



4 LINEAR WAY VERTICAL MACHINE CENTER

LMV 510 710 850 1000

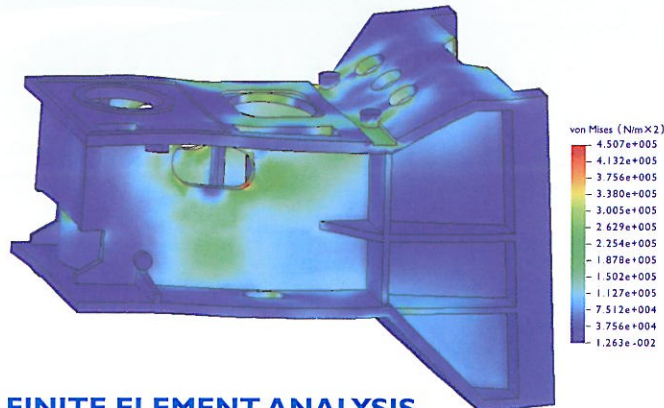


THE LEADER IN QUALITY AND RELIABILITY



UNIFORM AND RELIABLE SLIDWAY LUBRICATION

The machine is equipped with a oil distributor combined with uniform lubrication points to assure added uniformity of slidway lubrication. It results in extremely smooth axial movement.



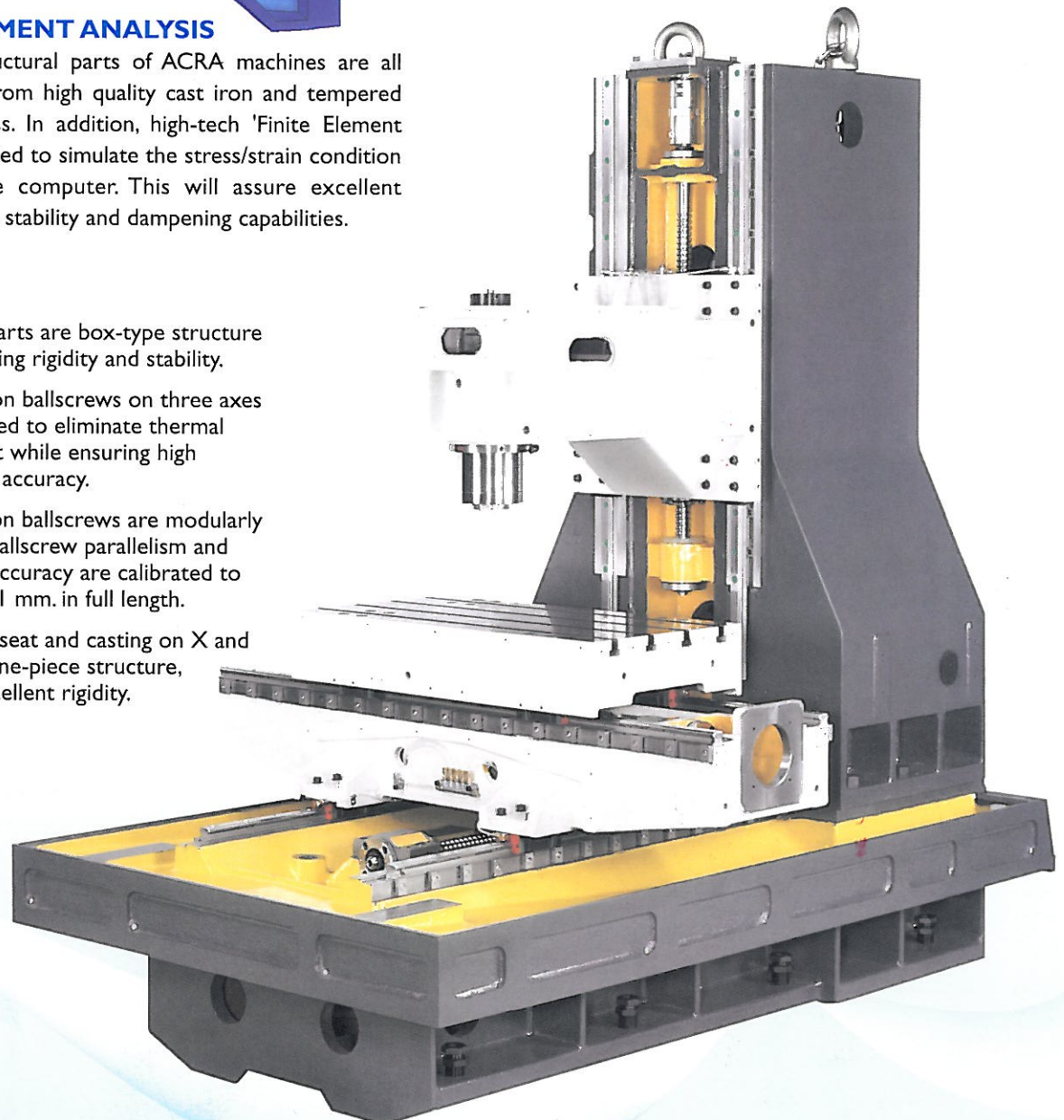
FINITE ELEMENT ANALYSIS

The major structural parts of ACRA machines are all manufactured from high quality cast iron and tempered to relieve stress. In addition, high-tech 'Finite Element Analysis' is applied to simulate the stress/strain condition throughout the computer. This will assure excellent machine rigidity, stability and dampening capabilities.

- Major cast parts are box-type structure for outstanding rigidity and stability.
- High precision ballscrews on three axes are pre-loaded to eliminate thermal displacement while ensuring high repeatability accuracy.
- High precision ballscrews are modularly assembled. Ballscrew parallelism and squareness accuracy are calibrated to within ± 0.01 mm. in full length.
- Axial motor seat and casting on X and Z axes are one-piece structure, featuring excellent rigidity.



