

EAD - EFDA - EID Telescopic Module



SHE



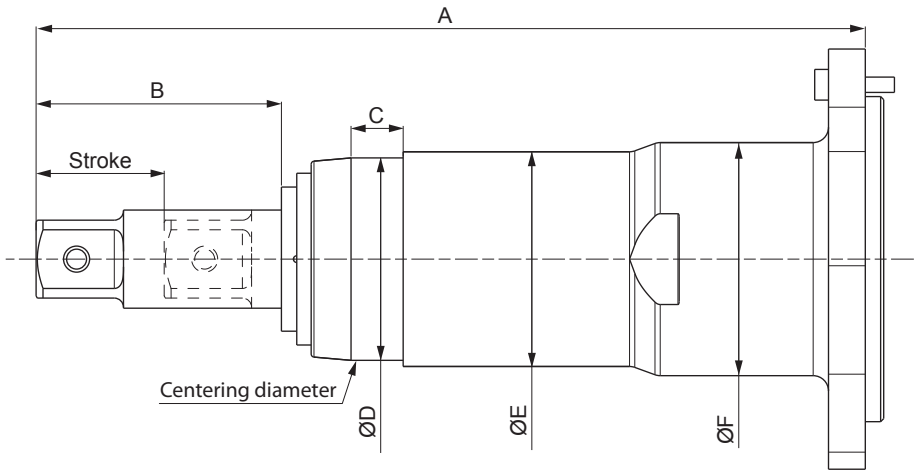
AHE

WHERE USED

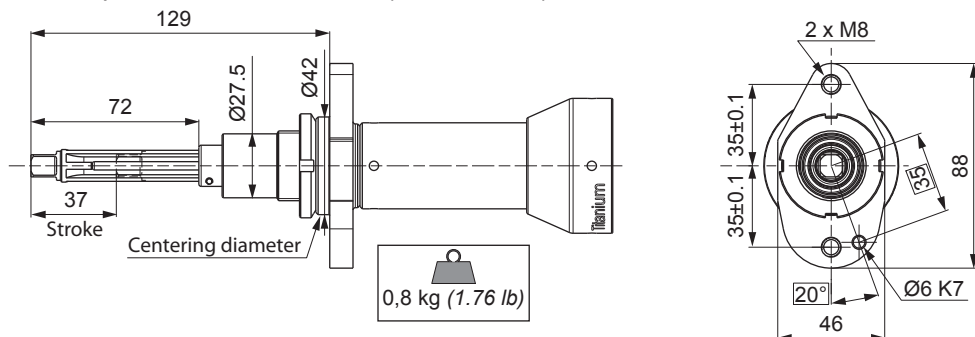
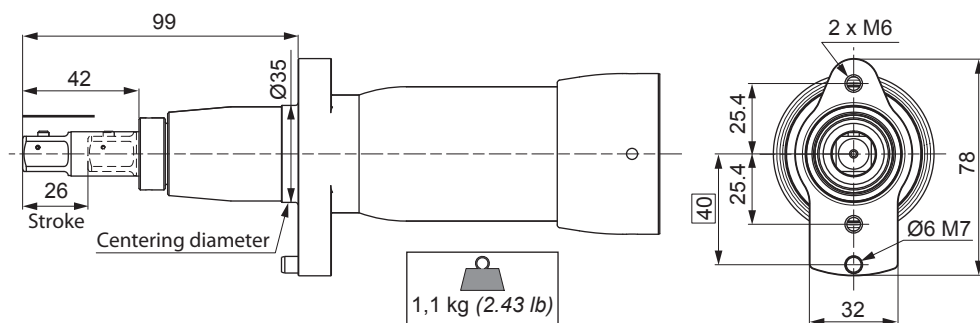
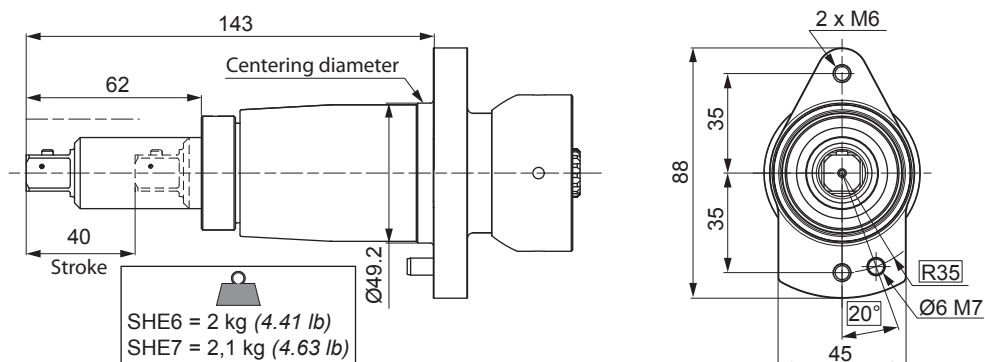
		EID25-1200	6151656140	EID32-900	6151656150	EID44-1200	6151656160	EID65-900	6151656170	EID75-800	6151656180	EID120-660	6151656770	EID170-670	6151656780	EID270-410	6151656790	EID360-300	6151656800	EAD160-430	EAD280-260	EAD280-370	EAD440-250	EAD660-160	EFDA63-190	EFDA107-580
Description	Part Number																									
Telescopic module SHE2 - 3/8"	6153978110	X	X																							
Telescopic module SHE4 - 3/8"	6153981780			X																						
Telescopic module SHE4 - 1/2"	6153980790				X	X																				
Telescopic module SHE6 - 1/2"	6153980800									X	X															
Telescopic module SHE7 - 3/4"	6153980810														X	X										
Telescopic module AHE5 - 1/2"	6153980760																		X							
Telescopic module AHE6 - 3/4"	6153980770																			X	X				X	
Telescopic module AHE7 - 3/4"	6153980780																					X				
Telescopic module AHE8 - 1"	6153981610																							X		X

