

# JT70RAD

## Performance Table

| Module         | Item                            | Model                     | JT70RAD                    |            |            |                |            |            |            |
|----------------|---------------------------------|---------------------------|----------------------------|------------|------------|----------------|------------|------------|------------|
|                |                                 |                           | 55V                        |            |            | 110V           |            |            |            |
| Injection Unit | Screw cylinder type             |                           | K                          | A          | B (OP)     | K              | A          | B (OP)     |            |
|                | Screw diameter                  | mm                        | 25                         | 28         | 32         | 32             | 35         | 40         |            |
|                | Screw stroke                    | mm                        | 90                         |            |            | 110            |            |            |            |
|                | Theoretical injection capacity  | cm <sup>3</sup>           | 44                         | 55         | 72         | 88             | 106        | 138        |            |
|                | Injection capacity (GP-PS)      | g                         | 42                         | 52         | 69         | 84             | 101        | 131        |            |
|                | Standard                        | Injection pressure (Max.) | MPa {kgf/cm <sup>2</sup> } | 226 {2300} | 180 {1840} | 138 {1410}     | 215 {2190} | 180 {1840} | 138 {1410} |
|                |                                 | Holding pressure (Max.)   | MPa {kgf/cm <sup>2</sup> } | 203 {2070} | 162 {1650} | 124 {1260}     | 194 {1980} | 162 {1650} | 124 {1260} |
|                |                                 | Injection speed           | mm/s                       | 270        |            |                | 160        |            |            |
|                |                                 | Injection rate            | cm <sup>3</sup> /s         | 133        | 166        | 217            | 129        | 154        | 201        |
|                |                                 | Plasticizing rate (GP-PS) | kg/h                       | 20         | 25         | 30             | 30         | 40         | 50         |
|                |                                 | Screw speed               | min <sup>-1</sup>          | 350        |            |                | 300        |            |            |
|                | Low-inertia (HR) OP             | Injection pressure (Max.) | MPa {kgf/cm <sup>2</sup> } | 251 {2560} | 200 {2040} | 153 {1560}     | 239 {2440} | 200 {2040} | 153 {1560} |
|                |                                 | Holding pressure (Max.)   | MPa {kgf/cm <sup>2</sup> } | 226 {2300} | 180 {1840} | 138 {1410}     | 215 {2190} | 180 {1840} | 138 {1410} |
|                |                                 | Injection speed           | mm/s                       | 350        |            |                | 200        |            |            |
|                |                                 | Injection rate            | cm <sup>3</sup> /s         | 172        | 216        | 281            | 161        | 192        | 251        |
|                |                                 | Plasticizing rate (GP-PS) | kg/h                       | 20         | 25         | 30             | 30         | 40         | 50         |
|                |                                 | Screw speed               | min <sup>-1</sup>          | 350        |            |                | 300        |            |            |
|                | High-speed (HS) OP              | Injection pressure (Max.) | MPa {kgf/cm <sup>2</sup> } | 251 {2560} | 200 {2040} | 153 {1560}     | 239 {2440} | 200 {2040} | 153 {1560} |
|                |                                 | Holding pressure (Max.)   | MPa {kgf/cm <sup>2</sup> } | 226 {2300} | 180 {1840} | 138 {1410}     | 215 {2190} | 180 {1840} | 138 {1410} |
|                |                                 | Injection speed           | mm/s                       | 500        |            |                | 350        |            |            |
|                |                                 | Injection rate            | cm <sup>3</sup> /s         | 245        | 308        | 402            | 281        | 337        | 440        |
|                |                                 | Plasticizing rate (GP-PS) | kg/h                       | 20         | 25         | 30             | 30         | 40         | 50         |
|                |                                 | Screw speed               | min <sup>-1</sup>          | 350        |            |                | 300        |            |            |
|                | Nozzle touch force              | kN {tf}                   | 15 {1.5}                   |            |            | 15 {1.5}       |            |            |            |
|                | Nozzle stroke from platen       | mm                        | 20                         |            |            |                |            |            |            |
|                | Type of nozzle                  |                           | Open nozzle                |            |            |                |            |            |            |
|                | Cylinder temperature control    |                           | Cylinder: 3 / Nozzle: 2    |            |            |                |            |            |            |
| Heater wattage | kW                              | 5.1                       |                            |            | 7.1        |                |            |            |            |
| Clamping Unit  | Mechanism                       |                           | Double toggle              |            |            |                |            |            |            |
|                | Clamping force                  | kN {tf}                   | 686 {70}                   |            |            |                |            |            |            |
|                | Daylight opening (Max.)         | mm                        | 550                        |            |            |                |            |            |            |
|                | Opening stroke (Max.)           | mm                        | 250                        |            |            |                |            |            |            |
|                | Mold height                     | mm                        | 200~300                    |            |            |                |            |            |            |
|                | Mold size (Max.)                | mm                        | 405×405                    |            |            |                |            |            |            |
|                | Lower mold weight (Max.)        | kg                        | 300×2                      |            |            |                |            |            |            |
|                | Table outside diameter          | mm                        | 1160                       |            |            |                |            |            |            |
|                | Ejector point                   |                           | 1 point                    |            |            |                |            |            |            |
|                | Ejector force                   | kN {tf}                   | 26 {2.7}                   |            |            |                |            |            |            |
| Ejector stroke | mm                              | 60                        |                            |            |            |                |            |            |            |
| Miscellaneous  | Machine weight                  | t                         | 4.0 (4.2)*                 |            |            | 4.3            |            |            |            |
|                | Machine dimensions (LxWxH)      | m                         | 2.37×1.36×3.06             |            |            | 2.37×1.36×3.32 |            |            |            |
|                | Machine dimensions (HS) (LxWxH) | m                         | 2.37×1.36×3.49             |            |            | 2.37×1.36×3.90 |            |            |            |
|                | Table height                    | mm                        | 995                        |            |            |                |            |            |            |

