BLOCK PUNCHES

BLOCK PUNCHES

Product name Catalog No.	BLOCK PUNCHES	BLOCK PUNCHES —TAPPED—	JECTOR BLOCK PUNCHES —TAPPED—	BLOCK PUNCHES —WITH KEY GROOVE—	JECTOR BLOCK PUNCHES —WITH KEY GROOVE—
Page	405	407	409	411	413

BLOCK PUNCHES —SINGLE FLANGE TYPE—	JECTOR BLOCK PUNCHES —SINGLE FLANGE TYPE—	BLOCK PUNCHES —DOUBLE FLANGES TYPE—	JECTOR BLOCK PUNCHES —DOUBLE FLANGES TYPE—	BLOCK PUNCHES (FOR HEAVY LOAD) —FLANGE THICKNESS 10 MM, SINGLE FLANGE TYPE—	BLOCK PUNCHES (FOR HEAVY LOAD) —FLANGE THICKNESS 10 MM, DOUBLE FLANGES TYPE—
415	417	419	421	423	425

BLOCK PUNCHES —FLANGE STOPPER TYPE—	BLOCK PUNCHES, —CONFIGURABLE SIZE TYPE— —NORMAL—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
427	429				

BLOCK PUNCHES —WPC® TREATMENT—					BLOCK PUNCHES —TiCN COATING—		
—NORMAL—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—	—NORMAL—	—TAPPED—	—WITH KEY GROOVE—
431					433		

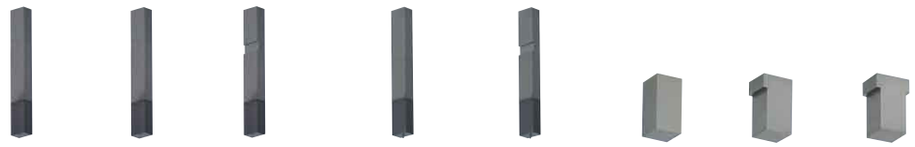
BLOCK PUNCHES —TiCN COATING—		BLOCK PUNCHES —HW COATING—				
—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—	—NORMAL—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
433		435				

JECTOR BLOCK PUNCHES —WPC® TREATMENT—				JECTOR BLOCK PUNCHES —TiCN COATING—			
—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
437				439			

JECTOR BLOCK PUNCHES —HW COATING—				BLOCK PUNCHES —TiCN coating— (FOR HEAVY LOAD)		BLOCK PUNCHES —WPC® TREATMENT— (FOR HEAVY LOAD)	
—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—	—FLANGE THICKNESS 10 MM, SINGLE FLANGE TYPE—	—FLANGE THICKNESS 10 MM, DOUBLE FLANGES TYPE—	—FLANGE THICKNESS 10 MM, SINGLE FLANGE TYPE—	—FLANGE THICKNESS 10 MM, DOUBLE FLANGES TYPE—
441				443		445	

BLOCK PUNCHES —HW COATING— (FOR HEAVY LOAD)		BLOCK PUNCHES, CONFIGURABLE SIZE TYPE —TiCN COATING—				
—FLANGE THICKNESS 10 MM, SINGLE FLANGE TYPE—	—FLANGE THICKNESS 10 MM, DOUBLE FLANGES TYPE—	—NORMAL—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
445		447				

STRAIGHT PUNCHES					JECTOR STRAIGHT PUNCHES		
—STRAIGHT TYPE—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—	—TAPPED—	—WITH KEY GROOVE—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
449					451			



STRAIGHT PUNCHES —TiCN COATING—			JECTOR STRAIGHT PUNCHES —TiCN COATING—		SHORT STRAIGHT PUNCHES		
—STRAIGHT TYPE—	—TAPPED—	—WITH KEY GROOVE—	—TAPPED—	—WITH KEY GROOVE—	—TAPPED—	—SINGLE FLANGE TYPE—	—DOUBLE FLANGES TYPE—
453			455		457		

BLOCK PUNCH BLANKS	JECTOR BLOCK PUNCH BLANKS
459	461

SHORT BLOCK PUNCH BLANKS	FLANGE HOLDERS HFW	JECTOR PINS & SPRINGS FOR JECTOR BLOCK PUNCH
463	465	466

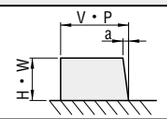
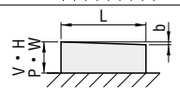
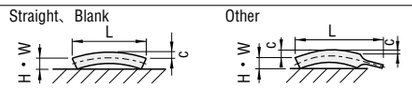
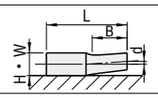
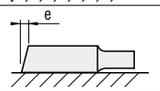
BLOCK PUNCHES LIST
—GUIDE 1—

Shank type			M	Standard Type	Standard Page	TiCN coating Type	TiCN coating Page	WPC® treatment Type	WPC® treatment Page	HW coating Type	HW coating Page
Fixed size type	Normal		Equivalent to SKD11	HP□□	P.405		P.433	W—HP□□	P.431		P.435
			Equivalent to SKH51	HSP□□		H—HSP□□		W—HSP□□		HW—HSP□□	
			Powdered high-speed steel	PHP□□		H—PHP□□		W—PHP□□		HW—PHP□□	
	Tapped		Equivalent to SKD11	HM□□	P.407		P.433	W—HM□□	P.431		P.435
			Equivalent to SKH51	HSM□□		H—HSM□□		W—HSM□□		HW—HSM□□	
			Powdered high-speed steel	PHM□□		H—PHM□□		W—PHM□□		HW—PHM□□	
	Jector Tapped		Equivalent to SKD11	HJM□□	P.409		P.439	W—HJM□□	P.437		P.441
			Equivalent to SKH51	HSJM□□		H—HSJM□□		W—HSJM□□		HW—HSJM□□	
			Powdered high-speed steel	PHJM□□		H—PHJM□□		W—PHJM□□		HW—PHJM□□	
	With key groove		Equivalent to SKD11	HK□□	P.411		P.433	W—HK□□	P.431		P.435
			Equivalent to SKH51	HSK□□		H—HSK□□		W—HSK□□		HW—HSK□□	
			Powdered high-speed steel	PHK□□		H—PHK□□		W—PHK□□		HW—PHK□□	
	Jector With key groove		Equivalent to SKD11	HJK□□	P.413		P.439	W—HJK□□	P.437		P.441
			Equivalent to SKH51	HSJK□□		H—HSJK□□		W—HSJK□□		HW—HSJK□□	
			Powdered high-speed steel	PHJK□□		H—PHJK□□		W—PHJK□□		HW—PHJK□□	
	Single flange type		Equivalent to SKD11	HF□□	P.415		P.433	W—HF□□	P.431		P.435
			Equivalent to SKH51	HSF□□		H—HSF□□		W—HSF□□		HW—HSF□□	
			Powdered high-speed steel	PHF□□		H—PHF□□		W—PHF□□		HW—PHF□□	
	Jector Single flange		Equivalent to SKD11	HJF□□	P.417		P.439	W—HJF□□	P.437		P.441
			Equivalent to SKH51	HSJF□□		H—HSJF□□		W—HSJF□□		HW—HSJF□□	
			Powdered high-speed steel	PHJF□□		H—PHJF□□		W—PHJF□□		HW—PHJF□□	
	Double flanges		Equivalent to SKD11	HW□□	P.419		P.433	W—HW□□	P.431		P.435
			Equivalent to SKH51	HSW□□		H—HSW□□		W—HSW□□		HW—HSW□□	
			Powdered high-speed steel	PHW□□		H—PHW□□		W—PHW□□		HW—PHW□□	
	Jector Double flanges		Equivalent to SKD11	HJW□□	P.421		P.439	W—HJW□□	P.437		P.441
			Equivalent to SKH51	HSJW□□		H—HSJW□□		W—HSJW□□		HW—HSJW□□	
			Powdered high-speed steel	PHJW□□		H—PHJW□□		W—PHJW□□		HW—PHJW□□	
	Flange thickness 10mm type Single flange		Equivalent to SKD11	AHF□□	P.423		P.443	W—AHF□□	P.445		P.445
			Equivalent to SKH51	AHSF□□		H—AHSF□□		W—AHSF□□		HW—AHSF□□	
			Powdered high-speed steel	APHF□□		H—APHF□□		W—APHF□□		HW—APHF□□	
	Flange thickness 10mm type Double flanges		Equivalent to SKD11	AHW□□	P.425		P.443	W—AHW□□	P.445		P.445
			Equivalent to SKH51	AHSW□□		H—AHSW□□		W—AHSW□□		HW—AHSW□□	
			Powdered high-speed steel	APHW□□		H—APHW□□		W—APHW□□		HW—APHW□□	
	Flange stopper type		Equivalent to SKD11	HT□□	P.427						
			Equivalent to SKH51	HST□□							
			Powdered high-speed steel	PHT□□							
Configurable size type	Normal		Equivalent to SKD11	FHP□	P.429		P.447				
			Equivalent to SKH51	FHSP□		H—FHSP□					
			Powdered high-speed steel	FPHP□		H—FPHP□					
	Tapped		Equivalent to SKD11	FHM□	P.429		P.447				
			Equivalent to SKH51	FHSM□		H—FHSM□					
			Powdered high-speed steel	FPHM□		H—FPHM□					
	With key groove		Equivalent to SKD11	FHK□	P.429		P.447				
			Equivalent to SKH51	FHSK□		H—FHSK□					
			Powdered high-speed steel	FPHK□		H—FPHK□					
	Single flange type		Equivalent to SKD11	FHF□	P.429		P.447				
			Equivalent to SKH51	FHSF□		H—FHSF□					
			Powdered high-speed steel	FPHF□		H—FPHF□					
	Double flanges		Equivalent to SKD11	FHW□	P.429		P.447				
			Equivalent to SKH51	FHSW□		H—FHSW□					
			Powdered high-speed steel	FPHW□		H—FPHW□					
Straight type	Straight type		Equivalent to SKD11	HPC□	P.449		P.453				
			Equivalent to SKH51	HSPC□		H—HSPC□					
			Powdered high-speed steel	PHPC□		H—PHPC□					
	Straight Tapped		Equivalent to SKD11	HMC□	P.449		P.453				
			Equivalent to SKH51	HSMC□		H—HSMC□					
			Powdered high-speed steel	PHMC□		H—PHMC□					
	Jector straight Tapped		Equivalent to SKD11	HJMC□	P.451		P.455				
			Equivalent to SKH51	HSJMC□		H—HSJMC□					
			Powdered high-speed steel	PHJMC□		H—PHJMC□					
	Straight With key groove		Equivalent to SKD11	HKC□	P.449		P.453				
			Equivalent to SKH51	HSKC□		H—HSKC□					
			Powdered high-speed steel	PHKC□		H—PHKC□					
	Jector straight With key groove		Equivalent to SKD11	HJKC□	P.451		P.455				
			Equivalent to SKH51	HSJKC□		H—HSJKC□					
			Powdered high-speed steel	PHJKC□		H—PHJKC□					

Shank type			M	Standard Type	Standard Page	TiCN coating Type	TiCN coating Page	WPC® treatment Type	WPC® treatment Page	HW coating Type	HW coating Page
Straight type	Straight Single flange		Equivalent to SKD11	HFC□	P.449						
			Equivalent to SKH51	HSFC□							
			Powdered high-speed steel	PHFC□							
	Jector straight Single flange		Equivalent to SKD11	HJFC□	P.451						
			Equivalent to SKH51	HSJFC□							
			Powdered high-speed steel	PHJFC□							
	Straight Double flanges		Equivalent to SKD11	HWC□	P.449						
			Equivalent to SKH51	HSWC□							
			Powdered high-speed steel	PHWC□							
	Jector straight Double flanges		Equivalent to SKD11	HJWC□	P.451						
			Equivalent to SKH51	HSJWC□							
			Powdered high-speed steel	PHJWC□							
	Short straight Tapped		Equivalent to SKD11	HMCDS	P.457						
			Powdered high-speed steel	PHMCDS							
	Short straight Single flange		Equivalent to SKD11	HFCDS	P.457						
			Powdered high-speed steel	PHFCDS							
	Short straight Double flanges		Equivalent to SKD11	HWCDS	P.457						
			Powdered high-speed steel	PHWCDS							
Punch blanks	Normal		Equivalent to SKD11	HPB (H6～30)	P.459						
			Equivalent to SKH51	HPB (H3～5)							
			Powdered high-speed steel	PHPB							
	Tapped		Equivalent to SKD11	HMB (H6～30)	P.459						
			Equivalent to SKH51	HMB (H5)							
			Powdered high-speed steel	PHMB							
	Jector Tapped		Equivalent to SKD11	HJMB	P.461						
	With key groove		Equivalent to SKD11	HKB (H6～30)	P.459						
			Equivalent to SKH51	HKB (H3～5)							
			Powdered high-speed steel	PHKB							
	Jector With key groove		Equivalent to SKD11	HJKB	P.461						
	Single flange type		Equivalent to SKD11	HFB (H6～30)	P.459						
			Equivalent to SKH51	HFB (H3～5)							
			Powdered high-speed steel	PHFB							
	Jector Single flange		Equivalent to SKD11	HJFB	P.461						
	Double flanges		Equivalent to SKD11	HWB (H6～30)	P.459						
			Equivalent to SKH51	HWB (H3～5)							
			Powdered high-speed steel	PHWB							
	Jector Double flanges		Equivalent to SKD11	HJWB	P.461						
	Short Tapped		Equivalent to SKD11	HMBS	P.463						
			Powdered high-speed steel	PHMBS							
	Short Single flange		Equivalent to SKD11	HFBS	P.463						
			Powdered high-speed steel	PHFBS							
	Short Double flanges		Equivalent to SKD11	HWBS	P.463						
			Powdered high-speed steel	PHWBS							

■Improved shape precision of block punches

1) Shape precision standards

Item		Standard
Perpendicularity		a≦0.005
Parallelism		b≦0.005
Warpage		c≦0.005
Bending of tip		d≦0.01
Perpendicularity of top face		e≦0.005

2) Variations of shape tolerances (alterations)

Code	None	VKC	VKM	VHM	VHZ
Shape tolerance	$V \cdot H^{+0.01}_{0}$	$V \cdot H^{-0.005}_{0}$	$V \cdot H^{0}_{-0.005}$	$V \cdot H^{0}_{-0.01}$	$V \cdot H \pm 0.005$
Price/piece	0	300	300	200	100

Applicable products: All block punches (except for straight punches and punch blanks)

■Jector punch spring change (AlterationJVC)

Spring reinforced jector punches have been added to the block punch product lineup.
The spring constant is twice that of a conventional jector punch, providing improved scrap removal effects.

Applicable products: All jector punches
- ⓟ Can be used with L≧60.
- ⊗ Cannot be used for H6 (With a jector straight punch, cannot be used for W≦6.00.)

How to order

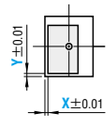
■The tip position can be set freely within the range of shank V and H.

(1) If tip is at center of shank

Catalog No.	V	H	—	L	—	P·W·R
HMDS	20	10	—	60	—	P16.00 — W8.00

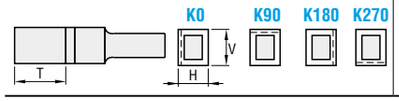
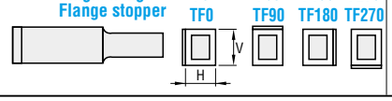
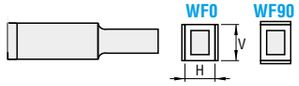
(2) If tip is not at center of shank

Specify X and Y.0.01mm increments Tolerance ±0.01 X and Y must either be set to 0, or else to 0.02 or more.



Catalog No.	V	H	—	L	—	P·W·R·X·Y
HMDL	20	10	—	60	—	P16.00 — W8.00 — X0.10 — Y0.10

■Key groove position and flange position can be set freely. (For types with flange thickness of 10mm, the positions are fixed.)

With key groove	Single flange·flange stopper	Double flanges
		

By default, the key groove, head, and flange are located at the standard positions (0). The positions can be changed at no charge.

Catalog No.	V	H	—	L	—	P.W.R	—	WF
HWES	13	10	—	70	—	P10.0 — W7.3	—	WF90

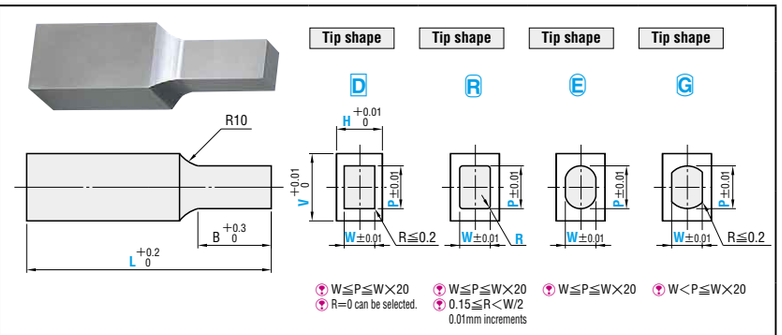
■Corner radius of square shape D type

By default, the corners are rounded to 0.2 or less.
If R0 is needed, specify R=0.
⊗ R=0 cannot be selected with WPC treatment or HW coating types.

Catalog No.	V	H	—	L	—	P.W
HPDS	10	08	—	60	—	P8.00 — W6.5 — R0

■Example of selection specifications on the product pages

M H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	HP	D R E G	S L
Equivalent to SKH51 61～64HRC	HSP (H6～30)		
Powdered high-speed steel 64～67HRC	PHP		Tip length (B) L>S



ⓟ Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

(Example)

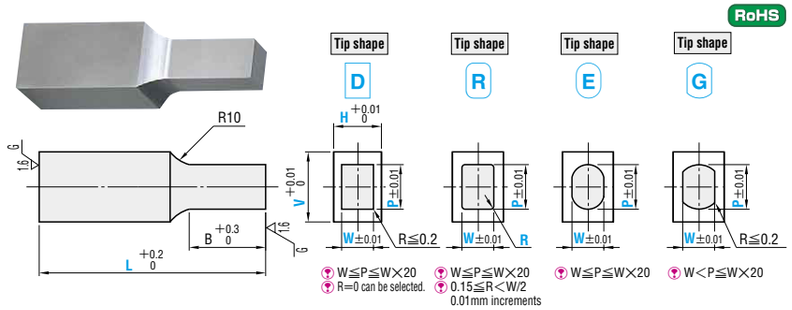
①Select powdered high-speed steel. ⇨ Type PHP
②Select tip shape D. ⇨ Tip shape D
③Select tip length S (short). ⇨ Tip length S

※The catalog No. is PHPDS.

BLOCK PUNCHES

M / H	Catalog No. Type	Tip shape	B Tip length
(H3 ~ 5) Equivalent to SKH51 61 ~ 64HRC (H6 ~ 30) Equivalent to SKD11 60 ~ 63HRC	HP	D R E G	S
Equivalent to SKH51 61 ~ 64HRC	HSP (H6 ~ 30)	D R E G	L
Powdered high-speed steel 64 ~ 67HRC	PHP	D R E G	Tip length (B) L>S

RoHS



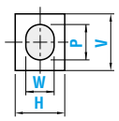
- W≦P≦W×20
- R=0 can be selected.
- W≦P≦W×20
- 0.15≦R<W/2 0.01mm increments
- W≦P≦W×20
- W<P≦W×20
- Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H \ V (Pmin. / Wmin.)	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	(40) / 16.0	(50) / 20.0	L	B S	B L
HP, HSP (H6 ~ 30), PHP	D R E G	S	(3) 1.0	○	○	○	○	○	○	○	○	○	○						(40) (50) 60 70 80 90 100	6	8
			(4) 1.0		○	○	○	○	○	○	○	○	○								
			5 1.2			○	○	○	○	○	○	○	○	○	○	○				8	13
			6 1.5				○	○	○	○	○	○	○	○	○	○					
			8 2.0					○	○	○	○	○	○	○	○	○	○				
			10 2.5						○	○	○	○	○	○	○	○	○	○		13	19
			13 3.0							○	○	○	○	○	○	○	○	○			
		L	16 4.0								○	○	○	○	○	○	○	○		19	25
			20 5.0									○	○	○	○	○	○	○			
			22 6.0										○	○	○	○	○	○			
			25 6.5											○	○	○	○	○			
			28 7.0												○	○	○	○			
			30 7.5													○	○	○			

- L(40)・H10 ~ 30・B=13 If full length is (40) and H dimension is 10 ~ 30, tip length is 13mm in all cases.
- L(50)・H16 ~ 30・B=19 If full length is (50) and H dimension is 16 ~ 30, tip length is 19mm in all cases.
- If H is (3) or (4), full length L is 40 ~ 80 for HP types or 40 ~ 70 for PHP types.
- V(40) and (50) are specifications available for HP types only.

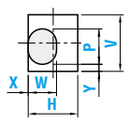
Order

(1) If tip is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments			
						P	— W	— R (R only)	
PHPES	08	06	—	60	—	P7.62	— W3.81		

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments				
						P	— W	— R (R only)	—	X—Y
PHPES	20	10	—	60	—	P14.05	— W6.05			— X0.00 — Y0.50

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)

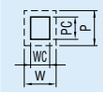
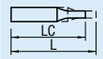
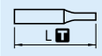
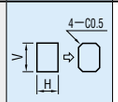
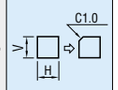
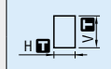
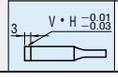
Days to Ship Quotation

Alterations

Catalog No. | V | H — L(LC) — P(PC) — W(WC) — R — X — Y — (BC・PKC, etc.)

PHPES 20 10 — LC65.5 — P16.00 — W8.00 — BC15.5 — VHZ

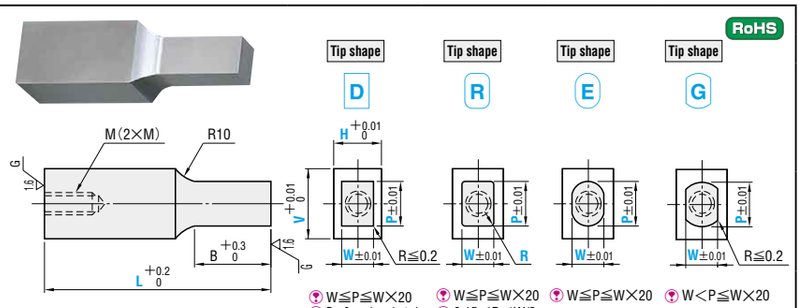
Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC) / Bmax.: 0.50 ~ 0.99 / 4; 1.00 ~ 1.19 / 8; 1.20 ~ 1.99 / 13; 2.00 ~ 2.99 / 20; 3.00 ~ 4.99 / 30; 5.00 ~ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ $^{+0.01}_{0}$	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B (BC) ≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	Quotation
		LKC	Full length tolerance change L $^{+0.2}_{0}$ ⇨ $^{+0.05}_{0}$	
		LKZ	Full length tolerance change L $^{+0.2}_{0}$ ⇨ $^{+0.01}_{0}$	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0.Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270	
		VKC	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{+0.005}_{0}$	
		VKM	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{0}_{-0.005}$	
		VHM	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{0}_{-0.01}$	
		VHZ	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H $^{-0.01}_{-0.03}$) is added.	

BLOCK PUNCHES
—TAPPED—

M H	Catalog No. Type	Tip shape	B Tip length
(H5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	HM	D R E G	S
Equivalent to SKH51 61～64HRC	HSM (H6～30)		L
Powdered high-speed steel 64～67HRC	PHM		Tip length (B) L>S

RoHS



W≦P≦W×20
R=0 can be selected.

W≦P≦W×20
0.15≦R<W/2
0.01mm increments

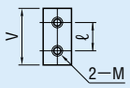
W≦P≦W×20

W<P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H \ V (Pmin. / Wmin.)	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	(40) / 16.0	(50) / 20.0	L	B S	B L	M
HM HSM (H6～30) PHM	D R E G	S	5 / 1.2	○	○	○	○	○	○	○	○	○	○	○			(40) (50) 60 70 80 90 100	8	13	3
			6 / 1.5		○	○	○	○	○	○	○	○	○	○						4
			8 / 2.0			○	○	○	○	○	○	○	○	○	○					5
			10 / 2.5				○	○	○	○	○	○	○	○	○	○		13	19	6
			13 / 3.0					○	○	○	○	○	○	○	○	○				8
		L	16 / 4.0						○	○	○	○	○	○	○	○		19	25	
			20 / 5.0							○	○	○	○	○	○	○				
			22 / 6.0								○	○	○	○	○	○				
			25 / 6.5									○	○	○	○	○				
			28 / 7.0										○	○	○	○				
			30 / 7.5											○	○	○				

L(40)・H10 ～ 30…B=10 If full length is (40) and H dimension is 10～30, tip length is 10mm in all cases.
L(50)・H16 ～ 30…B=19 If full length is (50) and H dimension is 16～30, tip length is 19mm in all cases.

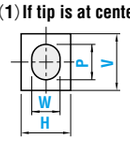


V40…2—M・ℓ=20 If V is 40, two taps are provided at a pitch of 20mm.
V50…2—M・ℓ=24 If V is 50, two taps are provided at a pitch of 24mm.

V (40) and (50) are specifications available for HM types only.

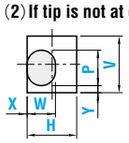
Order

(1) If tip is at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)
HMES	08	06	60	P5.00	W2.50	

(2) If tip is not at center of shank



X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01

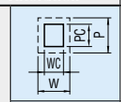
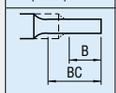
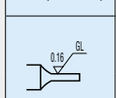
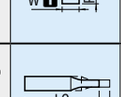
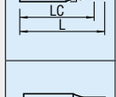
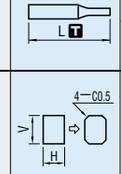
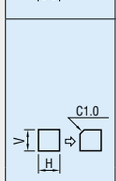
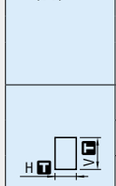
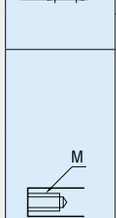
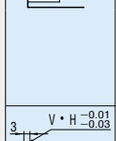
Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	X—Y
HMEL	08	06	60	P5.00	W2.50		X0.00—Y0.50

Days to Ship Quotation

Alterations

Catalog No. V H – L(LC) – P(PC) – W(WC) – R – (BC・PKC, etc.)
HMES 20 10 – LC65.5 – P16.00-W8.00 – BC15.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.50 WC≧H×0.15≧0.75 0.01mm increments (W(WC): 0.75～0.99 / 1.00～1.19 / 1.20～1.99 / 2.00～2.99 / 3.00～4.99 / 5.00～; Bmax.: 4 / 8 / 13 / 20 / 30 / 35)	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (Min. 0.5mm)	Quotation
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		MC (MMC)	Tap diameter change □Equivalent to SKD11 (H \ V: 6 / 8 / 10 / 13 / 16 / 20 / 22 / 25 / 28・30; 6: M4→M3 — —; 8: — M5→M4 —; 10: — — M6→M4 M6→M5 M6→M5; 13: — — — M8→M5 M8→M6 M8→M6) For change from M6 to M4 / For change from M8 to M5 Select MMC □SKH51・powdered high-speed steel (H \ V: 6 / 8 / 10 / 13 / 16 / 20 / 22; 6: M4→M3 —; 8: — M5→M4; 10: — — M6→M5; 13: — — — M8→M6)	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added.	

