

# THERMALLOY PV plate

(solid lubricant dispersed bimetal plate)



A bimetal sliding plate made from an alloy containing solid lubricant sintered onto a steel backing.

## Features

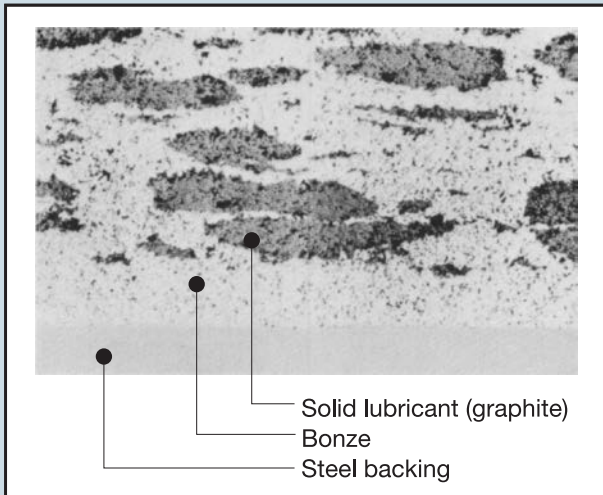
- ① Can be used without a lubricant supply.
- ② Capable of withstanding higher loads.
- ③ Can be used at high temperatures.
- ④ Protected from seizure to prevent damage to the surface of the mating part.
- ⑤ The performance is further improved with the use of a lubricant.
- ⑥ A variety of standard products are available for quick delivery.
- ⑦ The plate can be additionally machined using ordinary machinery.

## Dispersion of solid lubricant (micrograph)

A high performance, metallic bearing alloy based on bronze in which a numerous number of solid lubricant particles are uniformly dispersed.

### Structure

x30



## Physical properties (alloy)

Chemical composition	Cu-Sn-Gr (10% graphite by weight)
Density	6.4
Hardness	HB50
Compressive strength	343MPa
Max. service temperature	250°C
Coefficient of linear thermal expansion*	$18 \times 10^{-6}/^{\circ}\text{C}$

\*The coefficient of linear thermal expansion of the whole alloy is equivalent to that of steel.

## Bearing Characteristics

Allowable max. specific load	50MPa
Allowable max. speed	6m/min
Max. service temperature	250°C
Allowable max. PV value	63Pa·m/min
Friction coefficient	0.10 – 0.20

Specific load MPa	1	5	10
Speed m/min	0.6	3	0.3
Wear depth (mm) per 1km of friction distance	0.004	0.015	0.008

# Standard Dimensions of THERMALLOY PV plate

Designation of Part Number

H or S    ○○    ○○    U or L

Mounting method  
 Length (L)  
 Width (W)  
 Plate thickness H:10mm  
 S:20mm

**HorS 35 100U**

Please specify by part number.

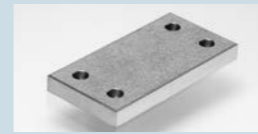
Pb Free

RoHS

ELV

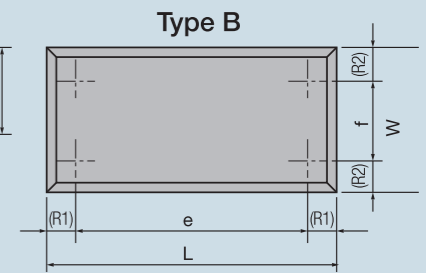
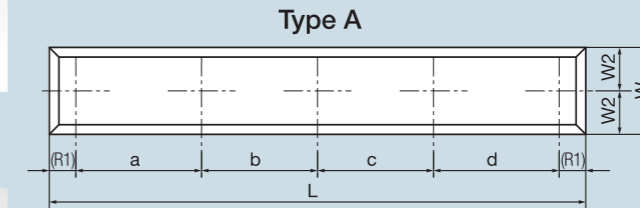


Shape Type A



Shape Type B

Standard product shapes



Products with a steel backing have an alloy thickness of 1.25±0.25.

