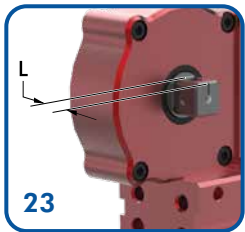
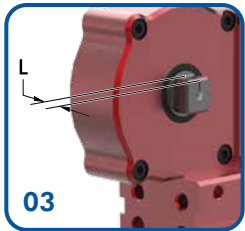


# 92W-1

## Enclosed Electric Power Clamps | Smart Clamp | How to Order

92W-1   23   00   02   02

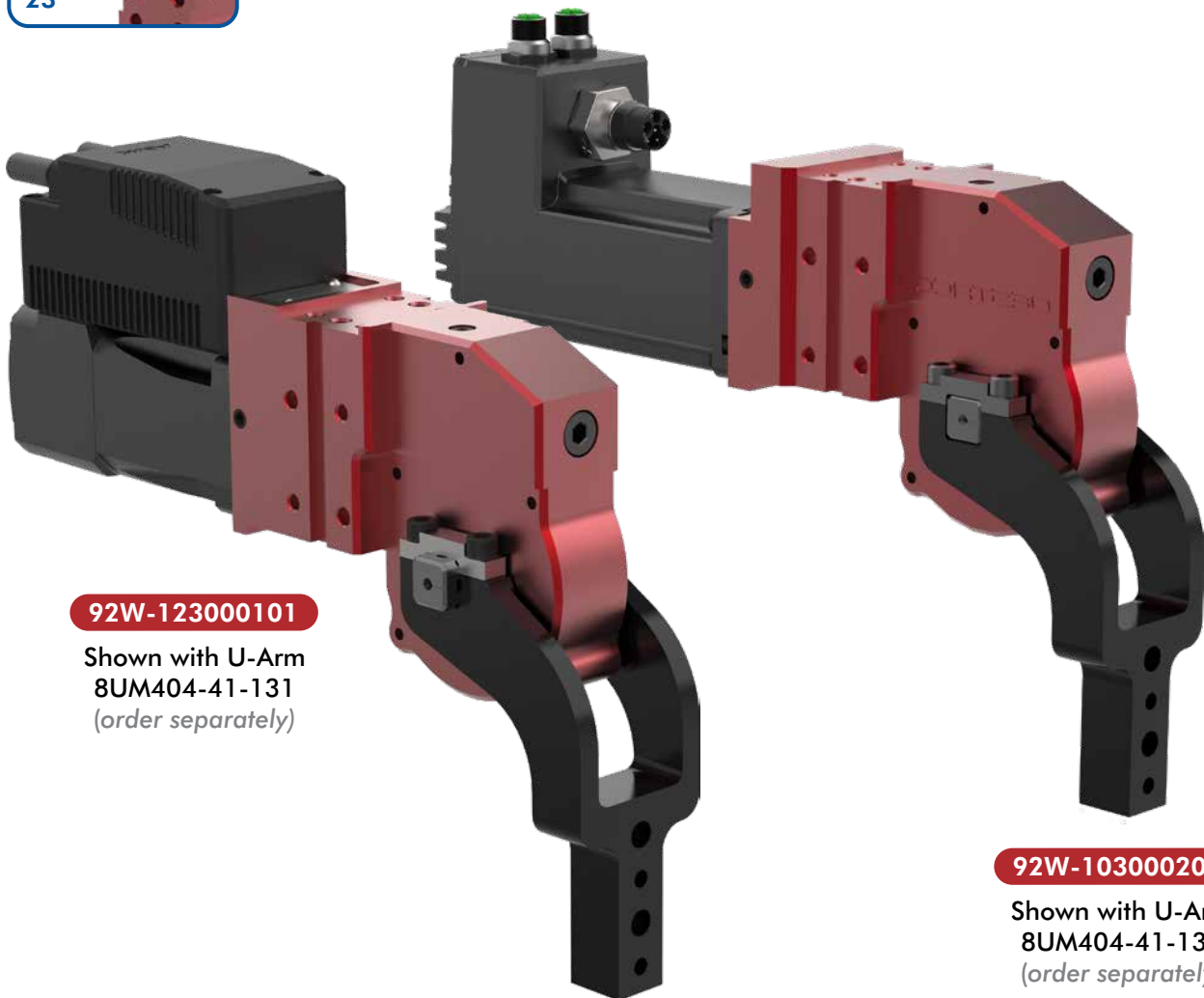
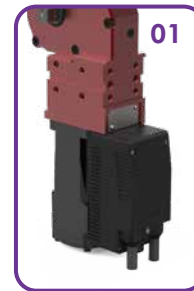
Clamp Arm Shaft	Shaft Length (L)
03	10 mm [0.39 in]
23	16 mm [0.63 in]



**Body Style**  
 for 400 V Motor Option 01 only  
 01 Compact Clamp Design  
 for 48 V Motor Option 02 only  
 02 Compact Clamp Design



**Motor**  
 for Body Style Option 01 only  
 01 Servo Drive, Decentral 400 V  
 for Body Style Option 02 only  
 02 Servo Drive, Decentral 48 V



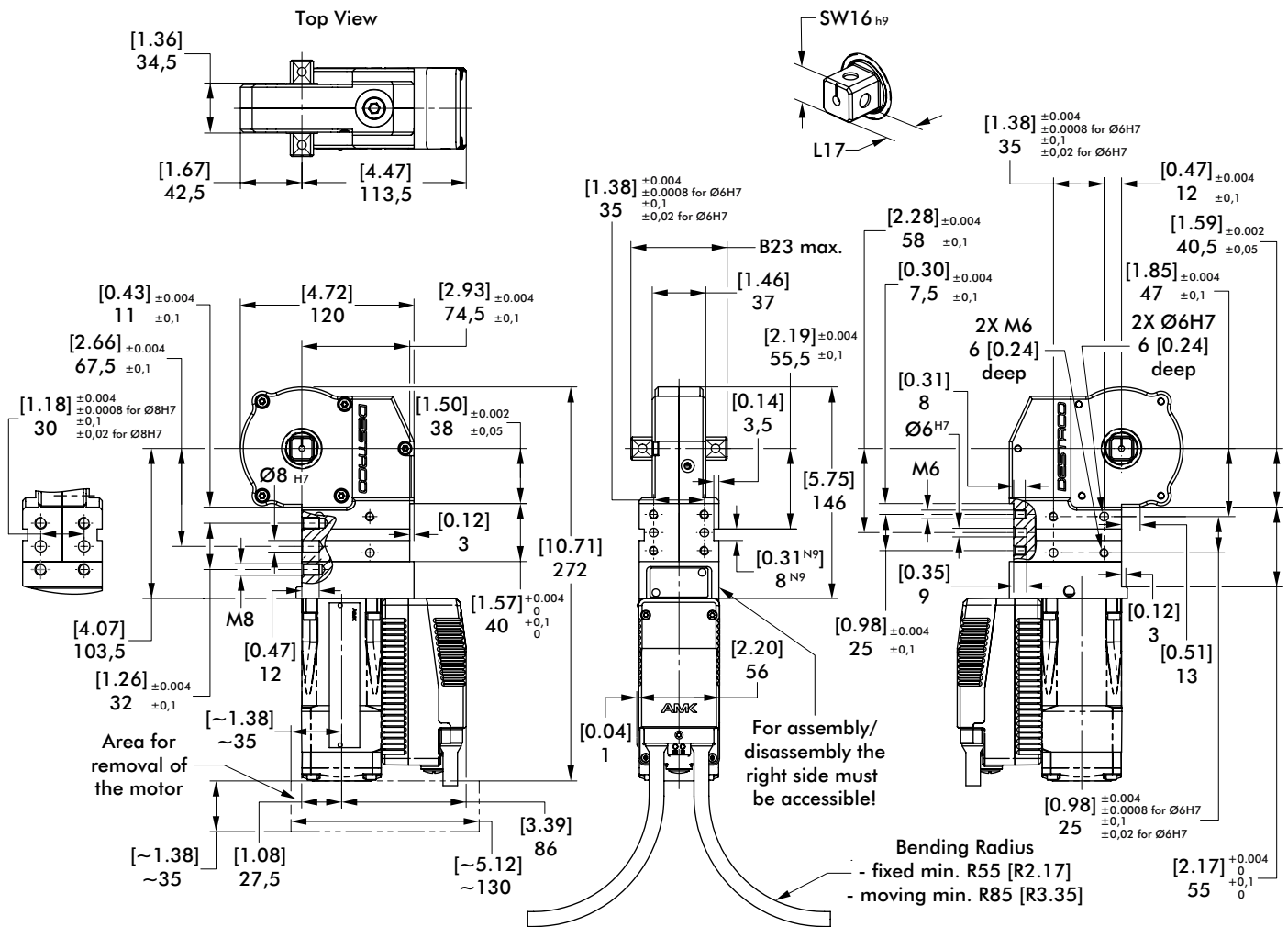
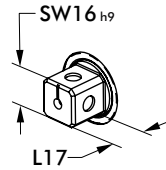
**92W-123000101**

Shown with U-Arm  
 8UM404-41-131  
 (order separately)

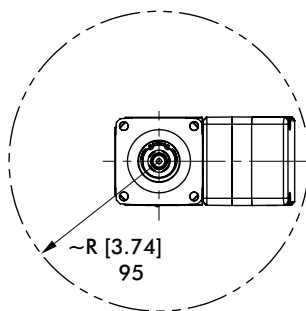
**92W-103000202**

Shown with U-Arm  
 8UM404-41-131  
 (order separately)

### Dimensions of the driven shaft



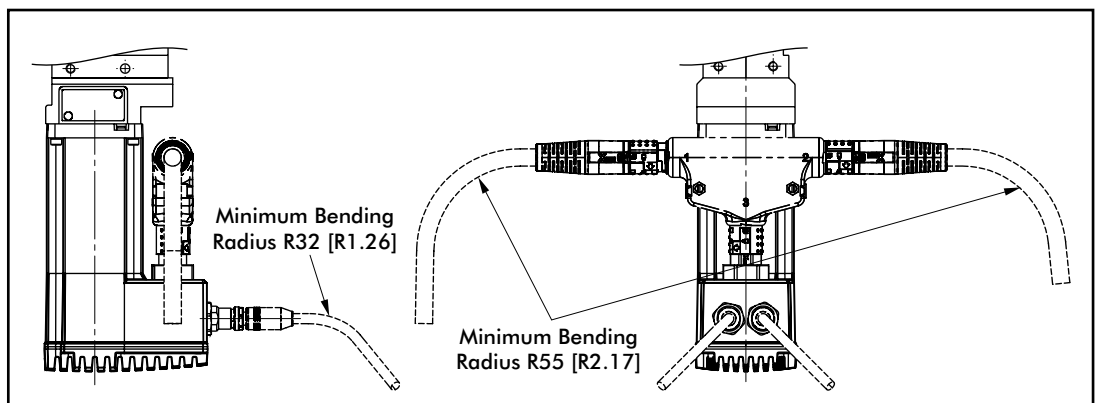
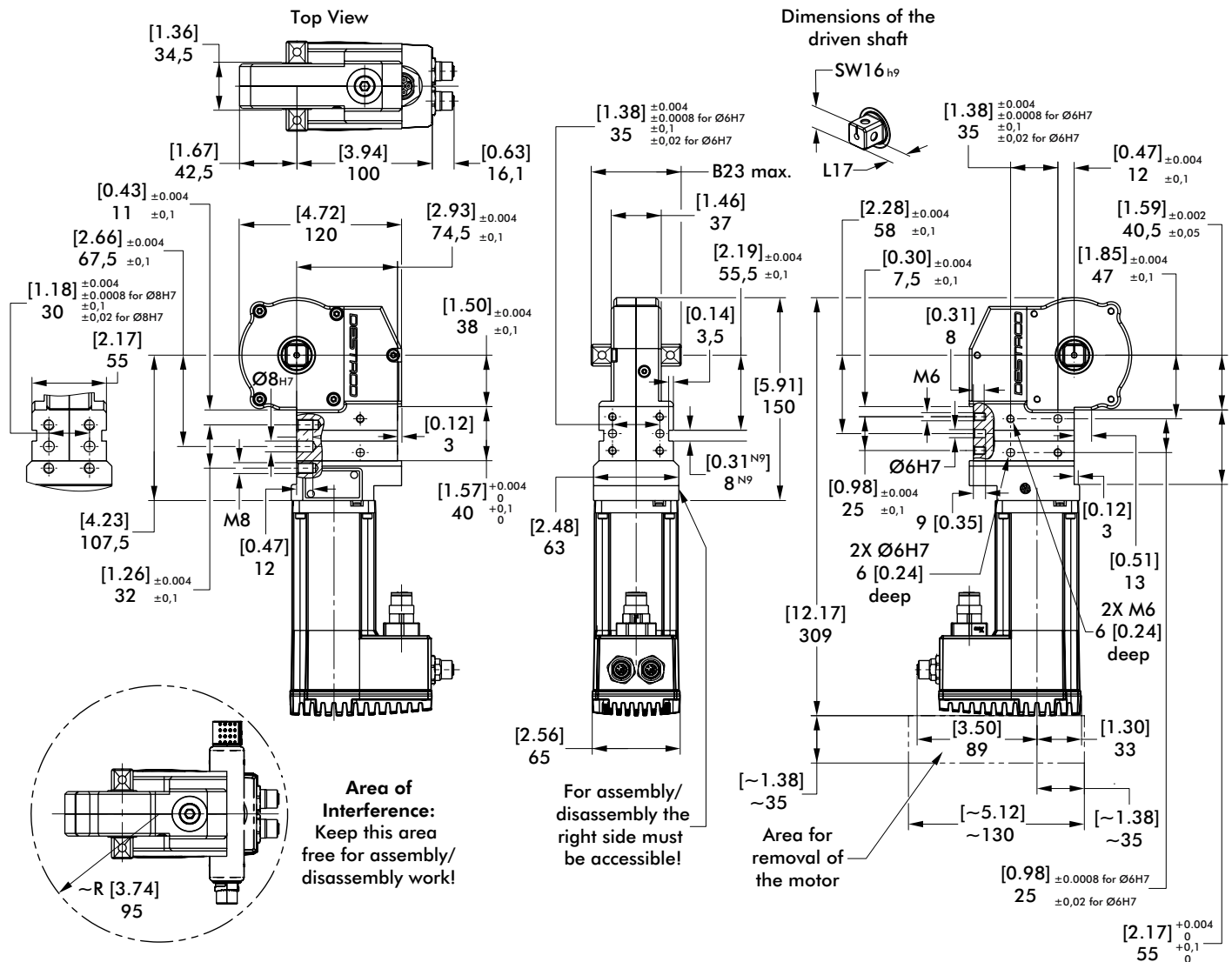
**Area of Interference:**  
Keep this area free for assembly/disassembly work!



