



## Short Stroke Cylinder



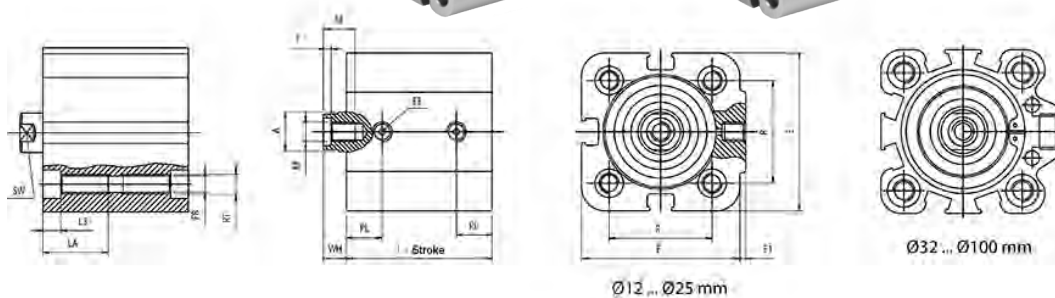
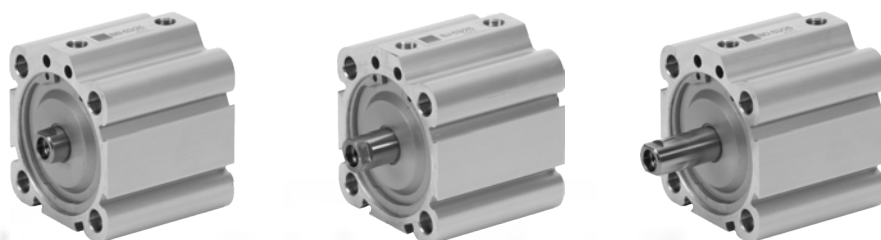
## Short Stroke Cylinder

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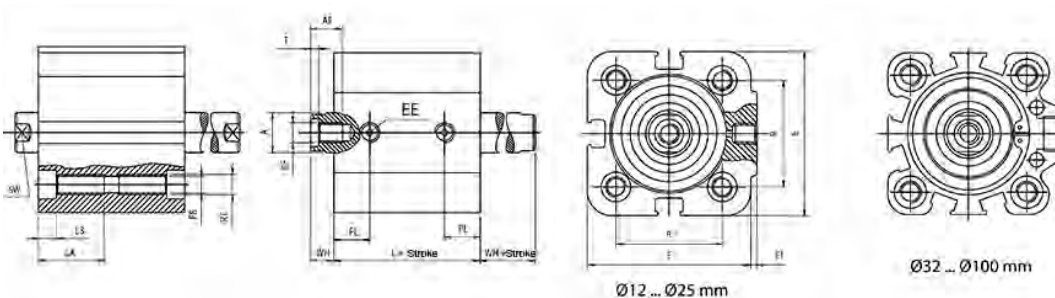
Technical information	
Diameter	Ø12 - Ø16 - Ø20 - Ø25 - Ø32 - Ø40 - Ø50 - Ø63 - Ø80 - Ø100 mm
Stroke	5 - 10 - 25 - 50 - 80 - 100 mm (Depending on diameter) Single acting Double acting
Medium	Air
Pressure range	1 ... 10 bar
Temperature range	-20°C ... +80°C FPM version 0°C ... +150°C
Below 0°C air has to be dried.	
Materials	
Tube	Anodized aluminum
Heads	Anodized aluminum
Piston	Aluminum
Piston rod	Ø12 ... Ø25 stainless steel / Ø32 ... Ø100 chromed steel
Guide bushing	Sintered bronze
Seals	PUR, NBR/FPM (depending on type)

B	F	V	20	/	80	Ex
			DIAMETER		STROKE	OPTIONS
			12		5	<b>Ex</b> ATEX version (only for version with standard seals)
			16		10	
			20		25	
			25		40	
			32		50	
			40		80	
			50		100	
			63			
			80			
			100			
			SEALS			
			<b>WITHOUT</b>	Standard seals		
			<b>K</b>	FPM Piston (for type BF and BJ from diam. 16 mm)		
			<b>V</b>	FPM seals (for type BB, BD, BF, BJ from diam. 16 mm)		
			FUNCTION			
			<b>B</b>	Single acting		
			<b>D</b>	Single acting, spring pushes piston rod out		
			<b>F</b>	Double acting		
			<b>J</b>	Double acting, through piston rod		
			<b>FA</b>	Non-rotating piston rod		

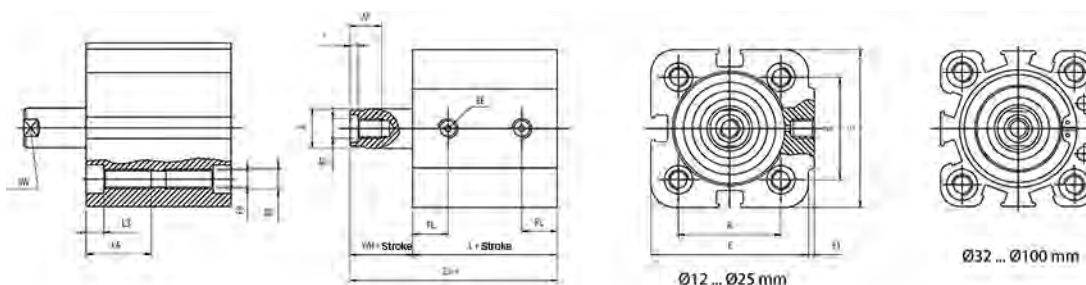
# BB/BF/BJ/BD



BB/BF



BJ



BD

Ø [mm]	A	E	E1	FB	L	L3	R	T	AF	EE	KF	LA	PL	RT	SW	WH
Ø 12	6	29	1	3,3	28	3,5	18	1,5	6	M5	M3	12,5	7,5	M4	5	6
Ø 16	8	29	1	3,3	30,5	3,5	18	2	8	M5	M4	14,5	8,5	M4	7	6
Ø 20	10	36	1,5	4,2	31,5	4,5	22	2	8	M5	M5	16,5	9	M5	9	6
Ø 25	10	40	1,5	4,2	31,5	4,5	26	2	8	M5	M5	16,5	9	M5	9	6
Ø 32	12	45	3,5	5	32	5,7	32,5	2,8	10	G 1/8"	M6	21,7	10	M6	10	7
Ø 40	12	52	5	5	38,5	5,7	38	2,8	10	G 1/8"	M6	21,7	11	M6	10	7,2
Ø 50	16	63,5	7	6,8	39	6,8	46,5	3,5	12	G 1/8"	M8	22,8	11	M8	13	8,5
Ø 63	16	77	7	6,8	46	6,8	56,5	3,5	12	G 1/8"	M8	22,8	11,5	M8	13	8
Ø 80	20	92	10	8,5	54	9	72	4,5	16	G 1/8"	M10	25	14	M10	17	11
Ø 100	20	113	13	8,5	65	9	89	6	20	G 1/8"	M12	25	17,5	M10	22	12

