



TECNOFLUID

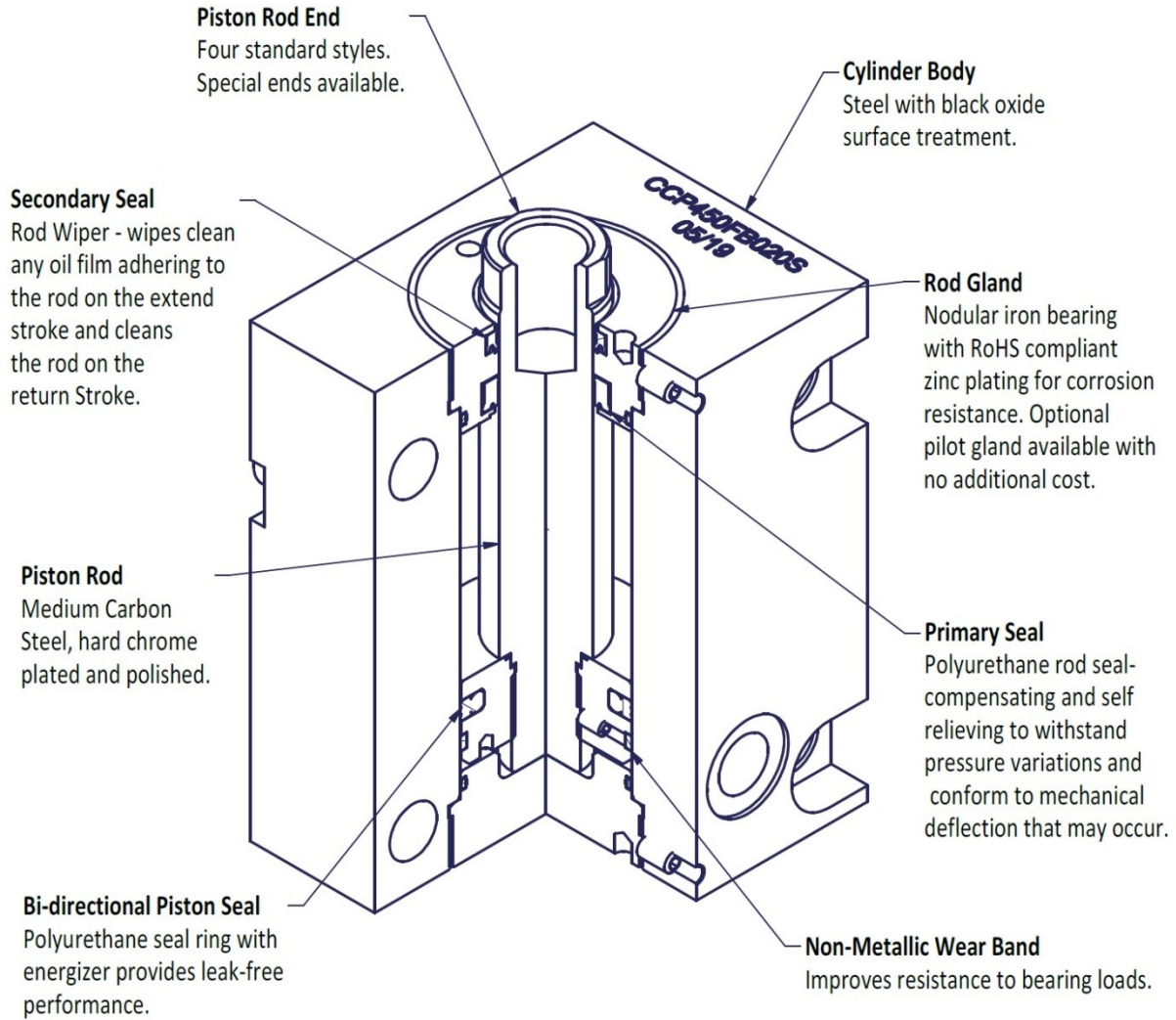
ENGINEERING



COMPACT HYDRAULIC CYLINDERS

CCP TYPE

Series CCP Cylinder Features



Theoretical Push and Pull Forces

The cylinder output forces are derived from the formula: $F = \frac{P \times A}{1000}$

Where: A = Effective Piston Area in mm².
F = Force in kN.
P = Oil Pressure in bar.

To determine the bore size for the application take the following steps:

1. Select the Operating Pressure Column closest to that desired.
2. in the same column, identify the force required to move the load (round up). If the piston rod is in compression use the "Push" row. If the piston is in tension use the "Pull" row.
3. In the row to the left is the bore required. if the cylinder envelope dimensions are too large for the application, increase the pressure, if possible, and repeat steps 1 to 3.

Bore Ø	Rod Ø	Action	Effective Area	Operating Pressure (bar)						
				50	75	100	125	150	175	207
20	12	Push	314,2	1,57	2,36	3,14	3,93	4,71	5,50	6,50
		Pull	201,1	1,01	1,51	2,01	2,51	3,02	3,52	4,16
25	14	Push	490,9	2,45	3,68	4,91	6,14	7,36	8,59	10,16
		Pull	336,9	1,68	2,53	3,37	4,21	5,05	5,90	6,97
32	18	Push	804,2	4,02	6,03	8,04	10,05	12,06	14,07	16,65
		Pull	549,8	2,75	4,12	5,50	6,87	8,25	9,62	11,38
40	22	Push	1256,6	6,28	9,42	12,57	15,71	18,85	21,99	26,01
		Pull	876,5	4,38	6,57	8,77	10,96	13,15	15,34	18,14
50	28	Push	1963,5	9,82	14,73	19,63	24,54	29,45	34,36	40,64
		Pull	1347,7	6,74	10,11	13,48	16,85	20,22	23,59	27,90
63	36	Push	3117,2	15,59	23,38	31,17	38,97	46,76	54,55	64,53
		Pull	2099,4	10,50	15,75	20,99	26,24	31,49	36,74	43,46
80	45	Push	5026,5	25,13	37,70	50,27	62,83	75,40	87,96	104,05
		Pull	3436,1	17,18	25,77	34,36	42,95	51,54	60,13	71,13

Ordering Code Model for CCP

C	Cylinder	→	(Fixed Field)																				
...	Rod Type	→	C	Single Rod	K	Double rod																	
P	Device	→	(Fixed Field)																				
...	Bore Diameter	→	1	20 mm	2	25 mm	3	32 mm	4	40 mm	5	50 mm	6	63 mm	7	80 mm							
...	Stroke	→	Two Digit Number Ex: 85. (For 100 mm use 00)				For Bore code 1, 2 and 3, lengths must vary in multiples of 5. For Bore code 4, 5, 6 and 7, lengths must vary in multiples of 10.						For Bore Code:		1	50	Max Stroke:		2	75	3 - 7	100	
...	Mount	→	S	Standard Mount.	T	Std. Mnt. with Pilot Gland	U	Std. Mnt. with Cap Gland	F	Foot Mount	G	Foot Mnt. with Pilot Gland	M	Metric Tapped on Both Ends	N	Metric Thread with Pilot Gland	O	Metric Thread with Cap Pilot	P	Head Rectangular Flange	R	Cap Rectangular Flange	
...	Ports	→	M	Manifod	B	BSP Ports																	
...	Special Modification	→	0	No Modification	Use "S" for special modification other than rod end. Specify modification and/or attach drawing.																		
...	Piston Rod Thread Style	→	1	Male	2	Female	3	Flange Coupler	4	Special													
...	Piston Rod Thread Style (If Double Rod)	→	0	No Double Rod	1	Male	2	Female	3	Flange Coupler	4	Special											
...	Seals	→	S	Standard Nitrile & Polyurethane.						V	Viton												

Standard Specifications

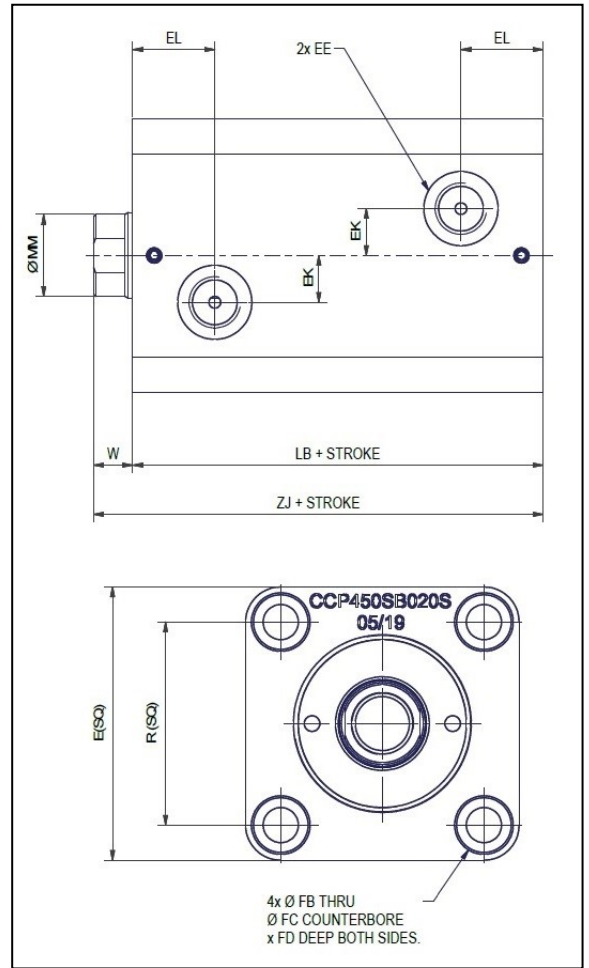
- 10 Mounting Styles.
- 20 to 80 mm Bore Øs.
- 12 to 45 mm Piston Rod Øs.
- Double Rod construction available.
- Up to 100 mm stroke.
- Working pressures up to 207 bar.
- Temperature range -23 to 121°C (depending on seal type)
- Reference ISO 16656:2004