Model	Max. Holding Torque Nm [ft-lb]	Max. Clamping Torque Nm [ft-lb]	Weight kg [lbs]	B23 Max.	L17
92W-103000101	[332]	[7.4-74]	[7.72]	54,5 [2.15]	10 [0.39]
92W-123000101	450	10-100	3,5	66,5 [2.62]	16 [0.63]

# 92W-1....0202

## Enclosed Electric Power Clamps | Smart Clamp | Dimensions | Technical Specifications



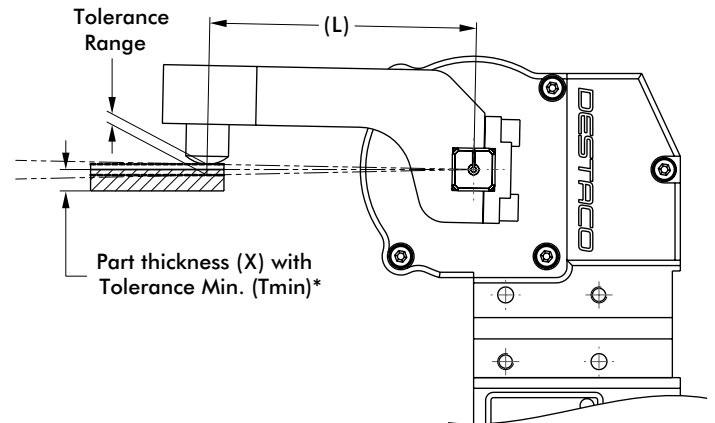
Model	Max. Holding Torque Nm [ft-lb]	Max. Clamping Torque Nm [ft-lb]	Weight kg [lbs]	B23 Max.	L17
92W-103000202	[332] 450	[7.4-89] 10-120	[7.93] 3,6	54,5 [2.15]	10 [0.39]
92W-123000202				66,5 [2.62]	16 [0.63]

## Enclosed Electric Power Clamps | Smart Clamp | Technical Specifications

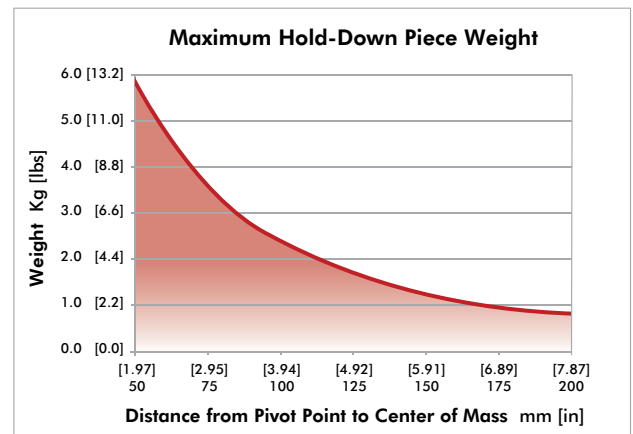
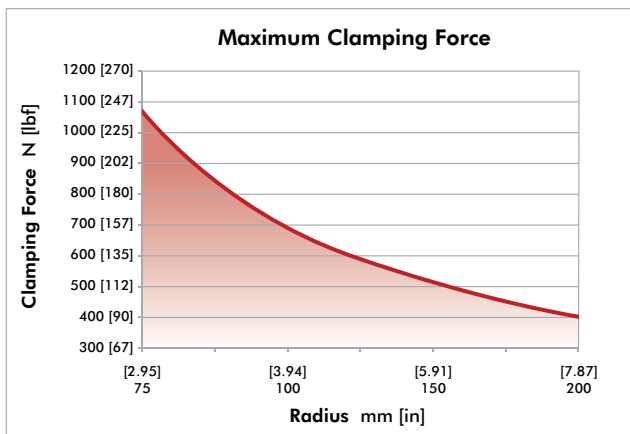
### Part Present Control and Tolerance Compensation

Distance (L) [in] mm	Part Thickness (X) Min. Tolerance (Tmin)* [in] mm	Tolerance Range [in] mm
[3.94 ±0.004] 100 ±0,1	[±0.0098] ±0,25	[0.019] 0,5
[5.91 ±0.004] 150 ±0,1	[±0.0138] ±0,35	[0.027] 0,7
[7.87 ±0.004] Max. 200 ±0,1 Max.	[±0.0177] ±0,45	[0.031] 0,9

\*Specification only as a guideline



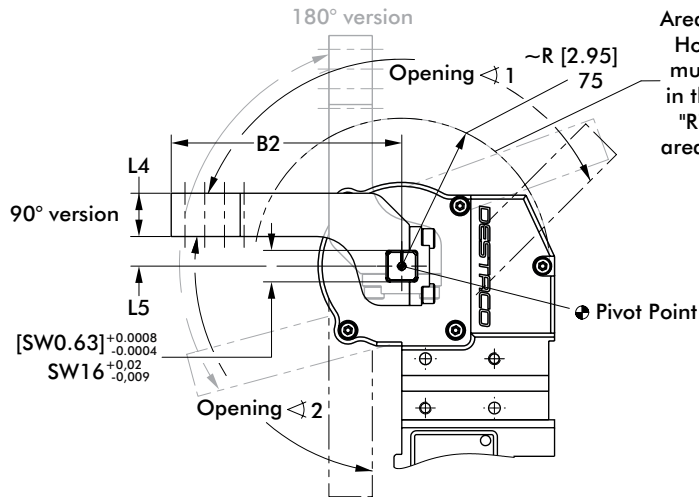
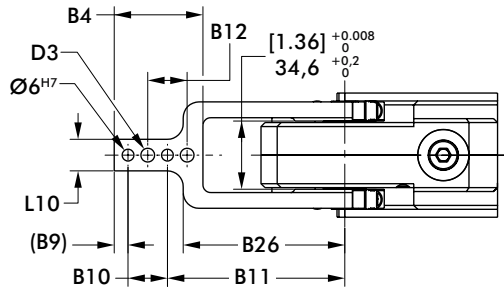
### Technical Specifications



# 92W-1 U-ARMS CENTER (ALUMINUM)

Enclosed Electric Power Clamps | Dimensions | Technical Specifications

## U-Clamp Arm, Center



Area of interference  
Hold-down piece  
must not protrude  
in the interior area  
"R75" due to the  
area of interference

- 8UM404-00-117
- 8UM404E-15-117
- 8UM404E-15-144
- 8UM404E-25-117
- 8UM404E-45-107
- 8UM404-41-131

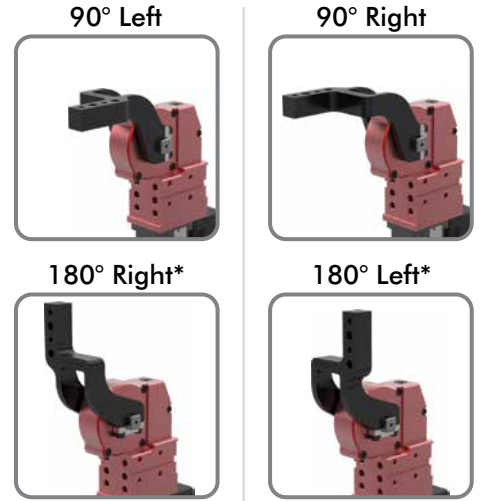
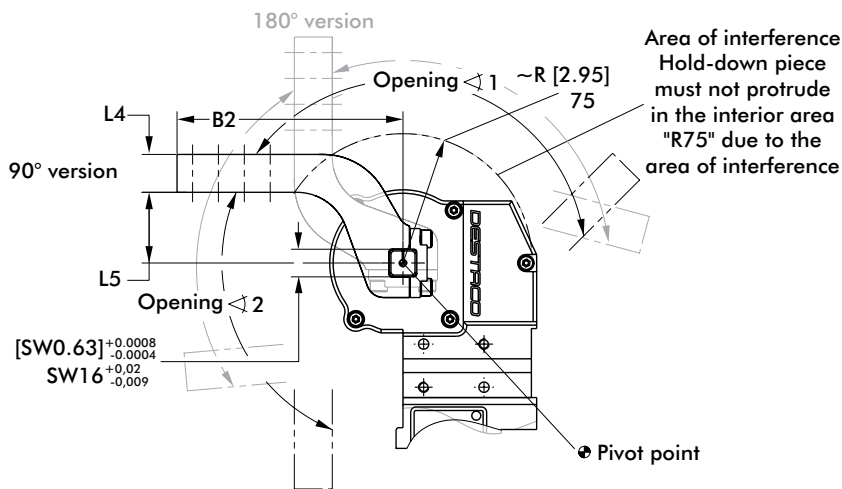
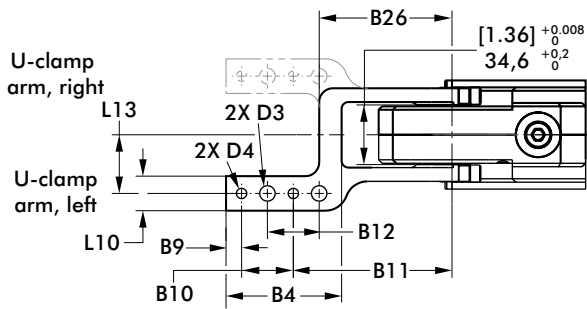
Arm Model No.	Max. Opening Angle for 90° Version		Max. Opening Angle for 180° Version		Weight kg [lbs]	B2	B4	B9	B10	B11	B12	B26	D3	L4	L5	L10
	$\sphericalangle 1$	$\sphericalangle 2$	$\sphericalangle 1$	$\sphericalangle 2$												
8UM404-00-117	135°	85°	55°	140°	[0.49] 0,22	[4.61] 117	[1.77] 45	[0.28] 7	[0.79] 20	[3.54] 90	[0.79] 20		[0.28] 7	[0.87] 22	0	[0.63] 16
8UM404E-15-117		70°	105°	[0.51] 0,23	[5.67] 144	[2.83] 72	[0.35] 9	[1.18] 30	[4.13] 105	[1.18] 30	[3.23] 82	[0.35] 9	[1.10] 28	[0.59] 15	[0.79] 20	
8UM404E-15-144		90°	90°	100°	[0.73] 0,33	[4.61] 117	[1.77] 45	[0.28] 7	[0.79] 20	[3.54] 90	[0.79] 20		[0.28] 7		[0.98] 25	[0.63] 16
8UM404E-25-117		130°	110°	95°	[0.53] 0,24	[4.21] 107	[1.77] 45	[0.28] 7	[0.79] 20	[3.15] 80	[0.79] 20	[2.83] 72	[0.28] 7	[0.87] 22	[1.77] 45	[0.63] 16
8UM404E-45-107		135°	105°	95°	[0.64] 0,29	[5.16] 131	[2.64] 67	[0.35] 9	[1.18] 30	[3.62] 92	[1.18] 30	[3.03] 77	[0.35] 9		[1.61] 41	[0.79] 20
8UM404-41-131																

Dimensions = [in] mm

# 92W-1 U-ARMS OFFSET (ALUMINUM)

Enclosed Electric Power Clamps | Dimensions | Technical Specifications

## U-Clamp Arm, Offset



- |                |                |
|----------------|----------------|
| 8UL404-00-117  | 8UR404-00-117  |
| 8UL404E-15-117 | 8UR404E-15-117 |
| 8UL404E-25-117 | 8UR404E-25-117 |
| 8UL404E-45-107 | 8UR404E-45-107 |
| 8UL404E-15-144 | 8UR404E-15-144 |
| 8UL404-41-131  | 8UR404-41-131  |

\*90° left/180° right uses same clamp arm.  
90° right/180° left uses same clamp arm.

