



## **Inparise Series (Air Press Machine)**

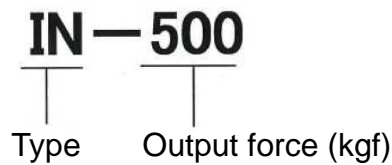


“Inparise” represents the product name of MARUNI pneumatic equipment used for press fitting, swaging, assembly, marking, etc.

## Inparise IN Type (Normal Type)



### ■ Type designation



Note: The timer box is OPTION.

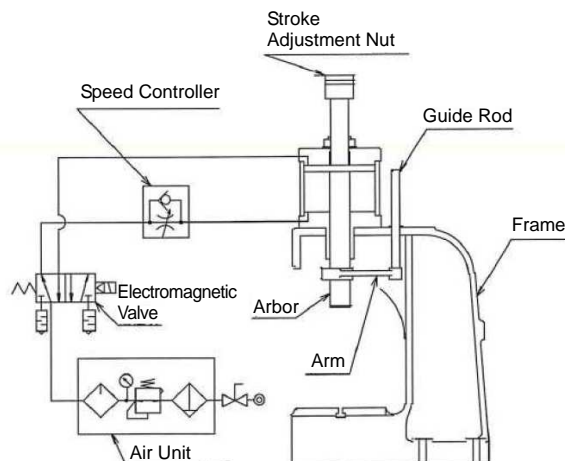
### ■ Specifications

Item Type	Output force kN (kgf)	Maximum stroke mm	Reach mm	Open height mm	Table dimensions, Width × Depth mm	Cylinder bore mm	Shank hole, Diameter × Depth mm	Stroke adjustment value mm	Air consumption (per cycle) [NI]	Piping bore PT	Weight kg
<b>IN-500</b>	4.90 (500)	100	120	200	180 × 180	125	φ22 <sup>H7</sup> × 40	25	13.3	3/8	74
<b>IN-1000</b>	9.80 (1000)	100	160	250	220 × 220	180	φ25 <sup>H7</sup> × 50	25	22.9	1/2	165
<b>IN-1500</b>	14.70 (1500)	100	160	250	220 × 220	200	φ25 <sup>H7</sup> × 50	25	35.4	1/2	170
<b>IN-2000A</b>	19.61 (2000)	100	180	300	280 × 280	180 (Tandem)	φ40 <sup>H7</sup> × 50	25	38.8	1/2	213
<b>IN-3000A</b>	29.41 (3000)	100	180	300	280 × 280	200 (Tandem)	φ40 <sup>H7</sup> × 50	25	51.9	1/2	221

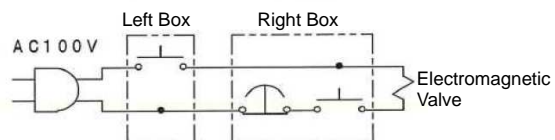
Note: The output force represents nominal output force available when using the machine at rated pressure of 0.49 MPa (5 kg/cm<sup>2</sup>), respectively.

Note: Force to raise the tandem cylinder comes to approximately half of the output force (see the Theoretical Output Force Table).