BLOCK PUNCHES

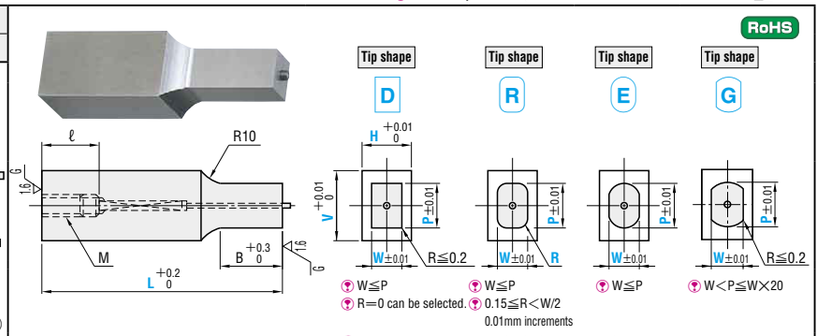
JECTOR BLOCK PUNCHES
—TAPPED—

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	HJM	D R E G	S / L
Equivalent to SKH51 61～64HRC	HSJM		
Powdered high-speed steel 64～67HRC	PHJM		

Tip length (B) L>S

RoHS



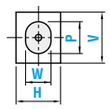
W≦P
R=0 can be selected. 0.15≦R<W/2 0.01mm increments
W≦P
W≦P
W<P≦W×20
Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H	Pmin. / Wmin.	V 6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	B S	B L	M	ℓ
HJM HSJM PHJM	D R E G	S	6	2.0	○	○	○	○	○	○	○	○	○	○	(40)	8	13	4	12
			8	2.5		○	○	○	○	○	○	○	○	○				5	
			10	3.0			○	○	○	○	○	○	○	○	(50)	13	19	6	
			13	4.0				○	○	○	○	○	○	○	60			8	
		L	16	5.0					○	○	○	○	○	○	70	19	25		
			20	6.0						○	○	○	○	○					
			22	6.0							○	○	○	○	80				
			25	6.0								○	○	○					

L(40) ···· B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25 ···· B=13 If full length is (50) and H dimension is 10～25, tip length is 13mm in all cases.

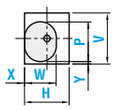
Order

(1) If tip is at center of shank



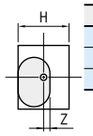
Catalog No.	V	H	L	0.01mm increments P	W	R (R only)
HJMES	08	06	60	P8.00	W5.00	

(2) If tip is not at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	X—Y
HJMEL	20	16	60	P14.00	W10.00		X0.00 — Y2.50

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

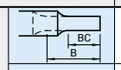
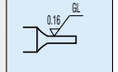
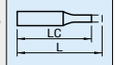
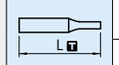
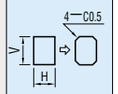
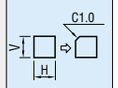
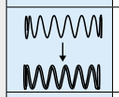
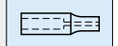
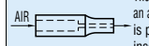
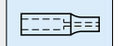
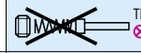
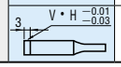
When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges.
The jector hole position cannot be changed.

Days to Ship **Quotation**

Alterations

Catalog No.	V	H	L(LC)	P—W—R—X—Y	(BC・PKC, etc.)
HJMES	10	10	59.5	P8.00 — W7.80	BC10.5 — VKM

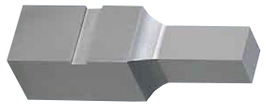
Price **Quotation**

	Alteration	Code	Spec.	1Code
Alterations to tip		BC	Tip length change (shorter than standard) 2≦BC<B 0.1mm increments	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	Quotation
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270	
		JVC	Change of spring to reinforced type 8≦H≦25···Can be used for L≧60. Cannot be used for H6.	
		AC	 The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	 The jector pin is removed. Cannot be combined with AC.	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 —0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 —0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H —0.01 —0.03) is added.	

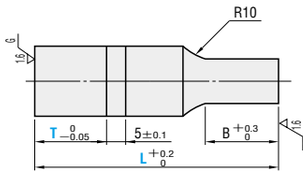
BLOCK PUNCHES

BLOCK PUNCHES
—WITH KEY GROOVE—

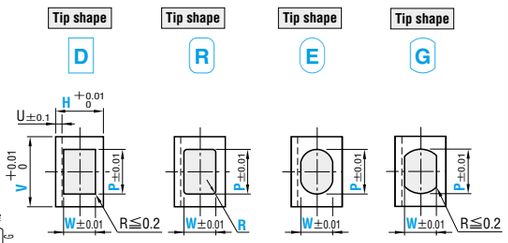
M H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	HK	D R E G	S
Equivalent to SKH51 61～64HRC	HSK (H6～30)		L
Powdered high-speed steel 64～67HRC	PHK		Tip length (B) L>S



RoHS



Details of key groove



W≦P≦W×20 W≦P≦W×20 W≦P≦W×20 W<P≦W×20
R=0 can be selected. 0.15≦R<W/2
0.01mm increments

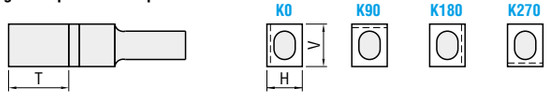
Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H \ V	Pmin. / Wmin.	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	(40) / 16.0	(50) / 20.0	L	0.1mm T	B S	B L	U
HK HSK (H6～30) PHK	D R E G	S	(3)	1.0	○	○	○	○	○	○	○	○	○	○						(40) (50) 60 70 80 90 100	T≧2	6	8	1.0
			(4)	1.0		○	○	○	○	○	○	○	○	○										
			5	1.2			○	○	○	○	○	○	○	○	○	○	○					8	13	
			6	1.5				○	○	○	○	○	○	○	○	○	○							
			8	2.0					○	○	○	○	○	○	○	○	○	○						1.5
		L	10	2.5						○	○	○	○	○	○	○	○	○	○			13	19	
			13	3.0							○	○	○	○	○	○	○	○	○					
			16	4.0								○	○	○	○	○	○	○	○			19	25	
			20	5.0									○	○	○	○	○	○	○					
			22	6.0										○	○	○	○	○	○					
			25	6.5											○	○	○	○	○					
			28	7.0												○	○	○	○					
			30	7.5													○	○	○					

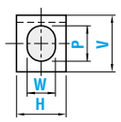
L(40)・H10～30 ⇢ B=13 If full length is (40) and H dimension is 10～30, tip length is 13mm in all cases.
L(50)・H16～30 ⇢ B=19 If full length is (50) and H dimension is 16～30, tip length is 19mm in all cases.
H(3)(4) ⇢ L40～70 If H dimension is (3) or (4), full length L is within a range of 40～70.
V(40) and (50) are specifications available for HK types only.

Order

■Key groove position: K specification

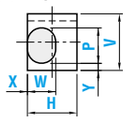


(1) If tip is at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧2	K
PHKES	08	06	60	P7.00	W5.20		T20.5	K90

(2) If tip is not at center of shank



X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01

Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧2	K	0.01mm increments X—Y
PHKEL	20	10	70	P16.00	W8.00		T20.5	K90	X0.00—Y0.50

Days to Ship Quotation

■Fixing keys for punches with key grooves P.245

Alterations

Catalog No. V H—L(LC)—P(PC)—W(WC)—R—T—K—X—Y—(BC・PKC, etc.)
HKES 20 10 — LC65.5 — P16.00—W8.00 — T20.5-K90 — BC15.5

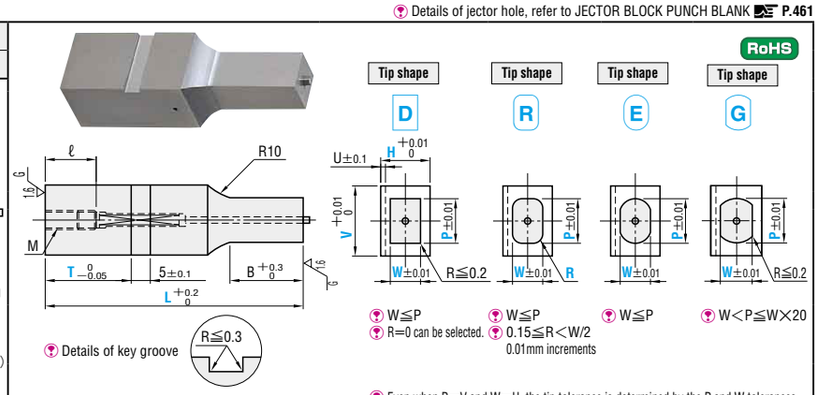
Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W(WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	Quotation
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. 4—C0.5 ⇨ Min. 0.5mm	
		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
		WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 H—(2×U(UK))≧2.0 (K0.K180) V—(2×U(UK))≧2.0 (K90.K270) An additional key groove is located at the position symmetrically opposite to the specified key groove. Can be combined with UK.	
		UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)—UK≧2.0 Can be combined with WK.	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added.	

JECTOR BLOCK PUNCHES
—WITH KEY GROOVE—

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	HJK	D R E G	S L
Equivalent to SKH51 61～64HRC	HSJK		
Powdered high-speed steel 64～67HRC	PHJK		Tip length (B) L>S

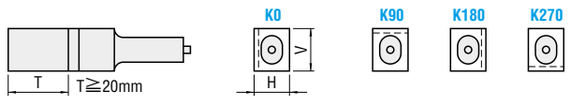


Catalog No. Type	Tip shape	B Tip length	H	V (Pmin. / Wmin.)	6 (3.0 / 3.0)	8 (4.0 / 5.0)	10 (7.0 / 8.0)	13 (9.0 / 10.0)	16 (12.0 / 12.0)	20	22	25	28	30	L	0.1mm T	B S	B L	M	ℓ	U
HJK HSJK PHJK	D R E G	S	6	2.0	○	○	○	○	○	○	○	○	○	○	(40)	T≧20	8	13	4	12	1.0
			8	2.5		○	○	○	○	○	○	○	○	○	(50)				5		1.5
			10	3.0			○	○	○	○	○	○	○	○	60		13	19	6		
			13	4.0				○	○	○	○	○	○	○	70				8		
		L	16	5.0					○	○	○	○	○	○	80		19	25			
			20	6.0						○	○	○	○	○							
			22	6.0							○	○	○	○							
			25	6.0								○	○	○							

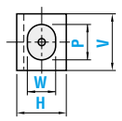
L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25···B=10 If full length is (50) and H dimension is 10～25, tip length is 10mm in all cases.

Order

■Key groove position: K specification

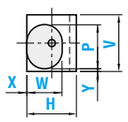


(1) If tip is at center of shank



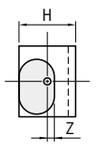
Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧20	K
HJKES	08	06	60	P8.00	W5.20		T22.5	K0

(2) If tip is not at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧20	K	0.01mm increments X−Y
HJKEL	20	16	60	P14.00	W10.00		T25.5	K180	X0.00 — Y2.50

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges.
The jector hole position cannot be changed.

Days to Ship Quotation

Alterations

Catalog No. V H-L(LC)-P—W—R-T—K-X—Y-(BC・PKC, etc.)
HJKDL 20 16 – LC55.5 – P14.00 – W10.00 – T25 – K0 – BC20.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		BC	Tip length change (shorter than standard) 2≦BC<B 0.1mm increments	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01⇨±0.005	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) Tip length B is shortened by (L−LC).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	Quotation
		JVC	Change of spring to reinforced type 8≦H≦25···Can be used with L≧60. Cannot be used for H6.	
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. Cannot be combined with AC.	
		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
		UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for H≧10 (K0, K180) V≧10	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added.	

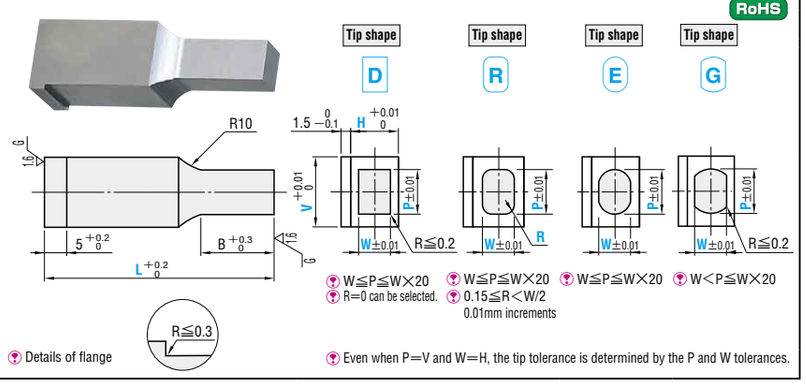
■Fixing keys for punches with key grooves P.245

BLOCK PUNCHES

BLOCK PUNCHES
—SINGLE FLANGE—

M H	Catalog No. Type	Tip shape	B Tip length
(H2 ~ 5) Equivalent to SKH51 61 ~ 64HRC (H6 ~ 30) Equivalent to SKD11 60 ~ 63HRC	HF	D R E G	S
Equivalent to SKH51 61 ~ 64HRC	HSF (H6 ~ 30)	D R E G	L
Powdered high-speed steel 64 ~ 67HRC	PHF	D R E G	Tip length (B) L>S

RoHS



W≦P≦W×20
R=0 can be selected.

W≦P≦W×20
0.15≦R<W/2
0.01mm increments

W≦P≦W×20

W<P≦W×20

Details of flange

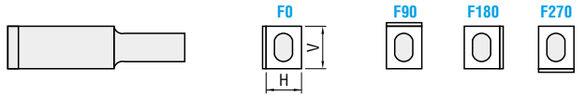
Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H	V (P min. / W min.)	2 / 1.0	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	(40) / 16.0	(50) / 20.0	L	B S	B L
HF HSF (H6 ~ 30) PHF	D R E G	S	(2)	1.0	○	○	○	○	○	○	○	○									(40) (50) 60 70 80 90 100	6	8
			(3)	1.0		○	○	○	○	○	○	○	○	○	○								
			(4)	1.0			○	○	○	○	○	○	○	○	○								
			5	1.2				○	○	○	○	○	○	○	○	○	○	○				8	13
			6	1.5					○	○	○	○	○	○	○	○	○	○					
			8	2.0						○	○	○	○	○	○	○	○	○	○				
		L	10	2.5							○	○	○	○	○	○	○	○	○	○		13	19
			13	3.0								○	○	○	○	○	○	○	○	○			
			16	4.0									○	○	○	○	○	○	○	○		19	25
			20	5.0										○	○	○	○	○	○	○			
			22	6.0											○	○	○	○	○	○			
			25	6.5												○	○	○	○	○			
			28	7.0													○	○	○	○			
			30	7.5														○	○	○			

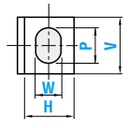
L (40) • H10 ~ 30 ···B=13 If full length is (40) and H dimension is 10 ~ 30, tip length is 13mm in all cases.
L (50) • H16 ~ 30 ···B=19 If full length is (50) and H dimension is 16 ~ 30, tip length is 19mm in all cases.
H (2) (3) (4) ···L40 ~ 70 If H dimension is (2), (3), or (4), full length L is within a range of 40 ~ 70.
V (40) and (50) are specifications available for HF types only.

Order

■Flange position: F specification

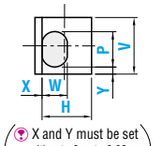


(1) If tip is at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	F
PHFES	08	08	60	P6.00	W4.00		F0

(2) If tip is not at center of shank



X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01

Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	F	0.01mm increments X	Y
PHFEL	10	10	60	P6.00	W5.00		F0	X0.00	Y0.50

Days to Ship Quotation

Alterations

Catalog No. V H – L (LC) – P (PC) – W (WC) – R – F – X – Y – (BC · PKC, etc.)
PHFES 10 10 – LC58.5 – P8.00 – W6.00 – F90 – HC1.0

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC): 0.50 ~ 0.99 → Bmax. 4; 1.00 ~ 1.19 → 8; 1.20 ~ 1.99 → 13; 2.00 ~ 2.99 → 20; 3.00 ~ 4.99 → 30; 5.00 ~ → 35	Quotation
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P•W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P•W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B (BC)≦LC<L 0.1mm increments (If combined with LKC•LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. 4—C0.5 ⇨ Min. 0.5mm	
		VKC	Shank tolerance change V•H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V•H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V•H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V•H +0.01 0 ⇨ ±0.005	

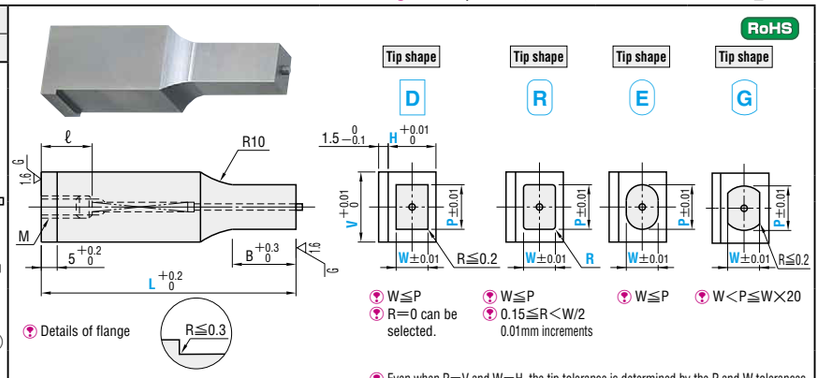
BLOCK PUNCHES

JECTOR BLOCK PUNCHES
—SINGLE FLANGE—

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

M / H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	HJF	D R E G	S / L
Equivalent to SKH51 61～64HRC	HSJF		
Powdered high-speed steel 64～67HRC	PHJF		Tip length (B) L>S

RoHS

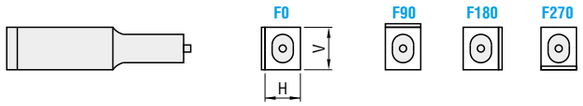


Catalog No. Type	Tip shape	B Tip length	H	V (Pmin.)	6	8	10	13	16	20	22	25	28	30	L	B S	B L	M	ℓ
				Wmin.	3.0	3.0	4.0	5.0	7.0	8.0	9.0	10.0	12.0	12.0					
HJF HSJF PHJF	D R E G	S	6	2.0	○	○	○	○	○	○	○	○	○	○	(40) (50) 60 70 80	8	13	4	12
			8	2.5		○	○	○	○	○	○	○	○	○				5	
			10	3.0			○	○	○	○	○	○	○	○		13	19	6	
			13	4.0				○	○	○	○	○	○	○				8	
		L	16	5.0					○	○	○	○	○	○					
			20	6.0						○	○	○	○	○		19	25		
			22	6.0							○	○	○	○					
			25	6.0								○	○	○					

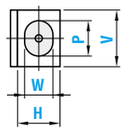
L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25···B=13 If full length is (50) and H dimension is 10～25, tip length is 13mm in all cases.

Order

■Flange position: F specification

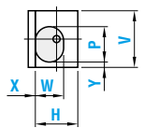


(1) If tip is at center of shank



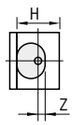
Catalog No.	V	H	L	P (0.01mm increments)	W	R (Ⓡ only)	F
HJFES	08	06	60	P6.00	W4.00		F0

(2) If tip is not at center of shank



Catalog No.	V	H	L	P (0.01mm increments)	W	R (Ⓡ only)	F	X—Y (0.01mm increments)
HJFES	13	10	60	P9.00	W7.00		F0	X0.00 — Y0.10

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges.
The jector hole position cannot be changed.

Days to Ship **Quotation**

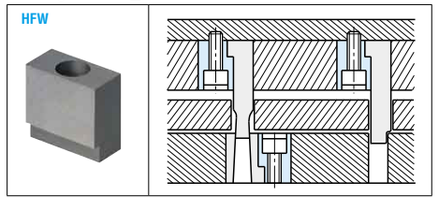
Alterations

Catalog No.	V	H	L(LC)	P—W—R	F	X—Y	(BC・PKC, etc.)
HJFES	10	10	60	P8.00 — W7.80	F0		BC10.5

Price **Quotation**

	Alteration	Code	Spec.	1Code
Alterations to tip		BC	Tip length change (shorter than standard) 2≦BC<B 0.1mm increments	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. ⊗ R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ $^{+0.01}_{0}$	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
		LKC	Full length tolerance change $L^{+0.2}_{0}$ ⇨ $^{+0.05}_{0}$	
		LKZ	Full length tolerance change $L^{+0.2}_{0}$ ⇨ $^{+0.01}_{0}$	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	Quotation
		TKC	Flange tolerance change $T^{+0.2}_{0}$ ⇨ $^{+0.02}_{0}$	
		TKM	Flange tolerance change $T^{+0.2}_{0}$ ⇨ $^{0}_{-0.02}$	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (Min. 0.5mm)	
		JVC	Change of spring to reinforced type 8≦H≦25···Can be used with L≧60. ⊗ Cannot be used for H6.	
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. ⊗ Cannot be combined with AC.	
		VKC	Shank tolerance change $V・H^{+0.01}_{0}$ ⇨ $^{+0.005}_{0}$	
		VKM	Shank tolerance change $V・H^{+0.01}_{0}$ ⇨ $^{0}_{-0.005}$	
		VHM	Shank tolerance change $V・H^{+0.01}_{0}$ ⇨ $^{0}_{-0.01}$	
		VHZ	Shank tolerance change $V・H^{+0.01}_{0}$ ⇨ ±0.005	

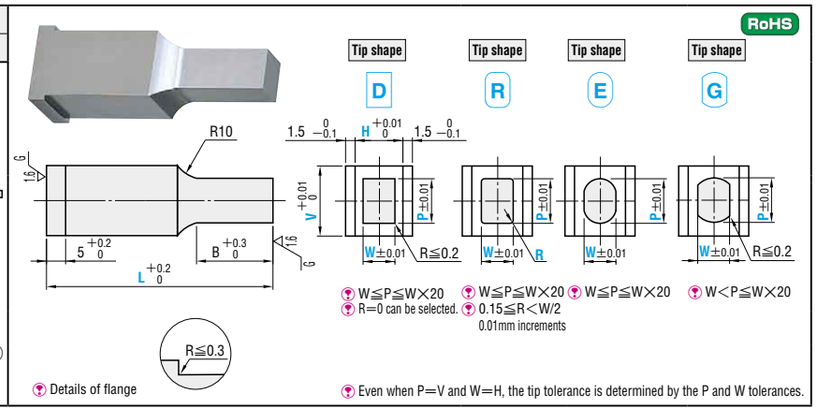
■Flange holder P.465



BLOCK PUNCHES
—DOUBLE FLANGES—

M H	Catalog No. Type	Tip shape	B Tip length
(H2~5) Equivalent to SKH51 61~64HRC (H6~30) Equivalent to SKD11 60~63HRC	HW	D R E G	S
Equivalent to SKH51 61~64HRC	HSW (H6~30)	D R E G	L
Powdered high-speed steel 64~67HRC	PHW	D R E G	Tip length (B) L>S

RoHS

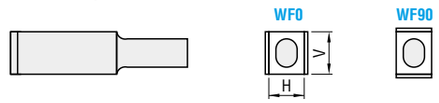


Catalog No. Type	Tip shape	B Tip length	H \ V	Pmin. / Wmin.	2 / 1.0	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	(40) / 16.0	(50) / 20.0	L	B (S)	B (L)
HW HSW (H6~30) PHW	D R E G	S	(2)	1.0	○	○	○	○	○	○	○	○									(40) (50) 60 70 80 90 100	6	8
			(3)	1.0		○	○	○	○	○	○	○	○	○	○								
			(4)	1.0			○	○	○	○	○	○	○	○	○								
			5	1.2				○	○	○	○	○	○	○	○	○	○	○				8	13
			6	1.5					○	○	○	○	○	○	○	○	○	○					
			8	2.0						○	○	○	○	○	○	○	○	○	○				
		L	10	2.5							○	○	○	○	○	○	○	○	○	○		13	19
			13	3.0								○	○	○	○	○	○	○	○	○			
			16	4.0									○	○	○	○	○	○	○	○		19	25
			20	5.0										○	○	○	○	○	○	○			
			22	6.0											○	○	○	○	○	○			
			25	6.5												○	○	○	○	○			
			28	7.0													○	○	○	○			
			30	7.5														○	○	○			

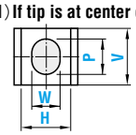
- L(40)・H10 ~ 30 B=13 If full length is (40) and H dimension is 10~30, tip length is 13mm in all cases.
- L(50)・H16 ~ 30 B=19 If full length is (50) and H dimension is 16~30, tip length is 19mm in all cases.
- H(2) (3) (4) L40~70 If H dimension is (2), (3) or (4), full length L is within a range of 40~70.
- V(40) and (50) are specifications available for HW types only.

Order

■Flange position: WF specification

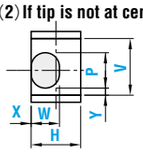


(1) If tip is at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	WF
PHWES	08	08	60	P7.00	W6.00		WF0

(2) If tip is not at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	WF	0.01mm increments X—Y
PHWEL	10	10	60	P6.00	W5.00		WF90	X0.00—Y0.10

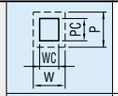
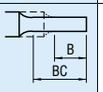
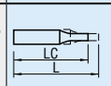
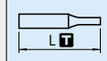
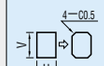
(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)

Days to Ship Quotation

Alterations

Catalog No. V H—(L(LC))—P(PC)—W(WC)—R—WF—X—Y—(BC・PKC, etc.)
PHWES 10 10 — LC57.5 — P8.00—W6.00 — WF90 — TC4.0

Price Quotation

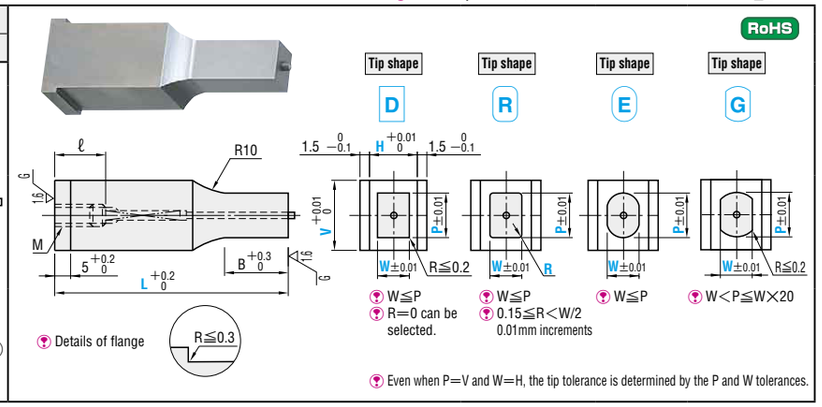
	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments (W(WC) / Bmax.: 0.50~0.99 / 4; 1.00~1.19 / 8; 1.20~1.99 / 13; 2.00~2.99 / 20; 3.00~4.99 / 30; 5.00~ / 35)	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	Quotation
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (4—C0.5, Min. 0.5mm)	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	

BLOCK PUNCHES

JECTOR BLOCK PUNCHES
—DOUBLE FLANGES—

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	HJW	D R E G	S / L
Equivalent to SKH51 61～64HRC	HSJW		
Powdered high-speed steel 64～67HRC	PHJW		Tip length (B) L>S



Details of flange

W≦P
R=0 can be selected.