Mounting Style Selection

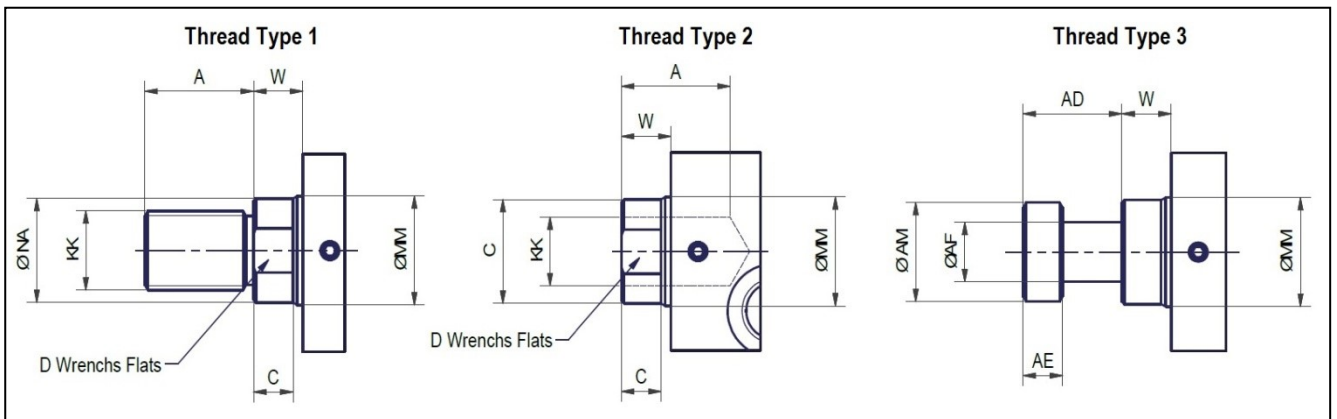
S Standard Trough Bolt Mount Style

Single Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
Ø FB		5,5	5,5	7	9	11	13,5	16	
Ø FC		9,5	9,5	11	14	17,5	20	23	
FD		5,4	5,4	6,5	8,6	10,8	13	15,2	
R		30	36	47	52	58	69	86	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZJ	51	53	61	65	71	80	95	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
		AF	6	8	10	12	16	22	28
		AM	11	13	16	20	25	33	41
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



Rod End Dimensions

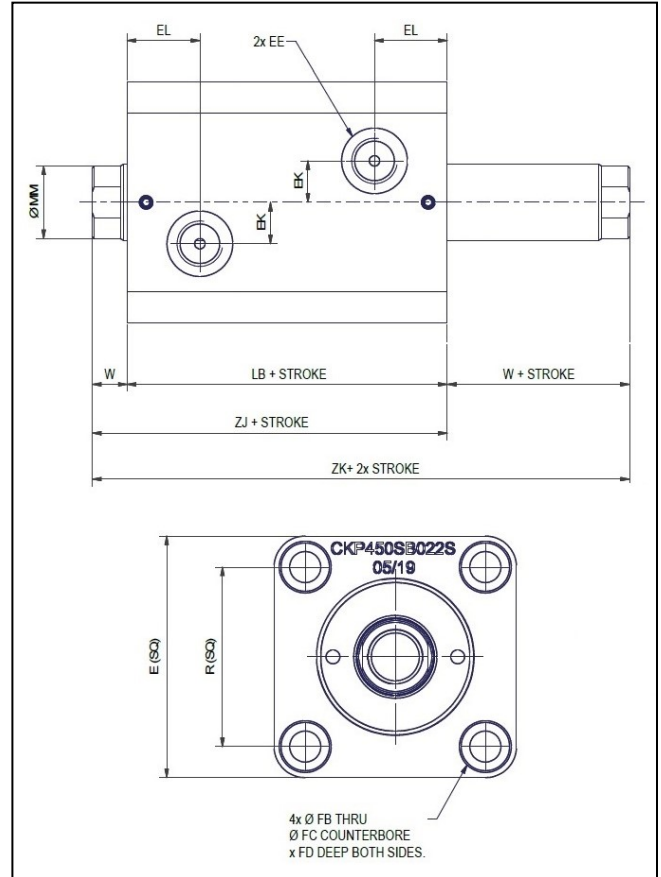


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

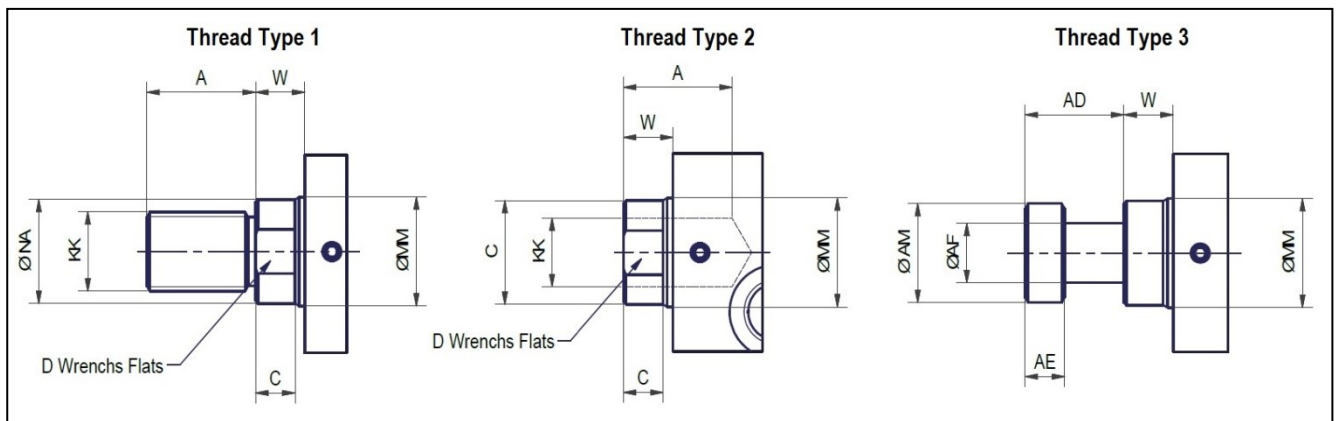
S Standard Trough Bolt Mount Style

Double Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
Ø FB		5,5	5,5	7	9	11	13,5	16	
Ø FC		9,5	9,5	11	14	17,5	20	23	
FD		5,4	5,4	6,5	8,6	10,8	13	15,2	
R		30	36	47	52	58	69	86	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZJ	51	53	61	65	71	80	95	
Add 2xStroke	ZK	59	61	71	75	82	93	112	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
		AF	6	8	10	12	16	22	28
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



Rod End Dimensions



"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

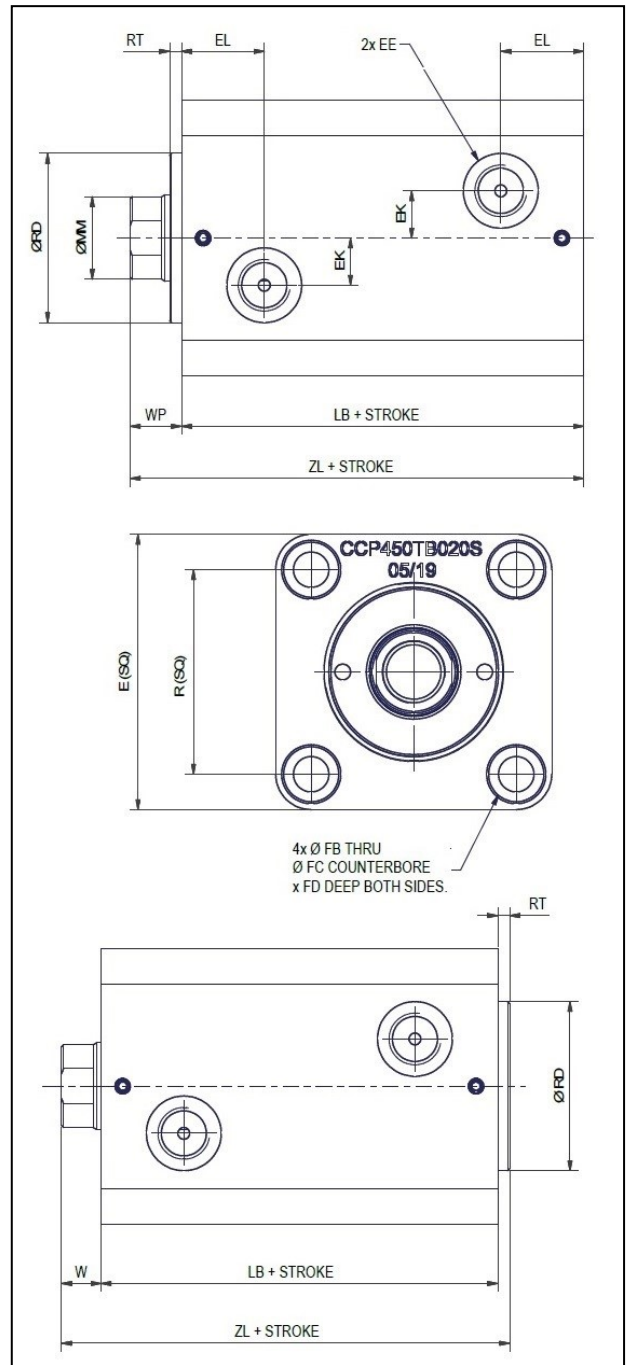
T&U

Standard Trough Bolt Mount Style

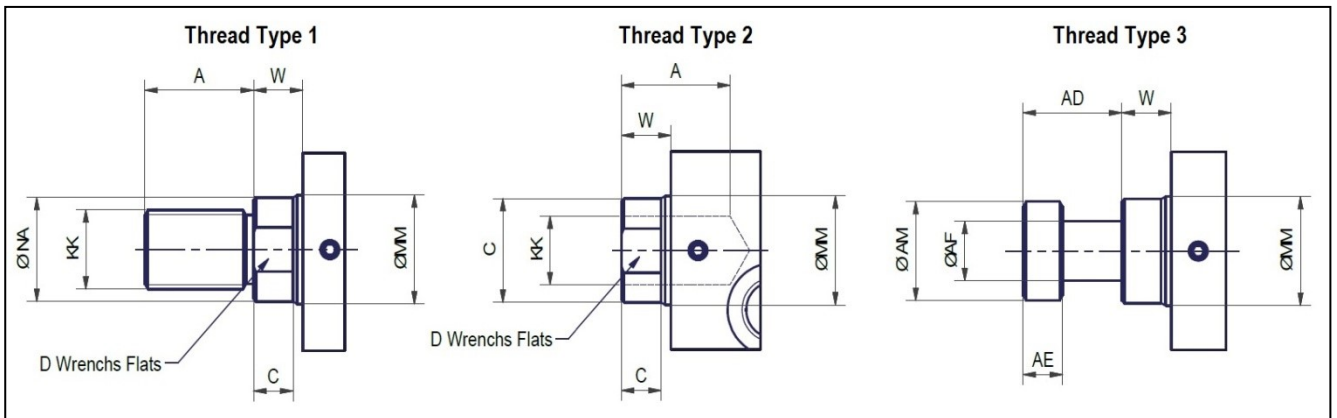
with Pilot Gland or Pilot Cap

Single Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
Ø FB		5,5	5,5	7	9	11	13,5	16	
Ø FC		9,5	9,5	11	14	17,5	20	23	
FD		5,4	5,4	6,5	8,6	10,8	13	15,2	
R		30	36	47	52	58	69	86	
Ø RD f9		24	27	36	43	53	66	83	
RT		3	3	3	3	3	3	3	
W		8	8	10	10	11	13	17	
WP		11	11	13	13	14	16	20	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZL	54	56	64	68	74	83	98	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
		AF	6	8	10	12	16	22	28
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



