

**SWIVOTS® - REPLACEABLE SWIVEL BALL**

# Swivots® Replaceable Swivel Ball Style

These Replaceable Ball Style Swivots® are found on the following pages.

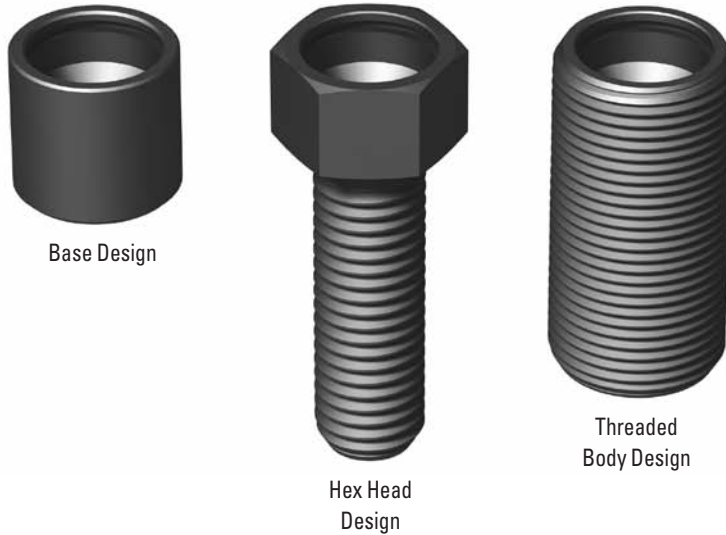
**REPLACEABLE BALLS**



**VITON O-RING**



**HOUSINGS**



**Load Calculator**

To calculate the load on the contact surface, divide the torque applied (in/lbs) by a factor shown below. Assumes no lubrication threaded into steel. Use as a guideline only.

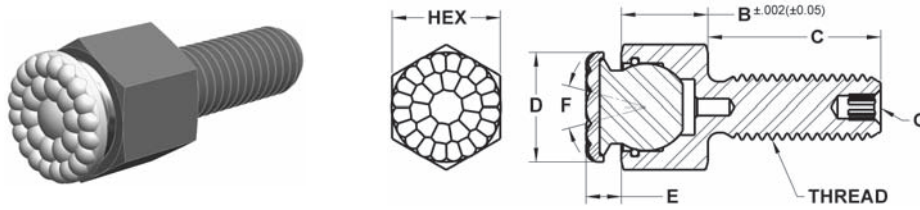
INCH			
Thread	Factor	Thread	Factor
#10-24	0.036	1/2-13	0.093
#10-32	0.035	1/2-20	0.091
1/4-20	0.047	5/8-11	0.116
1/4-28	0.046	5/8-18	0.113
5/16-18	0.059	3/4-10	0.138
5/16-24	0.058	3/4-16	0.135
3/8-16	0.070	1-8	0.183
3/8-24	0.068	1-14	0.180

METRIC			
Thread	Factor	Thread	Factor
M6x1.00	0.044	M16x2.00	0.116
M8x1.25	0.058	M20x2.50	0.144
M10x1.50	0.073	M24x3.00	0.173
M12x1.75	0.087		

- These Replaceable Ball Style Swivots are a modular component system that allows the ball to swivel, tilt, pivot, grip, hold, position or secure work pieces. The ball rotates 360 degrees and tilts at varying degrees in any direction from the centerline.
- The different housing styles allows for a variety of mounting options.
- These Replaceable Ball Style Swivots allow you to easily change the ball when worn or another style is needed for an application.
- Unique design prevents the ball from exceeding the specified degree of swivel - preventing the ball from rolling over in the housing.
- The ball is held in place with a Viton O-ring which allows the ball to be easily changed and keeps out dirt and other contaminants.
- Replacement balls and O-rings can be ordered separately. It is recommended the O-ring be replaced when the ball is replaced. Please call for replacement parts.

## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Stainless Ball | Sof-Top Urethane Surface | Inch & Metric



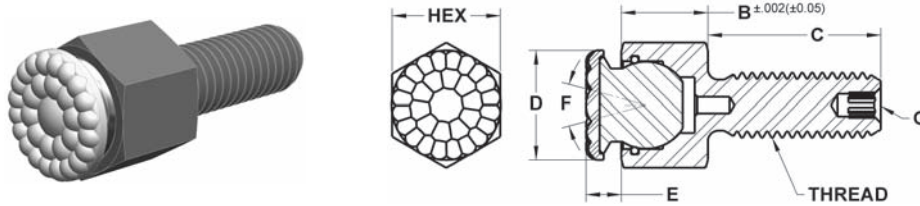
The replaceable ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The “bubbled” texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

#### INCH

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Durometer	Ball Only Part #
<b>10-24 Threads - 3/8" Hex Head</b>									
BUH-0124-FC-35UR	1/4	1/2	.315	.143	28	—	3/16	35	BUB-187-FC-35UR
BUH-0124-FC-60UR	1/4	1/2	.315	.143	28	—	3/16	60	BUB-187-FC-60UR
BUH-0124-FC-80UR	1/4	1/2	.315	.143	28	—	3/16	80	BUB-187-FC-80UR
BUH-0124 X 1-FC-35UR	1/4	1	.315	.143	28	—	3/16	35	BUB-187-FC-35UR
BUH-0124 X 1-FC-60UR	1/4	1	.315	.143	28	—	3/16	60	BUB-187-FC-60UR
BUH-0124 X 1-FC-80UR	1/4	1	.315	.143	28	—	3/16	80	BUB-187-FC-80UR
<b>10-32 Threads - 3/8" Hex Head</b>									
BUH-0132-FC-35UR	1/4	1/2	.315	.143	28	—	3/16	35	BUB-187-FC-35UR
BUH-0132-FC-60UR	1/4	1/2	.315	.143	28	—	3/16	60	BUB-187-FC-60UR
BUH-0132-FC-80UR	1/4	1/2	.315	.143	28	—	3/16	80	BUB-187-FC-80UR
BUH-0132 X 1-FC-35UR	1/4	1	.315	.143	28	—	3/16	35	BUB-187-FC-35UR
BUH-0132 X 1-FC-60UR	1/4	1	.315	.143	28	—	3/16	60	BUB-187-FC-60UR
BUH-0132 X 1-FC-80UR	1/4	1	.315	.143	28	—	3/16	80	BUB-187-FC-80UR
<b>1/4-20 Threads - 7/16" Hex Head</b>									
BUH-0250-FC-35UR	5/16	1/2	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0250-FC-60UR	5/16	1/2	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0250-FC-80UR	5/16	1/2	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
BUH-0251-FC-35UR	5/16	1	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0251-FC-60UR	5/16	1	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0251-FC-80UR	5/16	1	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
BUH-0251 X 1.5-FC-35UR	5/16	1-1/2	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0251 X 1.5-FC-60UR	5/16	1-1/2	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0251 X 1.5-FC-80UR	5/16	1-1/2	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
<b>1/4-28 Threads - 7/16" Hex Head</b>									
BUH-0280-FC-35UR	5/16	1/2	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0280-FC-60UR	5/16	1/2	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0280-FC-80UR	5/16	1/2	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
BUH-0281-FC-35UR	5/16	1	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0281-FC-60UR	5/16	1	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0281-FC-80UR	5/16	1	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
BUH-0281 X 1.5-FC-35UR	5/16	1-1/2	.394	.174	28	—	9/32	35	BUB-200-FC-35UR
BUH-0281 X 1.5-FC-60UR	5/16	1-1/2	.394	.174	28	—	9/32	60	BUB-200-FC-60UR
BUH-0281 X 1.5-FC-80UR	5/16	1-1/2	.394	.174	28	—	9/32	80	BUB-200-FC-80UR
<b>5/16-18 Threads - 1/2" Hex Head</b>									
BUH-0310-FC-35UR	3/8	1/2	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0310-FC-60UR	3/8	1/2	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0310-FC-80UR	3/8	1/2	.512	.205	28	—	3/8	80	BUB-300-FC-80UR
BUH-0312-FC-35UR	3/8	1	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0312-FC-60UR	3/8	1	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0312-FC-80UR	3/8	1	.512	.205	28	—	3/8	80	BUB-300-FC-80UR
BUH-0312 X 1.5-FC-35UR	3/8	1-1/2	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0312 X 1.5-FC-60UR	3/8	1-1/2	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0312 X 1.5-FC-80UR	3/8	1-1/2	.512	.205	28	—	3/8	80	BUB-300-FC-80UR

## SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Sof-Top Urethane Surface | Inch & Metric (continued)

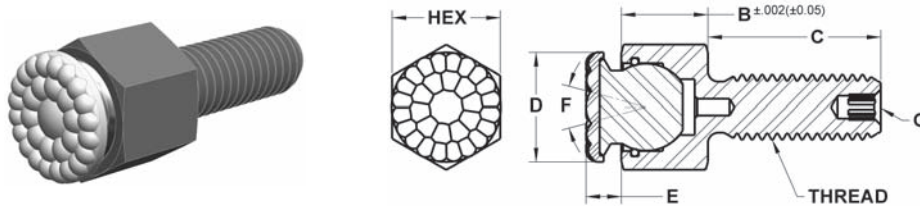


### INCH (CONTINUED)

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Durometer	Ball Only Part #
<b>5/16-24 Threads - 1/2" Hex Head</b>									
BUH-0320-FC-35UR	3/8	1/2	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0320-FC-60UR	3/8	1/2	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0320-FC-80UR	3/8	1/2	.512	.205	28	—	3/8	80	BUB-300-FC-80UR
BUH-0321-FC-35UR	3/8	1	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0321-FC-60UR	3/8	1	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0321-FC-80UR	3/8	1	.512	.205	28	—	3/8	80	BUB-300-FC-80UR
BUH-0321 X 1.5-FC-35UR	3/8	1-1/2	.512	.205	28	—	3/8	35	BUB-300-FC-35UR
BUH-0321 X 1.5-FC-60UR	3/8	1-1/2	.512	.205	28	—	3/8	60	BUB-300-FC-60UR
BUH-0321 X 1.5-FC-80UR	3/8	1-1/2	.512	.205	28	—	3/8	80	BUB-300-FC-80UR
<b>3/8-16 Threads - 5/8" Hex Head</b>									
BUH-0370-FC-35UR	1/2	1/2	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0370-FC-60UR	1/2	1/2	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0370-FC-80UR	1/2	1/2	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
BUH-0375-FC-35UR	1/2	1	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0375-FC-60UR	1/2	1	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0375-FC-80UR	1/2	1	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
BUH-0375 X 1.5-FC-35UR	1/2	1-1/2	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0375 X 1.5-FC-60UR	1/2	1-1/2	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0375 X 1.5-FC-80UR	1/2	1-1/2	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
<b>3/8-24 Threads - 5/8" Hex Head</b>									
BUH-0230-FC-35UR	1/2	1/2	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0230-FC-60UR	1/2	1/2	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0230-FC-80UR	1/2	1/2	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
BUH-0231-FC-35UR	1/2	1	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0231-FC-60UR	1/2	1	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0231-FC-80UR	1/2	1	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
BUH-0231 X 1.5-FC-35UR	1/2	1-1/2	.630	.205	28	1/8	1/2	35	BUB-500-FC-35UR
BUH-0231 X 1.5-FC-60UR	1/2	1-1/2	.630	.205	28	1/8	1/2	60	BUB-500-FC-60UR
BUH-0231 X 1.5-FC-80UR	1/2	1-1/2	.630	.205	28	1/8	1/2	80	BUB-500-FC-80UR
<b>1/2-13 Threads - 13/16" Hex Head</b>									
BUH-0510-FC-35UR	5/8	1	.827	.236	33	3/16	5/8	35	BUB-600-FC-35UR
BUH-0510-FC-60UR	5/8	1	.827	.236	33	3/16	5/8	60	BUB-600-FC-60UR
BUH-0510-FC-80UR	5/8	1	.827	.236	33	3/16	5/8	80	BUB-600-FC-80UR
BUH-0515-FC-35UR	5/8	1-1/2	.827	.236	33	3/16	5/8	35	BUB-600-FC-35UR
BUH-0515-FC-60UR	5/8	1-1/2	.827	.236	33	3/16	5/8	60	BUB-600-FC-60UR
BUH-0515-FC-80UR	5/8	1-1/2	.827	.236	33	3/16	5/8	80	BUB-600-FC-80UR
<b>1/2-20 Threads - 13/16" Hex Head</b>									
BUH-0240-FC-35UR	5/8	1	.827	.236	33	3/16	5/8	35	BUB-600-FC-35UR
BUH-0240-FC-60UR	5/8	1	.827	.236	33	3/16	5/8	60	BUB-600-FC-60UR
BUH-0240-FC-80UR	5/8	1	.827	.236	33	3/16	5/8	80	BUB-600-FC-80UR
BUH-0500-FC-35UR	5/8	1-1/2	.827	.236	33	3/16	5/8	35	BUB-600-FC-35UR
BUH-0500-FC-60UR	5/8	1-1/2	.827	.236	33	3/16	5/8	60	BUB-600-FC-60UR
BUH-0500-FC-80UR	5/8	1-1/2	.827	.236	33	3/16	5/8	80	BUB-600-FC-80UR
<b>5/8-11 Threads - 15/16" Hex Head</b>									
BUH-0625-FC-35UR	11/16	1	.906	.236	33	1/4	3/4	35	BUB-700-FC-35UR
BUH-0625-FC-60UR	11/16	1	.906	.236	33	1/4	3/4	60	BUB-700-FC-60UR
BUH-0625-FC-80UR	11/16	1	.906	.236	33	1/4	3/4	80	BUB-700-FC-80UR
BUH-0625 X 2-FC-35UR	11/16	2	.906	.236	33	1/4	3/4	35	BUB-700-FC-35UR
BUH-0625 X 2-FC-60UR	11/16	2	.906	.236	33	1/4	3/4	60	BUB-700-FC-60UR
BUH-0625 X 2-FC-80UR	11/16	2	.906	.236	33	1/4	3/4	80	BUB-700-FC-80UR

## SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Sof-Top Urethane Surface | Inch & Metric (continued)



### INCH (CONTINUED)

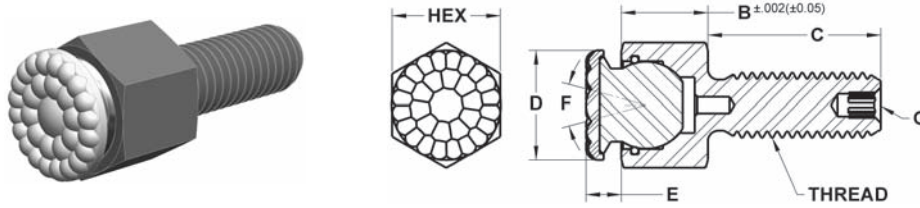
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Durometer	Ball Only Part #
<b>5/8-18 Threads - 15/16" Hex Head</b>									
BUH-0620-FC-35UR	11/16	1	.906	.236	33	1/4	3/4	35	BUB-700-FC-35UR
BUH-0620-FC-60UR	11/16	1	.906	.236	33	1/4	3/4	60	BUB-700-FC-60UR
BUH-0620-FC-80UR	11/16	1	.906	.236	33	1/4	3/4	80	BUB-700-FC-80UR
BUH-0620 X 2-FC-35UR	11/16	2	.906	.236	33	1/4	3/4	35	BUB-700-FC-35UR
BUH-0620 X 2-FC-60UR	11/16	2	.906	.236	33	1/4	3/4	60	BUB-700-FC-60UR
BUH-0620 X 2-FC-80UR	11/16	2	.906	.236	33	1/4	3/4	80	BUB-700-FC-80UR

### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Durometer	Ball Only Part #
<b>M6x1.0 Threads - 10mm Hex Head</b>									
MBUH-06012-FC-35UR	8	12	10	4	28	—	7	35	MBUB-070-FC-35UR
MBUH-06012-FC-60UR	8	12	10	4	28	—	7	60	MBUB-070-FC-60UR
MBUH-06012-FC-80UR	8	12	10	4	28	—	7	80	MBUB-070-FC-80UR
MBUH-06025-FC-35UR	8	25	10	4	28	—	7	35	MBUB-070-FC-35UR
MBUH-06025-FC-60UR	8	25	10	4	28	—	7	60	MBUB-070-FC-60UR
MBUH-06025-FC-80UR	8	25	10	4	28	—	7	80	MBUB-070-FC-80UR
MBUH-06040-FC-35UR	8	40	10	4	28	—	7	35	MBUB-070-FC-35UR
MBUH-06040-FC-60UR	8	40	10	4	28	—	7	60	MBUB-070-FC-60UR
MBUH-06040-FC-80UR	8	40	10	4	28	—	7	80	MBUB-070-FC-80UR
<b>M8x1.25 Threads - 13mm Hex Head</b>									
MBUH-08012-FC-35UR	11.5	12	13	5	28	—	10	35	MBUB-100-FC-35UR
MBUH-08012-FC-60UR	11.5	12	13	5	28	—	10	60	MBUB-100-FC-60UR
MBUH-08012-FC-80UR	11.5	12	13	5	28	—	10	80	MBUB-100-FC-80UR
MBUH-08025-FC-35UR	11.5	25	13	5	28	—	10	35	MBUB-100-FC-35UR
MBUH-08025-FC-60UR	11.5	25	13	5	28	—	10	60	MBUB-100-FC-60UR
MBUH-08025-FC-80UR	11.5	25	13	5	28	—	10	80	MBUB-100-FC-80UR
MBUH-08040-FC-35UR	11.5	40	13	5	28	—	10	35	MBUB-100-FC-35UR
MBUH-08040-FC-60UR	11.5	40	13	5	28	—	10	60	MBUB-100-FC-60UR
MBUH-08040-FC-80UR	11.5	40	13	5	28	—	10	80	MBUB-100-FC-80UR
<b>M10x1.5 Threads - 17mm Hex Head</b>									
MBUH-10015-FC-35UR	13	15	16	5	28	3	13	35	MBUB-130-FC-35UR
MBUH-10015-FC-60UR	13	15	16	5	28	3	13	60	MBUB-130-FC-60UR
MBUH-10015-FC-80UR	13	15	16	5	28	3	13	80	MBUB-130-FC-80UR
MBUH-10030-FC-35UR	13	30	16	5	28	3	13	35	MBUB-130-FC-35UR
MBUH-10030-FC-60UR	13	30	16	5	28	3	13	60	MBUB-130-FC-60UR
MBUH-10030-FC-80UR	13	30	16	5	28	3	13	80	MBUB-130-FC-80UR
MBUH-10050-FC-35UR	13	50	16	5	28	3	13	35	MBUB-130-FC-35UR
MBUH-10050-FC-60UR	13	50	16	5	28	3	13	60	MBUB-130-FC-60UR
MBUH-10050-FC-80UR	13	50	16	5	28	3	13	80	MBUB-130-FC-80UR
MBUH-12060-FC-80UR	15	60	21	6	24	5	15	80	MBUB-150-FC-80UR

## SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Sof-Top Urethane Surface | Inch & Metric (continued)

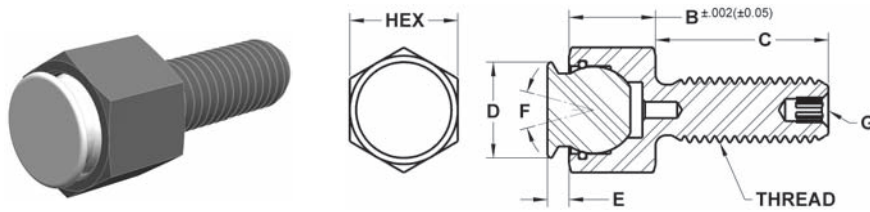


### METRIC (CONTINUED)

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Durometer	Ball Only Part #
<b>M12x1.75 Threads - 19mm Hex Head</b>									
MBUH-12020-FC-35UR	15	20	21	6	24	5	15	35	MBUB-150-FC-35UR
MBUH-12020-FC-60UR	15	20	21	6	24	5	15	60	MBUB-150-FC-60UR
MBUH-12020-FC-80UR	15	20	21	6	24	5	15	80	MBUB-150-FC-80UR
MBUH-12040-FC-35UR	15	40	21	6	24	5	15	35	MBUB-150-FC-35UR
MBUH-12040-FC-60UR	15	40	21	6	24	5	15	60	MBUB-150-FC-60UR
MBUH-12040-FC-80UR	15	40	21	6	24	5	15	80	MBUB-150-FC-80UR
MBUH-12060-FC-35UR	15	60	21	6	24	5	15	35	MBUB-150-FC-35UR
MBUH-12060-FC-60UR	15	60	21	6	24	5	15	60	MBUB-150-FC-60UR
<b>M16x2.0 Threads - 24mm Hex Head</b>									
MBUH-16025-FC-35UR	19	25	23	6	24	6	20	35	MBUB-200-FC-35UR
MBUH-16025-FC-60UR	19	25	23	6	24	6	20	60	MBUB-200-FC-60UR
MBUH-16025-FC-80UR	19	25	23	6	24	6	20	80	MBUB-200-FC-80UR
MBUH-16050-FC-35UR	19	50	23	6	24	6	20	35	MBUB-200-FC-35UR
MBUH-16050-FC-60UR	19	50	23	6	24	6	20	60	MBUB-200-FC-60UR
MBUH-16050-FC-80UR	19	50	23	6	24	6	20	80	MBUB-200-FC-80UR
MBUH-16080-FC-35UR	19	80	23	6	24	6	20	35	MBUB-200-FC-35UR
MBUH-16080-FC-60UR	19	80	23	6	24	6	20	60	MBUB-200-FC-60UR
MBUH-16080-FC-80UR	19	80	23	6	24	6	20	80	MBUB-200-FC-80UR

# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Delrin Ball | Flat Cone | Inch & Metric



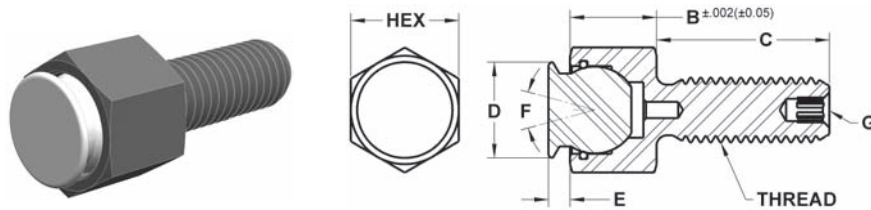
The replaceable ball swivels to allow for self-alignment on uneven surfaces. The flat cone design provides a large contact surface for greater force distribution. The replaceable ball is made from non-marring white delrin. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

### INCH

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #
<b>#10-24 Threads - 3/8" Hex Head</b>								
BUH-0124-DC	1/4	1/2	.236	.063	28	—	3/16	BUB-187-DC
BUH-0124 X 1-DC	1/4	1	.236	.063	28	—	3/16	BUB-187-DC
<b>#10-32 Threads - 3/8" Hex Head</b>								
BUH-0132-DC	1/4	1/2	.236	.063	28	—	3/16	BUB-187-DC
BUH-0132 X 1-DC	1/4	1	.236	.063	28	—	3/16	BUB-187-DC
<b>1/4-20 Threads - 7/16" Hex Head</b>								
BUH-0250-DC	5/16	1/2	.315	.094	28	—	9/32	BUB-200-DC
BUH-0251-DC	5/16	1	.315	.094	28	—	9/32	BUB-200-DC
BUH-0251 X 1.5-DC	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-DC
<b>1/4-28 Threads - 7/16" Hex Head</b>								
BUH-0280-DC	5/16	1/2	.315	.094	28	—	9/32	BUB-200-DC
BUH-0281-DC	5/16	1	.315	.094	28	—	9/32	BUB-200-DC
BUH-0281 X 1.5-DC	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-DC
<b>5/16-18 Threads - 1/2" Hex Head</b>								
BUH-0310-DC	3/8	1/2	.433	.125	28	—	3/8	BUB-300-DC
BUH-0312-DC	3/8	1	.433	.125	28	—	3/8	BUB-300-DC
BUH-0312 X 1.5-DC	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-DC
<b>5/16-24 Threads - 1/2" Hex Head</b>								
BUH-0320-DC	3/8	1/2	.433	.125	28	—	3/8	BUB-300-DC
BUH-0321-DC	3/8	1	.433	.125	28	—	3/8	BUB-300-DC
BUH-0321 X 1.5-DC	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-DC
<b>3/8-16 Threads - 5/8" Hex Head</b>								
BUH-0370-DC	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-DC
BUH-0375-DC	1/2	1	.551	.125	28	1/8	1/2	BUB-500-DC
BUH-0375 X 1.5-DC	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-DC
<b>3/8-24 Threads - 5/8" Hex Head</b>								
BUH-0230-DC	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-DC
BUH-0231-DC	1/2	1	.551	.125	28	1/8	1/2	BUB-500-DC
BUH-0231 X 1.5-DC	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-DC
<b>1/2-13 Threads - 13/16" Hex Head</b>								
BUH-0510-DC	5/8	1	.748	.156	32	3/16	5/8	BUB-600-DC
BUH-0515-DC	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-DC
<b>1/2-20 Threads - 13/16" Hex Head</b>								
BUH-0240-DC	5/8	1	.748	.156	32	3/16	5/8	BUB-600-DC
BUH-0500-DC	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-DC
<b>5/8-11 Threads - 15/16" Hex Head</b>								
BUH-0625-DC	11/16	1	.827	.156	32	1/4	3/4	BUB-700-DC
BUH-0625 X 2-DC	11/16	2	.827	.156	32	1/4	3/4	BUB-700-DC
<b>5/8-18 Threads - 15/16" Hex Head</b>								
BUH-0620-DC	11/16	1	.827	.156	32	1/4	3/4	BUB-700-DC
BUH-0620 X 2-DC	11/16	2	.827	.156	32	1/4	3/4	BUB-700-DC

## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Delrin Ball | Flat Cone | Inch & Metric (continued)



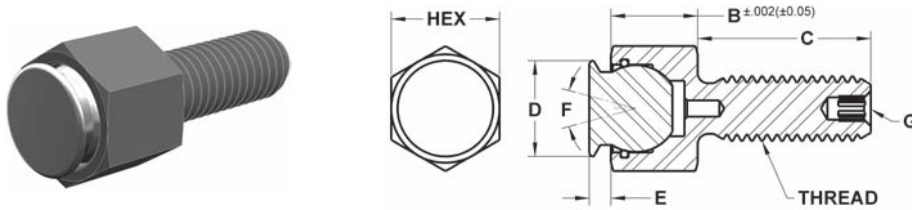
#### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #
<b>M6x1.0 Threads - 10mm Hex Head</b>								
MBUH-06012-DC	8	12	8	2	28	—	7	MBUB-070-DC
MBUH-06025-DC	8	25	8	2	28	—	7	MBUB-070-DC
MBUH-06040-DC	8	40	8	2	28	—	7	MBUB-070-DC
<b>M8x1.25 Threads - 13mm Hex Head</b>								
MBUH-08012-DC	11.5	12	11	3	28	—	10	MBUB-100-DC
MBUH-08025-DC	11.5	25	11	3	28	—	10	MBUB-100-DC
MBUH-08040-DC	11.5	40	11	3	28	—	10	MBUB-100-DC
<b>M10x1.5 Threads - 17mm Hex Head</b>								
MBUH-10015-DC	13	15	14	3	28	3	13	MBUB-130-DC
MBUH-10030-DC	13	30	14	3	28	3	13	MBUB-130-DC
MBUH-10050-DC	13	50	14	3	28	3	13	MBUB-130-DC
<b>M12x1.75 Threads - 19mm Hex Head</b>								
MBUH-12020-DC	15	20	19	4	24	5	15	MBUB-150-DC
MBUH-12040-DC	15	40	19	4	24	5	15	MBUB-150-DC
MBUH-12060-DC	15	60	19	4	24	5	15	MBUB-150-DC
<b>M16x2.0 Threads - 24mm Hex Head</b>								
MBUH-16025-DC	19	25	21	4	24	6	20	MBUB-200-DC
MBUH-16050-DC	19	50	21	4	24	6	20	MBUB-200-DC
MBUH-16080-DC	19	80	21	4	24	6	20	MBUB-200-DC



# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Stainless Ball | Flat Cone | Inch & Metric



The replaceable ball swivels to allow for self-alignment on uneven surfaces. The flat cone design provides a large contact surface for greater force distribution. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from 300 series stainless steel. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

