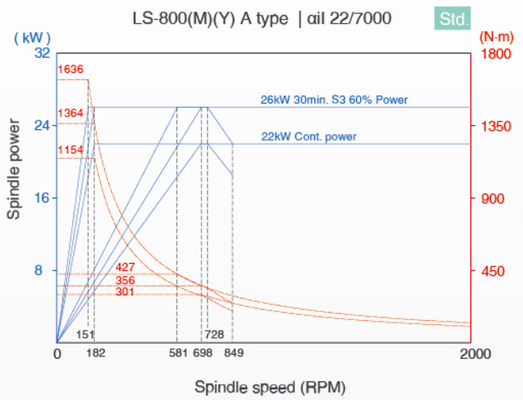
LS-800 Series	
LS-800(M)A	102 mm
LS-800(M)B	126 mm
LS-800(M)C	205 mm
LS-800Y	126 mm
LS-1000 Series	
LS-1000(M)	205 mm
LS-1100 Series	
LS-1100	275 mm

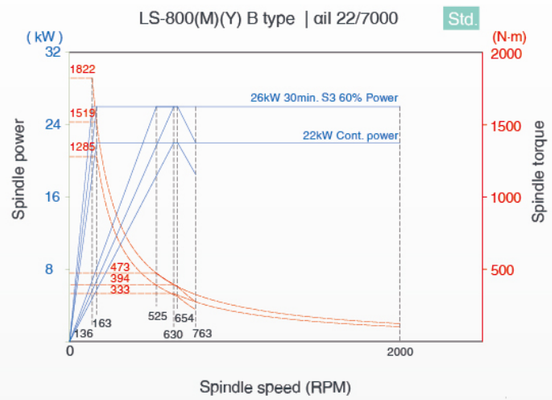
※Specifications are subject to change without notice.

The Taiwan Takisawa spindle, manufactured in-house,incorporates high quality bearings sourced from Europe or Japan. The spindle is assembled into its finely bored cast iron housing in an air-conditioned clean room. Its design and precision manufacture ensure high accuracy and optimum cutting capability coupled with easy maintenance and low cost for service and spare parts.

Spindle output diagram

Powered by FANUC MOTOR for high stability & high accuracy.

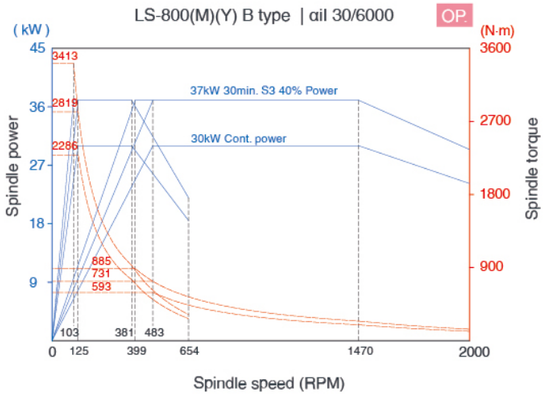




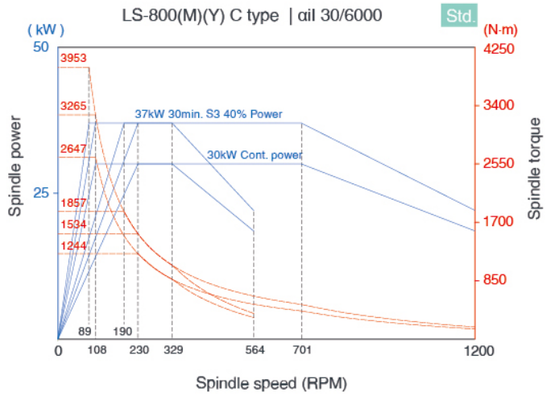
Spindle output diagram

Powered by FANUC MOTOR for high stability & high accuracy.

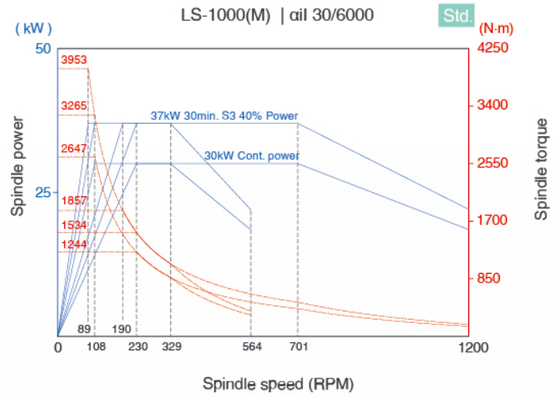
LS-800(M)(Y) B type | αil 30/6000 OP.



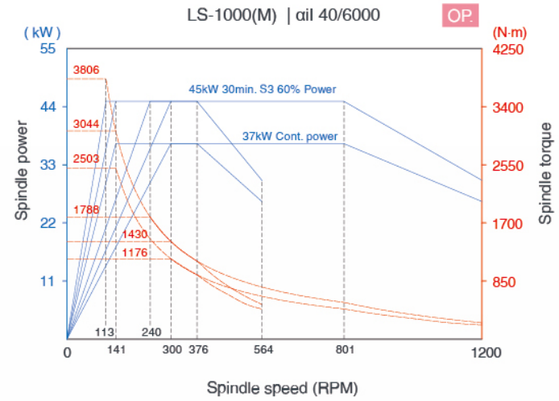
LS-800(M)(Y) C type | αil 30/6000 Std.