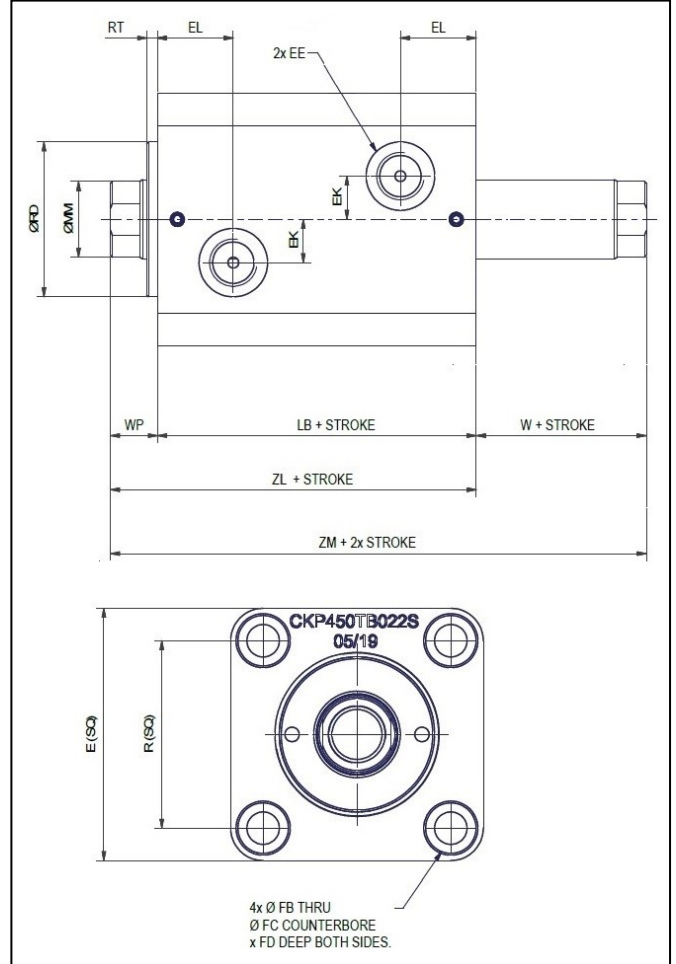
Rod End Dimensions



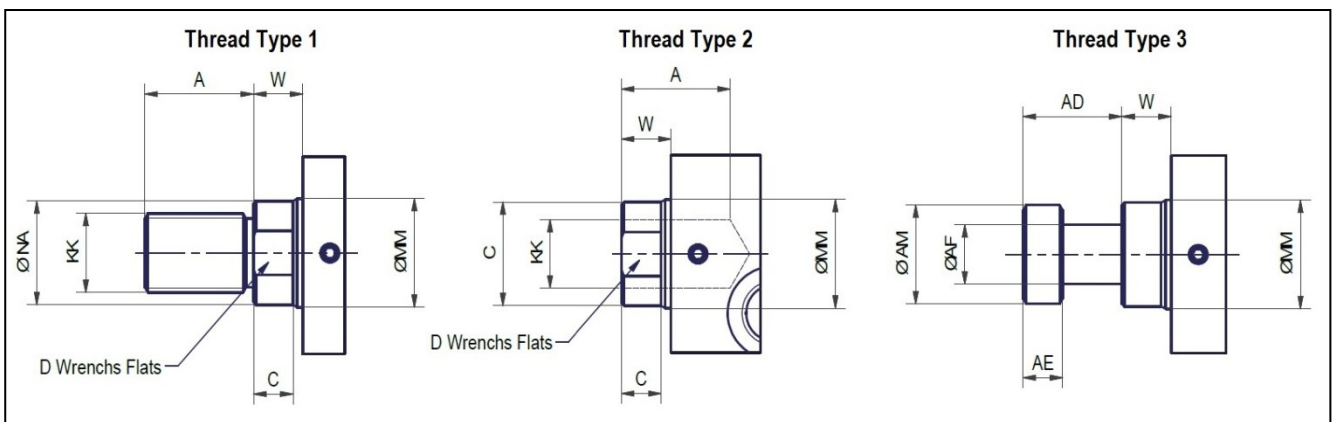
"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

T Standard Trough Bolt Mount Style with Pilot Gland - Double Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
Ø FB		5,5	5,5	7	9	11	13,5	16	
Ø FC		9,5	9,5	11	14	17,5	20	23	
FD		5,4	5,4	6,5	8,6	10,8	13	15,2	
R		30	36	47	52	58	69	86	
Ø RD f9		24	27	36	43	53	66	83	
RT		3	3	3	3	3	3	3	
W		8	8	10	10	11	13	17	
WP		11	11	13	13	14	16	20	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZL	54	56	64	68	74	83	98	
Add 2xStroke	ZM	62	64	74	78	85	96	115	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
		AF	6	8	10	12	16	22	28
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



Rod End Dimensions

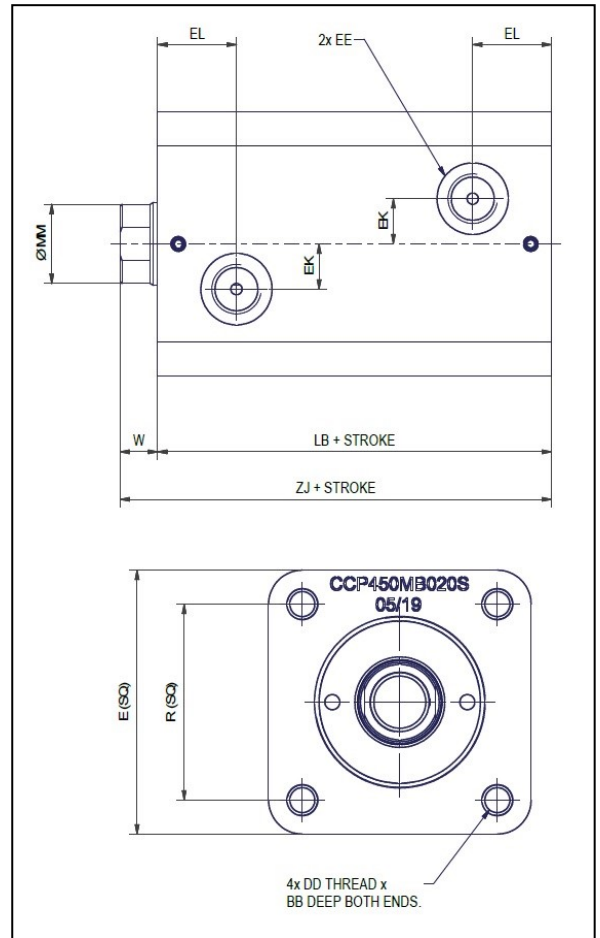


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

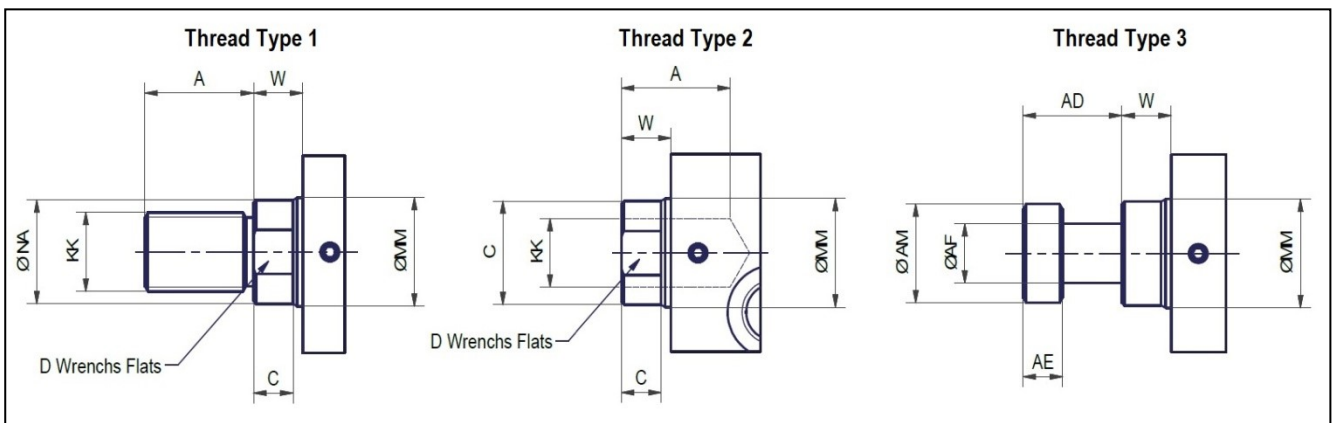
M Metric Tapped on Both Ends Mount Style

Single Rod End (20 mm to 80 mm Bore Size)

Bore \varnothing		20	25	32	40	50	63	80	
BB		10	10,4	12,5	16,6	20,7	24,9	29	
DD		M5	M5	M6	M8	M10	M12	M14	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
R		30	36	47	52	58	69	86	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZJ	51	53	61	65	71	80	95	
MM Rod \varnothing		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
AF		6	8	10	12	16	22	28	
Rod Extension Dimensions	AM	11	13	16	20	25	33	41	
	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
NA	11	13	17	21	27	35	43		