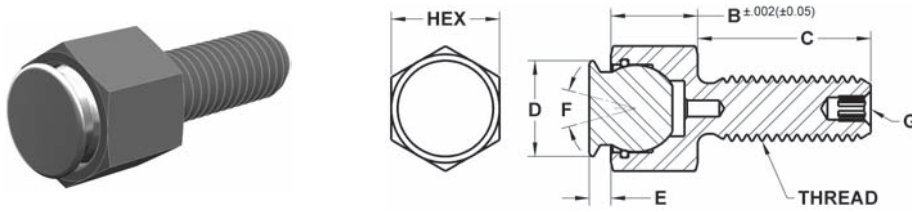
### INCH

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs
<b>#10-24 Threads - 3/8" Hex Head</b>									
BUH-0124-FC	1/4	1/2	.236	.063	28	—	3/16	BUB-187-FC	1,176
BUH-0124 X 1-FC	1/4	1	.236	.063	28	—	3/16	BUB-187-FC	1,176
<b>#10-32 Threads - 3/8" Hex Head</b>									
BUH-0132-FC	1/4	1/2	.236	.063	28	—	3/16	BUB-187-FC	1,176
BUH-0132 X 1-FC	1/4	1	.236	.063	28	—	3/16	BUB-187-FC	1,176
<b>1/4-20 Threads - 7/16" Hex Head</b>									
BUH-0250-FC	5/16	1/2	.315	.094	28	—	9/32	BUB-200-FC	2,441
BUH-0251-FC	5/16	1	.315	.094	28	—	9/32	BUB-200-FC	2,441
BUH-0251 X 1.5-FC	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-FC	2,441
<b>1/4-28 Threads - 7/16" Hex Head</b>									
BUH-0280-FC	5/16	1/2	.315	.094	28	—	9/32	BUB-200-FC	2,441
BUH-0281-FC	5/16	1	.315	.094	28	—	9/32	BUB-200-FC	2,441
BUH-0281 X 1.5-FC	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-FC	2,441
<b>5/16-18 Threads - 1/2" Hex Head</b>									
BUH-0310-FC	3/8	1/2	.433	.125	28	—	3/8	BUB-300-FC	2,792
BUH-0312-FC	3/8	1	.433	.125	28	—	3/8	BUB-300-FC	2,792
BUH-0312 X 1.5-FC	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-FC	2,792
<b>5/16-24 Threads - 1/2" Hex Head</b>									
BUH-0320-FC	3/8	1/2	.433	.125	28	—	3/8	BUB-300-FC	2,792
BUH-0321-FC	3/8	1	.433	.125	28	—	3/8	BUB-300-FC	2,792
BUH-0321 X 1.5-FC	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-FC	2,792
<b>3/8-16 Threads - 5/8" Hex Head</b>									
BUH-0370-FC	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
BUH-0375-FC	1/2	1	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
BUH-0375 X 1.5-FC	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
<b>3/8-24 Threads - 5/8" Hex Head</b>									
BUH-0230-FC	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
BUH-0231-FC	1/2	1	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
BUH-0231 X 1.5-FC	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-FC	3,446
<b>1/2-13 Threads - 13/16" Hex Head</b>									
BUH-0510-FC	5/8	1	.748	.156	32	3/16	5/8	BUB-600-FC	5,937
BUH-0515-FC	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-FC	5,937
<b>1/2-20 Threads - 13/16" Hex Head</b>									
BUH-0240-FC	5/8	1	.748	.156	32	3/16	5/8	BUB-600-FC	7,178
BUH-0500-FC	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-FC	7,178
<b>5/8-11 Threads - 15/16" Hex Head</b>									
BUH-0625-FC	11/16	1	.827	.156	32	1/4	3/4	BUB-700-FC	9,932
BUH-0625 X 2-FC	11/16	2	.827	.156	32	1/4	3/4	BUB-700-FC	9,932
<b>5/8-18 Threads - 15/16" Hex Head</b>									
BUH-0620-FC	11/16	1	.827	.156	32	1/4	3/4	BUB-700-FC	11,874
BUH-0620 X 2-FC	11/16	2	.827	.156	32	1/4	3/4	BUB-700-FC	11,874



## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Stainless Ball | Flat Cone | Inch & Metric (continued)

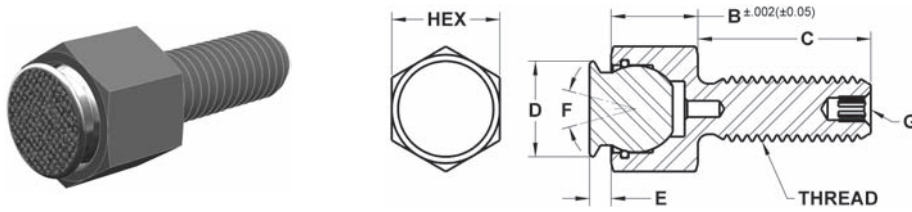


#### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs
<b>M6x1.0 Threads - 10mm Hex Head</b>									
MBUH-06012-FC	8	12	8	2	28	—	7	MBUB-070-FC	2,061
MBUH-06025-FC	8	25	8	2	28	—	7	MBUB-070-FC	2,061
MBUH-06040-FC	8	40	8	2	28	—	7	MBUB-070-FC	2,061
<b>M8x1.25 Threads - 13mm Hex Head</b>									
MBUH-08012-FC	11.5	12	11	3	28	—	10	MBUB-100-FC	3,450
MBUH-08025-FC	11.5	25	11	3	28	—	10	MBUB-100-FC	3,450
MBUH-08040-FC	11.5	40	11	3	28	—	10	MBUB-100-FC	3,450
<b>M10x1.5 Threads - 17mm Hex Head</b>									
MBUH-10015-FC	13	15	14	3	28	3	13	MBUB-130-FC	4,194
MBUH-10030-FC	13	30	14	3	28	3	13	MBUB-130-FC	4,194
MBUH-10050-FC	13	50	14	3	28	3	13	MBUB-130-FC	4,194
<b>M12x1.75 Threads - 19mm Hex Head</b>									
MBUH-12020-FC	15	20	19	4	24	5	15	MBUB-150-FC	6,627
MBUH-12040-FC	15	40	19	4	24	5	15	MBUB-150-FC	6,627
MBUH-12060-FC	15	60	19	4	24	5	15	MBUB-150-FC	6,627
<b>M16x2.0 Threads - 24mm Hex Head</b>									
MBUH-16025-FC	19	25	21	4	24	6	20	MBUB-200-FC	11,183
MBUH-16050-FC	19	50	21	4	24	6	20	MBUB-200-FC	11,183
MBUH-16080-FC	19	80	21	4	24	6	20	MBUB-200-FC	11,183

# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Stainless Ball | Abrasive Diamond Surface | Inch & Metric



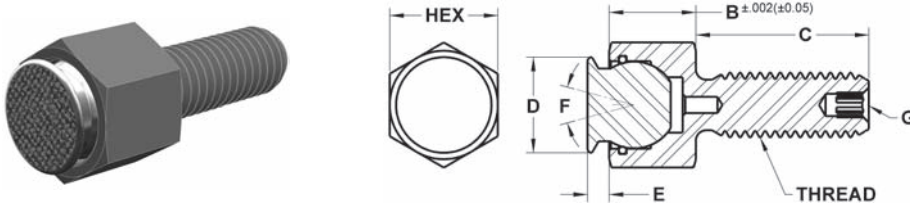
The replaceable ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The abrasive surface is permanently fused to a 300 series stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

### INCH

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs
<b>#10-24 Threads - 3/8" Hex Head</b>									
BUH-0124-FC-DS	1/4	1/2	.236	.063	28	—	3/16	BUB-187-FC-DS	1,176
BUH-0124 X 1-FC-DS	1/4	1	.236	.063	28	—	3/16	BUB-187-FC-DS	1,176
<b>#10-32 Threads - 3/8" Hex Head</b>									
BUH-0132-FC-DS	1/4	1/2	.236	.063	28	—	3/16	BUB-187-FC-DS	1,176
BUH-0132 X 1-FC-DS	1/4	1	.236	.063	28	—	3/16	BUB-187-FC-DS	1,176
<b>1/4-20 Threads - 7/16" Hex Head</b>									
BUH-0250-FC-DS	5/16	1/2	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
BUH-0251-FC-DS	5/16	1	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
BUH-0251 X 1.5-FC-DS	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
<b>1/4-28 Threads - 7/16" Hex Head</b>									
BUH-0280-FC-DS	5/16	1/2	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
BUH-0281-FC-DS	5/16	1	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
BUH-0281 X 1.5-FC-DS	5/16	1-1/2	.315	.094	28	—	9/32	BUB-200-FC-DS	2,441
<b>5/16-18 Threads - 1/2" Hex Head</b>									
BUH-0310-FC-DS	3/8	1/2	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
BUH-0312-FC-DS	3/8	1	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
BUH-0312 X 1.5-FC-DS	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
<b>5/16-24 Threads - 1/2" Hex Head</b>									
BUH-0320-FC-DS	3/8	1/2	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
BUH-0321-FC-DS	3/8	1	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
BUH-0321 X 1.5-FC-DS	3/8	1-1/2	.433	.125	28	—	3/8	BUB-300-FC-DS	2,792
<b>3/8-16 Threads - 5/8" Hex Head</b>									
BUH-0370-FC-DS	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
BUH-0375-FC-DS	1/2	1	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
BUH-0375 X 1.5-FC-DS	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
<b>3/8-24 Threads - 5/8" Hex Head</b>									
BUH-0230-FC-DS	1/2	1/2	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
BUH-0231-FC-DS	1/2	1	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
BUH-0231 X 1.5-FC-DS	1/2	1-1/2	.551	.125	28	1/8	1/2	BUB-500-FC-DS	3,446
<b>1/2-13 Threads - 13/16" Hex Head</b>									
BUH-0510-FC-DS	5/8	1	.748	.156	32	3/16	5/8	BUB-600-FC-DS	5,937
BUH-0515-FC-DS	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-FC-DS	5,937
<b>1/2-20 Threads - 13/16" Hex Head</b>									
BUH-0240-FC-DS	5/8	1	.748	.156	32	3/16	5/8	BUB-600-FC-DS	7,178
BUH-0500-FC-DS	5/8	1-1/2	.748	.156	32	3/16	5/8	BUB-600-FC-DS	7,178
<b>5/8-11 Threads - 15/16" Hex Head</b>									
BUH-0625-FC-DS	11/16	1	.827	.156	32	1/4	3/4	BUB-700-FC-DS	9,932
BUH-0625 X 2-FC-DS	11/16	2	.827	.156	32	1/4	3/4	BUB-700-FC-DS	9,932
<b>5/8-18 Threads - 15/16" Hex Head</b>									
BUH-0620-FC-DS	11/16	1	.827	.156	32	1/4	3/4	BUB-700-FC-DS	11,874
BUH-0620 X 2-FC-DS	11/16	2	.827	.156	32	1/4	3/4	BUB-700-FC-DS	11,874

## SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Abrasive Diamond Surface | Inch & Metric (continued)

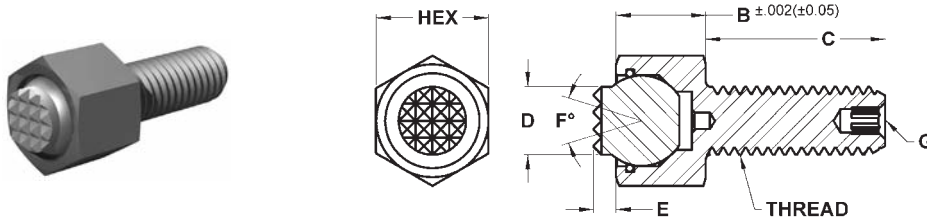


### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs
<b>M6x1.0 Threads - 10mm Hex Head</b>									
MBUH-06012-FC-DS	8	12	8	2	28	—	7	MBUB-070-FC-DS	2,061
MBUH-06025-FC-DS	8	25	8	2	28	—	7	MBUB-070-FC-DS	2,061
MBUH-06040-FC-DS	8	40	8	2	28	—	7	MBUB-070-FC-DS	2,061
<b>M8x1.25 Threads - 13mm Hex Head</b>									
MBUH-08012-FC-DS	11.5	12	11	3	28	—	10	MBUB-100-FC-DS	3,450
MBUH-08025-FC-DS	11.5	25	11	3	28	—	10	MBUB-100-FC-DS	3,450
MBUH-08040-FC-DS	11.5	40	11	3	28	—	10	MBUB-100-FC-DS	3,450
<b>M10x1.5 Threads - 17mm Hex Head</b>									
MBUH-10015-FC-DS	13	15	14	3	28	3	13	MBUB-130-FC-DS	4,194
MBUH-10030-FC-DS	13	30	14	3	28	3	13	MBUB-130-FC-DS	4,194
MBUH-10050-FC-DS	13	50	14	3	28	3	13	MBUB-130-FC-DS	4,194
<b>M12x1.5 Threads - 19mm Hex Head</b>									
MBUH-12020-FC-DS	15	20	19	4	24	5	15	MBUB-150-FC-DS	6,627
MBUH-12040-FC-DS	15	40	19	4	24	5	15	MBUB-150-FC-DS	6,627
MBUH-12060-FC-DS	15	60	19	4	24	5	15	MBUB-150-FC-DS	6,627
<b>M16x2.0 Threads - 24mm Hex Head</b>									
MBUH-16025-FC-DS	19	25	21	4	24	6	20	MBUB-200-FC-DS	11,183
MBUH-16050-FC-DS	19	50	21	4	24	6	20	MBUB-200-FC-DS	11,183
MBUH-16080-FC-DS	19	80	21	4	24	6	20	MBUB-200-FC-DS	11,183

# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Tool Steel Ball | Serrated | Inch & Metric

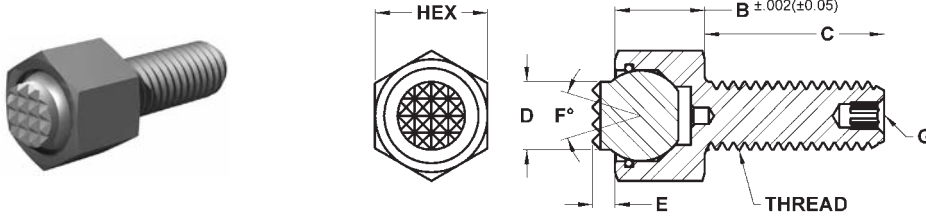


The replaceable serrated ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from M-2 high speed steel, heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components. See page 90 for tooth pattern specifications.

INCH										
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Tooth Pattern	Load Rating Lbs.
<b>#10-24 Threads - 3/8" Hex Head</b>										
BUH-0124-S	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-S	SF	1,176
BUH-0124 X 1-S	1/4	1	5/32	1/16	28	—	3/16	BUB-187-S	SF	1,176
<b>#10-32 Threads - 3/8" Hex Head</b>										
BUH-0132-S	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-S	SF	1,176
BUH-0132 X 1-S	1/4	1	5/32	1/16	28	—	3/16	BUB-187-S	SF	1,176
<b>1/4-20 Threads - 7/16" Hex Head</b>										
BUH-0250-S	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0250-S-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
BUH-0251-S	5/16	1	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0251-S-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
BUH-0251 X 1.5-S	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0251 X 1.5-S-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
<b>1/4-28 Threads - 7/16" Hex Head</b>										
BUH-0280-S	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0280-S-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
BUH-0281-S	5/16	1	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0281-S-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
BUH-0281 X 1.5-S	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-S	SF	2,441
BUH-0281 X 1.5-S-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-S-T	SF	2,441
<b>5/16-18 Threads - 1/2" Hex Head</b>										
BUH-0310-S	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0310-S-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0310-SF	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0310-SF-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792
BUH-0312-S	3/8	1	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0312-S-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0312-SF	3/8	1	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0312-SF-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792
BUH-0312 X 1.5-S	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0312 X 1.5-S-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0312 X 1.5-SF	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0312 X 1.5-SF-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792
<b>5/16-24 Threads - 1/2" Hex Head</b>										
BUH-0320-S	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0320-S-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0320-SF	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0320-SF-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792
BUH-0321-S	3/8	1	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0321-S-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0321-SF	3/8	1	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0321-SF-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792
BUH-0321 X 1.5-S	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-S	EF	2,792
BUH-0321 X 1.5-S-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-S-T	EF	2,792
BUH-0321 X 1.5-SF	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-SF	SF	2,792
BUH-0321 X 1.5-SF-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-SF-T	SF	2,792

## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Tool Steel Ball | Serrated | Inch & Metric (continued)



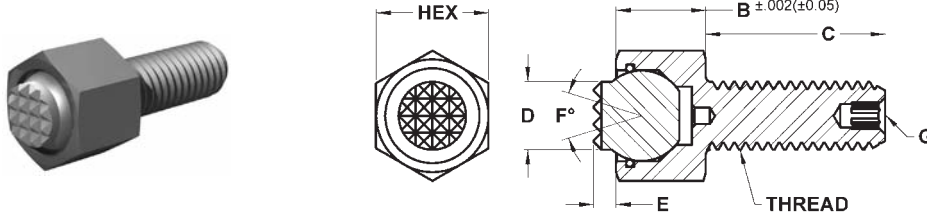
#### INCH (CONTINUED)

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Tooth Pattern	Load Rating Lbs.
<b>3/8-16 Threads - 5/8" Hex Head</b>										
BUH-0370-S	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0370-S-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0370-SF	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0370-SF-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
BUH-0375-S	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0375-S-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0375-SF	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0375-SF-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
BUH-0375 X 1.5-S	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0375 X 1.5-S-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0375 X 1.5-SF	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0375 X 1.5-SF-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
<b>3/8-24 Threads - 5/8" Hex Head</b>										
BUH-0230-S	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0230-S-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0230-SF	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0230-SF-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
BUH-0231-S	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0231-S-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0231-SF	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0231-SF-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
BUH-0231 X 1.5-S	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-S	EF	3,446
BUH-0231 X 1.5-S-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-S-T	EF	3,446
BUH-0231 X 1.5-SF	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-SF	SF	3,446
BUH-0231 X 1.5-SF-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-SF-T	SF	3,446
<b>1/2-13 Threads - 13/16" Hex Head</b>										
BUH-0510-S	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-S	Fine	5,937
BUH-0510-S-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-S-T	Fine	5,937
BUH-0510-EF	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-EF	EF	5,937
BUH-0510-EF-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-EF-T	EF	5,937
BUH-0510-SF	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-SF	SF	5,937
BUH-0510-SF-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-SF-T	SF	5,937
BUH-0515-S	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-S	Fine	5,937
BUH-0515-S-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-S-T	Fine	5,937
BUH-0515-EF	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-EF	EF	5,937
BUH-0515-EF-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-EF-T	EF	5,937
BUH-0515-SF	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-SF	SF	5,937
BUH-0515-SF-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-SF-T	SF	5,937
<b>1/2-20 Threads - 13/16" Hex Head</b>										
BUH-0240-S	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-S	Fine	7,178
BUH-0240-S-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-S-T	Fine	7,178
BUH-0240-EF	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-EF	EF	7,178
BUH-0240-EF-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-EF-T	EF	7,178
BUH-0240-SF	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-SF	SF	7,178
BUH-0240-SF-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-SF-T	SF	7,178
BUH-0500-S	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-S	Fine	7,178
BUH-0500-S-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-S-T	Fine	7,178
BUH-0500-EF	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-EF	EF	7,178
BUH-0500-EF-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-EF-T	EF	7,178
BUH-0500-SF	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-SF	SF	7,178
BUH-0500-SF-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-SF-T	SF	7,178



# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Tool Steel Ball | Serrated | Inch & Metric (continued)



### INCH (CONTINUED)

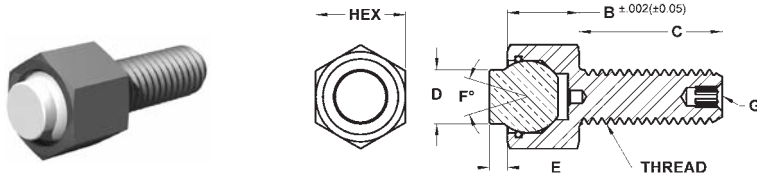
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Tooth Pattern	Load Rating Lbs.
<b>5/8-11 Threads - 15/16" Hex Head</b>										
BUH-0625-S	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-S	Fine	9,932
BUH-0625-S-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-S-T	Fine	9,932
BUH-0625-EF	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-EF	EF	9,932
BUH-0625-EF-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-EF-T	EF	9,932
BUH-0625 X 2-S	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-S	Fine	9,932
BUH-0625 X 2-S-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-S-T	Fine	9,932
BUH-0625 X 2-EF	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-EF	EF	9,932
BUH-0625 X 2-EF-T	11/16	2	5/8	1/4	34	3/4	3/4	BUB-700-EF-T	EF	9,932
<b>5/8-18 Threads - 15/16" Hex Head</b>										
BUH-0620-S	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-S	Fine	11,874
BUH-0620-S-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-S-T	Fine	11,874
BUH-0620-EF	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-EF	EF	11,874
BUH-0620-EF-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-EF-T	EF	11,874
BUH-0620 X 2-S	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-S	Fine	11,874
BUH-0620 X 2-S-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-S-T	Fine	11,874
BUH-0620 X 2-EF	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-EF	EF	11,874
BUH-0620 X 2-EF-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-EF-T	EF	11,874

### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Tooth Pattern	Load Rating Lbs.
<b>M6x1.0 Threads - 10mm Hex Head</b>										
MBUH-06012-S	8	12	6	1.5	28	—	7	MBUB-070-S	SF	2,061
MBUH-06012-S-T	8	12	6	3	28	—	7	MBUB-070-S-T	SF	2,061
MBUH-06025-S	8	25	6	1.5	28	—	7	MBUB-070-S	SF	2,061
MBUH-06025-S-T	8	25	6	3	28	—	7	MBUB-070-S-T	SF	2,061
MBUH-06040-S	8	40	6	1.5	28	—	7	MBUB-070-S	SF	2,061
MBUH-06040-S-T	8	40	6	3	28	—	7	MBUB-070-S-T	SF	2,061
<b>M8x1.25 Threads - 13mm Hex Head</b>										
MBUH-08012-S	11.5	12	8.5	1.5	24	—	10	MBUB-100-S	EF	3,450
MBUH-08012-S-T	11.5	12	8.5	3	24	—	10	MBUB-100-S-T	EF	3,450
MBUH-08025-S	11.5	25	8.5	1.5	24	—	10	MBUB-100-S	EF	3,450
MBUH-08025-S-T	11.5	25	8.5	3	24	—	10	MBUB-100-S-T	EF	3,450
MBUH-08040-S	11.5	40	8.5	1.5	24	—	10	MBUB-100-S	EF	3,450
MBUH-08040-S-T	11.5	40	8.5	3	24	—	10	MBUB-100-S-T	EF	3,450
<b>M10x1.5 Threads - 17mm Hex Head</b>										
MBUH-10015-S	13	15	10	4	42	3	13	MBUB-130-S	EF	4,194
MBUH-10015-S-T	13	15	10	6	42	3	13	MBUB-130-S-T	EF	4,194
MBUH-10030-S	13	30	10	4	42	3	13	MBUB-130-S	EF	4,194
MBUH-10030-S-T	13	30	10	6	42	3	13	MBUB-130-S-T	EF	4,194
MBUH-10050-S	13	50	10	4	42	3	13	MBUB-130-S	EF	4,194
MBUH-10050-S-T	13	50	10	6	42	3	13	MBUB-130-S-T	EF	4,194
<b>M12x1.75 Threads - 19mm Hex Head</b>										
MBUH-12020-S	15	20	12	4	45	5	15	MBUB-150-S	Fine	6,627
MBUH-12020-S-T	15	20	12	6	45	5	15	MBUB-150-S-T	Fine	6,627
MBUH-12040-S	15	40	12	4	45	5	15	MBUB-150-S	Fine	6,627
MBUH-12040-S-T	15	40	12	6	45	5	15	MBUB-150-S-T	Fine	6,627
MBUH-12060-S	15	60	12	4	45	5	15	MBUB-150-S	Fine	6,627
MBUH-12060-S-T	15	60	12	6	45	5	15	MBUB-150-S-T	Fine	6,627
<b>M16x2.0 Threads - 24mm Hex Head</b>										
MBUH-16025-S	19	25	16	4	40	6	20	MBUB-200-S	Fine	11,183
MBUH-16025-S-T	19	25	16	6	40	6	20	MBUB-200-S-T	Fine	11,183
MBUH-16050-S	19	50	16	4	40	6	20	MBUB-200-S	Fine	11,183
MBUH-16050-S-T	19	50	16	6	40	6	20	MBUB-200-S-T	Fine	11,183
MBUH-16080-S	19	80	16	4	40	6	20	MBUB-200-S	Fine	11,183
MBUH-16080-S-T	19	80	16	6	40	6	20	MBUB-200-S-T	Fine	11,183

## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Delrin Ball | Flat | Inch & Metric



The replaceable flat ball swivels to allow for self-alignment on uneven surfaces. The replaceable ball is made from non-marring white delrin. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

#### INCH

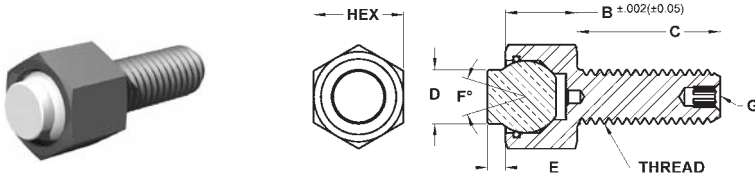
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #
<b>#10-24 Threads - 3/8" Hex Head</b>								
BUH-0124-D	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-D
BUH-0124 X 1-D	1/4	1	5/32	1/16	28	—	3/16	BUB-187-D
<b>#10-32 Threads - 3/8" Hex Head</b>								
BUH-0132-D	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-D
BUH-0132 X 1-D	1/4	1	5/32	1/16	28	—	3/16	BUB-187-D
<b>1/4-20 Threads - 7/16" Hex Head</b>								
BUH-0250-D	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0250-D-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-D-T
BUH-0251-D	5/16	1	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0251-D-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-D-T
BUH-0251 X 1.5-D	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0251 X 1.5-D-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-D-T
<b>1/4-28 Threads - 7/16" Hex Head</b>								
BUH-0280-D	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0280-D-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-D-T
BUH-0281-D	5/16	1	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0281-D-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-D-T
BUH-0281 X 1.5-D	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-D
BUH-0281 X 1.5-D-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-D-T
<b>5/16-18 Threads - 1/2" Hex Head</b>								
BUH-0310-D	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0310-D-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-D-T
BUH-0312-D	3/8	1	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0312-D-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-D-T
BUH-0312 X 1.5-D	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0312 X 1.5-D-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-D-T
<b>5/16-24 Threads - 1/2" Hex Head</b>								
BUH-0320-D	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0320-D-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-D-T
BUH-0321-D	3/8	1	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0321-D-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-D-T
BUH-0321 X 1.5-D	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-D
BUH-0321 X 1.5-D-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-D-T
<b>3/8-16 Threads - 5/8" Hex Head</b>								
BUH-0370-D	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0370-D-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-D-T
BUH-0375-D	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0375-D-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-D-T
BUH-0375 X 1.5-D	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0375 X 1.5-D-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-D-T
<b>3/8-24 Threads - 5/8" Hex Head</b>								
BUH-0230-D	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0230-D-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-D-T
BUH-0231-D	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0231-D-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-D-T
BUH-0231 X 1.5-D	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-D
BUH-0231 X 1.5-D-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-D-T





# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Delrin Ball | Flat | Inch & Metric (continued)



### INCH (CONTINUED)

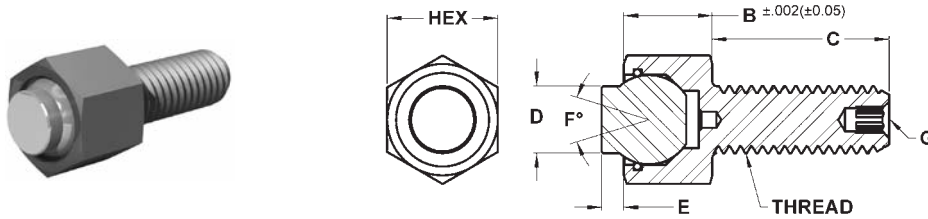
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #
<b>1/2-13 Threads - 13/16" Hex Head</b>								
BUH-0510-D	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-D
BUH-0510-D-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-D-T
BUH-0515-D	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-D
BUH-0515-D-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-D-T
<b>1/2-20 Threads - 13/16" Hex Head</b>								
BUH-0240-D	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-D
BUH-0240-D-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-D-T
BUH-0500-D	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-D
BUH-0500-D-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-D-T
<b>5/8-11 Threads - 15/16" Hex Head</b>								
BUH-0625-D	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-D
BUH-0625-D-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-D-T
BUH-0625 X 2-D	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-D
BUH-0625 X 2-D-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-D-T
<b>5/8-18 Threads - 15/16" Hex Head</b>								
BUH-0620-D	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-D
BUH-0620-D-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-D-T
BUH-0620 X 2-D	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-D
BUH-0620 X 2-D-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-D-T

### METRIC

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #
<b>M6x1.0 Threads - 10mm Hex Head</b>								
MBUH-06012-D	8	12	6	1.5	28	—	7	MBUB-070-D
MBUH-06012-D-T	8	12	6	3	28	—	7	MBUB-070-D-T
MBUH-06025-D	8	25	6	1.5	28	—	7	MBUB-070-D
MBUH-06025-D-T	8	25	6	3	28	—	7	MBUB-070-D-T
MBUH-06040-D	8	40	6	1.5	28	—	7	MBUB-070-D
MBUH-06040-D-T	8	40	6	3	28	—	7	MBUB-070-D-T
<b>M8x1.25 Threads - 13mm Hex Head</b>								
MBUH-08012-D	11.5	12	8.5	1.5	24	—	10	MBUB-100-D
MBUH-08012-D-T	11.5	12	8.5	3	24	—	10	MBUB-100-D-T
MBUH-08025-D	11.5	25	8.5	1.5	24	—	10	MBUB-100-D
MBUH-08025-D-T	11.5	25	8.5	3	24	—	10	MBUB-100-D-T
MBUH-08040-D	11.5	40	8.5	1.5	24	—	10	MBUB-100-D
MBUH-08040-D-T	11.5	40	8.5	3	24	—	10	MBUB-100-D-T
<b>M10x1.5 Threads - 17mm Hex Head</b>								
MBUH-10015-D	13	15	10	4	42	3	13	MBUB-130-D
MBUH-10015-D-T	13	15	10	6	42	3	13	MBUB-130-D-T
MBUH-10030-D	13	30	10	4	42	3	13	MBUB-130-D
MBUH-10030-D-T	13	30	10	6	42	3	13	MBUB-130-D-T
MBUH-10050-D	13	50	10	4	42	3	13	MBUB-130-D
MBUH-10050-D-T	13	50	10	6	42	3	13	MBUB-130-D-T
<b>M12x1.75 Threads - 19mm Hex Head</b>								
MBUH-12020-D	15	20	12	4	45	5	15	MBUB-150-D
MBUH-12020-D-T	15	20	12	6	45	5	15	MBUB-150-D-T
MBUH-12040-D	15	40	12	4	45	5	15	MBUB-150-D
MBUH-12040-D-T	15	40	12	6	45	5	15	MBUB-150-D-T
MBUH-12060-D	15	60	12	4	45	5	15	MBUB-150-D
MBUH-12060-D-T	15	60	12	6	45	5	15	MBUB-150-D-T
<b>M16x2.0 Threads - 24mm Hex Head</b>								
MBUH-16025-D	19	25	16	4	40	6	20	MBUB-200-D
MBUH-16025-D-T	19	25	16	6	40	6	20	MBUB-200-D-T
MBUH-16050-D	19	50	16	4	40	6	20	MBUB-200-D
MBUH-16050-D-T	19	50	16	6	40	6	20	MBUB-200-D-T
MBUH-16080-D	19	80	16	4	40	6	20	MBUB-200-D
MBUH-16080-D-T	19	80	16	6	40	6	20	MBUB-200-D-T

## SWIVOTS® - REPLACEABLE SWIVEL BALL

### Hex Head | Tool Steel Ball | Flat | Inch & Metric

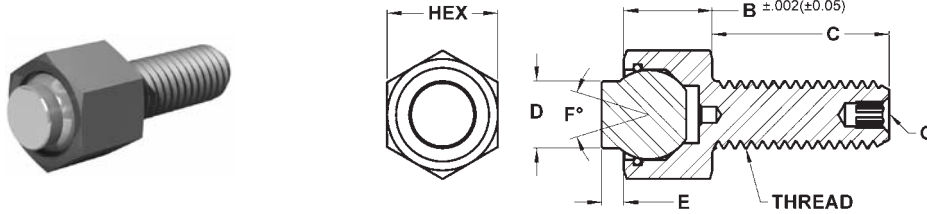


The replaceable flat ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 117 for diagram of components.

