

**Section F**  
**COMPONENTS FOR**  
**PRESS DIES**



# Stripper Guide Pins

**ASGPP**

**Straight Type**

**M** Case Hardening Steel  
**S** 56 to 60 HRC

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**ASGPPG**  
(Oil groove type)

• Details of groove

D	Number of grooves (n)							
	40	50	70	80	90	160	180	-
8	2	3	4	5	6	-	-	-
10	2	3	4	5	6	-	-	-
13	2	3	4	5	6	7	8	-
16	2	3	4	5	6	7	8	-
20	2	3	4	5	6	7	8	-
25	2	3	4	5	6	7	8	-

⊗ L 40-119.5 → F = 8  
L120-L(C)max. → F = 10

**M** Case Hardening Steel  
**S** 56 to 60 HRC

Dp6	M X l Pitch	R	B	Catalog No.		L																	
				Type	D	8	10	13	16	20	25	28	30	40	50	60	70	80	90	100	110	120	130
8	+0.024 / +0.015	1.0	10	ASGPP ASGPPG	8	40	50	60	70	80													
10	+0.029 / +0.018	1.5	16	ASGPP ASGPPG	10	40	50	60	70	80	90	100											
13	+0.029 / +0.018	1.5	20	ASGPP ASGPPG	13	40	50	60	70	80	90	100	110	120									
16	+0.035 / +0.022	2.0	25	ASGPP ASGPPG	16	50	60	70	80	90	100	110	120	130	140								
20	+0.035 / +0.022	2.0	28	ASGPP ASGPPG	20	60	70	80	90	100	110	120	130	140									
25	+0.035 / +0.022	2.0	28	ASGPP ASGPPG	25	70	80	90	100	110	120	130	140										

ORDERING CODE	CATALOG NO.	D	L
	ASGPP	25	100

**ASGPC**

**Removable Type**

**M** Case hardening steel  
**S** 56 to 60 HRC

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**ASGPCG**  
(Oil groove type)

• Details of groove

D	Number of grooves (n)				
	30	40	60	70	80
8	2	3	4	5	-
10	2	3	4	5	6
13	2	3	4	5	6
16	2	3	4	5	6
20	2	3	4	5	6
25	2	3	4	5	6

⊗ L 40-119.5 → F = 8  
L120-L(C)max. → F = 10

**M** Case hardening steel  
**S** 56 to 60 HRC

M X l Pitch	D1	R	B	Catalog No.		L																
				Type	D	8	10	13	16	20	25	30	40	50	60	70	80	90	100	110	120	
M5 X 12 P0.8	13	1.0	8	ASGPC ASGPCG	8	30	40	50	60	70												
M6 X 15 P1.0	20	1.5	10	ASGPC ASGPCG	10	30	40	50	60	70	80											
M8 X 20 P1.25	27	2.0	13	ASGPC ASGPCG	13	40	50	60	70	80	90	100										
M8 X 20 P1.25	32	2.0	16	ASGPC ASGPCG	16	40	50	60	70	80	90	100	110	120								
M8 X 20 P1.25	32	2.0	16	ASGPC ASGPCG	20	50	60	70	80	90	100	110	120									
M8 X 20 P1.25	32	2.0	16	ASGPC ASGPCG	25	60	70	80	90	100	110	120										

ORDERING CODE	CATALOG NO.	D	L
	ASGPC	25	100



# Stripper Guide Pins (Head Type)

**ASGPPH**

**M** Case Hardening Steel  
**S** 56 to 60 HRC

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**ASGPGH (Oil groove type)**

• Details of groove

D	Number of grooves (n)					
	40~50	50~70	70~80	80~90	160~180	180~
8	2	3	4	5	6	—
10	2	3	4	5	6	—
13	2	3	4	5	6	7 8
16	2	3	4	5	6	7 8
20	2	3	4	5	6	7 8
25	2	3	4	5	6	7 8

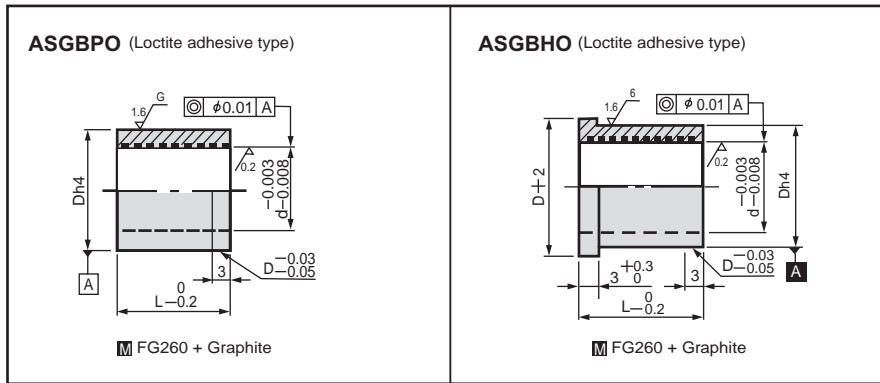
✳ L 40~119.5 → F = 8  
L120~L(C)max. → F = 10

**M** Case Hardening Steel  
**S** 56 to 60 HRC

Dm5	R	B	Catalog No.		L
			Type	D	
8	+0.012 +0.006	1.0	ASGPPH	8	40 50 60 70 80
				10	40 50 60 70 80 90 100
13	+0.015 +0.007	1.5	ASGPGH	13	40 50 60 70 80 90 100 110 120
				16	50 60 70 80 90 100 110 120 130 140
20	+0.017 +0.008	2.0		20	60 70 80 90 100 110 120 130 140
				25	70 80 90 100 110 120 130 140

ORDERING CODE	CATALOG NO.	D	L
	ASGPPH	25	100

# Stripper Guide Bushings (Oil- Free Type)



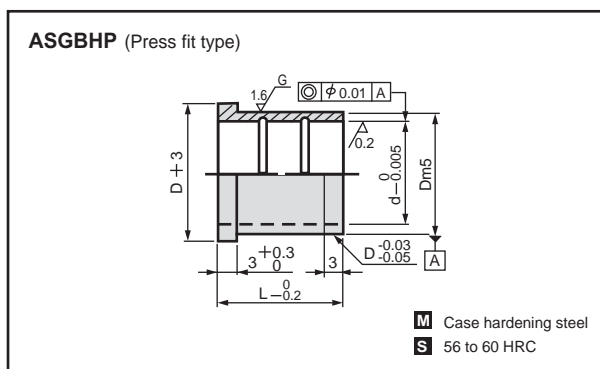
Dh4		Catalog No.		L
Type	d			
13	-0.005	ASGBPO	8	10 13 16 20
16			10	10 13 16 20 22 25
20	13		13 16 20 22 25 30	
24	-0.006		16	13 16 20 22 25 30 35
28			20	16 20 22 25 30 35
34			25	20 22 25 30 35

Dh4		Catalog No.		L
Type	d			
13	-0.005	ASGBHO	8	10 13 16 20
16			10	10 13 16 20 22 25
20	13		13 16 20 22 25 30	
24	-0.006		16	13 16 20 22 25 30 35
28			20	16 20 22 25 30 35
34			25	20 22 25 30 35

ORDERING CODE	CATALOG NO.	D	L
	ASGBPO	25	35

ORDERING CODE	CATALOG NO.	D	L
	ASGBHO	25	35

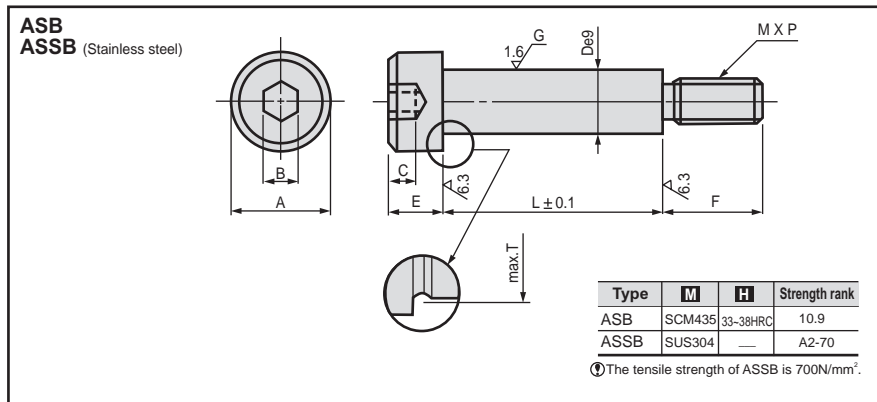
# Stripper Guide Bushings (Oil Type)



Dm5		Catalog No.		L
Type	d			
12	ASGBHP	8	10 13 16 20	
14		+0.015 +0.007	10	10 13 16 20 22 25
18		13	13 16 20 22 25 30 35	
22		+0.017 +0.008	16	13 16 20 22 25 30 35
25		20	16 20 22 25 30 35	
32		+0.020 +0.009	25	20 22 25 30 35