Rod End Dimensions

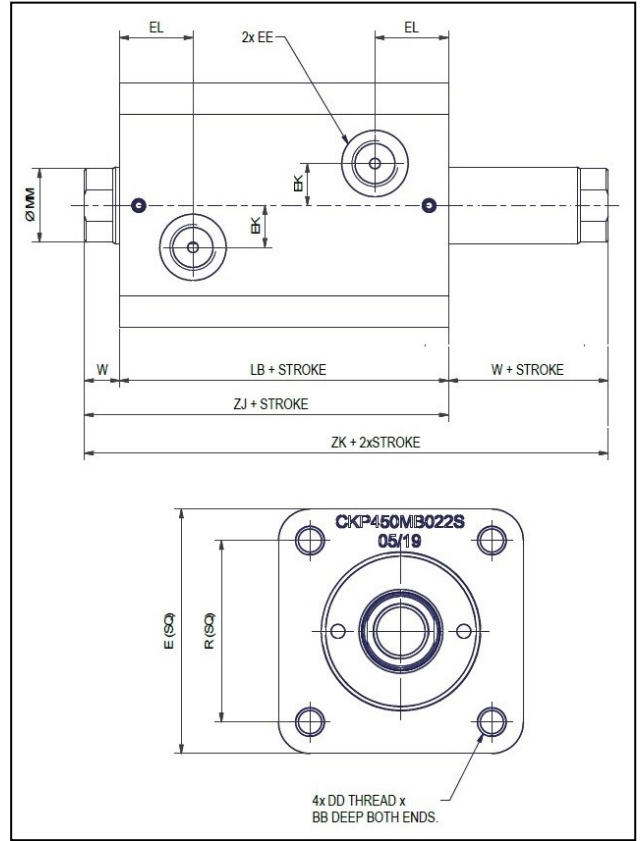


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

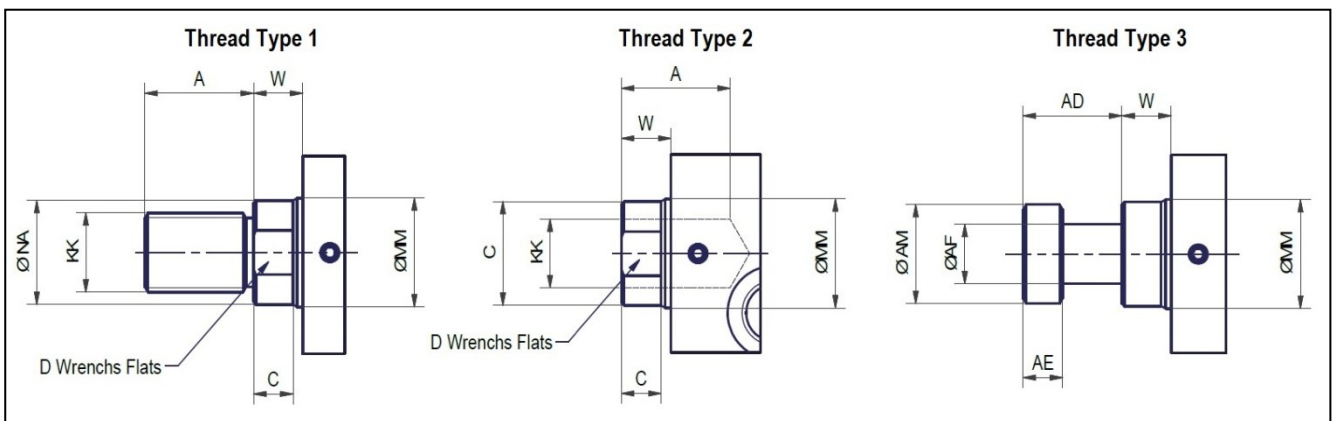
M Metric Tapped on Both Ends Mount Style

Double Rod End (20 mm to 80 mm Bore Size)

Bore ϕ		20	25	32	40	50	63	80	
BB		10	10,4	12,5	16,6	20,7	24,9	29	
DD		M5	M5	M6	M8	M10	M12	M14	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
R		30	36	47	52	58	69	86	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZJ	51	53	61	65	71	80	95	
Add 2xStroke	ZK	59	61	71	75	82	93	112	
MM Rod ϕ		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
AF		6	8	10	12	16	22	28	
Rod Extension Dimensions		AM	11	13	16	20	25	33	41
		C	6	6	8	8	9	11	13
		D	10	12	15	19	24	32	39
	NA	11	13	17	21	27	35	43	



Rod End Dimensions



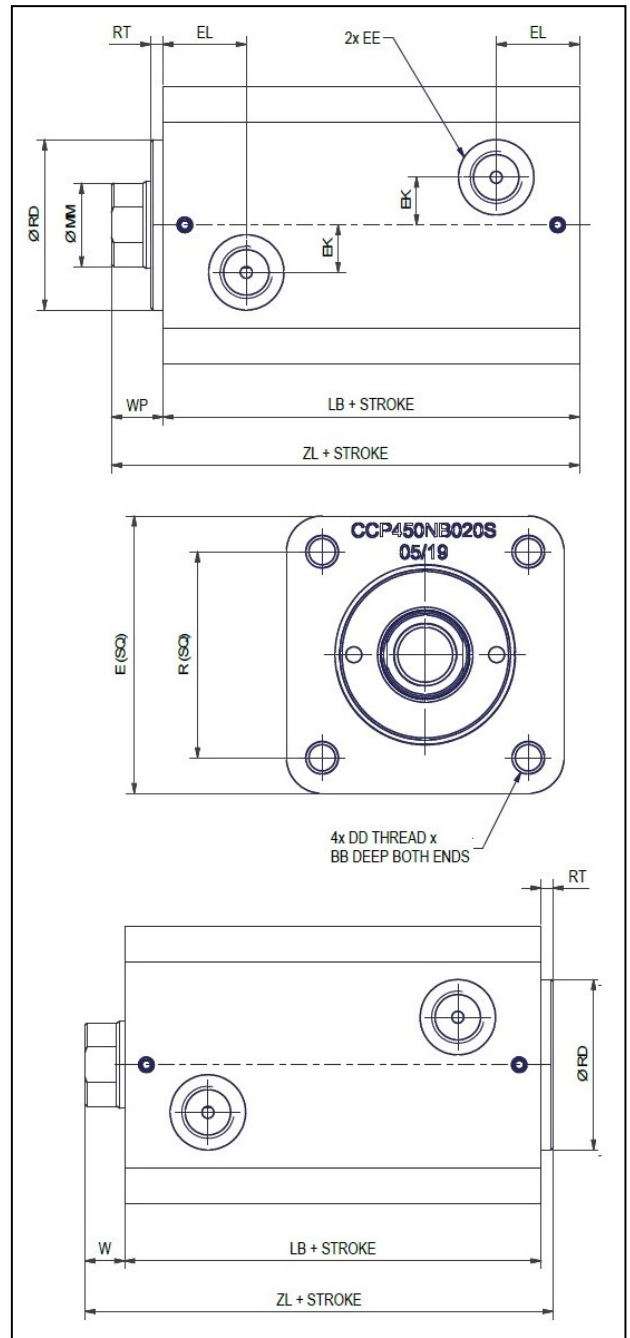
"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

N&O Metric Tapped Both Ends Mount

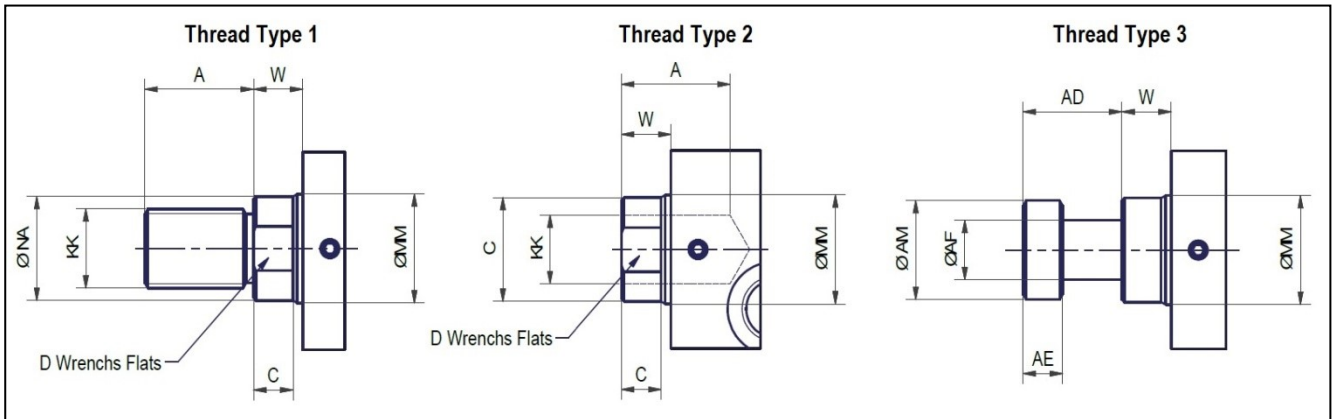
Style with Pilot Gland or Pilot Cap

Single Rod End (20 mm to 80 mm Bore Size)

Bore Ø	20	25	32	40	50	63	80			
BB	10	10,4	12,5	16,6	20,7	24,9	29			
DD	M5	M5	M6	M8	M10	M12	M14			
E	44	50	62	70	80	94	114			
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-3/8			
EK	6	8	11	12	14	17	20			
EL	16,5	17,5	20,5	21	22,5	26	29,5			
R	30	36	47	52	58	69	86			
Ø RD f9	24	27	36	43	53	66	83			
RT	3	3	3	3	3	3	3			
W	8	8	10	10	11	13	17			
WP	11	11	13	13	14	16	20			
Add Stroke	LB	43	45	51	55	60	78			
	ZL	54	56	64	68	74	98			
MM Rod Ø	12	14	18	22	28	36	45			
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2	
		A	14	16	18	22	28	36	45	
		2	KK	M8	M10	M12	M16	M20	M27	M33
			A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34	
		AE	3	4	6	8	10	12	14	
		AF	6	8	10	12	16	22	28	
	Rod Extension Dimensions	C	6	6	8	8	9	11	13	
D		10	12	15	19	24	32	39		
NA		11	13	17	21	27	35	43		