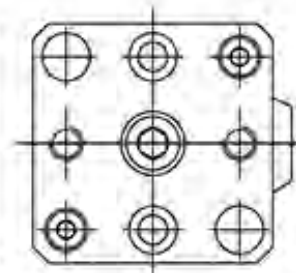
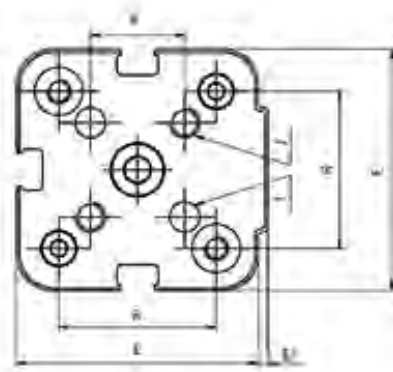
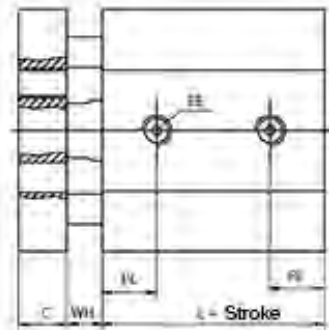
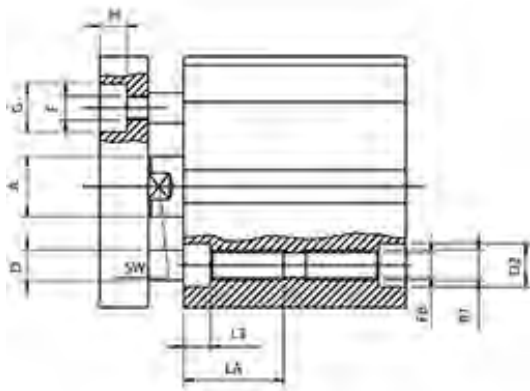


# BFA

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BFA



Ø [mm]	A	C	D	D2	E	E1	F	FB	G	H	I	J	K	L	L3	R	EE	LA	PL	RT	SW	WH
Ø 12	6	5	4	5,5	29	1	M3	3,5	6	3,5	3	M3	9,9	28	3,5	18	M5	12,5	7,5	M4	5	6
Ø 16	8	5	4	5,5	29	1	M3	3,5	6	3,5	3	M3	9,9	30,5	3,5	18	M5	14,5	8,5	M4	7	6
Ø 20	10	8	6	7	36	1,5	M3	4,2	6	3,5	4	M4	12	31,5	4,5	22	M5	16,5	9	M5	9	6
Ø 25	10	8	6	7	40	1,5	M4	4,2	8	4,5	5	M5	15,6	31,5	4,5	26	M5	16,5	9	M5	9	6
Ø 32	12	10	6	8,5	45	3,5	4,5	5	8	4,5	9	M5	-	32	5,7	32,5	G 1/8"	21,7	10	M6	10	7
Ø 40	12	10	6	8,5	52	5	4,5	5	8	4,5	9	M5	-	38,5	5,7	38	G 1/8"	21,7	11	M6	10	7,2
Ø 50	16	12	8	10	63,5	7	5,5	6,8	9	5,5	10	M6	-	39	6,8	46,5	G 1/8"	22,8	11	M8	13	8,5
Ø 63	16	12	8	10	77	7	5,5	6,8	9	5,5	14	M6	-	46	6,8	56,5	G 1/8"	22,8	11,5	M8	13	8
Ø 80	20	14	12	13	92	10	8,5	8,5	14	9	14	M8	-	54	9	72	G 1/8"	25	14	M10	17	11
Ø 100	25	14	12	13	113	13	8,5	8,5	14	9	17	M8	-	65	9	89	G 1/4"	25	17,5	M10	22	12



## Short Stroke Cylinder - High Temperature Version

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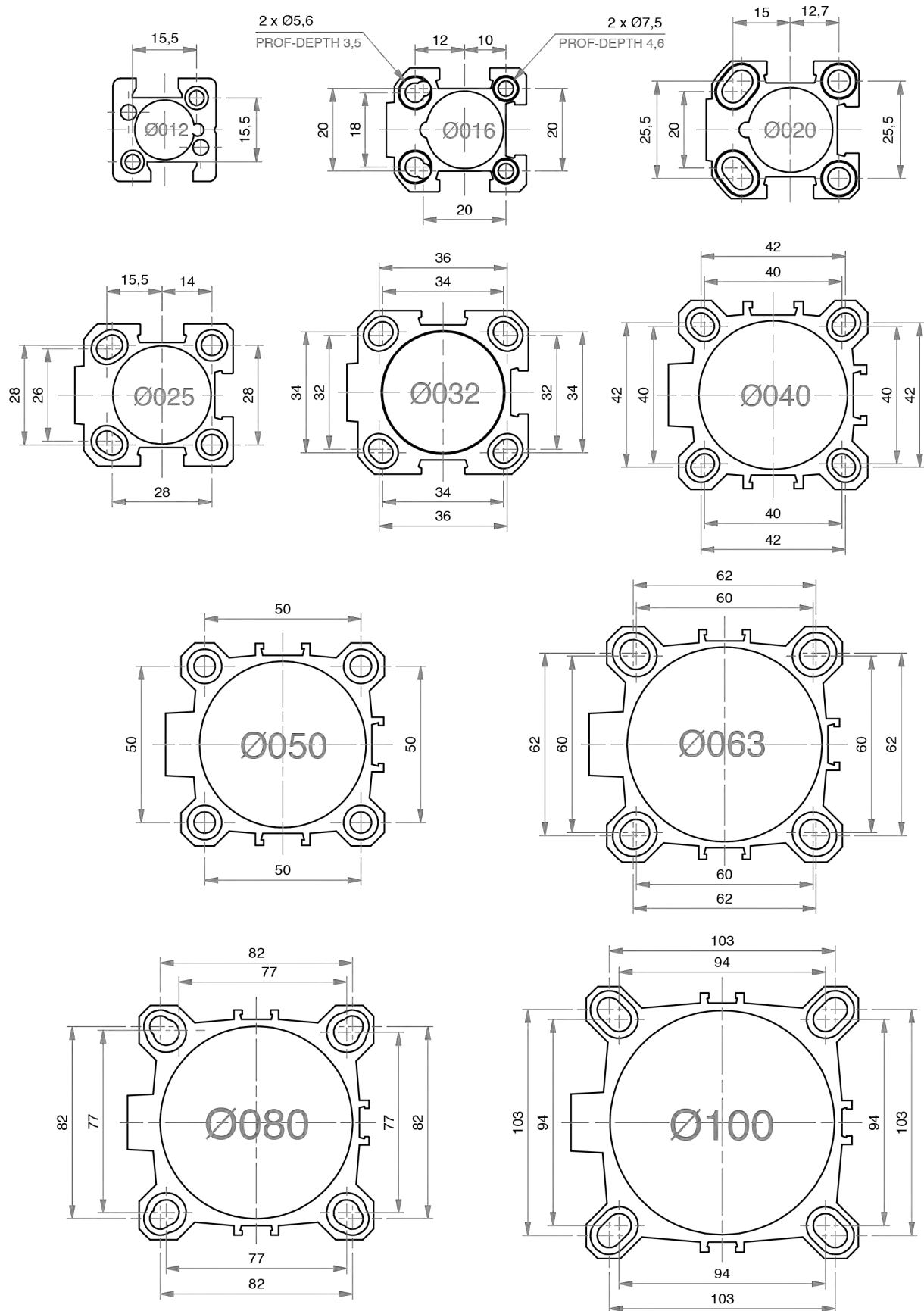
Technical information	
Diameter	Ø12 - Ø16 - Ø20 - Ø25 - Ø32 - Ø40 - Ø50 - Ø63 - Ø80 - Ø100 mm
Stroke	5 - 10 - 15 - 25 - 30 - 40 - 50 - 60 - 80 - 100 - 125 - 160 - 200 - 250 mm
	Single acting
	Double acting
Medium	Air
Pressure range	1 ... 10 bar (Double acting) 2 ... 10 bar (Single acting)
Temperature range	0°C ... +150°C
	Below 0°C air has to be dried.

