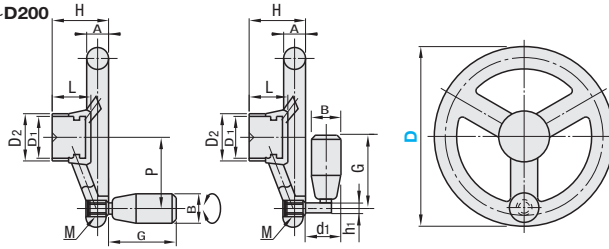


# Spoked Handwheels

## Spoked Handwheels

I.D. Shaft Bore Shape	Type			Hub		Handwheel	Handle Mounting Hole Insert	Handle	Handle Thread	
	Stationary Handles	Folding Handles	Without Handle	M Material	S Surface Treatment	M Material	M Material	M Material	M Material	S Surface Treatment
*1 No Hole	PHLN	PHLFN	-	FC200	Black Oxide	Phenol	Brass	Phenol	SUM21	Trivalent Chromate
	-	-	PHLN-R							
H9 Hole + Tap	PHLM	PHLFM	-	SUS303	-	Phenol	Brass	Phenol	SUM21	Trivalent Chromate
	PHLSM	-	-							
H9 Hole + Keyway + Tap	PHLK	PHLFK	-	SUS303	Black Oxide	Phenol	Brass	Phenol	SUM21	Trivalent Chromate
	PHLSK	-	-							
Square Bore	PHLW	PHLFW	-	FC200	Black Oxide	Phenol	Brass	Phenol	SUM21	Trivalent Chromate
	PHLP	-	-							

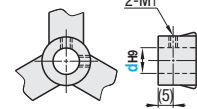
### D80~D200



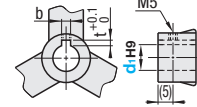
Ⓜ d is a through hole.

Ⓜ Square Bore Corner: R0.5 or less

### H9 Hole + Tap



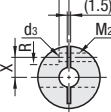
### H9 Hole + Keyway + Tap



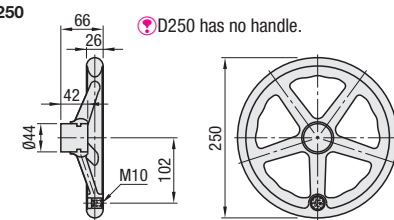
### Square Bore



### Slit

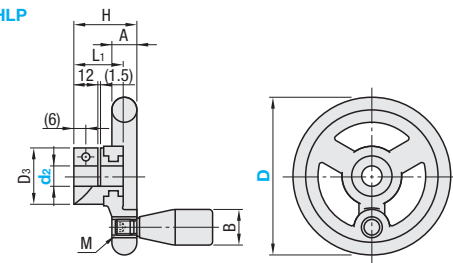


### D250



Ⓜ D250 has no handle.

### PHLP



\*1 is a "No Hole" Type, but there is a pilot hole for manufacturing.  
D80 through 125: Ø6, with depth of around 10mm  
D140~250: Ø6 through Ø8, with depth of around 10mm

Ⓜ Stationary Handles are GRW on P.1151.

Ⓜ Folding Handles are GRMBM on P.1151.

Ⓜ Both Stationary Handles and Folding Handles make rotation.

RoHS10

Part Number	Type	D	H9 Hole + Tap		H9 Hole + Keyway + Tap	Square Bore	Slit	H	A	D1	D2	D3	L	L1	d1	h1	X	Y	R (Dia.)	d3	M (Coarse)	M2 (Coarse)	P (Prep. Tightening Torque)	B		G		Mass (g)			
			d Selection	M1 (Coarse)																				d1	b	t	W Selection	d2	PHL	PHLF	PHL
No Hole	H9 Hole + Keyway + Tap	80	*10, *12, 14	5	10	3	1.4	10	10	32	13	20	28	27.5	25	25	24	9	9	7	8.5	4.5	4	26	3	20	20	40	55	135	177
	PHLN	100	10, *12, *15							36	15	25	35	28	28	30	9	10	9	10	5.5	8	5	37	5					200	242
	PHLFN	125	*12, *16, 18							40	17	30	44.5	30	30	30	10	10	10	5.5	8	5	50	5	20	20	55	81	330	410	
H9 Hole + Tap	Square Bore	140	*15, 18, *20	6	15	5	2.3	14		41	18	30	44	-	31	-	-	-	-	-	-	-	65	-	23		67	104	410	565	
	PHLM	160	16, 18, 20							48	20	45	-	-	37	-	-	-	-	-	-	-	55	-	23		67	104	485	640	
	PHLW	180	16, 18, 20							50	23	50	-	-	31	11	-	-	-	-	-	-	73	-	23		75	104	640	795	
	PHLSM	200	16, 18, 20							54	23	35	50	-	42	-	-	-	-	-	-	-	80	-	23		75	104	780	935	
No Hole, Without Handle	PHLN-R	250	-	-	-	-	-	-	-	66	26	-	44	-	42	-	-	-	-	-	-	-	10	-	-	-	-	-	-	980	-

Ⓜ Only \* marked d dimensions are available for Stainless Steel Type.

Ⓜ Only D80, 100 and 125 are Slit Type.

Ordering Example	Part Number	-	d
	PHLN80	-	12
	PHLM100	-	12
	PHLP125	-	12

D	Unit Price											
	No Shaft Bore	H9 Hole + Tap			H9 Hole + Keyway + Tap			Square Bore	Slit			
	PHLN	PHLN-R	PHLFN	PHLM	PHLSM	PHLFM	PHLK	PHLSK	PHLFK	PHLW	PHLFW	PHLP
80	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-	-	-	-
140	-	-	-	-	-	-	-	-	-	-	-	-
160	-	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-	-	-	-

### New JIS (B1301) Keyway Dimensions

dH9	W	bJS9	t <sup>B.1</sup>
10	+0.036 0	11.4	3 ±0.0125
12		13.8	4
15	+0.043 0	17.3	5 ±0.0150
16		18.3	5

