Makino + System 3R tooling

Ledger for Reference elements and 3Rulers

Older machines
This ledger is only to guide suitable length of reference elements and 3Ruler for specific machine model. Contents for 3Rulers and/or reference elements, see also TPS-sheets covering the range of 3R-200.yyJ-x, 3R-239-xxx and accessories.

### Makino

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**MIC – Machine Interface Configuration**

**Makino – DUO43**

**Horizontal configuration**
This configuration displays one 3Ruler, but two cross bars may be used.

Working area:
- X: 450 mm
- Y: 300 mm

**Vertical configuration**
This configuration displays one 3Ruler, but two cross bars may be used.

Working area:
- X: 427 mm
- Y: 300 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
System 3R

MIC – Machine Interface Configuration

Makino – DUO64

3R-239-695.86
3Ruler

3R-200.5J-2 (2x)
Reference rail
NOTE: Both rails are mounted 180°

Machine table without tooling
Working area:
X: 650 mm
Y: 400 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.

Working area:
X: 650 mm
Y: 399 mm

3R-239-445
3Ruler

3R-200.3J-1 (4x)
Reference rail may alone or together with 3R-200.5J-2 support products other than 3Ruler

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.

Working area:
X: 612 mm
Y: 400 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

July 11, 2019
Subject to modifications
MIC-2917

Makino – EU43, SP43 (Japan)
Configuration of table is valid year 2005 and later.

Machine table without tooling
Working area:
X: 450 mm
Y: 300 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 450 mm
Y: 300 mm

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 377 mm
Y: 300 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

July 11, 2019
Subject to modifications
MIC-2919

Makino – EU64

Machine table without tooling
Working area:
X: 600 mm
Y: 400 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 600 mm
Y: 400 mm

Vertical configuration
This U-shaped machine-table, does not support 3Ruler.
Working area:
X: 600 mm
Y: 400 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

Makino – SP43 (USA)
Configuration of table is valid year 2005 and later.

Machine table without tooling
Working area:
X: 450 mm
Y: 300 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 450 mm
Y: 300 mm

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 402 mm
Y: 300 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.

3R-200.4J-1 (2x) Reference rail
3R-200.44J-1 (2x)
NOTE: Both rails are mounted 180°. Reference rail may alone or together with 3R-200.4J-1 support products other than 3Ruler.
3R-239-515 3Ruler
3R-239-365 3Ruler
3R-239-365 3Ruler
**MIC – Machine Interface Configuration**

July 11, 2019
Subject to modifications
MIC-2918

**Makino – SP64**

Configuration of table is valid year 2005 and later.

Machine table without tooling
Working area:
- X: 650 mm
- Y: 400 mm

**Horizontal configuration**
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
- X: 650 mm
- Y: 400 mm

**Vertical configuration**
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
- X: 562 mm
- Y: 400 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

July 10, 2019
Subject to modifications
MIC-2909

Makino – U32, U32i, WB32B (Square)

Machine table without tooling
Working area:
X: 370 mm
Y: 270 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 370 mm
Y: 270 mm

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 312 mm
Y: 270 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.

3R-239-415
3Ruler

3R-200.44J-1 (2x)
Reference rail
NOTE: Both rails are mounted 180°

3R-239-315
3Ruler

3R-200.3J-1 (2x)
Reference rail
Makino – U32, U32i, WB32B (U-shape)

Makino – U32, U32i, WB32B (U-shape)

Machine table without tooling
Working area:
X: 370 mm
Y: 270 mm

**Horizontal configuration**
This configuration displays one 3Ruler, but two cross bars may be used.

Working area:
X: 370 mm
Y: 270 mm

**Vertical configuration**
This U-shaped machine-table, does not support 3Ruler.

Working area:
X: 370 mm
Y: 270 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

Makino – U53, U53i (Square)

Machine table without tooling
Working area:
X: 520 mm
Y: 370 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 520 mm
Y: 370 mm

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
X: 497 mm
Y: 370 mm

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Reference rail may alone or together with 3R-200.6J-1 support products other than 3Ruler
MIC – Machine Interface Configuration

July 10, 2019
Subject to modifications
MIC-2912

Makino – U53, U53i (U-shape)

Machine table without tooling
Working area:
  X: 520 mm
  Y: 370 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.

Working area:
  X: 520 mm
  Y: 370 mm

Vertical configuration
This U-shaped machine-table, does not support 3Ruler.

Working area:
  X: 520 mm
  Y: 370 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

July 10, 2019
Subject to modifications
MIC-2913

Makino – WB53B (Square)

Machine table without tooling
Working area:
  X: 550 mm
  Y: 370 mm

Horizontal configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
  X: 550 mm
  Y: 370 mm

Vertical configuration
This configuration display one 3Ruler, but two cross bars may be used.
Working area:
  X: 487 mm
  Y: 370 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.
MIC – Machine Interface Configuration

Makino – WB53B (U-shape)

Machine table without tooling
Working area:
   X: 550 mm
   Y: 370 mm

**Horizontal configuration**
This configuration display one 3Ruler, but two cross bars may be used.

Working area:
   X: 550 mm
   Y: 370 mm

**Vertical configuration**
This U-shaped machine-table, does not support 3Ruler.

Working area:
   X: 550 mm
   Y: 370 mm

See also TPS-sheet “3R-239-xxx” covering 3Ruler and recommended accessories.

Note: The reference rail also enables the use of other products like: 3R-218-S, 3R-243.2-1 or 3R-272HP.