W≦P
0.15≦R<W/2
0.01mm increments

W≦P

W<P≦W×20

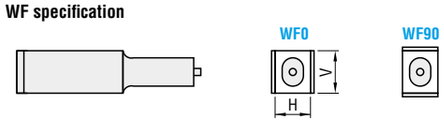
Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H	V (Pmin.) / Wmin.	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	B S	B L	M	ℓ
HJW HSJW PHJW	D R E G	S	6	2.0	○	○	○	○	○	○	○	○	○	○	(40)	8	13	4	12
			8	2.5		○	○	○	○	○	○	○	○	○				5	
			10	3.0			○	○	○	○	○	○	○	○	(50)	13	19	6	
			13	4.0				○	○	○	○	○	○	○	60			8	
		L	16	5.0					○	○	○	○	○	○	70	19	25		
			20	6.0						○	○	○	○	○	80				
			22	6.0							○	○	○	○					
			25	6.0								○	○	○					

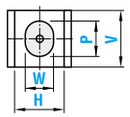
L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25···B=13 If full length is (50) and H dimension is 10～25, tip length is 13mm in all cases.

Order

■Flange position: WF specification

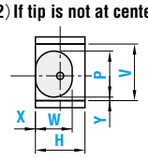


(1) If tip is at center of shank



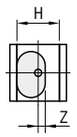
Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	WF
HJWES	08	06	60	P6.00	W5.00		WF0

(2) If tip is not at center of shank



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	WF	0.01mm increments X—Y
HJWES	13	10	60	P10.00	W8.00		WF90	X0.00 — Y0.10

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges.
The jector hole position cannot be changed.

Days to Ship Quotation

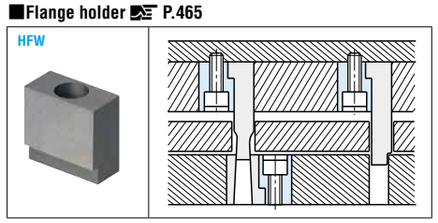
Alterations

Catalog No.	V	H	L(LC)	P—W—R	WF	X—Y	(BC・PKC, etc.)
HJWES	10	10	60	P8.00 — W7.80	WF0		BC10.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		BC	Tip length change (shorter than standard) 2≦BC<B 0.1mm increments	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. ⊗ R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ $^{+0.01}_{0}$	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
		LKC	Full length tolerance change $L^{+0.2}_{0}$ ⇨ $^{+0.05}_{0}$	
		LKZ	Full length tolerance change $L^{+0.2}_{0}$ ⇨ $^{+0.01}_{0}$	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	Quotation
		TKC	Flange thickness tolerance change $T^{+0.2}_{0}$ ⇨ $^{+0.02}_{0}$	
		TKM	Flange thickness tolerance change $T^{+0.2}_{0}$ ⇨ $^{0}_{-0.02}$	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	
		JVC	Change of spring to reinforced type 8≦H≦25···Can be used with L≧60. ⊗ Cannot be used for H6.	
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. ⊗ Cannot be combined with AC.	
		VKC	Shank tolerance change V・$H^{+0.01}_{0}$ ⇨ $^{+0.005}_{0}$	
		VKM	Shank tolerance change V・$H^{+0.01}_{0}$ ⇨ $^{0}_{-0.005}$	
		VHM	Shank tolerance change V・$H^{+0.01}_{0}$ ⇨ $^{0}_{-0.01}$	
		VHZ	Shank tolerance change V・$H^{+0.01}_{0}$ ⇨ ±0.005	

■Flange holder P.465



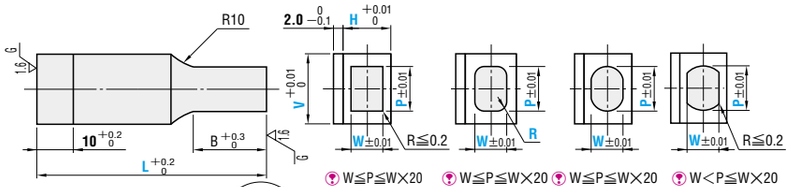
BLOCK PUNCHES（FOR HEAVY LOAD）

—FLANGE THICKNESS 10mm・SINGLE FLANGE—

M H	Catalog No. Type	Tip shape	B Tip length
(H2～5) Equivalent to SKH51 61～64HRC (H6～13) Equivalent to SKD11 60～63HRC	AHF	D R E G	S L
Equivalent to SKH51 61～64HRC	AHSF (H6～13)		
Powdered high-speed steel 64～67HRC	APHF		Tip length (B) L>S

RoHS

Tip shape D　Tip shape R　Tip shape E　Tip shape G



W≦P≦W×20　R=0 can be selected.

W≦P≦W×20　0.15≦R<W/2　0.01mm increments

W≦P≦W×20

W<P≦W×20

Details of flange. The R is larger compared to the conventional 5mm thickness flange type.

R=0.8～1.0

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

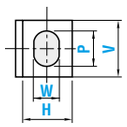
Catalog No. Type	Tip shape	B Tip length	H \ V (Pmin. / Wmin.)	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	B S	B L
AHF AHSF (H6～13) APHF	D R E G	S	(2) 1.0	○	○	○	○	○	○	○							50 60 70 80	6	8
			(3) 1.0	○	○	○	○	○	○	○	○	○	○						
			(4) 1.0		○	○	○	○	○	○	○	○	○						
		L	5 1.2			○	○	○	○	○	○	○	○	○	○	○		8	13
			6 1.5				○	○	○	○	○	○	○	○	○	○			
			8 2.0					○	○	○	○	○	○	○	○	○			
			10 2.5						○	○	○	○	○	○	○	○		13	19
			13 3.0							○	○	○	○	○	○	○			

H(2)(3)(4) ⇢ L50～70　If H dimension is (2), (3), or (4), full length L is within a range of 50～70.

Order

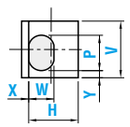
■The flange position is fixed. (F need not be specified.)

(1) If tip is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)
APHFES	08	08	—	60	—	P8.00	—	W6.00		

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	0.01mm increments X—Y	
APHFEL	10	10	—	60	—	P6.00	—	W5.00			—	X0.00	— Y0.50

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)

Days to Ship Quotation

■Features

These block punches have greater flange strength than ordinary block punches.Use them for punching of heavy loads or high-tensile steels where punch flanges are prone to damage.

Comparison of flange dimensions　Units: mm

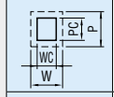
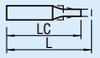
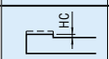
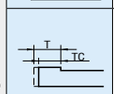
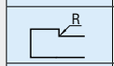
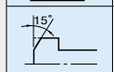
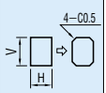
Type	Thickness	Width	Base R
Ordinary type	5	1.5	0.3 or less
Flange thickness 10mm type	10	2.0	0.8～1.0

Alterations

Catalog No. | V | H | - | L(LC) | - | P(PC)—W(WC)—R | - | X—Y | - (BC·PKC, etc.)

APHFES　10　10　-　LC58.5　-　P8.00 – W6.00　-　HC1.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 36mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change　P・W±0.01⇨ +0.01 0	
		PKV	Tip tolerance change　P・W±0.01⇨±0.005	
Alterations to full length		LC	Full length change 36+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 36mm or less, tip length is adjusted to (Full length−36).	
		LKC	Full length tolerance change　L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change　L +0.2 0 ⇨ +0.01 0	
Alterations to flange		HC	Flange width change 1.0≦HC<2.0 0.1mm increments	
		TC	Flange thickness change 5≦TC<10 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (10−TC). If combined with LC, full length is equal to LC.	
		RE	Flange R change R=0.8～1.0⇨R≦0.3	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
		TKC	Flange tolerance change　T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change　T +0.2 0 ⇨ 0 −0.02	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Chamfering of the flange base R portion is not performed.	
		VKC	Shank tolerance change　V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change　V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change　V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change　V・H +0.01 0 ⇨±0.005	

Quotation

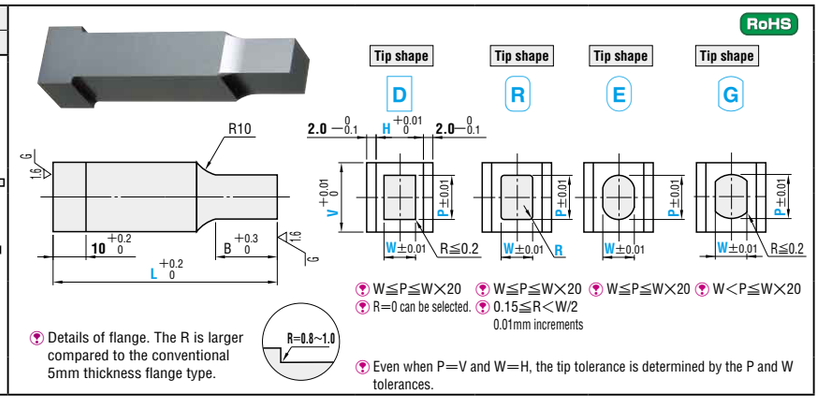
BLOCK PUNCHES

BLOCK PUNCHES（FOR HEAVY LOAD）

—FLANGE THICKNESS 10mm・DOUBLE FLANGES—

M H	Catalog No. Type	Tip shape	B Tip length
(H2～5) Equivalent to SKH51 61～64HRC (H6～13) Equivalent to SKD11 60～63HRC	AHW	D R E G	S L
Equivalent to SKH51 61～64HRC	AHSW (H6～13)		
Powdered high-speed steel 64～67HRC	APHW		Tip length (B) L>S

RoHS



W≦P≦W×20 W≦P≦W×20 W≦P≦W×20 W<P≦W×20
R=0 can be selected. 0.15≦R<W/2
0.01mm increments

Details of flange. The R is larger compared to the conventional 5mm thickness flange type.

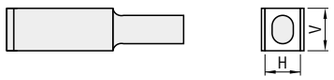
Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H \ V: Pmin. / Wmin.	V 3	4	5	6	8	10	13	16	20	22	25	28	30	L	B S	B L
				1.5	2.0	2.5	3.0	3.0	4.0	5.0	7.0	8.0	9.0	10.0	12.0	12.0			
AHW AHSW (H6～13) APHW	D R E G	S	(2)	1.0	○	○	○	○	○	○	○	○	○	○	○	○	50	6	8
			(3)	1.0	○	○	○	○	○	○	○	○	○	○	○	○	60		
			(4)	1.0		○	○	○	○	○	○	○	○	○	○	○	70	8	13
		L	5	1.2			○	○	○	○	○	○	○	○	○	○	80		
			6	1.5				○	○	○	○	○	○	○	○	○		13	19
			8	2.0					○	○	○	○	○	○	○	○			
			10	2.5						○	○	○	○	○	○	○			
			13	3.0							○	○	○	○	○	○			

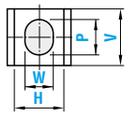
H(2)(3)(4)…L50～70 If H dimension is (2), (3) or (4), full length L is within a range of 50～70.

Order

■The flange position is fixed.（WF need not be specified.）

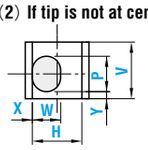


(1) If tip is at center of shank



Catalog No.	V	H	-	L	-	0.01mm increments P	-	W	-	R（R only）
APHWES	08	08	-	60	-	P6.00	-	W4.00		

(2) If tip is not at center of shank



Catalog No.	V	H	-	L	-	0.01mm increments P	-	W	-	R（R only）	-	0.01mm increments X—Y
APHWEL	10	10	-	60	-	P6.00	-	W5.00			-	X0.00 – Y0.10

（X and Y must be set either to 0 or to 0.02 or more.Tolerance±0.01）

Days to Ship Quotation

■Features

These block punches have greater flange strength than ordinary block punches.Use them for punching of heavy loads or high-tensile steels where punch flanges are prone to damage.

Comparison of flange dimensions Units: mm

Type	Thickness	Width	Base R
Ordinary type	5	1.5	0.3 or less
Flange thickness 10mm type	10	2.0	0.8 ～ 1.0

Alterations

Catalog No.	V	H	-	L(LC)	-	P(PC)-W(WC)-R	-	X-Y	-	(BC-PKC, etc.)
APHWES	10	10	-	LC57.5	-	P8.00-W6.00			-	TC8.0

Price Quotation

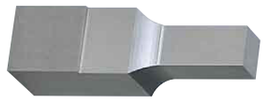
	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 36mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01⇨$^{+0.01}_{0}$	
		PKV	Tip tolerance change P・W±0.01⇨±0.005	
Alterations to full length		LC	Full length change 36+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 36mm or less, tip length is adjusted to (Full length−36).	
		LKC	Full length tolerance change L $^{+0.2}_{0}$ ⇨ $^{+0.05}_{0}$	Quotation
		LKZ	Full length tolerance change L $^{+0.2}_{0}$ ⇨ $^{+0.01}_{0}$	
Alterations to flange		HC	Flange width change 1.0≦HC<2.0 0.1mm increments	
		TC	Flange thickness change 5≦TC<10 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (10−TC). If combined with LC, full length is equal to LC.	
		RE	Flange R change R=0.8～1.0⇨R≦0.3	
		FK	Relief chamfering is added to flange top edge.	
		TKC	Flange tolerance change T $^{+0.2}_{0}$ ⇨ $^{+0.02}_{0}$	
		TKM	Flange tolerance change T $^{+0.2}_{0}$ ⇨ $^{0}_{-0.02}$	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Chamfering of the flange base R portion is not performed.	
		VKC	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{+0.005}_{0}$	
		VKM	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{0}_{-0.005}$	
		VHM	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ $^{0}_{-0.01}$	
		VHZ	Shank tolerance change V・H $^{+0.01}_{0}$ ⇨ ±0.005	

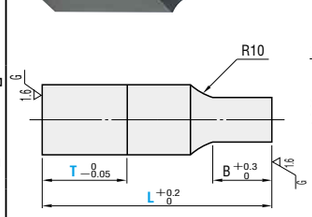
BLOCK PUNCHES

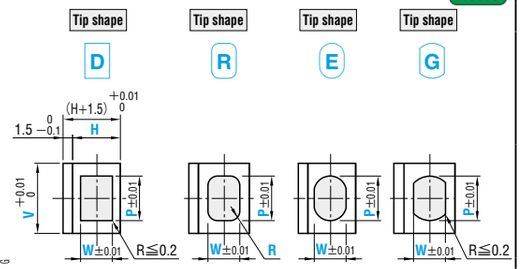
BLOCK PUNCHES
—FLANGE STOPPER TYPE—

M H	Catalog No. Type	Tip shape	B Tip length
(H3 ~ 5) Equivalent to SKH51 61 ~ 64HRC (H6 ~ 30) Equivalent to SKD11 60 ~ 63HRC	HT	D R E G	S
Equivalent to SKH51 61 ~ 64HRC	HST (H6 ~ 28)		L
Powdered high-speed steel 64 ~ 67HRC	PHT		Tip length (B) L>S

RoHS







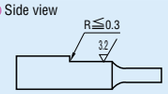
- W≦P≦W×20
- R=0 can be selected.
- W≦P≦W×20
- 0.15≦R<W/2
- 0.01mm increments
- W≦P≦W×20
- W≦P≦W×20
- W<P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

Catalog No. Type	Tip shape	B Tip length	H	V / Pmin. / Wmin.	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	(30) / 12.0	L	T	B S	B L
HT HST (H6 ~ 28) PHT	D R E G	S	(3)	1.0	○	○	○	○	○	○	○	○	○	○				(40)	13	6	8
			(4)	1.0		○	○	○	○	○	○	○	○	○							
			5	1.2			○	○	○	○	○	○	○	○	○	○	○	(50)	16	8	13
			6	1.5				○	○	○	○	○	○	○	○	○	○	60	20	13	19
			8	2.0					○	○	○	○	○	○	○	○	○	70	22	19	25
			10	2.5						○	○	○	○	○	○	○	○	80	25		
		L	13	3.0							○	○	○	○	○	○	○	90			
			16	4.0								○	○	○	○	○	○	100			
			20	5.0									○	○	○	○	○				
			22	6.0										○	○	○	○				
			25	6.5											○	○	○				
			28	7.0												○	○				
			(30)	7.5													○				

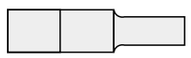
- B≦L−(T+15)
- L(40)・H10 ~ 30 ··· B=13 If full length is (40) and H dimension is 10 ~ 30, tip length is 13mm in all cases.
- L(50)・H16 ~ 30 ··· B=19 If full length is (50) and H dimension is 16 ~ 30, tip length is 19mm in all cases.
- H(3)(4) ··· L40 ~ 70 If H dimension is (3) or (4), full length L is within a range of 40 ~ 70.
- H(30) V(30)···HT□□,PHT□□ H dimension of 30 and V dimension of 30 are specifications available for HT□□ and PHT□□only.

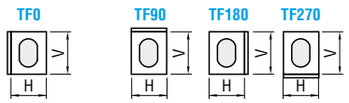
Side view



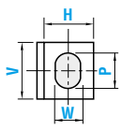
Order

■Flange position: TF specification



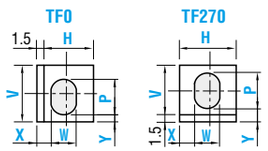


(1) If tip is at center of V and H.



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	T	—	TF
PHTES	08	08	—	60	—	P6.00	—	W4.00			—	T20	—	TF0

(2) If tip is not at center of V and H



X and Y dimensions include the flange.

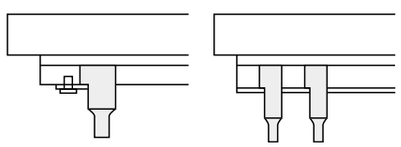
Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	T	—	TF	—	0.01mm increments X—Y
PHTEL	10	10	—	60	—	P6.00	—	W5.00			—	T16	—	TF0	—	X2.00 — Y0.50

- For TF0, X must be 1.5 or more. For TF90・TF180・TF270, X must be set either to 0 or to 0.02 or more.
- For TF270, Y must be 1.5 or more. For TF0・TF90・TF180, Y must be set either to 0 or to 0.02 or more.

Tolerance±0.01

Days to Ship Quotation

Example



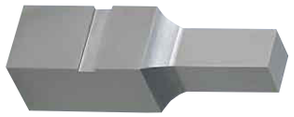
Alterations

Catalog No. V H − L.LC − P.PC − W.WC − R − T.TC − TF − X−Y − (BC・PKC, etc.)
PHTES 10 10 − LC58.5 − P8.00 − W6.00 − T20 − TF90 − HC1.0

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC): 0.50 ~ 0.99 → Bmax. 4; 1.00 ~ 1.19 → 8; 1.20 ~ 1.99 → 13; 2.00 ~ 2.99 → 20; 3.00 ~ 4.99 → 30; 5.00 ~ → 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length		LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length−30).	Quotation
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<25 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.)	
		TKC	Head thickness tolerance change T 0 −0.05 ⇨ 0 −0.02	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Min. 0.5mm	
		VKC	Shank tolerance change V・(H+1.5) +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・(H+1.5) +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・(H+1.5) +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・(H+1.5) +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H+1.5 −0.01 −0.03) is added.	

BLOCK PUNCHES
—CONFIGURABLE SIZE TYPE—



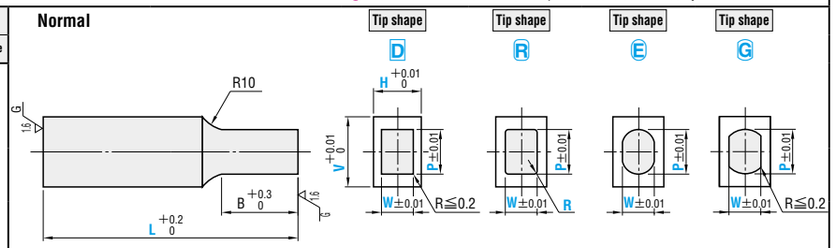
●Tip machining limit RoHS

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20	W≦P≦W×20	W<P≦W×20
R=0 can be selected.	0.15≦R<W/2 0.01mm increments		

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.

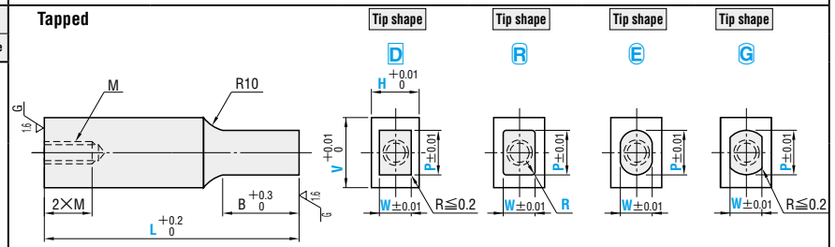
M H	Shank dimensions V·H	Catalog No. Type	Tip shape
(H3.0 ~ 5.0) Equivalent to SKH51 61 ~ 64HRC (H5.1 ~ 30.0) Equivalent to SKD11 60 ~ 63HRC	V3.0 ~ 50 H3.0 ~ 30	FHP	D R E G
Equivalent to SKH51 61 ~ 64HRC	V5.1 ~ 30 H5.1 ~ 30	FHSP	
Powdered high-speed steel 64 ~ 67HRC	V3.0 ~ 30 H3.0 ~ 30	FPHP	

Normal



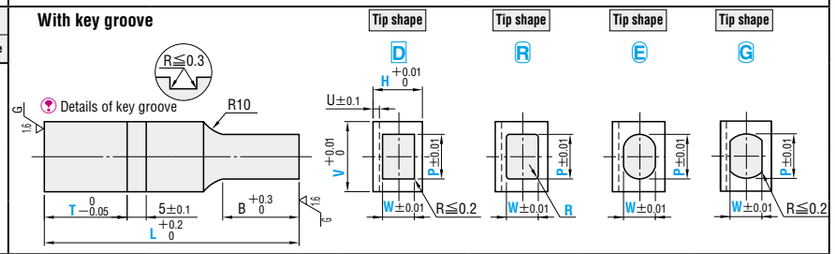
M H	Shank dimensions V·H	Catalog No. Type	Tip shape
Equivalent to SKD11 60 ~ 63HRC	V5.1 ~ 50 H5.1 ~ 30	FHM	D R E G
Equivalent to SKH51 61 ~ 64HRC	V5.1 ~ 30 H5.1 ~ 30	FHSM	
Powdered high-speed steel 64 ~ 67HRC	V5.1 ~ 30 H5.1 ~ 30	FPHM	

Tapped



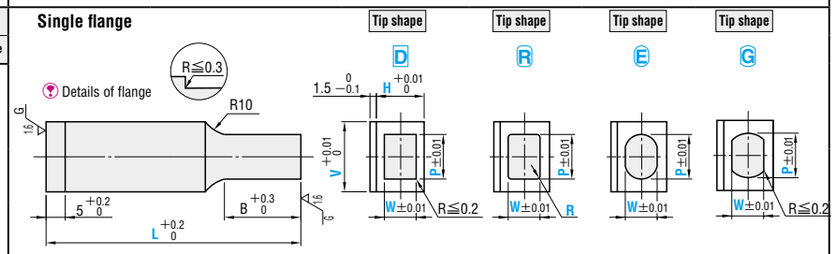
M H	Shank dimensions V·H	Catalog No. Type	Tip shape
(H3.0 ~ 5.0) Equivalent to SKH51 61 ~ 64HRC (H5.1 ~ 30.0) Equivalent to SKD11 60 ~ 63HRC	V3.0 ~ 50 H3.0 ~ 30	FHK	D R E G
Equivalent to SKH51 61 ~ 64HRC	V5.1 ~ 30 H5.1 ~ 30	FHSK	
Powdered high-speed steel 64 ~ 67HRC	V3.0 ~ 30 H3.0 ~ 30	FPHK	

With key groove



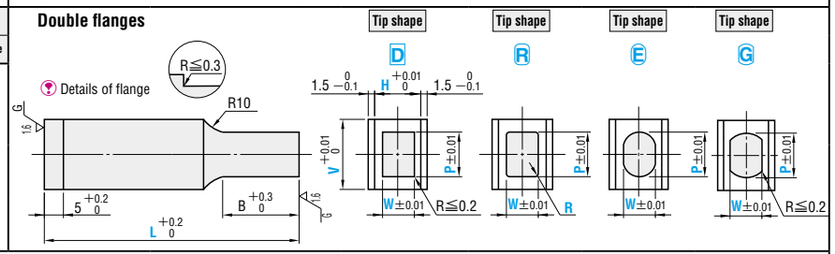
M H	Shank dimensions V·H	Catalog No. Type	Tip shape
(H3.0 ~ 5.0) Equivalent to SKH51 61 ~ 64HRC (H5.1 ~ 30.0) Equivalent to SKD11 60 ~ 63HRC	V3.0 ~ 50 H3.0 ~ 30	FHF	D R E G
Equivalent to SKH51 61 ~ 64HRC	V5.1 ~ 30 H5.1 ~ 30	FHSF	
Powdered high-speed steel 64 ~ 67HRC	V3.0 ~ 30 H3.0 ~ 30	FPHF	

Single flange



M H	Shank dimensions V·H	Catalog No. Type	Tip shape
(H3.0 ~ 5.0) Equivalent to SKH51 61 ~ 64HRC (H5.1 ~ 30.0) Equivalent to SKD11 60 ~ 63HRC	V3.0 ~ 50 H3.0 ~ 30	FHW	D R E G
Equivalent to SKH51 61 ~ 64HRC	V5.1 ~ 30 H5.1 ~ 30	FHSW	
Powdered high-speed steel 64 ~ 67HRC	V3.0 ~ 30 H3.0 ~ 30	FPHW	

Double flanges



■Key groove position change
Flange position change

●With key groove K0 K90 K180 K270

●Single flange F0 F90 F180 F270

●Double flanges WF0 WF90

Catalog No. Type		Tip shape	H \ V	Wmin.	Pmin.	V 3.0~4.0	4.1~5.0	5.1~6.0	6.1~8.0	8.1~10.0	10.1~13.0	13.1~16.0	16.1~20.0	20.1~25.0	25.1~30.0	30.1~40.0	40.1~50.0
Normal	FHP FSP	D	(3.0 ~ 4.0)	1.0		○	○	○	○	○	○	○					
	FHP		4.1 ~ 5.0	1.2			○	○	○	○	○	○	○	○	○		
Tapped	FHM FSM		5.1 ~ 6.0	1.5				○	○	○	○	○	○	○	○		
	FHM	R	6.1 ~ 8.0	2.0					○	○	○	○	○	○	○	○	
With key groove	FHK FSK		8.1 ~ 10.0	2.5						○	○	○	○	○	○	○	○
	FHK	E	10.1 ~ 13.0	3.0							○	○	○	○	○	○	○
	FHF FSF		13.1 ~ 16.0	4.0								○	○	○	○	○	○
Single flange	FHF	G	16.1 ~ 20.0	5.0									○	○	○	○	○
	FHW FSW		20.1 ~ 25.0	6.5										○	○	○	○
Double flanges	FHW		25.1 ~ 30.0	7.5											○	○	○

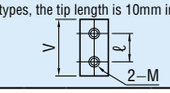
L	T (0.1mm)	B	M	U
(40)	T≧2.0	8	—	1.0
(50)		13	—	
60			3	
70			4	1.5
80		19	5	
90			6	
100		25	8	

L(40)・H8.1 ~ 30···B=13 If full length is (40) and H dimension is 8.1 ~ 30, tip length is 13mm in all cases. (For tapped types, the tip length is 10mm in all cases.)