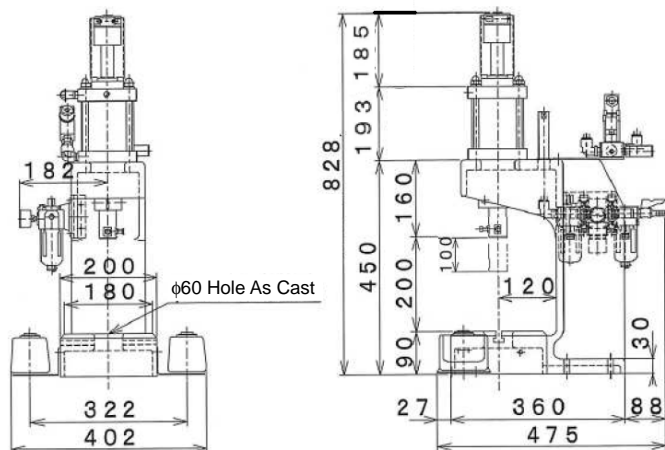
### ■ Air Circuit



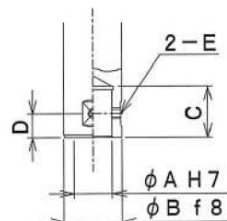
### ■ Electrical Circuit



### IN-500

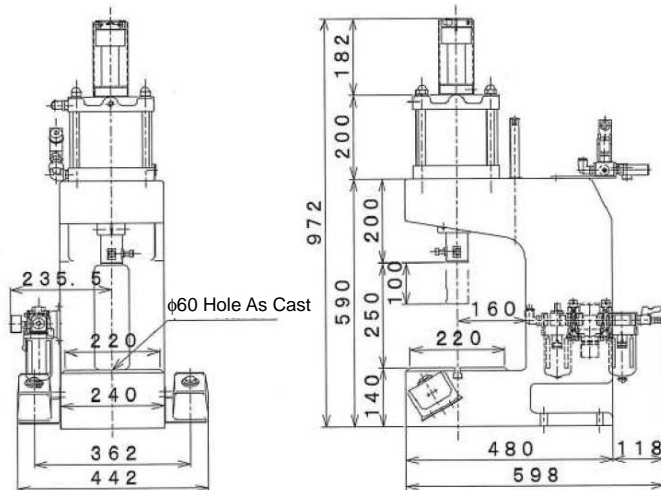


#### ■ Dimensions of Shank

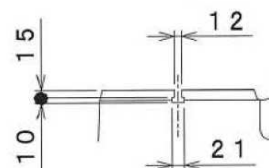


	A	B	C	D	E
<b>IN-500</b>	22	40	43	20	M8
<b>IN-1000</b>	25	50	53	25	M10
<b>IN-1500</b>	25	50	53	25	M10
<b>IN-2000A</b>	40	60	53	25	M10
<b>IN-3000A</b>	40	60	53	25	M10

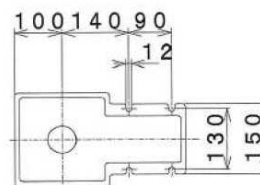
### IN-1000, 1500



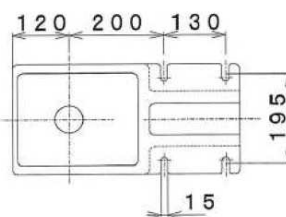
#### ■ Dimensions of T Slot in the Table