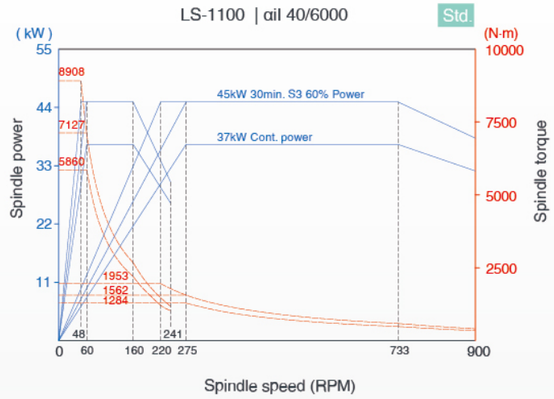
LS-1000(M) | αil 30/6000 Std.



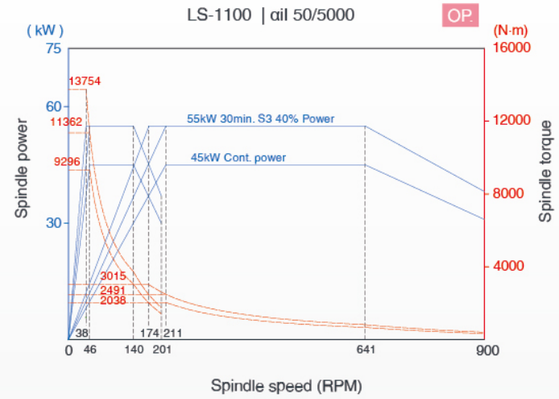
LS-1000(M) | αil 40/6000 OP.



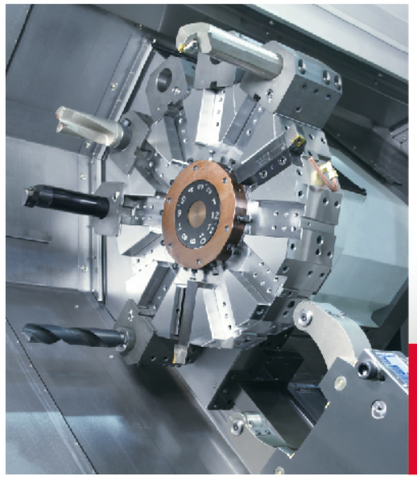
LS-1100 | αil 40/6000 Std.

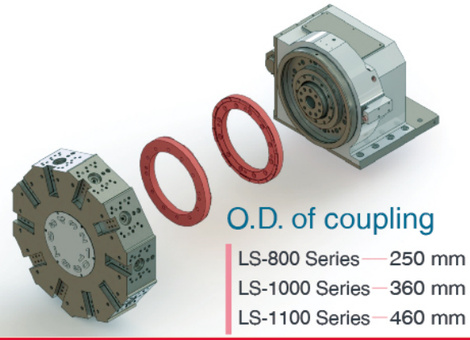


LS-1100 | αil 50/5000 OP.



Turret specifications





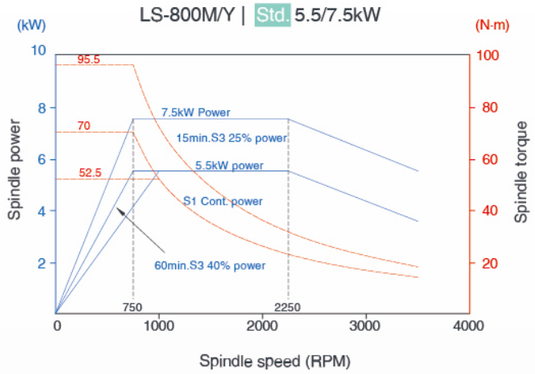
O.D. of coupling

LS-800 Series	250 mm
LS-1000 Series	360 mm
LS-1100 Series	460 mm

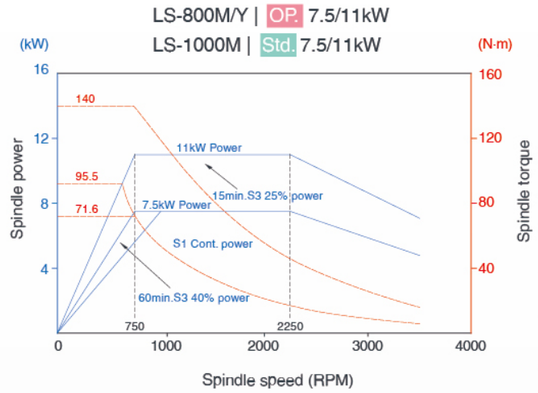
The high performance turrets are all made by Taiwan Takisawa. The two-piece high precision coupling features high clamping force, rapid and accurate indexing and easy to calibrate positioning in both the CW and CCW direction.