Arm Model No. Left 90° / Right 180°	Arm Model No. Right 90° / Left 180°	Max. Opening Angle for 90° Version		Max. Opening Angle for 180° Version		Weight kg [lbs]
		$\sphericalangle 1$	$\sphericalangle 2$	$\sphericalangle 1$	$\sphericalangle 2$	
8UL404-00-117	8UR404-00-117	135°	85°	55°	140°	0,22 [0.49]
8UL404E-15-117	8UR404E-15-117		70°	105°	0,23 [0.51]	
8UL404E-25-117	8UR404E-25-117		90°	100°	0,24 [0.53]	
8UL404E-45-107	8UR404E-45-107		110°	95°		
8UL404E-15-144	8UR404E-15-144		70°	105°	0,35 [0.77]	
8UL404-41-131	8UR404-41-131		105°	95°	0,30 [0.66]	

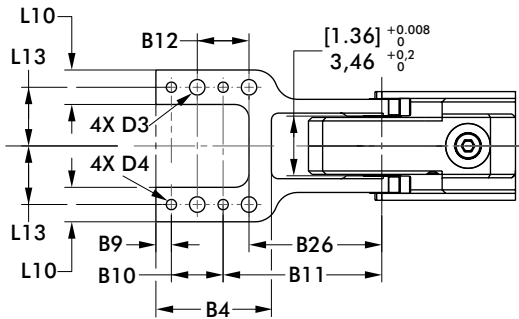
Arm Model No. Left 90° / Right 180°	Arm Model No. Right 90° / Left 180°	B2	B4	B9	B10	B11	B12	B26	L4	L5	$\varnothing D3$	$\varnothing D4$	L10	L13
					$[\pm 0.0008]$ $\pm 0,02$	$[\pm 0.004]$ $\pm 0,1$	$[\pm 0.008]$ $\pm 0,2$		$[\pm 0.004]$ $\pm 0,1$			H7		$[\pm 0.004]$ $\pm 0,1$
8UL404-00-117	8UR404-00-117									0				
8UL404E-15-117	8UR404E-15-117	[4.61] 117	[1.77] 45	[0.28] 7	[0.79] 20	[3.54] 90	[0.79] 20	[3.23] 82	[0.87] 22	[0.59] 15	[0.28] 7		[0.63] 16	[0.91] 23
8UL404E-25-117	8UR404E-25-117									[0.98] 25				
8UL404E-45-107	8UR404E-45-107	[4.21] 107				[3.15] 80		[2.83] 72		[1.77] 45		[0.24] 6		
8UL404E-15-144	8UR404E-15-144	[5.67] 144	[2.83] 72			[4.13] 105		[3.23] 82	[1.10] 28	[0.59] 15				[1.46] 37
8UL404-41-131	8UR404-41-131	[5.16] 131	[2.64] 67	[0.35] 9	[1.18] 30	[3.62] 92	[1.18] 30	[3.03] 77	[0.87] 22	[1.61] 41	[0.35] 9		[0.79] 20	[1.34] 34

Dimensions = [in] mm

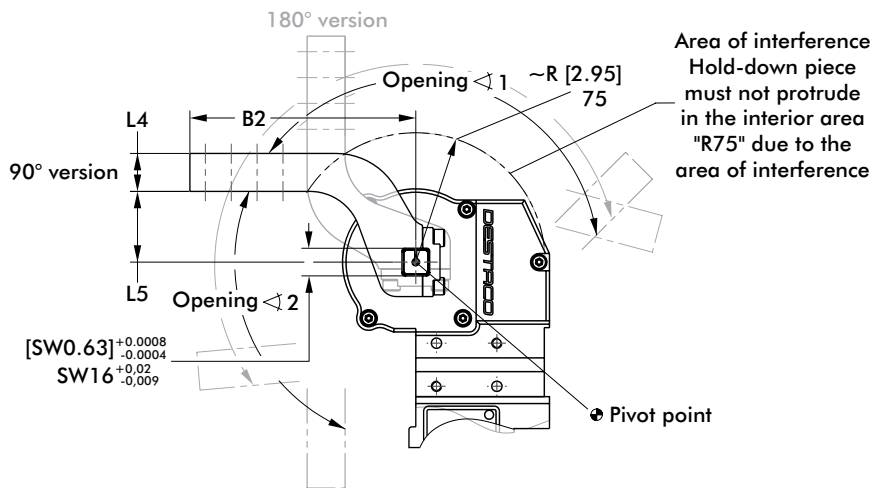
# 92W-1 H-ARMS (ALUMINUM)

Enclosed Electric Power Clamps | Dimensions | Technical Specifications

## H-Clamp Arms



8UH404E-15-117  
8UH404E-15-144  
8UH404-41-131

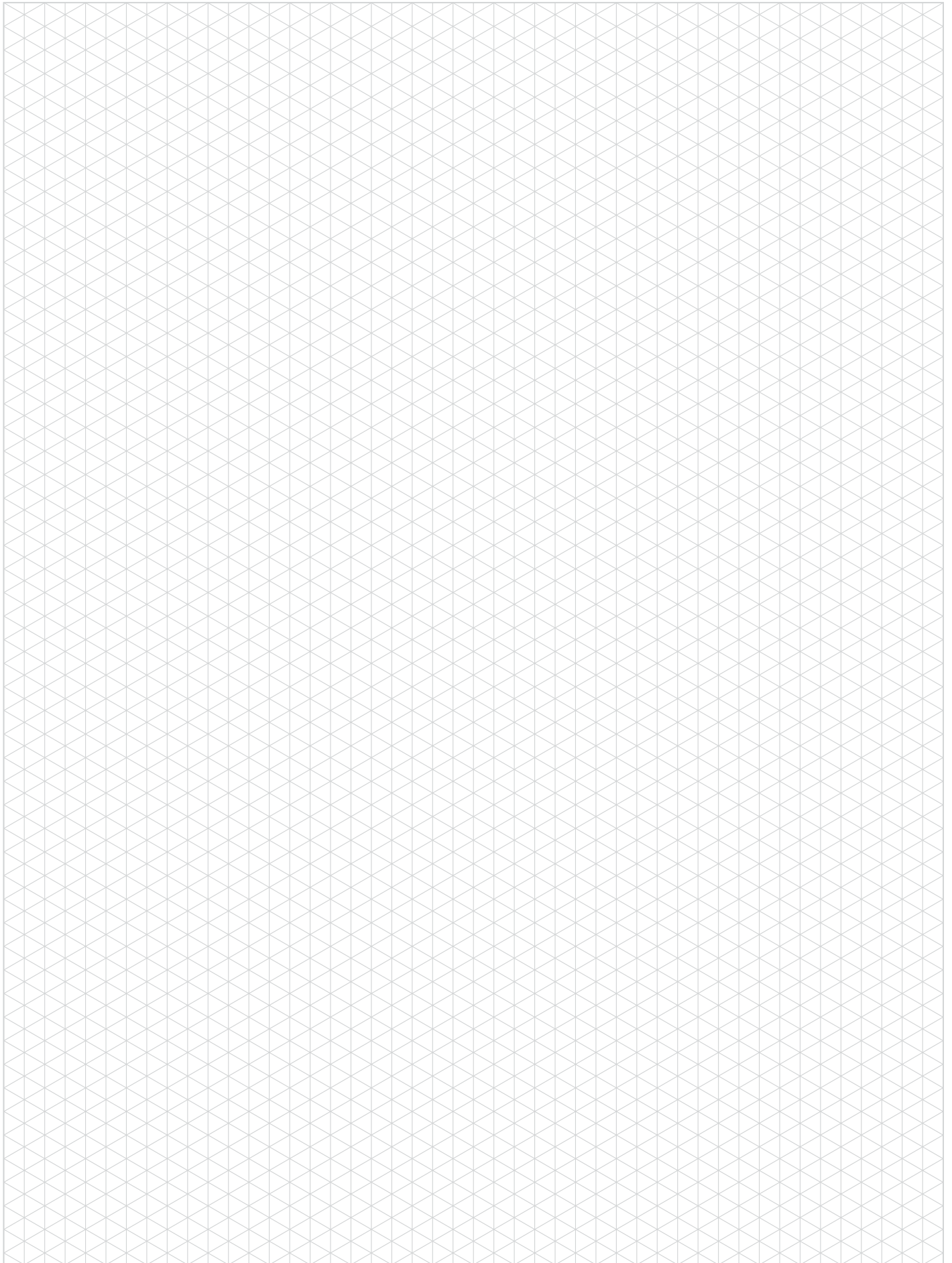


Arm Model No.	Max. Opening Angle for 90° Version		Max. Opening Angle for 180° Version		Weight kg [lbs]
	$\sphericalangle 1$	$\sphericalangle 2$	$\sphericalangle 1$	$\sphericalangle 2$	
8UH404E-15-117			70°	105°	[0.57] 0,26
8UH404E-15-144	135°	90°			[1.01] 0,46
8UH404-41-131			105°	95°	[0.82] 0,37

Arm Model No.	B2	B4	B9	B10	B11	B12	B26	L4	L5	D3	D4	L10	L13
8UH404E-15-117	[4.61] 117	[1.77] 45	[0.28] 7	[0.79] 20	[3.54] 90	[0.79] 20	[3.23] 82	[0.87] 22	[0.59] 15	[0.28] 7		[0.63] 16	[0.91] 23
8UH404E-15-144	[5.67] 144	[2.83] 72	[0.35] 9	[1.18] 30	[4.13] 105	[1.18] 30		[1.10] 28			[0.24] 6	[0.79] 20	[1.46] 37
8UH404-41-131	[5.16] 131	[2.64] 67			[3.62] 92		[3.03] 77	[0.87] 22	[1.61] 41	[0.35] 9			[1.34] 34

Dimensions = [in] mm







# 95W-1

Electric Slide | Smart Slide | How to Order

**95W-1** **01** **02** **10** **60**

Motor Connection	Description
00	Straight, without Drive
01	Straight, Rear Connections
02	Straight, Connections on Right
03	Straight, Connections on Left
10	Redirected, without Drive
11	Redirected, Rear Connections
12	Redirected, Connections on Right
13	Redirected, Connections on Left

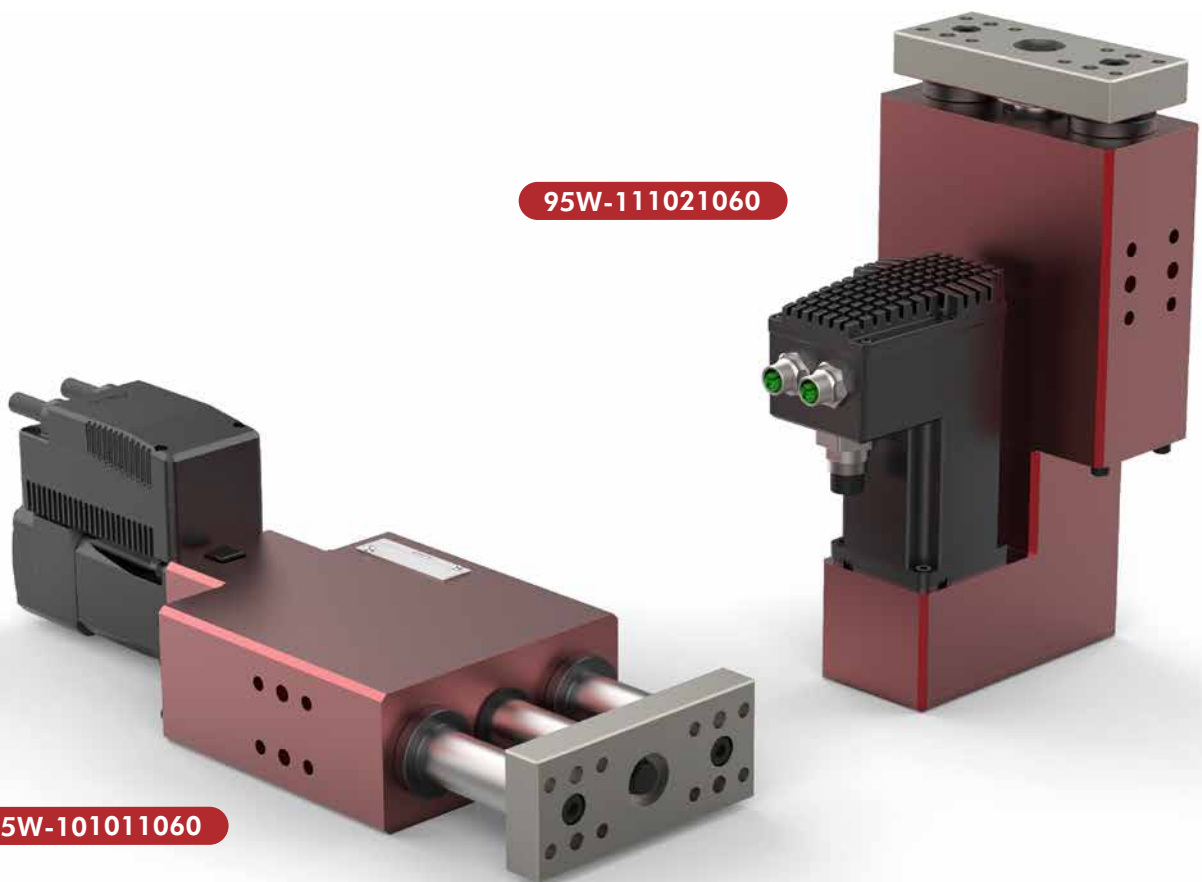
Motor	Description
01	Servo Drive, Decentral 400 V
02	Servo Drive, Decentral 48 V

