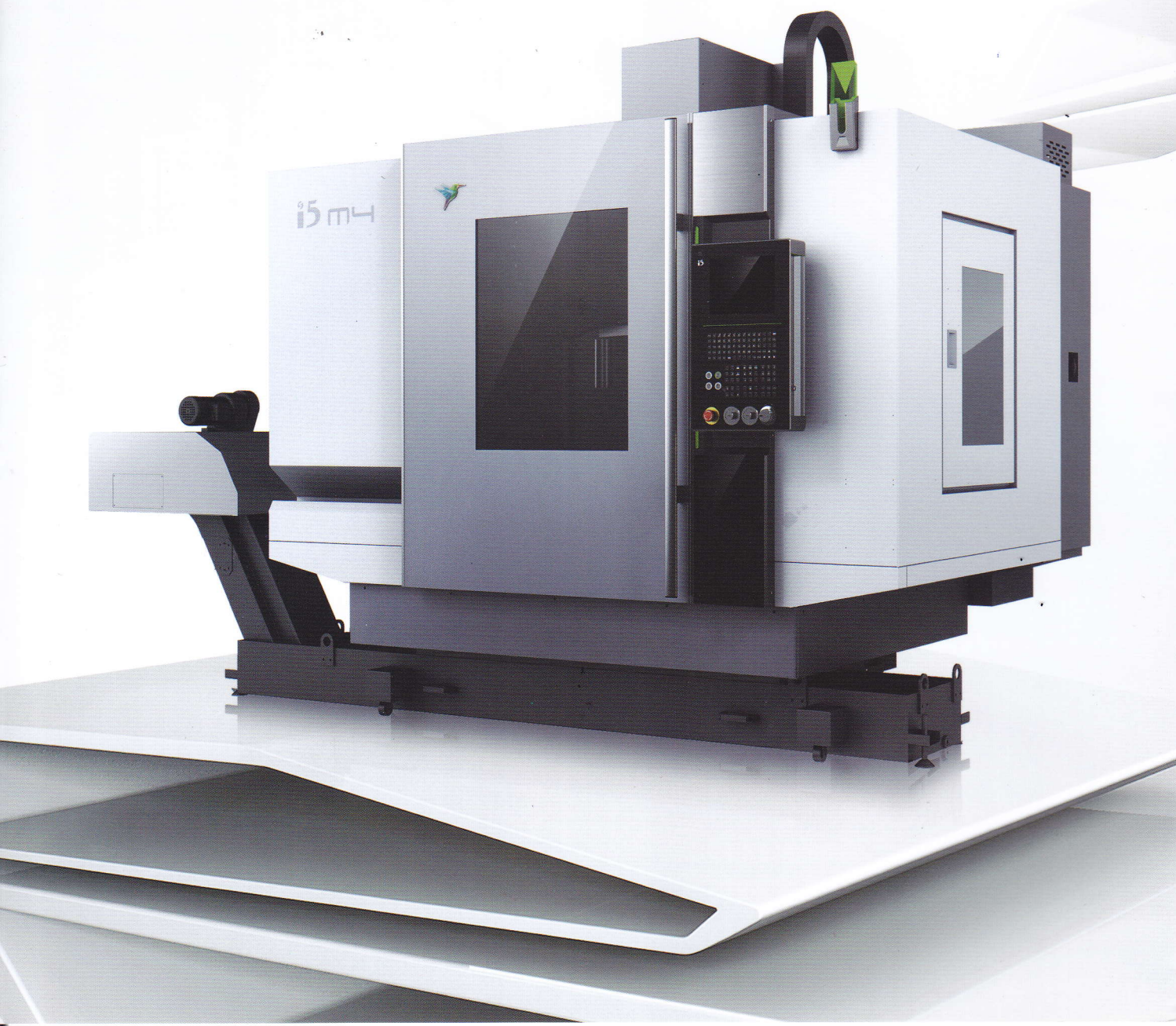
unis

By your side

i5 m4

INTELLIGENT VERTICAL MACHINING CENTER

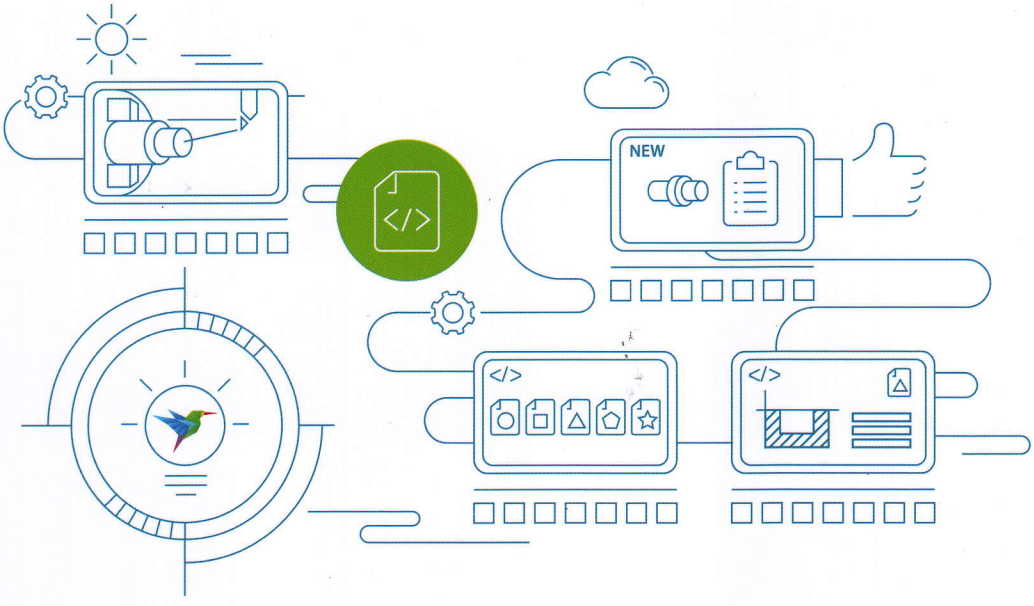


i5 intelligent system

Based on the advanced basal technique of motion control and Internet, the intelligent terminal i5 was developed. The integration of Industry, Information, Internet, Integrate and Intelligent makes intelligent operation, intelligent programming, intelligent maintenance and intelligent management possible.