L(50)・H13.1 ~ 30···B=19 If full length is (50) and H dimension is 13.1 ~ 30, tip length is 19mm in all cases.

H(3.0 ~ 4.0)···L40 ~ 70 If H dimension is (3.0 ~ 4.0), full length L is within a range of 40 ~ 70.

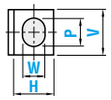
V30.1 ~ 50.0···If V is 30.1 ~ 50.0, two taps are provided at the pitch shown in the figure at right.



V	ℓ
30.1 ~ 40.0	20
40.1 ~ 50.0	24

Order

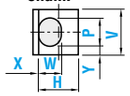
(1) If tip is at center of shank



Catalog No. — V — H — L — P — W — R(R only) — T≧2 — K F WF

FHPD	— V23.5	— H12.0	— 60	— P18.00	— W 4.00			
FHMD	— V17.0	— H10.0	— 100	— P16.00	— W 9.00			
FPHKD	— V 9.0	— H 5.5	— 60	— P 8.00	— W 5.00		— T25.5	— K0
FPHFD	— V17.0	— H14.0	— 60	— P15.00	— W12.00			— F0
FPHWD	— V 9.5	— H 6.0	— 40	— P 8.00	— W 5.00			— WF90

(2) If tip is not at center of shank



Catalog No. — V — H — L — P — W — R(R only) — T≧2 — K F WF — X—Y

FHFE — V16.5 — H14.0 — 50 — P15.00 — W12.00 — F0 — X0.00—Y0.50

X and Y must be set either to 0 or to 0.02 or more.Tolerance±0.01

Days to Ship Quotation

Price Quotation

Catalog No. — V — H — L(LC) — P(PC)・W(WC) — T — K・F・WF — (BC・HC・TC, etc.)

FHMD — V19.0 — H7.9 — 60 — P18.00—WC1.50 — VKC—MC3

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments (W (WC) / Bmax.: 0.50 ~ 0.99: 4; 1.00 ~ 1.19: 8; 1.20 ~ 1.99: 13; 2.00 ~ 2.99: 20; 3.00 ~ 4.99: 30; 5.00 ~: 35)	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
		SC	Lapping of tip W≧2.00 P dimension tolerance and increment remain the same. ⊗ R=0 cannot be selected for the tip D corner.	
		PKC	Tip tolerance change P・W±0.01⇨+0.01 0	Quotation
		PKV	Tip tolerance change P・W±0.01⇨±0.005	
Alterations to full length		LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length−30).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	

	Alteration	Code	Spec.	1Code
Key groove		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
		WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 H−(2×U(UK)≧2.0(K0,K180) V−(2×U(UK)≧2.0(K90,K270) An additional key groove is added in a position symmetrically opposite to the specified key groove. Can be used for key groove types. Can be combined with UK.	
		UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)−UK≧2.0 Can be used for key groove types. Can be combined with WK.	
Tap		MC	Tap diameter change (H dimension / Standard / selection: 6.1 ~ 8.0: M4 / M3; 8.1 ~ 10.0: M5 / M4・M6; 10.1 ~ 13.0: M6 / M4(V10.1 ~ 16.0) M5・M8; 13.1 ~ 16.0: M8 / M5(V13.1 ~ 20.0) M6・M10; 16.1 ~ 30.0: M8 / M6・M10) Specify number following MC to select tap diameter. (Refer to order example.)	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5.The distance between shank corners and the tip must be 0.5mm or more. Min. 0.5mm	Quotation
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added. Can be used for normal, tapped, and key groove types.	

BLOCK PUNCHES

BLOCK PUNCHES
—WPC® TREATMENT—

PRODUCTS DATA P.1605

—WPC® Treatment—

S WPC® treatment
H 1000～1100HV
Although the effective range of the treatment is part B, a WPC® treatment layer may be formed also on the shank up to a length of approximately 10mm.

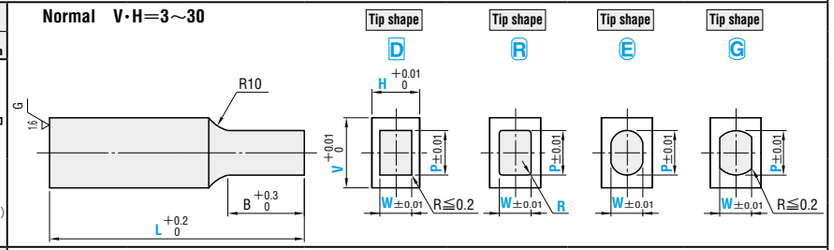
●Tip machining limit RoHS

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20 0.15≦R<W/2 0.01mm increments	W≦P≦W×20	W<P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip edges are very slightly rounded.

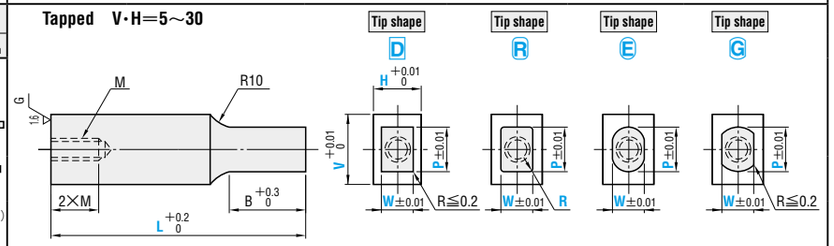
Normal V·H=3～30

M / H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	W—HP	D R E G	S L
Equivalent to SKH51 61～64HRC	W—HSP (H6～30)		Tip length (B) L>S
Powdered high-speed steel 64～67HRC	W—PHP		



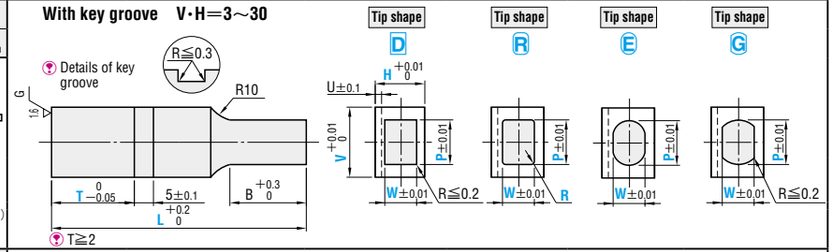
Tapped V·H=5～30

M / H	Catalog No. Type	Tip shape	B Tip length
(H5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	W—HM	D R E G	S L
Equivalent to SKH51 61～64HRC	W—HSM (H6～30)		Tip length (B) L>S
Powdered high-speed steel 64～67HRC	W—PHM		



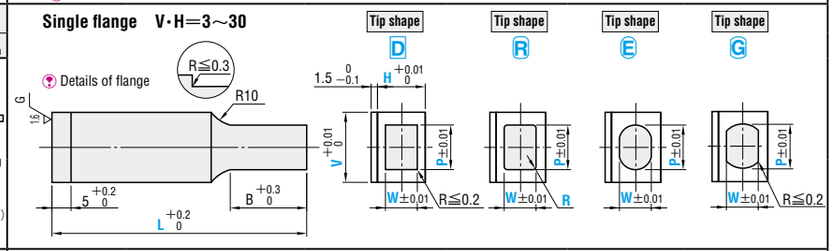
With key groove V·H=3～30

M / H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	W—HK	D R E G	S L
Equivalent to SKH51 61～64HRC	W—HSK (H6～30)		Tip length (B) L>S
Powdered high-speed steel 64～67HRC	W—PHK		



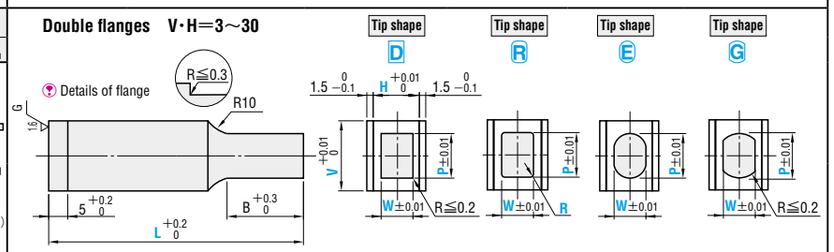
Single flange V·H=3～30

M / H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	W—HF	D R E G	S L
Equivalent to SKH51 61～64HRC	W—HSF (H6～30)		Tip length (B) L>S
Powdered high-speed steel 64～67HRC	W—PHF		



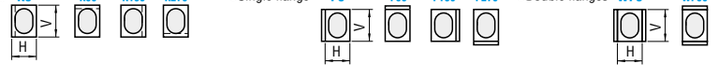
Double flanges V·H=3～30

M / H	Catalog No. Type	Tip shape	B Tip length
(H3～5) Equivalent to SKH51 61～64HRC (H6～30) Equivalent to SKD11 60～63HRC	W—HW	D R E G	S L
Equivalent to SKH51 61～64HRC	W—HSW (H6～30)		Tip length (B) L>S
Powdered high-speed steel 64～67HRC	W—PHW		



■Key groove position change
Flange position change

●With key groove K0 K90 K180 K270
●Single flange F0 F90 F180 F270
●Double flanges WF0 WF90



Catalog No. Type	Tip shape	B Tip length	H \ W (P min.)	V 3 (1.5)	4 (2.0)	5 (2.5)	6 (3.0)	8 (3.0)	10 (4.0)	13 (5.0)	16 (7.0)	20 (8.0)	22 (9.0)	25 (10.0)	28 (12.0)	30 (12.0)	L	0.1mm T	B S	B L	M	U
Normal W—HP W—HSP W—PHP; Tapped W—HM W—HSM W—PHM; With key groove W—HK W—HSK W—PHK; Single flange W—HF W—HSF W—PHF; Double flanges W—HW W—HSW W—PHW	D R E G	S	(3) 1.0	○	○	○	○	○	○	○	○	○					(40)	T≧2	6	8	—	1.0
			(4) 1.0		○	○	○	○	○	○	○	○										
			5 1.2			○	○	○	○	○	○	○	○	○	○	○	(50)		8	13	3	
			6 1.5				○	○	○	○	○	○	○	○	○	○					4	
			8 2.0					○	○	○	○	○	○	○	○	○	60				5	1.5
			10 2.5						○	○	○	○	○	○	○	○			13	19	6	
	R		13 3.0							○	○	○	○	○	○	○	70					
		E	16 4.0								○	○	○	○	○	○	80		19	25	8	
			20 5.0									○	○	○	○	○						
		G	22 6.0										○	○	○	○	90					
		L	25 6.5											○	○	○						
			28 7.0												○	○	100					
			30 7.5													○						

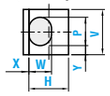
L(40)・H10～30…B=13 If full length is (40) and H dimension is 10～30, tip length is 13mm in all cases. (For tapped types, the tip length is 10mm in all cases.)
L(50)・H16～30…B=19 If full length is (50) and H dimension is 16～30, tip length is 19mm in all cases.
H(3) (4) …L40～70 If H dimension is (3) or (4), the full length L is within a range of 40～70.

Order

(1) If tip is at center of shank

Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧2	K·F·WF
W—HSMRL	20	10	70	P16.00	W9.00	R0.20		
W—PHKES	10	06	60	P8.00	W5.00		T25.5	K0

(2) If tip is not at center of shank (X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



Catalog No.	V	H	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧2	K·F·WF	0.01mm increments X—Y
W—HSFDL	16	13	50	P15.00	W12.00			F90	X0.00—Y0.55

Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	V	H	L(LC)	P(PC)·W(WC)·R	T≧2	K·F·WF	X—Y	(BC·HC·TC, etc.)
W—HSKDS	20	08	60	P18.00 WC1.50	T25.5			LKC

Alteration	Code	Spec.	1Code
Alterations to tip	PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments (W (WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35)	Quotation
	BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
Alterations to full length	LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length−30).	
	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Tap	MC (MMC)	Tap diameter change Equivalent to SKD11: H 6 8 10 13 16 20 22 25 28-30; 6 M4→M3 — —; 8 — M5→M4 — —; 10 — — (M6→M4 / M6→M5) M6→M5; 13 — — — (M8→M5 / M8→M6) M8→M6; For change from M6 to M4 / For change from M8 to M5 Select MMC; SKH51・Powdered high-speed steel: H 6 8 10 13 16 20 22; 6 M4→M3 —; 8 — M5→M4; 10 — — M6→M5; 13 — — — M8→M6	
Key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
	WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 U (UK) H H−(2×U(UK))≧2.0 (K0,K180) V−(2×U(UK))≧2.0 (K90,K270) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be used for key groove types. Can be combined with UK.	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)−UK≧2.0 Can be used for key groove types. Can be combined with WK.	

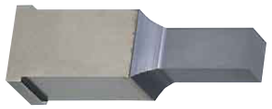
Alteration	Code	Spec.	1Code
Flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	
	TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
	TKC	Flange thickness tolerance change T +0.2 0 ⇨ +0.02 0	
	TKM	Flange thickness tolerance change T +0.2 0 ⇨ 0 −0.02	
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (4−C0.5; Min. 0.5mm)	Quotation
	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 (Tip corner) ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
	VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
	VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
	VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
	VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
	DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added. Can be used for normal, tapped, and key groove types	

BLOCK PUNCHES

BLOCK PUNCHES
—TiCN COATING—

PRODUCTS DATA P.1604

—TiCN coating—



S TiCN
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

RoHS

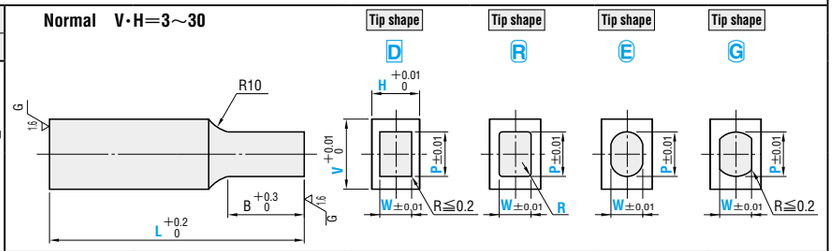
●Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20	W≦P≦W×20	W<P≦W×20
R=0 can be selected.	0.15≦R<W/2 0.01mm increments		

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip end is ground before the coating is applied.

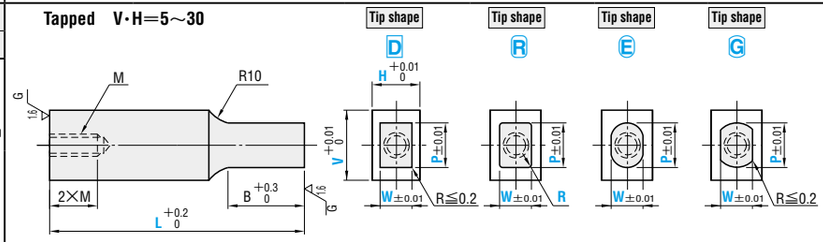
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSP	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHP		

Normal V·H=3~30



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSM	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHM		

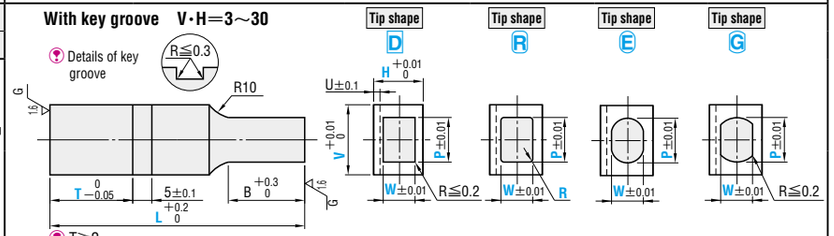
Tapped V·H=5~30



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSK	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHK		

With key groove V·H=3~30

Details of key groove

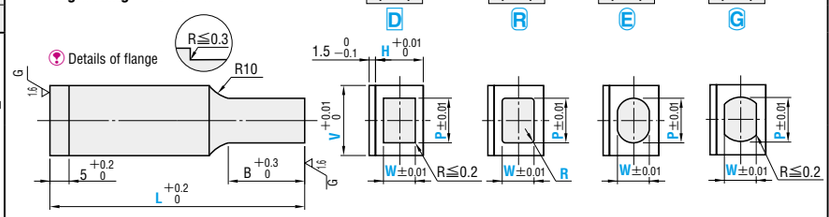


T≧2

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSF	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHF		

Single flange V·H=3~30

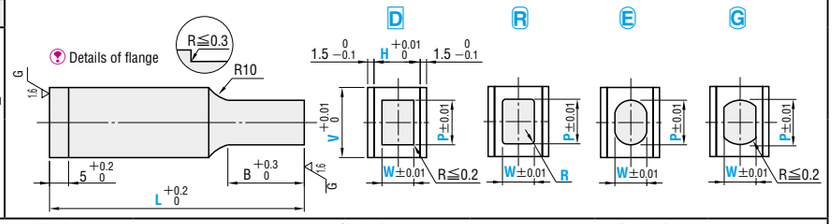
Details of flange



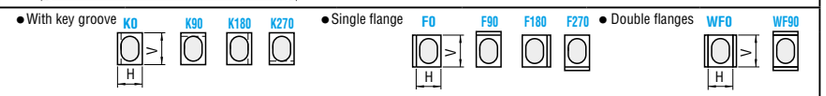
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSW	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHW		

Double flanges V·H=3~30

Details of flange



■Key groove position change
Flange position change



Catalog No. Type	Tip shape	B Tip length	H \ V (W min. / P min.)	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	0.1mm T	B S	B L	M	U
Normal H—HSP H—PHP	D R E G	S	(3) 1.0	○	○	○	○	○	○	○	○	○	○				(40)	T≧2	6	8	—	1.0
			(4) 1.0		○	○	○	○	○	○	○	○	○									
Tapped H—HSM H—PHM			5 1.2			○	○	○	○	○	○	○	○	○	○	○	(50)		8	13	3	
			6 1.5				○	○	○	○	○	○	○	○	○	○					4	
			8 2.0					○	○	○	○	○	○	○	○	○	60				5	1.5
With key groove H—HSK H—PHK			10 2.5						○	○	○	○	○	○	○	○			13	19	6	
			13 3.0							○	○	○	○	○	○	○	70				8	
Single flange H—HSF H—PHF		L	16 4.0								○	○	○	○	○	○	80		19	25		
			20 5.0									○	○	○	○	○						
			22 6.0										○	○	○	○	90					
			25 6.5											○	○	○						
Double flanges H—HSW H—PHW			28 7.0												○	○	100					
			30 7.5													○						

L(40)・H10~30…B=13 — If full length is (40) and H dimension is 10~30, tip length is 13mm in all cases. (For tapped types, the tip length is 10mm in all cases.)
L(50)・H16~30…B=19 — If full length is (50) and H dimension is 16~30, tip length is 19mm in all cases.
H(3) (4)…L40~70 — If H dimension is (3) or (4), full length L is within a range of 40~70.

Order

(1) If tip is at center of shank

Catalog No.	V	H	—	L	—	P (0.01mm increments)	—	W	—	R (R only)	—	T≧2 (0.1mm increments)	—	K・F・WF
H—HSPDS	08	08	—	60	—	P 6.00	—	W 4.00						
H—HSMRL	20	10	—	70	—	P16.00	—	W 9.00	—	R0.20				
H—PHKES	10	06	—	60	—	P 8.00	—	W 5.00			—	T25.5	—	K0
H—HSFDL	16	13	—	60	—	P15.00	—	W12.00					—	F90
H—HSWEL	13	10	—	40	—	P 8.00	—	W 5.00					—	WF90

(2) If tip is not at center of shank (X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01If X and Y are 0, an additional coating layer of 3~5 μ is added.)

Catalog No.	V	H	—	L	—	P (0.01mm increments)	—	W	—	R (R only)	—	T≧2 (0.1mm increments)	—	K・F・WF	—	X—Y (0.01mm increments)
H—HSFDL	16	13	—	50	—	P15.00	—	W12.00					—	F90	—	X0.00—Y0.55

Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	V	H	—	L(LC)	—	P(PC)・W(WC)・R	—	T≧2	—	K・F・WF	—	X—Y	—	(BC・HC・TC, etc.)
H—HSKDS	20	08	—	60	—	P18.00—WC1.50	—	T25.5	—	K0			—	LKC

Alteration	Code	Spec.	1Code
Alterations to tip	PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments	Quotation
	BC	Tip length change 2≦BC≦Bmax. 0.1mm increments (Full length (L) must be at least 30mm longer than tip length (BC))	
Alterations to full length	LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	
	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Tap	MC	Tap diameter change	
Key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
	WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 H—(2×U(UK))≧2.0(K0,K180) V—(2×U(UK))≧2.0(K90,K270) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be used for key groove types. Can be combined with UK.	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)—UK≧2.0 Can be used for key groove types. Can be combined with WK.	

Tap diameter change

H \ V	6	8	10	13	16	20	22
6	M4→M3						—
8	—	M5→M4					
10	—	—	M6→M5				
13	—	—	—	M8→M6			

Alteration	Code	Spec.	1Code
Flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	
	TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
	TKC	Flange thickness tolerance change T +0.2 0 ⇨ +0.02 0	
	TKM	Flange thickness tolerance change T +0.2 0 ⇨ 0 −0.02	
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (4—C0.5, Min. 0.5mm)	Quotation
	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0.Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 (Tip corner) ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
	VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
	VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
	VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
	VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
	DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added. Can be used for normal, tapped, and key groove types.	

BLOCK PUNCHES

BLOCK PUNCHES
—HW COATING—

PRODUCTS DATA P.1605

—HW coating—

- S HW coating
- H 3000HV
- Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

●Tip machining limit

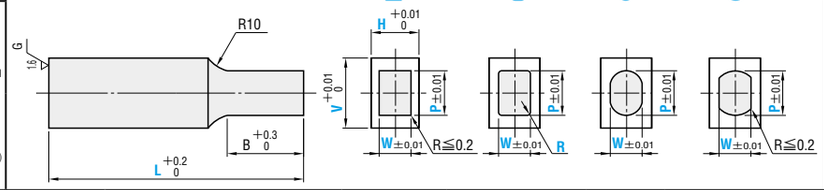
RoHS

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20 0.15≦R<W/2 0.01mm increments	W≦P≦W×20	W<P≦W×20

- Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
- The tip edges are very slightly rounded.

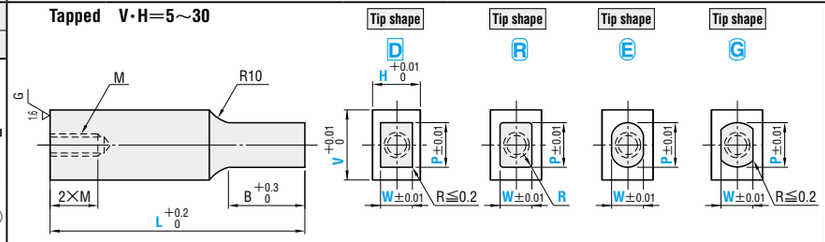
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSP	D R E G	S
Powdered high-speed steel 64～67HRC	HW—PHP		L Tip length (B) L>S

Normal V·H=3～30



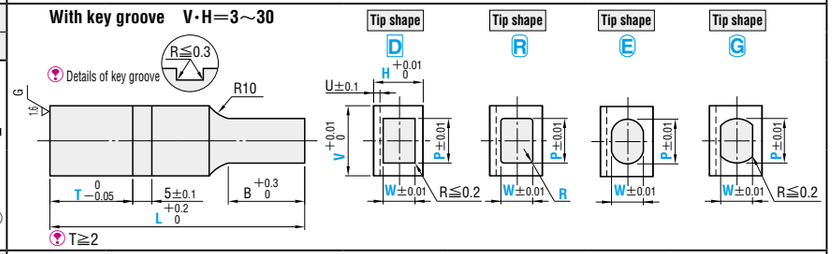
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSM	D R E G	S
Powdered high-speed steel 64～67HRC	HW—PHM		L Tip length (B) L>S

Tapped V·H=5～30



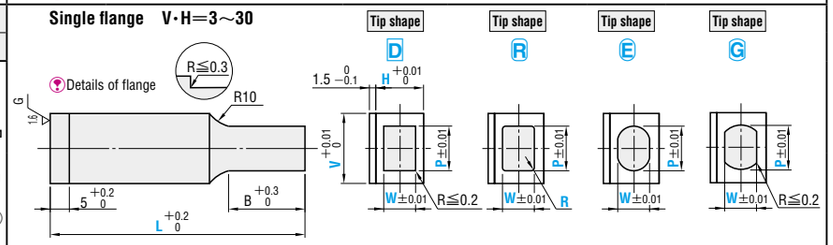
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSK	D R E G	S
Powdered high-speed steel 64～67HRC	HW—PHK		L Tip length (B) L>S

With key groove V·H=3～30



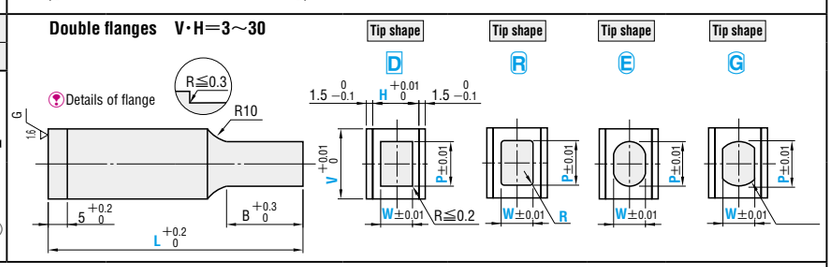
M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSF	D R E G	S
Powdered high-speed steel 64～67HRC	HW—PHF		L Tip length (B) L>S

Single flange V·H=3～30



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSW	D R E G	S
Powdered high-speed steel 64～67HRC	HW—PHW		L Tip length (B) L>S

Double flanges V·H=3～30



■Key groove position change
Flange position change

●With key groove K0 K90 K180 K270

●Single flange F0 F90 F180 F270

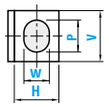
●Double flanges WF0 WF90

Catalog No. Type	Tip shape	B Tip length	H \ V (W min.)	3 (1.5)	4 (2.0)	5 (2.5)	6 (3.0)	8 (3.0)	10 (4.0)	13 (5.0)	16 (7.0)	20 (8.0)	22 (9.0)	25 (10.0)	28 (12.0)	30 (12.0)	L	0.1mm T	B S	B L	M	U
Normal HW—HSP HW—PHP	D R E G	S	(3) 1.0	○	○	○	○	○	○	○	○	○	○				(40)	T≧2	6	8	—	1.0
			(4) 1.0		○	○	○	○	○	○	○	○	○									
			5 1.2			○	○	○	○	○	○	○	○	○	○	○	(50)		8	13	3	
Tapped HW—HSM HW—PHM			6 1.5				○	○	○	○	○	○	○	○	○	○					4	
			8 2.0					○	○	○	○	○	○	○	○	○	60				5	1.5
With key groove HW—HSK HW—PHK			10 2.5						○	○	○	○	○	○	○	○			13	19	6	
			13 3.0							○	○	○	○	○	○	○	70				8	
		L	16 4.0								○	○	○	○	○	○			19	25		
Single flange HW—HSF HW—PHF			20 5.0									○	○	○	○	○	80					
			22 6.0										○	○	○	○						
			25 6.5											○	○	○	90					
Double flanges HW—HSW HW—PHW			28 7.0												○	○						
			30 7.5													○	100					

- L(40)・H10～30…B=13 If full length is (40) and H dimension is 10～30, tip length is 13mm in all cases. (For tapped types, the tip length is 10mm in all cases.)
- L(50)・H16～30…B=19 If full length is (50) and H dimension is 16～30, tip length is 19mm in all cases.
- H(3)(4)…L40～70 If H dimension is (3) or (4), full length L is within a range of 40～70.