Rod End Dimensions

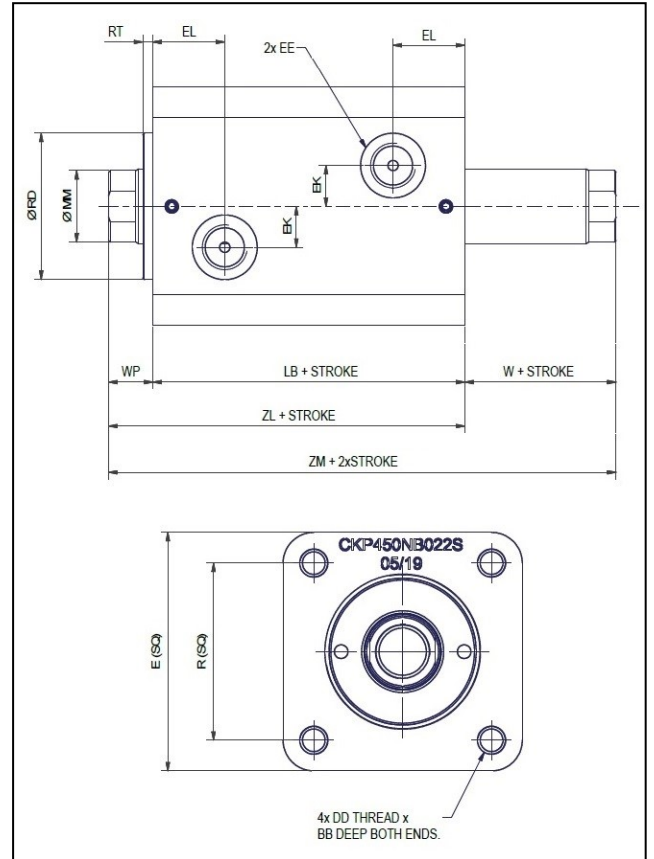


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

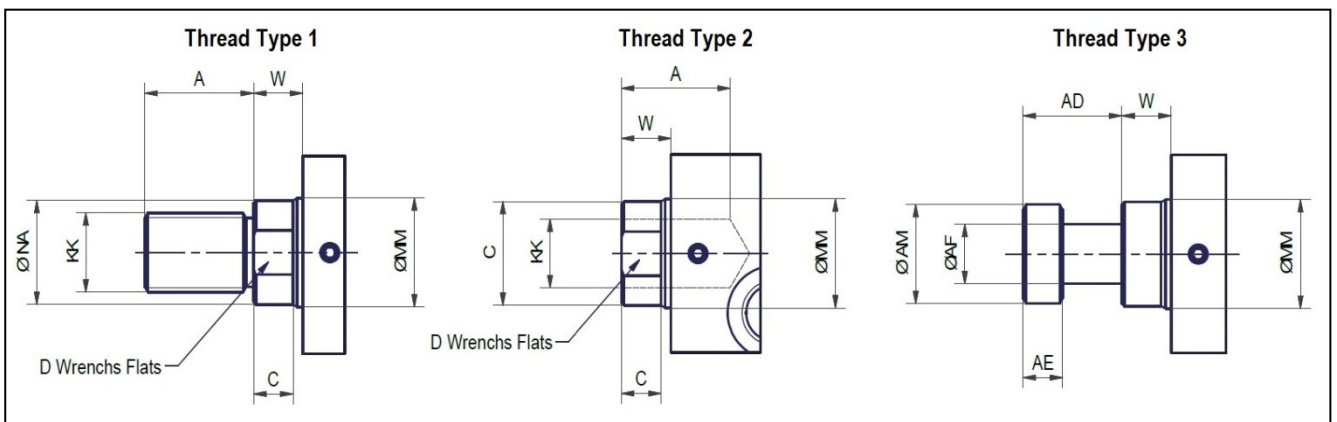
N Metric Tapped Both Ends Mount Style

with Pilot Gland - Double Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
BB		10	10,4	12,5	16,6	20,7	24,9	29	
DD		M5	M5	M6	M8	M10	M12	M14	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
R		30	36	47	52	58	69	86	
Ø RD f9		24	27	36	43	53	66	83	
RT		3	3	3	3	3	3	3	
W		8	8	10	10	11	13	17	
WP		11	11	13	13	14	16	20	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZL	54	56	64	68	74	83	98	
Add 2xStroke	ZM	62	64	74	78	82	96	115	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
AF		6	8	10	12	16	22	28	
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



Rod End Dimensions



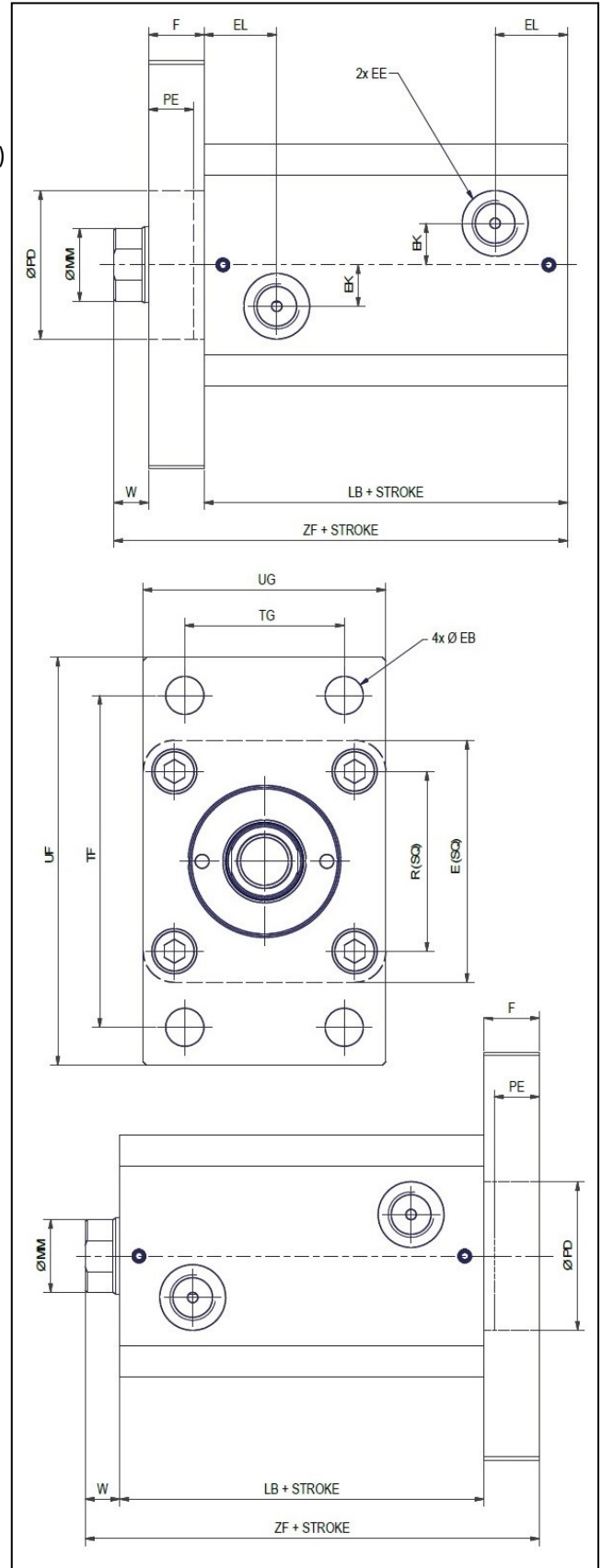
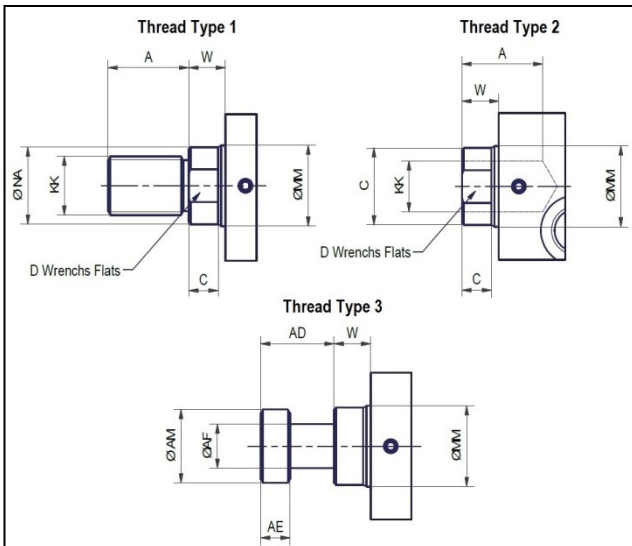
"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

P&R Rectangular Head/Cap Flanged

Mount with Single Rod End (20 mm to 80 mm Bore Size)

Bore \varnothing		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
F		10	12	12	16	20	20	25	
\varnothing EB		5,5	5,5	6,8	11	13,5	15	17	
\varnothing PD H9		24	27	36	43	53	66	83	
PE		7	9	9	13	17	17	21	
R		30	36	47	52	58	69	86	
TF		60	66	80	96	108	124	154	
TG		30	36	40	46	58	65	87	
UF		75	80	95	118	135	150	185	
UG		46	52	62	70	85	98	118	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZF	61	65	73	81	91	100	120	
MM Rod \varnothing		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	NA	11	13	17	21	27	35	43	