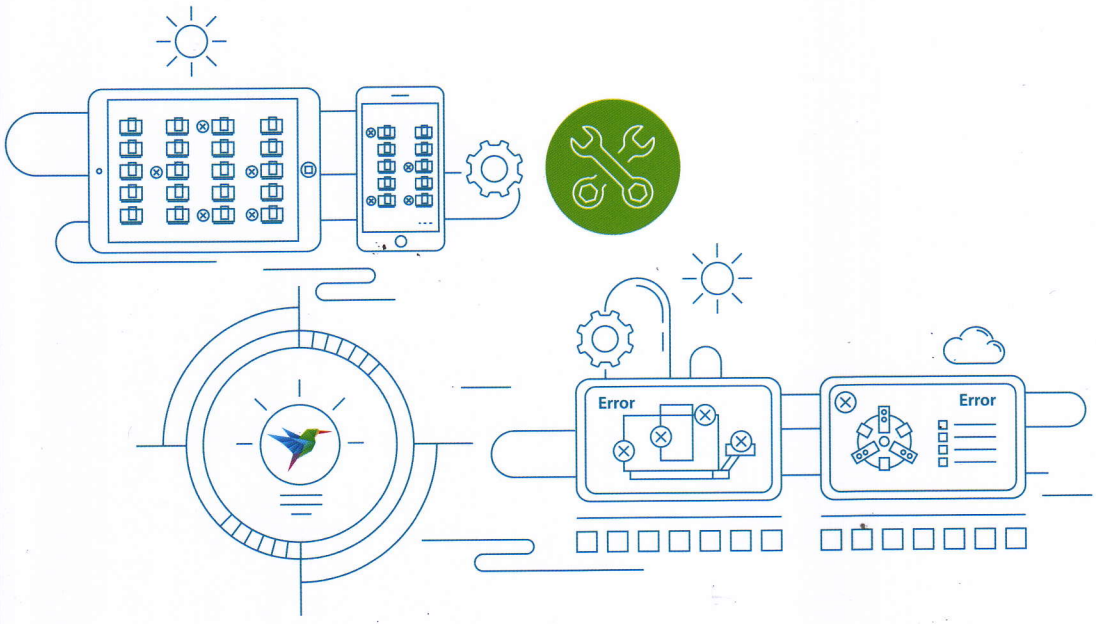
+ INTELLIGENT OPERATION

To simplify the operation, graphical guidance, automatic modes matching and full touch screen HMI(human-machine interaction) are applied to the control, and one touch entry is developed for operator ease. Shortcut customizing is integrated in the control. Fast shifting between different customized UI is available.



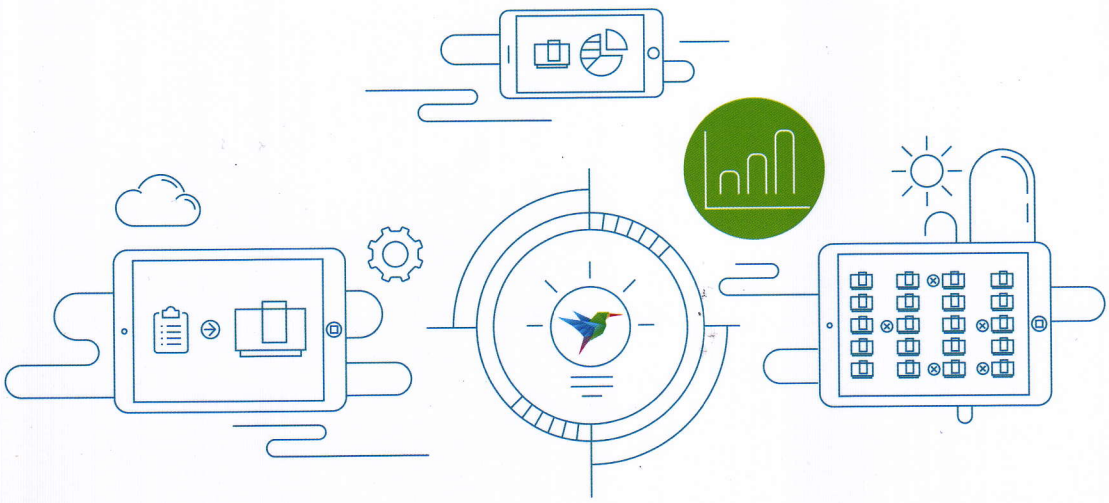
+ INTELLIGENT PROGRAMMING

Graphic guidance is used for guiding the operator through the programming; cycles can be programmed on graphic interface. 3D simulation helps with the preview of track; in the meantime, the control can make a suggestion on the cutting parameters.



+ INTELLIGENT MAINTENANCE

Graphic diagnosis and remote diagnosis help the users to locate the problem promptly and solve it. Non-working time can be reduced. Updating the control is easy and convenient; in that case the machine can keep up with the latest technology.



+ INTELLIGENT MANAGEMENT

The inquiry function developed based on Internet can be used to monitor the status of the machines, the order fulfilment and such by Internet Explorer, workshop information management and analysis is available.