Materials	
Tube	Anodized aluminum
Heads	Ø12 ... Ø25 brass / Ø32 ... Ø100 anodized aluminum
Piston	Aluminum
Piston rod	Stainless steel AISI 303
Guide bushing	Steel + PTFE
Seals	PUR

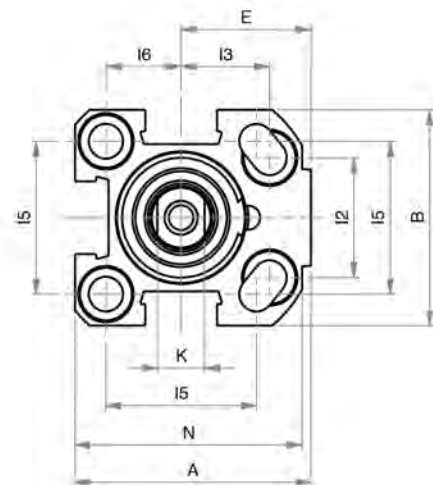
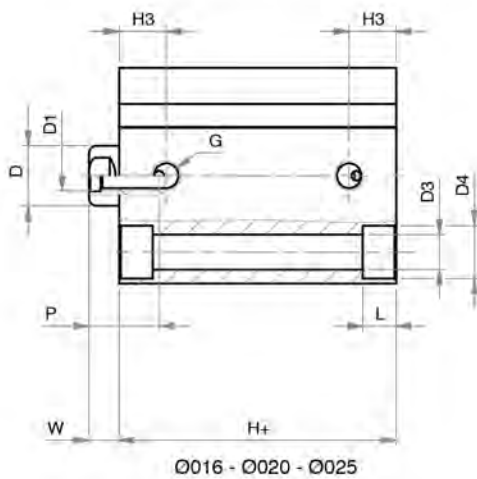
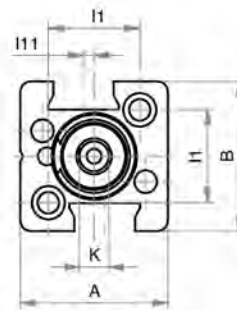
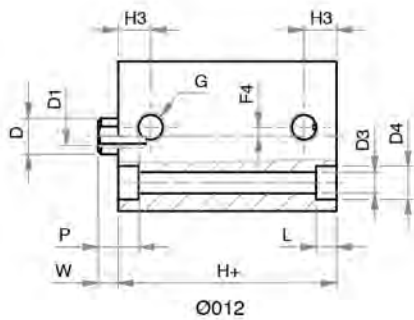
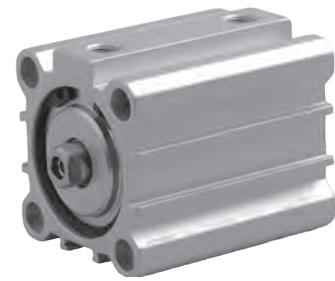
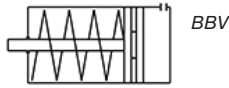


# Short Stroke Cylinder - High Temperature Version

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BBV



Ø [mm]	A	B	D	D1	D3	D4	E	G	H+	H3	I1
Ø12	25	25	6	M3	3,7	5,6	-	M5	27	5,5	15,5
Ø16	34	30	8	M4	**	**	19	M5	32*	8	-
Ø20	40	36	10	M5	5,8	9	22	M5	32*	8	-
Ø25	44,5	40	10	M5	5,8	9	24,5	G1/8	38,5*	10,5	-

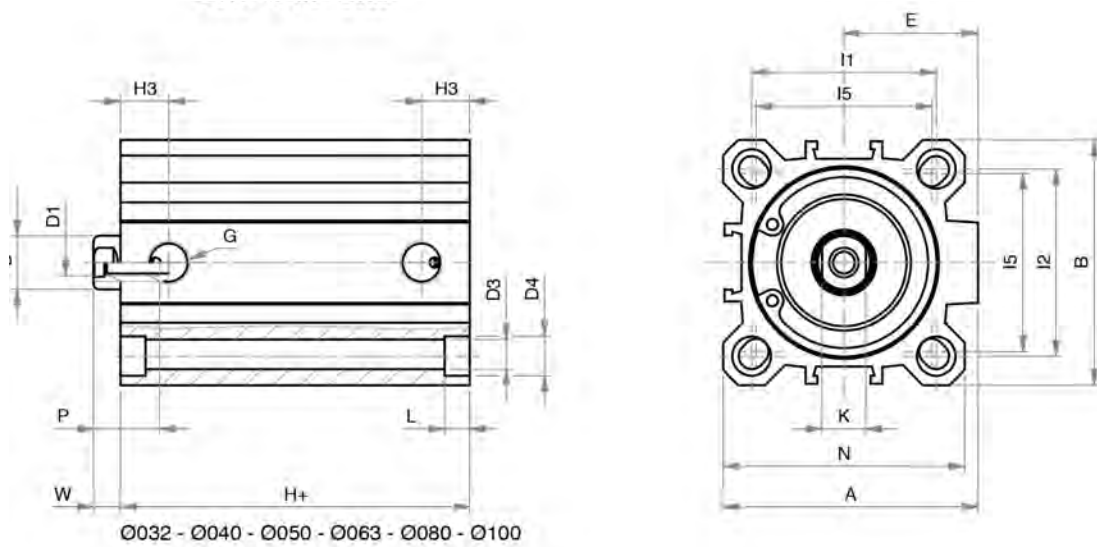
Ø [mm]	I2	I3	I5	I6	K	L	L1	N	P	W
Ø12	-	-	-	-	5	3,5	-	-	7	3,5
Ø16	18	12	20	10	6	4,6	3,5	32	11	4,5
Ø20	20	15	25,5	12,7	8	5,7	5,7	38,5	12	4,5
Ø25	26	15,5	28	14	8	5,7	5,7	42	12	5,5