ORDERING CODE	CATALOG NO.	D	L
	ASGBHP	25	35

# Stripper Bolts (Male Screw Type)

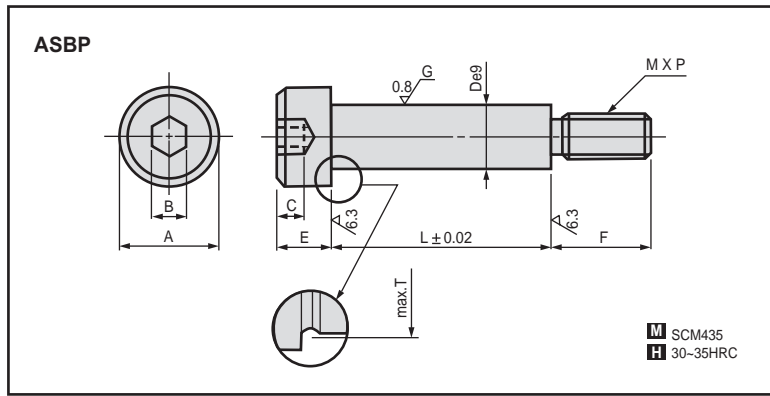


De9	A	B	C	E	F	M X P	T
4	6.5	2.5	1.6	3	5	2.5 X 0.45	4.5
4.5	7				6	3 X 0.5	5
5	8	3	2.2	3.5	7	4 X 0.7	5.5
5.5	9						2
6	10	4	2.5	4	9	5 X 0.8	6.5
6.5	13						5
8	16	6	4	8	12	8 X 1.25	8.7
8	17						6
10	18	8	5	10	16	10 X 1.5	12.8
10	24						7
12	27	10	7	14	18	12 X 1.75	17
12	27						9
13	27	14	9	18	24	16 X 2.0	21
13	27						14

Catalog No.		L (Only the sizes with a * mark is available for ASSB.)	
Type	D		
ASB	4	10 15 20 25 30 35 40	45
	4.5	*10 *15*20*25*30*35*40	45 50
	5	10 15 20 25 30 35 40	45 50
	5.5	*10 *15*20*25*30*35*40	45 50 55
	6	10 15 20 25 30 35 40	45 50 55 60 65 70
	6.5	*10 *15*20*25*30*35*40	*45*50 55 60 65 70 75 80
ASSB (Stainless Steel)	8	*10 *15*20*25*30*35*40*45	+50+55+60+65+70+75+80 85 90 95 100 110 120
	10	*10 *15*20*25*30*35*40*45*50*55	*60*65*70*75 *80*85*90 95 100 110 120
	12	10 15 20 25 30 35 40 45 50 55	60 65 70 75 80 85 90 95 100
	13	10 15 20 25 30 35 40 45 50 55 60 65 70	75 80 85 90 95 100 110 120 130
	16	10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85	90 95 100 110 120 130 140 150
	20	40 50 60 70 80 90 100	110 120 130 140 150

ORDERING CODE	CATALOG NO.	D	L
	ASB	20	100

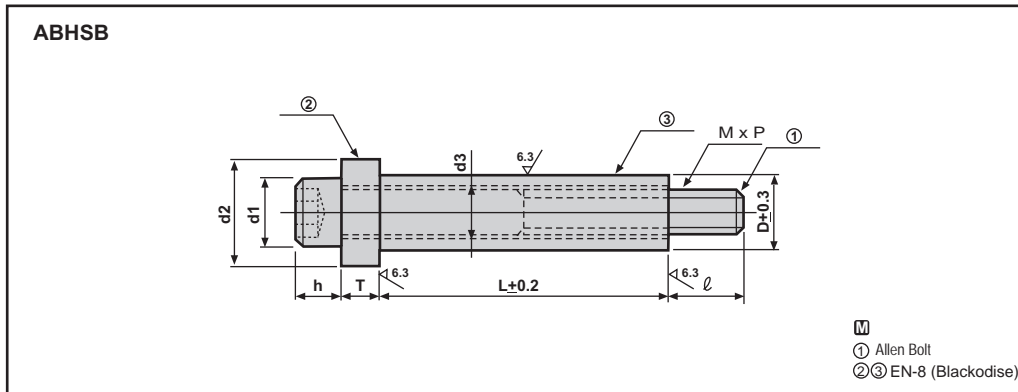
# Precision Stripper Bolts



De9		A	B	C	E	F	M X P	T	Catalog No.		
									Type	D	L
6.5	-0.025	10	4	2.5	5	9	M 5 X 0.8	7	ASBP	6.5	10 - 70
8	-0.061	13	5	3	6	9	M 6 X 1.0	8.7		8	10 - 90
10		16	6	4	8	12	M 8 X 1.25	10.8		10	10 - 120
13	-0.032	18	8	5	10	16	M10 X 1.5	14		13	15 - 130
16	-0.075	24	10	7	14	18	M12 X 1.75	17		16	15 - 150
20	-0.040	27	14	9	18	24	M16 X 2.0	21		20	20 - 150
25	-0.092	33	17	11	19	30	M20 X 2.5	26		25	30 - 160

ORDERING CODE	CATALOG NO.	D	L
	ASBP	25	125

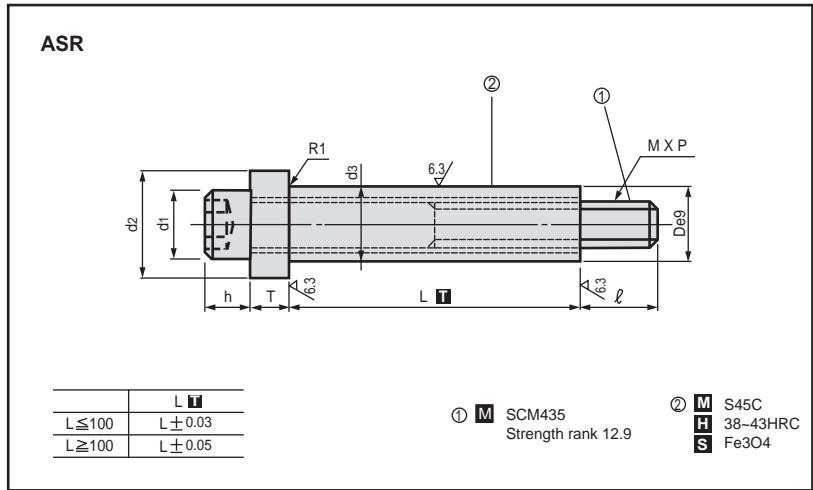
# Blank Holder Stopper Bolts



D	d1	d2	d3	h	T	M x P	l	Catalog No.		L
								Type	No.	
25.4	24	36	17.4	16	13	16X2.0	27	ABHSB	25	100 110 120
										130 140 150 160
31.8	30	45	21.8	20	16	20X2.5	34	ABHSB	32	100
										110 120 130
										170 180 190 200 210 220
										230 240 250 260
										280 300
										140 150 160
										170 180 190 200 210 220
										230 240 250 260
										280 300

ORDERING CODE	CATALOG NO.	D	L
	ABHSB	32	190

# Spool Retainers

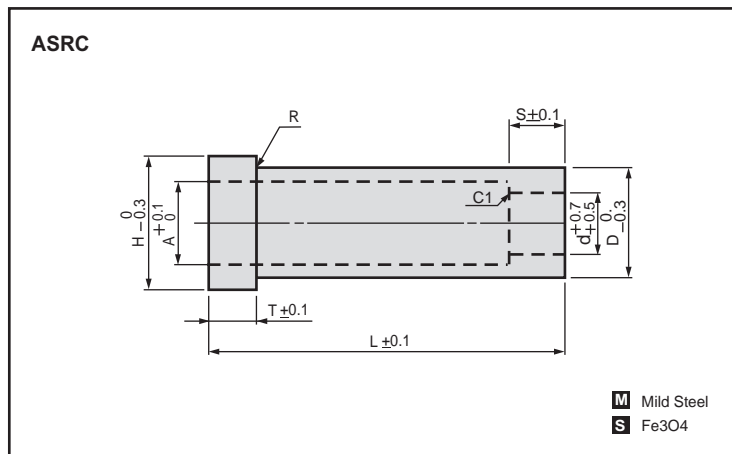


De9		d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	M X P	h	T	ℓ
10	-0.025 -0.061	10	15	6.3	6 X 1.0	6	5	10
13	-0.032 -0.075	13	18	8.4	8 X 1.25	8	5	15
16		16	24	10.6	10 X 1.5	10	8	22
20	-0.040 -0.092	18	28	12.6	12 X 1.75	12	10	20
25		24	36	16.8	16 X 2.0	16	13	27
32	-0.050 -0.112	30	45	20.8	20 X 2.5	20	16	34

Catalog No.		L
Type	D	
ASR	10	10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100
	13	15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120
	16	20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120 130 140 150 160 170 180
	20	30 35 40 45 50 55 60 65 70 75 80 85 90 100 110 120 130 130 140 150 160 170 180
	25	40 45 50 55 60 65 70 75 80 85 90 100 110 120 130 140 150 160 170 180 200
	32	60 70 80 90 100 110 120 130 140 150 160 170 180 200

