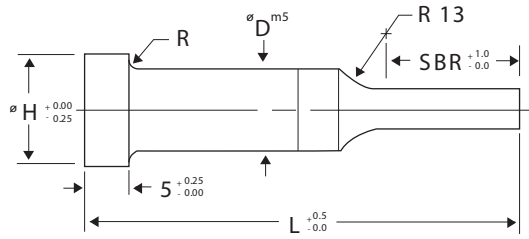
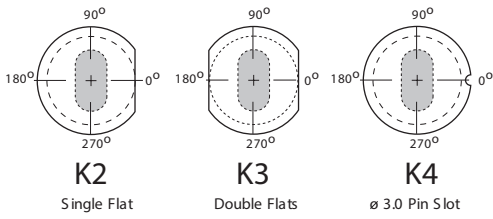
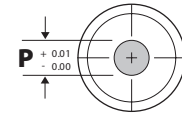


R = O = S = H =

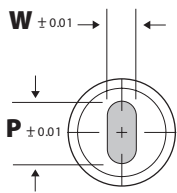
Key-Flats in Die Position



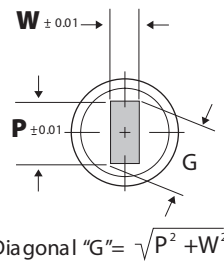
**HGPSR**  
Round



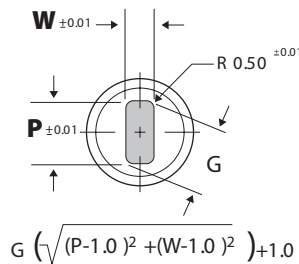
**HGPSO**  
Oblong



**HGPS**  
Square/rect



**HGPSH**  
High production



Ordering Example

HGPSR 13-13-71-M2 P10.1

HGPSO 20-19-80 M2 P18.2 W9.5 K2

A2 = R/c 59-61 double tempered  
M2 = R/c 61-63 triple tempered  
Heads drawn to Rc 40-55

Round P to D	0.01	
Shape P & W to D	0.02	

Type	D	Point length SBR						Overall Length						Round P min.	Shape W min.	Head Dia. H	
		8	10	13	19	25	32	50	56	63	71	80	90				100
HGPS_	4	8	10					50	56	63					0.8	0.8	7
HGPS_	5	8	10	13				50	56	63	71				1.3	1.3	8
HGPS_	6	8	10	13				50	56	63	71	80			1.4	1.4	9
HGPS_	8	8	10	13				50	56	63	71	80			1.5	1.5	11
HGPS_	10		10	13				50	56	63	71	80	90	100	1.9	1.9	13
HGPS_	13		10	13	19			50	56	63	71	80	90	100	3.1	3.1	16
HGPS_	16			13	19	25		50	56	63	71	80	90	100	5.7	5.7	19
HGPS_	20			13	19	25			56	63	71	80	90	100	5.7	5.7	24
HGPS_	25			13	19	25			56	63	71	80	90	100	5.7	5.7	29
HGPS_	32				19	25					71	80	90	100	9.9	9.9	36
HGPS_	40				19	25	32				71	80	90	100	12.0	12.0	45
HGPS_	45					25	32					80	90	100	14.0	14.0	50
HGPS_	50					25	32					80	90	100	16.0	16.0	55
HGPS_	56					25	32					80	90	100	18.0	18.0	61
HGPS_	63					25	32					80	90	100	20.0	20.0	68

R = O = S = H =

### Key-Flats in Die Position

**K2**  
Single Flat

**K3**  
Double Flats

**K4**  
ø 3.0 Pin Slot

### HGESR

Round

### HGESO

Oblong

### HGESS

Square/rect

Diagonal "G" =  $\sqrt{P^2 + W^2}$

### HGESH

High production

$G (\sqrt{(P-1.0)^2 + (W-1.0)^2}) + 1.0$

### Ordering Example

HGESR13-13-71-M2 P10.1

HGESO20-19-80 M2 P18.2 W9.5 K2

A2 = R/c 59-61 double tempered  
M2 = R/c 61-63 triple tempered  
Heads drawn to Rc 40-55

Round P to D	0.01	
Shape P & W to D	0.02	

Type	D	Point length SBR						Overall Length							Round P min.	Shape W min.	Head Dia. H
		8	10	13	19	25	32	50	56	63	71	80	90	100			
HGES_	5	8	10	13				50	56	63	71				1.9	1.9	8
HGES_	6	8	10	13				50	56	63	71	80			2	2	9
HGES_	8	8	10	13				50	56	63	71	80			2.9	2.9	11
HGES_	10		10	13	19			50	56	63	71	80	90	100	4	4	13
HGES_	13		10	13	19			50	56	63	71	80	90	100	4	4	16
HGES_	16			13	19	25		50	56	63	71	80	90	100	5.7	5.7	19
HGES_	20			13	19	25			56	63	71	80	90	100	5.7	5.7	24
HGES_	25			13	19	25			56	63	71	80	90	100	5.7	5.7	29
HGES_	32				19	25	32				71	80	90	100	9.9	9.9	36
HGES_	40				19	25	32					80	90	100	12	12	45
HGES_	45					25	32					80	90	100	14	14	50
HGES_	50					25	32					80	90	100	16	16	55
HGES_	56					25	32					80	90	100	18	18	61
HGES_	63					25	32					80	90	100	20	20	68

