

CNC GEAR HOBGING MACHINE

HERA-60/90

HERA-90 HORIZONTAL CNC GEAR HOBBIING MACHINE



Implementation of Smart Factory with Industrie 4.0 applied IoT technology to HERA series !

- Wet or Dry Gear cutting
- All kinds of Gear software
 - Spur Gear
 - Helical Gear
 - Multi-start Worm with Special head stock (option)
 - Single(double) start worm with single cutter (option)
 - Tapered Gear
 - Crowning Gear
 - Worm Wheel with Tangential software
 - Skiving Hobbing
 - Knurling and Marking
 - Long shaft Gear (max : 465mm)
 - Grinding with CBN (option)
 - Bevel Gear (option)
- Flexible Automation system
 - GANTRY Auto Loader
 - Flexible Combined Conveyor system with both pinion and shaft gear
 - Sub-Loader
- YG Engineer's recommended various kinds of Jig&Fixture for your productivity.

BED

- **MACHINE BODY WITH SLANT** is rigid and suitable for chip removal
- Installed pre-Loaded precision **ROLLER LINEAR BEARINGS** on slideways and **ZERO BACKLASH BALL SCREWS**.
- **Dry Cutting** is available with perfect Inner cover
- Digital scale at X-Axis

C-AXIS / CENTER(U-AXIS)

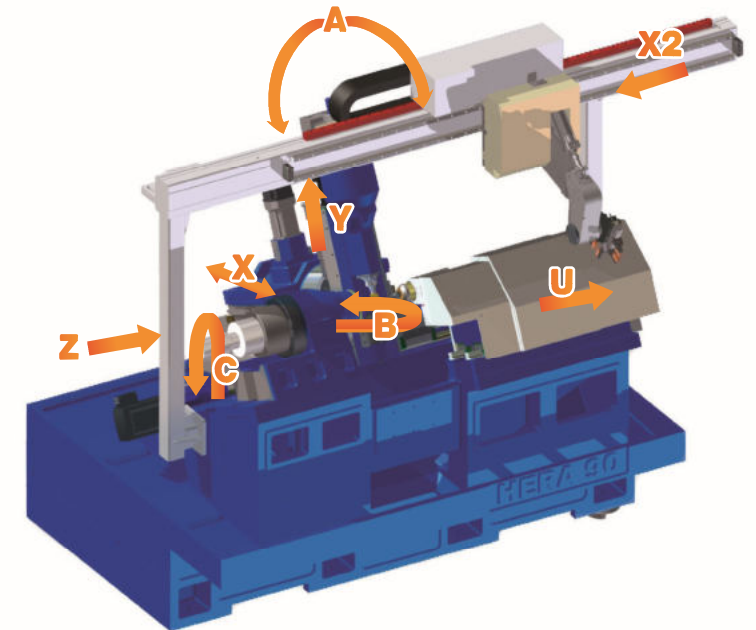
- High Torque Built-In Motor with Accurate Rotary Encoder at C-Axis
- Adjustable location position of center block along with shaft length. Max. workpiece length : 465 mm
- Quill Type center spindle with Hyd. Cylinder (option)