ORDERING CODE	CATALOG NO.	D	L
	ASR	25	150

# Collars For Spool Retainer

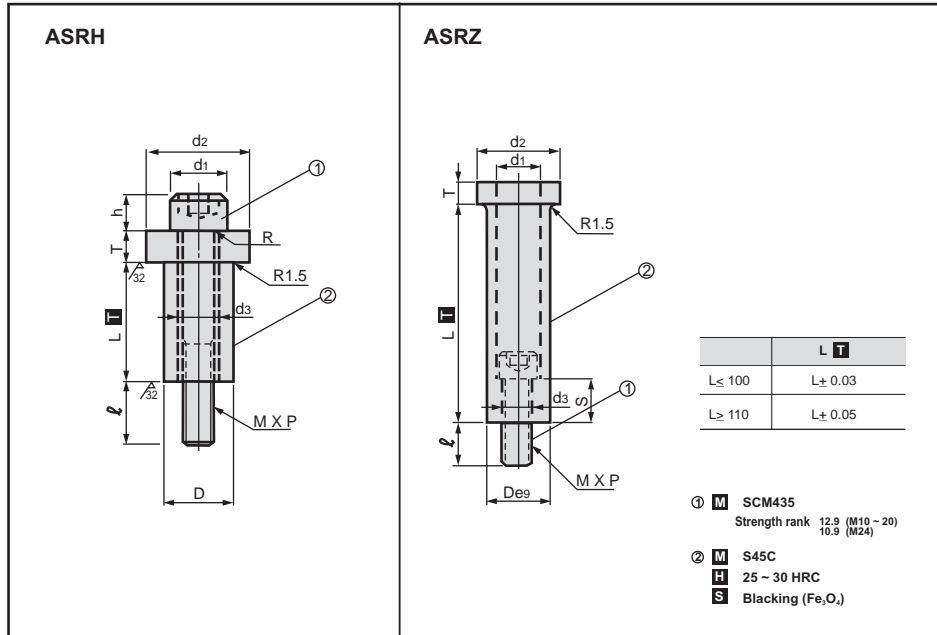


Adoptable ASR standard		H	T	A	D	R	Catalog No.		L 10 mm increments	S 5 mm increments
Type	D						Type	d		
ASR	10	36	5	16	28	1.0	ASRC	10	50 ~ 100	10 ~ 25
	13	40	5	19	30			13		
	16	46	8	25	36			16		
	20	55	10	29	44			20		
	25	60	13	37	50			25		
	32	70	16	46	60	1.5		32	60 ~ 100	

ORDERING CODE	CATALOG NO.	D	L
	ASRC	32	100



# Spool Retainers (Thick Type / Counterbore Type)



**Thick type (ASRH)**

De9	d1	d2	d3	M x P	R	h	T	ℓ	Catlog No.		L	
									Type	D		
18 -0.032 -0.075	16	27	10.7	10x1.5	1.0	10	8	22	ASRH	18	60 70 80 90 100 110 120 130 140 150	
											22	60 70 80 90 100 110 120 130 140 150
											30	60 70 80 90 100 110 120 130 140 150 160 170 180
											36	80 90 100 110 120 130 140 150 160 170 180
											44	80 90 100 110 120 130 140 150 160 170 180

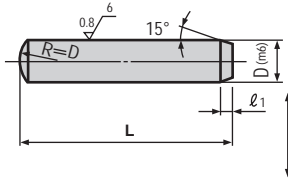
**Counterbore type (ASRZ)**

De9	d1	d2	d3	M x P	Supplied Bolt	T	S	ℓ	Catlog No.		L	
									Type	D		
24 -0.040 -0.092	18	33	11	10x1.5	M10-45	6	25	20	ASRZ	24	40 50 60 70 80 90 100	
											28	50 60 70 80 90 100 110
											35	60 70 80 90 100 110 120 130
											44	70 80 90 100 110 120 130
											20	40 50 60 70 80 90

ORDERING CODE	CATALOG NO.	D	L
	ASRH	44	100

# Dowel Pins

## AHDP (Straight type)

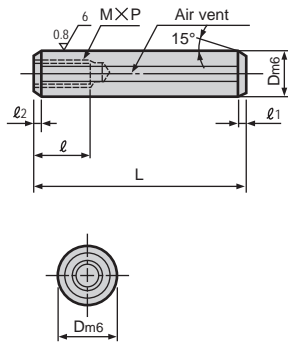


Case Hardened Steel  
 52 - 60 Rc

$\ell_1$	Catalog No.		L
	Type	D	
1.5	AHDP	4	8 10 15 20 25 30 35 40 45 50
		5	8 10 15 20 25 30 35 40 45 50
2.0		6	8 10 15 20 25 30 35 40 45 50 55 60
2.5		8	10 15 20 25 30 35 40 45 50 55 60 65 70 80
3.0		10	15 20 25 30 35 40 45 50 55 60 65 70 80
3.5		12	20 25 30 35 40 45 50 55 60 70 80
	13	30 40 50 60 70 80	

ORDERING CODE	CATALOG NO.	L
	AHDP12	50

## AITHDP (with internal threads)

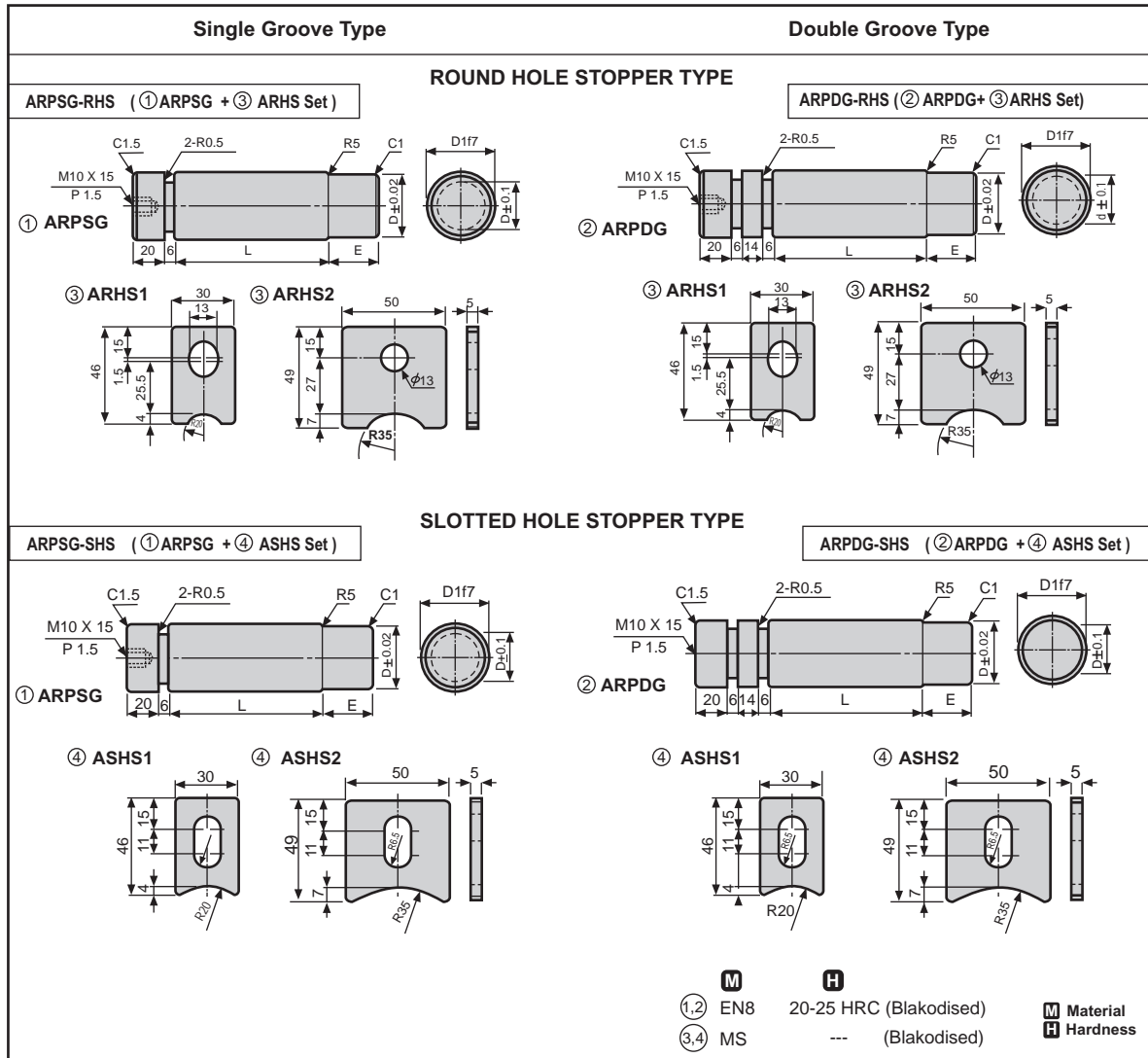


Case Hardened Steel  
 52 - 60 Rc

$\ell_1$	$\ell_2$	M × P	$\ell$	Dm6	Catalog No.		L
					Type	D	
1.5	0.3	M3 × 0.5	6	+0.012 +0.004	AITHDP	5	15 20 25 30
						6	20 30 15 25 35 40 50
2.0	0.5	M5 × 0.8	8	+0.015 +0.006		8	30 20 25 35 40 45 50 60 70 80
						10	40 20 25 30 35 45 50 60 70 80
2.5	1.0	M8 × 1.25	15	+0.018 +0.007		12	20 30 40 50 60 70 80
						13	50 40 60 70 80
3.0	1.5	M10 × 1.5	18	+0.021 +0.008	16	60 40 50 70 80	
					20	40 50 70 80 50 60 70 80	