DATA

AHE module

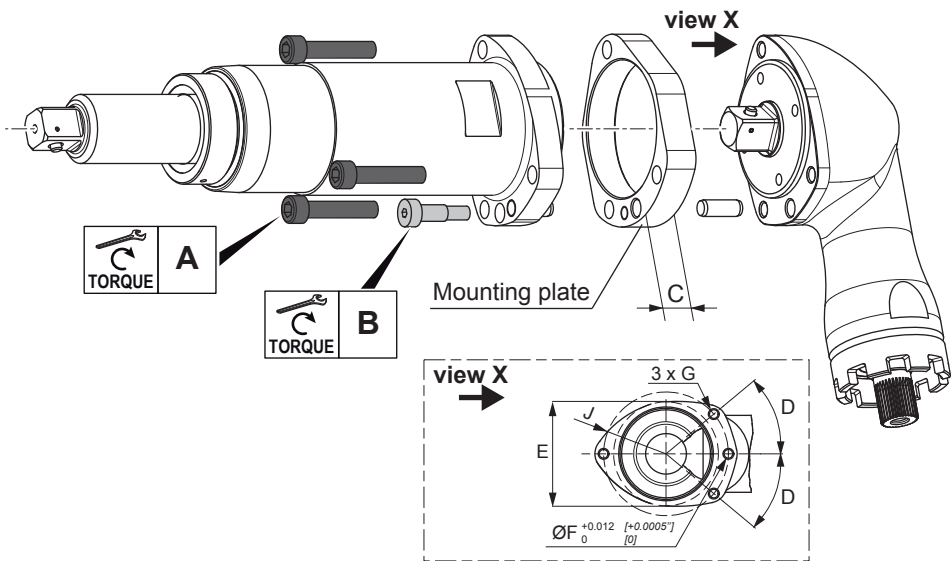


		A	B	C	ØD	ØE	ØF	Stroke	Weight	
Description	Part Number	mm	mm	mm	mm	mm	mm	mm	kg	lb
Telescopic module AHE5 - 1/2"	6153980760	203	62	27	46	48	-	26	2,1	4.63
Telescopic module AHE6 - 3/4"	6153980770	218	62	17	48	52	60	40	2,4	5.29
Telescopic module AHE7 - 3/4"	6153980780	216	67	17	48	52	62	40	2,4	5.29
Telescopic module AHE8 - 1"	6153981610	270	80	17	66	70	76	50	5,5	12.13

SHE module**Telescopic module SHE2 - 3/8" (6153978110)****Telescopic module SHE4 - 3/8" (6153981780)****Telescopic module SHE4 - 1/2" (6153980790)****Telescopic module SHE6 - 1/2" (6153980800)****Telescopic module SHE7 - 3/4" (6153980810)**

INSTALLATION

AHE module



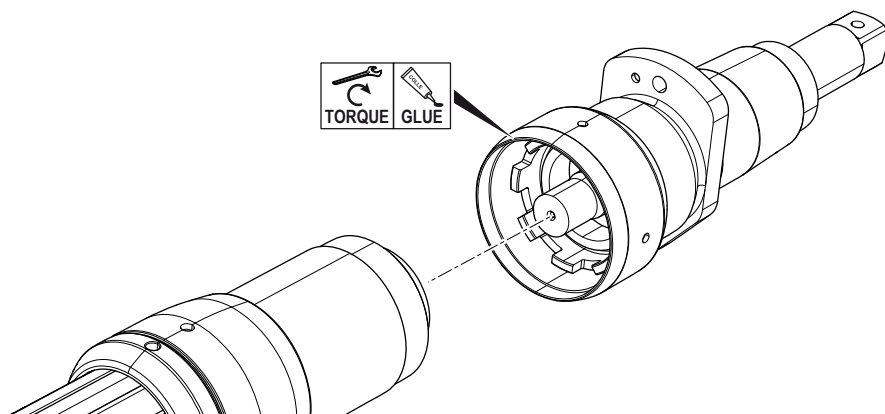
Description	Part number	Tightening torque		Screw	Quality Class
		A (Nm)	B (Nm)		
Telescopic Module AHE5 - 1/2"	6153980760	16	5	M6x30	12.9
Telescopic Module AHE6 - 3/4"	6153980770	16	5	M6x30	12.9
Telescopic Module AHE7 - 3/4"	6153980780	40	5	M8x35	12.9
Telescopic Module AHE8 - 1"	6153981610	79	5	M10x35	12.9