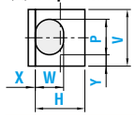
Order

(1) If tip is at center of shank



Catalog No.	V	H	— L	— 0.01mm increments P	— W	— R (R only)	— 0.1mm increments T≧2	— K·F·WF
HW—HSPDS	08	08	— 60	— P 6.00	— W 4.00			
HW—HSMRL	20	10	— 70	— P16.00	— W 9.00	— R0.20		
HW—PHKES	10	06	— 60	— P 8.00	— W 5.00		— T25.5	— K0
HW—HSFDL	16	13	— 60	— P15.00	— W12.00			— F90
HW—HSWEL	13	10	— 40	— P 8.00	— W 5.00			— WF90

(2) If tip is not at center of shank (X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01. If X and Y are 0, an additional coating layer of 3～5 μ is added.)



Catalog No.	V	H	— L	— 0.01mm increments P	— W	— R (R only)	— 0.1mm increments T≧2	— K·F·WF	— 0.01mm increments X—Y
HW—HSFDL	16	13	— 50	— P15.00	— W12.00			— F90	— X0.00—Y0.55

Days to Ship **Quotation**

Price **Quotation**

Alterations

Catalog No. V H — L(LC) — P(PC)・W(WC)・R — T≧2 — K・F・WF — X—Y — (BC・HC・TC, etc.)

HW—HSKDS 20 08 — 60 — P18.00—WC1.50 — T25.5 — K0 — LKC

Alteration	Code	Spec.	1Code
Alterations to tip	PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W(WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35	
	BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
Alterations to full length	LC	Full length change 30+B(BC)≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length—30).	Quotation
	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Tap	MC	Tap diameter change H \ V: 6 / 8 / 10 / 13 / 16 / 20 / 22 6: M4 → M3 / — 8: — / M5 → M4 10: — / — / M6 → M5 13: — / — / — / M8 → M6	
Key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
	WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 H—(2×U(UK))≧2.0 (K0,K180) V—(2×U(UK))≧2.0 (K90,K270) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be used for key groove types. Can be combined with UK.	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)—UK≧2.0 Can be used for key groove types. Can be combined with WK.	

Alteration	Code	Spec.	1Code
Flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	
	TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
	TKC	Flange thickness tolerance change T +0.2 0 ⇨ +0.02 0	
	TKM	Flange thickness tolerance change T +0.2 0 ⇨ 0 −0.02	
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. 4—C0.5 Min. 0.5mm	Quotation
	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 C1.0 Tip corner Tip corner ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
	VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
	VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
	VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
	VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
	DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added. Can be used for normal, tapped, and key groove types.	

JECTOR BLOCK PUNCHES

—WPC® TREATMENT—

PRODUCTS DATA P.1605

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

—WPC® treatment—

RoHS

S WPC® treatment
H 1000～1100HV
Although the effective range of the treatment is part B , a WPC® treatment layer may be formed also on the shank up to a length of approximately 10mm.

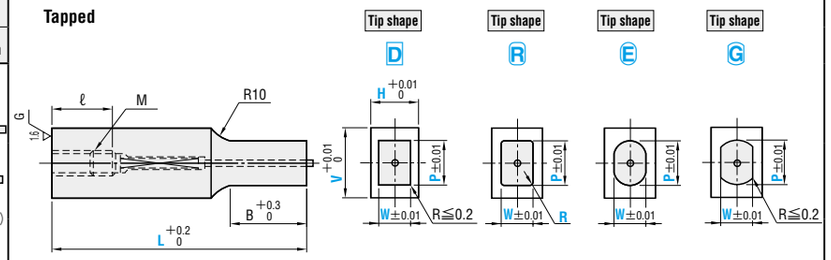
●Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P	W≦P 0.15≦R<W/2 0.01mm increments	W≦P	W<P

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip edges are very slightly rounded.

M / H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	W—HJM	D R E G	S L Tip length (B) L>S
Equivalent to SKH51 61～64HRC	W—HSJM		
Powdered high-speed steel 64～67HRC	W—PHJM		

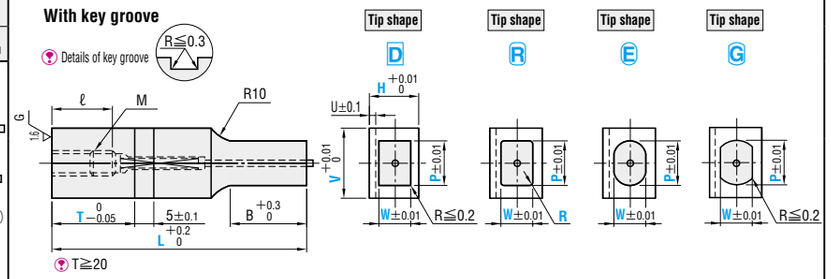
Tapped



M / H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	W—HJK	D R E G	S L Tip length (B) L>S
Equivalent to SKH51 61～64HRC	W—HSJK		
Powdered high-speed steel 64～67HRC	W—PHJK		

With key group

Details of key groove R≦0.3

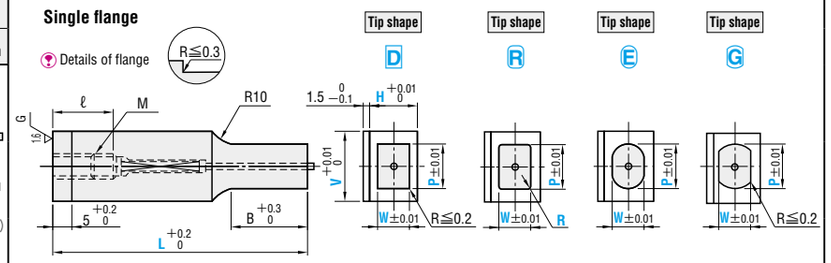


T≧20

M / H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	W—HJF	D R E G	S L Tip length (B) L>S
Equivalent to SKH51 61～64HRC	W—HSJF		
Powdered high-speed steel 64～67HRC	W—PHJF		

Single flange

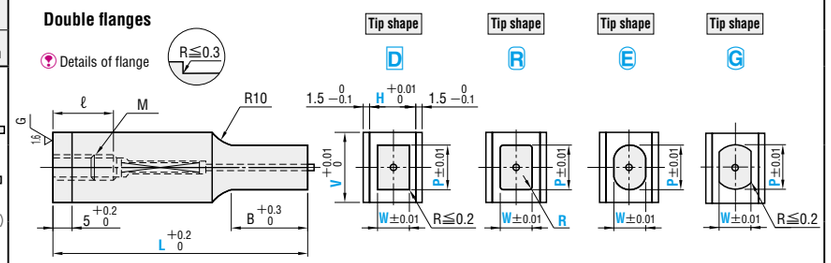
Details of flange R≦0.3



M / H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKD11 60～63HRC	W—HJW	D R E G	S L Tip length (B) L>S
Equivalent to SKH51 61～64HRC	W—HSJW		
Powdered high-speed steel 64～67HRC	W—PHJW		

Double flanges

Details of flange R≦0.3



Catalog No. Type	Tip shape	B Tip length	H \ V (Wmin. / Pmin.)	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	0.1mm T	B S	B L	M	ℓ	U
Tapped W—HJM W—HSJM W—PHJM	D R E G	S L	6 / 2.0	○	○	○	○	○	○	○	○	○	○	(40) (50) 60 70 80	T≧20	8	13	4	12	1.0
With key groove W—HJK W—HSJK W—PHJK			8 / 2.5		○	○	○	○	○	○	○	○	○					5		1.5
Single flange W—HJF W—HSJF W—PHJF			10 / 3.0			○	○	○	○	○	○	○	○			13	19	6		
Double flanges W—HJW W—HSJW W—PHJW			13 / 4.0				○	○	○	○	○	○	○					8		
			16 / 5.0					○	○	○	○	○	○			19	25			
			20 / 6.0						○	○	○	○	○							
			22 / 6.0							○	○	○	○							
			25 / 6.0								○	○	○							

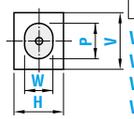
L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25···B=13(10) If full length is (50) and H dimension is 10～25, tip length is 13mm in all cases. (For types with key grooves, the tip length is 10mm.)

Order

■Key groove position and flange position change

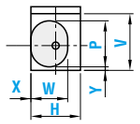
With key groove	K0	K90	K180	K270	Single flange	F0	F90	F180	F270	Double flanges	WF0	WF90

(1) If tip is at center of shank



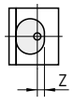
Catalog No.	V	H	L	P	W	R (R only)	T≧20	K・F・WF
W—HSJMRL	20	10	70	P16.00	W 9.00	R0.15		
W—PHJKES	08	06	60	P 7.00	W 5.00		T25.5	K0
W—HSJFDL	16	13	60	P15.00	W12.00			F90
W—HSJWEL	13	10	40	P 8.00	W 5.00			WF90

(2) If tip is not at center of shank



Catalog No.	V	H	L	P	W	R (R only)	T≧20	K・F・WF	X—Y
W—HSJFDL	16	13	50	P15.00	W12.00			F90	X0.00—Y0.55

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges.
The jector hole position cannot be changed.

Days to Ship **Quotation**

Price **Quotation**

Alterations Catalog No. V H — L(LC) — P・W・R — T — K・F・WF — X—Y — (BC・HC・TC, etc.)
W—HSJMDS 20 08 — 60 — P18.00—W3.50 — LKC

Alteration	Code	Spec.	1Code
Tip	BC	Tip length change (shorter than standard) 2≦BC≦B 0.1mm increments	
Alterations to full length	LC	Full length change LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
	LKC	Full length tolerance change $L^{+0.2}_{0} \Rightarrow {}^{+0.05}_{0}$	
Key groove	TKC	Key groove position tolerance change $T^{0}_{-0.05} \Rightarrow {}^{0}_{-0.02}$	
	RTC	Key groove position tolerance change $T^{0}_{-0.05} \Rightarrow {}^{+0.05}_{0}$	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for key groove types. Can be used for H≧10 (K0,K180) V≧10 (K90,K270) .	Quotation
Alterations to flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	
	TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
	TKC	Flange thickness tolerance change $T^{+0.2}_{0} \Rightarrow {}^{+0.02}_{0}$	
	TKM	Flange thickness tolerance change $T^{+0.2}_{0} \Rightarrow {}^{0}_{-0.02}$	
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Shape	JVC	Change of spring to reinforced type 8≦H≦25···Can be used for L≧60. Cannot be used for H6.	

Alteration	Code	Spec.	1Code
Alterations to shape	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	
	AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
	NC	The jector pin is removed. Cannot be combined with AC.	
	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for tapped types only.	Quotation
	VKC	Shank tolerance change $V・H^{+0.01}_{0} \Rightarrow {}^{+0.005}_{0}$	
	VKM	Shank tolerance change $V・H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.005}$	
	VHM	Shank tolerance change $V・H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.01}$	
	VHZ	Shank tolerance change $V・H^{+0.01}_{0} \Rightarrow \pm0.005$	
	DC	Addition of press-in lead Press-in lead of 3mm ($V・H^{-0.01}_{-0.03}$) is added. Can be used for tapped types and key groove types.	

BLOCK PUNCHES

JECTOR BLOCK PUNCHES

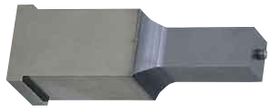
—TiCN COATING—

PRODUCTS DATA P.1604

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

—TiCN coating—

RoHS



S TiCN
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

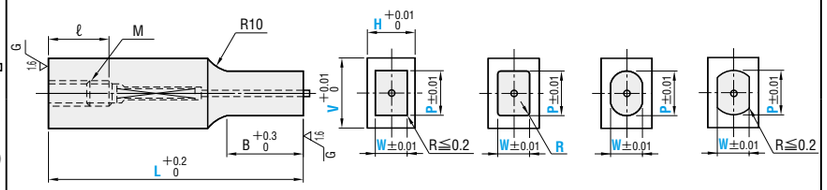
●Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P	W≦P	W≦P	W<P
R=0 can be selected.	0.15≦R<W/2 0.01mm increments		

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip end is ground before the coating is applied.

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSJM	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHJM		

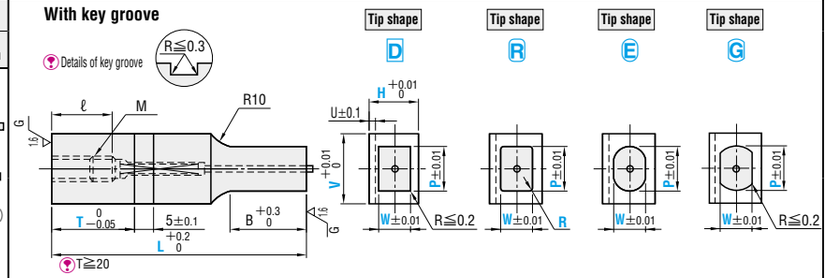
Tapped



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSJK	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHJK		

With key groove

Details of key groove R≦0.3

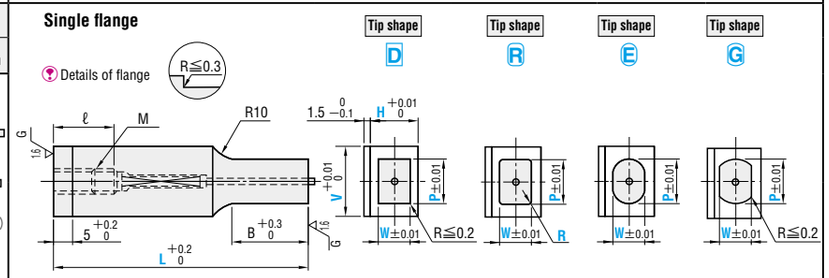


T≧20

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSJF	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHJF		

Single flange

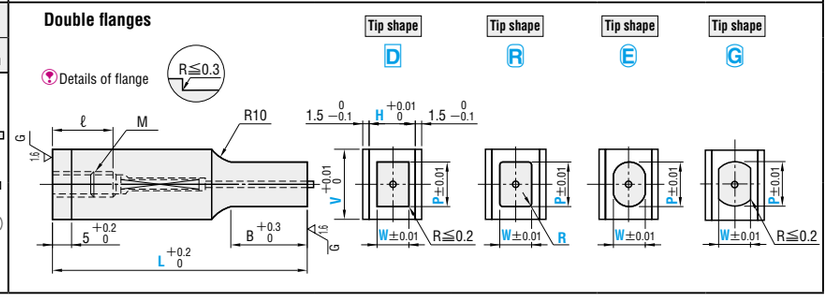
Details of flange R≦0.3



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—HSJW	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64~67HRC	H—PHJW		

Double flanges

Details of flange R≦0.3



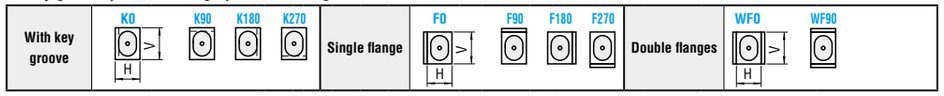
Catalog No. Type	Tip shape	B Tip length	H	V: P min. / W min.	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	0.1mm T	B S	B L	M	ℓ	U
Tapped H—HSJM	D	S	6	2.0	○	○	○	○	○	○	○	○	○	○	(40)	T≧20	8	13	4	12	1.0
H—PHJM			8	2.5		○	○	○	○	○	○	○	○	○					5		1.5
With key groove H—HSJK	R		10	3.0			○	○	○	○	○	○	○	○	(50)		13	19	6		
H—PHJK			13	4.0				○	○	○	○	○	○	○	60				8		
Single flange H—HSJF	E	L	16	5.0					○	○	○	○	○	○	70		19	25			
H—PHJF			20	6.0						○	○	○	○	○							
Double flanges H—HSJW	G		22	6.0							○	○	○	○	80						
H—PHJW			25	6.0								○	○	○							

L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10~25···B=13(10) If full length is (50) and H dimension is 10~25, tip length is 13mm in all cases. (For types with key grooves, the tip length is 10mm.)

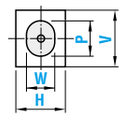
Order

■Key groove position・flange position change

With key groove	K0	K90	K180	K270	Single flange	F0	F90	F180	F270	Double flanges	WF0	WF90

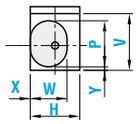


(1) If tip is at center of shank



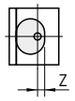
Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	0.1mm increments T≧20	—	K・F・WF
H—HSJMRL	20	10	—	70	—	P16.00	—	W9.00	—	R0.15				
H—PHJKES	08	06	—	60	—	P7.00	—	W5.00			—	T25.5	—	K0
H—HSJFDL	16	13	—	60	—	P15.00	—	W12.00					—	F90
H—HSJWEL	13	10	—	40	—	P8.00	—	W5.00					—	WF90

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	0.1mm increments T≧20	—	K・F・WF	—	0.01mm increments X—Y
H—HSJFDL	16	13	—	50	—	P15.00	—	W12.00					—	F90	—	X0.00—Y0.55

X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01. If X and Y are 0, an additional coating layer of 3~5 μ is added.



H	Zmin.
6・8	1.0
10・13	1.5
16~25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges. The jector hole position cannot be changed.

Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	V	H	—	L(LC)	—	P・W・R	—	T	—	K・F・WF	—	X—Y	—	(BC・HC・TC, etc.)
H—HSJMDS	20	08	—	60	—	P18.00	—	W3.50					—	LKC

	Alteration	Code	Spec.	1Code
Tip		BC	Tip length change (shorter than standard) 2≦BC≦B 0.1mm increments	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Key groove		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
		UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for H≧10 (K0,K180) V≧10 (K90,K270). Can be used for key groove types.	Quotation
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
		TKC	Flange thickness tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange thickness tolerance change T +0.2 0 ⇨ 0 −0.02	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Shape		JVC	Change of spring to reinforced type 8≦H≦25···Can be used for L≧60 Cannot be used for H6.	

	Alteration	Code	Spec.	1Code
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Min. 0.5mm	
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. Cannot be combined with AC.	
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for tapped types only.	Quotation
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
		DC	Addition of press-in lead Press-in lead of 3mm (V・H −0.01 −0.03) is added. Can be used for tapped types and key groove types.	

BLOCK PUNCHES

JECTOR BLOCK PUNCHES

—HW COATING—

PRODUCTS DATA P.1605

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

—HW coating—

RoHS

S HW coating
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

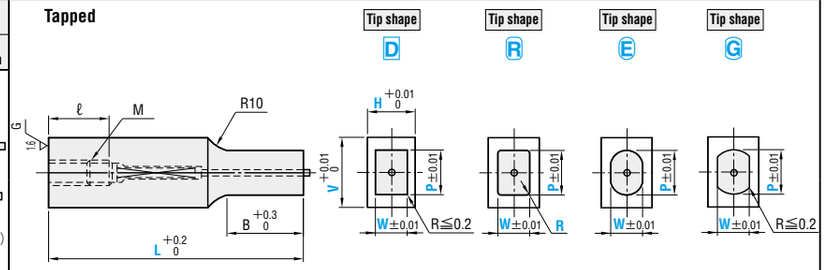
●Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P	W≦P 0.15≦R<W/2 0.01mm increments	W≦P	W<P

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip edges are very slightly rounded.

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSJM	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64～67HRC	HW—PHJM		

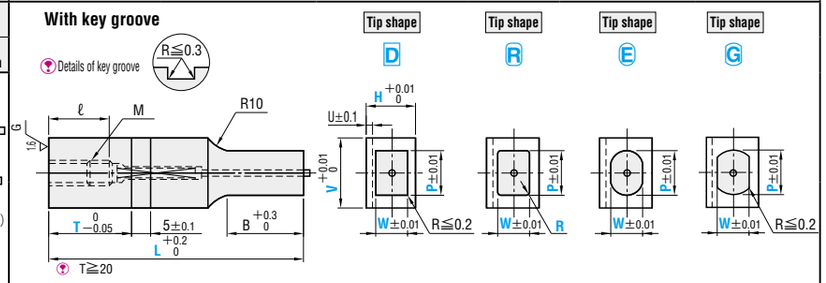
Tapped



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSJK	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64～67HRC	HW—PHJK		

With key groove

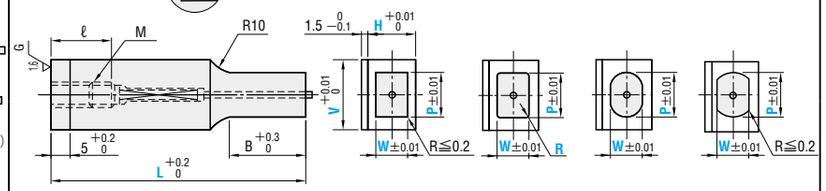
Details of key groove R≦0.3



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSJF	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64～67HRC	HW—PHJF		

Single flange

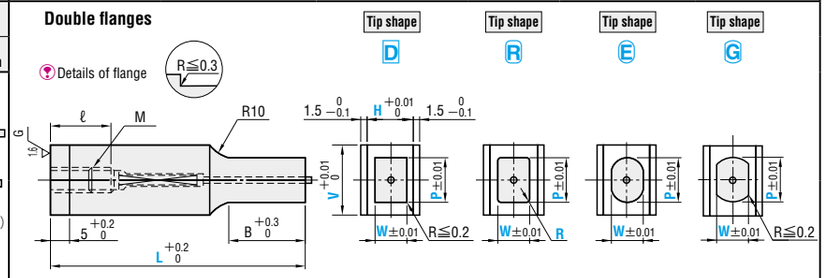
Details of flange R≦0.3



M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	HW—HSJW	D R E G	S L Tip length (B) L>S
Powdered high-speed steel 64～67HRC	HW—PHJW		

Double flanges

Details of flange R≦0.3

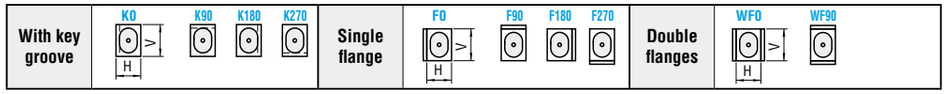


Catalog No. Type	Tip shape	B Tip length	H \ W min. \ P min.	V 6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	0.1mm T	B S	B L	M	ℓ	U
Tapped HW—HSJM	D	S	6 / 2.0	○	○	○	○	○	○	○	○	○	○	(40)	T≧20	8	13	4	12	1.0
HW—PHJM			8 / 2.5		○	○	○	○	○	○	○	○	○					5		1.5
With key groove HW—HSJK	R		10 / 3.0			○	○	○	○	○	○	○	○	(50)		13	19	6		
HW—PHJK			13 / 4.0				○	○	○	○	○	○	○	60				8		
Single flange HW—HSJF	E	L	16 / 5.0					○	○	○	○	○	○	70		19	25			
HW—PHJF			20 / 6.0						○	○	○	○	○	80						
Double flanges HW—HSJW	G		22 / 6.0							○	○	○	○							
HW—PHJW			25 / 6.0								○	○	○							

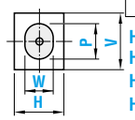
L(40) ···B=6 If full length is (40), tip length is 6mm in all cases.
L(50)・H10～25···B=13(10) If the full length is (50) and H dimension is 10～25, the tip length is 13mm in all cases. (For types with key grooves, the tip length is 10mm.)

Order

■Key groove position・flange position change

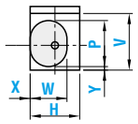


(1) If tip is at center of shank



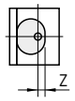
Catalog No.	V	H	L	P	W	R (R only)	T≧20	K・F・WF
HW—HSJMRL	20	10	70	P16.00	W 9.00	R0.15		
HW—PHJKES	08	06	60	P 7.00	W 5.00		T25.5	K0
HW—HSJFDL	16	13	60	P15.00	W12.00			F90
HW—HSJWEL	13	10	40	P 8.00	W 5.00			WF90

(2) If tip is not at center of shank



Catalog No.	V	H	L	P	W	R (R only)	T≧20	K・F・WF	X—Y
HW—HSJFDL	16	13	50	P15.00	W12.00			F90	X0.00—Y0.55

(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01. If X and Y are 0, an additional coating layer of 3～5 μ is added.)



H	Zmin.
6・8	1.0
10・13	1.5
16～25	2.0

When the tip position is changed, the jector hole must be located at least Zmin. away from the tip edges. The jector hole position cannot be changed.

Days to Ship **Quotation** Price **Quotation**

Alterations

Catalog No.	V	H	L(LC)	P・W・R	T	K・F・WF	X—Y	(BC・HC・TC, etc.)
HW—HSJMDS	20	08	60	P18.00—W3.50				LKC

	Alteration	Code	Spec.	1Code
Tip		BC	Tip length change (shorter than standard) 2≦BC≦B 0.1mm increments	
Alterations to full length		LC	Full length change LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) Tip length B is shortened by (L—LC).	
		LKC	Full length tolerance change $L^{+0.2}_{0} \Rightarrow {}^{+0.05}_{0}$	
Key groove		TKC	Key groove position tolerance change $T^{0}_{-0.05} \Rightarrow {}^{0}_{-0.02}$	
		RTC	Key groove position tolerance change $T^{0}_{-0.05} \Rightarrow {}^{+0.05}_{0}$	
		UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for key groove types. Can be used for H≧10 (K0, K180) V≧10 (K90, K270).	Quotation
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5—TC). If combined with LC, full length is equal to LC.	
		TKC	Flange thickness tolerance change $T^{+0.2}_{0} \Rightarrow {}^{+0.02}_{0}$	
		TKM	Flange thickness tolerance change $T^{+0.2}_{0} \Rightarrow {}^{0}_{-0.02}$	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Shape		JVC	Change of spring to reinforced type 8≦H≦25···Can be used for L≧60 Cannot be used for H6.	

	Alteration	Code	Spec.	1Code
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Min. 0.5mm	
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. Cannot be combined with AC.	
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for tapped types only.	Quotation
		VKC	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{+0.005}_{0}$	
		VKM	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.005}$	
		VHM	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.01}$	
		VHZ	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow \pm 0.005$	
		DC	Addition of press-in lead Press-in lead of 3mm ($V \cdot H^{-0.01}_{-0.03}$) is added. Can be used for tapped types and key groove types.	