ORDERING CODE	CATALOG NO.	D	L
	AITHDP	6	25

# Retainer Pin Sets



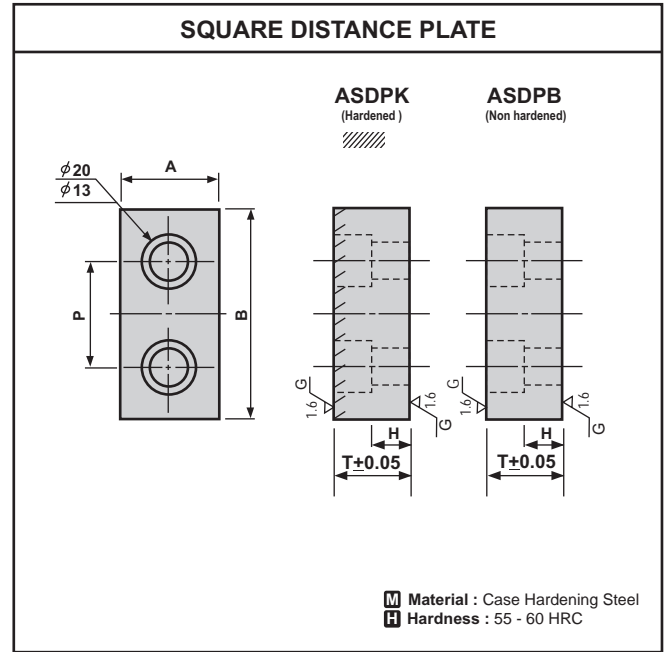
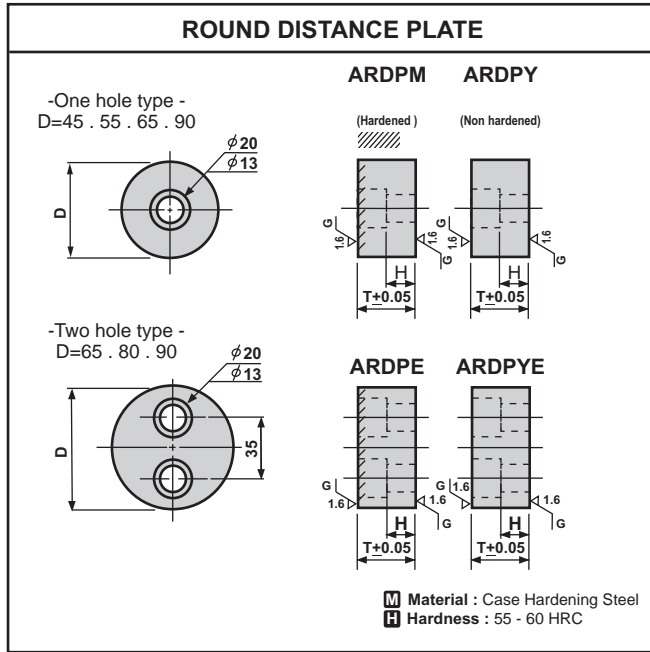
D	D1f7	d	E	S	Allowance load N (kgf) (Safety coefficient 1)	Static load N (kgf) (Safety coefficient 3)	Repeated load N (kgf) (Safety coefficient 5)	Alternate load N (kgf) (Safety coefficient 8)	Impact load N (kgf) (Safety coefficient 12)	Catalog No.	
										Type	D-L
20	22	-0.020 -0.041	14	27	37167 { 3790}	12356 { 1260}	7453 { 760}	4609 { 470}	3138 { 320}	Single groove type	20-40
										(Pin only)	60
30	32	-0.025 -0.050	22	31	125427 { 12790}	41776 { 4260}	25105 { 2560}	15691 { 1600}	10493 { 1070}	ARPSG	30-60
										(Set)	80
40	42	-0.025 -0.050	30	35	253600 { 25860}	84533 { 8620}	50700 { 5170}	31675 { 3230}	21182 { 2160}	ARPSG-RHS	40-60
										(Set)	80
50	52	-0.030 -0.060	40	40	495334 { 50510}	165144 { 16840}	99047 { 10100}	61880 { 6310}	41286 { 4210}	ARPSG-SHS	100
										(Set)	120
60	62	-0.030 -0.060	50	45	727751 { 74210}	242617 { 24740}	145531 { 14840}	91006 { 9280}	60703 { 6190}	Double groove type	50-80
										(Pin only)	100
70	72	-0.030 -0.060	60	50	990570 { 101010}	330190 { 33670}	198094 { 20200}	123858 { 12630}	82572 { 8420}	ARPDG	60-100
										(Set)	120
										ARPDG-RHS	140
										ARPDG-SHS	70-120
											140
											160

• kgf = N × 0.101972

ORDERING CODE	CATALOG NO.	L
	ARPDG 30	60
	ARPSG-RHS 50	100



# Round & Square Distance Plates



BOLT HOLE	H	Catlog No.		T
		Type	D	
One hole	6	ARDPM (Hardened)	45	20
				30
	15	ARDPY (Non Hardened)	55	20
				30
6	ARDPM (Hardened)	65	30	
			15	ARDPY (Non Hardened)
Two hole	15	ARDPE (Hardened)	65	30
				40
	15	ARDPYE (Non Hardened)	80	30
				40
	15	ARDPE (Hardened)	90	30
				40
	15	ARDPYE (Non Hardened)	90	30
				40
				50

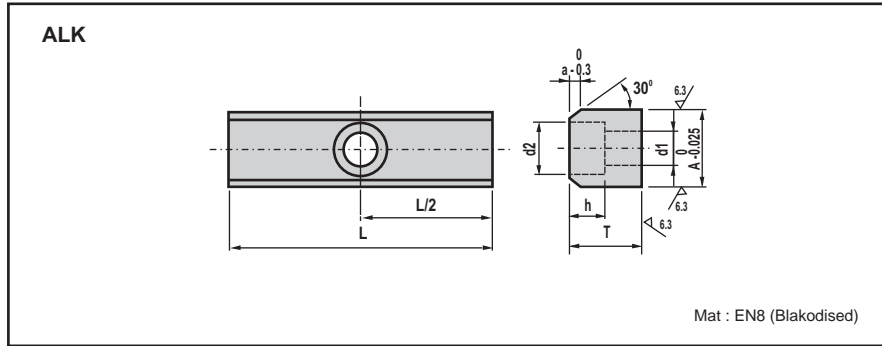
H	P	Catlog No.		B	T	
		Type	A			
6	30	ASDPK (Hardened)	38	60	20	
					30	
					40	
6	55		ASDPK (Hardened)	38	80	20
						30
						40
15	30	ASDPK (Hardened)		50	60	20
						30
						40
6	55		ASDPK (Hardened)	50	80	20
						30
						40
15	55	ASDPB (Non Hardened)		60	80	20
						30
						40
6	70		ASDPB (Non Hardened)	60	100	20
						30
						40
15	70	ASDPB (Non Hardened)		80	100	20
						30
						40
6	85		ASDPB (Non Hardened)	80	120	20
						30
						40

ORDERING CODE	CATALOG NO.	D	T
	ARDPM	45	20

ORDERING CODE	CATALOG NO.	B	T
	ASDPK50	60	30



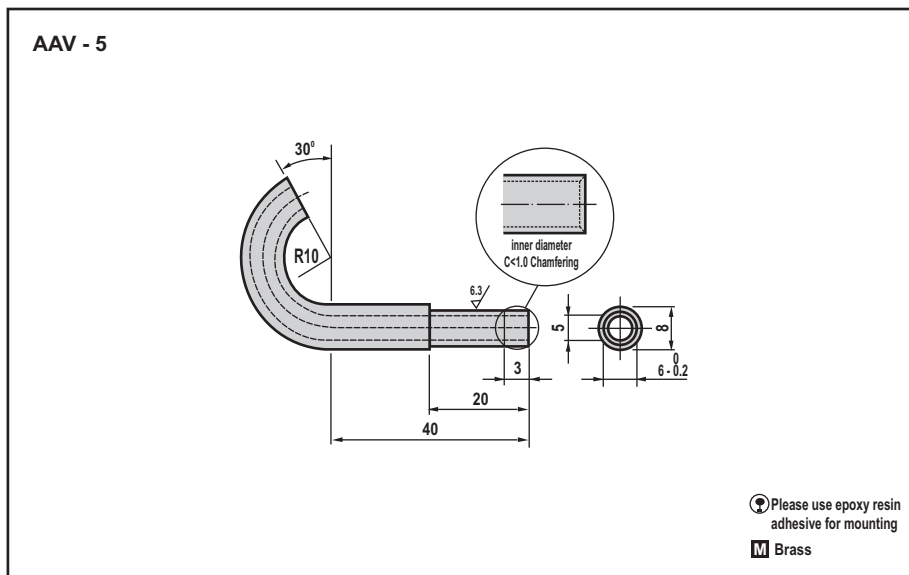
# Locating Keys



A	T	d1	d2	h	a	Catlog No.		L
						Type	A	
20	20	9	14	10	3	ALK	20	60
								80
25	25	11	18	12	4		25	60
								80
							100	
28	25	11	18	12	4		28	60
								80
32	25	11	18	12	5		32	60
								80
								100

ORDERING CODE	CATALOG NO.	L
	ALK 25	80

# Air Vents

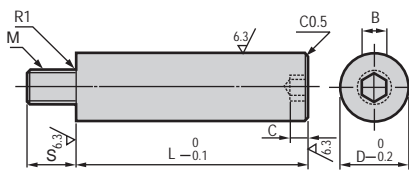


ORDERING CODE	CATALOG NO.
	AAV 5

# Cushion Pins

## ACPR

(Hex wrench tightening type with male threads)



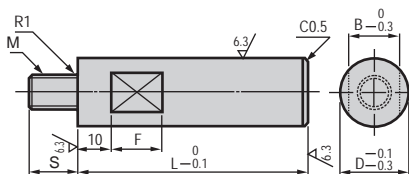
**M** Material : Case Hardening Steel  
**H** Hardness : 55 - 60 HRC

M×P	S	B	C	Catalog No.		L 5 mm increments
				Type	D	
10×1.5	15	8	5	ACPR	16	50 ~ 100
						105 ~ 150
						155 ~ 200
12×1.75	18	10	6		20	50 ~ 100
						105 ~ 150
						155 ~ 200
16×2.0	24	14	9		25	50 ~ 100
						105 ~ 150
						155 ~ 200
20×2.5	30	17	12		32	50 ~ 100
						105 ~ 150
						155 ~ 200