R = O = S = H =

**HGBSR**  
Round

**Ordering Example**

HGBSR 13-28 A2 P4.5

A2 = R/c 59-61 double tempered

Type	D	L and B	Overall Length L							Point Range P	Max. R	Head Dia. H
			20	22	25	28	30	32	35			
HGBSR	10	4	20	22	25	28	30	32	35	1.5 - 5.0	5.8	13
HGBSR	13	5	20	22	25	28	30	32	35	3.0 - 7.2	8	16
HGBSR	16	5	20	22	25	28	30	32	35	5.0 - 8.8	9.5	19
HGBSR	20	5	20	22	25	28	30	32	35	7.0 - 11.0	11.9	24
HGBSR	22	6	20	22	25	28	30	32	35	9.0 - 13.8	14.7	26
HGBSR	25	6	20	22	25	28	30	32	35	11.0 - 16.5	17.4	29
HGBSR	32	6	20	22	25	28	30	32	35	13.0 - 19.8	20.6	36
HGBSR	38	8	20	22	25	28	30	32	35	16.0 - 26.0	27	42

**HGBSO**  
Oblong

**HGBSS**  
Square/Rectangle

**HGBSH**  
High production

Diagonal "G" =  $\sqrt{P^2 + W^2}$

$G = (\sqrt{(P-1.0)^2 + (W-1.0)^2}) + 1.0$

HGBSO 16-20 A2 P6.9 W4.3 K2

**Key-Flats in Die Position**

**K2**  
single flat

**K3**  
double flat

**K4**  
3.0 diameter pin slot

Type	D	L and B	Overall Length L							Min. W	Min. P/G	Max.R	Head Dia. H
			20	22	25	28	30	32	35				
HGBS_	10	4	20	22	25	28	30	32	35	1.2	5	5.8	13
HGBS_	13	5	20	22	25	28	30	32	35	2	7.2	8	16
HGBS_	16	5	20	22	25	28	30	32	35	2.4	8.8	9.5	19
HGBS_	20	5	20	22	25	28	30	32	35	3.2	11	11.9	24
HGBS_	22	6	20	22	25	28	30	32	35	4	13.8	14.7	26
HGBS_	25	6	20	22	25	28	30	32	35	4.8	16.5	17.4	29
HGBS_	32	6	20	22	25	28	30	32	35	5.5	19.8	20.6	36
HGBS_	38	8	20	22	25	28	30	32	35	6.4	26	27	42

R = O = S = H =

**HGBPR**  
Round

P to D 0.01

**Ordering Example**

HGBPR 13-28 A2 P4.5

A2 = R/c 59-61 double tempered

Type	D	L and B		Overall Length L							Point Range P	Max. R
				20	22	25	28	30	32	35		
HGBPR	8	4	8	20	22	25	28	30	32	35	1.5 - 3.2	4
HGBPR	10	4	8	20	22	25	28	30	32	35	1.5 - 5.0	5.8
HGBPR	13	5	8	20	22	25	28	30	32	35	3 - 7.2	8
HGBPR	16	5	8	20	22	25	28	30	32	35	5 - 8.8	9.5
HGBPR	20	6	12	20	22	25	28	30	32	35	7.0 - 11.0	11.9
HGBPR	22	6	12	20	22	25	28	30	32	35	9.0 - 13.8	14.7
HGBPR	25	6	12	20	22	25	28	30	32	35	11.0 - 16.5	17.4
HGBPR	32	8	12	20	22	25	28	30	32	35	13.0 - 19.8	20.6
HGBPR	38	8	12	20	22	25	28	30	32	35	16.0 - 26.0	27

**HGBPO**  
Oblong

**HGBPS**  
Square/Rectangle

**HGBPH**  
High Production

P & W to D 0.02

Diagonal "G" =  $\sqrt{P^2 + W^2}$

$G = (\sqrt{(P - 1.0)^2 + (W - 1.0)^2}) + 1.0$

**Key-Flats in Die Position**

**K0**  
ø 3.0 Pin Slot

**K2**  
Single Flat

HGBPO16-20 A2 P6.9 W4.3 K2

Type	D	L and B		Overall Length L							Min. W	Min. P/G	Max.R
				20	22	25	28	30	32	35			
HGBP_	10	4	8	20	22	25	28	30	32	35	1.2	5	5.8
HGBP_	13	5	8	20	22	25	28	30	32	35	2	7.2	8
HGBP_	16	5	8	20	22	25	28	30	32	35	2.4	8.8	9.5
HGBP_	20	6	12	20	22	25	28	30	32	35	3.2	11	11.9
HGBP_	22	6	12	20	22	25	28	30	32	35	4	13.8	14.7
HGBP_	25	6	12	20	22	25	28	30	32	35	4.8	16.5	17.4
HGBP_	32	8	12	20	22	25	28	30	32	35	5.5	19.8	20.6
HGBP_	38	8	12	20	22	25	28	30	32	35	6.4	26	27