Coordinate Axis

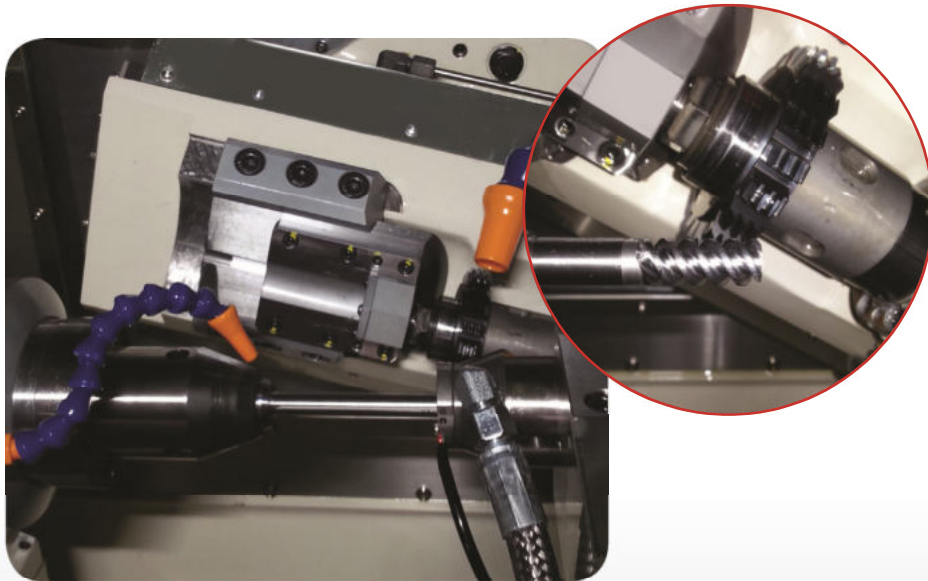
- X - Radial Movement
- Y - Hob Shift
- Z - Axial Movement
- U - Center Movement
- C - Table Rotation
- B - Hob Rotation
- A - Hob Head Swivel

Gantry Loader

X2 - In & Out Movement



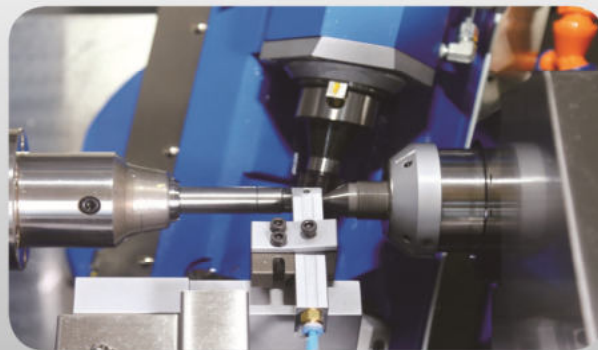
WORM CUTTING & SKIVING



Worm Shaft without center



Deburring Unit



Skiving Device



Skived Worm



3 Start Worm with Hob



Tapered Hob arbor

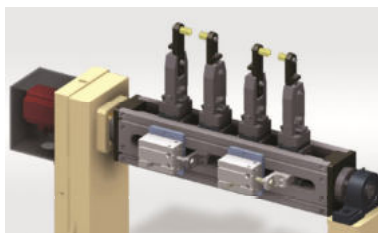
Automation

Y.G engineering ability for/about Automation will provide our Customers satisfaction with flexible **Auto-Loading system** and Combined **Conveyor system** decreased cycle time and improved gear quality



- Combined flexible conveyor system (Shaft and Pinion)

- Easily adjusted Gripper in Sub-Loader for both shaft and Pinion Gear



Multi Sub-Loader

- Flexible and accurate Gantry Auto Loader with 2 Axis controlled and accuracy & Pinion rack gear
- Sub-Loader which is located in conveyor unit saves 50% Loading Time

HERA-90 7-AXIS

Standard Accessories

- Hob Arbor ($\varnothing 13, \varnothing 16$)
- Collars (3 pcs) 10/20/30mm
- Joint/each size
- Stud Bolt : 2 pcs
- Coolant Unit with Washing pump
- Hyd. Unit with Fan cooler
- Air Conditioner in Electric Cabinet
- Work Light (LED)
- Inner Stainless Cover (For Dry Cutting)
- Washing Line
- 3-Layer Lamp
- Electric Hand wheel (M.P.G.)
- Workpiece Hyd. Power Clamp Device
- Tool quick clamp device
- Various kinds of Software
 - Initial position of workpiece
 - X-Axis retract at power failure
 - Skip on broken Hob tooth
 - Various kinds of Taper Hobbing
 - Various kinds of Crowning Hobbing
 - Centrifugation
- Leveling Bolt (M30 x 100mm) X (6pcs)
- Standard Tool Box
- Operating / Controller Book : 2 Copies
- Operating / Controller CD : 1 Copy