\* For 25 mm stroke: Ø16-Ø20 add +6mm | Ø25 add +1mm  
 \* For 40-50 mm stroke: Ø32-Ø40-Ø50-Ø63-Ø80-Ø100 add +10 mm

\*\* Refer to page 50



# BBV



Ø [mm]	A	B	D	D1	D3	D4	E	G	H+
Ø32	51	46	12	M6	5,8	9	27	G1/8	39,5*
Ø40	58	55	12	M6	5,8	9	30,5	G1/8	39,5*
Ø50	70	65	16	M8	6,8	11	37,5	G1/8	39,5*
Ø63	89	80	16	M8	9	14	46	G1/8	42*
Ø80	105	100	20	M10	9	14	55	G1/4	46*
Ø100	131	124	25	M12	11	17,2	69	G1/4	56*

Ø [mm]	H3	I1	I2	I5	K	L	N	P	W
Ø32	11,5	36	32	34	10	5,7	48	15	5,5
Ø40	11	42	42	40	10	5,7	55	15	6,5
Ø50	11,5	50	50	50	13	6,8	65	17	7,5
Ø63	11	62	62	60	13	8,8	80	17	6,5
Ø80	14	82	82	77	17	9	100	17	8
Ø100	16	103	103	94	22	11	124	22	10

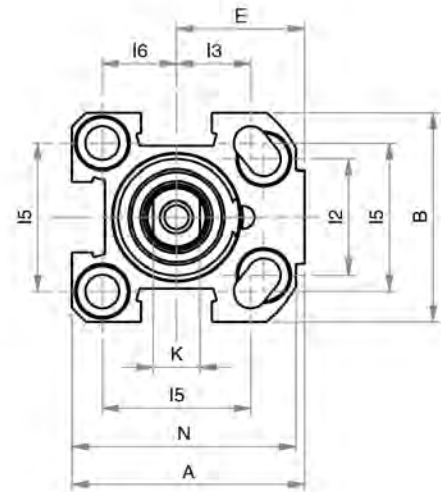
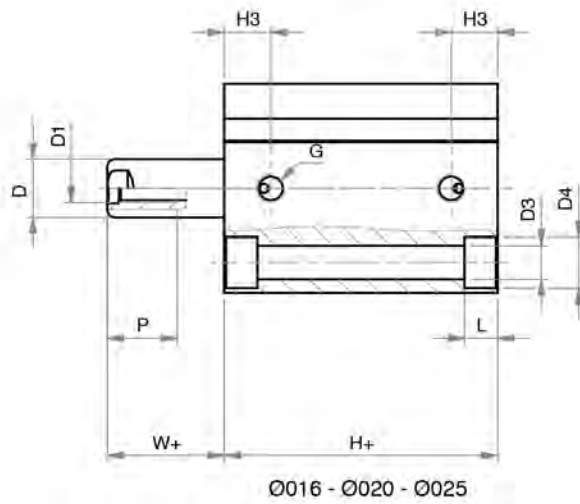
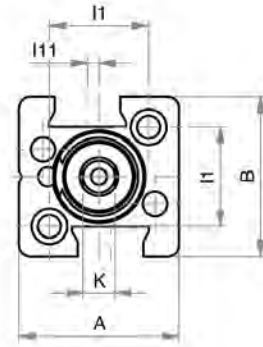
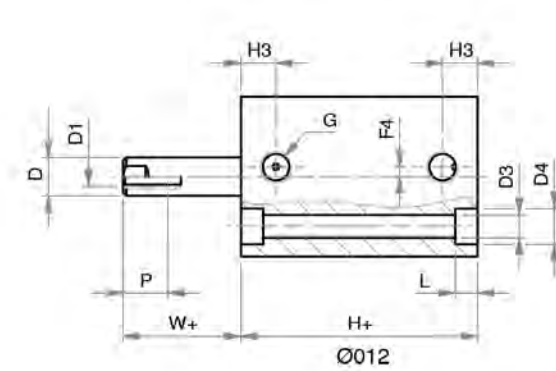
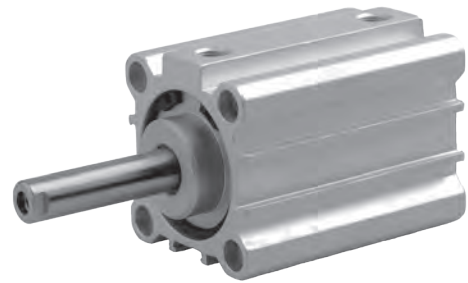
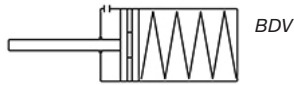
\* For 25 mmstroke: Ø16-Ø20 add +6mm | Ø25 add +1mm

\* For 40-50 mm stroke: Ø32-Ø40-Ø50-Ø63-Ø80-Ø100 add +10 mm





BDV



Ø [mm]	A	B	D	D1	D3	D4	E	G	H+	H3	I1
Ø12	25	25	6	M3	3,7	5,6	-	M5	27	5,5	15,5
Ø16	34	30	8	M4	**	**	19	M5	32*	8	-
Ø20	40	36	10	M5	5,8	9	22	M5	32*	8	-
Ø25	44,5	40	10	M5	5,8	9	24,5	G1/8	38,5*	10,5	-