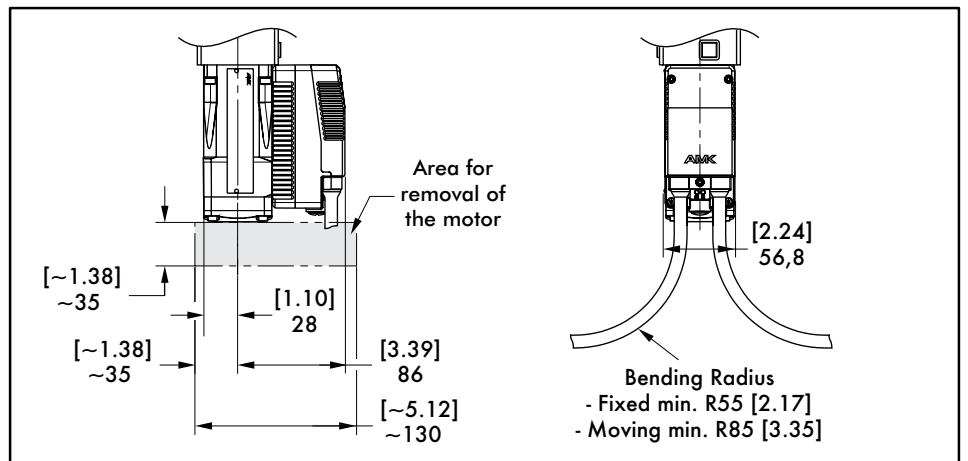
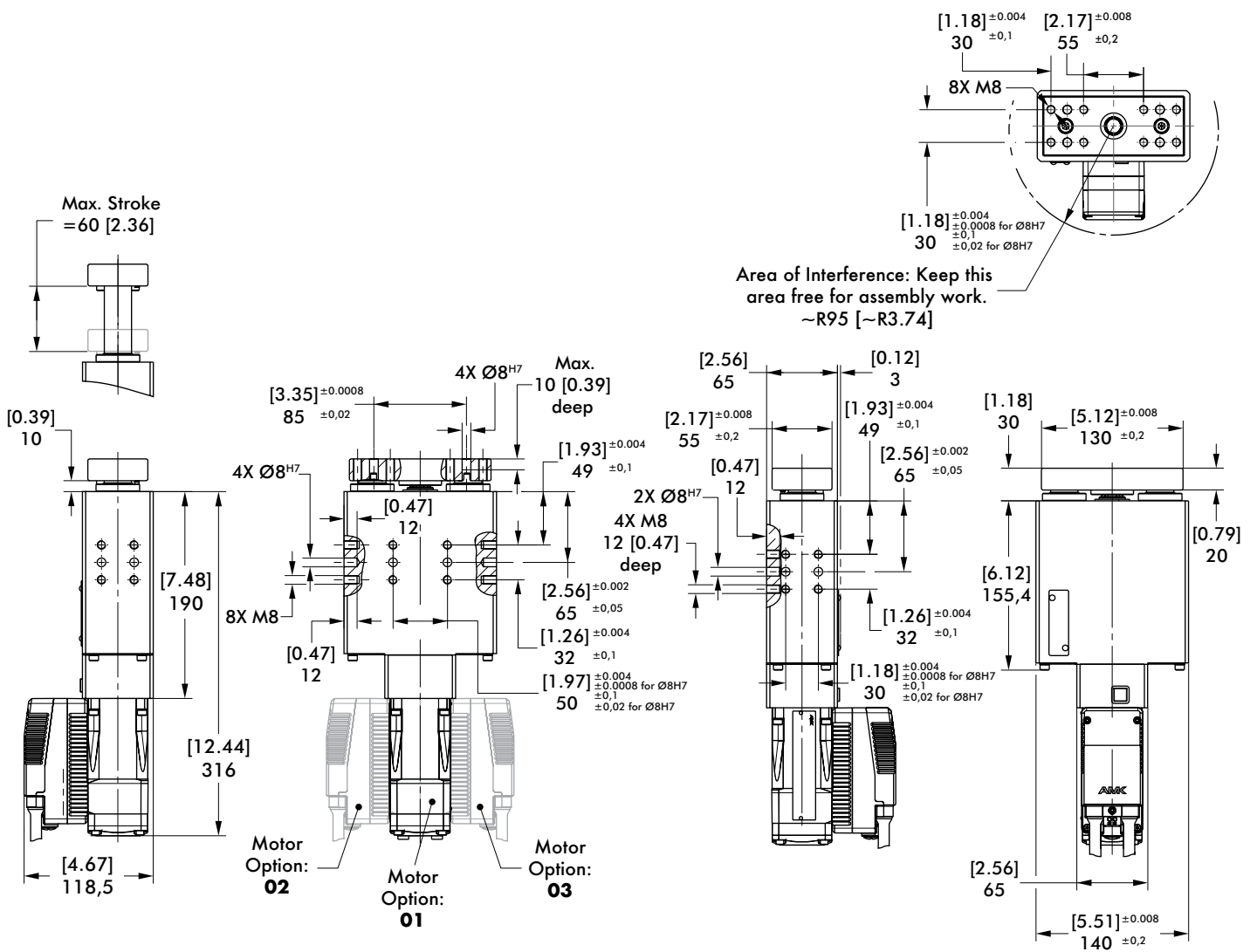
Stroke	Description
60	0-60 mm Stroke, Standard

Mounting Plate	Description
10	Mounting Plate, Standard

**95W-111021060**

**95W-101011060**

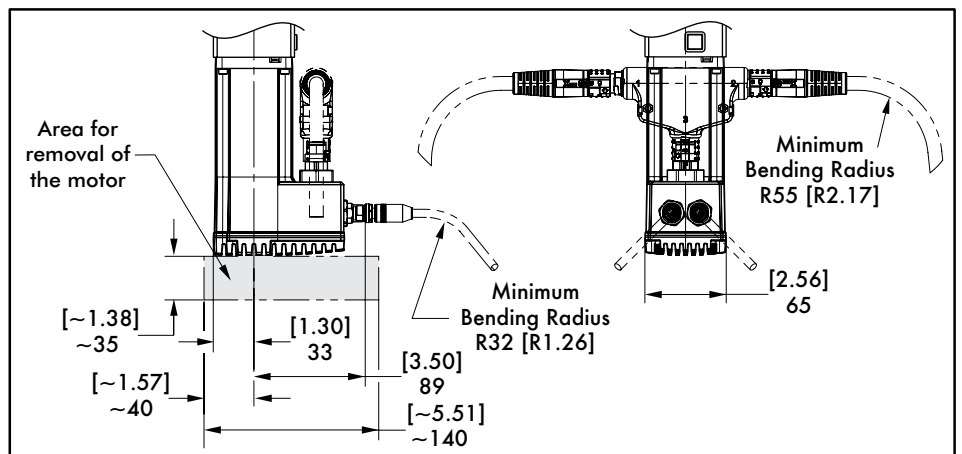
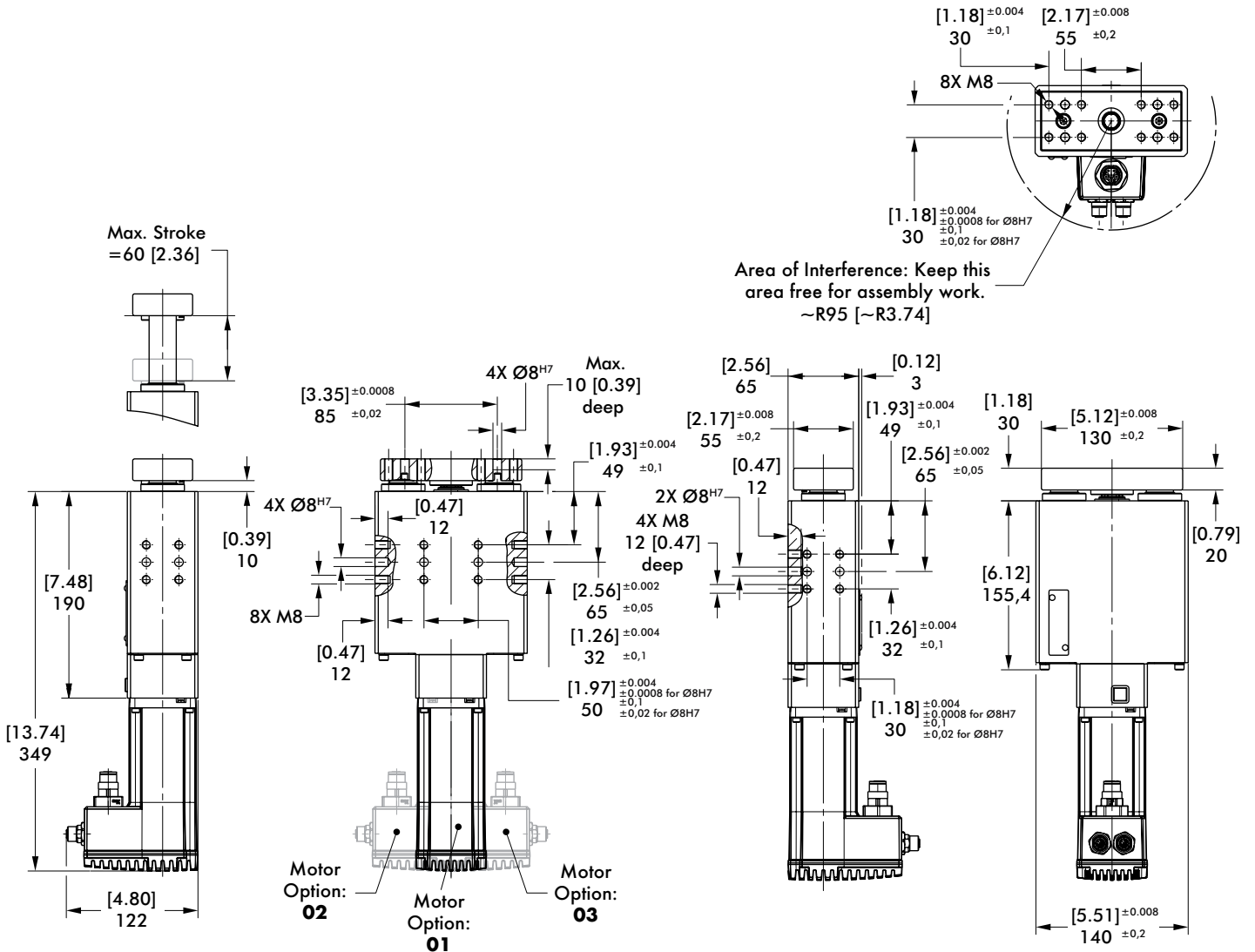




Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
95W-10.011060	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[16.09] 7,3