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs.
<b>#10-24 Threads - 3/8" Hex Head</b>									
BUH-0124-F	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-F	1,176
BUH-0124 X 1-F	1/4	1	5/32	1/16	28	—	3/16	BUB-187-F	1,176
<b>#10-32 Threads - 3/8" Hex Head</b>									
BUH-0132-F	1/4	1/2	5/32	1/16	28	—	3/16	BUB-187-F	1,176
BUH-0132 X 1-F	1/4	1	5/32	1/16	28	—	3/16	BUB-187-F	1,176
<b>1/4-20 Threads - 7/16" Hex Head</b>									
BUH-0250-F	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0250-F-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
BUH-0251-F	5/16	1	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0251-F-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
BUH-0251 X 1.5-F	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0251 X 1.5-F-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
<b>1/4-28 Threads - 7/16" Hex Head</b>									
BUH-0280-F	5/16	1/2	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0280-F-T	5/16	1/2	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
BUH-0281-F	5/16	1	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0281-F-T	5/16	1	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
BUH-0281 X 1.5-F	5/16	1-1/2	1/4	1/16	28	—	9/32	BUB-200-F	2,441
BUH-0281 X 1.5-F-T	5/16	1-1/2	1/4	1/8	28	—	9/32	BUB-200-F-T	2,441
<b>5/16-18 Threads - 1/2" Hex Head</b>									
BUH-0310-F	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0310-F-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
BUH-0312-F	3/8	1	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0312-F-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
BUH-0312 X 1.5-F	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0312 X 1.5-F-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
<b>5/16-24 Threads - 1/2" Hex Head</b>									
BUH-0320-F	3/8	1/2	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0320-F-T	3/8	1/2	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
BUH-0321-F	3/8	1	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0321-F-T	3/8	1	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
BUH-0321 X 1.5-F	3/8	1-1/2	5/16	1/16	28	—	3/8	BUB-300-F	2,792
BUH-0321 X 1.5-F-T	3/8	1-1/2	5/16	1/8	28	—	3/8	BUB-300-F-T	2,792
<b>3/8-16 Threads - 5/8" Hex Head</b>									
BUH-0370-F	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0370-F-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
BUH-0375-F	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0375-F-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
BUH-0375 X 1.5-F	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0375 X 1.5-F-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
<b>3/8-24 Threads - 5/8" Hex Head</b>									
BUH-0230-F	1/2	1/2	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0230-F-T	1/2	1/2	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
BUH-0231-F	1/2	1	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0231-F-T	1/2	1	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
BUH-0231 X 1.5-F	1/2	1-1/2	3/8	1/8	40	1/8	1/2	BUB-500-F	3,446
BUH-0231 X 1.5-F-T	1/2	1-1/2	3/8	1/4	40	1/8	1/2	BUB-500-F-T	3,446
<b>1/2-13 Threads - 13/16" Hex Head</b>									
BUH-0510-F	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-F	5,937
BUH-0510-F-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-F-T	5,937
BUH-0515-F	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-F	5,937
BUH-0515-F-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-F-T	5,937

# SWIVOTS® - REPLACEABLE SWIVEL BALL

## Hex Head | Tool Steel Ball | Flat | Inch & Metric (continued)



### INCH (CONTINUED)

Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs.
<b>1/2-20 Threads - 13/16" Hex Head</b>									
BUH-0240-F	5/8	1	1/2	1/8	40	3/16	5/8	BUB-600-F	7,178
BUH-0240-F-T	5/8	1	1/2	1/4	40	3/16	5/8	BUB-600-F-T	7,178
BUH-0500-F	5/8	1-1/2	1/2	1/8	40	3/16	5/8	BUB-600-F	7,178
BUH-0500-F-T	5/8	1-1/2	1/2	1/4	40	3/16	5/8	BUB-600-F-T	7,178
<b>5/8-11 Threads - 15/16" Hex Head</b>									
BUH-0625-F	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-F	9,932
BUH-0625-F-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-F-T	9,932
BUH-0625 X 2-F	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-F	9,932
BUH-0625 X 2-F-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-F-T	9,932
<b>5/8-18 Threads - 15/16" Hex Head</b>									
BUH-0620-F	11/16	1	5/8	1/8	34	1/4	3/4	BUB-700-F	11,874
BUH-0620-F-T	11/16	1	5/8	1/4	34	1/4	3/4	BUB-700-F-T	11,874
BUH-0620 X 2-F	11/16	2	5/8	1/8	34	1/4	3/4	BUB-700-F	11,874
BUH-0620 X 2-F-T	11/16	2	5/8	1/4	34	1/4	3/4	BUB-700-F-T	11,874

### METRIC

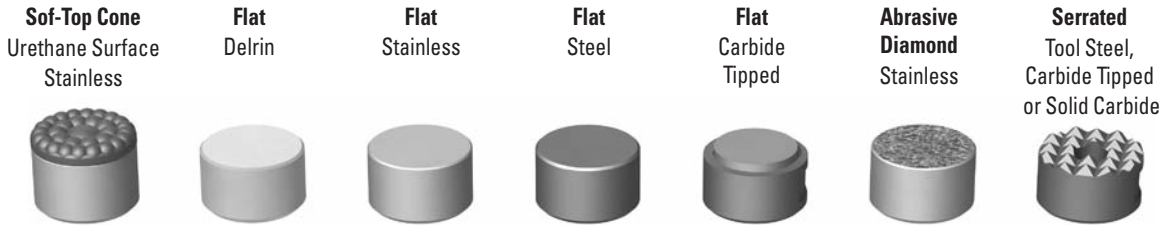
Part #	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Ball Only Part #	Load Rating Lbs.
<b>M6x1.0 Threads - 10mm Hex Head</b>									
MBUH-06012-F	8	12	6	1.5	28	—	7	MBUB-070-F	2,061
MBUH-06012-F-T	8	12	6	3	28	—	7	MBUB-070-F-T	2,061
MBUH-06025-F	8	25	6	1.5	28	—	7	MBUB-070-F	2,061
MBUH-06025-F-T	8	25	6	3	28	—	7	MBUB-070-F-T	2,061
MBUH-06040-F	8	40	6	1.5	28	—	7	MBUB-070-F	2,061
MBUH-06040-F-T	8	40	6	3	28	—	7	MBUB-070-F-T	2,061
<b>M8x1.25 Threads - 13mm Hex Head</b>									
MBUH-08012-F	11.5	12	8.5	1.5	24	—	10	MBUB-100-F	3,450
MBUH-08012-F-T	11.5	12	8.5	3	24	—	10	MBUB-100-F-T	3,450
MBUH-08025-F	11.5	25	8.5	1.5	24	—	10	MBUB-100-F	3,450
MBUH-08025-F-T	11.5	25	8.5	3	24	—	10	MBUB-100-F-T	3,450
MBUH-08040-F	11.5	40	8.5	1.5	24	—	10	MBUB-100-F	3,450
MBUH-08040-F-T	11.5	40	8.5	3	24	—	10	MBUB-100-F-T	3,450
<b>M10x1.5 Threads - 17mm Hex Head</b>									
MBUH-10015-F	13	15	10	4	42	3	13	MBUB-130-F	4,194
MBUH-10015-F-T	13	15	10	6	42	3	13	MBUB-130-F-T	4,194
MBUH-10030-F	13	30	10	4	42	3	13	MBUB-130-F	4,194
MBUH-10030-F-T	13	30	10	6	42	3	13	MBUB-130-F-T	4,194
MBUH-10050-F	13	50	10	4	42	3	13	MBUB-130-F	4,194
MBUH-10050-F-T	13	50	10	6	42	3	13	MBUB-130-F-T	4,194
<b>M12x1.75 Threads - 19mm Hex Head</b>									
MBUH-12020-F	15	20	12	4	45	5	15	MBUB-150-F	6,627
MBUH-12020-F-T	15	20	12	6	45	5	15	MBUB-150-F-T	6,627
MBUH-12040-F	15	40	12	4	45	5	15	MBUB-150-F	6,627
MBUH-12040-F-T	15	40	12	6	45	5	15	MBUB-150-F-T	6,627
MBUH-12060-F	15	60	12	4	45	5	15	MBUB-150-F	6,627
MBUH-12060-F-T	15	60	12	6	45	5	15	MBUB-150-F-T	6,627
<b>M16x2.0 Threads - 24mm Hex Head</b>									
MBUH-16025-F	19	25	16	4	40	6	20	MBUB-200-F	11,183
MBUH-16025-F-T	19	25	16	6	40	6	20	MBUB-200-F-T	11,183
MBUH-16050-F	19	50	16	4	40	6	20	MBUB-200-F	11,183
MBUH-16050-F-T	19	50	16	6	40	6	20	MBUB-200-F-T	11,183
MBUH-16080-F	19	80	16	4	40	6	20	MBUB-200-F	11,183
MBUH-16080-F-T	19	80	16	6	40	6	20	MBUB-200-F-T	11,183

**SWIVOTS® - REPLACEABLE SWIVEL PAD**

# Swivots® Replaceable Swivel Pad Style

These Replaceable Pad Style Swivots® are found on the following pages.