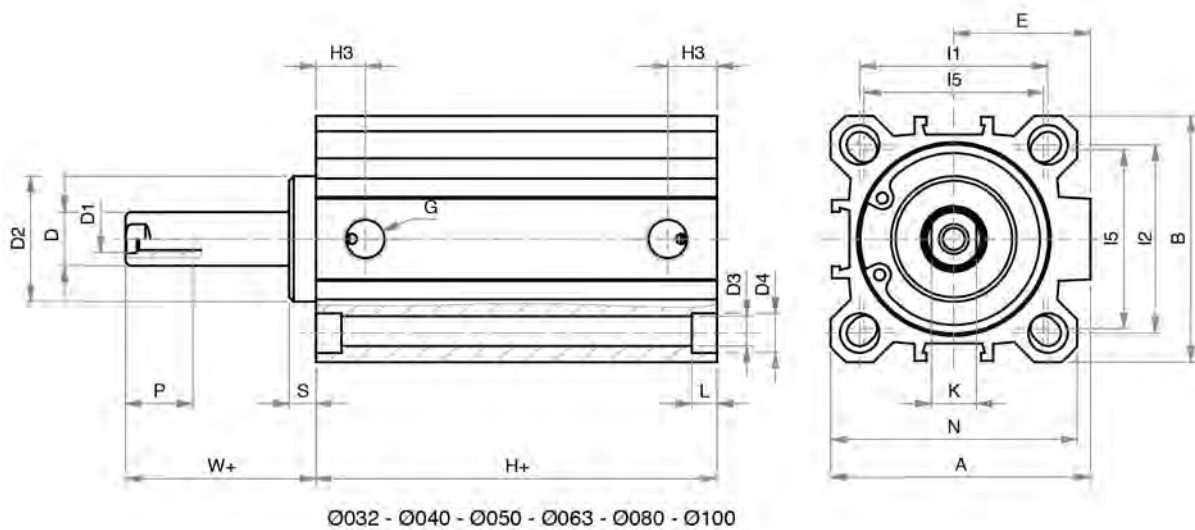
Ø [mm]	I2	I3	I5	I6	K	L	L1	N	P	W
Ø12	-	-	-	-	5	3,5	-	-	7	3,5
Ø16	18	12	20	10	6	4,6	3,5	32	11	4,5
Ø20	20	15	25,5	12,7	8	5,7	5,7	38,5	12	4,5
Ø25	26	15,5	28	14	8	5,7	5,7	42	12	5,5

\* For 20-25 mm stroke: Ø20 add +11mm | Ø25 add +6mm | Ø32 add +5mm  
 \* For 30 mm stroke: Ø32 add +10 mm  
 \*\* Refer to page 50.



# BDV

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Ø [mm]	A	B	D	D1	D2	D3	D4	E	G	H+
Ø32	51	46	12	M6	24,5	5,8	9	27	G1/8	39,5*
Ø40	58	55	12	M6	28	5,8	9	30,5	G1/8	39,5*
Ø50	70	65	16	M8	34	6,8	11	37,5	G1/8	39,5*
Ø63	89	80	16	M8	38,5	9	14	46	G1/8	42*

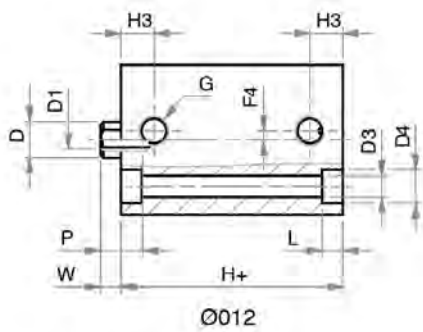
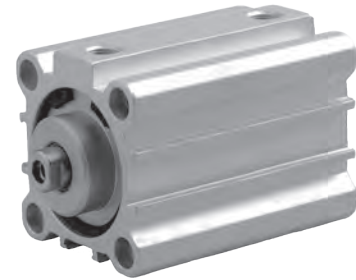
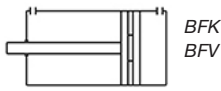
Ø [mm]	H3	I1	I2	I5	K	L	N	P	S	W
Ø32	11,5	36	32	34	10	5,7	48	15	5	5,5
Ø40	11	42	42	40	10	5,7	55	15	6	6,5
Ø50	11,5	50	50	50	13	6,8	65	17	6	7,5
Ø63	11	62	62	60	13	8,8	80	17	8	6,5

\* For 20-25 mm stroke: Ø20 add +11mm | Ø25 add +6mm | Ø32 add +5mm

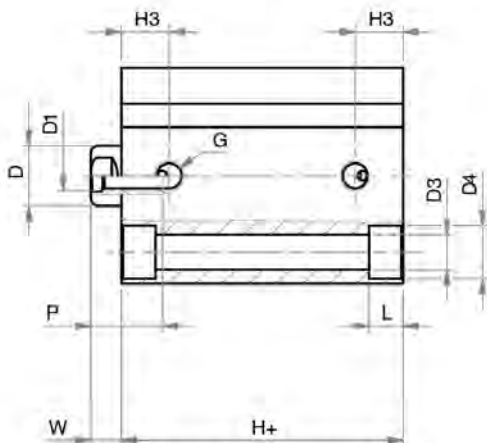
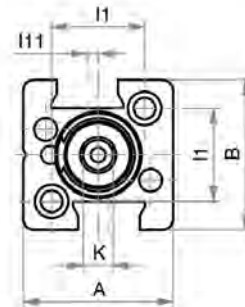
\* For 30 mm stroke: Ø32 Diameter add +10 mm



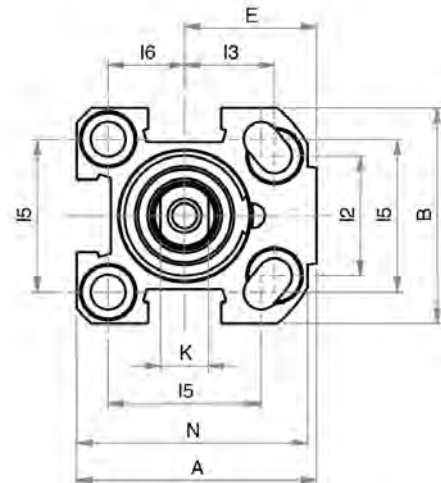
BFK/BFV



Ø12



Ø16 - Ø20 - Ø25



Ø [mm]	A	B	D	D1	D3	D4	E	G	H+	H3	I1
Ø12	25	25	6	M3	3,7	5,6	-	M5	27	5,5	15,5
Ø16	34	30	8	M4	**	**	19	M5	32*	8	-
Ø20	40	36	10	M5	5,8	9	22	M5	32*	8	-
Ø25	44,5	40	10	M5	5,8	9	24,5	G1/8	38,5*	10,5	-