Quality class 12.9 imperative for screws

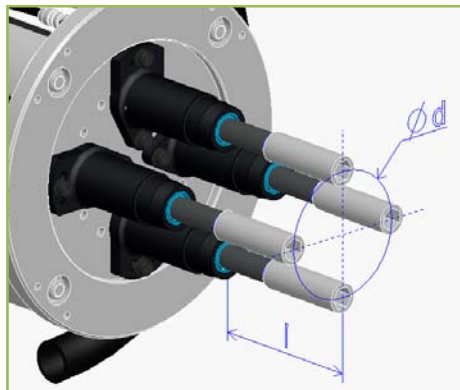
Description	Part number	C	D	E		ØF		G
				mm	in.	mm	in.	
Telescopic Module AHE5 - 1/2"	6153980760	12	40°	51	2.01	6	0.24	M6
Telescopic Module AHE6 - 3/4"	6153980770	12	37°	63	2.48	6	0.24	M6
Telescopic Module AHE7 - 3/4"	6153980780	15	37°	76	2.99	8	0.31	M8
Telescopic Module AHE8 - 1"	6153981610	15	37°	107	4.21	10	0.39	M10

SHE module



Descripton	Part number	Tightening torque	Glue
Telescopic module SHE2 - 3/8"	6153978110	60 Nm	Loctite 274, volume 100 mm ³
Telescopic module SHE4 - 3/8"	6153981780	100 Nm	Loctite 274, volume 200 mm ³
Telescopic module SHE4 - 1/2"	6153980790	100 Nm	Loctite 274, volume 200 mm ³
Telescopic module SHE6 - 1/2"	6153980800	80 Nm	Loctite 243, volume 1/4 thread
Telescopic module SHE7 - 3/4"	6153980810	90 Nm	Loctite 243, volume 1/4 thread

DESIGN LIMITATIONS FOR MULTI SPINDLES



where :

- l (mm) : Total shaft + socket length mesasured fully extended from the front bearing to socket tip
- d (mm) : Pattern diameter on wheel multis or minimum distance between spindle shafts
- C (N.m) : Tightening torque
- A, B, D and E : constants depending on module size (refer to the chart below)
- $k1, k2, k3$ and K : constants depending on module size (refer to the chart below)

Overall recommendations :

- Appropriate torque are applied (Refer to Figure A.).
- If the application requires a longer shaft length "l" than calculated with the equations, it is advised to select a greater size square drive.

N.B : Output shafts of modules 6153981780 (3/8") and 6153980790 (1/2") have a common design and can be swapped.

Three design equations to comply with:

$$l < d \times A/C + B *$$

$$l < d \times D/C + E *$$

$$l < d \times (k1 \times C + k2 + k3/C)/1000 + K *$$

* : equations only applicable when all the constants are set to values in the chart below

SHE module

Description	Part number	A	B	D	E	k1	k2
Telescopic module SHE4 - 3/8"	6153981780	-	-	-	-	-5,00	-100
Telescopic module SHE4 - 1/2"	6153980790	65	5	148	-79	-	-
Telescopic module SHE6 - 1/2"	6153980800	179	-82	-	-	-2,50	-41
Telescopic module SHE7 - 3/4"	6153980810	382	-77	158	5	-0,55	-135

Description	Part number	k3	K	Screws tightening torque (N.m)
Telescopic module SHE4 - 3/8"	6153981780	27 000	30	9 (quality 8.8)
Telescopic module SHE4 - 1/2"	6153980790	-	-	9 (quality 8.8)
Telescopic module SHE6 - 1/2"	6153980800	60 667	50	9 (quality 8.8)
Telescopic module SHE7 - 3/4"	6153980810	198 838	43	23 (quality 8.8)