Part No.		Dimensions			Mounting Hole Pitch								Mounting Hole Bolt		Shape Type
		Width (W)	Length (L)	Thickness (T)	a	b	c	d	e	f	ℓ <sub>1</sub>	ℓ <sub>2</sub>	Bolt Type	Quantity	
<b>H 35 100U</b>		35	100	10	60	-	-	-	-	-	20	-	Type U: φ9 through, φ16 spot-faced, 6 deep	2	A
<b>H 35 150U</b>		35	150	10	55	55	-	-	-	-	20	-		3	A
<b>H 35 200U</b>		35	200	10	55	50	55	-	-	-	20	-		4	A
<b>H 35 250U</b>		35	250	10	70	70	70	-	-	-	20	-		4	A
<b>H 35 300U</b>		35	300	10	65	65	65	65	-	-	20	-		5	A
<b>H 35 350U</b>		35	350	10	80	75	75	80	-	-	20	-		5	A
<b>S 35 100U</b>	<b>S 35 100L</b>	35	100	20	60	-	-	-	-	-	20	-	Type U: φ9 through, φ14 spot-faced, 9 deep Type L: M8 tapped, 13 deep	2	A
<b>S 35 150U</b>	<b>S 35 150L</b>	35	150	20	55	55	-	-	-	-	20	-		3	A
<b>S 35 200U</b>	<b>S 35 200L</b>	35	200	20	55	50	55	-	-	-	20	-		4	A
<b>S 35 250U</b>	<b>S 35 250L</b>	35	250	20	70	70	70	-	-	-	20	-		4	A
<b>S 35 300U</b>	<b>S 35 300L</b>	35	300	20	65	65	65	65	-	-	20	-		5	A
<b>S 35 350U</b>	<b>S 35 350L</b>	35	350	20	80	75	75	80	-	-	20	-		5	A
<b>S 48 75U</b>	<b>S 48 75L</b>	48	75	20	45	-	-	-	-	-	15	-	Type U: φ11 through, φ17.5 spot-faced, 11 deep Type L: M10 tapped, 13 deep	2	A
<b>S 48 100U</b>	<b>S 48 100L</b>	48	100	20	50	-	-	-	-	-	25	-		2	A
<b>S 48 125U</b>	<b>S 48 125L</b>	48	125	20	75	-	-	-	-	-	25	-		2	A
<b>S 48 150U</b>	<b>S 48 150L</b>	48	150	20	100	-	-	-	-	-	25	-		2	A
<b>S 50 75U</b>	<b>S 50 75L</b>	50	75	20	45	-	-	-	-	-	15	-		2	A
<b>S 50 100U</b>	<b>S 50 100L</b>	50	100	20	50	-	-	-	-	-	25	-		2	A
<b>S 50 125U</b>	<b>S 50 125L</b>	50	125	20	75	-	-	-	-	-	25	-	2	A	
<b>S 50 150U</b>	<b>S 50 150L</b>	50	150	20	100	-	-	-	-	-	25	-	2	A	
<b>S 75 75U</b>	<b>S 75 75L</b>	75	75	20	45	-	-	-	-	-	15	-	Type U: φ11 through, φ17.5 spot-faced, 11 deep Type L: M10 tapped, 13 deep	2	A
<b>S 75 100U</b>	<b>S 75 100L</b>	75	100	20	50	-	-	-	-	-	25	-		2	A
<b>S 75 125U</b>	<b>S 75 125L</b>	75	125	20	75	-	-	-	-	-	25	-		2	A
<b>S 75 150U</b>	<b>S 75 150L</b>	75	150	20	100	-	-	-	-	-	25	-		2	A
<b>S 75 200U</b>	<b>S 75 200L</b>	75	200	20	150	-	-	-	-	-	25	-		2	A
<b>S 100 100U</b>	<b>S 100 100L</b>	100	100	20	-	-	-	-	50	50	25	25		4	B
<b>S 100 125U</b>	<b>S 100 125L</b>	100	125	20	-	-	-	-	75	50	25	25	4	B	
<b>S 100 150U</b>	<b>S 100 150L</b>	100	150	20	-	-	-	-	100	50	25	25	4	B	
<b>S 100 200U</b>	<b>S 100 200L</b>	100	200	20	-	-	-	-	150	50	25	25	4	B	
<b>S 100 250U</b>	<b>S 100 250L</b>	100	250	20	-	-	-	-	200	50	25	25	4	B	
<b>S 125 150U</b>	<b>S 125 150L</b>	125	150	20	-	-	-	-	100	50	25	37.5	4	B	
<b>S 125 200U</b>	<b>S 125 200L</b>	125	200	20	-	-	-	-	150	50	25	37.5	4	B	
<b>S 125 250U</b>	<b>S 125 250L</b>	125	250	20	-	-	-	-	200	50	25	37.5	4	B	
<b>S 150 150U</b>	<b>S 150 150L</b>	150	150	20	-	-	-	-	100	100	25	25	4	B	
<b>S 150 200U</b>	<b>S 150 200L</b>	150	200	20	-	-	-	-	150	100	25	25	4	B	
<b>S 150 250U</b>	<b>S 150 250L</b>	150	250	20	-	-	-	-	200	100	25	25	4	B	

Bolt type