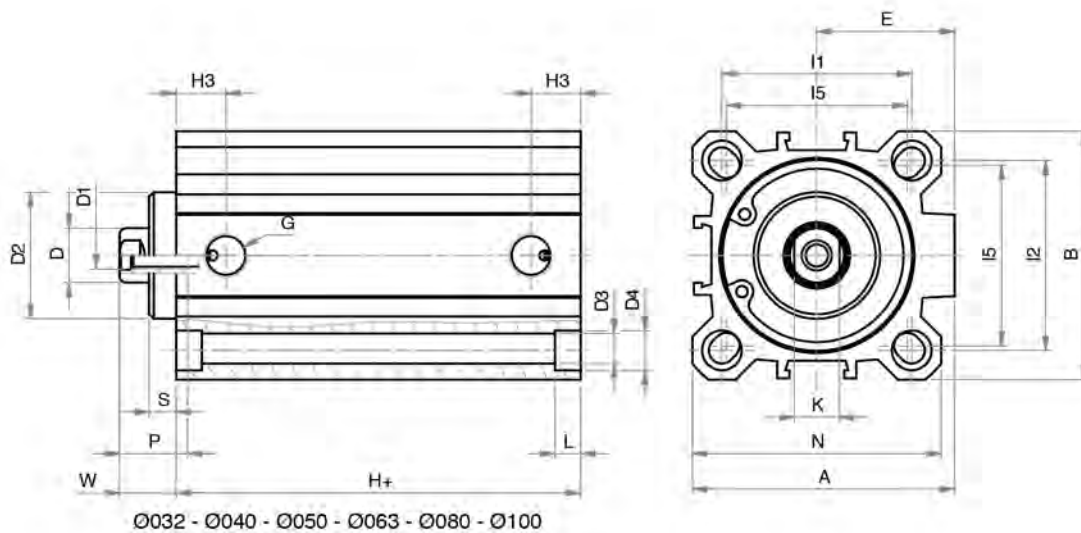
Ø [mm]	I2	I3	I5	I6	K	L	L1	N	P	W
Ø12	-	-	-	-	5	3,5	-	-	7	3,5
Ø16	18	12	20	10	6	4,6	3,5	32	11	4,5
Ø20	20	15	25,5	12,7	8	5,7	5,7	38,5	12	4,5
Ø25	26	15,5	28	14	8	5,7	5,7	42	12	5,5

\* When stroke length is equal to 19 mm or less: Ø16-Ø20 add +6mm | Ø25 add +1mm  
 \*\* Refer to page 50.



# BFK/BFV

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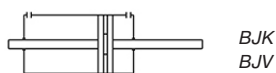


Ø [mm]	A	B	D	D1	D2	D3	D4	E	G	H+	H3
Ø32	51	46	12	M6	24,5	5,8	9	27	G1/8	39,5	11,5
Ø40	58	55	12	M6	28	5,8	9	30,5	G1/8	39,5	11
Ø50	70	65	16	M8	34	6,8	11	37,5	G1/8	39,5	11,5
Ø63	89	80	16	M8	38,5	9	14	46	G1/8	42	11
Ø80	105	100	20	M10	44	9	14	55	G1/4	46	14
Ø100	131	124	25	M12	56	11	17,2	69	G1/4	56	16

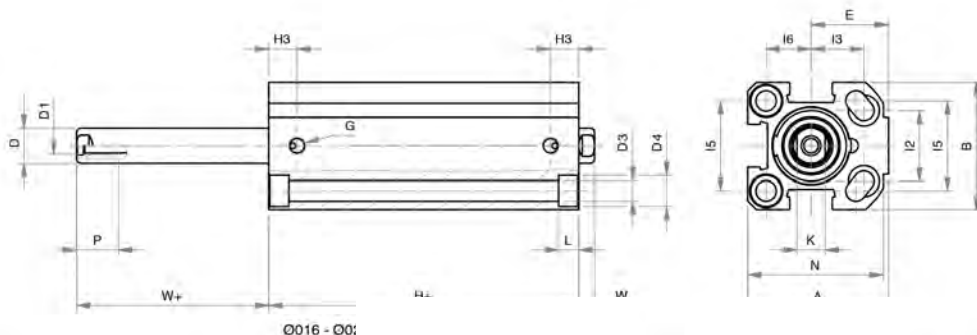
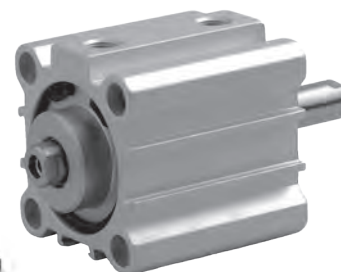
Ø [mm]	I1	I2	I2	I5	K	L	N	P	S	W
Ø32	36	32	32	34	10	5,7	48	15	5	5,5
Ø40	42	42	42	40	10	5,7	55	15	6	6,5
Ø50	50	50	50	50	13	6,8	65	17	6	7,5
Ø63	62	62	62	60	13	8,8	80	17	8	6,5
Ø80	82	82	82	77	17	9	100	17	10	8
Ø100	103	103	103	94	22	11	124	22	10,5	10



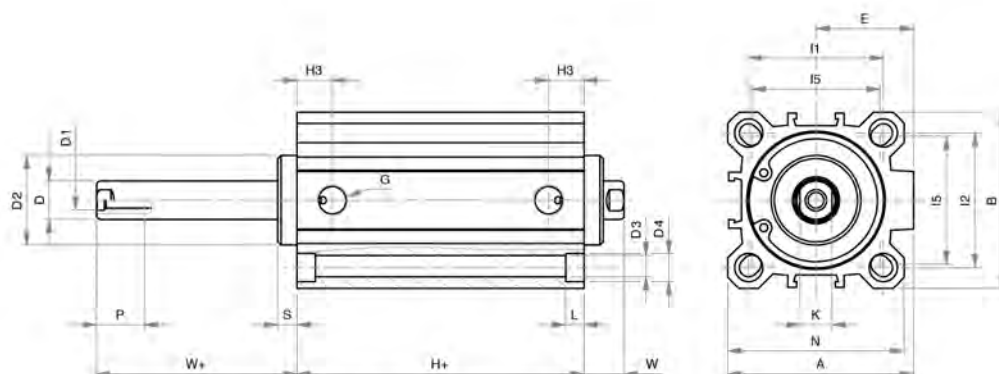
BJK/BJV



BJK  
BJV



Ø016 - Ø040



Ø032 - Ø040 - Ø050 - Ø063 - Ø080 - Ø100

Ø [mm]	A	B	D	D1	D2	D3	D4	E	G	H+	H3	I1
Ø16	34	30	8	M4	-	**	**	19	M5	32*	8	-
Ø20	40	36	10	M5	-	5,8	9	22	M5	32*	8	-
Ø25	44,5	40	10	M5	-	5,8	9	24,5	G1/8	38,5*	10,5	-
Ø32	51	46	12	M6	24,5	5,8	9	27	G1/8	39,5*	11,5	36
Ø40	58	55	12	M6	28	5,8	9	30,5	G1/8	39,5*	11	42
Ø50	70	65	16	M8	34	6,8	11	37,5	G1/8	39,5*	11,5	50
Ø63	89	80	16	M8	38,5	9	14	46	G1/8	42*	11	62
Ø80	105	100	20	M10	44	9	14	55	G1/4	46*	14	82
Ø100	131	124	25	M12	56	11	17,2	69	G1/4	56*	16	103