# 95W-10.021060

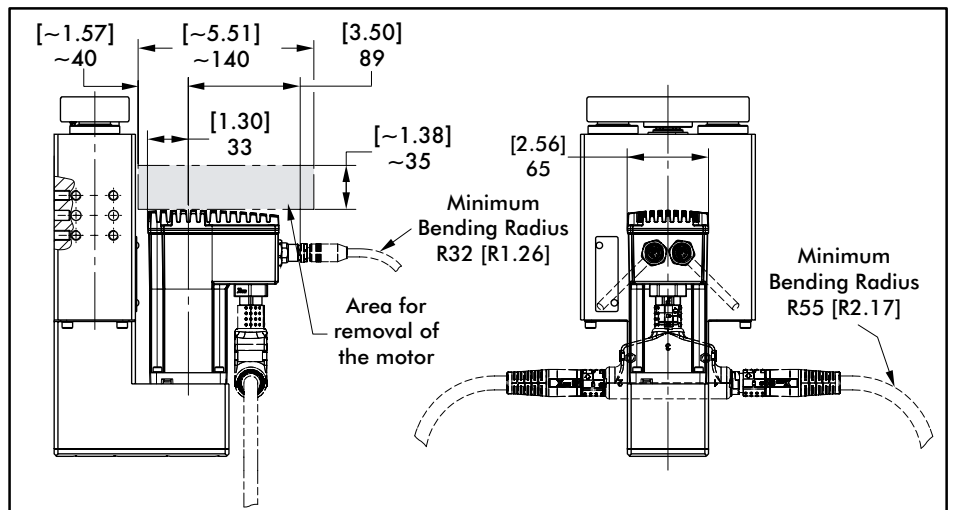
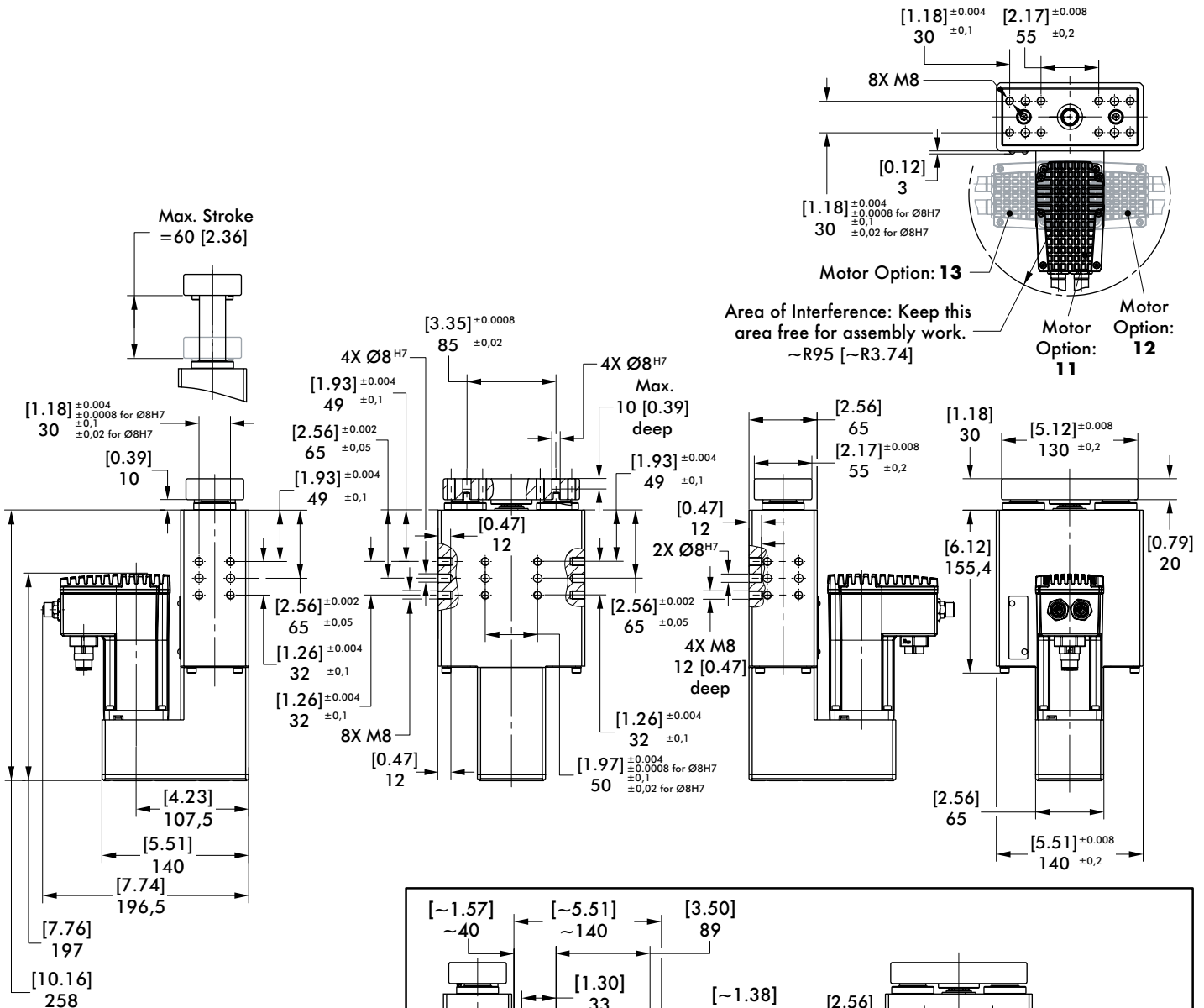
Electric Slide | Smart Slide | Dimensions | Technical Specifications



Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
95W-10.021060	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[16.31] 7,4

# 95W-11.021060

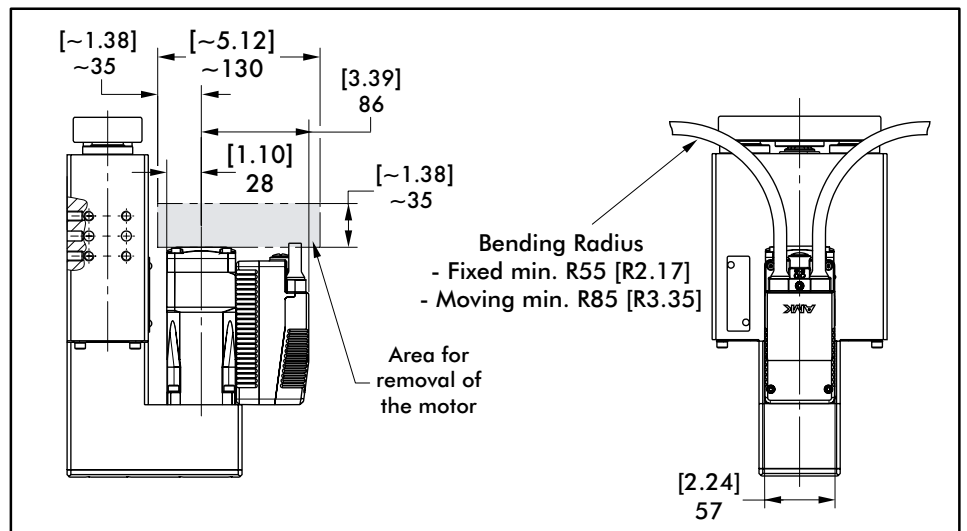
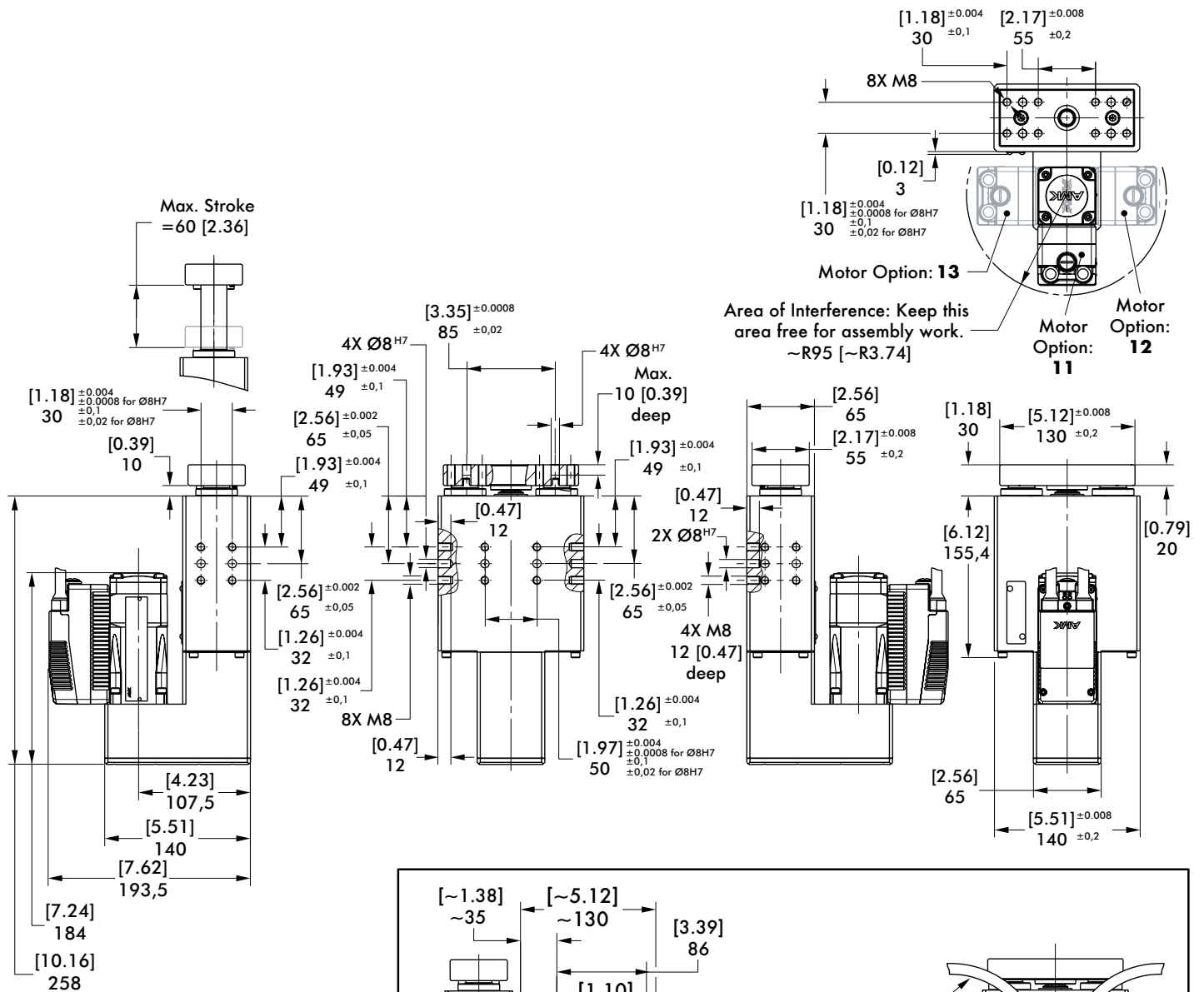
## Electric Slide | Smart Slide | Dimensions | Technical Specifications



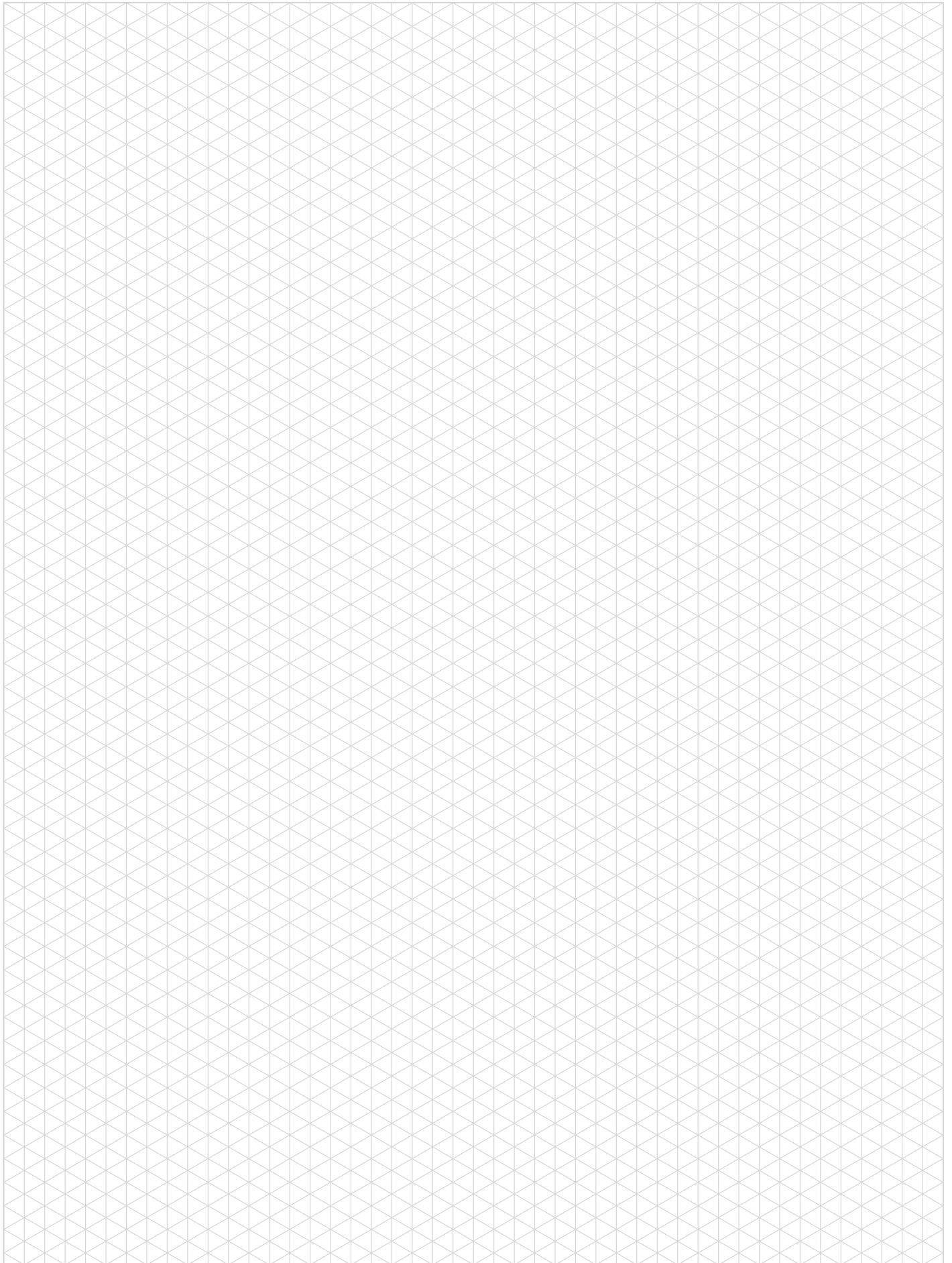
Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
95W-11.021060	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[19.84] 9,0

