

Integrates gear machining processes
into one machine

TOYODA

GEAR SKIVING CENTER

Gear skiving centers

GS300H

- Improved productivity through high-speed machining
- Provides compact and lightweight product
- Simple programming function



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■Main features of gear skiving centers GS300H4 and GS300H5

Basic specifications of GS300H

| Item | | | GS300H4 | GS300H5 |
|-------------------------|--|-------------------|---|---------------|
| Feed unit | Travel amount (X, Y, Z) | mm | 730, 650, 850 | |
| | B-axis swivel table indexing angle | ° | 0.001° : NC | |
| | Rapid feed rate | m/min | 60 | |
| | Rapid acceleration | m/s ² | 9.8 | |
| Spindle | Spindle nose shape | — | BBT No.40 | BBT No.50 |
| | Spindle speed | min ⁻¹ | 12,000 | 6,000 |
| | Spindle motor, short-time / continuous | kW | 22.5 / 18.5 | 30 / 25 |
| Workpiece axis (C-axis) | Rotating speed | min ⁻¹ | 3,000 | |
| | Rated output | kW | 33.5 / 28.3 | |
| | Max. workpiece dia. | mm | φ220 | |
| | Max. workpiece height | mm | 150 | |
| | Workpiece clamp | | Manual type [OP: hydraulic type, Max. No. of ports: 8] | |
| ATC | Tool holding capacity | tools | 40 | |
| | Tool change time (Chip to Chip) | sec | 2.5 | 3.6 |
| | Max. tool dia. × Max. tool height | mm | φ140 × 560 | φ285 × 560 |
| | Tool mass | kg | 8 | 27 |
| Control | CNC | — | TOYOPUC-GC70 | |
| Floor space | Width × depth | mm | 2,200 × 4,375 | 2,845 × 5,710 |

Workpiece to be machined

| | Outer gear | Internal gear |
|--------------------------------|--|---------------|
| Type of gears | Spur gear, internal gear, helical gear, spline | |
| Workpiece size | φ30 ~ φ220mm | φ50 ~ φ200mm |
| | Total length 100 mm or less | |
| Max. module | 3.5 | |
| Workpiece material | Iron type material (before hardening) | |
| Machining accuracy (reference) | JIS N7 class or equivalent | |

Please contact our sales staff for more information.

■Original technology supported by JTEKT's achievements in mass production

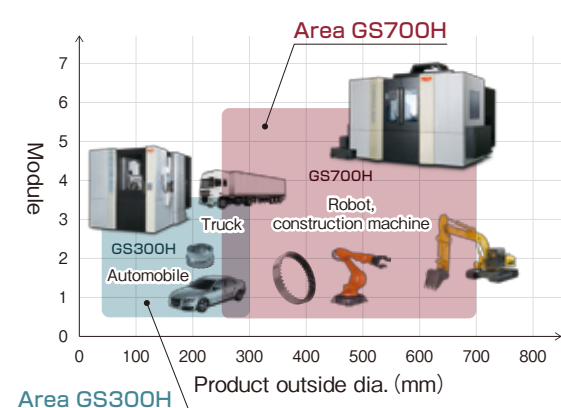
Simple programming, visualized engineering and machining technology

| | |
|--|---|
| Elemental engineering High-speed/high-rigidity workpiece axis <ul style="list-style-type: none"> ·3,000 min⁻¹ specification ·Size reduction due to built-in motor ·Supports automatic hydraulic fixtures | Controls engineering High-speed/highly accurate gear-cutting control TOYOPUC-GC70 <ul style="list-style-type: none"> ·High-accuracy skiving control using high-speed synchronization ·Simple programming function |
| Machining technology Optimum machining conditions <ul style="list-style-type: none"> ·The optimum machining conditions are selected to suit customer products | Tool engineering Low-resistance tool design <ul style="list-style-type: none"> ·Tool design based on original JTEKT gear creation theory |

CNC unit TOYOPUC-GC70 ●: Standard / □: Optional

| Division | Name | Accessories |
|--------------------------|---|-------------|
| Axis control | Min. input increment (0.001mm) | ● |
| | Absolute position detection | ● |
| | Inch/metric switch | □ |
| Operation | Single block | ● |
| | Manual handle feed 1 unit | ● |
| | Machine lock | □ |
| | Dry run | □ |
| | Manual handle interrupt | □ |
| Interpolation function | Positioning (G00) | ● |
| | Tapping mode (G63) | ● |
| | Cutting mode (G64) | ● |
| | Exact stop (G09) | ● |
| | Linear interpolation (G01) | ● |
| | Arc interpolation (G02,G03) | ● |
| | Dwell (G04) | ● |
| | Reference point return (G28) | ● |
| | Second reference point return (G30) | ● |
| | Third and fourth reference point return (G30) | ● |
| | Machine coordinate system (G53) | ● |
| | Workpiece coordinate system (G54 ~ G59) | ● |
| | Custom macro | ● |
| Program entry | Fixed drilling cycle (G74,G84,G98) | ● |
| | Optional stop | ● |
| | Optional block skip (9 pieces) | □ |
| | | |
| Spindle function | Rigid tap | ● |
| Tool function | Tool corrections (40) | ● |
| Tool correction function | Tool diameter compensation | ● |
| | Tool length compensation (G43,G44,G49) | ● |
| Editing operation | Program storage capacity (1,024Kbyte) | ● |
| | Number of registered programs (1,000) | ● |
| | Background editing | ● |
| Data entry/display | Touch panel control | ● |
| Communication function | Ethernet function | ● |
| Others | 4" color LCD | ● |
| | 12" color LCD | □ |

■GS700H, GS300H applicable range



<http://www.jtekt.co.jp>

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Type of Machinery: Machining Center
Model Number: GS300H