Ø [mm]	I2	I3	I5	I6	K	L	L1	N	P	S	W	W+
Ø16	18	12	20	10	6	4,6	3,5	32	11	-	4,5	4,5
Ø20	20	15	25,5	12,7	8	5,7	5,7	38,5	12	-	4,5	4,5
Ø25	26	15,5	28	14	8	5,7	5,7	42	12	-	5,5	5,5
Ø32	32	-	34	-	10	5,7	-	48	15	5	5,5	11
Ø40	42	-	40	-	10	5,7	-	55	15	6	6,5	12,5
Ø50	50	-	50	-	13	6,8	-	65	17	6	7,5	13,5
Ø63	62	-	60	-	13	8,8	-	80	17	8	6,5	15
Ø80	82	-	77	-	17	9	-	100	17	10	8	18
Ø100	103	-	94	-	22	11	-	124	22	10,5	10	20,5

\* When stroke length is equal to 25 mm or less: Ø16-Ø20 add +6mm | Ø25 add +1mm

\*\* Refer to page 50.



# Short Stroke Cylinder with Reduced Size

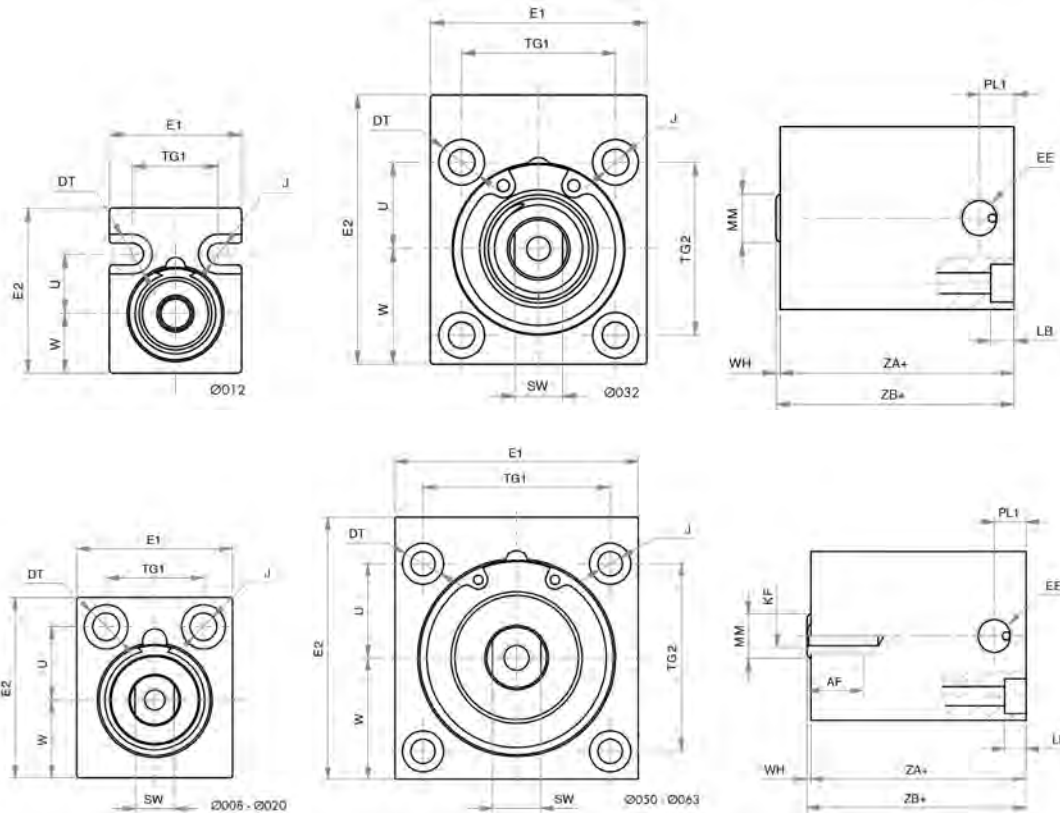
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Technical information	
DiameterØ	8 - Ø12 - Ø 20 - Ø32 - Ø50 - Ø63 mm
Stroke	4 - 5 - 10 - 15 - 20 - 25 - 30 mm <div style="margin-left: 20px;"> <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;"></span> </div> Single acting <div style="margin-left: 20px;"> <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;"></span> </div> Double acting
Medium	Air
Pressure range	Single acting: 2 ... 10 bar Double acting: 1 ... 10 bar
Temperature range	-20°C ... +80°C Below 0°C air has to be dried.

Materials																
Tube	Stainless steel AISI 303															
Heads	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Ø 8 - Ø12 - Ø 20</td> <td>Brass</td> </tr> <tr> <td>Ø 32 - Ø 50 - Ø 63</td> <td>Anodized aluminum</td> </tr> </table>	Ø 8 - Ø12 - Ø 20	Brass	Ø 32 - Ø 50 - Ø 63	Anodized aluminum											
Ø 8 - Ø12 - Ø 20	Brass															
Ø 32 - Ø 50 - Ø 63	Anodized aluminum															
Piston	<table border="0" style="width: 100%;"> <tr> <td style="width: 10%;">RS</td> <td style="width: 30%;">Ø 8 - Ø12</td> <td style="width: 60%;">Stainless steel AISI 303</td> </tr> <tr> <td></td> <td>Ø 20</td> <td>Aluminum</td> </tr> <tr> <td></td> <td>Ø 32 - Ø 50 - Ø 63</td> <td>POM</td> </tr> <tr> <td>RD</td> <td>Ø 12 - Ø 20</td> <td>Aluminum</td> </tr> <tr> <td></td> <td>Ø 32 - Ø 50 - Ø 63</td> <td>POM</td> </tr> </table>	RS	Ø 8 - Ø12	Stainless steel AISI 303		Ø 20	Aluminum		Ø 32 - Ø 50 - Ø 63	POM	RD	Ø 12 - Ø 20	Aluminum		Ø 32 - Ø 50 - Ø 63	POM
RS	Ø 8 - Ø12	Stainless steel AISI 303														
	Ø 20	Aluminum														
	Ø 32 - Ø 50 - Ø 63	POM														
RD	Ø 12 - Ø 20	Aluminum														
	Ø 32 - Ø 50 - Ø 63	POM														
Piston rod	Anodized aluminum															
Guide bushing	Steel + PTFE															
Seals	PUR, NBR															