Power chart of milling tool

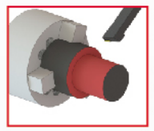
LS-800M/Y | Std. 5.5/7.5kW



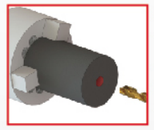
LS-800M/Y | OP. 7.5/11kW
LS-1000M | Std. 7.5/11kW



Machining performance



O.D. heavy cutting_LS-800 αil 22/7000		Spindle speed	267 rpm	Cutting depth	13 mm
Tool	32 x 32 mm PCLNR 3232P19	Cutting feedrate	120 m/min	Feed per rev.	0.8 mm/rev
O.D. heavy cutting_LS-1100 αil 50/5000		Spindle speed	267 rpm	Cutting depth	14 mm
Tool	32 x 32 mm PCLNR 3232P19	Cutting feedrate	120 m/min	Feed per rev.	0.8 mm/rev

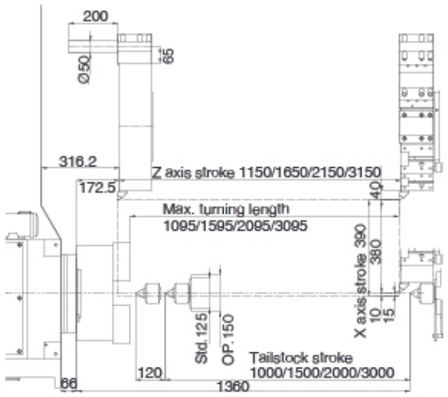


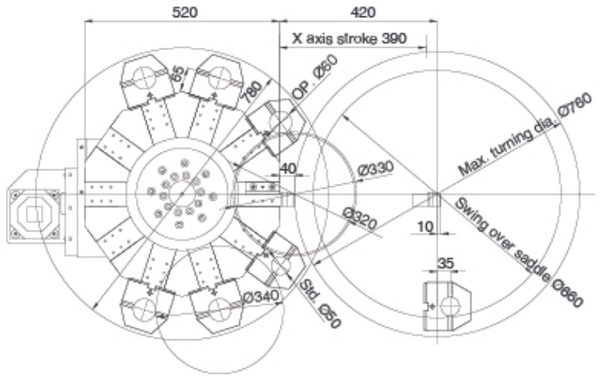
Drill_LS-800 αil 22/7000		Drill diameter	58 mm	Cutting feedrate	120 m/min
Tool	Drill	Spindle speed	250 rpm	Feed per rev.	0.3 mm/rev
Drill_LS-1100 αil 50/5000		Drill diameter	58 mm	Cutting feedrate	120 m/min
Tool	Drill	Spindle speed	250 rpm	Feed per rev.	0.3 mm/rev

※ Specifications are subject to change without notice.