ORDERING CODE	CATALOG NO.	L
	ACPR25	200

## ACPM

(Spanner tightening type with male threads)



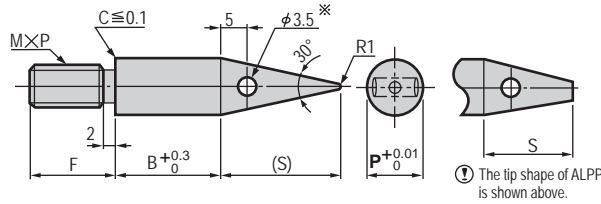
**M** Material : Case Hardening Steel  
**H** Hardness : 55 - 60 HRC

M×P	S	B	F	Catalog No.		L 5 mm increments
				Type	D	
8×1.25	12	13	16	ACPM	16	50 ~ 100
						105 ~ 150
						155 ~ 200
						205 ~ 250
10×1.5	15	16			20	50 ~ 100
						105 ~ 150
						155 ~ 200
						205 ~ 250
12×1.75	18	18			25	50 ~ 100
						105 ~ 150
						155 ~ 200
						205 ~ 250
16×2.0	24	21	32	100 ~ 150		
				155 ~ 200		
				205 ~ 250		

ORDERING CODE	CATALOG NO.	L
	ACPM20	200

# Locating Pilot Pin

**ALPP** (Standard)  
**ALPPH** (Configurable P-B)



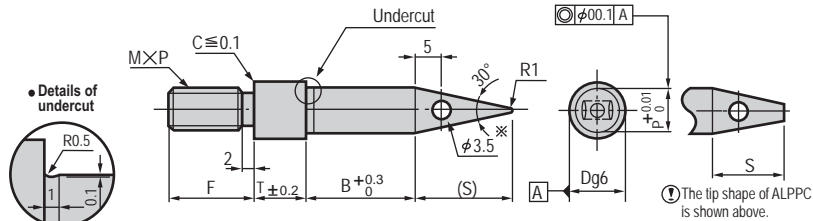
① ALPPH is (S) ≅ 1.6 × P.    ※ ALPP6 → φ 2, ALPP8-ALPPH8 → φ 2.5

**M** H13  
**H** 37 - 43HRC

M × P	F	S	Catalog No.		B
			Type	P	
5 × 0.8	12	10	ALPP (Standard)	6	5 10
6 × 1.0				8	
8 × 1.25				9	
10 × 1.5	15	15		10	10 15
12 × 1.75				12	
16 × 2.0	25	20		14	15 20
			15		
			16	20 25	
			20	25 30	

M × P	F	Catalog No.		P	B
		Type	No.		
5 × 0.8	12	ALPPH (Configurable P-B)	8	6.00 ~ 8.00	5 ~ 50
6 × 1.0			10	8.00 ~ 10.00	
8 × 1.25			12	10.00 ~ 12.00	
10 × 1.5	15		14	12.00 ~ 14.00	
12 × 1.75			16	14.00 ~ 16.00	
16 × 2.0	25		20	16.00 ~ 20.00	

**ALPPC** (Standard)  
**ALPPCH** (Configurable P-B-T)



① ALPPCH is (S) ≅ 1.6 × P.  
 ※ DB → φ 2, D10 → φ 2.5

**M** H13  
**H** 37 - 43HRC

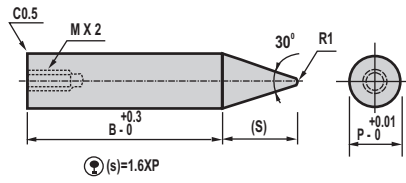
M × P	F	P	B	T	S	Catalog No.	
						Type	D
6 × 1.0	12	6	5	3	10	ALPPC (Standard)	8
8 × 1.25	8	5					10
12 × 1.75	15	10	10	15	13		
		13			16		
16 × 2.0	25	16	10	10	20		
		17			25		
		20			25		

M × P	F	Catalog No.		P	B	T
		Type	D			
6 × 1.0	12	ALPPCH (Configurable P-B-T)	8	6.00 ~ 8.00	5 ~ 60	3 ~ 15
8 × 1.25	15		10	8.00 ~ 10.00		
12 × 1.75			13	10.00 ~ 12.00		
16 × 2.0	25		16	12.00 ~ 14.00		
			20	14.00 ~ 16.00		
			25	16.00 ~ 20.00		

ORDERING CODE	CATALOG NO.	D	P	B	T
	ALPP	10		B9	
	ALPPH	12	P10	B10	
	ALPPC	13			
	ALPPCH	16	P13	B50	T10

# Locating Pilot Pin

ALPPS (Standard)  
ALPPSH (Configurable P-B)

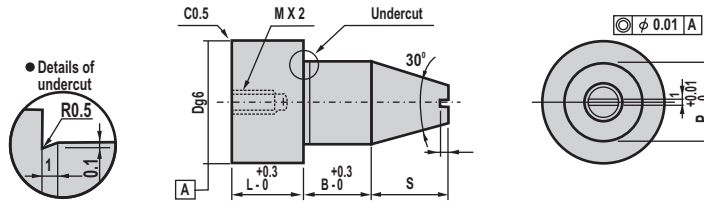


M Case Hardened Steel  
H 58 - 60

M x P	Catlog No.		B		M x P	Catlog No.		P 0.01 mm increments	B 0.1 m increments
	Type	P				Type	No.		
4 x 0.7	ALPPS (Standard)	6	10	15	ALPPSH (Configurable P-B)	6	6.00 ~ 7.00	10.00 ~ 80.00	
		8	15	20		8	7.00 ~ 8.00		
10		10				8.01 ~ 10.00			
5 x 0.8		12	20	30		12	10.00 ~ 12.00		
		13				13	12.01 ~ 13.00		
		15				15	13.01 ~ 15.00		
6 x 1.0		16	30	40		16	15.01 ~ 16.00		
		20	40	50		20	16.00 ~ 20.00		
8 x 1.25									

ORDERING CODE	CATALOG NO.	P	B
	ALPPSH 16	15.05	10.2

ALPPHD (Standard)  
ALPPHDB (Configurable)

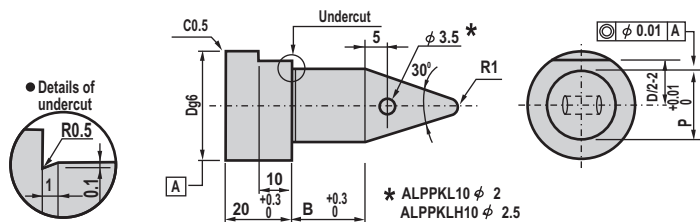


M Case Hardened Steel  
H 58 - 60

Dg6	M	P	L	S	B	Catlog No.		P 0.01 mm increments	B 0.01 m increments
						Type	D		
8	-0.005	5	6	15	6	ALPPHD (Standard)	8	6.00 ~ 7.00	3.0 ~ 20.00
10	-0.014	6	8	8	10		10	7.00 ~ 9.00	3.0 ~ 30.00
					13		-0.006	8	10
16	-0.017	10	12	17	16		12.00 ~ 15.00		
20	-0.007 -0.020	12	16	24	20		15	20	15.00 ~ 18.00

ORDERING CODE	CATALOG NO.	P	B
	ALPPHD 16	12	10

ALPPKL (Standard)  
ALPPKLH (Configurable P-B)



M Case Hardened Steel  
H 58 - 60

Dg6	P	P	Catlog No.		Dg6	Catlog No.		P 0.01 mm increments	B 0.01 m increments
			Type	D		Type	D		
10	-0.005 -0.014	6	10	ALPPKL (Standard)	10	10	6.00 ~ 7.00	3.0 ~ 30.00	
					13	-0.006	8		7.00 ~ 9.00
16	-0.017	10			9.00 ~ 12.00	3.0 ~ 50.00			
20	-0.007	12			12.00 ~ 15.00				
25	-0.020	16			15.00 ~ 20.00				

ORDERING CODE	CATALOG NO.	P	B
	ALPPKLH	8.05	20



# Locating Pilot Pins

**ALPPTH**  
(Configurable P · B)

<b>Material</b>	D2
<b>Hardness</b>	60-63 HRC

Dg6	M	L	S	Catlog No.		P 0.01 mm increments	B 0.01 mm increments
				Type	D		
5	-0.004 -0.012	3	12	(Configurable P · B) <b>ALPPTH</b>	5	8.00 ~ 8.99	1.0 ~ 12.0
						9.00 ~ 10.00	1.0 ~ 12.0
6	10	15	6		19.00 ~ 10.99	1.0 ~ 15.0	
					11.00 ~ 12.00	1.0 ~ 15.0	
8	-0.005 -0.014	4	15		8	12.00 ~ 12.99	1.0 ~ 15.0
						13.00 ~ 16.00	1.0 ~ 15.0
10	-0.014	5	20		10	14.00 ~ 14.99	1.0 ~ 20.0
						15.00 ~ 20.00	1.0 ~ 20.0
13	-0.006 -0.017	6	20		13	16.00 ~ 16.99	1.0 ~ 20.0
						17.00 ~ 20.00	1.0 ~ 20.0
16		8	24	16	18.00 ~ 20.00	1.0 ~ 20.0	