Optional Accessories

- Hob arbor
- Oil Mist Collector
- Tool Presetter
- Deburring unit
- Steady Rest
- Skiving device
- Magnetic chip conveyor
- Auto-Door
- Worm Milling Head
- Jig & Fixture
- Auto-Loading/UnLoading System
- Conveyor Type Stacker (Pinion and Shaft)
- 2 years Service Contract (SIEMENS or FANUC)



Skived motor shaft



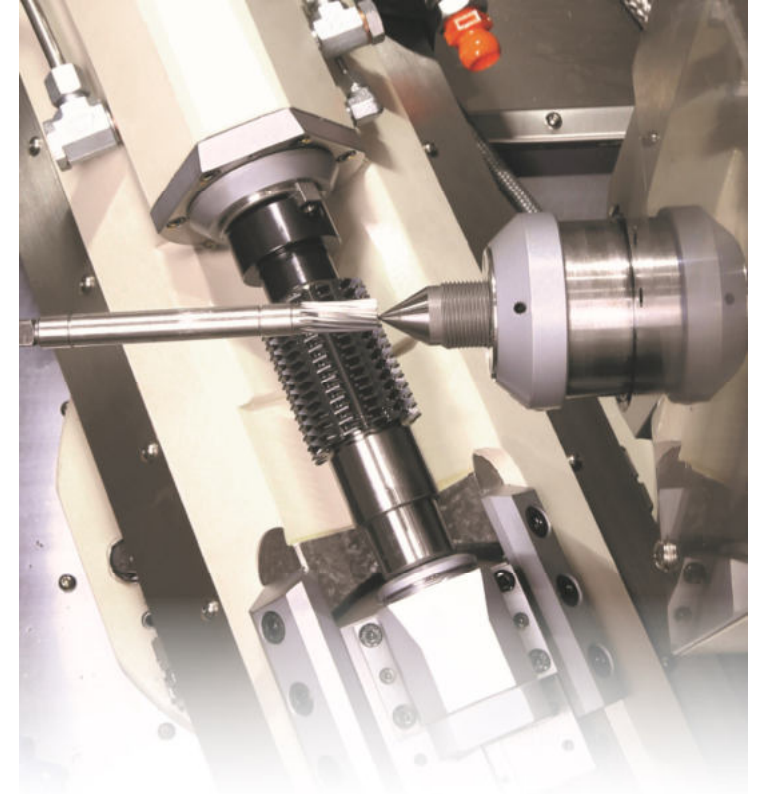
Etc Gear



Hardened Gear

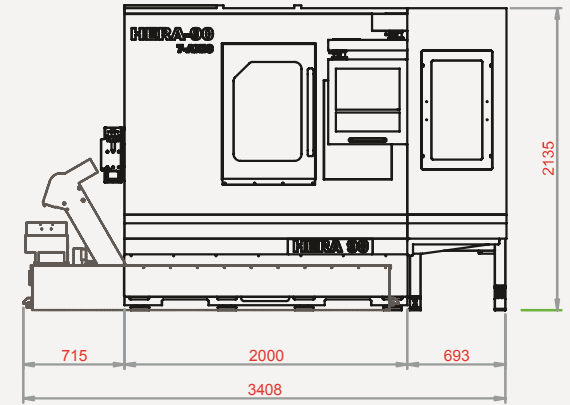
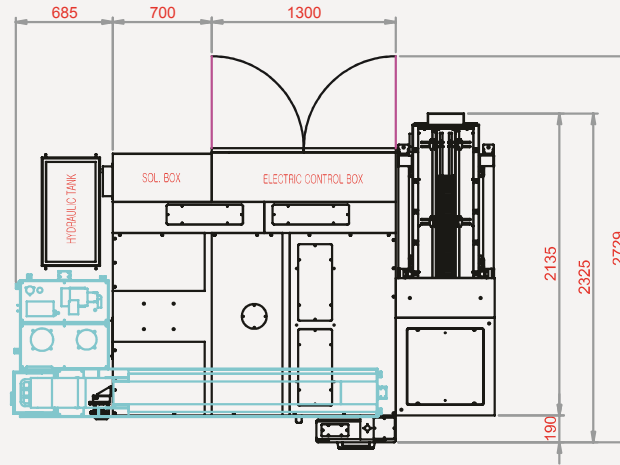
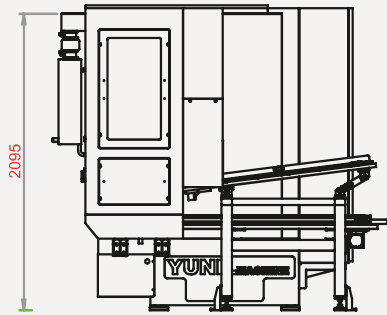
Technical Data