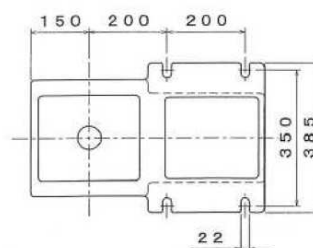
#### ■ Dimensions of Bottom



IN-500

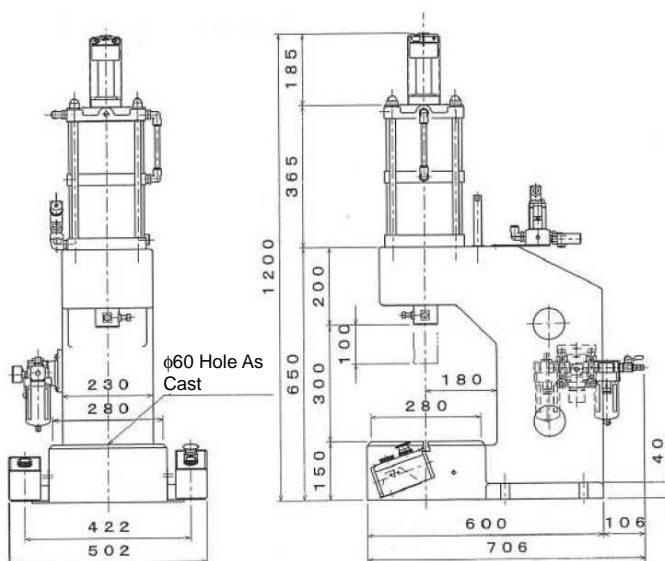


IN-1000, 1500



IN-2000A, 3000A

### IN-2000A, 3000A



## Inparise IH Type (Height Type)

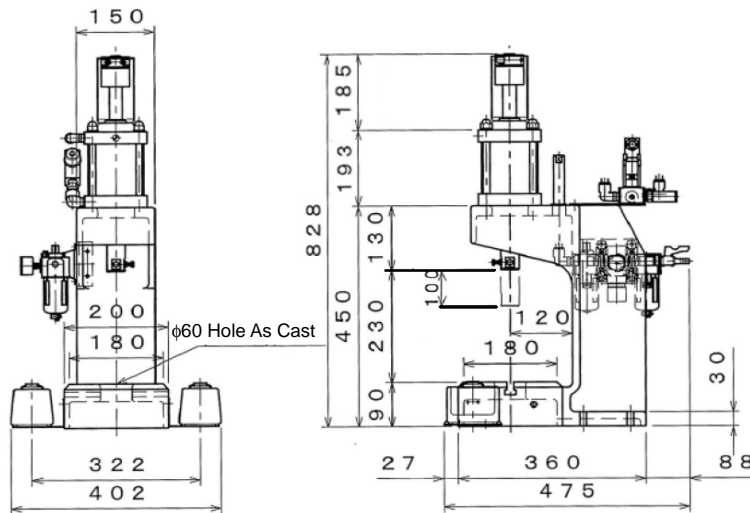
**Note: This Type has an open height larger than that of the Normal Type.**

### ■ Specifications

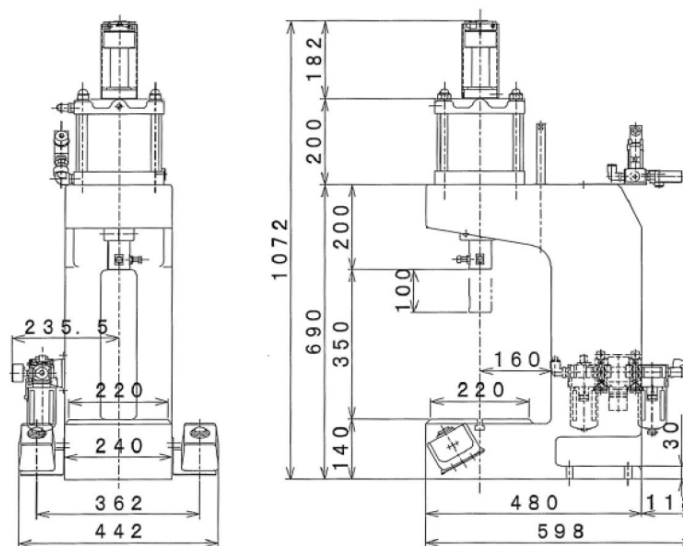
Item Type	Output force kN (kgf)	Maximum stroke mm	Reach mm	Open height mm	Table dimensions, Width × Depth mm	Cylinder bore mm	Shank hole, Diameter × Depth mm	Stroke adjustment value mm	Air consumption (per cycle) [NI]	Piping bore PT	Weight kg
<b>IH-500</b>	4.90 (500)	100	120	230	180 × 180	125	φ22 <sup>H7</sup> × 40	25	13.3	3/8	74
<b>IH-1000</b>	9.80 (1000)	100	160	350	220 × 220	180	φ25 <sup>H7</sup> × 50	25	22.9	1/2	173
<b>IH-1500</b>	14.70 (1500)	100	160	350	220 × 220	200	φ25 <sup>H7</sup> × 50	25	35.4	1/2	178

Note: The output force represents nominal output force available when using the machine at rated pressure of 0.49 MPa (5 kg/cm<sup>2</sup>), respectively.

### IH-500



### IH-1000, 1500



Note: The dimensions of T Slot in Table, Shank, and Bottom are that same as those of the IN Type.