BLOCK PUNCHES

BLOCK PUNCHES (FOR HEAVY LOAD)

—FLANGE THICKNESS 10mm・TiCN COATING—

PRODUCTS DATA P.1604

—TiCN coating—

S TiCN
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

●Tip machining limit

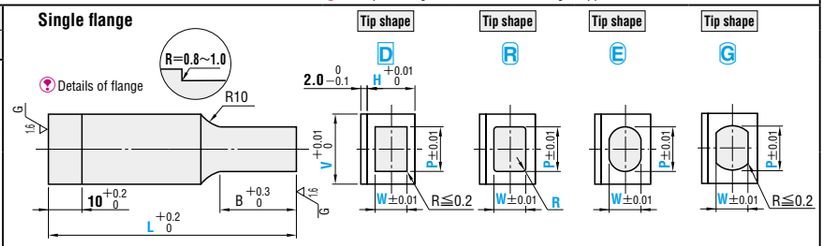
RoHS

Tip shape	D	R	E	G
	W≦P≦W×20 R=0 can be selected.	W≦P≦W×20 0.15≦R<W/2 0.01mm increments	W≦P≦W×20	W<P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip end is ground before the coating is applied.

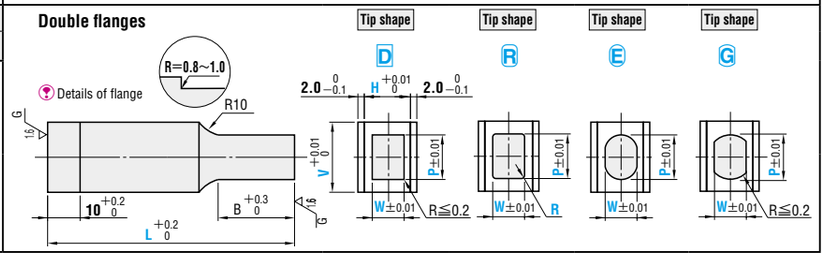
Single flange

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—AHSF	D R	S
Powdered high-speed steel 64~67HRC	H—APHF	E G	L Tip length (B) L>S



Double flanges

M H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61~64HRC	H—AHSW	D R	S
Powdered high-speed steel 64~67HRC	H—APHW	E G	L Tip length (B) L>S



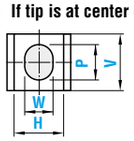
Catalog No. Type	Tip shape	B Tip length	H \ V (Pmin. / Wmin.)	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	B S	B L
Single flange H—AHSF H—APHF	D R	S	(2) 1.0	○	○	○	○	○	○	○							50	6	8
			(3) 1.0	○	○	○	○	○	○	○	○	○	○						
			(4) 1.0		○	○	○	○	○	○	○	○	○						
			5 1.2			○	○	○	○	○	○	○	○	○	○	○	60	8	13
Double flanges H—AHSW H—APHW	E G	L	6 1.5				○	○	○	○	○	○	○	○	○	○	70		
			8 2.0					○	○	○	○	○	○	○	○	○	80		
			10 2.5						○	○	○	○	○	○	○	○		13	19
			13 3.0							○	○	○	○	○	○	○			

H (2) (3) (4)···L50~70 If H dimension is (2), (3) or (4), full length L is within a range of 50~70.

Order

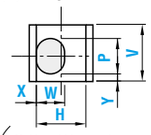
■The flange position is fixed.

(1) If tip is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments		
						P	— W	— R (R only)
H—APHWES	08	08	—	60	—	P7.00	— W6.00	

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments			—	0.01mm increments
						P	— W	— R (R only)		X—Y
H—APHWEL	10	10	—	60	—	P6.00	— W5.00		—	X0.00—Y0.10

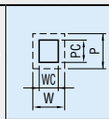
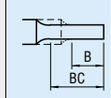
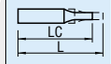
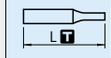
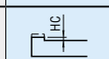
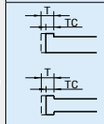
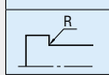
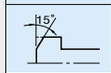
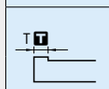
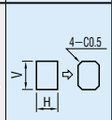
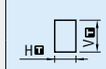
(X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)

Days to Ship Quotation

Alterations

Catalog No. V H — L (LC) — P (PC) — W (WC) — R — X — Y — (BC・LKC, etc.)
H—APHFES 10 10 — LC58.5 — P8.00 — W6.00 — HC1.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC) / Bmax.: 0.50~0.99 / 4; 1.00~1.19 / 8; 1.20~1.99 / 13; 2.00~2.99 / 20; 3.00~4.99 / 30; 5.00~ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 36mm longer than tip length (BC).	
Alterations to full length		LC	Full length change 36+B (BC)≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 36mm or less, tip length is adjusted to (Full length—36).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Alterations to flange		HC	Flange width change 1.0≦HC<2.0 0.1mm increments	
		TC	Flange thickness change 5≦TC<10 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (10—TC). If combined with LC, full length is equal to LC.	Quotation
		RE	Flange R change R=0.8~1.0 ⇨ R≦0.3	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Chamfering of the flange base R portion is not performed.	
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	

■Features

These block punches have greater flange strength than ordinary block punches. Use them for punching of heavy loads or high-tensile steels where punch flanges are prone to damage.

Comparison of flange dimensions Unit mm

Type	Thickness	Width	Base R
Ordinary type	5	1.5	0.3 or less
Flange thickness 10mm	10	2.0	0.8~1.0

BLOCK PUNCHES (FOR HEAVY LOAD)

—FLANGE THICKNESS 10mm・WPC® TREATMENT・HW COATING—

PRODUCTS DATA P.1605

—WPC® treatment・HW coating—

S WPC® treatment HW coating
H 1000～1100HV 3000HV

Although the coating is applied to the B part, a thin coating film is formed also on the shank up to a length of approximately 10mm.

● Tip machining limit

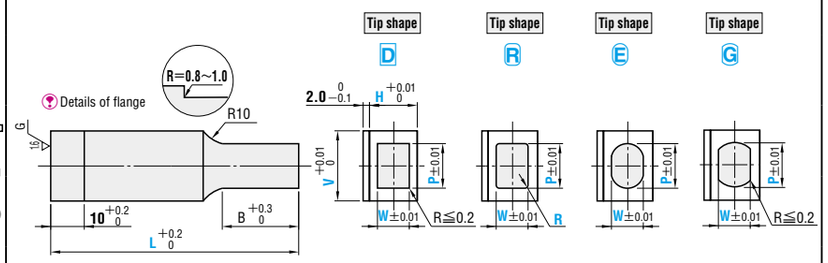
RoHS

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20 0.15≦R<W/2 0.01mm increments	W≦P≦W×20	W<P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip edges are very slightly rounded.

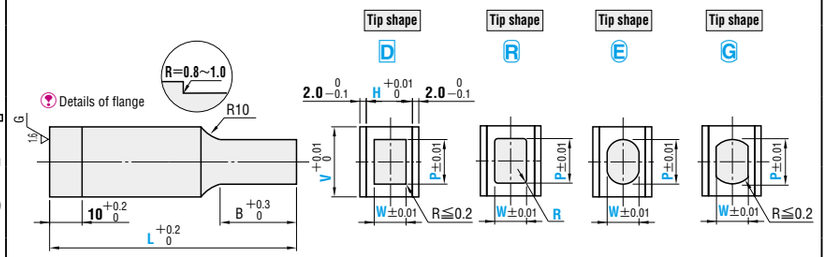
M H	Catalog No. Type	Tip shape	B Tip length
(H2～5) Equivalent to SKH51 61～64HRC Surface 1000～1100HV	WPC® treatment W—AHF	D R E G	S L Tip length (B) L>S
(H6～13) Equivalent to SKD11 60～63HRC Surface 1000～1100HV			
Equivalent to SKH51 61～64HRC Surface 1000～1100HV	WPC® treatment W—AHSF (H6～13)		
Equivalent to SKH51 61～64 HRC Surface 3000 HV	HW coating HW—AHSF		
Powdered high-speed steel 64～67HRC Surface 1000～1100HV	WPC® treatment W—APHF		
Powdered high-speed steel 64～67HRC Surface 3000HV	HW coating HW—APHF		

Single flange



M H	Catalog No. Type	Tip shape	B Tip length
(H2～5) Equivalent to SKH51 61～64HRC Surface 1000～1100HV	WPC® treatment W—AHW	D R E G	S L Tip length (B) L>S
(H6～13) Equivalent to SKD11 60～63HRC Surface 1000～1100HV			
Equivalent to SKH51 61～64HRC Surface 1000～1100HV	WPC® treatment W—AHSW (H6～13)		
Equivalent to SKH51 61～64 HRC Surface 3000 HV	HW coating HW—AHSW		
Powdered high-speed steel 64～67HRC Surface 1000～1100HV	WPC® treatment W—APHW		
Powdered high-speed steel 64～67HRC Surface 3000HV	HW coating HW—APHW		

Double flanges

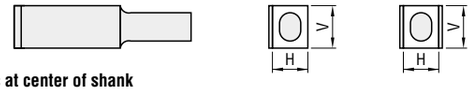


Catalog No. Type	Tip shape	B Tip length	H	V (Pmin. / Wmin.)	3 / 1.5	4 / 2.0	5 / 2.5	6 / 3.0	8 / 3.0	10 / 4.0	13 / 5.0	16 / 7.0	20 / 8.0	22 / 9.0	25 / 10.0	28 / 12.0	30 / 12.0	L	B S	B L
Single flange WPC® treatment HW coating W—AHF W—AHSF HW—AHSF W—APHF HW—APHF Double flanges WPC® treatment HW coating W—AHW W—AHSW HW—AHSW W—APHW HW—APHW	D R E G	S L	(2)	1.0	○	○	○	○	○	○	○							50 60 70 80	6	8
			(3)	1.0	○	○	○	○	○	○	○	○	○	○						
			(4)	1.0		○	○	○	○	○	○	○	○	○						
			5	1.2			○	○	○	○	○	○	○	○	○	○	○		8	13
			6	1.5				○	○	○	○	○	○	○	○	○	○			
			8	2.0					○	○	○	○	○	○	○	○	○			
			10	2.5						○	○	○	○	○	○	○	○		13	19
			13	3.0							○	○	○	○	○	○	○			

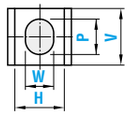
H (2) (3) (4)···L50～70 If H dimension is (2), (3) or (4), full length L is within a range of 50～70.

Order

■The flange position is fixed.

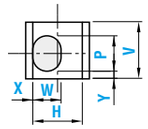


(1) If tip is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)
W—AHWES	08	08	—	60	—	P7.00	—	W6.00		

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (R only)	—	0.01mm increments X—Y
HW—APHWEL	10	10	—	60	—	P6.00	—	W5.00			—	X0.00—Y0.10

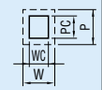
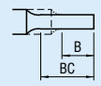
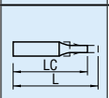
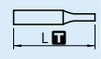
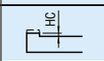
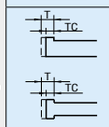
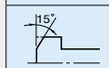
X and Y must be set either to 0 or to 0.02 or more.
Tolerance±0.01

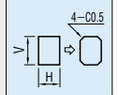
Days to Ship **Quotation**

Price **Quotation**

Alterations

Catalog No. | V | H | — | L (LC) | — | P (PC) — W (WC) — R | — | X—Y | — (BC・PKC, etc.)
W—APHFES 10 10 — LC58.5 — P8.00—W6.00 — HC1.5

Alteration		Code	Spec.	1Code
Alterations to tip		PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧0.50 0.01mm increments W (WC) / Bmax.: 0.50～0.99 / 4; 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35	
		BC	Tip length change 2≦BC≦Bmax. 0.1mm increments Full length (L) must be at least 36mm longer than tip length (BC).	
Alterations to full length		LC	Full length change 36+B (BC)≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 36mm or less, tip length is adjusted to (Full length−36).	
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	Quotation
Alterations to flange		HC	Flange width change 1.0≦HC<2.0 0.1mm increments	
		TC	Flange thickness change 5≦TC<10 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (10−TC). If combined with LC, full length is equal to LC.	
		RE	Flange R change R=0.8～1.0⇨R≦0.3	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	

Alteration		Code	Spec.	1Code
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. Chamfering of the flange base R portion is not performed.	Quotation
		VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
		VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
		VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
		VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	

■Features

These block punches have greater flange strength than ordinary block punches. Use them for punching of heavy loads or high-tensile steels where punch flanges are prone to damage.

Comparison of flange dimensions Units: mm

Type	Thickness	Width	Base R
Ordinary type	5	1.5	0.3 or less
Flange thickness 10mm	10	2.0	0.8～1.0

BLOCK PUNCHES

BLOCK PUNCHES
—CONFIGURABLE SIZE・TiCN COATING—

PRODUCTS DATA P.1604

—TiCN coating—

S TiCN
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

RoHS

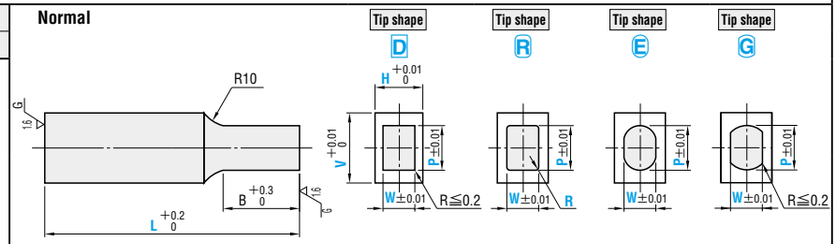
•Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20	W≦P≦W×20	W≦P≦W×20	W<P≦W×20
R=0 can be selected.	0.15≦R<W/2 0.01mm increments		

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip end is ground before the coating is applied.

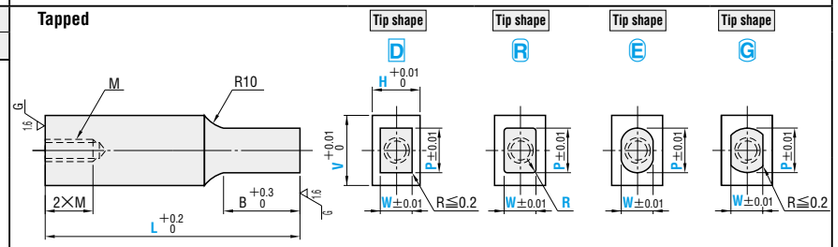
M / H	Shank dimensions V・H	Catalog No. Type	Tip shape
Equivalent to SKH51 61～64HRC	V3.0～30 H3.0～30	H—FHSP	D R E G
Powdered high-speed steel 64～67HRC	V3.0～30 H3.0～30	H—FPHP	D R E G

Normal



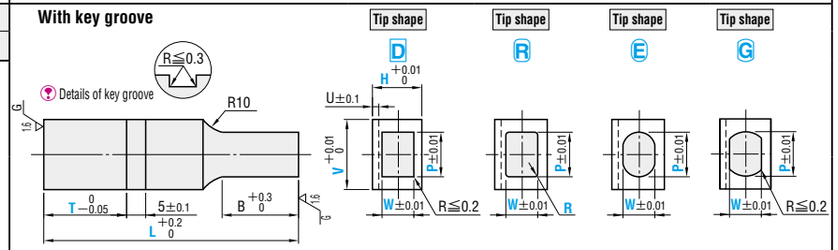
M / H	Shank dimensions V・H	Catalog No. Type	Tip shape
Equivalent to SKH51 61～64HRC	V5.1～30 H5.1～30	H—FHSM	D R E G
Powdered high-speed steel 64～67HRC	V5.1～30 H5.1～30	H—FPHM	D R E G

Tapped



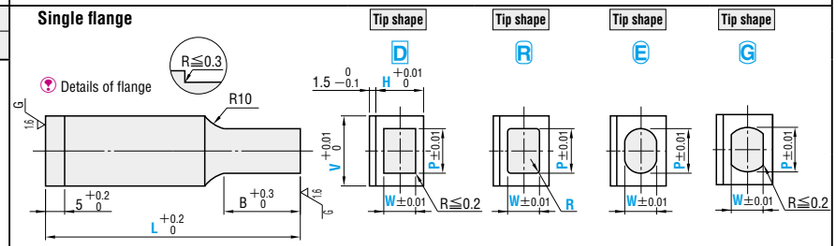
M / H	Shank dimensions V・H	Catalog No. Type	Tip shape
Equivalent to SKH51 61～64HRC	V3.0～30 H3.0～30	H—FHSK	D R E G
Powdered high-speed steel 64～67HRC	V3.0～30 H3.0～30	H—FPHK	D R E G

With key groove



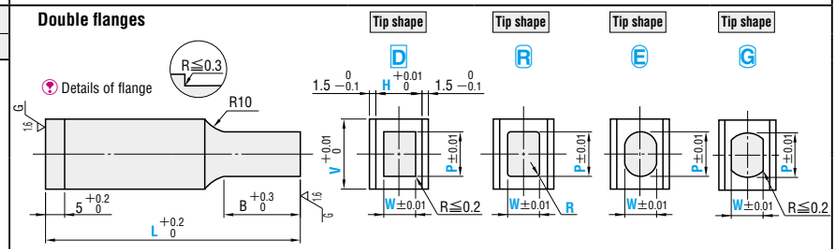
M / H	Shank dimensions V・H	Catalog No. Type	Tip shape
Equivalent to SKH51 61～64HRC	V3.0～30 H3.0～30	H—FHSF	D R E G
Powdered high-speed steel 64～67HRC	V3.0～30 H3.0～30	H—FPHF	D R E G

Single flange

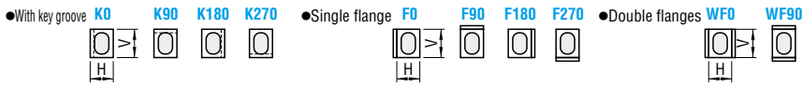


M / H	Shank dimensions V・H	Catalog No. Type	Tip shape
Equivalent to SKH51 61～64HRC	V3.0～30 H3.0～30	H—FHSW	D R E G
Powdered high-speed steel 64～67HRC	V3.0～25 H3.0～25	H—FPHW	D R E G

Double flanges



■Key groove position change
Flange position change

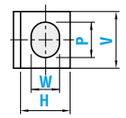


Catalog No. Type	Tip shape	H (Wmin.)	V (Pmin.)	3.0～4.0 (2.0)	4.1～5.0 (2.5)	5.1～6.0 (3.0)	6.1～8.0 (3.0)	8.1～10.0 (4.0)	10.1～13.0 (5.0)	13.1～16.0 (7.0)	16.1～20.0 (8.0)	20.1～25.0 (10.0)	25.1～30.0 (12.0)	L	0.1mm T	B	M	U
Normal H—FHSP	D R E G	(3.0～4.0)	1.0	○	○	○	○	○	○	○	○			(40) (50) 60 70 80 90 100	T≧2.0	8	—	1.0
Normal H—FPHP	D R E G	4.1～5.0	1.2		○	○	○	○	○	○	○	○	○			13	—	
Tapped H—FHSM	D R E G	5.1～6.0	1.5			○	○	○	○	○	○	○	○				3	
Tapped H—FPHM	D R E G	6.1～8.0	2.0				○	○	○	○	○	○	○				4	1.5
With key groove H—FHSK	D R E G	8.1～10.0	2.5					○	○	○	○	○	○			19	5	
With key groove H—FPHK	D R E G	10.1～13.0	3.0						○	○	○	○	○				6	
Single flange H—FHSF	D R E G	13.1～16.0	4.0							○	○	○	○			25	8	
Single flange H—FPHF	D R E G	16.1～20.0	5.0								○	○	○					
Double flanges H—FHSW	D R E G	20.1～25.0	6.5									○	○					
Double flanges H—FPHW	D R E G	(25.1～30.0)	7.5										○					

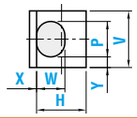
L(40)・H8.1～30··· B=13 If full length is(40)and H dimension is 8.1～30, tip length is 13mm in all cases.(For tapped types, the tip length is 10mm in all cases.)
L(50)・H13.1～30···B=19 If full length is(50)and H dimension is 13.1～30, tip length is 19mm in all cases.
H(3.0～4.0)···L40～70 If H dimension is(3.0～4.0), full length L is within a range of 40～70.
⊗ H(25.1～30.0)cannot be selected for double flanges types.

Order

(1) If tip is at center of shank



(2) If tip is not at center of shank



Catalog No.	0.1mm increments V	H	L	0.01mm increments P	W	R(R only)	0.1mm increments T≧2	K / F / WF
H—FHSPD	V23.5	H12.0	60	P18.00	W 4.00			
H—FHSMD	V17.0	H10.0	100	P16.00	W 9.00			
H—FPHKD	V 9.0	H 5.5	60	P 8.00	W 5.00		T25.5	K0
H—FPHFD	V17.0	H14.0	60	P15.00	W12.00			F0
H—FPHWD	V 9.5	H 6.0	40	P 8.00	W 5.00			WF90

Catalog No.	0.1mm increments V	H	L	0.01mm increments P	W	R(R only)	0.1mm increments T≧2	K / F / WF	0.01mm increments X—Y
H—FHSFE	V16.5	H14.0	50	P15.00	W12.00			F0	X0.00—Y0.50

X and Y must be set either to 0 or to 0.02 or more.Tolerance±0.01

Days to Ship Quotation **Price** Quotation

Alterations

Catalog No. — V — H — L(LC) — P(PC)・W(WC) — T — K・F・WF — (BC・HC・TC, etc.)
H—FHSMD—V19.0—H7.9— 60.0 — P18.00—WC1.50 — VKC—MC3

Alteration	Code	Spec.	1Code
Alterations to tip	PC WC	Tip dimension change PC≧V×0.3≧1.00 WC≧H×0.15≧1.00 0.01mm increments (W(WC) / Bmax.: 1.00～1.19 / 8; 1.20～1.99 / 13; 2.00～2.99 / 20; 3.00～4.99 / 30; 5.00～ / 35)	Quotation
Alterations to tip	BC	Tip length depth change 2≦BC≦Bmax. 0.1mm increments Full length(L)must be at least 30mm longer than tip length(BC).	
Alterations to full length	LC	Full length change 30+B(BC)≦LC<L 0.1mm increments(If combined with LKC, 0.01mm increments can be selected.) If difference between full length(LC)and tip length(B)is 30mm or less, tip length is adjusted to(Full length−30).	
Alterations to full length	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
Key groove	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
Key groove	WK	Addition of key groove at symmetrically opposite position K0・180 K90・270 H— (2×U(UK)) ≧2.0(K0,K180) V— (2×U(UK)) ≧2.0(K90,K270) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be used for key groove types. Can be combined with UK.	
Key groove	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments H(V)−UK≧2.0 Can be used for key groove types. Can be combined with WK.	
Tap	MC	Tap diameter change (H dimension / Standard type / selection: 6.1～8.0 / M4 / M3; 8.1～10.0 / M5 / M4・M6; 10.1～13.0 / M6 / M4(V10.1～16.0)M5・M8; 13.1～16.0 / M8 / M5(V13.1～20.0)M6・M10; 16.1～30.0 / M8 / M6・M10) When ordering, select the tap diameter by specifying the number which follows MC. (Refer to order example.)	

Alteration	Code	Spec.	1Code
Alterations to flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	
Alterations to flange	TC	Flange thickness change 2≦TC<5 0.1mm increments(If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by(5−TC). If combined with LC, full length is equal to LC.	
Alterations to flange	TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
Alterations to flange	TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
Alterations to flange	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more. (4−C0.5, Min. 0.5mm)	Quotation
Alterations to shape	CCP	Chamfering to one corner of shank(for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 (Tip corner) Selection of chamfering position: CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
Alterations to shape	VKC	Shank tolerance change V・H +0.01 0 ⇨ +0.005 0	
Alterations to shape	VKM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.005	
Alterations to shape	VHM	Shank tolerance change V・H +0.01 0 ⇨ 0 −0.01	
Alterations to shape	VHZ	Shank tolerance change V・H +0.01 0 ⇨ ±0.005	
Alterations to shape	DC	Addition of press-in lead Press-in lead of 3mm(V・H −0.01 −0.03)is added. Can be used for normal, tapped, and key groove types.	