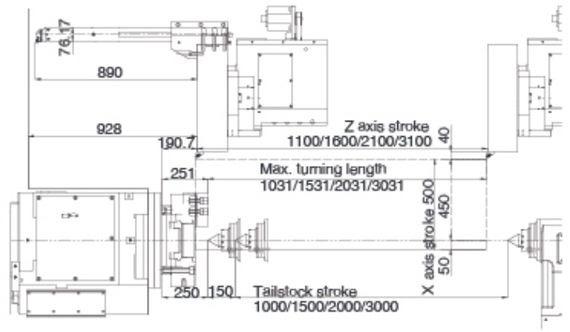
Working range | Interference diagram

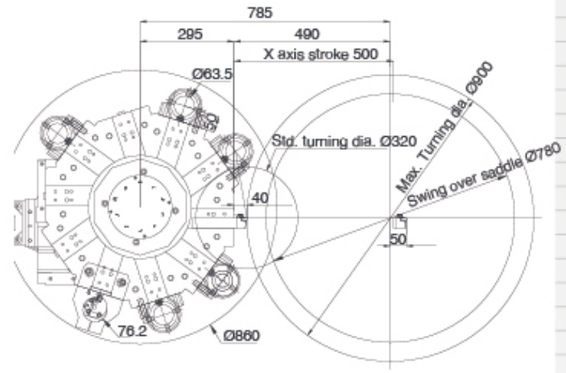
LS-800



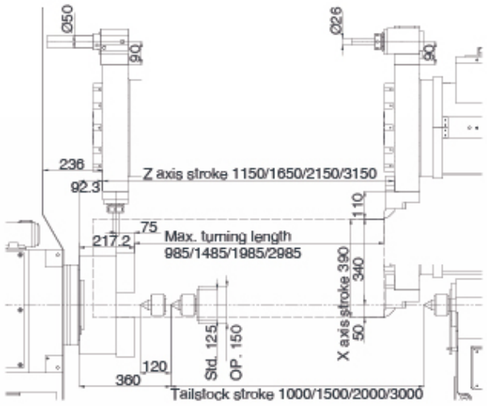


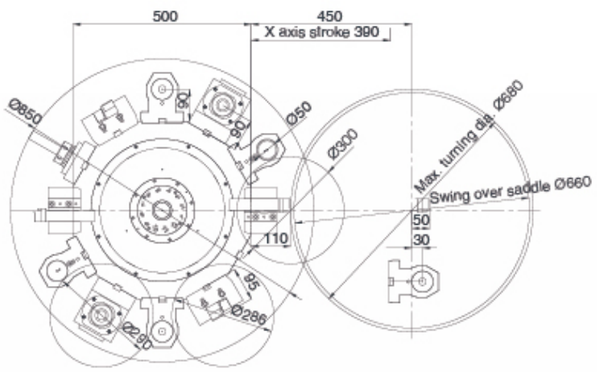
LS-1000



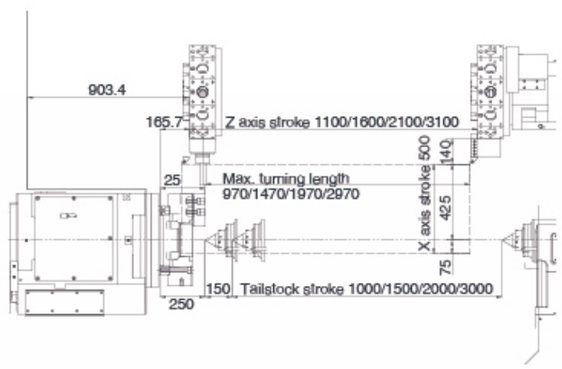


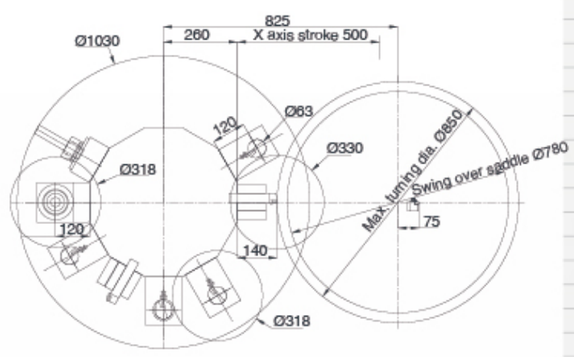
LS-800M



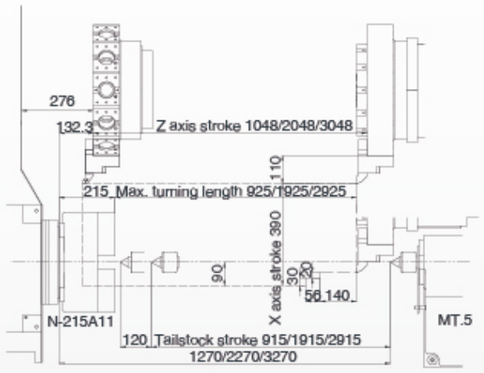