# 95W-11.011060

Electric Slide | Smart Slide | Dimensions | Technical Specifications



Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
95W-11.011060	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[20.06] 9,1





# 96W-1

Electric Pin Package | Smart Pin Package | How to Order

Motor Connection	Description
00	Straight, without Drive
01	Straight, Rear Connections
02	Straight, Connections on Right
03	Straight, Connections on Left
10	Redirected, without Drive
11	Redirected, Rear Connections
12	Redirected, Connections on Right
13	Redirected, Connections on Left

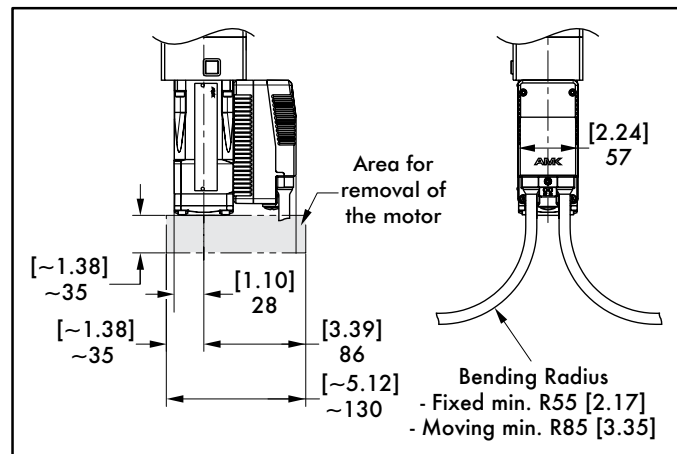
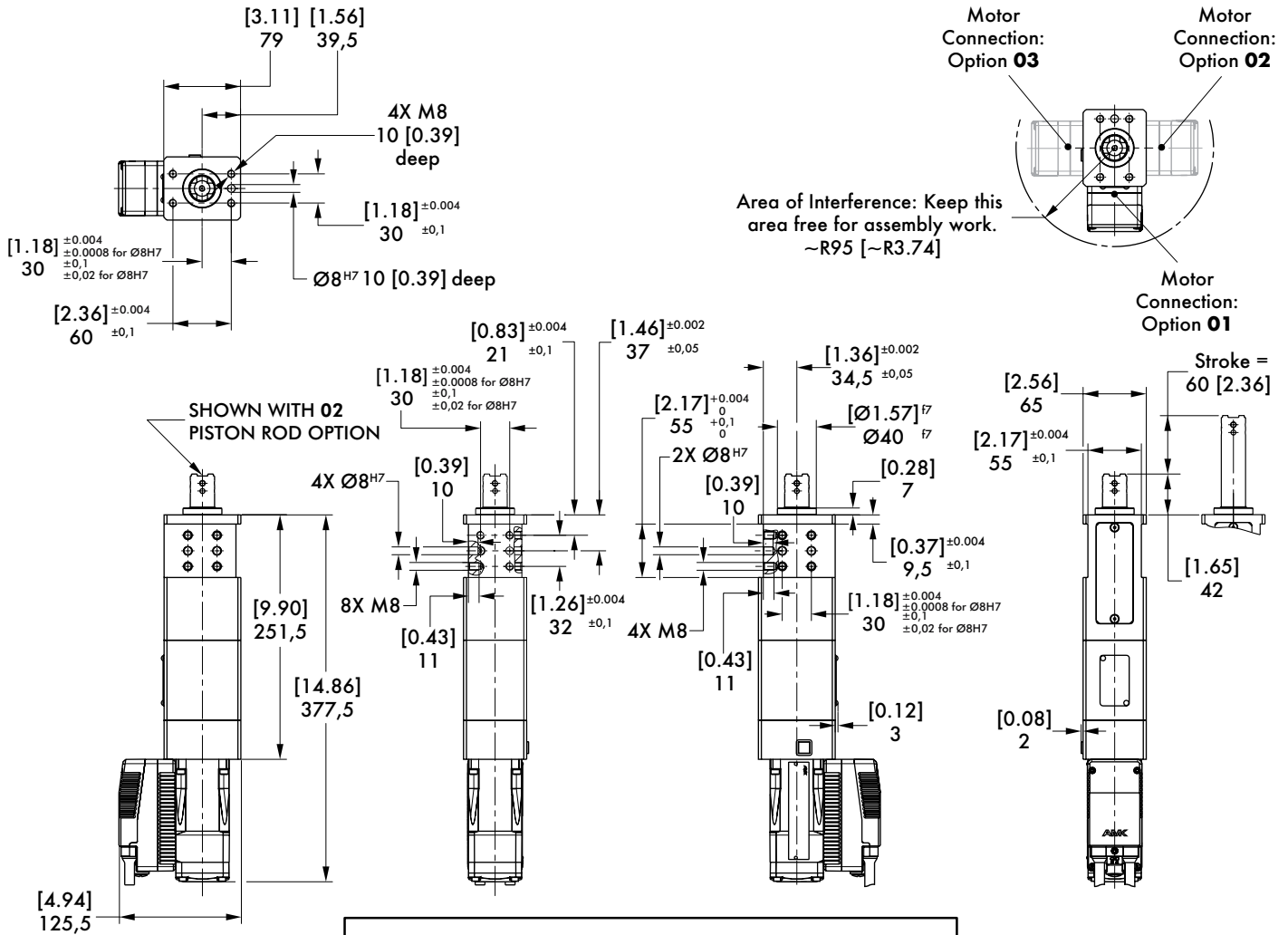
Motor	Description
01	Servo Drive, Decentral 400 V
02	Servo Drive, Decentral 48 V

**96W-1** **01** **02** **A4** **60**

Stroke	Description
60	0-60 mm Stroke, Standard

Piston Rod	Description
02	Ø16 mm M6 Threaded Inside Hole, Cross Groove
04	NAAMS Standard
A4	NAAMS Standard Rotated 180°
B4	NAAMS Standard Rotated 90°
C4	NAAMS Standard Rotated 270°
05	Ø10 mm Inside Hole, Cross Groove

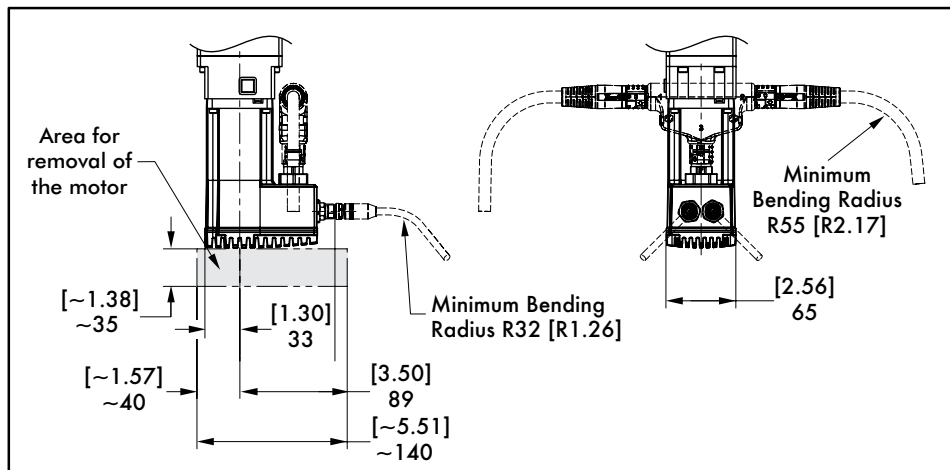
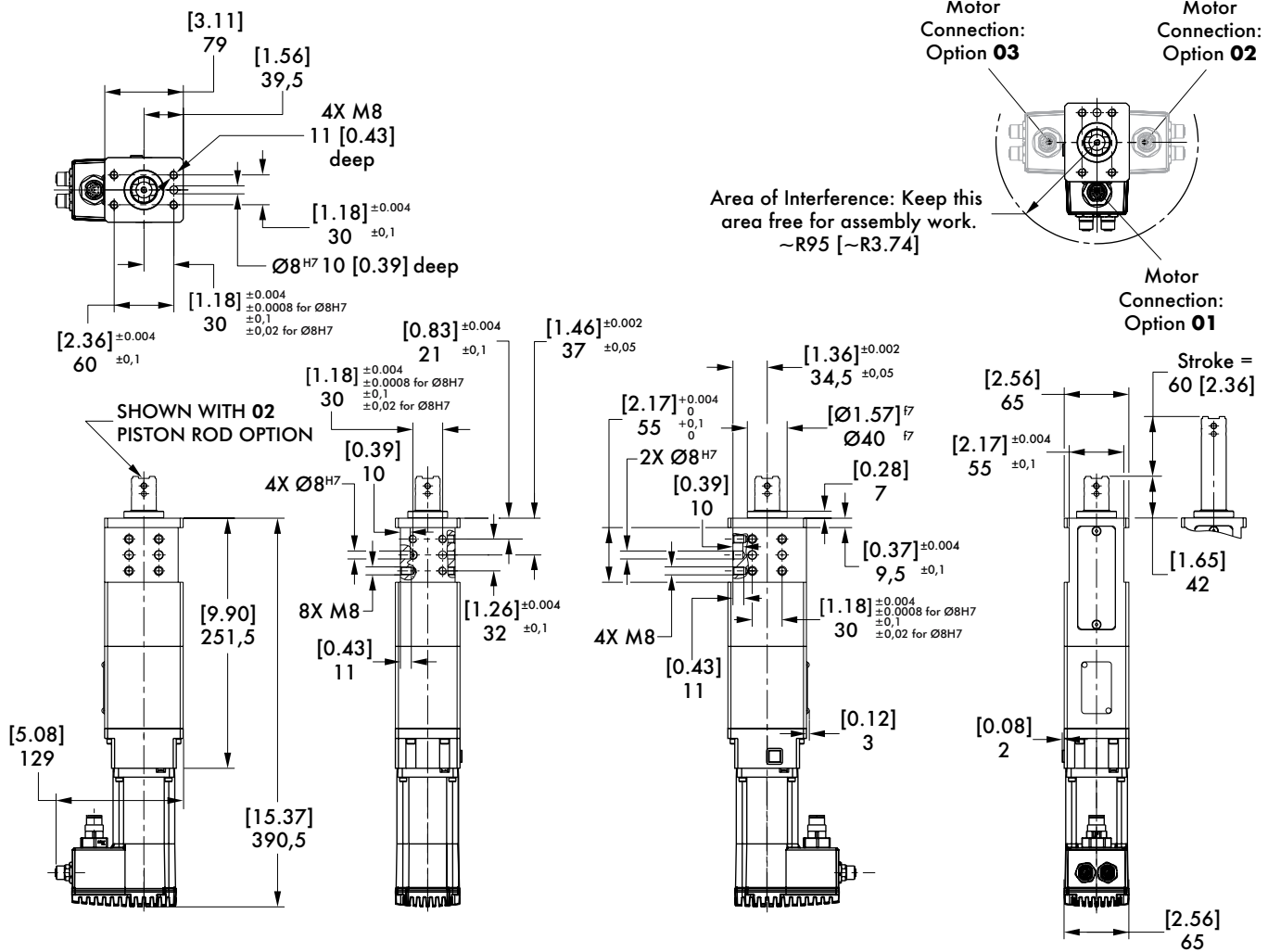