SPINDLE OIL COOLER (Opt.)



HIGH SPEED BALLSCREW (FDC TYPE)

- 3 axes transmission adopts C3 class high precision double nut pre-loaded ballscrews. This can eliminate noise and temperature caused from long-term operation to ensure machining accuracy.
- Low noise (5~7 dB lower than traditional Ballscrews).
- Dm-N value up to 180,000.



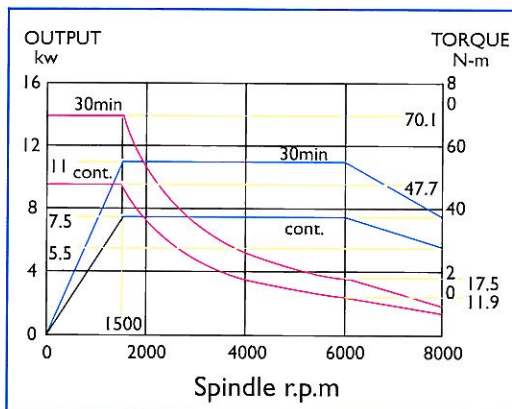
Ball screw

HIGH PRECISION, HIGH RIGIDITY SPINDLE

8,000 (STD.) / 10,000 (OPT.) / 12,000 (OPT.) / 12,000 DIRECT DRIVE (OPT.) / 15,000 DIRECT DRIVE (OPT.)



**BT#30 / BT#40, 8000 rpm
(Belt Drive)**



■ α 8i 8,000 r.p.m



**BT#30 / BT#40, 15000 rpm
(Direct Drive)**

SPECIFICATION

ITEM	UNIT	LMV 510	LMV 710	LMV 850	LMV 1000
TABLE					
Work Area	mm	600 × 420	760 × 420	1010 × 550	1200 × 550
T-slot	mm × T	100 × 18 × 3T	180 × 18 × 3T	125 × 18 × 4T	125 × 18 × 4T
Max. Loading	kgs	400	500	800	1000
TRAVEL					
Three Axes Travel	mm	510 × 420 × 420	710 × 460 × 460	850 × 600 × 620	1000 × 600 × 620
Spindle Nose to Worktable Surface	mm	125~545	125~585	130~750	130~750
Spindle Center to Column Slide Ways	mm	450	490	620	620
SPINDLE					
Spindle Taper		BT30	BT40	BT40	BT40
Spindle Diameter	mm	Ø50	Ø60	Ø70	Ø70
Spindle Speed	rpm	10000	8000	8000	8000
FEEDRATE					
3 axes Slide Ways		Linear Ways	Linear Ways	Linear Guide Ways	Linear Guide Ways
3 axes Cutting Feedrate	m/min	2010 / 10 / 10	2010 / 10 / 10	10	10
3 axes Rapid Feedrate	m/min	36 / 36 / 30 (48 / 48 / 48)	30 / 30 / 30	30	30
ATC					
Tool Selection		Bi-direction shortest path			
Max. Tool Diameter × Length	mm	Ø76 × 250	Ø76 × 250	Ø100 × 300	Ø100 × 300
Max. Tool Weight	kgs	4	7	7	7
Tool Shank		BT30	BT40	BT / CAT40	BT / CAT40
ATC Capacity (Armless type)		20	20	20	20
MOTOR					
Spindle Motor (Cont./30 min)	kw	3.5 / 5.5	5.5 / 7.5	7.5 / 11	7.5 / 11
X / Y / Z - axis Servomotor		X,Y : HF153 Z : HF203B		HF203	
X / Y / Z - axis Ball Screw		Ø32 × Pitch 12 (Ø32 × Pitch 16)	Ø32 × Pitch 10	Ø40 × Pitch 10	Ø40 × Pitch 10
Coolant Pump	w	660	660	660	660
MISCELLANEOUS					
External Dimensions (L × W × H)	mm	1750 × 2300 × 1980	2810 × 2050 × 2144	2750 × 2180 × 2700	2810 × 2180 × 2700
Splash Guard		Fully Splash Guard			
Coolant Tank Capacity	L	150	200	240	250
Net Weight	kgs	3400	4000	6000	6200

STANDARD ACCESSORIES

- ◆ Operation Manual
- ◆ Controller Mitsubishi 64ASM
- ◆ Spindle air blast (M code)
- ◆ Spindle air blow system
- ◆ Spindle orientation
- ◆ Spindle speed 8000 rpm
- ◆ Cycle finish indicator and alarm
- ◆ Auto Tool Changer (Armless type)
- ◆ Auto lubrication system
- ◆ Auto power off
- ◆ Heat exchanger for electric box
- ◆ RS 232 interface
- ◆ Rigid Tapping
- ◆ Tool box with tools
- ◆ Quartz working light
- ◆ Leveling kits and blocks
- ◆ Fully enclosed cover
- ◆ Coolant system
- ◆ Remote MPG (Hand wheel)

OPTIONAL ACCESSORIES

- ◆ Spindle : Belt Drive : 10000 / 12000 rpm
Direct Drive : 15000 rpm
- ◆ Controller : 64SM / 65SM / 700 Series,
Fanuc / Siemens / Heidenha
- ◆ 20-tool Arm type ATC (BT30)
- ◆ 24-tool Arm type ATC (BT40)
- ◆ Auto tool length measuring device
- ◆ Auto workpiece measuring device
- ◆ Coolant gun with water
- ◆ Screw type chip conveyor with basket
- ◆ Chain type chip conveyor with basket
- ◆ Oil skimmer
- ◆ Chip flushing system
- ◆ Spindle oil cooler system



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