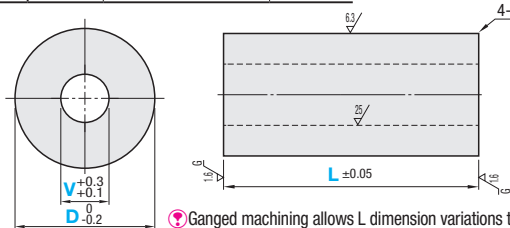


Simultaneous Grinding Spacers



Type	Material	Surface Treatment	Hardness
DWSSB	EN 1.1191	Black Oxide	-
DWSSM	Equiv.	Electroless Nickel Plating	
DWSSS	EN 1.4301 Equiv.	-	
DWSSKB	EN 1.2510 Equiv.	Black Oxide	55HRC~
DWSSKM		Electroless Nickel Plating	

* D=16 or Less: C0.1 ~ 0.2
D=20 or More: C0.5 or Less



⚠ Ganged machining allows L dimension variations to be within ± 5 micro meters per order.
⚠ Please order 2 or more pieces.

Part Number	D 0.5mm Increment	V 0.5mm Increment (V3 or More)	L		Simultaneous Grinding Maximum Quantity	Unit Price					
			Machining Conditions	0.1mm Increment		DWSSB	DWSSM	DWSSS	DWSSKB	DWSSKM	
DWSSB DWSSM DWSSS DWSSKB DWSSKM	4.0~10.0	0 2 2.6 3.0~8.0	L≤40 ⇒D-V≥2 40.1≤L≤50 ⇒D-V≥4	1.0~ 5.0	100 pcs.						
				5.1~ 10.0							
				10.1~ 25.0							
				25.1~ 40.0							
				40.1~ 50.0							
	10.5~15.5	0 2 2.6 3.0~13.5	L≤40 ⇒D-V≥2 40.1≤L≤80 ⇒D-V≥4 80.1≤L≤100 ⇒D-V≥6	1.0~ 5.0							
				5.1~ 10.0							
				10.1~ 25.0							
				25.1~ 40.0							
				40.1~ 55.0							
	16.0~20.0	0 2 2.6 3.0~18.0	L≤40 ⇒D-V≥2 40.1≤L≤80 ⇒D-V≥4 80.1≤L≤100 ⇒D-V≥6	55.1~ 70.0							
				70.1~ 85.0							
				85.1~ 100.0							
				1.0~ 20.0							
				20.1~ 30.0							
	20.5~30.0	0 2 2.6 3.0~28.0	L≤40 ⇒D-V≥2 40.1≤L≤80 ⇒D-V≥4 80.1≤L≤100 ⇒D-V≥6	30.1~ 40.0		50 pcs.					
				40.1~ 50.0							
				50.1~ 60.0							
				60.1~ 70.0							
				70.1~ 80.0							
	30.5~39.5	0 2 2.6 3.0~37.5	L≤40 ⇒D-V≥2 40.1≤L≤80 ⇒D-V≥4 80.1≤L≤100 ⇒D-V≥6	80.1~ 90.0							
				90.1~ 100.0							
				1.0~ 20.0							
				20.1~ 30.0							
30.1~ 40.0											
40.0~50.0	0 2 2.6 3.0~48.0	L≤50 ⇒D-V≥2 50.1≤L≤100 ⇒D-V≥6	40.1~ 50.0	20 pcs.							
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
			30.1~ 40.0								
			40.1~ 50.0								
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
			30.1~ 40.0								
			40.1~ 50.0								
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
			30.1~ 40.0								
			40.1~ 50.0								
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
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			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
			30.1~ 40.0								
			40.1~ 50.0								
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								
			1.0~ 20.0								
			20.1~ 30.0								
			30.1~ 40.0								
			40.1~ 50.0								
			50.1~ 60.0								
			60.1~ 70.0								
			70.1~ 80.0								
			80.1~ 90.0								
			90.1~ 100.0								

Common Machining Conditions: ① $L \leq V \times 8$ ② DWSSS(EN 1.4301 Equiv.) $\Rightarrow L \geq 2$ Please order 2 or more pieces. No specification available for sizes without declaration of value.



Ordering Example: **Part Number** - **D** - **V** - **L**
DWSSS - **D35.5** - **V12.5** - **L58.4**

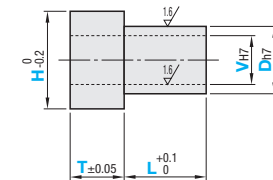
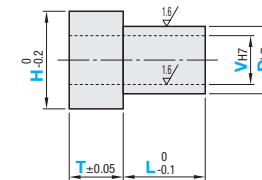
Stepped Spacers



Type	Tolerance	Material	Surface Treatment
DCLB	0 -0.1	EN 1.1191 Equiv.	Black Oxide
DCLM		EN 1.4301 Equiv.	Electroless Nickel Plating
DCLS			-
MCLB	+0.1 0	EN 1.1191 Equiv.	Black Oxide
MCLM		EN 1.4301 Equiv.	Electroless Nickel Plating
MCLS			-

■ L Tolerance 0
-0.1

■ L Tolerance $\begin{matrix} +0.1 \\ 0 \end{matrix}$



Circumference C0.5 or Less

Part Number	D _h 7	V _H 7	H	T	L	Unit Price	L Tolerance	-0.1~0	Unit Price	L Tolerance	0~-+0.1	
	0.5mm Increment	0.5mm Increment	0.5mm Increment	0.1mm Increment	0.1mm Increment	DCLB	DCLM	DCLS	MCLB	MCLM	MCLS	
L Tolerance 0~-0.1 DCLB DCLM DCLS L Tolerance +0.1~0 MCLB MCLM MCLS	5.0~10.0	2.0~8.0 (V≤D-2)	7.0~16.0 (D+2≤H≤D+6)	1.0~20.0	1.0~ 5.0							
					5.1~10.0							
					10.1~25.0							
					25.1~40.0							
					40.1~50.0							
	10.5~20.0	2.0~18.0 (V≤D-2)	12.5~26.0 (D+2≤H≤D+6)		1.0~ 5.0							
					5.1~10.0							
					10.1~25.0							
					25.1~40.0							
					40.1~50.0							
	20.5~30.0	2.0~28.0 (V≤D-2)	22.5~40.0 (D+2≤H≤D+10)		1.0~20.0							
					20.1~30.0							
					30.1~40.0							
					40.1~50.0							
					1.0~20.0							
	30.5~40.0	6.0~36.0 (V≤D-4)	32.5~50.0 (D+2≤H≤D+10)		20.1~30.0							
					30.1~40.0							
					40.1~50.0							
					1.0~20.0							
					20.1~30.0							
40.5~50.0	10.0~44.0 (V≤D-6)	42.5~60.0 (D+2≤H≤D+10)	30.1~40.0									
			40.1~50.0									
			1.0~20.0									
			20.1~30.0									
			30.1~40.0									
				40.1~50.0								

Common Machining Conditions: ① $L+T \leq V \times 8$ ② When $V \geq 8$ and $L+T \geq V \times 4$, intermediate clearance is added.



Ordering Example

Part Number - D - V - H - T - L
DCLS - D25.5 - V12.5 - H33.5 - T10.7 - L40.2