	HERA 60	HERA 90
Max. workpiece dia	60/80mm	90/100mm
Max. pitch	module 2.0	module 3.0
Radial travel (X-axis)	80(10~90)	80(10~90)
Max. helix angel (A-axis)	+45° / -115°	+55° / -80°
Hob spindle rpm (B-axis)	6,000rpm	6,000rpm
Table max. rpm (C-axis)	1,500rpm	1,500rpm
Working range		
Vertical work range (Z-axis)	180	200
Center stroke range	250	250
Table diameter	ø90	ø90
Hob		
Taper of spindle nose	NT #30	NT #30
Max. hob size (Dia x L)	ø65 (Cutter ø100)	ø65 (Cutter ø100)
Max. hob shift travel (Y- axis)	100	100
Rapid / feed speed		
Axial rapid (Z-axis)	6,000mm/min	6,000mm/min
Radial rapid (X-axis)	7,500mm/min	7,500mm/min
Hob shift travel (Y-axis)	3,000mm/min	3,000mm/min
Hob head swiveling	720deg/min	720deg/min
Motor		
Total power	20KVA	25KVA
Main spindle motor	3.7Kw (7Nm)	3.7Kw (22.1Nm)
Control system	FANUC OiMF/SIEMENS 828D	FANUC OiMF/SIEMENS 828D
Floor space (L x W x H)	2,480 x 2,550 x 2,050	2,720 x 2,730 x 2,160
Weight (Approx.)	4.2ton	4.9ton



Jig & Fixture

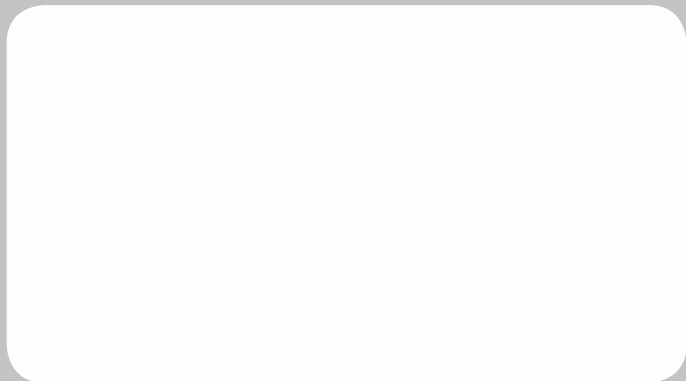
Lay-out Drawing



Work Range

RANGE	HERA 90
X-AXIS STROKE	80(10~90)
Y-AXIS STROKE	100
Z-AXIS STROKE	200
CENTER STROKE	250

Official Distributor



 **YG TECH Co., LTD.**
www.gearhob.co.kr

TEL. +82-53-583-4031~4

FAX. +82-53-583-4035

e-mail : yunil@gearhob.co.kr

161-15, Seonno-ro, Seonnam-myeon, Seongju-gun, Gyeongsangbuk-do, Republic of Korea

경상북도 성주군 선남면 선노로 161-15