i5 M4

Intelligent vertical machining center

With high cost performance ratio and ultra high stability, i5 M4 vertical machining center are widely used in general machining, automotive and motorcycle parts production.

Massive toque up to 95.5Nm guarantees a firm performance in rough machining. Intellectual compensation delivers the finest cutting performance.

King Kong

Steady as a mountain
Strong as King Kong

95.5 Nm

Max. output torque up to

3 μm

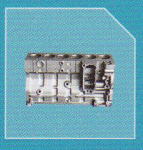
Swift and steady, accuracy up to

1,200 hour

MTBF up to

Cylinder head

MAT. Aluminum alloy
TIME 68min



Cylinder block

MAT. Cast iron
TIME 83min

Gearbox

MAT. Aluminum alloy
TIME 10min

New energy motor

MAT. Aluminum alloy
TIME 10min

Steering knuckle

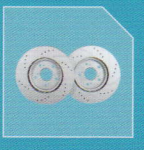
MAT. Cast iron
TIME 9min

Turbine housing

MAT. Cast iron
TIME 6min

Hub

MAT. Aluminum alloy
TIME 450min



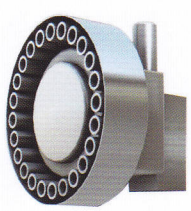
Brake disc

MAT. Cast iron
TIME 1.5min

All technical parameters shall be subjected to the signed agreement.