Rod End Dimensions

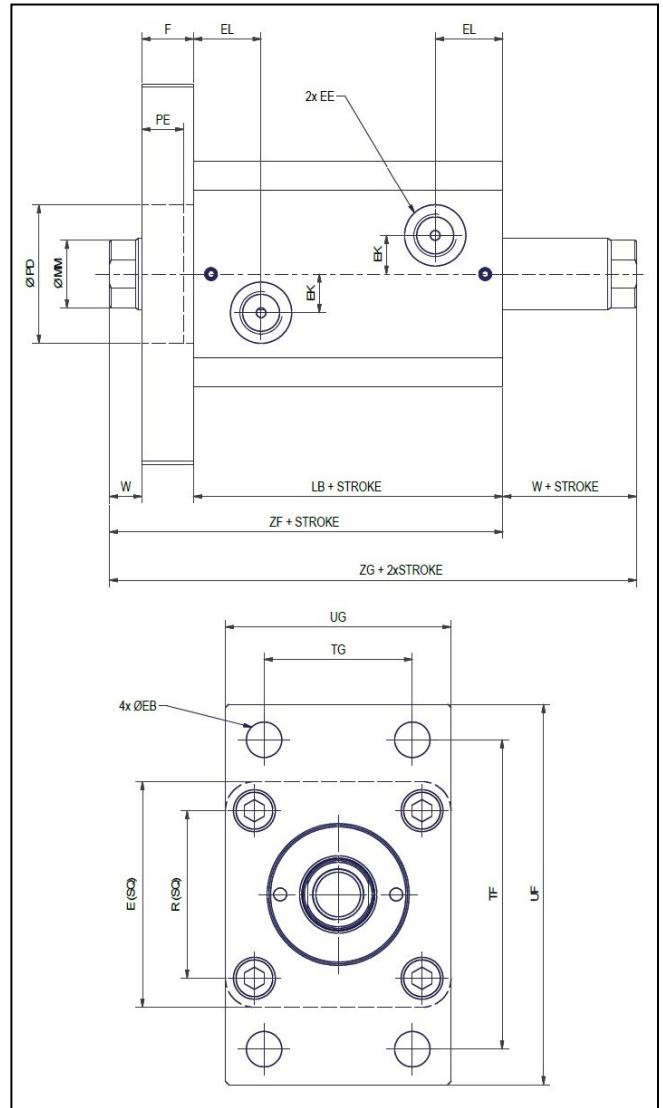


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

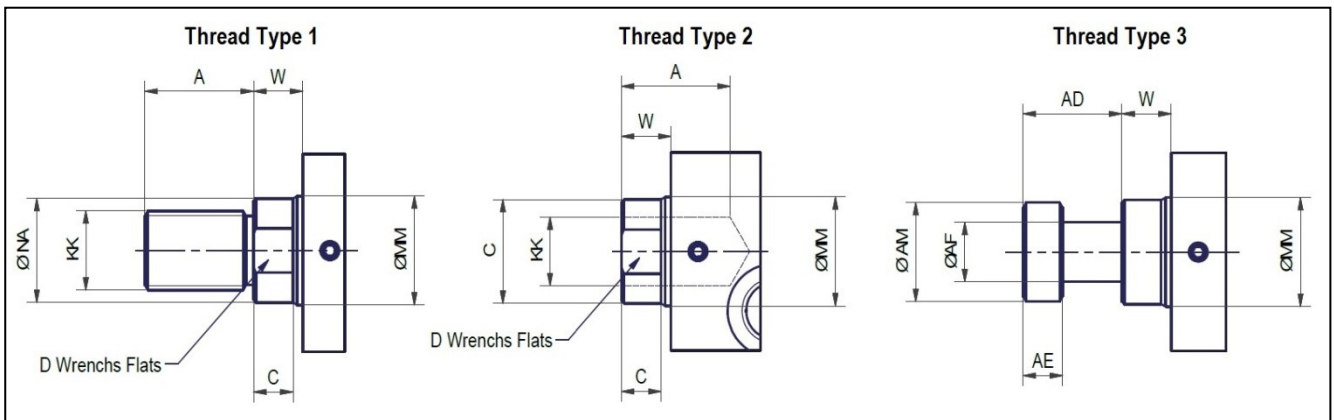
P Rectangular Head Flanged Mount Style

Double Rod End (20 mm to 80 mm Bore Size)

Bore Ø		20	25	32	40	50	63	80	
E		44	50	62	70	80	94	114	
EE	BSP	G-1/8	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	G-3/8	
EK		6	8	11	12	14	17	20	
EL		16,5	17,5	20,5	21	22,5	26	29,5	
F		10	12	12	16	20	20	25	
Ø EB		5,5	5,5	6,8	11	13,5	15	17	
Ø PD H9		24	27	36	43	53	66	83	
PE		7	9	9	13	17	17	21	
R		30	36	47	52	58	69	86	
TF		60	66	80	96	108	124	154	
TG		30	36	40	46	58	65	87	
UF		75	80	95	118	135	150	185	
UG		46	52	62	70	85	98	118	
W		8	8	10	10	11	13	17	
Add Stroke	LB	43	45	51	55	60	67	78	
	ZF	61	65	73	81	91	102	120	
Add 2xStroke	ZG	69	73	83	91	102	113	137	
MM Rod Ø		12	14	18	22	28	36	45	
Rod End	1	KK	M8 x1	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2	M33 x2
		A	14	16	18	22	28	36	45
	2	KK	M8	M10	M12	M16	M20	M27	M33
		A	10	12	15	20	24	30	35
	3	AD	8	12	16	20	24	28	34
		AE	3	4	6	8	10	12	14
AF		6	8	10	12	16	22	28	
Rod Extension Dimensions	C	6	6	8	8	9	11	13	
	D	10	12	15	19	24	32	39	
	NA	11	13	17	21	27	35	43	



Rod End Dimensions



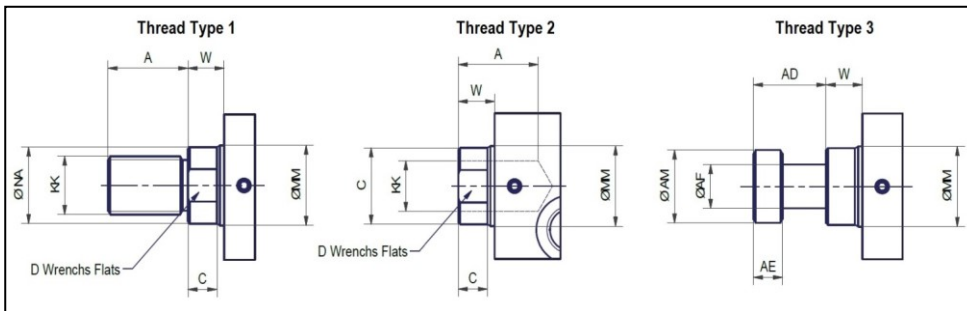
"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

F Foot Mount Style

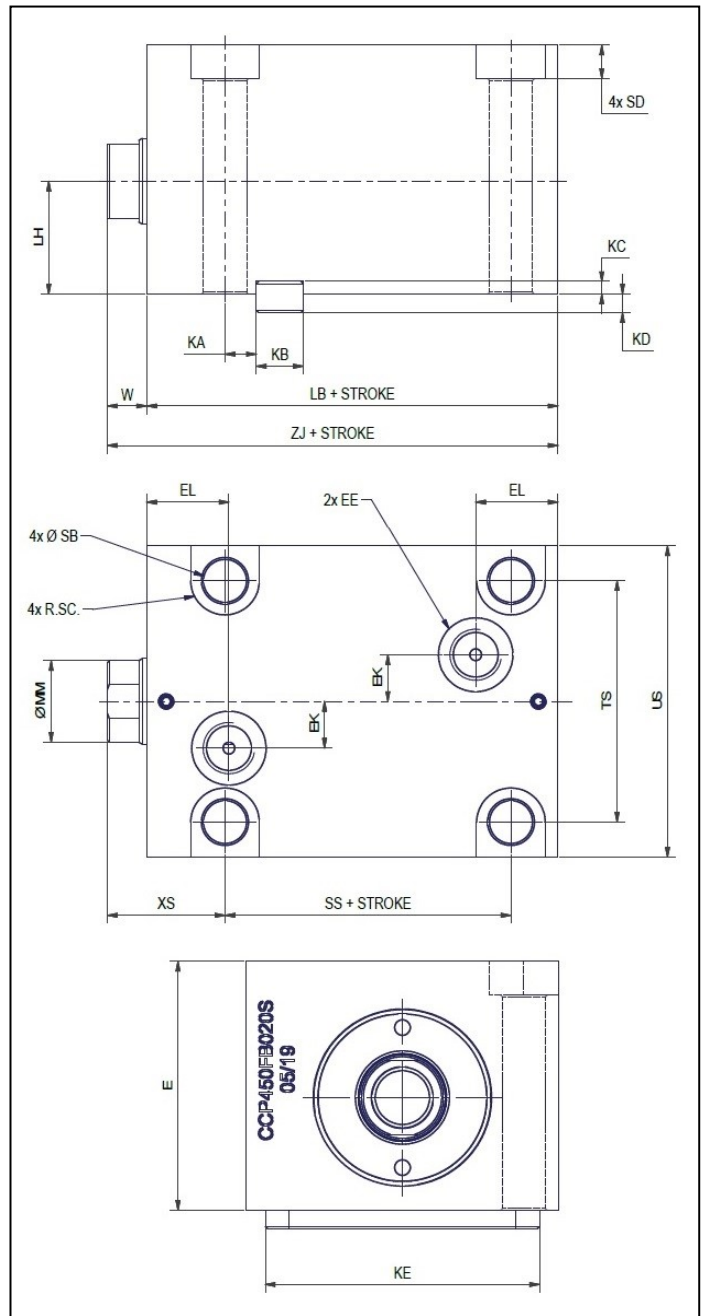
Single Rod End (25 mm to 63 mm Bore Size)

Bore Ø	25	32	40	50	63		
E	45	56	64	74	89		
ED Ø	10	10	12	15	15		
EE	BSP	G-1/8	G-1/4	G-1/4	G-1/4	G-1/4	
	MANIFOLD	3	3	3	4	4	
EF	2	2	2	2	2		
EK	7	11	12	14	17		
EL	17,5	20,5	21	22,5	26		
EM	15,8	18,5	19	21	24,5		
KA	8,5	8	8	9	11		
KB	8	12	12	14	16		
KC	3,25	3,25	3,25	3,25	4,25		
KD	3,75	4,75	4,75	5,25	5,75		
KE	45	63	70	80	100		
KM	8,5	8	8	13	15,5		
LH	20	25	29	34	42		
SB Ø	6,8	9	11	13,5	16		
SC	5,5	7	8,75	10	11,5		
SD	6,5	8,6	10,8	13	15,2		
TS	39	56	62	74	90		
US	50	70	80	94	114		
VS	28	42	-	-	-		
W	8	10	10	11	13		
XS	23	30	30	31	33		
Add Stroke	LB	45	51	55	60	67	
	SS	24,5	24	23	27	32	
	ZJ	53	61	65	71	80	
Min. Stroke for M port	10	15	15	20	20		
MM Rod Ø	14	18	22	28	36		
Rod End	1	KK	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2
		A	16	18	22	28	36
	2	KK	M10	M12	M16	M20	M27
		A	12	15	20	24	30
	3	AD	12	16	20	24	28
		AE	4	6	8	10	12
AF	8	10	12	16	22		
Rod Extension Dimensions	C	6	8	8	9	11	
	D	12	15	19	24	32	
	NA	13	17	21	27	35	

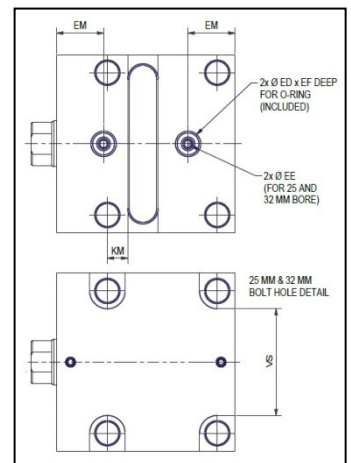
Rod End Dimensions



"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.