BLOCK PUNCHES

STRAIGHT PUNCHES

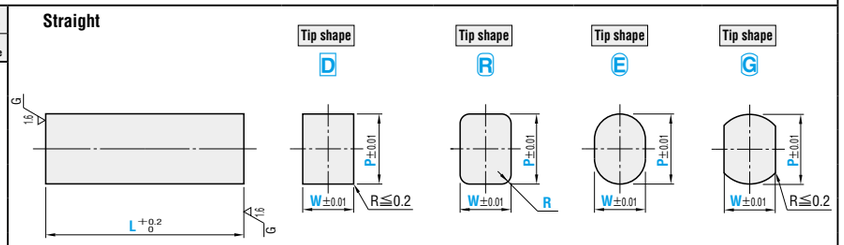
RoHS

● Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P	W≦P	W<P	W<P
R=0 can be selected.	0.15≦R<W/2	P≦10 P−W≧1	P≦10 P−W≧1
	W−2R≧1	10<P≦20 P−W≧2	10<P≦20 P−W≧2
	0.01mm increments	20<P≦30 P−W≧3	20<P≦30 P−W≧3

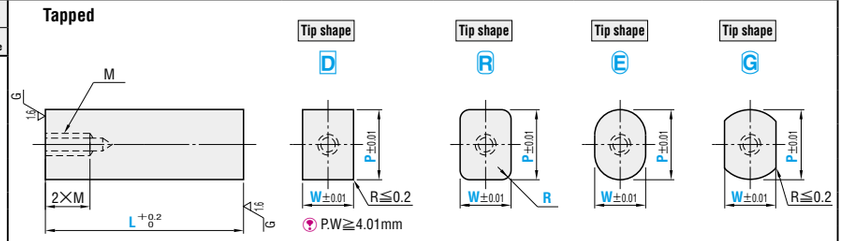
M H	P·W	Catalog No. Type	Tip shape
(W2.00～5.00) Equivalent to SKH51 61～64HRC (W5.01～30.00) Equivalent to SKD11 60～63HRC	P2.00～50.00	HPC	D R E G
	W2.00～30.00		
Equivalent to SKH51 61～64HRC	P5.01～30.00	HSPC	
	W5.01～30.00		
Powdered high-speed steel 64～67HRC	P2.00～30.00	PHPC	
	W2.00～30.00		

Straight



M H	P·W	Catalog No. Type	Tip shape
(W2.00～5.00) Equivalent to SKH51 61～64HRC (W5.01～30.00) Equivalent to SKD11 60～63HRC	P4.01～50.00	HMC	D R E G
	W4.01～30.00		
Equivalent to SKH51 61～64HRC	P5.01～30.00	HSMC	
	W5.01～30.00		
Powdered high-speed steel 64～67HRC	P4.01～30.00	PHMC	
	W4.01～30.00		

Tapped

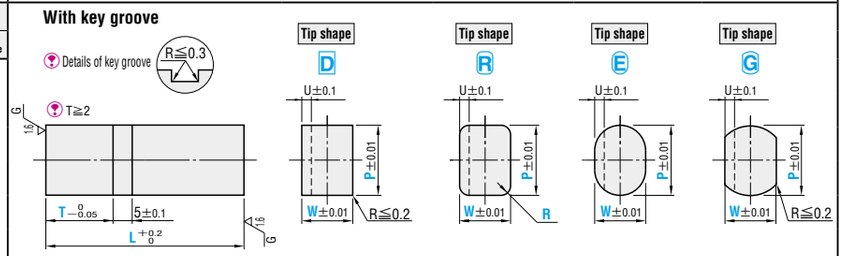


P.W≧4.01mm

M H	P·W	Catalog No. Type	Tip shape
(W2.00～5.00) Equivalent to SKH51 61～64HRC (W5.01～30.00) Equivalent to SKD11 60～63HRC	P2.00～50.00	HKC	D R E G
	W2.00～30.00		
Equivalent to SKH51 61～64HRC	P5.01～30.00	HSKC	
	W5.01～30.00		
Powdered high-speed steel 64～67HRC	P2.00～30.00	PHKC	
	W2.00～30.00		

With key groove

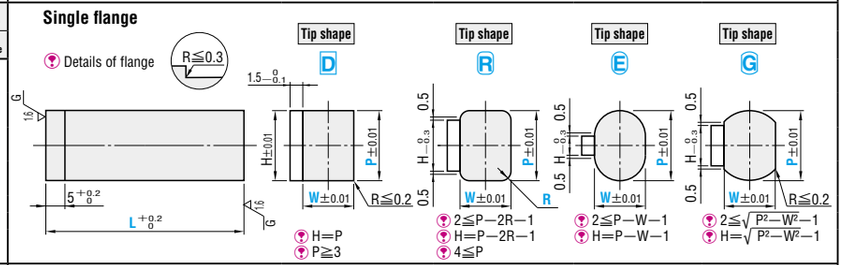
Details of key groove R≦0.3



M H	P·W	Catalog No. Type	Tip shape
(W2.00～5.00) Equivalent to SKH51 61～64HRC (W5.01～30.00) Equivalent to SKD11 60～63HRC	P3.00～50.00	HFC	D R E G
	W2.00～30.00		
Equivalent to SKH51 61～64HRC	P5.01～30.00	HSFC	
	W5.01～30.00		
Powdered high-speed steel 64～67HRC	P3.00～30.00	PHFC	
	W2.00～30.00		

Single flange

Details of flange R≦0.3

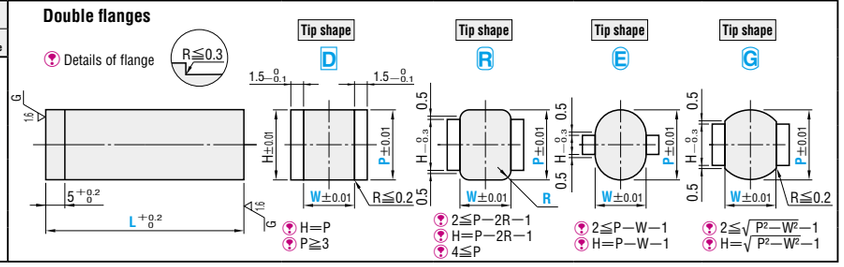


H=P
P≧3
2≦P−2R−1
H=P−2R−1
4≦P
2≦P−W−1
H=P−W−1
2≦√(P²−W²)−1
H=√(P²−W²)−1

M H	P·W	Catalog No. Type	Tip shape
(W2.00～5.00) Equivalent to SKH51 61～64HRC (W5.01～30.00) Equivalent to SKD11 60～63HRC	P3.00～50.00	HWC	D R E G
	W2.00～30.00		
Equivalent to SKH51 61～64HRC	P5.01～30.00	HSWC	
	W5.01～30.00		
Powdered high-speed steel 64～67HRC	P3.00～30.00	PHWC	
	W2.00～30.00		

Double flanges

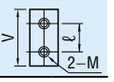
Details of flange R≦0.3



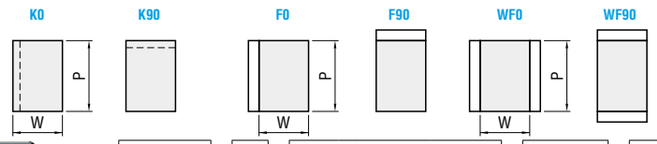
H=P
P≧3
2≦P−2R−1
H=P−2R−1
4≦P
2≦P−W−1
H=P−W−1
2≦√(P²−W²)−1
H=√(P²−W²)−1

Catalog No. Type	Tip shape	L	W \ P	(2.00)～(2.99)	3.00～5.00	5.01～10.00	10.01～15.00	15.01～20.00	20.01～25.00	25.01～30.00	(30.01)～(40.00)	(40.01)～(50.00)	0.1mm T	M	U
Straight: HPC, HSPC, PHPC; Single flange: HFC, HSFC, PHFC; Tapped: HMC, HSMC, PHMC; Double flanges: HWC, HSWC, PHWC; With key groove: HKC, HSKC, PHKC	D R E G	13, 16, 20, 25 P.457	2.00～2.99	○	○	○	○						T≧2	—	1.0
			3.00～4.00		○	○	○	○						3	
			4.01～5.00		○	○	○	○	○	○				4	
			5.01～6.00			○	○	○	○	○				5	1.5
		40	6.01～8.00			○	○	○	○	○	○			6	
		50	8.01～10.00			○	○	○	○	○	○	○		8	
		60	10.01～15.00				○	○	○	○	○	○			
		70	15.01～20.00					○	○	○	○	○			
		(80)	20.01～25.00						○	○	○	○			
		(90)	25.01～30.00							○	○	○			
		(100)													

L(80)(90)(100) →W4.01～30.00 If L(80)(90)(100), then select W within the range of 4.01～30.00
For L13～25, refer to the short straight punches. However, only D shape (tapped・flange type) is available. P.457
HS□C□(SKH51) can be used for sizes W>5.
For flange types with W2.00～2.99, P≦13.00 and L≦60.
For the flange type R shape, P≧4.
P2.00～2.99 is a specification available for the straight and key groove types only.
P(30.01～40.00)・(40.01～50.00) is a specification available for H□CD (SKD11, D shape) only.
For P30.01～40.00, there are 2 tap holes with a pitch of 20mm. (Figure at right)
For P40.01～50.00, there are 2 tap holes with a pitch of 24mm. (Figure at right)



■Key groove position specified ■Flange position specified



Tip shape E Can be selected for F0・WF0 only.
For F90 or WF90, H dimension is as shown below.
Tip shape D : H=W
Tip shape R : 2≦W−2R−1
H=W−2R−1

Order

Catalog No.	L	P	W	R (R only)	T≧2	K・F・WF
		0.01mm increments			0.1mm increments	
PHPCD	60	P14.28	W9.28			
HMCD	80	P 5.80	W5.20			
PHKCR	60	P14.28	W9.28	R0.50	T25.5	K0

Days to Ship **Quotation**

Price **Quotation**

Alterations

Catalog No. — L (LC) — P — W — R — T — K — (MC・PKC, etc.)
PHPCD — LC65.5 — P5.80 — W5.20 — PKC

Alteration	Code	Spec.	1Code
Alterations to tip	PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	Quotation
	PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length	LC	Full length change 20≦LC<L (For tapped type, 30≦LC<L) 0.1mm increments (If combined with LKC・LKZ, 0.01 mm increments can be selected.)	
	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
	LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to tap	MC (MMC)	Tap diameter change MMC can be used for material equivalent to SKD11 only. To change the tap diameter, specify MMC.	

W \ P	5.01～20.00
5.01～6.00	M4→M3
6.01～8.00	M5→M4
8.01～10.00	M6→M5・M4
10.01～13.00	M8→M6・M5

Alteration	Code	Spec.	1Code
Key groove: Key groove position tolerance change	TKC	T 0 −0.05 ⇨ 0 −0.02	Quotation
Key groove: Key groove position tolerance change	RTC	T 0 −0.05 ⇨ +0.05 0	
Key groove: Addition of key groove at symmetrically opposite position	WK	W−(2×U(UK))≧2.0 (K0) P−(2×U(UK))≧2.0 (K90) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be combined with UK. Can be used for key groove types.	
Key groove: Key groove depth change	UK	0.5≦UK≦U+0.2 0.1mm increments P(W)−UK≧2.0 Can be combined with WK. Can be used for key groove types.	
Alterations to flange: Flange width change	HC	0≦HC<1.5 0.1mm increments	
Alterations to flange: Flange thickness change	TC	2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
Alterations to flange: Flange thickness tolerance change	TKC	T +0.2 0 ⇨ +0.02 0	
Alterations to flange: Flange thickness tolerance change	TKM	T +0.2 0 ⇨ 0 −0.02	
Alterations to flange: Relief chamfering to flange top edge	FK	Flange edge is chamfered to prevent flange breakage.	
Shape: Chamfering to shank (4 positions)	CCN	5≦CCN≦L 1mm increments (if CCN=L, 0.1mm increments) Can be used for tip D shape only. Cannot be used for tapped types with P・W−M<2. Flange side of flanged punch becomes CCN−T(TC).	

BLOCK PUNCHES

JECTOR STRAIGHT PUNCHES

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

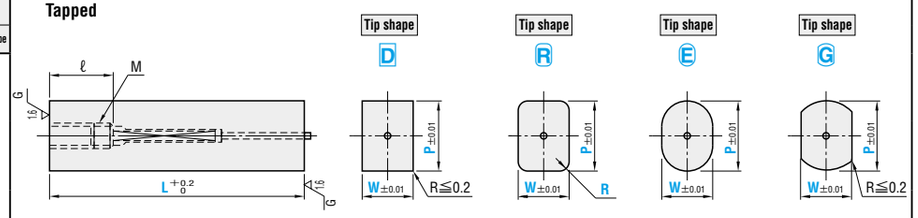
RoHS

●Tip machining limit

Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P	W≦P	W<P	W<P
R=0 can be selected.	0.15≦R<W/2	P≦10: P−W≧1	P≦10: P−W≧1
	W−2R≧1	10<P≦20: P−W≧2	10<P≦20: P−W≧2
	0.01mm increments	20<P≦30: P−W≧3	20<P≦30: P−W≧3

M / H	Catalog No. Type	Tip shape
Equivalent to SKD11 60～63HRC	HJMC	R E G
Equivalent to SKH51 61～64HRC	HSJMC	
Powdered high-speed steel 64～67HRC	PHJMC	

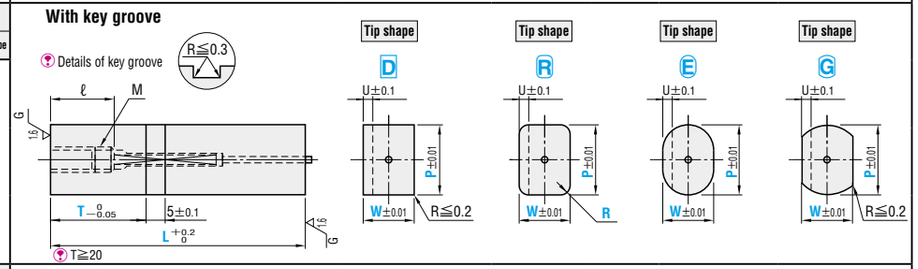
Tapped



M / H	Catalog No. Type	Tip shape
Equivalent to SKD11 60～63HRC	HJKC	R E G
Equivalent to SKH51 61～64HRC	HSJKC	
Powdered high-speed steel 64～67HRC	PHJKC	

With key groove

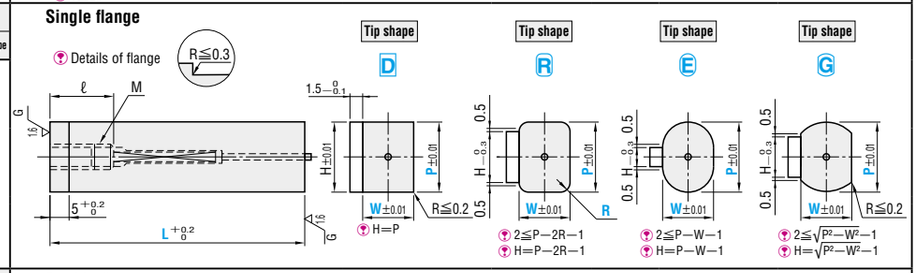
Details of key groove



M / H	Catalog No. Type	Tip shape
Equivalent to SKD11 60～63HRC	HJFC	R E G
Equivalent to SKH51 61～64HRC	HSJFC	
Powdered high-speed steel 64～67HRC	PHJFC	

Single flange

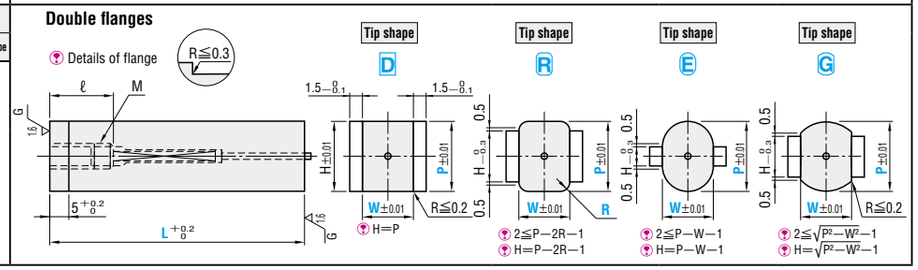
Details of flange



M / H	Catalog No. Type	Tip shape
Equivalent to SKD11 60～63HRC	HJWC	R E G
Equivalent to SKH51 61～64HRC	HSJWC	
Powdered high-speed steel 64～67HRC	PHJWC	

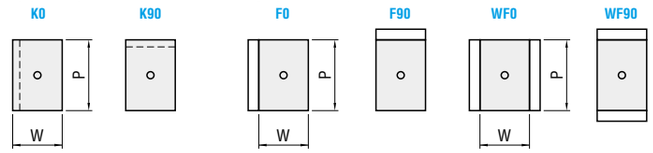
Double flanges

Details of flange



Catalog No. Type	Tip shape	L	W \ P	5.00～10.00	10.01～15.00	15.01～20.00	20.01～25.00	25.01～30.00	0.1mm increments T	M	ℓ	U
Tapped / Single flange: HJMC / HJFC	R	40	5.00～6.00	○	○	○	○	○	T≧20	4	12	1.0
HSJMC / HSJFC		50	6.01～8.00	○	○	○	○	○		5		
PHJMC / PHJFC		60	8.01～10.00	○	○	○	○	○		6		1.5
With key groove / Double flanges: HJKC / HJWC	E	70	10.01～15.00		○	○	○	○		8		
HSJKC / HSJWC		80	15.01～20.00			○	○	○				
PHJKC / PHJWC	G		20.01～25.00				○	○				

■Key groove position specified ■Flange position specified



Tip shape E G Can be selected for F0・WF0 only.

For F90 or WF90, H dimension is as shown below.

Tip shape : H=W

Tip shape R : 2≦W−2R−1
H=W−2R−1

Order

Catalog No.	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧20	K・F・WF
HJKCD	80	P15.00	W7.25		T28.5	K0

Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	L (LC)	P	W	R	T − K	(PKC, etc.)
HJKCE	LC65.5	P6.00	W5.00		T28.5−K0	PKC

Alteration	Code	Spec.	1Code
Alterations to tip	PKC	Tip tolerance change P・W±0.01 ⇨ +0.01 0	Quotation
	PKV	Tip tolerance change P・W±0.01 ⇨ ±0.005	
Alterations to full length	LC	Full length change 30≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.)	
	LKC	Full length tolerance change L +0.3 0 ⇨ +0.05 0	
	LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for W−UK≧10 (K0) P−UK≧10 (K90). Can be used for key groove types.	

Alteration	Code	Spec.	1Code
Alterations to flange	HC	Flange width change 0≦HC<1.5 0.1mm increments	Quotation
	TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
	TKC	Flange thickness tolerance change T +0.2 0 ⇨ +0.02 0	
	TKM	Flange thickness tolerance change T +0.2 0 ⇨ 0 −0.01	
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape	JVC	Change of spring to reinforced type 6.01≦W≦25.00…Can be used for L≧60. Cannot be used for W≦6.00.	
	AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
	NC	The jector pin is removed. Cannot be combined with AC.	
	CCN	Chamfering to shank (4 positions) 5≦CCN≦L 1mm increments Can be used for tip D shape only. Cannot be used for tapped types with P・W−M<2. Flange side of flanged punch becomes CCN−T (TC).	

BLOCK PUNCHES

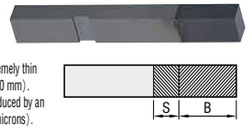
STRAIGHT PUNCHES
—TiCN COATING—

PRODUCTS DATA P.1604

—TiCN coating—

S TiCN
H 3000HV
- The effective coating range is part B, however an extremely thin coating film is also formed on part S (approximately 10 mm).
- The P and W dimensions of the uncoated parts are reduced by an amount equivalent to the coating thickness (6 ~ 10 microns).
- The tip end is ground before the coating is applied.

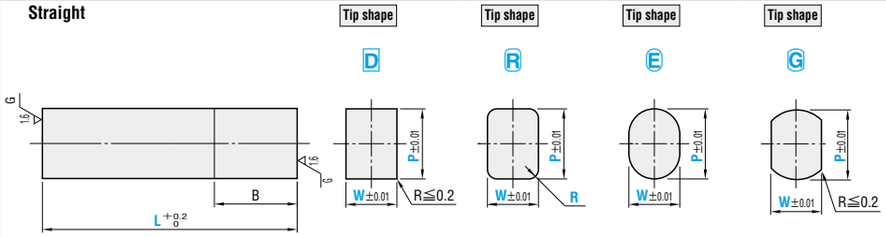
●Tip machining limit



Tip shape D	Tip shape R	Tip shape E	Tip shape G (RoHS)
W≦P	W≦P	W<P	W<P
R=0 can be selected.	0.15≦R<W/2	P≦10 P−W≧1	P≦10 P−W≧1
	W−2R≧1	10<P≦20 P−W≧2	10<P≦20 P−W≧2
	0.01mm increments	20<P≦30 P−W≧3	20<P≦30 P−W≧3

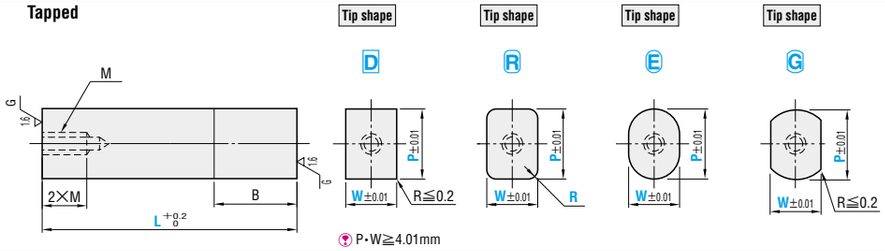
M / H	Catalog No. Type	Tip shape
Equivalent to SKH51 61~64HRC	H−HSPC	D R E G
Powdered high-speed steel 64~67HRC	H−PHPC	D R E G

Straight



M / H	Catalog No. Type	Tip shape
Equivalent to SKH51 61~64HRC	H−HSMC	D R E G
Powdered high-speed steel 64~67HRC	H−PHMC	D R E G

Tapped



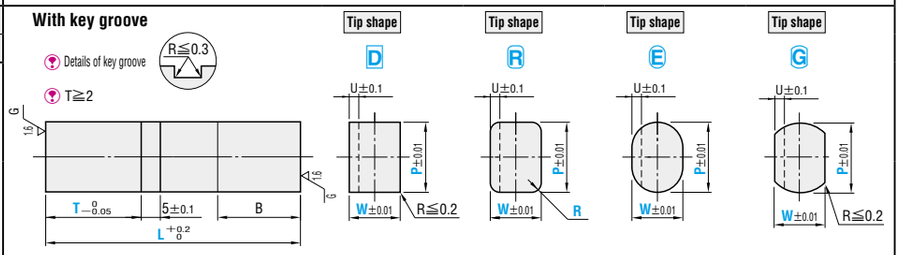
P·W≧4.01mm

M / H	Catalog No. Type	Tip shape
Equivalent to SKH51 61~64HRC	H−HSKC	D R E G
Powdered high-speed steel 64~67HRC	H−PHKC	D R E G

With key groove

Details of key groove

T≧2



Catalog No. Type	Tip shape	L	W \ P	2.00~5.00	5.01~10.00	10.01~15.00	15.01~20.00	20.01~25.00	25.01~30.00	0.1mm increments T	M	U	B
Straight H−HSPC, H−PHPC	D R E G	40 50 60 70 (80) (90) (100)	2.00 ~ 3.00	○	○	○				T≧2.0	—	1.0	15
			3.01 ~ 4.00	○	○	○	○						
			4.01 ~ 5.00	○	○	○	○	○			3		
			5.01 ~ 6.00		○	○	○	○	○		4		
Tapped H−HSMC, H−PHMC			6.01 ~ 8.00		○	○	○	○	○		5	1.5	
			8.01 ~ 10.00		○	○	○	○	○		6		
With key groove H−HSKC, H−PHKC			10.01 ~ 15.00			○	○	○	○		8		
			15.01 ~ 20.00				○	○	○				
			20.01 ~ 25.00					○	○				
			25.01 ~ 30.00						○				

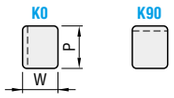
For tapped types, P·W≧4.01 L (80) (90) (100)···W4.01~30.00 For L (80) (90) (100), select W within the range of 4.01 ~ 30.00.

Order

Catalog No. — L — 0.01mm increments P — W — R (R only) — 0.1mm increments T≧2 — K

H−PHPCD — 60 — P14.28 — W9.28
H−HSMCD — 80 — P5.80 — W5.20
H−PHKCR — 60 — P14.28 — W9.28 — R0.15 — T25.5 — K0

■Key groove position specified



Days to Ship: Quotation

Alterations

Catalog No. — L (LC) — P — W — R — T — K — (LKC·TKC·RTC, etc.)
H−PHPCD — LC65.5 — P5.80 — W5.20 — LKC

Alterations	Alteration	Code	Spec.	1Code
Alterations to full length	LC	LC	Full length change 30≦LC<L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.)	Quotation
	LKT	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Alterations to tap	M	MC	Tap diameter change W \ P: 5.01~20.00 5.01~ 6.00: M4→M3 6.01~ 8.00: M5→M4 8.01~10.00: M6→M5 10.01~13.00: M8→M6	

Alterations	Alteration	Code	Spec.	1Code
Alterations to key groove	T	TKC	Key groove position tolerance change T −0 −0.05 ⇨ −0 −0.02	Quotation
	T	RTC	Key groove position tolerance change T −0 −0.05 ⇨ +0.05 0	
		WK	Addition of key groove at symmetrically opposite position W− {2×U (UK)} ≧2.0 (K0) P− {2×U (UK)} ≧2.0 (K90) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be combined with UK. Can be used for key groove types.	
	UK	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments P (W) −UK≧2.00 Can be combined with WK. Can be used for key groove types.	
Alterations to shape	4−C0.5 CCN	CCN	Chamfering of shank (4 locations) 5≦CCN≦L 1mm increments Can be used for tip D shape only. Cannot be used for tapped types with P·W−M<2.	

Price: Quotation

JECTOR STRAIGHT PUNCHES
—TiCN COATING—

PRODUCTS DATA P.1604

Details of jector hole, refer to JECTOR BLOCK PUNCH BLANK P.461

—TiCN coating—

RoHS

S TiCN
H 3000HV

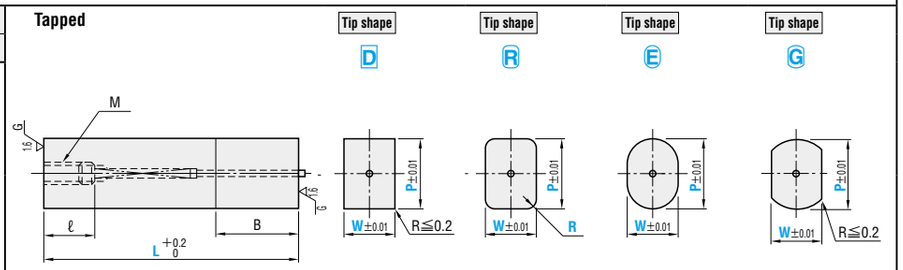
The effective coating range is part B, however an extremely thin coating film is also formed on part S (approximately 10 mm).
The P and W dimensions of the uncoated parts are reduced by an amount equivalent to the coating thickness (6~10 microns).
Details of jector hole P.461

● Tip machining limit

Tip shape D	Tip shape R	Tip shape E		Tip shape G	
W≦P	W≦P	W<P		W<P	
R=0 can be selected.	0.15≦R<W/2	P≦10	P−W≧1	P≦10	P−W≧1
	W−2R≧1	10<P≦20	P−W≧2	10<P≦20	P−W≧2
	0.01mm increments	20<P≦30	P−W≧3	20<P≦30	P−W≧3

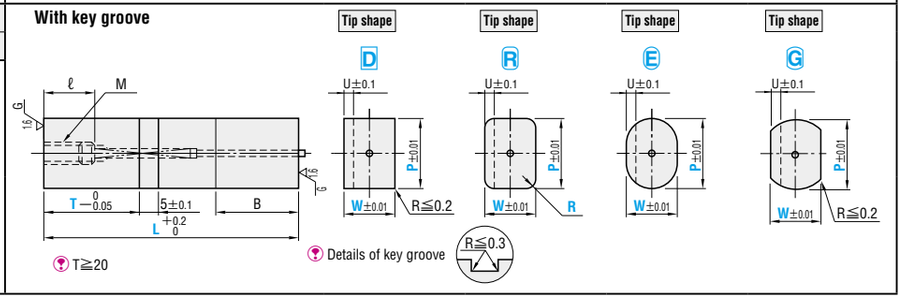
M / H	Catalog No. Type	Tip shape
Equivalent to SKH51 61~64HRC	H−HSJMC	D R E G
Powdered high-speed steel 64~67HRC	H−PHJMC	D R E G

Tapped



M / H	Catalog No. Type	Tip shape
Equivalent to SKH51 61~64HRC	H−HSJKC	D R E G
Powdered high-speed steel 64~67HRC	H−PHJKC	D R E G

With key groove



T≧20

Details of key groove

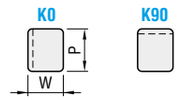
Catalog No. Type	Tip shape	L	W \ P	5.00~10.00	10.01~15.00	15.01~20.00	20.01~25.00	25.01~30.00	T (0.1mm increments)	M	ℓ	U	B
Tapped H−HSJMC / H−PHJMC	D R E G	40	5.00~6.00	○	○	○	○	○	T≧20.0	4	12	1.0	15
		50	6.01~8.00	○	○	○	○	○		5			
		60	8.01~10.00	○	○	○	○	○		6		1.5	
With key groove H−HSJKC / H−PHJKC		70	10.01~15.00		○	○	○	○		8			
		80	15.01~20.00			○	○	○					
			20.01~25.00				○	○					

Order

Catalog No.	L	0.01mm increments P	W	R (R only)	0.1mm increments T≧20mm	K
H−HSJKCD	80	P15.00	W7.25		T28.5	K0

Days to Ship **Quotation**

■ Key groove position specified



Alterations

Catalog No.	L(LC)	P	W	R	T−K	(LKC・TKC・RTC, etc.)
H−HSJKCE	LC65.5	P6.80	W5.00		T28.5	K0 LKC

Alteration	Code	Spec.	1Code
Alterations to full length	LC	Full length change 30≦LC<L 0.1 mm increments (If combined with LKC, 0.01 mm increments can be selected.) B is shortened by (L−LC).	Quotation
	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
Alterations to key groove	TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
	RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
	UK	Key groove depth change 0.5≦UK≦U+0.2 0.1mm increments Can be used for P≧10 (K0) W≧10 (K90). Can be used for key groove types.	