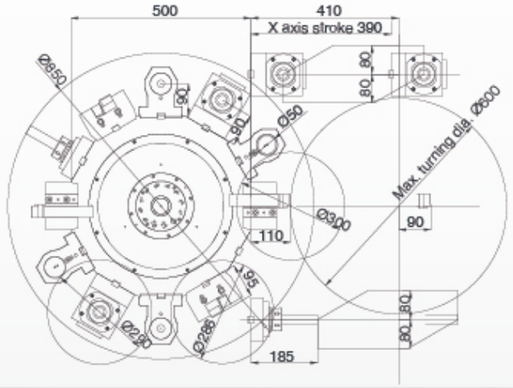
LS-1000M



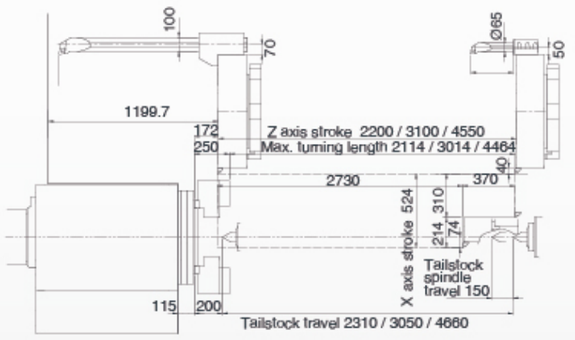


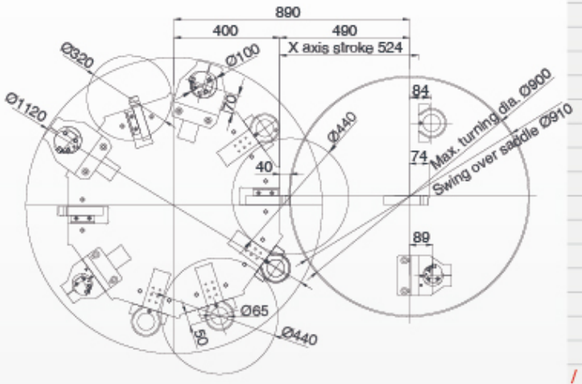
LS-800Y





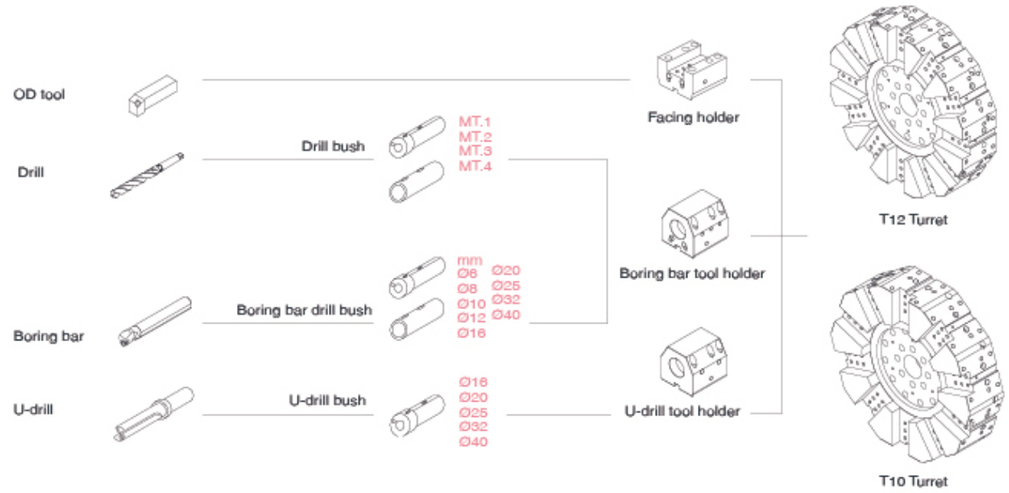
LS-1100



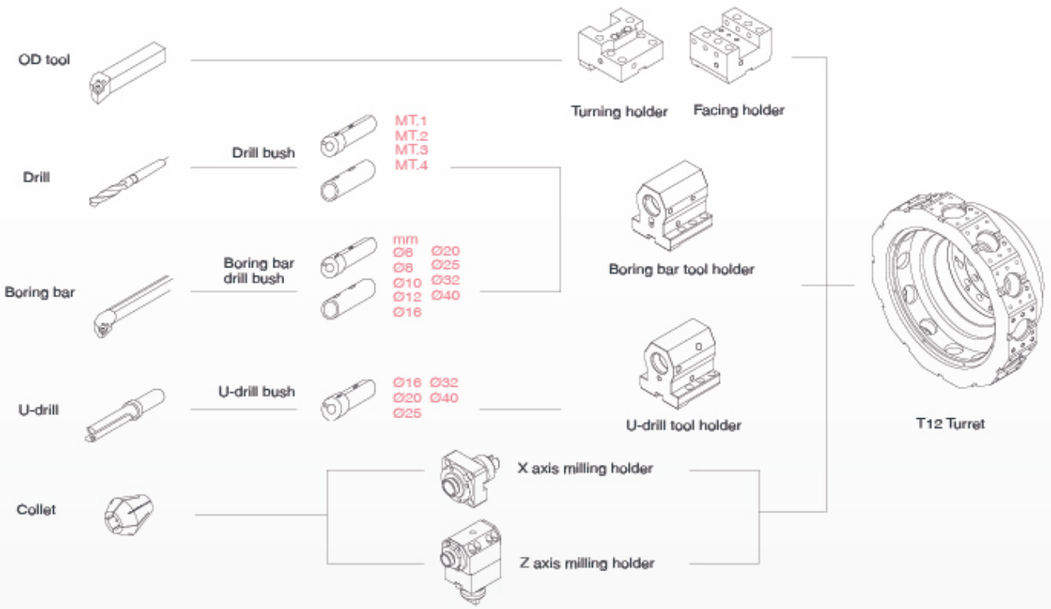


Tooling system

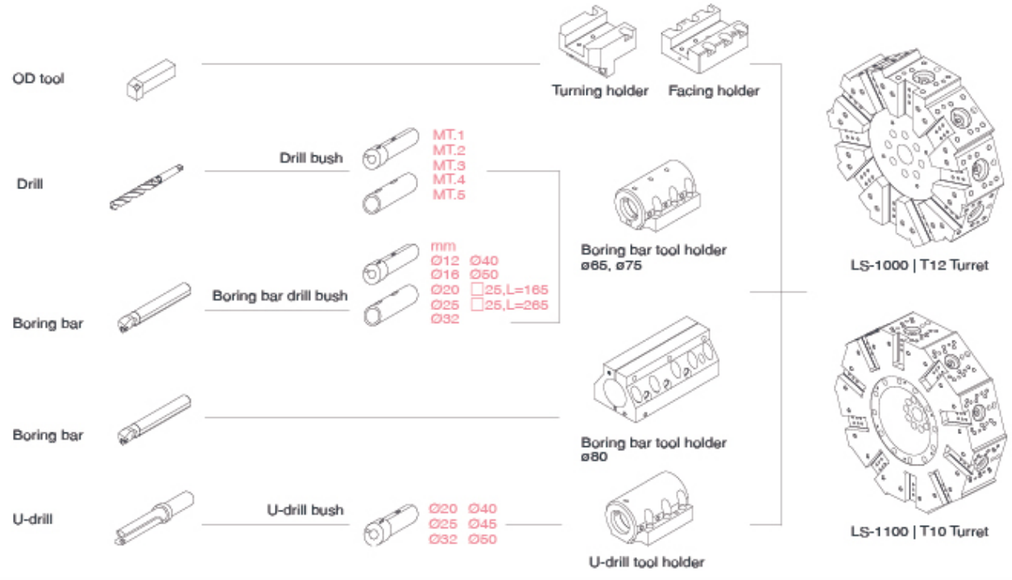
LS-800



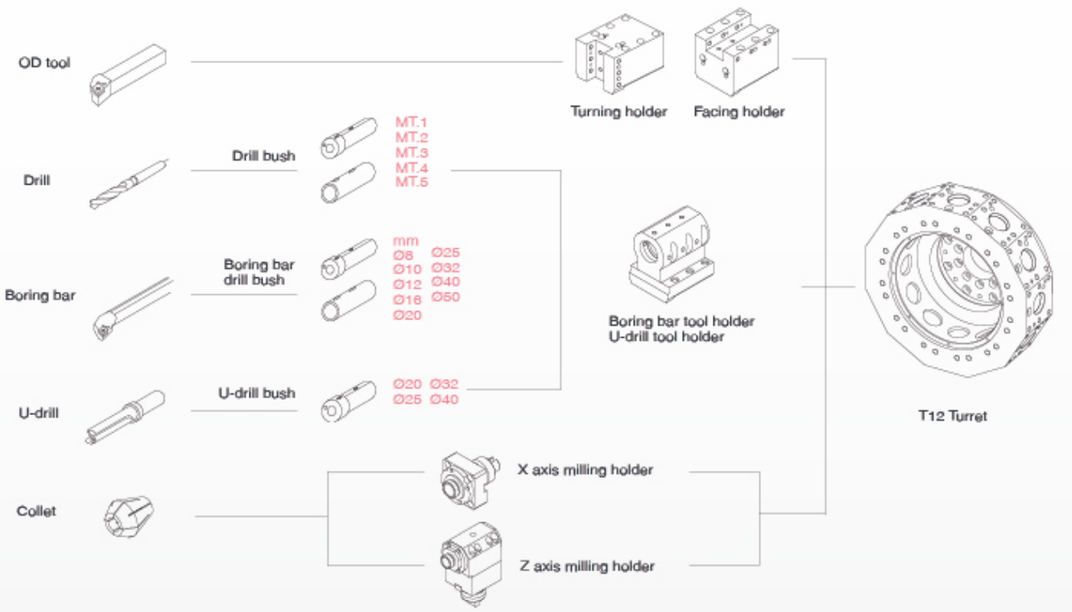
LS-800M/Y



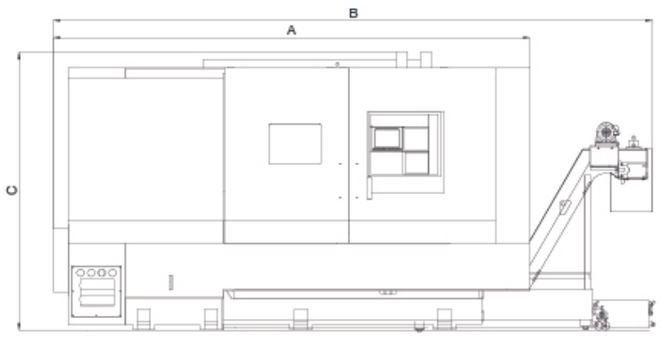