**Remarks:**

1. Maximum injection pressure and maximum holding pressure may be restricted due to molding condition.
2. The theoretical injection capacity is (cross sectional area of cylinder) x (stroke of screw).
3. The injection capacity is applicable for GP-PS and variable according to the grade of resin, molding conditions and mold.
4. The plasticizing rate is applicable for GP-PS.
5. PC, HPVC, other engineering plastic, etc., low temperature setting and high speed molding may require a high torque depending on the grade or molding conditions. Please contact us if you plan.

**Note:**

1. Due to continual improvements, specifications are subject to change without notice.
2. Actual figures of the specification will vary depending on final machine configuration. Please contact us if you require more specific data.
3. Performance specifications are based on theoretical data.
4. Low inertia injection specifications and high-speed injection specifications can be handled as option.
5. Values in parentheses (\*) in the table are for high-speed injection specifications.
6. Screw cylinder size B is optional.
7. 1 MPa = 10.2 kgf/cm<sup>2</sup>, 1 kN = 0.102 tf

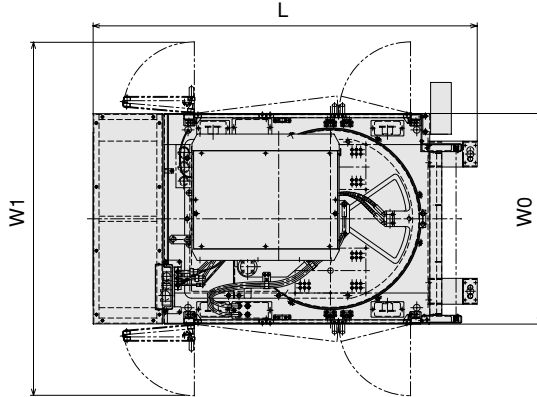
# JSW



JSW Hiroshima Plant

JSW Injection Molding Machinery Division

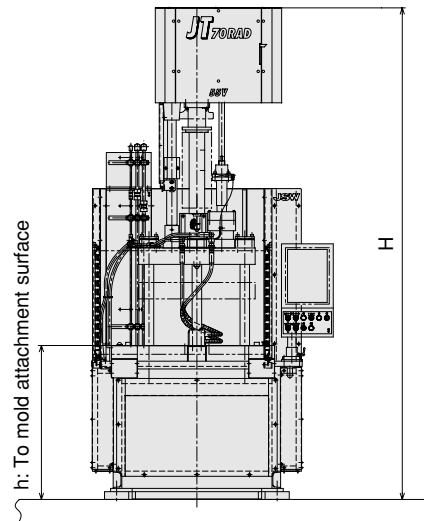
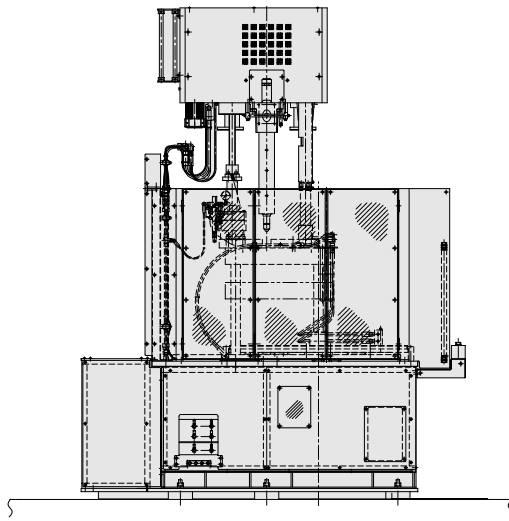
## Dimensions of Machine