<b>ORDERING CODE</b>	<b>CATALOG NO.</b>	<b>P</b>	<b>B</b>
	ALPPTH10	P14.0	B10

**ALPPTH**  
(Configurable P · B)

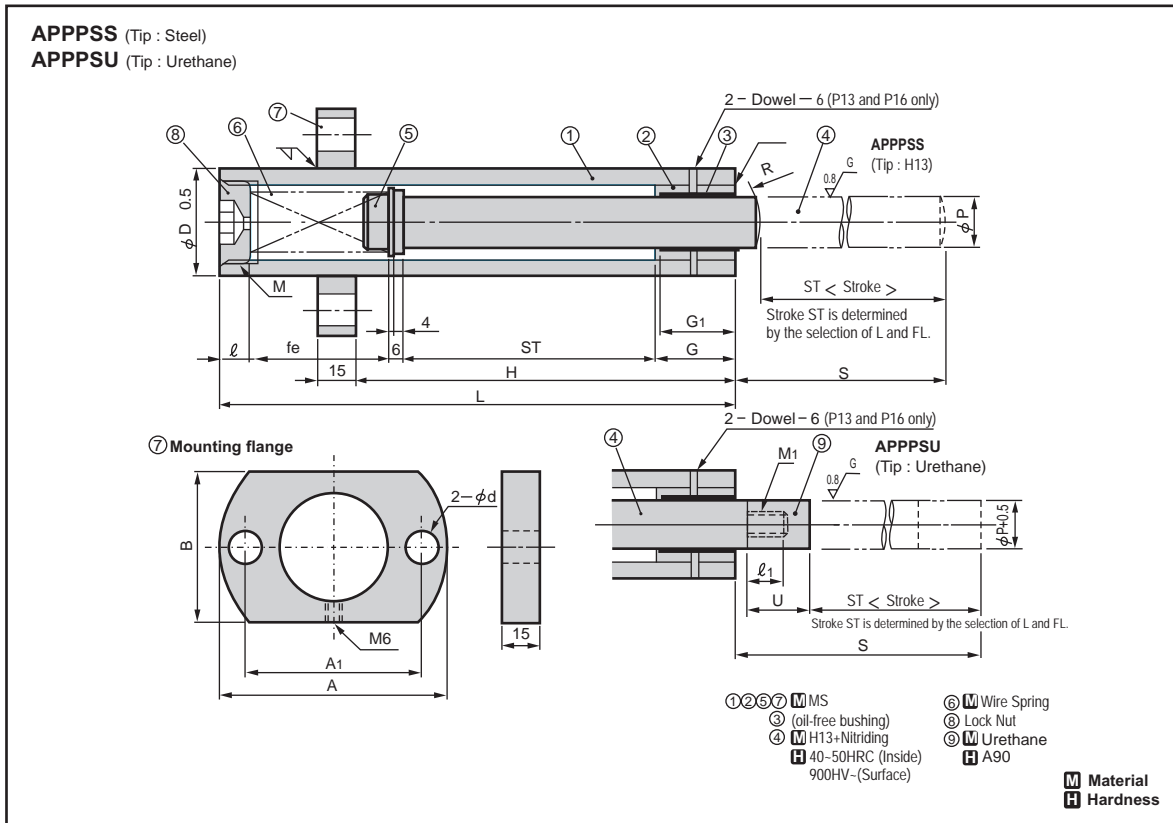
<b>Material</b>	D2
<b>Hardness</b>	60-63 HRC

Ⓢ (S) is a  $\frac{1}{16} \times P$ .

Dm6	L	Catlog No.		P 0.01 mm increments	B 0.1 mm increments
		Type	D		
4	12	(Configurable P · B) <b>ALPPTH</b>	4	4.00 ~ 8.00	1.0 ~ 12.00
5			5.00 ~ 10.00	1.0 ~ 12.00	
6	15		6	6.00 ~ 12.00	1.0 ~ 15.00
8			8.00 ~ 14.00	1.0 ~ 15.00	
10	20		10	10.00 ~ 16.00	1.0 ~ 20.00
13			13.00 ~ 18.00	1.0 ~ 20.00	
16	24		16	16.00 ~ 20.00	1.0 ~ 20.00

<b>ORDERING CODE</b>	<b>CATALOG NO.</b>	<b>P</b>	<b>B</b>
	ALPPTH10	P10	B6

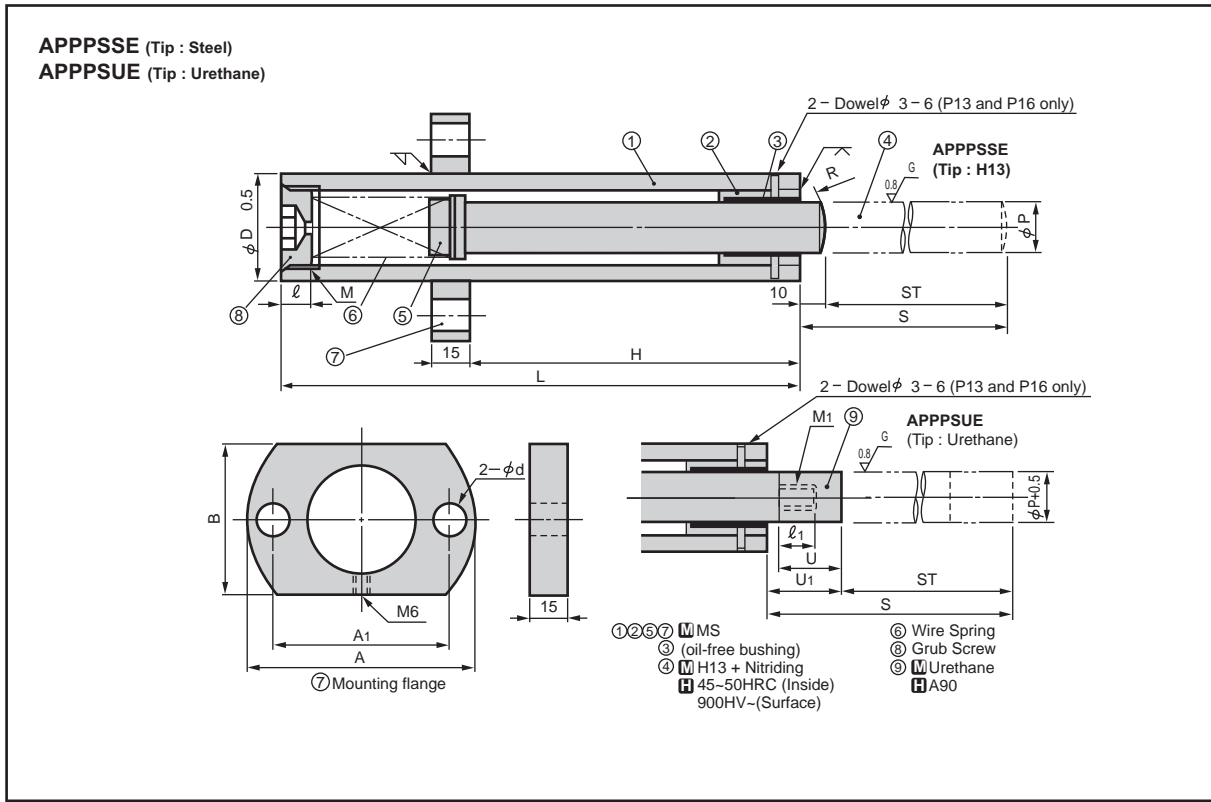
# Pre-holding Push Pin Sets - Normal Type



① Case			② Push pin						⑦ Mounting flange				Catalog No.		S	L 10mm increments	H 1mm increments	Spring free length FL	
D	G	G <sub>1</sub>	ℓ	M	R	U	M <sub>1</sub>	ℓ <sub>1</sub>	A	A <sub>1</sub>	B	d	Type	P					
27.2	22	20	10	22	20	15	M6	9	70	52	40	11	APPPSS (Tip : Steel)	13	100	150 ~ 250	0 ≤ H ≤ L - 20	90	
															125			150	
															175			200	
34.0	27	25	10	26	25	20	M8	12	80	60	50	11		APPPSS (Tip : Steel)	16	100	150 ~ 350	0 ≤ H ≤ L - 20	90
																125			150
																175			200
																250			300
																300			350
42.7	32	30	12	33	30	25	M10	15	90	70	60	13			APPPSU (Tip : Urethane)	20	100	180 ~ 500	0 ≤ H ≤ L - 20
													150				150		
													200				175		
													250				200		
													300	250					
													350	300					
													400	350					
													425	400					
450	425																		
500	450																		

⚠ Be sure to make selections so that the urethane tip of APPSU would not enter inside the bushing. S - ST > U