LS-1000/1100



LS-1000M



Machine dimensions



LS-800(M) Series

LS-800(M) L10
A : 4538 mm
B : 5822 mm
C : 2402 mm
D : 2146 mm

LS-800(M) L15
A : 4968 mm
B : 6237 mm
C : 2402 mm
D : 2146 mm

LS-800(M) L20
A : 5658 mm
B : 6927 mm
C : 2402 mm
D : 2146 mm

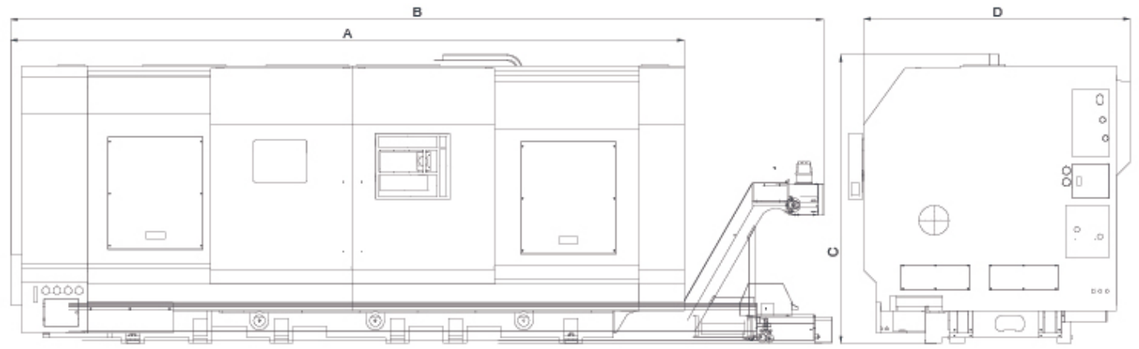
LS-800(M) L30
A : 6700 mm
B : 7969 mm
C : 2402 mm
D : 2146 mm