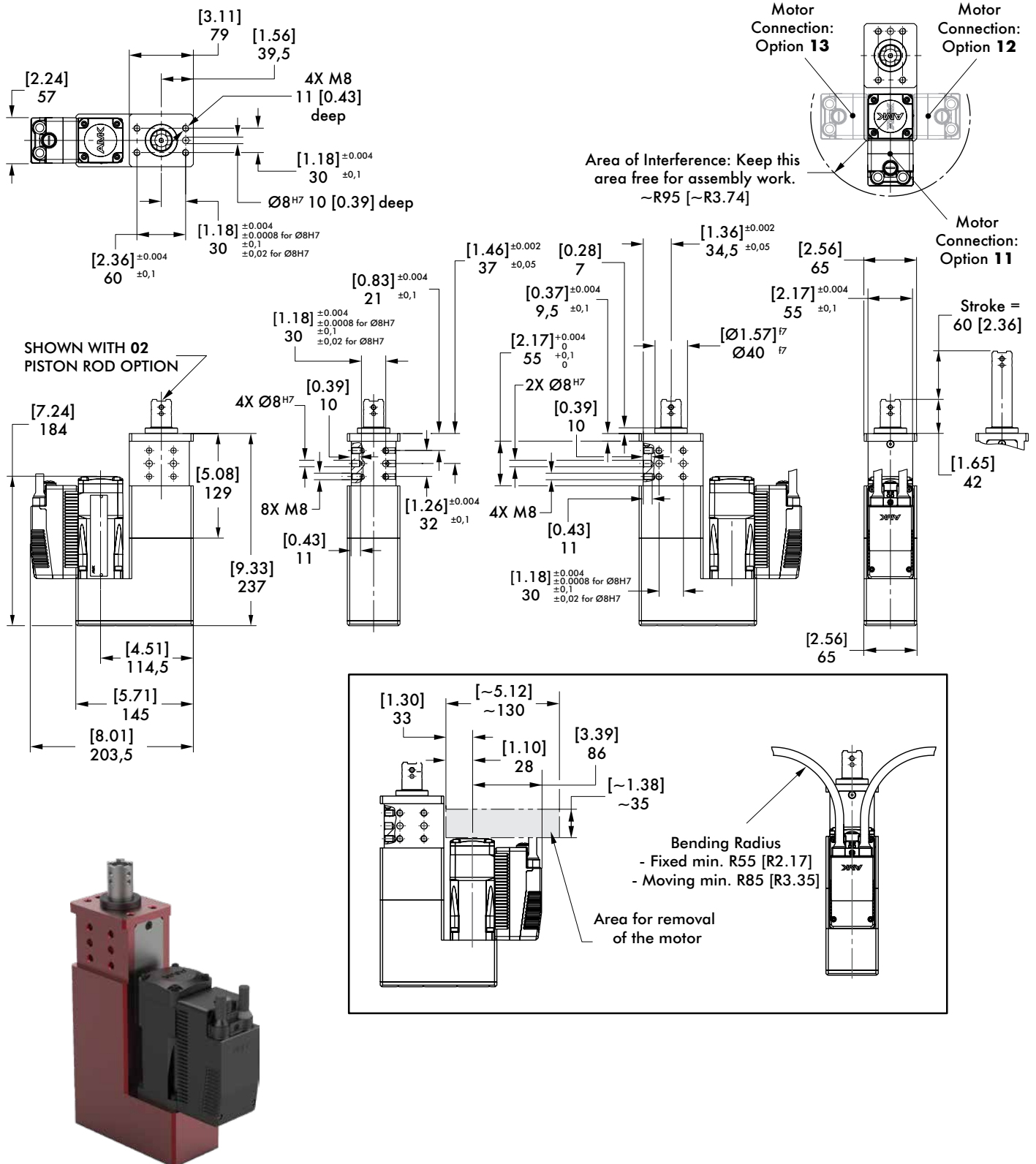
Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
96W-10.01..60	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[12.57] 5,7

# 96W-10.02..60

Electric Pin Package | Smart Pin Package | Dimensions | Technical Specifications



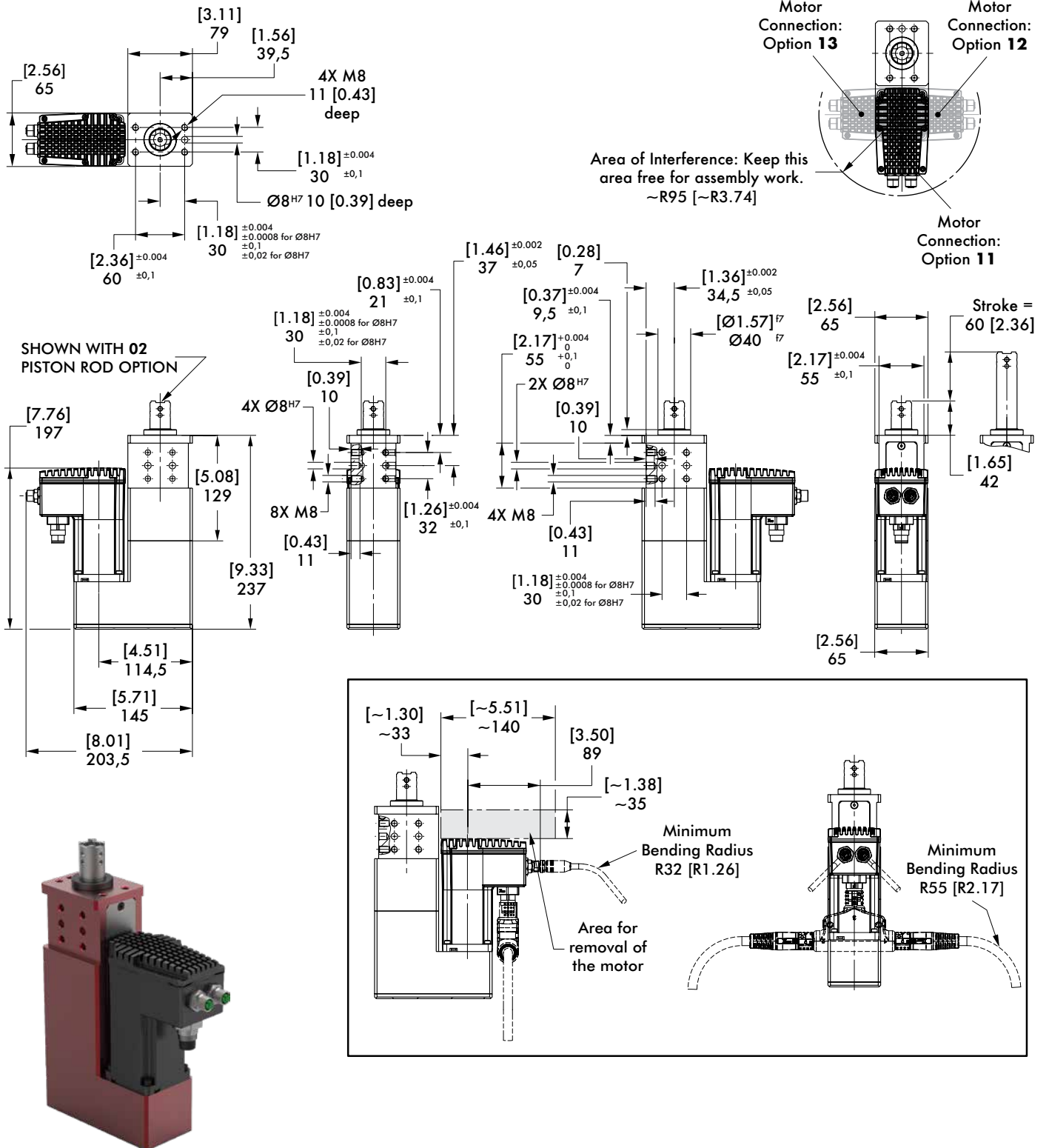
Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
96W-10.02..60	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[11.90] 5,4



Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
96W-11.01..60	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[13.23] 6,0

# 96W-11.02..60

Electric Pin Package | Smart Pin Package | Dimensions | Technical Specifications

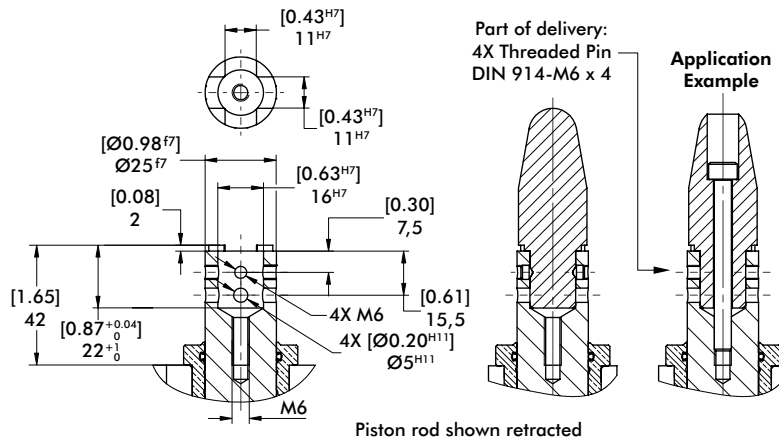


Base Model	Stroke mm [in]	Thrust Force N [lbf]	Retraction Force N [lbf]	Speed Max. mm/s [in/s]	Weight Kg [lbs]
96W-11.02..60	[0-2.36] 0-60	[225] 1000	[225] 1000	[2.36] 60	[13.23] 6,0

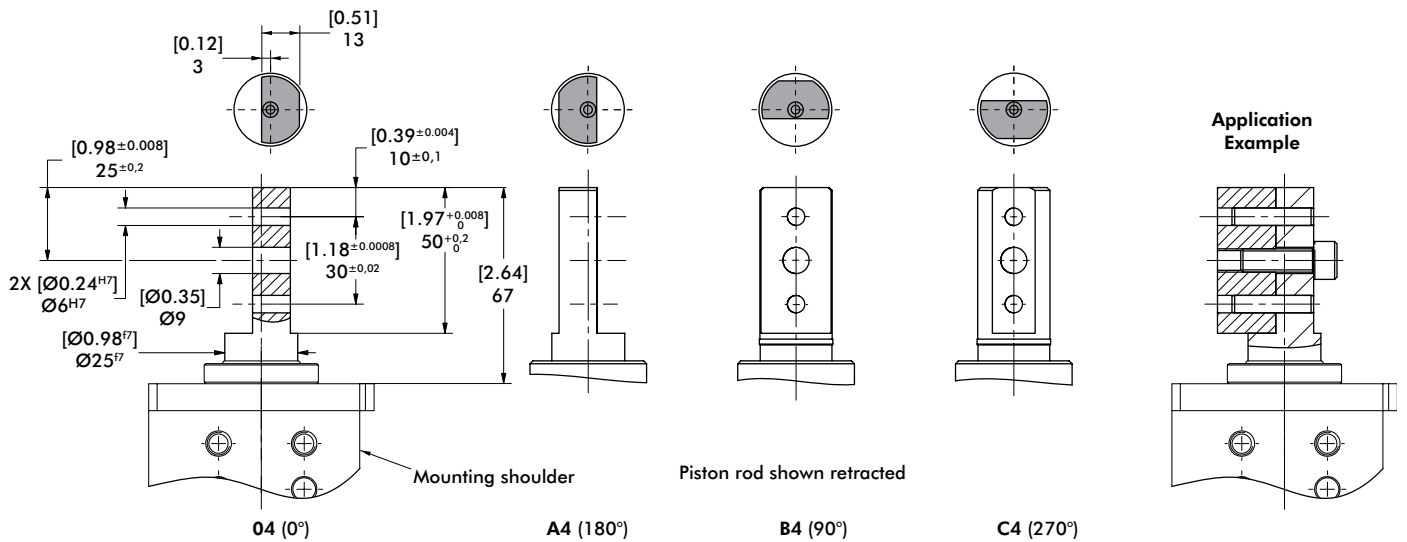
# 96W-1 PISTON RODS

Electric Pin Package | Smart Pin Package | Dimensions

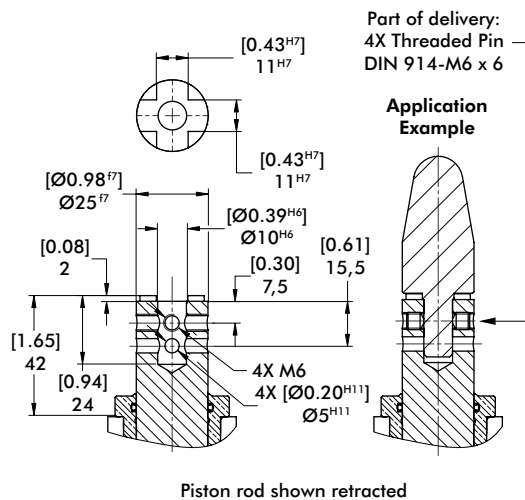
## 02 Ø16 mm M6 Threaded Inside Hole, Cross Groove