# Pre-holding Push Pin Sets - Economy Type



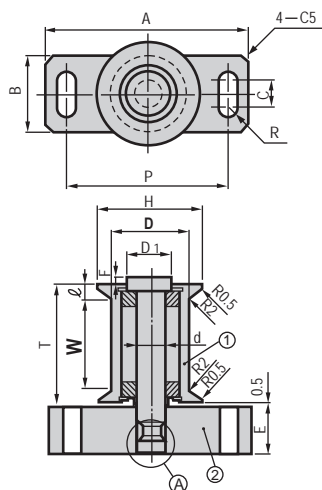
① Case	④ Push Pin							⑦ Mounting flange				Free length FL	Spring constant N/mm (kgf/mm)	Initial load N {kgf}	Max. load	S		L	Catalog No.		ST	H 1mm increments
	D	$\ell$	M	R	U	U <sub>1</sub>	M <sub>1</sub>	$\ell_1$	A	A <sub>1</sub>	B					d	APPPSSE		APPPSUE	Type		
27.2	10	22	20	15	20	M6	9	70	52	40	11	90	0.63 {0.064}	7.8 {0.8}	39.2 {4.0}	60	70	115	APPPSSE (Tip : Steel)	13	50	0 ~ 95
												175	0.32 {0.033}	7.8 {0.8}		110	120	190			100	0 ~ 170
												270	0.21 {0.021}	7.8 {0.8}		160	170	270			150	0 ~ 250
34.0	10	26	25	20	25	M8	12	80	60	50	11	90	0.80 {0.082}	9.8 {1.0}	49.2 {5.0}	60	75	120	APPPSSE (Tip : Steel)	16	50	0 ~ 100
												175	0.39 {0.040}	9.8 {1.0}		110	125	195			100	0 ~ 175
												270	0.26 {0.027}	9.8 {1.0}		160	175	275			150	0 ~ 255
												350	0.20 {0.020}	8.8 {0.9}		210	225	350			200	0 ~ 330
42.7	12	33	30	25	30	M10	15	90	70	60	13	90	0.95 {0.097}	9.8 {1.0}	58.8 {6.0}	60	80	130	APPPSUE (Tip : Urethane)	20	50	0 ~ 110
												175	0.48 {0.049}	9.8 {1.0}		110	130	205			100	0 ~ 185
												260	0.32 {0.033}	9.8 {1.0}		160	180	280			150	0 ~ 260
												350	0.23 {0.024}	9.8 {1.0}		210	230	360			200	0 ~ 340
												425	0.20 {0.020}	8.8 {0.9}		260	280	430			250	0 ~ 410

ORDERING CODE	CATALOG NO.	ST	H
	APPPSSE 20	150	200

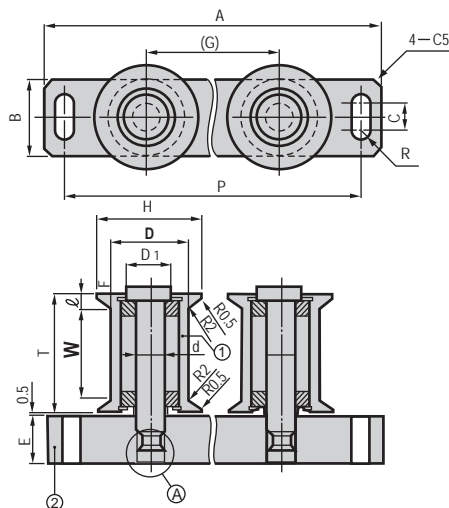


# Stock Guide Sets - Bearing Type

**ASGSRB** (Roller bearing type)  
**ASGSBB** (Ball bearing type)  
 Single guide



**ASGSRBW** (Roller bearing type)  
**ASGSBBW** (Ball bearing type)  
 Double guide



- ① Mat : Case Hardening Steel  
Hardness : 5SHRC - (Case hardening)
- ② M MS
- A Grub screw  
Single Guide : 1 pc.  
Double Guides : 2 pcs.

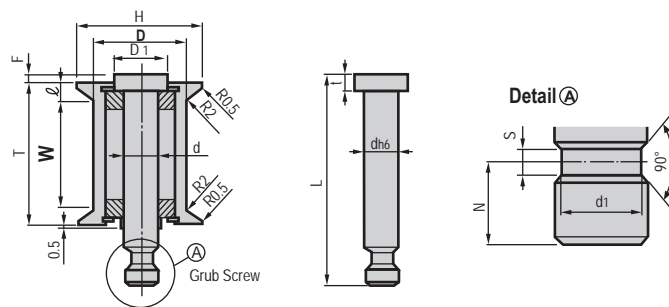
**Set**

W	H	l	d	A	B	C	P	R	E	F	(G)	D1	Catalog No.		
													Type	D	W
48	40	5	10	95 (395)	30	10	73(373)	5.5	20	1.5	(300)	14	(roller bearing)	30	38
54	75	8	25	145 (445)	55	20	115(415)	6.5	35	5.5	(300)	32	<b>ASGSRB</b>	55	38
86													<b>ASGSRBW</b>		70
48	40	5	9	95(395)	30	10	73(373)	5.5	20	1.5	(300)	12	(ball bearing)	30	38
54	75	8	20	145(445)	55	20	115(415)	6.5	35	5.5	(300)	32	<b>ASGSBB</b>	55	38
86													<b>ASGSBBW</b>		70

Numbers in parentheses are dimensions of the double guides (ASGSRBW and ASGSBBW)

ORDERING CODE	CATALOG NO.	W
	ASGSRB30	38

**ASGSRBT** (Roller bearing type)  
**ASGSBBT** (Ball bearing type)  
 Guide roller unit



**Unit**

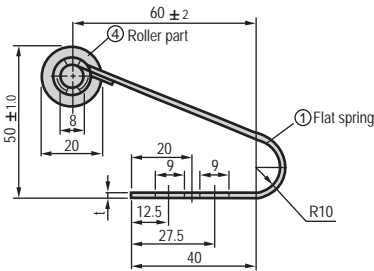
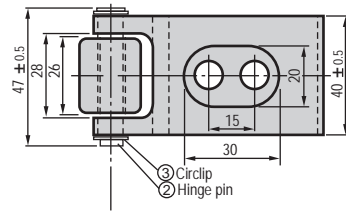
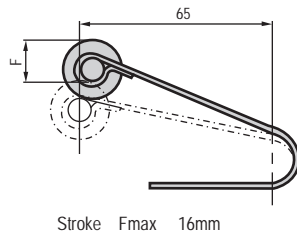
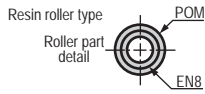
W	H	l	d	F	D1	L	t	d1	S	N	Catalog No.		
											Type	D	W
48	40	5	10	1.5	14	67	5.5	8	2.5	7	(roller bearing)	30	38
54	75	8	25	5.5	32	92	9.5	22	5	17	<b>ASGSRBT</b>	55	38
86											70		
48	40	5	9	1.5	12	67	5.5	7	2.5	7	(ball bearing)	30	38
54	75	8	20	5.5	32	92	9.5	17	5	17	<b>ASGSBBT</b>	55	38
86											70		

ORDERING CODE	CATALOG NO.	W
	ASGSRBT30	38

# Stock Feeder Lifter Units

## ASFLUM ASFLUH

Resin roller type



- ① Mat : Spring steel
  - ② EN8
  - ③ Circlip  $\phi$ 8
  - ④ Resin roller type
- Outside **M** POM (Polyacetal resin)  
 Inside **M** EN8  
**A** M8-20 (Allen Bolt) Q'ty:2

t	N/mm{kgf/mm}	Type	Catalog No.
1.4	5.88 {0.60}	Resin roller	ASFLUM
1.6	8.43 {0.86}		ASFLUH

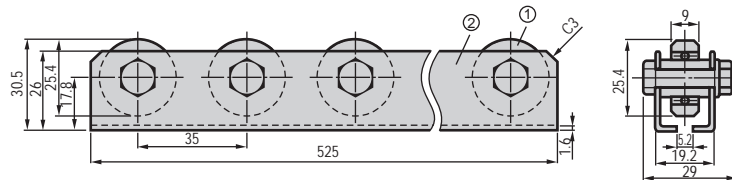
{kgf} = N × 0.101972

ORDERING  
CODE

CATALOG NO.  
ASFLUH

# Roller Carriers

## ARC



- ① The dimension (L) is a reference value.
- ② Load resistance of a roller:20kg/piece

- ① **M** Ball Bearing
- ② **M** MS

Notes : ① STD Length available is 525 mm.  
 ② Non STD length can also be supplied.

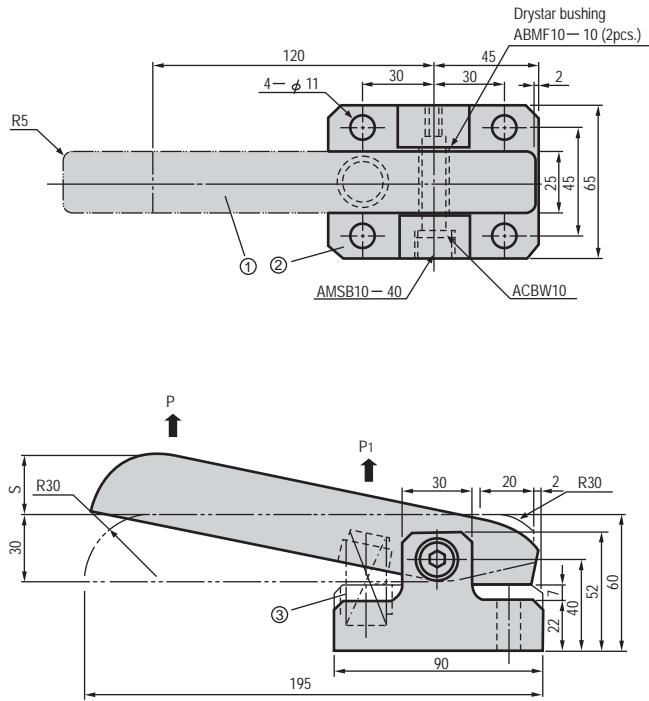
ORDERING  
CODE

CATALOG NO.  
ARC

# Sheet Lifters

**ASLS** (Sheet bar : EN8)

**ASLB** (Sheet bar : Copper alloy)



- ① Sheet Bar **M** :  
ASLS : EN-8  
ASLB : COPPER ALLOY
- ② Block **M** : FG260