**REPLACEABLE PADS**

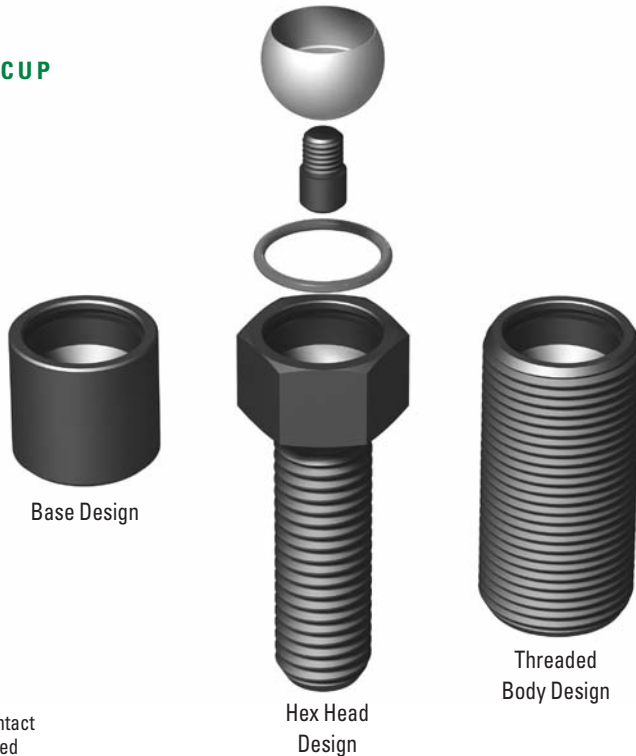


**STAINLESS BALL CUP**

**LOCK SCREW**

**VITON O-RING**

**HOUSINGS**



**Load Calculator**

To calculate the load on the contact surface, divide the torque applied (in/lbs) by a factor shown below. Assumes no lubrication threaded into steel. Use as a guideline only.

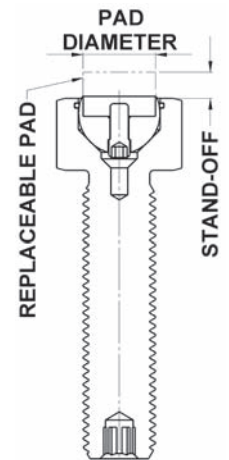
INCH			
Thread	Factor	Thread	Factor
#10-24	0.036	1/2-13	0.093
#10-32	0.035	1/2-20	0.091
1/4-20	0.047	5/8-11	0.116
1/4-28	0.046	5/8-18	0.113
5/16-18	0.059	3/4-10	0.138
5/16-24	0.058	3/4-16	0.135
3/8-16	0.070	1-8	0.183
3/8-24	0.068	1-14	0.180

METRIC			
Thread	Factor	Thread	Factor
M6x1.00	0.044	M16x2.00	0.116
M8x1.25	0.058	M20x2.50	0.144
M10x1.50	0.073	M24x3.00	0.173
M12x1.75	0.087		

- These Replaceable Pad Style Swivots are a modular component system that allows the pad and ball cup to swivel, tilt, clamp, grip, hold, position or secure work pieces. The internal ball cup allows the pad to rotate 360 degrees and tilt at varying degrees in any direction from the centerline.
- The interchangeable parts help to speed set ups and changeovers. The Replaceable Pads allow you to easily change the pad when worn or another style is needed for an application. The swivel assemblies include the housing, O-ring, lock screw and ball cup. Pads must be ordered separately.
- The ball cup is held in place with an O-ring which allows the pad to swivel and keeps out dirt and other contaminants.
- The pad can easily be replaced by pulling the ball cup out of the housing and unscrewing the lock screw which holds the pad into the ball cup.

**To select the proper pad:**

1. Determine the diameter of the pad for the housing assembly. This can be found on the following pages under "Replaceable Pad Dia."
2. Determine the "Stand Off" dimension required using the information below:



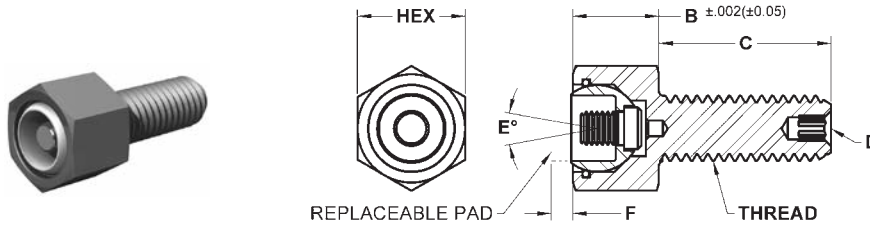
- 3/8" Pad Height provides 1/8" Stand Off
- 1/2" Pad Height provides 1/4" Stand Off
- 10mm Pad Height provides 4mm Stand Off
- 12mm Pad Height provides 6mm Stand Off

3. Select any Round Fixed Gripper or Rest Pad with the proper diameter and stand off that has a tapped hole.

If you need additional assistance selecting the proper pad or ordering replacement parts, please contact us.

# SWIVOTS® - REPLACEABLE SWIVEL PAD

## Hex Head | Inch & Metric



The replaceable pad swivels to allow for self-alignment on uneven surfaces. The replaceable pad fits in a hardened (Rc 58/60) 440c stainless ball cup and is held in place with a lock screw. The pad can be replaced when worn or a different style pad is required. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The parts below are for the Swivot assembly only and do not include a pad. Pads must be ordered separately. See page 161 for diagram of components.

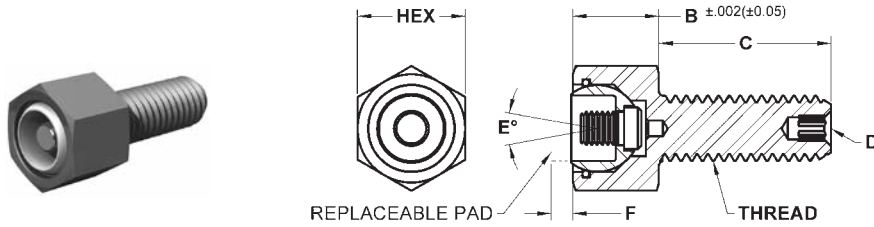
INCH									
Part #	B Head Height	C Thread Length	D Int. Hex	E Degree Swivel	F* Stand Off 1	F* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
<b>3/8-16 Threads - 5/8" Hex Head</b>									
BUH-0370	1/2	1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0375	1/2	1	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0375 X 1.5	1/2	1-1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
<b>3/8-24 Threads - 5/8" Hex Head</b>									
BUH-0230	1/2	1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0231	1/2	1	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0231 X 1.5	1/2	1-1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
<b>1/2-13 Threads - 13/16" Hex Head</b>									
BUH-0510	5/8	1	3/16	24	1/8	1/4	5/8	1/2	5,937
BUH-0515	5/8	1-1/2	3/16	24	1/8	1/4	5/8	1/2	5,937
<b>1/2-20 Threads - 13/16" Hex Head</b>									
BUH-0240	5/8	1	3/16	24	1/8	1/4	5/8	1/2	7,178
BUH-0500	5/8	1-1/2	3/16	24	1/8	1/4	5/8	1/2	7,178
<b>5/8-11 Threads - 15/16" Hex Head</b>									
BUH-0625	11/16	1	1/4	22	1/8	1/4	3/4	5/8	9,932
BUH-0625 X 2	11/16	2	1/4	22	1/8	1/4	3/4	5/8	9,932
<b>5/8-18 Threads - 15/16" Hex Head</b>									
BUH-0620	11/16	1	1/4	22	1/8	1/4	3/4	5/8	11,874
BUH-0620 X 2	11/16	2	1/4	22	1/8	1/4	3/4	5/8	11,874
<b>3/4-10 Threads - 1-1/8" Hex Head</b>									
BUH-0755	3/4	1	5/16	20	1/8	1/4	7/8	3/4	14,862
BUH-0755 X 2.5	3/4	2-1/2	5/16	20	1/8	1/4	7/8	3/4	14,862
<b>3/4-16 Threads - 1-1/8" Hex Head</b>									
BUH-0750	3/4	1	5/16	20	1/8	1/4	7/8	3/4	13,565
BUH-0750 X 2.5	3/4	2-1/2	5/16	20	1/8	1/4	7/8	3/4	13,565
<b>1"-8 Threads - 1-1/2" Hex Head</b>									
BUH-1108 X 2	1	2	3/8	20	1/8	1/4	1 1/8	1	28,158
BUH-1108 X 4	1	4	3/8	20	1/8	1/4	1 1/8	1	28,158
<b>1"-14 Threads - 1-1/2" Hex Head</b>									
BUH-1114 X 2	1	2	3/8	20	1/8	1/4	1 1/8	1	26,234
BUH-1114 X 4	1	4	3/8	20	1/8	1/4	1 1/8	1	26,234

\* F1 – Stand off with 3/8" height pad; F2 – Stand off with 1/2" height pad.

\*\* Select any fixed gripper or rest pad with the proper diameter and tapped hole.

## SWIVOTS® - REPLACEABLE SWIVEL PAD

### Hex Head | Inch & Metric (continued)



#### METRIC

Part #	B Head Height	C Thread Length	D Int. Hex	E Degree Swivel	F* Stand Off 1	F* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
<b>M10x1.5 Threads - 17mm Hex Head</b>									
MBUH-10015	13	15	3	20	4	6	13	10	4,194
MBUH-10030	13	30	3	20	4	6	13	10	4,194
MBUH-10050	13	50	3	20	4	6	13	10	4,194
<b>M12x1.75 Threads - 19mm Hex Head</b>									
MBUH-12020	15	20	5	20	4	6	15	12	6,627
MBUH-12040	15	40	5	20	4	6	15	12	6,627
MBUH-12060	15	60	5	20	4	6	15	12	6,627
<b>M16x2 Threads - 24mm Hex Head</b>									
MBUH-16025	19	25	6	20	4	6	20	16	11,193
MBUH-16050	19	50	6	20	4	6	20	16	11,193
MBUH-16080	19	80	6	20	4	6	20	16	11,193
<b>M20x2.5 Threads - 30mm Hex Head</b>									
MBUH-20030	20	30	8	20	4	6	23	20	19,136
MBUH-20060	20	60	8	20	4	6	23	20	19,136
MBUH-20100	20	100	8	20	4	6	23	20	19,136
<b>M24x3.0 Threads - 36mm Hex Head</b>									
MBUH-24040	26	40	10	20	4	6	28	25	27,239
MBUH-24100	26	100	10	20	4	6	28	25	27,239

\* F1 – Stand off with 10mm height pad; F2 – Stand off with 12mm height pad.

\*\* Select any fixed gripper or rest pad with the proper diameter and tapped hole.