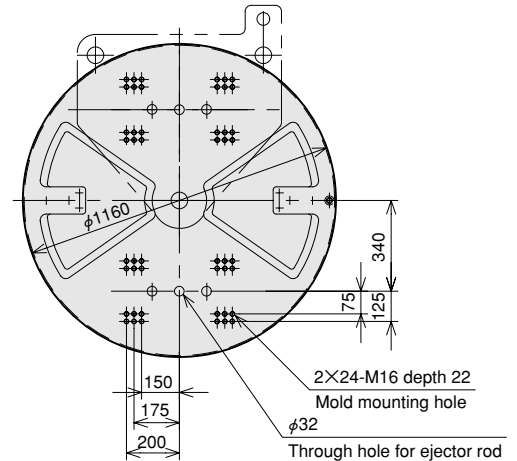
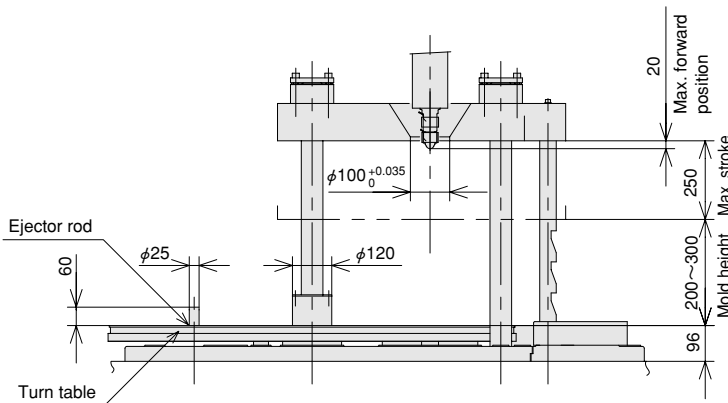
### Dimensions of machine

(Unit: mm)

| Model   | L       | W0   | W1   | H    |      | h    |     |
|---------|---------|------|------|------|------|------|-----|
|         |         |      |      | MIN. | MAX. |      |     |
| JT70RAD | 55V     | 2375 | 1360 | 2297 | 2471 | 3061 | 995 |
|         | 55V-HR  |      |      |      | 2471 | 3061 |     |
|         | 55V-HS  |      |      |      | 2898 | 3488 |     |
|         | 110V    |      |      |      | 2728 | 3318 |     |
|         | 110V-HR |      |      |      | 2728 | 3318 |     |
|         | 110V-HS |      |      |      | 3305 | 3895 |     |



## Mold Related Dimensions



### Total Power Capacity

| Machine Model | Total Power Capacity (kVA) |                    |                       |                      |
|---------------|----------------------------|--------------------|-----------------------|----------------------|
|               | Injection unit             | Standard Injection | Low-inertia Injection | High Speed Injection |
| JT70RAD       | 55V                        | 24.67              | 24.67                 | 25.63                |
|               | 110V                       | 27.31              | 28.27                 | 29.95                |

Note 1: The above incoming line size and main breaker capacity are values obtained by adding the capacity of molding machine unit to the capacity of mold thermal control/hydraulic unit, which is optional.

Note 2: We recommend that the rated interrupting current of the main power supply breaker is more than 25 kA at AC400V/460V.

### Capacity of Cooling Water (outline)

| Model | Injection unit | Cooling Water Capacity for Barrel Temperature Control (m <sup>3</sup> /h) |
|-------|----------------|---|
|       |                | JT70RAD   |
|       | 110V           |   |

Note: The above figures do not include the required quantity of water for the mold temperature controller.

### Capacity of Air

|                                 |        |     |
|---------------------------------|--------|-----|
| Compressed air pressure         | MPa    | 0.5 |
| Compressed air necessity volume | NI/min | 2   |