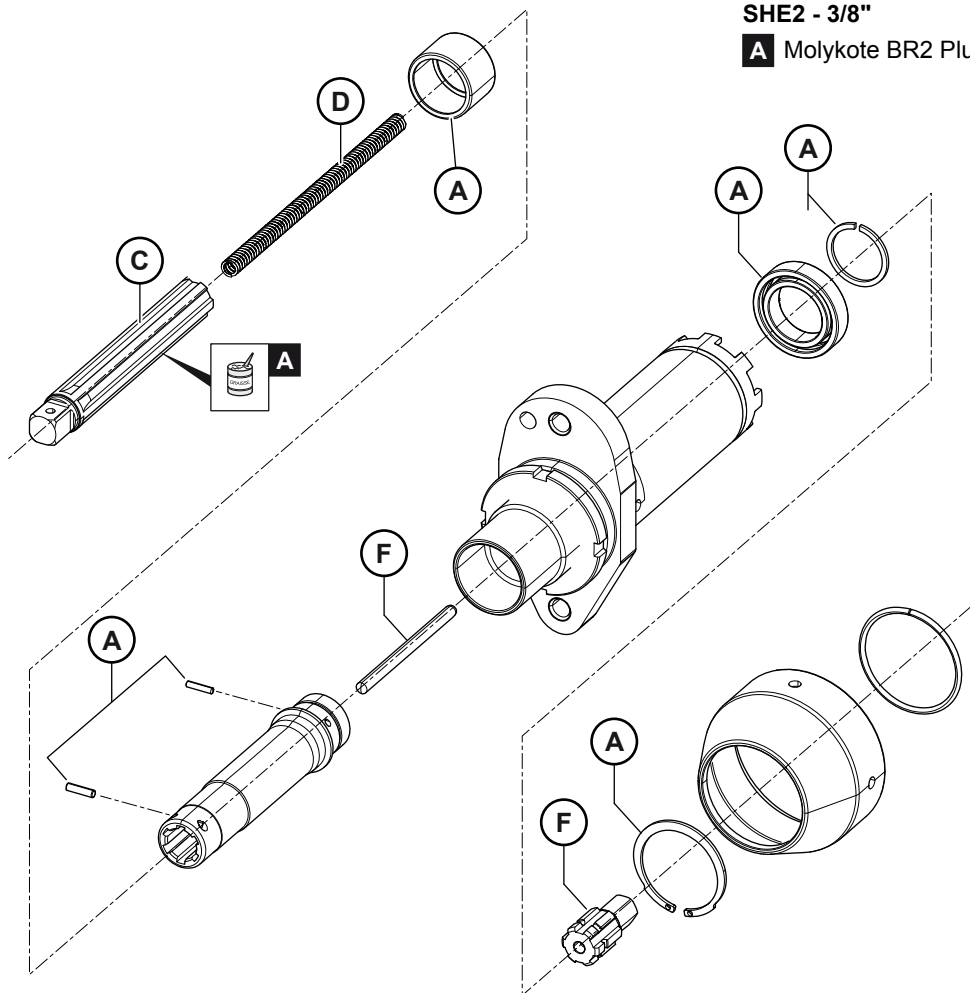
AHE module

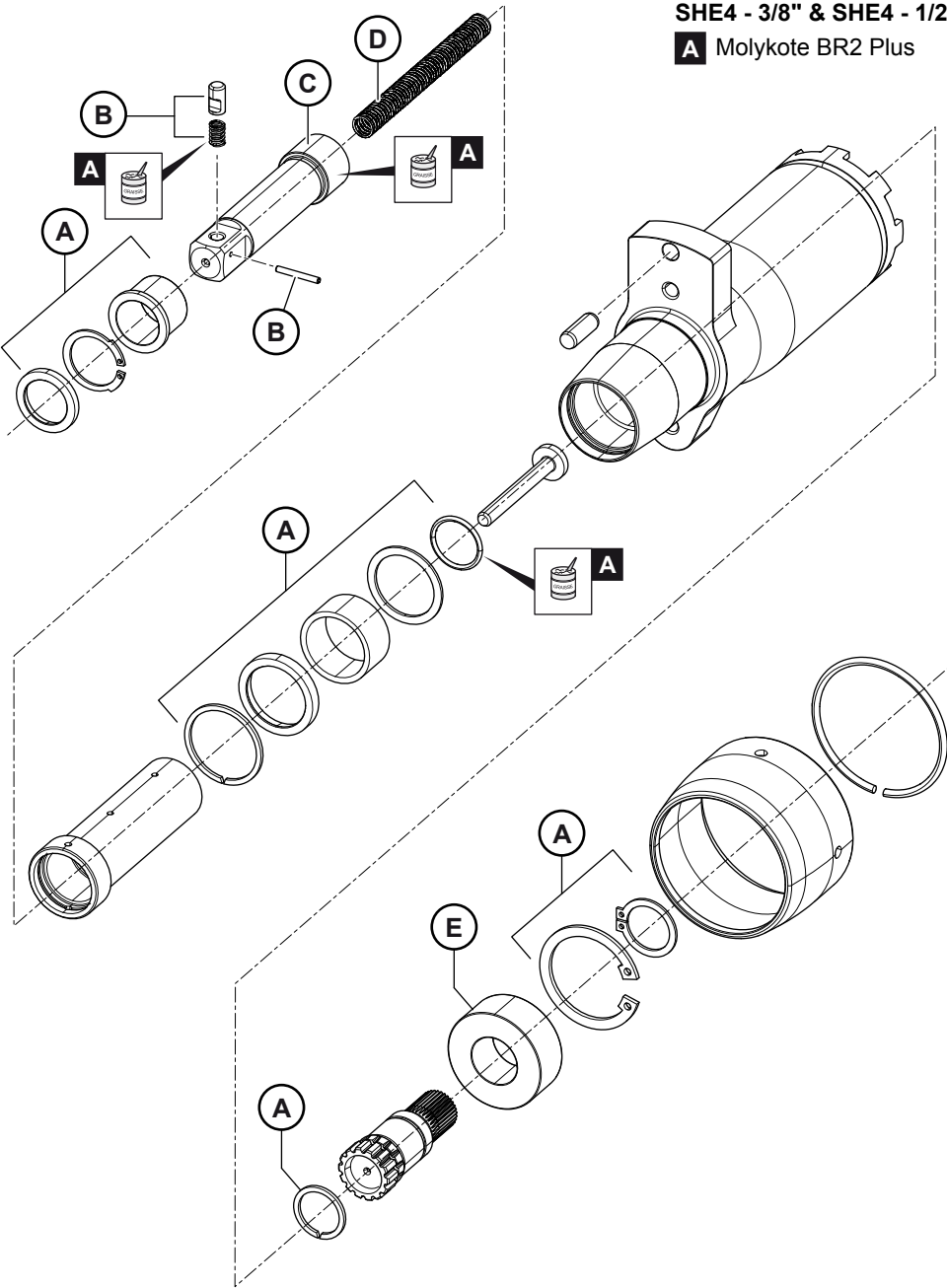
Description	Part number	A	B	D	E	k1	k2
Telescopic Module AHE5 - 1/2"	6153980760	118	-27	-	-	1,70	-778
Telescopic Module AHE6 - 3/4"	6153980770	155	-10	626	-157	-0,50	-155
Telescopic Module AHE7 - 3/4"	6153980780	130	-30	-	-	-0,50	-150
Telescopic Module AHE8 - 1"	6153981610	345	-33	-	-	-	-