LS-800Y Series

LS-800Y L10
A : 4667 mm
B : 5816 mm
C : 2767 mm
D : 2397 mm

LS-800Y L20
A : 5632 mm
B : 6781 mm
C : 2767 mm
D : 2397 mm

LS-800Y L30
A : 6882 mm
B : 8031 mm
C : 2767 mm
D : 2397 mm



LS-1000(M) Series

LS-1000(M) L10
A : 4733 mm
B : 5923 mm
C : 2498 mm
D : 2429 mm

LS-1000(M) L15
A : 5202 mm
B : 6392 mm
C : 2498 mm
D : 2429 mm

LS-1000(M) L20
A : 5810 mm
B : 7010 mm
C : 2498 mm
D : 2429 mm

LS-1000(M) L30
A : 7060 mm
B : 8260 mm
C : 2505 mm
D : 2712 mm

LS-1100 Series

LS-1100 L20
A : 6596 mm
B : 7276 mm
C : 2736 mm
D : 2920 mm

LS-1100 L30
A : 7336 mm
B : 8016 mm
C : 2736 mm
D : 2920 mm

LS-1100 L40
A : 9410 mm
B : 10090 mm
C : 2736 mm
D : 2920 mm

Specifications

		LS-800 Series			LS-800M Series			LS-800Y Series	LS-1000 Series	LS-1000M Series	LS-1100 Series
Modle		A	B	C	MA	MB	MC				
Item	Unit	L10/L15/L20/L30	L10/L15/L20/L30	L10/L15/L20/L30	L10/L15/L20/L30	L10/L15/L20/L30	L10/L15/L20/L30	L10/L20/L30	L10/L15/L20/L30	L10/L15/L20/L30	L20/L30/L40
Capacity											
Max. swing	mm	830			830			830	1020	1020	1120
Swing over saddle	mm	660			660			620	780	780	910
Std. turning diameter	mm	266(330)			300			300	320	330	440
Max. turning diameter	mm	760			680			600	900	850	900
Max. turning length	mm	1100/1600/2100/3100	1095/1595/2095/3095	1050/1550/1950/2950	988/1488/1988/2988	985/1485/1985/2985	937/1437/1937/2937	925/1915/2915	1031/1531/2131/3031	970/1470/1970/2970	2114/3014/4464
Max. bar work capacity	mm	90	105	180	90	105	180	105	180	180	254
Travel											
X axis travel	mm	390			390			390	500	500	524
Z axis travel	mm	1150/1650/2150/3150			1150/1650/2150/3150			1048/2048/3048	1100/1600/2100/3100	1100/1600/2100/3100	2200/3100/4550
Y axis travel	mm	---			---			±80	---	---	---
Spindle											
Spindle speed	rpm	2000	2000(1500)	1200	2000	2000(1500)	1200	2000	1200(1000)	1200(1000)	900
Chuck size		15”	15”(18”)	20”	15”	15”(18”)	20”	15”	20”(24”)	20”(24”)	24”(28”,32”)
Spindle nose		A2-8	A2-11	A2-15	A2-8	A2-11	A2-15	A2-11	A2-15	A2-15	A2-20
Through hole diameter	mm	102	126	205	102	126	205	126	205	205	275
Bearing diameter	mm	140	170	260	140	170	260	170	260	260	360
Turret											
Number of tools		T10(T12)			T12			T12	T10	T12	T10
Turning tool shank	mm	32			32			32	32	32	32
Boring bar shank diameter	mm	50(60)			50			50	65(75)	63	65/(75)/(100)
Milling tool shank diameter	mm	---			26			26	---	34	---
Tailstock											
Tailstock travel	mm	1000/1500/2000/3000			1000/1500/2000/3000			915/1915/2915	1000/1500/2000/3000	1000/1500/2000/3000	2310/3050/4660
Tailstock spindle diameter	mm	125(150)			125(150)			125	180	180	200
Taper hole of tailstock spindle		MT.5(MT.6)			MT.5(MT.6)			MT.5(MT.6)	MT.6	MT.6	MT.6
Tailstock spindle travel	mm	120			120			120	150	150	150
Feedrate											
X axis rapid traverse rate	m/min	12			12			12	12	12	12
Z axis rapid traverse rate	m/min	20/16/16/12			20/16/16/12			20/16/12	16/16/16/12	16/16/16/12	12/10/6
Y axis rapid traverse rate	m/min	---			---			6	---	---	---
Motor											
Spindle drive motor	kW	22/26	22/26(30/37)	30/37	22/26	22/26(30/37)	30/37	22/26(30/37)	30/37(37/45)	30/37(37/45)	37/45(45/55)
Turret index motor	kW	1.2			1.2			1.2	1.2	1.2	---
Milling motor	kW	---			5.5/7.5(7.5/11)			5.5/7.5(7.5/11)	---	7.5/11	---
X axis drive motor	kW	4			4			7	4	4	6
Z axis drive motor	kW	4(7)/4(7)/7/7	4(7)/4(7)/7/7	7/7/7/7	4(7)/4(7)/7/7	4(7)/4(7)/7/7	7/7/7/7	7	6	6	6(11)
Y axis drive motor	kW	---			---			7	---	---	---
Size											
Height	mm	2402			2402			2767	2498/2498/2498/2505	2498/2498/2498/2505	2723
Width	mm	4538/4968/5658/6700			4538/4968/5658/6700			4667/5632/6882	4733/5202/5810/7060	4733/5202/5810/7060	6596/7336/9410
Depth	mm	2146			2146			2397	2429/2429/2429/2712	2429/2429/2429/2712	2920/2853/2920
Weight	kg	10200/11000/13300/14800	10500/11300/13600/15100	11500/12300/14600/16100	10300/11100/13500/15000	10600/11400/13700/15200	11600/12400/14700/16200	12800/15500/17000	12000/13500/16500/18000	12000/13500/16500/18000	24000/27000/30000

Remark1 : ( ) Option Remark2 : M = Milling Y = Y axis

※ Specifications are subject to change without notice.