## 04, A4, B4, C4 NAAMS Standard



## 05 Ø10 mm Inside Hole, Cross Groove



# 98W03-2

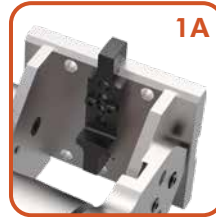
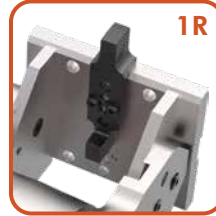
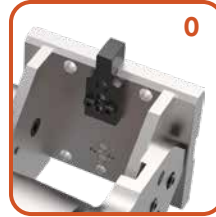
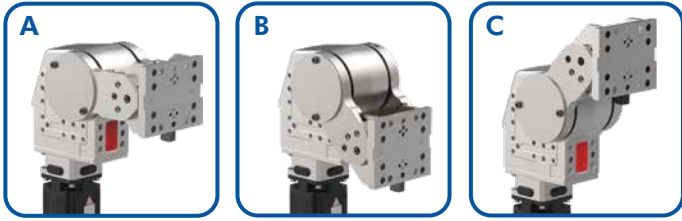
## Electric Pivot Unit | Ordering Information

98W03-2 10 A 0 - 00 - 0

Motor	Description
10	SEW 400V-Brake

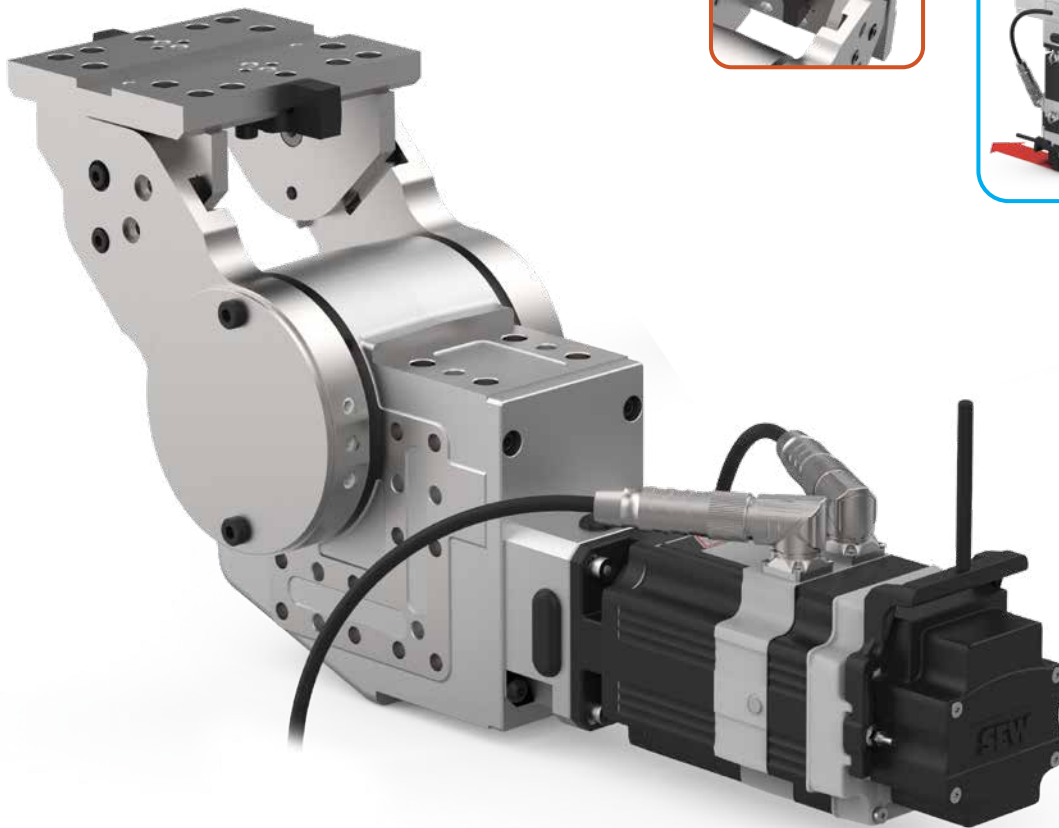
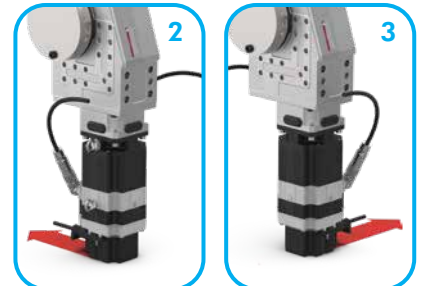
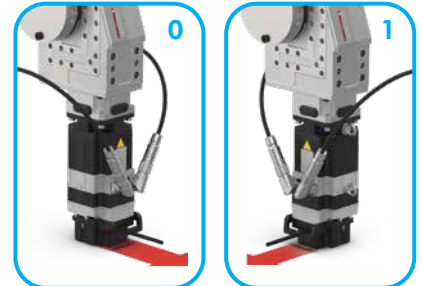
Hard Stop	Description
0	Standard Stop
1R	Audi-Standard Reference Position
1A	Audi-Standard Working Position 0°

Swivel Arm	Description
A	Center of Pivot Point
B	Below Pivot Point
C	Above Pivot Point



### Connections

- 0 Facing Back
- 1 Facing Left
- 2 Facing Front
- 3 Facing Right



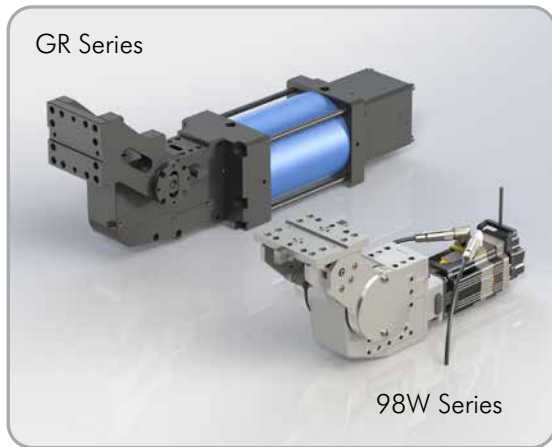
**98W03-210**

Holding Torque:  
2000 Nm [1475 ft-lb]



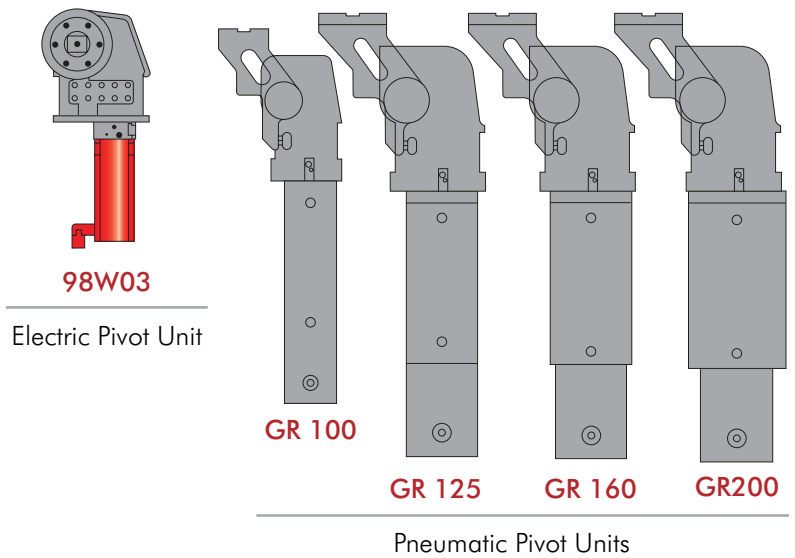
## Electric Pivot Unit | Features and Benefits

### Compact size and lightweight design



The 98W series electric pivot unit can share the same mounting pattern as the pneumatic pivot units, while providing greater energy savings with reduced size and weight.

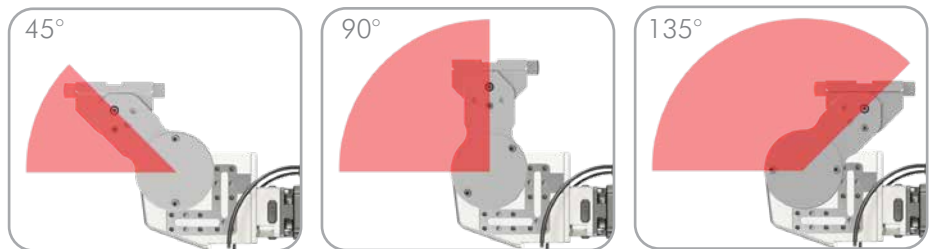
### One electric pivot unit replaces four sizes of pneumatic pivot units



### Easily adjustable saddle arm and mount

The saddle arm of the electric pivot unit can be adjusted into three different starting positions. Each starting position allows the saddle arm to be pivoted from 135° up to 210°.

Without the saddle arm, the pivot unit can be used as a rotate with 360° rotation.

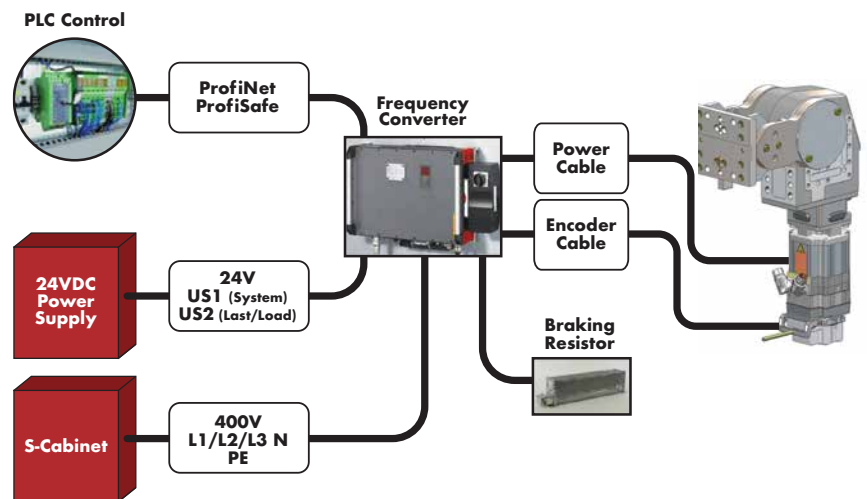


### Application Example

98W Series shown with a holding fixture mounted to the saddle mount.



### Operating Principle

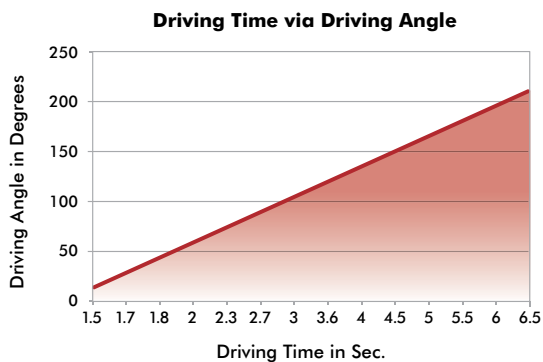






Specification	Units	98W03-210
Input supply voltage for external controller:	VAC	400
Control signals from external PLC		
Return signal to external PLC		
Speeds:		
Rotation from 135° to 0°	sec	4 @ 135°
Holding	sec	3
Rotation from 0° to 135°	sec	4 @ 135°
Holding	sec	3
Gear Ratio		420:1
Torque	Nm [in-lb]	500 [4425]
Static Holding Torque	Nm [in-lb]	2000 [17,701]
Max. Motor Torque (must be limited on the control side)	Nm [in-lb]	6 [53.1]
Max. Permissible Motor Speed	RPM	6000 1/min
Duty Cycle		70%
Permissible Output Speed:		
Radial	N [lbf]	2000 [17,701]
Axial	N [lbf]	5000 [44,254]
E-Stop	N [lbf]	0.4 sec @ 500 [0.4 sec @ 112] = ca. 10°
Acceleration	sec	2
Slow down	sec	2
Weight	Kg [lb]	51,5 [113.54]
Operating Temperature	C° [F°]	0° - 60° [32° - 140°]
Repeatability with Hard Stop	mm [in]	± 0,01 @ 500 [± 0.0004 @ 19.69]
Repeatability without Hard Stop	mm [in]	± 0,05 @ 500 [± 0.002 @ 19.69]

### Driving Time and Angle Guidelines



**Note:**  
 Maximum speed should not exceed 6000 rpm.  
 Velocity must never be in a trapezoidal profile.  
 The velocity must have a triangular or sinusoidal shape. Acceleration ramps or jolt tiles must be adjusted corresponding to the driving angle.

Driving Angle Degrees	Driving Time Sec.	Max Speed RPM	Jolt Time Sec.	Acceleration Ramp ms	Braking Ramp ms	Amplification X-Controller
15	1.4	4017	0.1	500	500	2.23
30	1.7	5862		400	400	
45	1.8	6000		500	500	
60	2.0					
75	2.3					
90	2.7					
105	3.0	5700		700	700	
120	3.6					
135	4.0					
150	4.5	5600		800	800	
165	5.0					
180	5.5					
195	6.0	4500		800	800	
210	6.5					