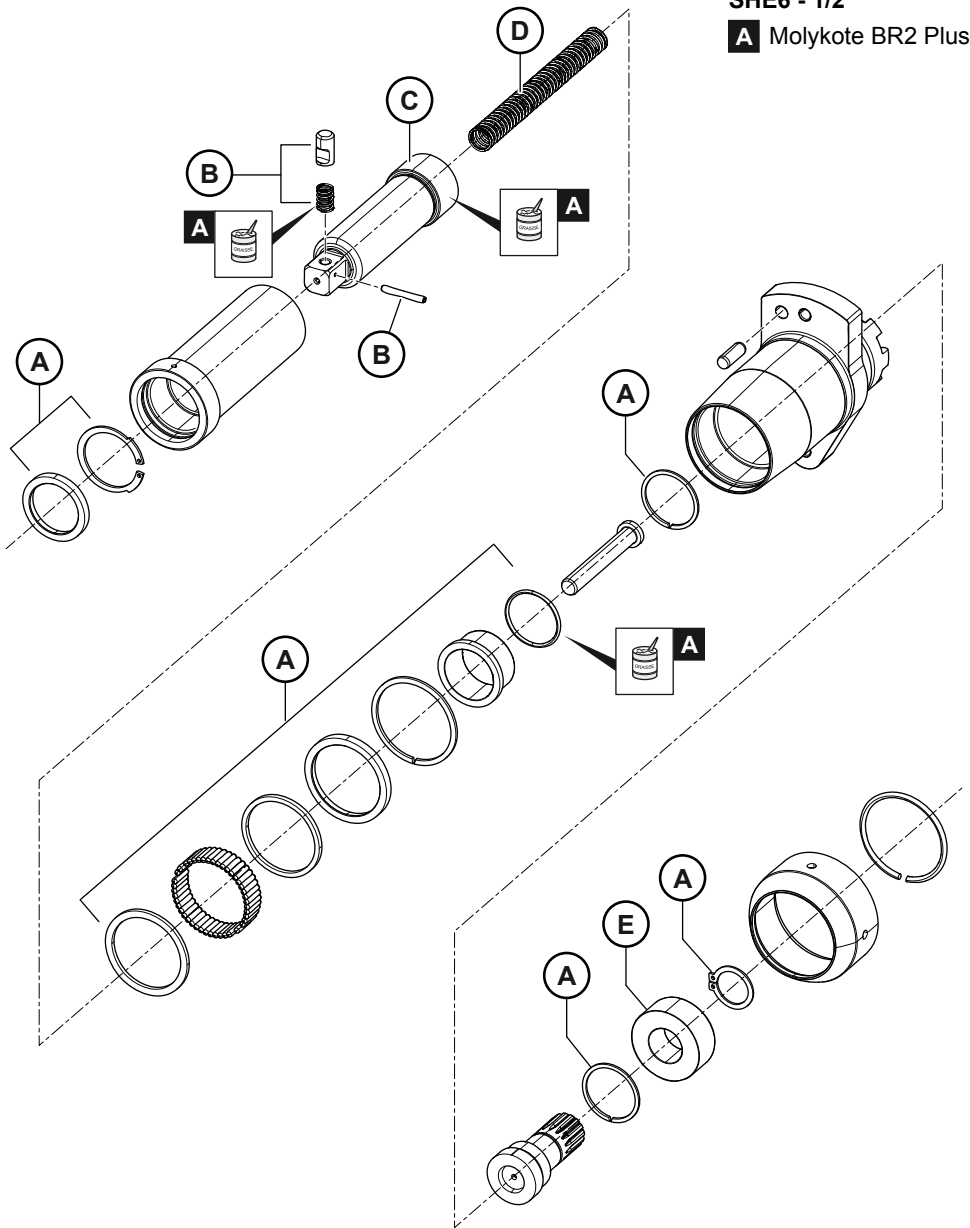
Description	Part number	k3	K	Screws tightening torque (N.m)
Telescopic Module AHE5 - 1/2"	6153980760	72 110	40	16 (quality 12.9)
Telescopic Module AHE6 - 3/4"	6153980770	160 250	45	16 (quality 12.9)
Telescopic Module AHE7 - 3/4"	6153980780	165 000	40	40 (quality 12.9)
Telescopic Module AHE8 - 1"	6153981610	-	-	79 (quality 12.9)

SPARE PARTS

SHE2 - 3/8"