Standard and optional accessories

☆ : Standard accessories --- : NO ◎ : Optional accessories

Item	LS-800	LS-800M	LS-800Y	LS-1000	LS-1000M	LS-1100
Accessories						
Hi-low Gearbox Spindle	☆	☆	☆	☆	☆	☆
Hydraulic servo turret	☆	☆	☆	☆	☆	☆
Hydraulic tailstock	☆	☆	☆	☆	☆	☆
Automatic PIN actuated tailstock	☆	☆	☆	☆	☆	☆
Boring bar tool holder (4 Pcs)	☆	☆	☆	☆	☆	☆
U-drill tool holder (1 Pcs)	☆	☆	☆	☆	☆	☆
Angle type tool holder (1 Pcs)	☆	☆	☆	☆	☆	☆
OD tool holder (1 Pcs)	---	☆	☆	---	☆	---
X axis live tool holder (1 Pcs)	---	☆	☆	---	☆	---
Z axis live tool holder (1 Pcs)	---	☆	☆	---	☆	---
Boring bar bush ø6	◎	◎	◎	---	---	---
Boring bar bush ø8	◎	◎	◎	---	☆	---
Boring bar bush ø10	◎	◎	◎	---	☆	---
Boring bar bush ø12	☆	☆	☆	◎	☆	◎
Boring bar bush ø16	◎	◎	◎	◎	☆	◎
Boring bar bush ø20	◎	◎	◎	☆	☆	☆
Boring bar bush ø25	◎	◎	◎	☆	☆	☆
Boring bar bush ø32	☆	☆	☆	☆	☆	☆
Boring bar bush ø40	☆	☆	☆	☆	☆	☆
Boring bar bush ø50	---	---	---	☆	☆	☆
U-drill bush ø16	☆	☆	☆	---	---	---
U-drill bush ø20	☆	☆	☆	☆	☆	☆
U-drill bush ø25	☆	☆	☆	☆	☆	☆
U-drill bush ø32	☆	☆	☆	☆	☆	☆
U-drill bush ø40	☆	☆	☆	☆	☆	☆
U-drill bush ø45	---	---	---	☆	---	☆
U-drill bush ø50	---	---	---	☆	---	☆
Drill bush MT.1	◎	◎	◎	☆	☆	☆
Drill bush MT.2	◎	◎	◎	☆	☆	☆
Drill bush MT.3	◎	◎	◎	☆	☆	☆
Drill bush MT.4	☆	☆	☆	☆	☆	☆
Drill bush MT.5	---	---	---	☆	☆	☆
Working lamp	☆	☆	---	☆	☆	☆
Tool box	☆	☆	☆	☆	☆	☆
Operation manual	☆	☆	☆	☆	☆	☆
Hydraulic chuck	☆	☆	☆	☆	☆	☆
Foot switch	☆	☆	☆	☆	☆	☆

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☆ : Standard accessories --- : NO ◎ : Optional accessories

Item	LS-800	LS-800M	LS-800Y	LS-1000	LS-1000M	LS-1100
Optional accessories						
Chip conveyor	◎	◎	◎	◎	◎	◎
Chip cart	◎	◎	◎	◎	◎	◎
Manual steady rest ø50-350	◎	◎	◎	◎	◎	◎
Hydraulic steady rest SLU3.2(ø50-ø200)	◎	◎	◎	◎	◎	◎
Hydraulic steady rest SLU-4(ø30-ø245)	◎	◎	◎	◎	◎	◎
Hydraulic steady rest SLU-5(ø45-ø310)	◎	◎	◎	---	---	◎
Hydraulic steady rest SLU-5.1(ø80-ø350)	◎	◎	◎	---	---	◎
Air blow	◎	◎	◎	◎	◎	◎
Auto power off	◎	◎	◎	◎	◎	◎
Parts counter	◎	◎	◎	◎	◎	◎
Automatic front door	◎	◎	◎	◎	◎	◎
Tool setter	◎	◎	◎	◎	◎	◎
3" Boring bar tool holder	---	---	---	◎	---	◎
4" Boring bar tool holder	---	---	---	---	---	◎
High pressure coolant pump system	◎	◎	◎	◎	◎	◎

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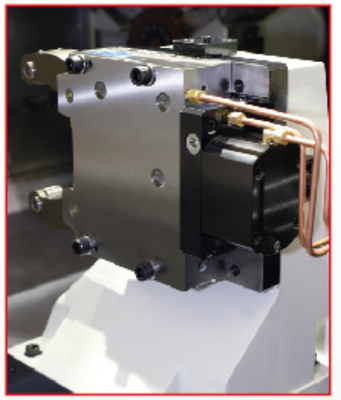
FANUC controller

Chip conveyor



Steady rest