R	D	20	/	10
		<b>DIAMETER</b>	<b>STROKE</b>	
		8	<b>RS</b>	<b>RD</b>
		12	4	5
		20	5	10
		32	10	15
		50	25	20
		63		25
				30
<b>FUNCTION</b>				
<b>S</b>		Single acting		
<b>D</b>		Double acting		



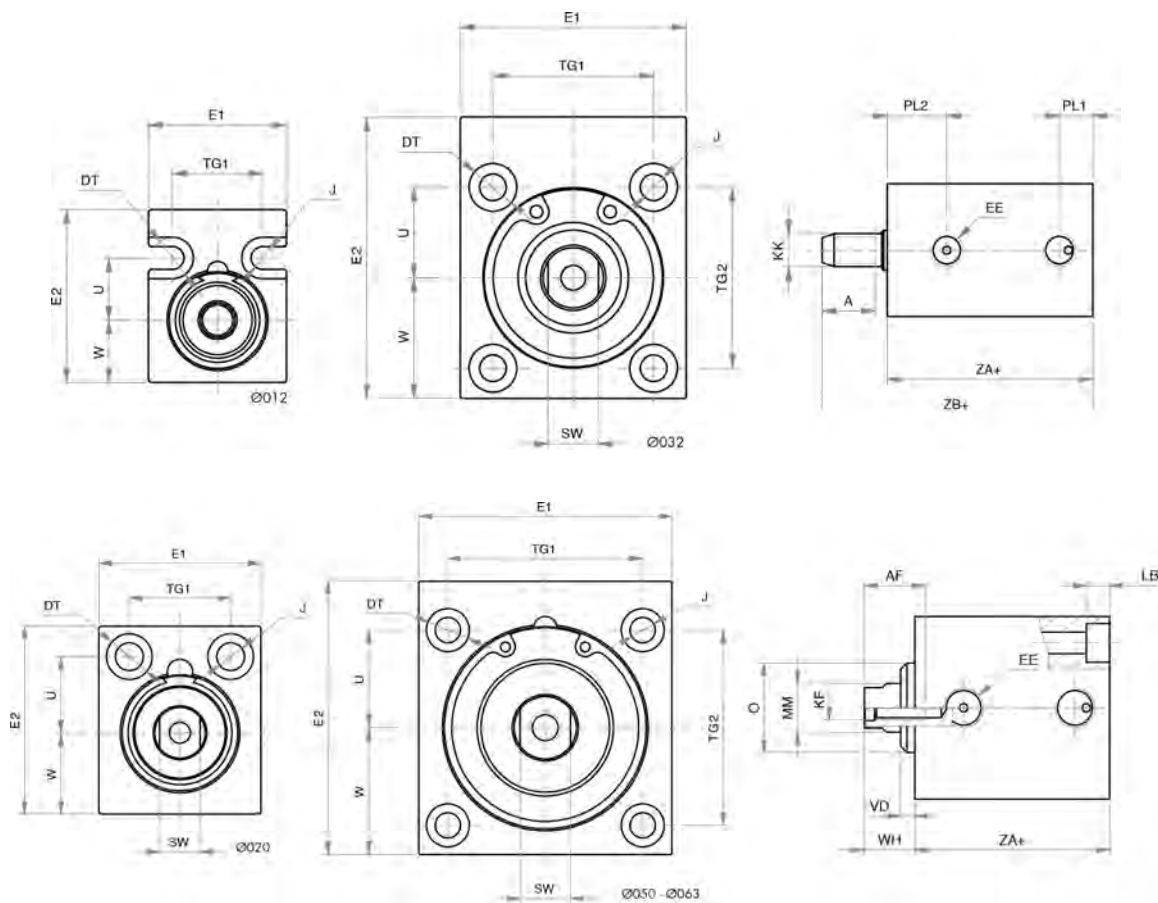
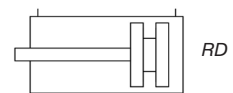


Ø [mm]	Stroke [mm]	AF	DT	E1	E2	EE	KF	LB	J	PL1	SW	TG1	TG2	U	W	WH	ZA+	ZB+
Ø 8	4	-	6	18	20	M5	M3	3,1	3,4	5,5	-	11	-	8	6,5	1	12	13
Ø 12	4	10	6	20	25	M5	M5	3,4	3,3	6	-	13	-	9	9	1	12	13
Ø 12	10	10	6	20	25	M5	M5	3,4	3,3	6	-	13	-	9	9	4	16	20
Ø 20	4	9	9	32	37	M5	M5	5,5	5,5	5	8	20	-	15	16	1	16	17
Ø 20	10	10	9	32	37	M5	M5	5,5	5,5	5	8	20	-	15	16	1	22	23
Ø 20	25	10	9	32	37	M5	M5	5,5	5,5	5	8	20	-	15	16	1	28	29
Ø 32	5	10	9,5	45	55	G1/8	M6	5,7	5,3	8,5	10	32	36	18	24	1	21	22
Ø 32	10	14,5	9,5	45	55	G1/8	M6	5,7	5,3	8,5	10	32	36	18	24	1	22	23
Ø 32	25	14,5	9,5	45	55	G1/8	M6	5,7	5,3	8,5	10	32	36	18	24	1	32,5	33,5
Ø 50	10	10,5	11	65	70	G1/8	M8	6,8	6,5	7,5	13	50	50	25	32,5	1	20	21
Ø 50	25	15,5	11	65	70	G1/8	M8	6,8	6,5	8	13	50	50	25	32,5	1	32,5	33,5
Ø 63	10	14,5	14	80	85	G1/8	M8	9	9	8	13	62	62	31	40	1	25	26
Ø 63	25	14,5	14	80	85	G1/8	M8	9	9	8	13	62	62	31	40	2	35,5	37,5



RD

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Ø [mm]	Stroke [mm]	AF	DT	E1	E2	EE	KF	LB	J	PL1	SW	TG1	TG2	U	W	WH	ZA+	ZB+
Ø 12	5-10-15-20-25-30	-	6	20	25	M5	-	3,4	3,3	5	-	13	-	9	9	1	21	31
Ø 20	5-10-15-20-25-30	10	9	32	37	M5	M5	5,5	5,5	5	8	20	-	15	16	9,5	24,5	34
Ø 32	5-10-15-20-25-30	15	9,5	45	56	G1/8	M6	5,7	5,3	8,5	10	32	36	18	24	12,5	33	45,5
Ø 50	5-10-15-20-25-30	17	11	65	70	G1/8	M8	6,8	6,5	9	13	50	50	25	32,5	17	32,5	49,5
Ø 63	5-10-15-20-25-30	17	14	80	85	G1/8	M8	9	9	8	13	62	62	31	40	17	35,5	52,5