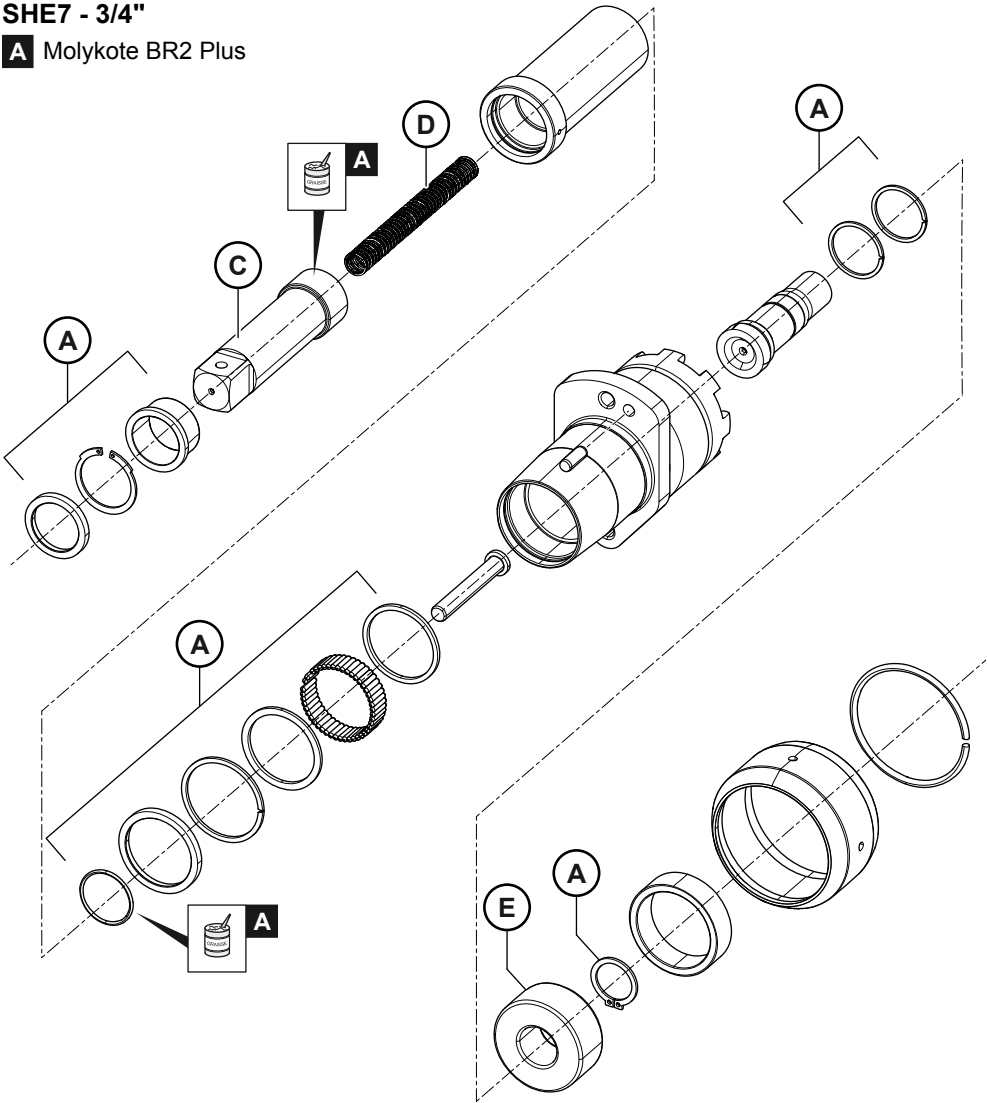
A Molykote BR2 Plus

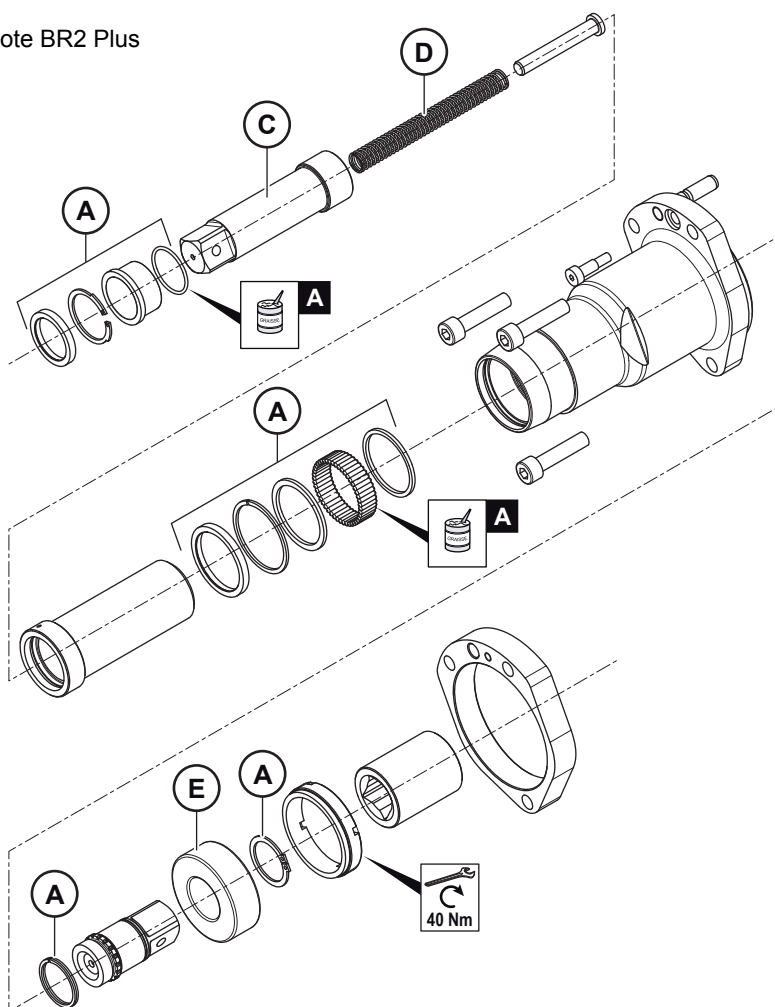


SHE6 - 1/2"**A** Molykote BR2 Plus

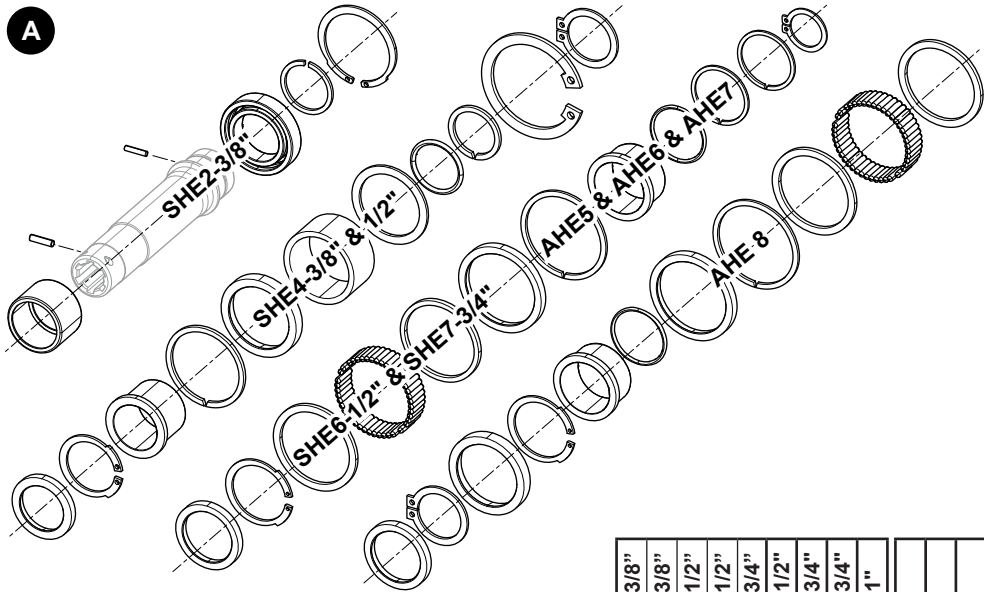
SHE7 - 3/4"

A Molykote BR2 Plus



AHE**A** Molykote BR2 Plus

Kit A

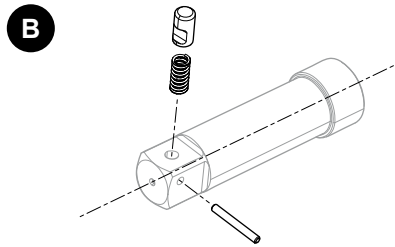


			SHE2 - 3/8"	SHE4 - 3/8"	SHE4 - 1/2"	SHE6 - 1/2"	SHE7 - 3/4"	AHE5 - 1/2"	AHE6 - 3/4"	AHE7 - 3/4"	AHE8 - 1"	High	Medium	Low
Item	Description	Part number	Qty									Wear		
A	Kit small parts SHE2	6153985320	1											
	Bearing roller 2x9.8 - G2 ISO 3096		1											
	Circlip J32x1,2V		1											
	Needle 2.5x9.8 - BR (DIN 5402)		1											
	Needle Bearing HK1816		1											
	Ball Bearing 20x32x7 61804-2RS		1											
	Ring spring WR20		1											
A	Kit small parts SHE4	6153985150	1	1										
	Circlip for hole 35x1,5		1	1										
	Circlip for shaft 17x1 DIN471		1	1										
	Needle carrier K 22x26x13		1	1										
	Ring 22,4x27,8x1		1	1										
	Snap ring, rect sect SB 28x1,2		1	1										
	Snap ring, rect sect SB 18x1,2		1	1										
	Sealing ring DH22x28x4		1	1										
	Bushing		1	1										
	O'ring 16,1x1,6 Viton		1	1										
	Circlip J22x1V		1	1										
	Sealing ring DH16x22x3		1	1										