## ■ Theoretical Output Force Table

Type	Cylinder bore mm	Pressure-receiving area (mm <sup>2</sup> )	Set pressure		Set pressure		Set pressure		Set pressure		Set pressure	
			MPa	kgf/cm <sup>2</sup>	MPa	kgf/cm <sup>2</sup>	MPa	kgf/cm <sup>2</sup>	MPa	kgf/cm <sup>2</sup>	MPa	kgf/cm <sup>2</sup>
			0.20	2	0.29	3	0.39	4	0.49	5	0.59	6
		Units of output power	kN	kgf	kN	kgf	kN	kgf	kN	kgf	kN	kgf
IN – 500 IH – 500	125	11,309	2.2	226	3.3	339	4.4	452	5.5	565	6.6	678
IN – 1000 IH – 1000	180	22,796	4.5	455	6.70	683	8.9	911	11.2	1,139	13.4	1,367
IN – 1500 IH – 1500	200	30,159	5.9	603	8.9	904	11.8	1,206	14.8	1,507	17.7	1,809
IN – 2000A	180 × 2 stages	44,021	8.6	880	12.9	1,320	17.3	1,760	21.6	2,201	25.9	2,641
IN – 3000A	200 × 2 stages	58,747	11.5	1,174	17.3	1,762	23.0	2,349	28.8	2,937	34.5	3,524

## ■ Remarks

Theoretical output force (kN) = Pressure-receiving area (mm<sup>2</sup>) × Operating pressure (MPa) ÷ 1,000  
 Pressure-receiving area (mm<sup>2</sup>) =  $\pi / 4 \times (D^2 - d^2)$   
 where D = cylinder bore (mm), d = rod diameter (mm)

Conversion of units

$$1 \text{ MPa} \approx 10.2 \text{ kgf/cm}^2$$

$$1 \text{ kgf/cm}^2 \approx 0.098 \text{ MPa}$$

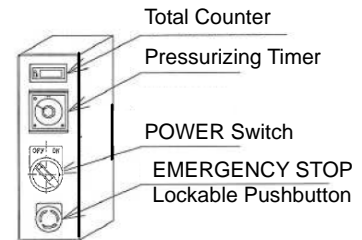
$$1 \text{ kN} \approx 102 \text{ kgf}$$

$$1 \text{ kgf} \approx 0.0098 \text{ kN}$$

## Options

### ■ Pressurization timer box

When the lower-limit limit switch turns ON and the timer completes its operative period, the arbor will start rising. This box is provided with a total counter.



### ■ Limit switch

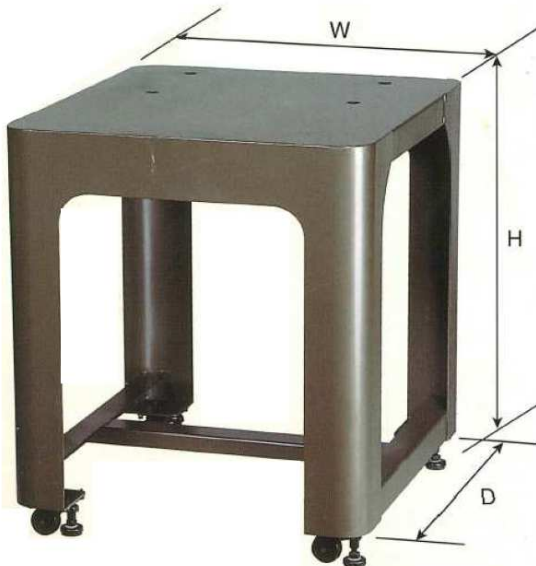
This limit switch should be installed to the guide rod located at the rear of the pressure cylinder when an upper limit signal and a lower limit signal are required for communicating with external devices.

### ■ Change of open height (Note: This option is not available for IH-500.)

The Inparise Series is available in an open height larger by 30 to 50 mm than the dimensions listed in the catalog.

### ■ Dedicated stand

This stand is provided with casters and fixing adjusters.



Basic Dimensions

(mm)

Machine output power (kgf)	W (Width)	D (Depth)	H (Height)
500	500	400	700
1000 / 1500	600	500	700
2000 / 3000	600	650	700



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Note: The contents of this catalog are subject to change without notice due to improvement, etc.