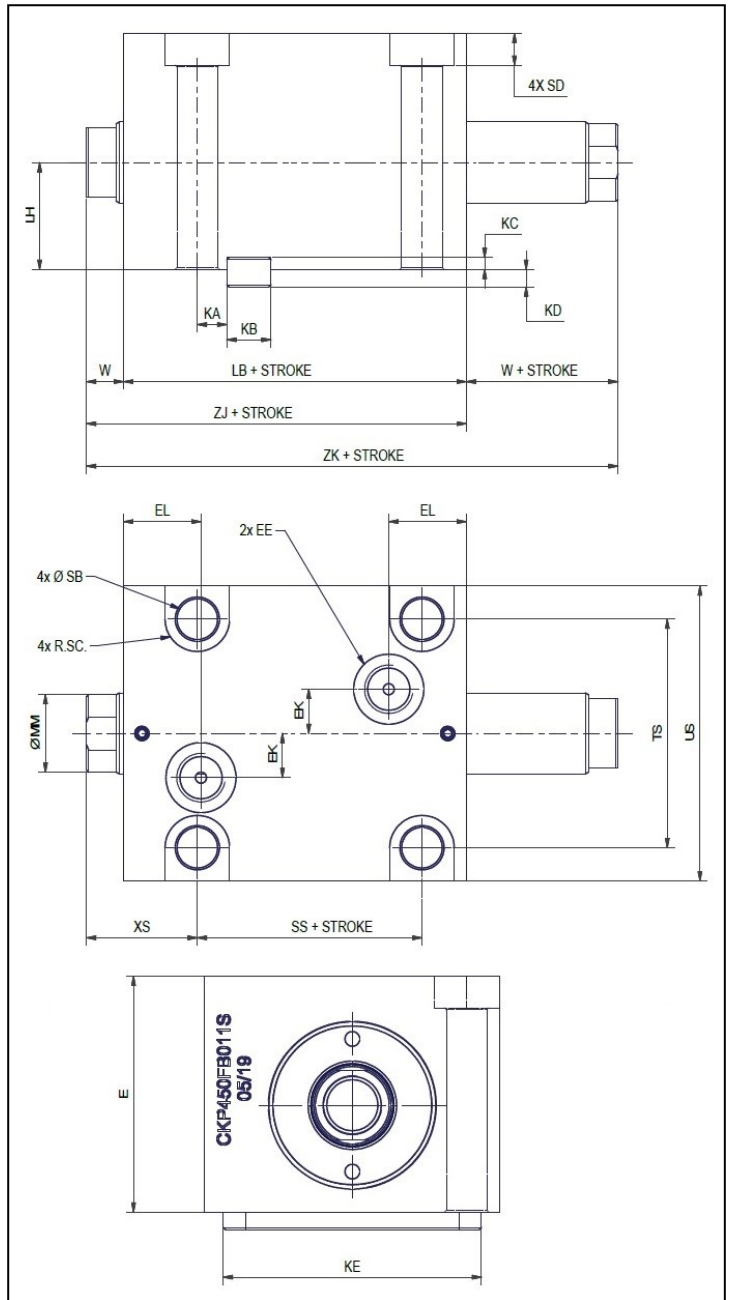
MANIFOLD PORT OPTIONAL DETAIL
CAUTION: KM key slot location used for Manifold ports only.



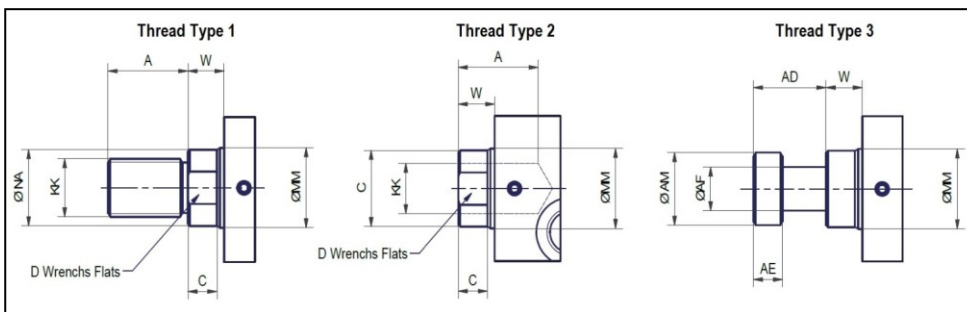
F Foot Mount Style

Double Rod End (25 mm to 63 mm Bore Size)

Bore Ø	25	32	40	50	63		
E	45	56	64	74	89		
ED Ø	10	10	12	15	15		
EE	BSP	G-1/8	G-1/4	G-1/4	G-1/4		
	Manifold	3	3	3	4	4	
EF	2	2	2	2	2		
EK	7	11	12	14	17		
EL	17,5	20,5	21	22,5	26		
EM	15,8	18,5	19	21	24,5		
KA	8,5	8	8	9	11		
KB	8	12	12	14	16		
KC	3,25	3,25	3,25	3,75	4,25		
KD	3,75	4,75	4,75	5,25	5,75		
KE	45	63	70	80	100		
KM	8,5	8	8	13	15,5		
LH	20	25	29	34	42		
SB Ø	6,8	9	11	13,5	16		
SC	5,5	7	8,75	10	11,5		
SD	6,5	8,6	10,8	13	15,2		
TS	39	56	62	74	90		
US	50	70	80	94	114		
VS	28	42	-	-	-		
W	8	10	10	11	13		
XS	23	30	30	31	33		
Add Stroke	LB	45	51	55	60	67	
	SS	24,5	24	23	27	32	
	ZJ	53	61	65	71	80	
Add 2xStroke	ZK	61	71	75	82	93	
Min. from M port	10	15	15	20	20		
MM Rod Ø	14	18	22	28	36		
Rod End	1	KK	M10 x1,25	M12 x1,25	M16 x1,5	M20 x1,5	M27 x2
		A	16	18	22	28	36
	2	KK	M10	M12	M16	M20	M27
		A	12	15	20	24	30
	3	AD	12	16	20	24	28
		AE	4	6	8	10	12
AF		8	10	12	16	22	
Rod Extension Dimensions	C	6	8	8	9	11	
	D	12	15	19	24	32	
	NA	13	17	21	27	35	

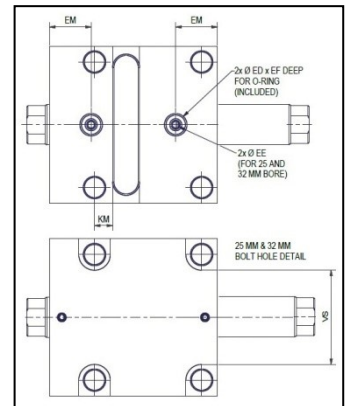


Rod End Dimensions



MANIFOLD PORT OPTIONAL DETAIL

CAUTION: KM key slot location used for Manifold ports only.

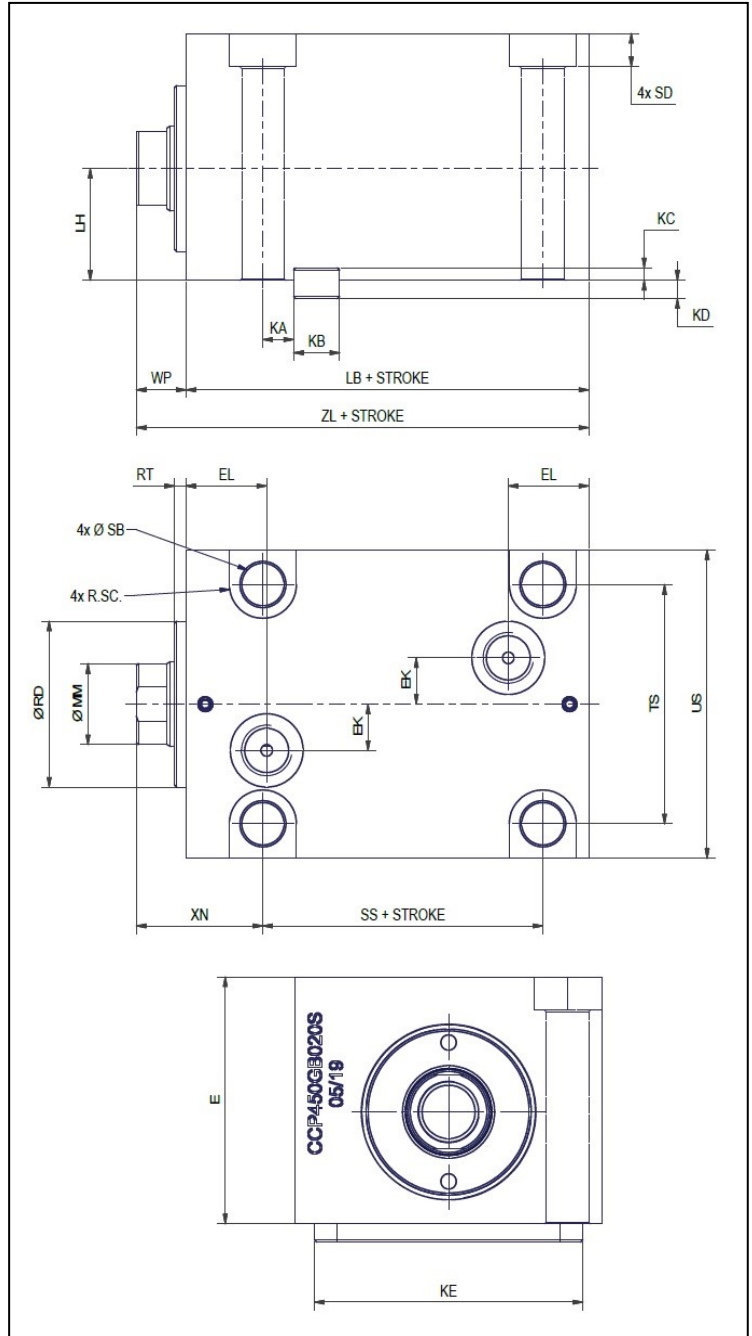


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

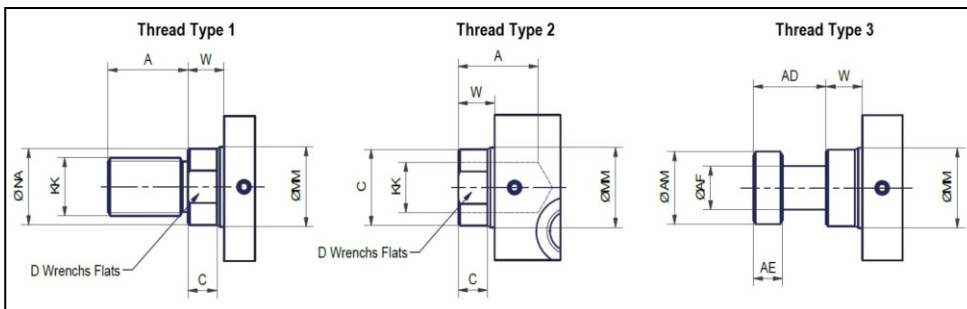
G Foot Mount with Pilot Gland

Single Rod End (25 mm to 63 mm Bore Size)

