

# Offset Levers / Ball Knobs

**Offset Levers**

Type	Handle	Lever
LAGN	LAG	S45C Cathodic Paint (Black)
LAGNS	LAGS	SUS304

Handle Type: LAGN, LAGNS  
Ball Knobs: LAG, LAGS

Tighten the nuts after positioning the lever.

Part Number	Type	M (Coarse)	L1	L2	A° Selection (Tolerance±2°)	L3	d	D				H				Unit Price			
								LAGN, LAGNS	LAG, LAGS	LAGN, LAGNS	LAG, LAGS	LAGN	LAGNS	LAG	LAGS	GRAM	GRAMS	GRAFC	GRAM
LAGN5	LAGN	5	30	60	30	12	6	17	25	40	24								
LAGNS	LAGN	8				15	8												
LAG	LAG	10	30-100 10mm Increment	60-100 10mm Increment	30 45 60 90	20	10	21	30	50	29								
LAGS	LAGS	12				25	12	25	35	65	34								

Part Number - L1 - L2 - A°  
LAGN5 - 30 - 60 - 30  
LAGS10 - 80 - 100 - 90

**Ball Knobs**

Type	Ball	Screw
PBA	(Black) Phenol Resin	-
PCA	(Red) Melamine Resin	Brass (Insert)
BGW	EPDM (Mat Black)	Brass (Insert)
BKS	SUS304	Buff Polished
BKA	Aluminum Alloy	Polishing
BKAW	Aluminum Alloy	Clear Anodize
BKAB	Aluminum Alloy	Black Anodize

(Plastic, No Insert) PBA  
(Stainless Steel) BKS  
(Aluminum) BKA, BKAW, BKAB  
\* Selectable D dimensions are only for Plastic Type

**Plastic (Black: Phenol / Red: Melamine)**

Part Number	Type	M (Coarse)	D	Ball Color	H	PBA			PCA			Unit Price
						PBA	PCA	PBA	PCA	PCA		
PBA (No Insert) PCA (Brass Insert)	6	20	25	R (Red)	18	10	10	7				1-100
						10	10	15				
						16	10	20				
						18	10	7				
						23	12	15				
						28	16	30				
	8	30	B (Black)	23	12	12	15				1-50	
					16	12	30					
					32	16	40					
					28	18	30					
					32	18	40					
					37	18	55					
10	40		37	18	15	55						
				37	18	15	50					

Ordering Example: Part Number - D - Ball Color  
PBA12 - 40 - R  
PCA6 - 25 - B  
BGW6  
BKS3  
BKA10

The default color will be black unless specified otherwise. For orders larger than indicated quantity, please check with SWS.

**Rubber**

Part Number	Type	M (Coarse)	D	H	Lf	Mass (g)	Unit Price
BGW	BGW	6	20	18	10	10	
		8	25	22.5	12.5	15	
		10	32	29	16	25	
		12	40	36	20	40	

**Stainless Steel, Aluminum**

Part Number	Type	M (Coarse)	D	H	Lf	Mass (g)		Unit Price			
						BKS	BKA	BKS	BKA	BKAW	BKAB
Stainless Steel	BKS	3	15	*13	*8	13	5				
		4	20	18	9.1	31	11				
Aluminum	BKA, BKAW, BKAB	5	20	18	9.1	30	11				
		6	25	22.5	11	60	21				
		8	32	29	14.5	126	43				
		10	40	37	18	215	85				

\* H dimension and Lf dimension for BKS M3 are 13.5 and 7 respectively.

**Stationary Handles**

Type	Shape	Handle	Screw
GRAM	Threaded	Phenol	SUM23 Trivalent Chromate
GRAMS	Stainless Steel - Threaded		SUS303
GRAFC	Tapped (Insert)	Nylon 6	S45C Trivalent Chromate

GRAM, GRAMS, GRAFC

Part Number	Type	M (Coarse)	D	D2	d	d1	d2	A	ℓ	H	H1	L	Lf	Lf1	Mass (g)			Unit Price			
															GRAM, GRAMS	GRAFC	GRAM	GRAMS	GRAFC		
GRAM	Threaded	6	17	19	12	8	6.5	1.5	1.8	40	65	13	20	12	16	10	30				
GRAMS	Stainless Steel - Threaded	8	21	24	17	11	8.5	2	4.5	50	16	26	16	32	20	40					
GRAFC	Tapped	10	25	24	20	13	10.5		5	65	80	20	33	20	61	37	45				
GRAFC	Tapped Type Insert	12	28	28	21	16	12.5	2.5		86	95	25	40	24	100	61	65				

**Stainless Steel Handles - Stationary / Revolving**

Type	Handle	Material	Surface Treatment
GRMSN	Stationary	SUS304	Electrolytic Polishing
GRMS	Revolving	SUS304	Electrolytic Polishing

GRMSN (Stationary Handle), GRMS (Revolving Handle)

Part Number	Type	M (Coarse)	D	d	H	L	W	A	Mass (g)	Unit Price	
										GRMS	GRMSN
GRMSN	Stationary	5	10	8	39	6	6.5	6	25		
GRMSN	Stationary	6	13	10	50	7	8	7	55		
GRMS	Revolving	8	16	13	60	8	10	8	100		
GRMS	Revolving	10	20	16	70	10	12	10	180		

**Ergonomic Handles - Stationary / Revolving**

Type	Mechanism	Handle	Screw
GRMHF	Stationary	SS400 Chrome Plating	SS400 Chrome Plating
GRMK	Revolving	SS400	SS400 Chrome Plating
GRMAK		A2024	Shot Blasted
GRMKB		Polypropylene	-

GRMHF (Stationary Handle), GRMK, GRMAK, GRMKB (Revolving Handle)

Part Number	Type	M (Coarse)	D	GRMK, GRMKB, GRMHF	GRMAK	d	H	H	W	L	Mass (g)	Unit Price			
												Stationary	Revolving	Revolving	Revolving
GRMHF	Stationary	5	13	5	8	10	49	8	11	30					
GRMK	Revolving	6	16	6	8	10	48.5	55	8	14	48				
GRMAK	Revolving	8	20	8	10	13	62.5	70.7	10	15.5	97				
GRMKB	Revolving	10	25	10	10	16	87.3	12	18	192					

**Revolving Handles with Caps**

Type	Handle	Screw	Accessory
GRM	Nylon6 (Black)	SCM435 Trivalent Chromate	Disc Spring

GRM

How to Mount: Disc Spring, Handle, Collar, Bolt, Hex Wrench, Cap

Part Number	Type	M (Coarse)	D	d	H	h	L	Mass (g)	Unit Price
GRAM	6					13	30		
GRAM	8					15	60		
GRAM	10					20	100		

Ordering Example: Part Number  
GRAM12  
GRMS6  
GRMK13  
GRM5