M4 intelligent vertical machini

Main performance specifications reached international advanced level. Ultra-high accuracy and stability can be delivered. Topmost optimized structure yields to high rigidity and a wide range of options are available. Personalized reconfigurable units can be provided.



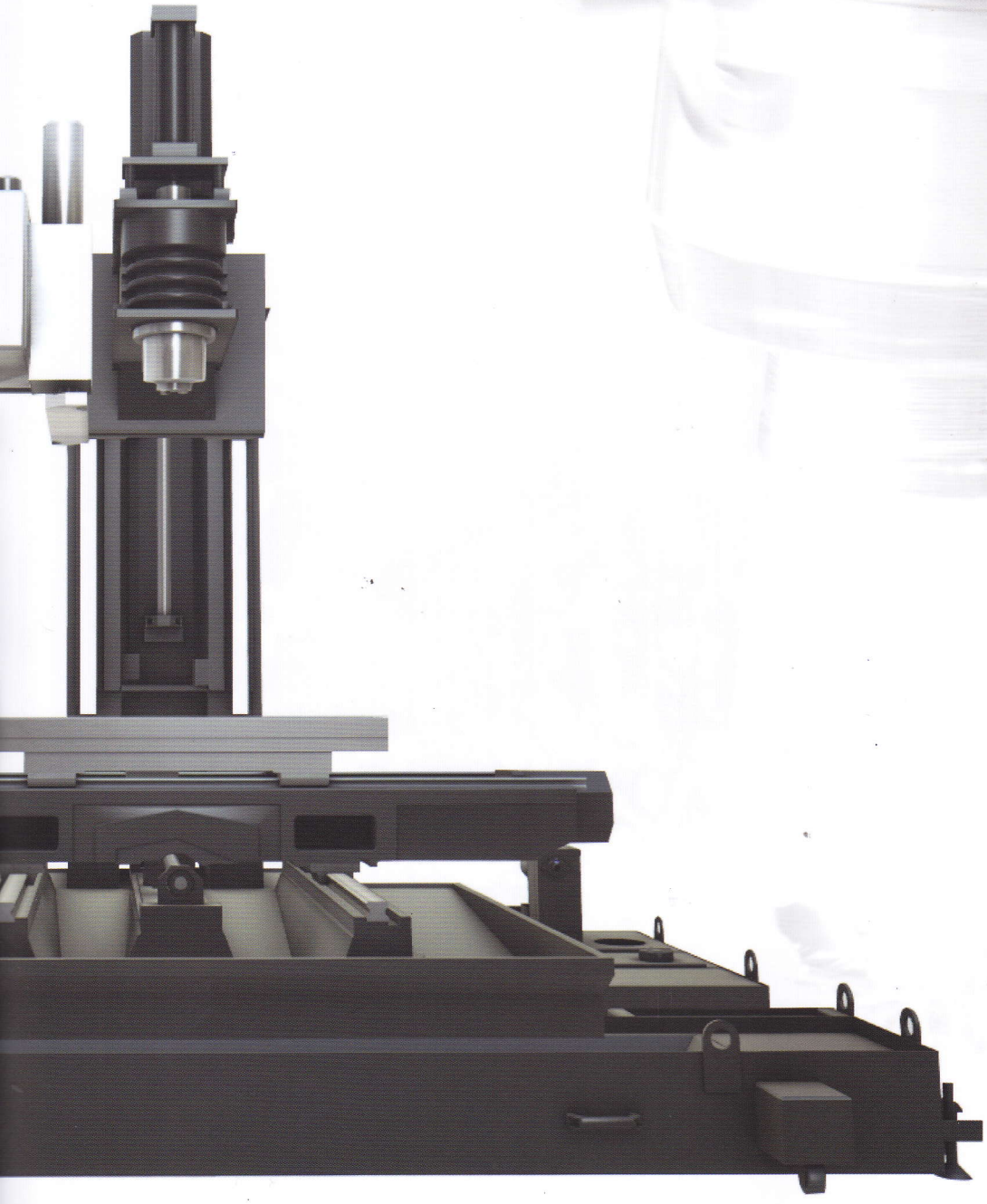
Disc type tool magazine

Fast and quiet, tool changing can be performed accurately, tool change time is 2.2s

Spindle units

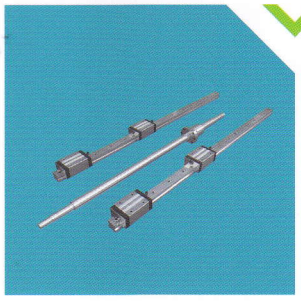
High accuracy, high rigidity, spindle speed 8000rpm

g center



Bed

High strength cast iron made components delivers high rigidity and stability. Closely bind of the base and chip conveyor prevents the coolant spill



Ball type linear guideways and ball screws

Little kinetic friction, minimal vibration at high speed, accurate positioning, rapids can be up to 32/32/30m/min

i5M4 Technical Specifications

Item	Name		Unit	i5M4.2	i5M4.5	i5M4.8
Worktable	Dimensions		mm	650x430	1000x500	1400x700
	Max load		kg	300	600	1000
	T-slot size		mmxnum.	14x3	18x5	18x5
Machining range	X axis travel		mm	580	850	1300
	Y axis travel		mm	420	560	700
	Z axis travel		mm	520	650	700
	Max distance from spindle nose to worktable		mm	620	800	850
	Min distance from spindle nose to worktable		mm	100	150	150
	Distance from spindle center to column slide ways		mm	537	665	789
Spindle	Taper 7:24		—	BT40	BT40	BT50
	Speed		r/min	10000	8000	6000