Alteration	Code	Spec.	1Code
Alterations to shape	CCN	Chamfering of shank (4 locations) 5≦CCN≦L 1mm increments Can be used for tip D shape only. Cannot be used for P・W−M<2.	Quotation
	JVC	Change of spring to reinforced type 6.01≦W≦25.00···Can be used for L≧60. Cannot be used for W≦6.00.	
	AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
	NC	The jector pin is removed. Cannot be combined with AC.	

Price **Quotation**

BLOCK PUNCHES

SHORT STRAIGHT PUNCHES

M / H	Catalog No. Tapped	Single flange	Double flanges
Equivalent to SKD11 60～63HRC	HMCDS	HFCDS	HWCDS
Powdered high-speed steel 64～67HRC	PHMCDS	PHFCDS	PHWCDS

RoHS

● Tip machining limit

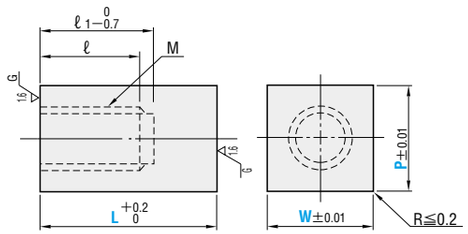
Tip shape D

W≦P

R=0 can be selected.

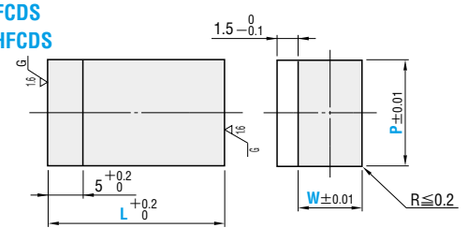
Tapped

HMCDS
PHMCDS



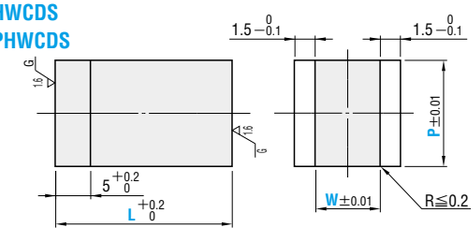
Single flange

HFCDS
PHFCDS



Double flanges

HWCDS
PHWCDS



Details of flange

■ **Flange position specified**

Catalog No.		L	W \ P	5.01～6.00	6.01～8.00	8.01～10.00	10.01～13.00	13.01～16.00	16.01～20.00	M	ℓ	ℓ1
Tapped	HMCDS	(13) (16) 20 25	5.01～6.00	○	○	○	○	○	○	4	6	8.5
	PHMCDS		6.01～8.00		○	○	○	○	○	5	7.5	10.0
Single flange	HFCDS		8.01～10.00			○	○	○	○	6	9	12.5
	PHFCDS		10.01～13.00				○	○	○	8	12	15.5
Double flanges	HWCDS		13.01～16.00					○	○			
	PHWCDS		16.01～20.00						○			

Tapped (HMCDS・PHMCDS)
- L(13)…L13 is a specification available for W5.01～W8.00 only.
- L(16)…L16 is a specification available for W5.01～W10.00 only.

Order

Catalog No.	L	0.01mm increments P	W	F・WF
HMCDS	16	P9.51	W6.22	

■**Features**

1. These are short type straight punches which can be installed onto the stripper plate.
2. The tapped types feature tap lengths and pilot hole lengths that are shorter than conventional types.

Days to Ship Quotation

Alterations

Catalog No.	L(LC)	P	W	F・WF	(HC・TC・TKC, etc.)
HFCDS	LC21.5	P10.50	W8.50	F0	TC2.5

	Alteration	Code	Spec.	1Code
Alterations to tip		PKC	Tip tolerance change P・W±0.01⇨ +0.01 0	
		PKV	Tip tolerance change P・W±0.01⇨±0.005	
Alterations to full length		LC	Full length change 0.1mm increments 13<LC<25 (If combined with LKC・LKZ, 0.01mm increments can be selected.) The LC ranges for tapped types (HMCDS・PHMCDS) are shown below. W: 5.01～8.00 LC range 13<LC<25; 8.01～10.00 16<LC<25; 10.01～20.00 20<LC<25	Quotation
		LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	
		LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to tap		MC	Tap diameter change W \ P: 5.01～20.00; 5.01～6.00 M4→M3; 6.01～8.00 M5→M4; 8.01～10.00 M6→M5; 10.01～13.00 M8→M6. ⊗ Cannot be used for W≧13.01.	

	Alteration	Code	Spec.	1Code
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	Quotation
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
Alterations to shape		DC	Addition of press-in lead Press-in lead of 3mm (H・V −0.01 −0.03) is added. ⊗ Cannot be used for flange types.	

Price Quotation

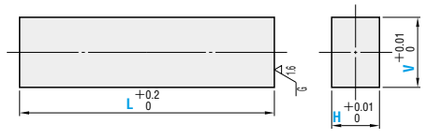
BLOCK PUNCHES

BLOCK PUNCH BLANKS

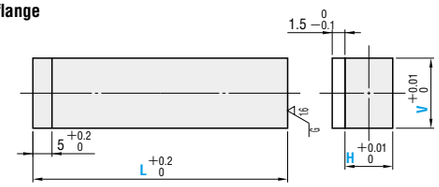
M / H		Catalog No. Normal	Tapped	With key groove	Single flange	Double flanges	Flange stopper
H3～ 5	SKH51 61～64HRC	HPB	HMB	HKB	HFB	HWB	HTB
H6～ 30	Equivalent to SKD11 60～63HRC						
H3～ 30	Powdered high-speed steel 64～67HRC	PHPB	PHMB	PHKB	PHFB	PHWB	PHTB

RoHS

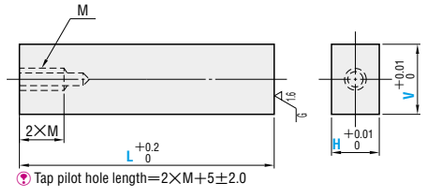
Normal
HPB
PHPB



Single flange
HFB
PHFB

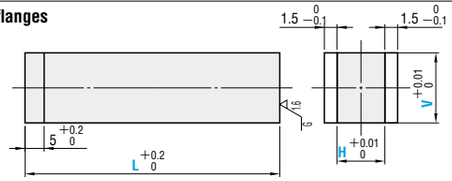


Tapped
HMB
PHMB

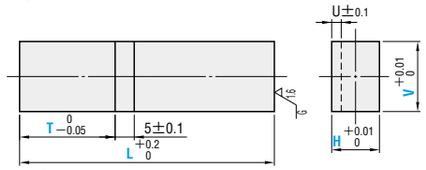


Tap pilot hole length=2×M+5±2.0

Double flanges
HWB
PHWB

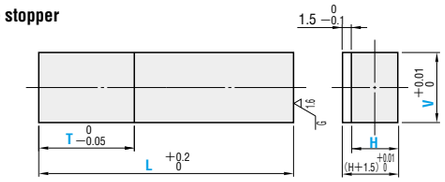


With key groove
HKB
PHKB



T≧2

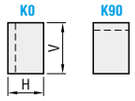
Flange stopper
HTB
PHTB



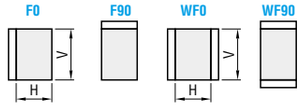
Details of key groove

Flange details / Head details

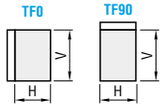
■ Key groove position specified



■ Flange position specified



■ Flange stopper position specified

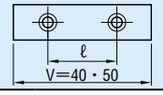


Catalog No.		H \ V	3	4	5	6	8	10	13	16	20	22	25	28	30	(40)	(50)	L	T With key groove	T Flange stopper	M	U
Normal	HPB PHPB	(3)	○	○	○	○	○	○	○	○	○	○						13 16 20 25 P.463 40 50 60 70 80 90 100	T≧2.0 0.1mm increments	13 16 20 22 25	—	1.0
		(4)		○	○	○	○	○	○	○	○	○									3	
Tapped (H5～30)	HMB PHMB	5			○	○	○	○	○	○	○	○	○	○	○						4	
		6				○	○	○	○	○	○	○	○	○	○						5	1.5
With key groove	HKB PHKB	8					○	○	○	○	○	○	○	○	○	○					6	
		10						○	○	○	○	○	○	○	○	○	○				8	
Single flange	HFB PHFB	13							○	○	○	○	○	○	○	○	○					
		16								○	○	○	○	○	○	○	○					
Double flanges	HWB PHWB	20									○	○	○	○	○	○	○					
		22										○	○	○	○	○	○					
Flange stopper	HTB PHTB	25											○	○	○	○	○					
		28												○	○	○	○					
		30													○	○	○					

H(3)(4) ··· L40～70 If H dimension is (3) or (4), full length L is within a range of 40～70. (L80 is a specification available for HPB only.)
V(40)・(50) are specifications available for **HPB・HMB・HKB・HFB・HWB** only.
For L13 ～ 25, refer to short block punch blanks.
However, only tapped and flange types are available. P.463

HMB: V=40・50 ··· Tap holes at 2 locations

V	40	50
ℓ	20	24



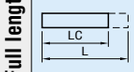
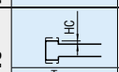
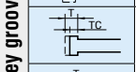
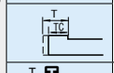
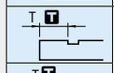
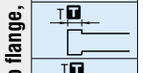
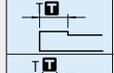
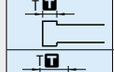
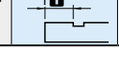
Order

Catalog No.	V	H	L	T	K・F・WF・TF
PHKB	16	13	50	T20.5	K90

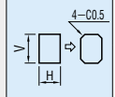
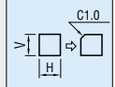
Days to Ship Quotation

Alterations

Catalog No.	V	H	L(LC)	T	K・F・WF・TF	(HC・TC・TKC, etc.)
PHKB	08	04	LC58.5	T25.5	K0	TKC

	Alteration	Code	Spec.	1Code
Full length		LC	Full length change 13≦LC<L 0.1mm increments For HMB・PHMB : If H dimension is 8 or less···LC≧20 If H dimension is 10···LC≧24 If H dimension is 13 or more···LC≧28 For tapped types, HMBS and PHMBS (P.491) can be used to provide shorter sizes.	Quotation
Alterations to flange, head, and key groove		HC	Flange width or head width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
			Head thickness change 2≦TC<25 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Can be used for flange stopper types.	
		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
			Flange tolerance change T +0.2 0 ⇨ +0.02 0	
			Head thickness tolerance change T 0 −0.05 ⇨ 0 −0.02	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	

Price Quotation

Alteration		Code	Spec.	1Code
Alterations to tap		MC (MMC)	Tap hole diameter change / Material equivalent to SKD11 V \ H: 6 8 10 13 16 20 22 25 28・30 6: M4 → M3 — — 8: — M5 → M4 — 10: — — (M6→M4, M6→M5) M6→M5 13: — — — (M8→M5, M8→M6) M8→M6 For change from M6 to M4 or change from M8 to M5, select MMC. Tap hole diameter change / Powdered high-speed steel V \ H: 6 8 10 13 16 20 22 6: M4 → M3 — 8: — M5 → M4 10: — — M6 → M5 13: — — — M8 → M6	Quotation
Alterations to shape		CC	Chamfering to four corners of shank. The four corners of shank are chamfered to C0.5.	
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0.Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner / Tip corner ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	

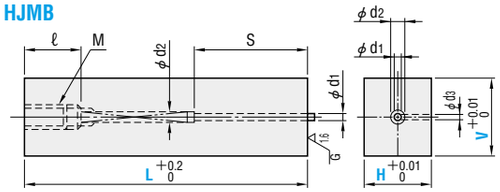
BLOCK PUNCHES

JECTOR BLOCK PUNCH BLANKS

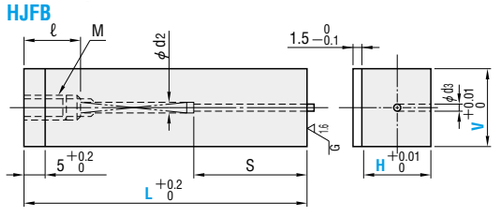
M H	Catalog No.			
	Tapped	With key groove	Single flange	Double flanges
Equivalent to SKD11 60 ~ 63HRC	HJMB	HJKB	HJFB	HJWB

RoHS

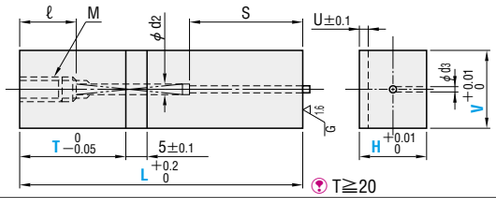
Tapped
HJMB



Single flange
HJFB

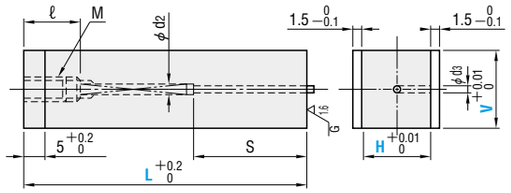


With key groove
HJKB



T≧20

Double flanges
HJWB



The d_3 hole may be on the H side in some cases.

Details of key groove

Details of flange

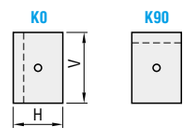
Catalog No. / Type	H \ V	6	8	10	13	16	20	22	25	28	30	L	0.1mm T	d1×S L=40	d1×S L=50	d1×S L=60~80	d2	d3	M	ℓ	U
Tapped HJMB / With key groove HJKB / Single flange HJFB / Double flanges HJWB	6	○	○	○	○	○	○	○	○	○	○	40 50 60 70 80	T≧20	0.7×15	0.7×20		2.6	1.0	4	12	1.0
	8		○	○	○	○	○	○	○	○	○			1.1×15	1.1×27		3.4	1.5	5		1.5
	10			○	○	○	○	○	○	○	○			1.5×15	1.5×28		4.4		6		
	13				○	○	○	○	○	○	○			1.8×15	1.8×28				8		
	16					○	○	○	○	○	○			2.8×17	2.8×24	2.8×36					
	20						○	○	○	○	○										
	22							○	○	○	○										
	25								○	○	○										

Order

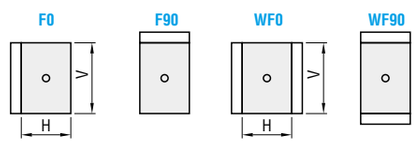
Catalog No.	V	H	L	0.1mm increments T≧20	K·F·WF
HJMB	08	06	70		
HJKB	25	20	80	T30.5	K0
HJFB	13	10	60		F90
HJWB	13	10	60		WF90

Days to Ship Quotation

■Key groove position specified



■Flange position specified



Alterations

Catalog No.	V	H	L(LC)	T	K·F·WF	(HC·TC·TKC, etc.)
HJKB	28	20	LC65.5	T20.5	K0	

	Alteration	Code	Spec.	1Code
Alterations to full length		LC	Full length change 33≦LC<0.1 0.1mm increments. S dimension is shortened by (L−LC).	Quotation
Alterations to key groove		TKC	Key groove position tolerance change T 0 −0.05 ⇨ 0 −0.02	
		RTC	Key groove position tolerance change T 0 −0.05 ⇨ +0.05 0	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 3.5≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	

	Alteration	Code	Spec.	1Code
Alterations to shape	4−C0.5	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5.	
	C1.0	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3 Tip corner Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for tapped types only.	Quotation
		AC	AIR The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.	
		NC	The jector pin is removed. Cannot be combined with AC.	

Price Quotation

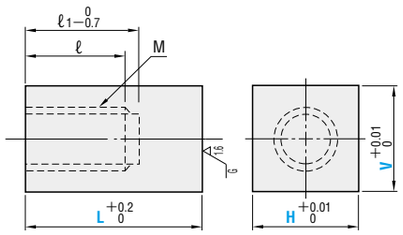
BLOCK PUNCHES

SHORT BLOCK PUNCH BLANKS

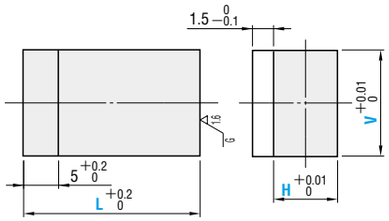
M / H	Catalog No. Tapped	Single flange	Double flanges
Equivalent to SKD11 60～63HRC	HMBS	HFBS	HWBS
Powdered high-speed steel 64～67HRC	PHMBS	PHFBS	PHWBS

RoHS

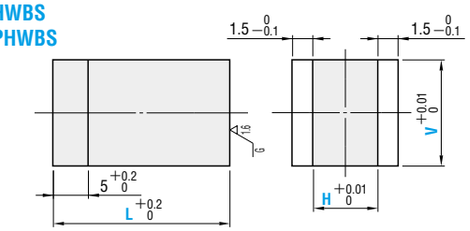
Tapped
HMBS
PHMBS



Single flange
HFBS
PHFBS

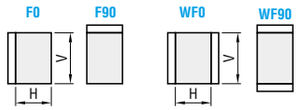


Double flanges
HWBS
PHWBS



Details of flange

■Flange position specified ・Single flange ・Double flanges



Catalog No.		H \ V	6	8	10	13	16	20	L	M	ℓ	ℓ1
Tapped	HMBS PHMBS	6	○	○	○	○	○	○		4	6	8.5
		8		○	○	○	○	○	(13)	5	7.5	10.0
Single flange	HFBS PHFBS	10			○	○	○	○	(16)	6	9	12.5
		13				○	○	○	20	8	12	15.5
Double flanges	HWBS PHWBS	16					○	○	25			
		20						○				

Tapped (HMBS・PHMBS)
●L (13)···L13 is a specification available for H6・H8 only.
●L (16)···L16 is a specification available for H6～H10 only.

Order

Catalog No.	V	H	L	F・WF
HFBS	08	06	20	F90

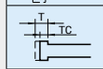
Days to Ship Quotation

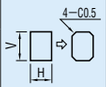
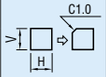
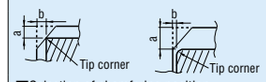
■Features

1. These are short type block punch blanks which can be installed onto the stripper plate.
2. The tapped types feature tap lengths and pilot hole lengths that are shorter than conventional types.

Alterations

Catalog No.	V	H	L (LC)	F・WF	(HC・TC・TKC, etc.)
PHFBS	20	10	LC15.5	F0	TC2.5

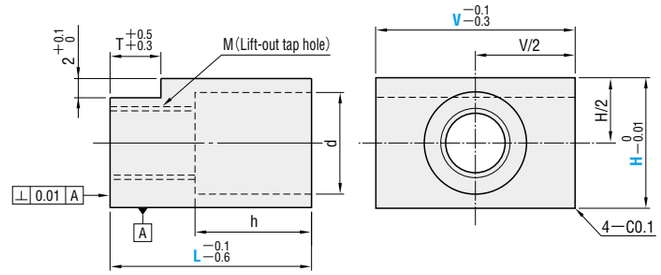
	Alteration	Code	Spec.	1Code
Alterations to full length		LC	Full length change 0.1mm increments 13<LC<25 For tapped types (HMBS・PHMBS), the LC ranges are shown below. H: 6・8 — LC range: 13<LC<25 H: 10 — LC range: 16<LC<25 H: 13～20 — LC range: 20<LC<25	Quotation
Alterations to tap		MC	Tap diagram change V: 6 — H: 6: M4 → M3 V: 8 — H: 8: M5 → M4 V: 10 — H: 10: M6 → M5 V: 13 — H: 13: M8 → M6 For M3, the ℓ1 dimension is 7 0 −0.7.	
Alterations to flange		HC	Flange width change 0≦HC<1.5 0.1mm increments	
		TC	Flange thickness change 2≦TC<5 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5−TC). If combined with LC, full length is equal to LC.	
		TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
		TKM	Flange tolerance change T +0.2 0 ⇨ 0 −0.02	

	Alteration	Code	Spec.	1Code
Alterations to shape		CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5.	Quotation
		CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a+b≧1.3  ■Selection of chamfering position Can be used for tapped types only.	

Price Quotation

RoHS

HFW

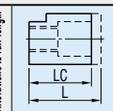
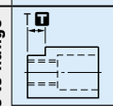
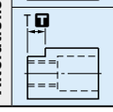


M SKS3
H 53 ~ 56 HRC

Mounting bolt d	Mounting bolt h	Mounting bolt Size	Lift-out tap hole M	T	Catalog No.	V	H	L	Base unit price 1~19 pieces
8	6	M4	M5	3	HFW	13	10	13	Quotation
								16	
	9.5			5				20	
								25	
9.5	7	M5	M6	3		16	13	13	
								16	
	10.5			5		20		20	
								25	

Alterations

Catalog No.	V	H	—	L (LC)	—	(TKC)
HFW	13	13	—	LC22	—	TKC2

Alterations	Alteration	Code	Spec.	1Code
Alterations to full length		LC	Changes the full length. Can be used for L20•25. 20<LC<25 1mm increments h is shortened by (L−LC).	Quotation
Alterations to flange		TKC1	Changes the flange holder (T) to minus tolerance. $T^{+0.5}_{+0.3} \Rightarrow T^{-0.1}_{-0.3}$	
		TKC2	Changes the flange holder (T) tolerance. $T^{+0.5}_{+0.3} \Rightarrow T^{+0.05}_{+0.03}$	

Order

Catalog No.	V	H	—	L
HFW	13	13	—	20

Days to Ship: Quotation

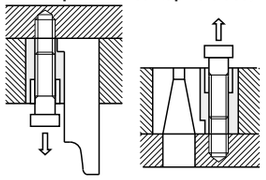
Price: Quotation

Example

■Features

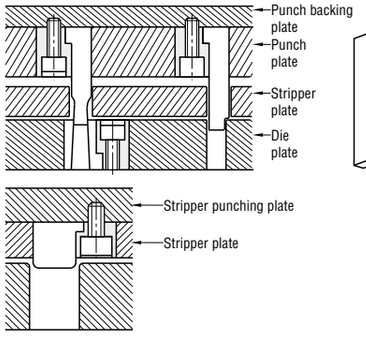
1. Allows easier punch & die maintenance. (Example of use 1, top diagram)
   Maintenance is possible without disassembling the die. (Example of use 1, bottom diagram)
2. Suitable for thin punches where keys cannot be used. (Example of use 2)
3. Counterbore machining on the stripper plate side is not necessary when a key is used.
4. By setting the amount of regrinding when the die is first assembled, and then assembling the die as shown in "Example of use 3", it is possible to visually judge the timing for punch replacement.

(Example of lift-out tap hole use)

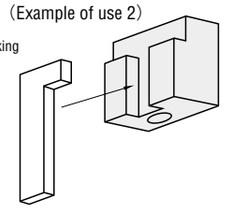


Screw a bolt into the lift-out tap hole and pull the die away from the plate.

(Example of use 1)

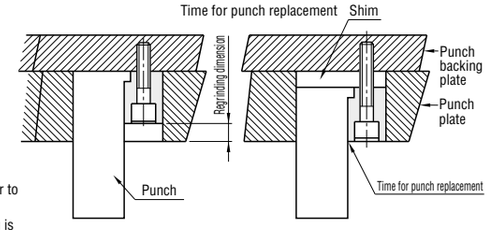


(Example of use 2)



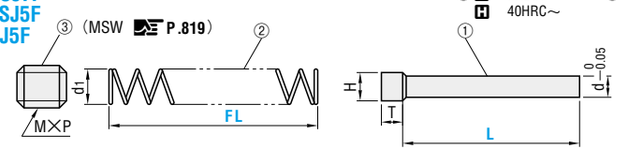
※Machining is necessary in order to fit the punch into the holder.
※With H13, the above machining is possible.

(Example of use 3)



RoHS

SJ2P~SJ7P
SJ1F~SJ5F
AJ4F•VJ5F



① M SKD61
H 40HRC~

②Spring constant
SJ: 0.49N/mm {0.05kgf/mm}
AJ•VJ: 0.78~0.98N/mm {0.08~0.1kgf/mm}

Size of the block punch H 1	W 2	Full length	①Jector Pins Catalog No.	d	H	T	L	②Spring (Normal) Catalog No.	d1	FL	②Spring (Reinforced) 3 Catalog No.	d1	FL	③Screw plugs (M×P)
6	5.00 ~ 6.00	40	SJ 2P−16	0.65	1.6	1.5	16	SJ 2F−28	2.0	28				MSW4 (4×0.7)
		50	SJ 2P−21				21	SJ 2F−33		33				
		60						SJ 2F−43		43				
		70						SJ 2F−53		53				
		80						SJ 2F−63		63				
8	6.01 ~ 8.00	40	SJ 4P−16.5	1.0	2.8	2.0	16.5	SJ 4F−29	3.0	29				MSW5 (5×0.8)
		50	SJ 4P−28.5				28.5	SJ 4F−27		27				
		60						SJ 4F−37		37	AJ 4F−34	3.2	34	
		70						SJ 4F−47		47	AJ 4F−44		44	
		80						SJ 4F−57		57	AJ 4F−54		54	
10	8.01 ~ 10.00	40	SJ 5P−16.5	1.4	3.6	2.0	16.5	SJ 5F−27	3.8	27				MSW6 (6×1.0)
		50	SJ 5P−29.5				29.5	SJ 5F−27		27				
		60						SJ 5F−37		37	VJ 5F−32	4.3	32	
		70						SJ 5F−47		47	VJ 5F−42		42	
		80						SJ 5F−57		57	VJ 5F−52		52	
13	10.01 ~ 13.00	40	SJ 6P−16.5	1.7	3.6	2.0	16.5	SJ 5F−27	3.8	27				MSW8 (8×1.25)
		50	SJ 6P−29.5				29.5	SJ 5F−27		27				
		60						SJ 5F−37		37	VJ 5F−32	4.3	32	
		70						SJ 5F−47		47	VJ 5F−42		42	
		80						SJ 5F−57		57	VJ 5F−52		52	
16・20・22・25	13.01 ~ 25.00	40	SJ 7P−16.5	2.7	3.6	2.0	18.5	SJ 5F−17	3.8	17				
		50	SJ 7P−25.5				25.5	SJ 5F−27		27				
		60	SJ 7P−37.5				37.5	SJ 5F−27		27	VJ 5F−21	4.3	21	
		70						SJ 5F−37		37	VJ 5F−32		32	
		80						SJ 5F−47		47	VJ 5F−42		42	

1. Catalog No, size of the Jector pin and Spring are decided according to the H dimension and the full length of Jector block punch.
   (When the H dimension and the full length are also same for punch different in the material and the shape, the form of the pin spring is same.)
2. Catalog No, size of the Jector pin and Spring are decided according to W dimension instead of the H dimension in case of Straight jector punch.
3. Spring (Reinforced) is a Spring for Jector punch with alterations JVC.

Order

①Jector pin
②Spring (Normal)
②Spring (Reinforced)

Catalog No.	—	L	—	FL
SJ5P	—	16.5		
SJ5F	—		—	47
VJ5F			—	42

Days to Ship: Quotation

Price: Quotation

BLOCK PUNCHES