			SHE2 - 3/8"	SHE4 - 3/8"	SHE4 - 1/2"	SHE6 - 1/2"	SHE7 - 3/4"	AHE5 - 1/2"	AHE6 - 3/4"	AHE7 - 3/4"	AHE8 - 1"	High	Medium	Low
Item	Description	Part number	Qty									Wear		
A	Kit small parts SHE6&7 AHE5, 6 & 7	6153985160				1	1	1	1	1				
	Bearing roller 2,5x11,8	-				47	47	47	47	47				
	Snap ring, rect sect SB 42x1,5	-				2	1	2	1	1				
	Spacer	-				1	2	1	2	2				
	Spacer	-				1	1	1	1	1				
	Snap ring, rect sect SB 28x1,2	-				1	1	1	1	1				
	Sealing ring G 35x42x4	-				1	1	1	1	1				
	O'ring 25,1x1,6 FPM 70°IRH	-				1	1	1	1	1				
	Bushing	-				1	1	1	1	1				
	Circlip J32x1,2V	-				1	1	1	1	1				
	Sealing ring G 25x32x4	-				1	1	1	1	1				
	Circlip for shaft 17x1 DIN471	-				1		1						
	Circlip for shaft 20x1,2 DIN471						1							
	Circlip for shaft 24x1,2 DIN471									1				
	Circlip for shaft 25x1,2 DIN471								1					
	Spacer	-				1		1						
A	Kit small parts AHE8	6153985400									1			
	Needle bearing NK 47/30	-									1			
	Snap ring, rect sect SB 58x1,5	-									1			
	Snap ring, rect sect SB 35x1,5	-									1			
	Axial seal V-45A NBR60	-									1			
	Bushing	-									1			
	Circlip J42x1,75V	-									1			
	Sealing ring G 32x42x4	-									1			
	Circlip for shaft 24x1,2 DIN471	-									1			

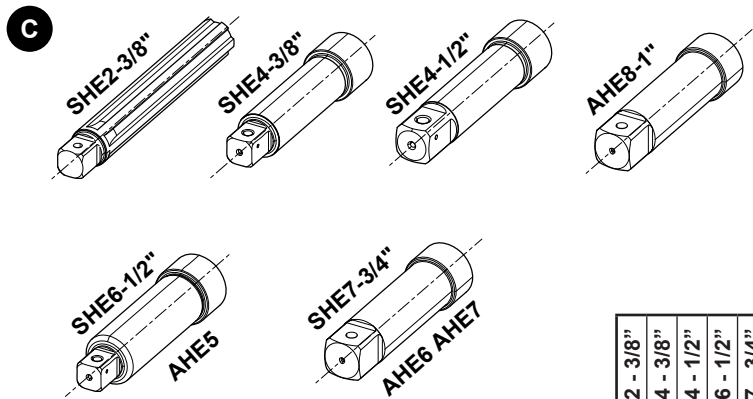




Kit B



Item	Description	Part number	Qty								Wear		
			SHE2 - 3/8"	SHE4 - 3/8"	SHE4 - 1/2"	SHE6 - 1/2"	SHE7 - 3/4"	AHE5 - 1/2"	AHE6 - 3/4"	AHE7 - 3/4"	AHE8 - 1"	High	Medium
B	Kit socket retention SHE4 sq3/8	6153985170	1										
	Spring	-	1										
	Catch pin	-	1										
	Spiral pin 1.5x8	-	1										
B	Kit socket retention SHE4&6 AHE5 sq1/2	6153985180			1	1		1					
	Catch pin	-			1	1		1					
	Spring pin FRP 1.5x12	-			1	1		1					
	Spring	-			1	1		1					

Kit C







			SHE2 - 3/8"	SHE4 - 3/8"	SHE4 - 1/2"	SHE6 - 1/2"	SHE7 - 3/4"	AHE5 - 1/2"	AHE6 - 3/4"	AHE7 - 3/4"	AHE8 - 1"	High	Medium	Low
Item	Description	Part number	Qty									Wear		
C	Output shaft SHE2	6155210710	1											
C	Output shaft SHE4 - 3/8"	6155011430		1										
C	Output shaft SHE4 - 1/2"	6155011630			1									
C	Output shaft SHE6 AHE5	6155011550				1		1						
C	Output shaft SHE7 AHE6 AHE7	6155011640					1		1	1				
C	Output shaft AHE8	6155011710									1			

Kit D

D

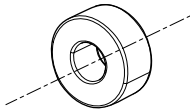





Item	Description	Part number	Qty								Wear			
			SHE2 - 3/8"	SHE4 - 3/8"	SHE4 - 1/2"	SHE6 - 1/2"	SHE7 - 3/4"	AHE5 - 1/2"	AHE6 - 3/4"	AHE7 - 3/4"	AHE8 - 1"	High	Medium	Low
D	Spring	6156811000	1											
D	Spring	6156811840		1	1									
D	Spring	6156811850				1	1	1	1	1				
D	Spring	6156811870									1			

Kit E

E

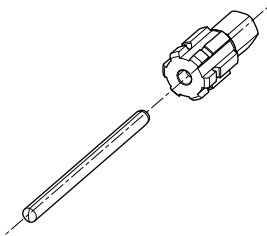





Item	Description	Part number	Qty								Wear			
E	Ball bearing 3003 2RS1	758.89		1	1	1		1						
E	Ball bearing 3204 ATN9	6157530910					1							
E	Ball bearing 4205 ATN9	6157581520							1	1	1			

Kit F

F





Item	Description	Part number	Qty								Wear		
F	Spring guide kit	6153985310	1										
	Coupling for telescopic P&T		1										
	Cylindrical Pin 60x4		1										

More Than Productivity



www.desouttertools.com