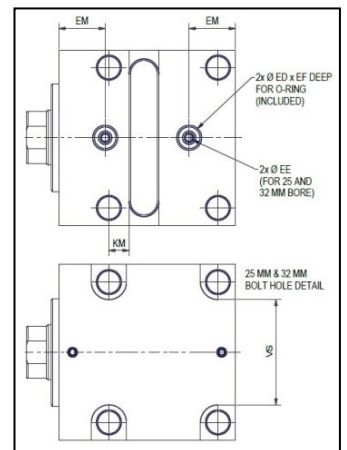
Bore \varnothing	25	32	40	50	63		
E	45	56	64	74	89		
ED \varnothing	10	10	12	15	15		
EE	BSP	G-1/8	G-1/4	G-1/4	G-1/4		
	Manifold	3	3	3	4	4	
EF	2	2	2	2	2		
EK	7	11	12	14	17		
EL	17,5	20,5	21	22,5	26		
EM	15,8	18,5	19	21	24,5		
KA	8,5	8	8	9	11		
KB	8	12	12	14	16		
KC	3,25	3,25	3,25	3,75	4,25		
KD	3,75	4,75	4,75	5,25	5,75		
KE	45	63	70	80	100		
KM	8,5	8	8	13	15,5		
LH	20	25	29	34	42		
RD \varnothing	27	36	43	53	66		
RT	3	3	3	3	3		
SB \varnothing	6,8	9	11	13,5	16		
SC	5,5	7	8,75	10	11,5		
SD	6,5	8,6	10,8	13	15,2		
TS	39	56	62	74	90		
US	50	70	80	94	114		
VS	28	42	-	-	-		
WP	11	13	13	14	16		
XN	26	33	33	34	36		
Add Stroke	LB	45	51	55	60	67	
	SS	24,5	24	23	27	32	
	ZL	56	64	68	74	83	
Min. from M port	10	15	15	20	20		
MM Rod \varnothing	14	18	22	28	36		
Rod End	1	KK	M10	M12	M16	M20	M27
		A	x1,25	x1,25	x1,5	x1,5	x2
	2	KK	M10	M12	M16	M20	M27
		A	12	15	20	24	30
	3	AD	12	16	20	24	28
		AE	4	6	8	10	12
AF		8	10	12	16	22	
Rod Extension Dimensions	C	6	8	8	9	11	
	D	12	15	19	24	32	
	NA	13	17	21	27	35	



Rod End Dimensions



MANIFOLD PORT OPTIONAL DETAIL
 CAUTION: KM key slot location used for Manifold ports only.

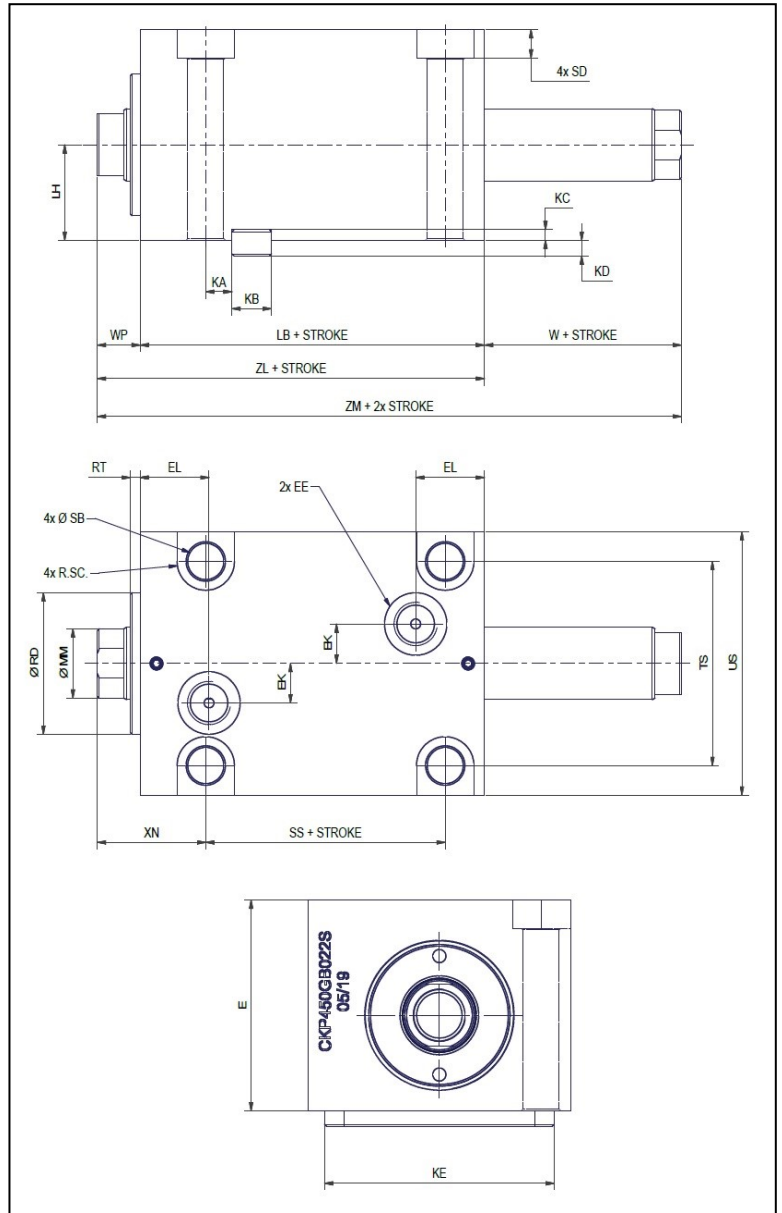


"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.

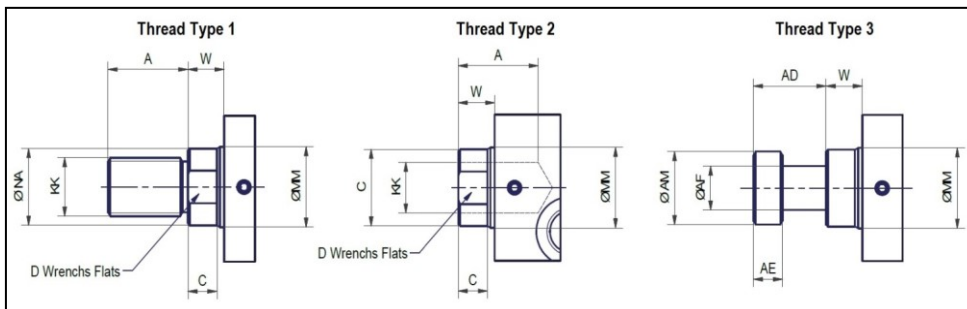
G Foot Mount with Pilot Gland

Double Rod End (25 mm to 63 mm Bore Size)

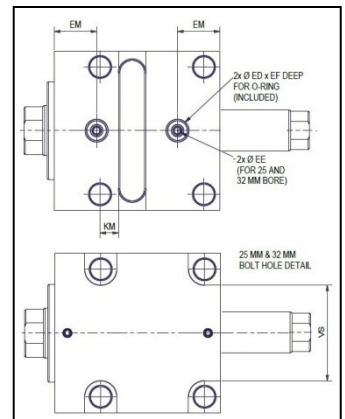
Bore Ø	25	32	40	50	63		
E	45	56	64	74	89		
ED Ø	10	10	12	15	15		
EE	BSP	G-1/8	G-1/4	G-1/4	G-1/4		
	Manifold	3	3	3	4	4	
EF	2	2	2	2	2		
EK	7	11	12	14	17		
EL	17,5	20,5	21	22,5	26		
EM	15,8	18,5	19	21	24,5		
KA	8,5	8	8	9	11		
KB	8	12	12	14	16		
KC	3,25	3,25	3,25	3,75	4,25		
KD	3,75	4,75	4,75	5,25	5,75		
KE	45	63	70	80	100		
KM	8,5	8	8	13	15,5		
LH	20	25	29	34	42		
RD Ø	27	36	43	53	66		
RT	3	3	3	3	3		
SB Ø	6,8	9	11	13,5	16		
SC	5,5	7	8,75	10	11,5		
SD	6,5	8,6	10,8	13	15,2		
TS	39	56	62	74	90		
US	50	70	80	94	114		
VS	28	42	-	-	-		
W	8	10	10	11	13		
WP	11	13	13	14	16		
XN	26	33	33	34	36		
Add Stroke	LB	45	51	55	60	67	
	SS	24,5	24	23	27	32	
	ZL	56	64	68	74	83	
Add2xStroke	ZM	64	74	78	85	96	
Min. from M port		10	15	15	20	20	
MM Rod Ø		14	18	22	28	36	
Rod End	1	KK	M10	M12	M16	M20	M27
		A	x1,25	x1,25	x1,5	x1,5	x2
		A	16	18	22	28	36
	2	KK	M10	M12	M16	M20	M27
		A	12	15	20	24	30
		AD	12	16	20	24	28
	3	AE	4	6	8	10	12
		AF	8	10	12	16	22
		AM	13	16	20	25	33
Rod Extension Dimensions	C	6	8	8	9	11	
	D	12	15	19	24	32	
	NA	13	17	21	27	35	



Rod End Dimensions



MANIFOLD PORT OPTIONAL DETAIL
CAUTION: KM key slot location used for Manifold ports only.



"Special" Rod end Style 4 are available. Specify in order the en style or furnish dimensional sketch.