Lifting load P N(kgf)		Spring load P1 N(kgf)		Coil spring (Color) ③	Stroke S	Catalog No.	
min.	max.	min.	max.			Type	No.
18.3(1.9)	24.5(2.5)	73( 7.5)	98(10.0)	ASWU17 50 (Light blue)	20	ASLS ASLB	20U
29.3(3.0)	39.2(4.0)	117(12.0)	157(16.0)	ASWR17 50 (Ivory)			20R
54.9(5.6)	73.5(7.5)	220(22.5)	294(30.0)	ASWS17 50 (Orange)			20S
16.9(1.7)	24.5(2.5)	67( 6.9)	98(10.0)	ASWU17 50 (Light blue)	25	ASLS ASLB	25U
27.0(2.8)	39.2(4.0)	108(11.0)	157(16.0)	ASWR17 50 (Ivory)			25R
51.0(5.2)	73.5(7.5)	202(20.6)	294(30.0)	ASWS17 50 (Orange)			25S

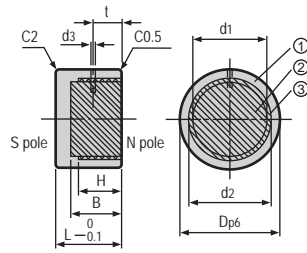
⚠ Do not use full stroke. It is recommended to shorten the stroke setting by about 1mm.

$$\{\text{kgf}\} = N \times 0.101972$$

ORDERING CODE	CATALOG NO.
	ASLB 25S

# Pot Magnets

**APMAG** (Press fit type)



- ① MS
  - ② Alnico magnet
  - ③ Brass
- Allowable temperature limit 80°C

Dp6	L	* Adsorption N {kgf}	Surface magnetic flux density Gauss [G]	d1	d2	d3	B	H	t	Catalog No.	
										Type	D
20 $\begin{smallmatrix} +0.035 \\ +0.022 \end{smallmatrix}$	16	25.5 {2.6}	1400 ~ 1700	13	16	2	12	8	4.0	APMAG	20
25 $\begin{smallmatrix} +0.035 \\ +0.022 \end{smallmatrix}$	19	47.1 {4.8}	1600 ~ 1900	15.5	18.5		13	10	5.0		25
30 $\begin{smallmatrix} +0.035 \\ +0.022 \end{smallmatrix}$	20	68.6 {7.0}		19.5	23	15	30				
35 $\begin{smallmatrix} +0.042 \\ +0.026 \end{smallmatrix}$	26	98.1 {10.0}	1900 ~ 2100	24.5	28	3	18	13	6.5		35
40 $\begin{smallmatrix} +0.042 \\ +0.026 \end{smallmatrix}$	27	142.2 {14.5}		29.5	33		20				40

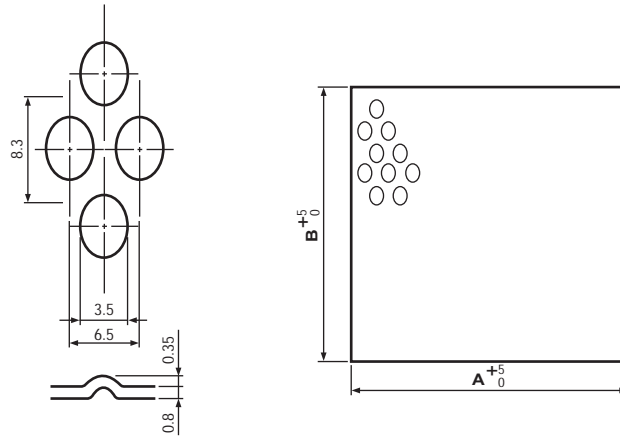
kgf = N × 0.101972

- ⚠ Since magnets are broken easily, do not alter them.
- ⚠ The end face is ground.

ORDERING CODE	CATALOG NO.
	APMAG 25

# Embossed Shooting Plates

**AESP**



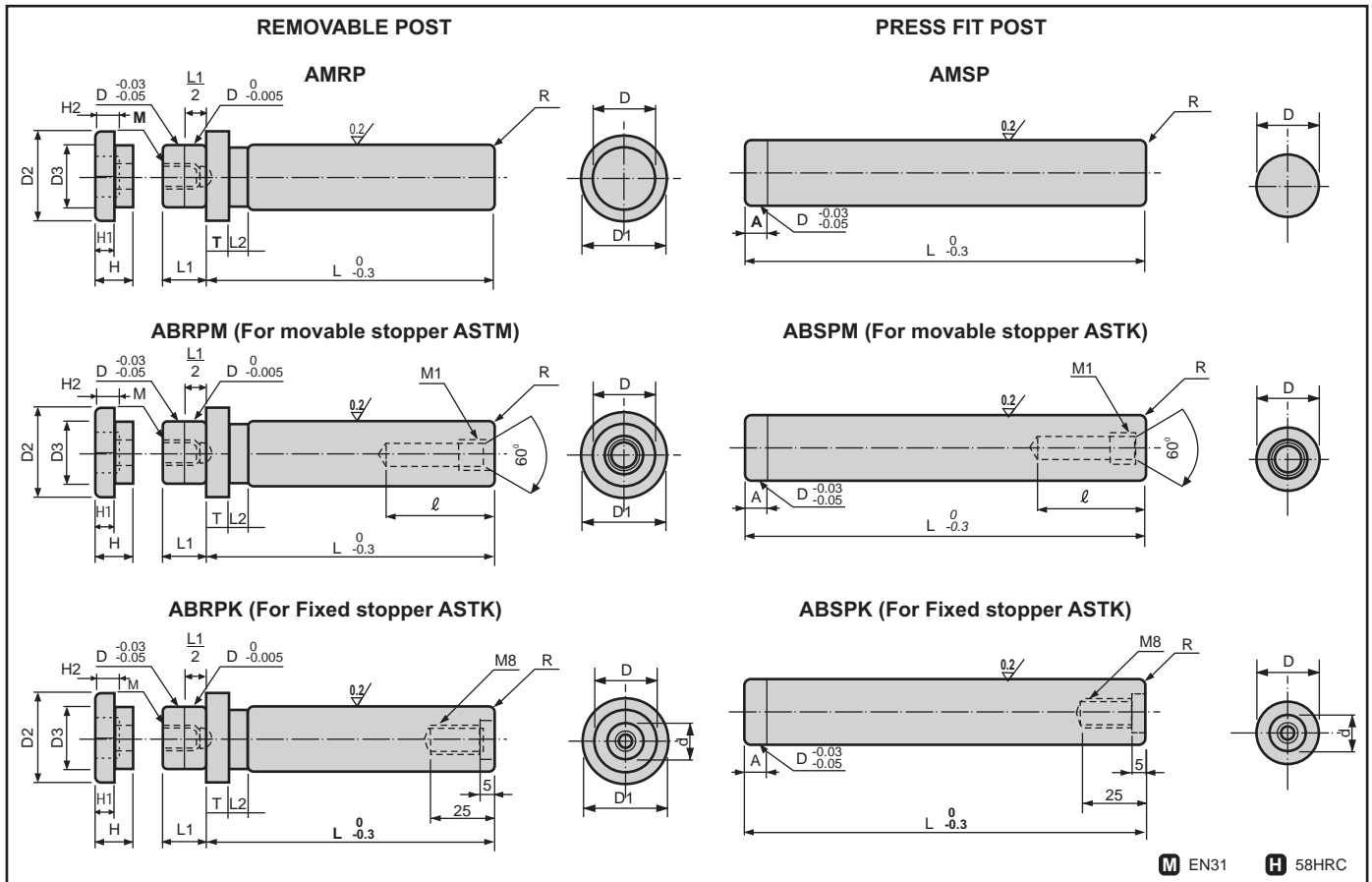
Note : Embossed Surface Shape may differ slightly than shown in the sketch.

Material : SS304 / MS

Catalog No.	A	B
AESP	350	500
	500	1000
		2000

ORDERING CODE	CATALOG NO.	A	B	Material
	AESP	500	1000	SS304

# Guide Post For Die Set



**M** EN31 **H** 58HRC

D	D1	T	L1	L2	ℓ	M1 X P	d	A	M	R	D2	D3	H	H1	H2	Allen bolts
20	+0.020	29	5	15	10	38	14	4	M8X18	2.0	28	19.5	14	7	8.5	M 8-25
22	+0.015	31	8	16		42					30	21.5				
25		36	10	18		50					35	24.5				
28	+0.025	39	10	20	12	50	20	5	M10X22	3.5	36	27.5	16	8	10.5	M 10-30
32	+0.020	44		23		60					40	31.5				
38	+0.030	53	12	27	15	60	20	6	M12X27	4.0	49	37.5	18	10	12.5	M 12-35
45	+0.025	59		32		70					55	44.5				
50	+0.035	69		35		70					62	49.5				
60	+0.030	79	15	42		70		7	M14X31	5.0	62	49.5	20	12	14.5	M 14-40
											72	59.5				

Catlog No. Type	D	L									
		80	90	100	110	120					
AMRP	20	80	90	100	110	120					
	22	80	90	100	110	120					
	25	80	90	100	110	120	130				
ABRPM	28			100	110	120	130	140	150	160	
	32				120	130	140	150	160		
ABRPK	38						140	150	160	170	180
	45						140	150	160	170	180
	50								160	170	200
	60								160	170	200

Catlog No. Type	D	L														
		100	110	120	130	140	150	160	170	180						
AMSP	20	100	110	120	130	140	150	160	170	180						
	22			120	130	140	150	160	170	180						
	25			120	130	140	150	160	170	180						
ABSPM	28					140	150	160	170	180	190	200				
	32							160	170	180	190	200	220	240	240	
ABSPK	38									180	190	200	220	240	260	
	45									180	190	200	220	240	260	
	50											200	220	240	260	
	60												200	220	240	260

**ORDERING CODE** CATLOG NO. L  
AMSP 32 200