	Main motor torque		N.m	35.8	70	95.5
	Main motor power		kW	7.5/11	11/15	15/18.5
	Drive system		—	Synchronous belt transmission	Synchronous belt transmission	Synchronous belt transmission
Cutting tools	Tool shank type		—	MAS403 BT40	MAS403 BT40	MAS403 BT50
	Pull stud type		—	MAS403 BT40 - I	MAS403 BT40 - I	MAS403 BT50 - I
Feed	Rapid traverse	X	m/min	48	32	24
		Y	m/min	48	32	24
		Z	m/min	48	30	20
	X/Y/Z motor power		kW	1.8/2.9/4.4	2.9/2.9/4.4	2.9/2.9/2.9
	Feed speed		m/min	20	20	10
Tool magazine	Type		—	Disc type tool magazine	Disc type tool magazine	Disc type tool magazine
	Tool selection		—	Bi-directional tool selection	Bi-directional tool selection	Bi-directional tool selection
	Stations		number	20	24	20
	Max tool length		mm	300	300	300
	Max tool weight		kg	8	7	15
	Max tool diameter	Full	mm	Φ80	Φ80	Φ133
		Adjacent empty	mm	Φ125	Φ150	Φ250
	Changing time		s	1.8	2.2	3.5
Positioning accuracy	Standard		—	JISB6336-4:2000	JISB6336-4:2000	JISB6336-4:2000
	—		—	GB/T18400.4-2010	GB/T18400.4-2010	GB/T18400.4-2010
	X axis		mm	0.012	0.016	0.020
	Y axis		mm	0.012	0.012	0.012
	Z axis		mm	0.012	0.012	0.012
Repeatability	X axis		mm	0.008	0.010	0.012
	Y axis		mm	0.008	0.008	0.010
	Z axis		mm	0.008	0.008	0.008
Overall dimensions	—		mm	2020x2700x2473	4200x2450x2950	4800x3000x3361
Weight	—		kg	3500	6800	11500
General power capacity	—		kVA	18	25	37

All technical parameters shall be subjected to the signed agreement.