ORDERING CODE

DFM	☐	☐	☐	☐	☐
↑	↑	↑	↑	↑	↑
Model	Bore size	Standard stroke	Buffer form	Piston sensing	Guide
Guide rod cylinder			P: Elastic cushions at both ends	-: Without A: With sensing side	GF: Plain bearing guide KF: Recirculating ball bearing guide

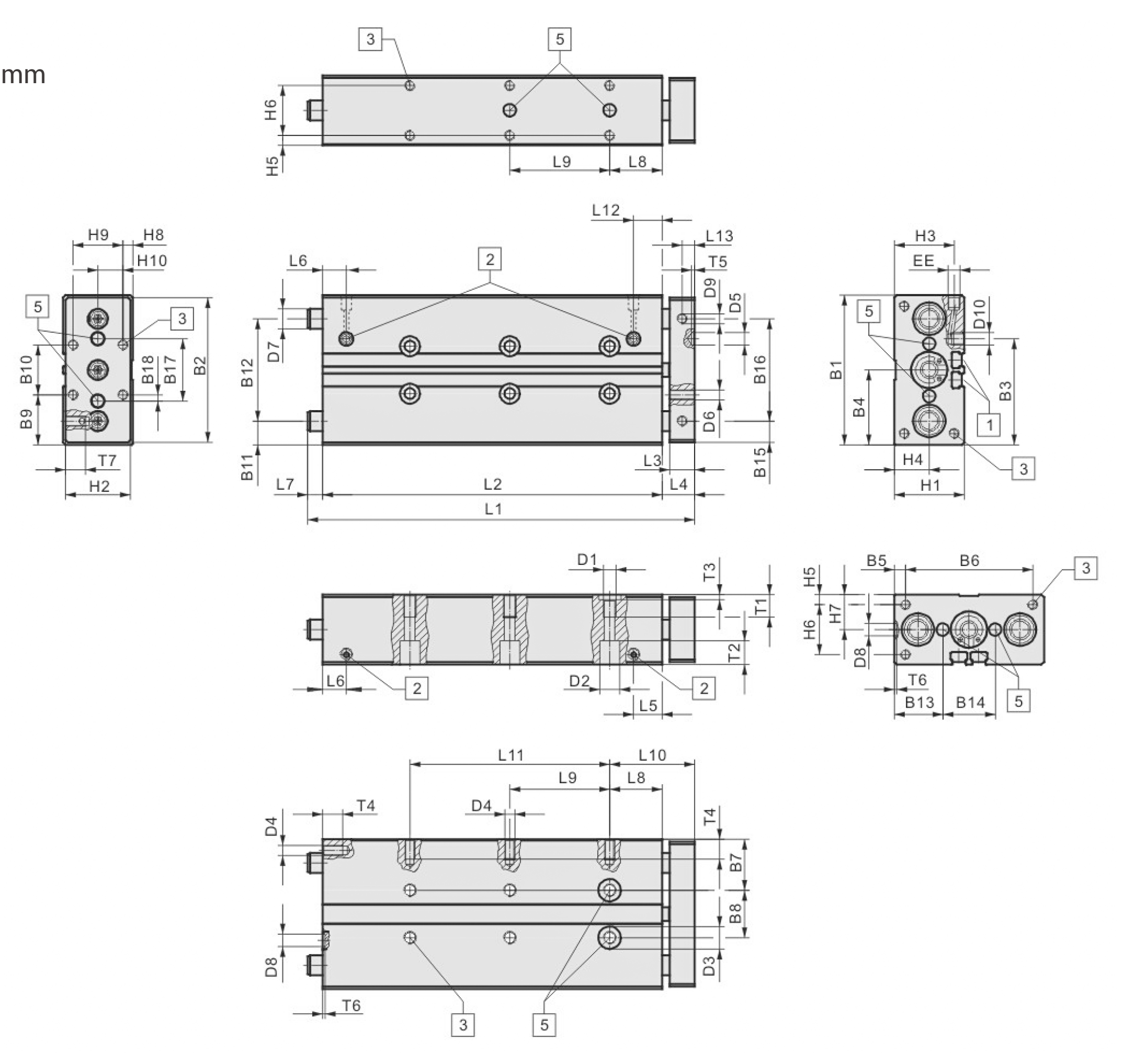
Remark:
Pls feel free to contact with us if have any customized request.

DATE SHEET

Bore Size(mm)		12	16	20	25	32	40	50	63	80	100
Air Port		M5	M5	M5	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
Anti-twist		Guide rod with connecting plate, with plain bearing guide or recirculating roller bearing guide									
Cushion Type		Elastic cushioning at both ends									
Theoretical value at 6 bar,propulsion[N]		68	121	188	295	482	754	1178	1870	3016	4712
Theoretical value at 6 bar,return force[N]		51	90	141	247	415	686	1057	1750	2827	4418
Maximum Effective Load Force[N]		19...28	24...72	35...110	84...123	112...188	109...180	168...257	168...257	220...352	332...568
Load Torque[Nm]		0.38...0.65	0.55...1.68	1.01...3	2.85...4.2	4.25...7.3	4.80...7.90	9.30...14.15	10.50...15.90	17.10...27.20	25.70...53.40
Material		Housing,section: Anodized aluminium Connection plate: Galvanised steel Piston rod,guide rod: High-quality alloy steel Seal: Nitrile rubber									
Operating Pressure[bar]		2...10			1.5...10			1...10		0.5...10	
Temperature °C	GF	-20...+80									
	KF	-5...+60									

OVERALLDIMENSION&STRUCTURE

Φ12...16mm



1 Mounting slot for proximity switch SME/SMT-8
2 Air intake optional side or top
3 Mounting thread
5 Tolerance between positioning holes ±0.02mm

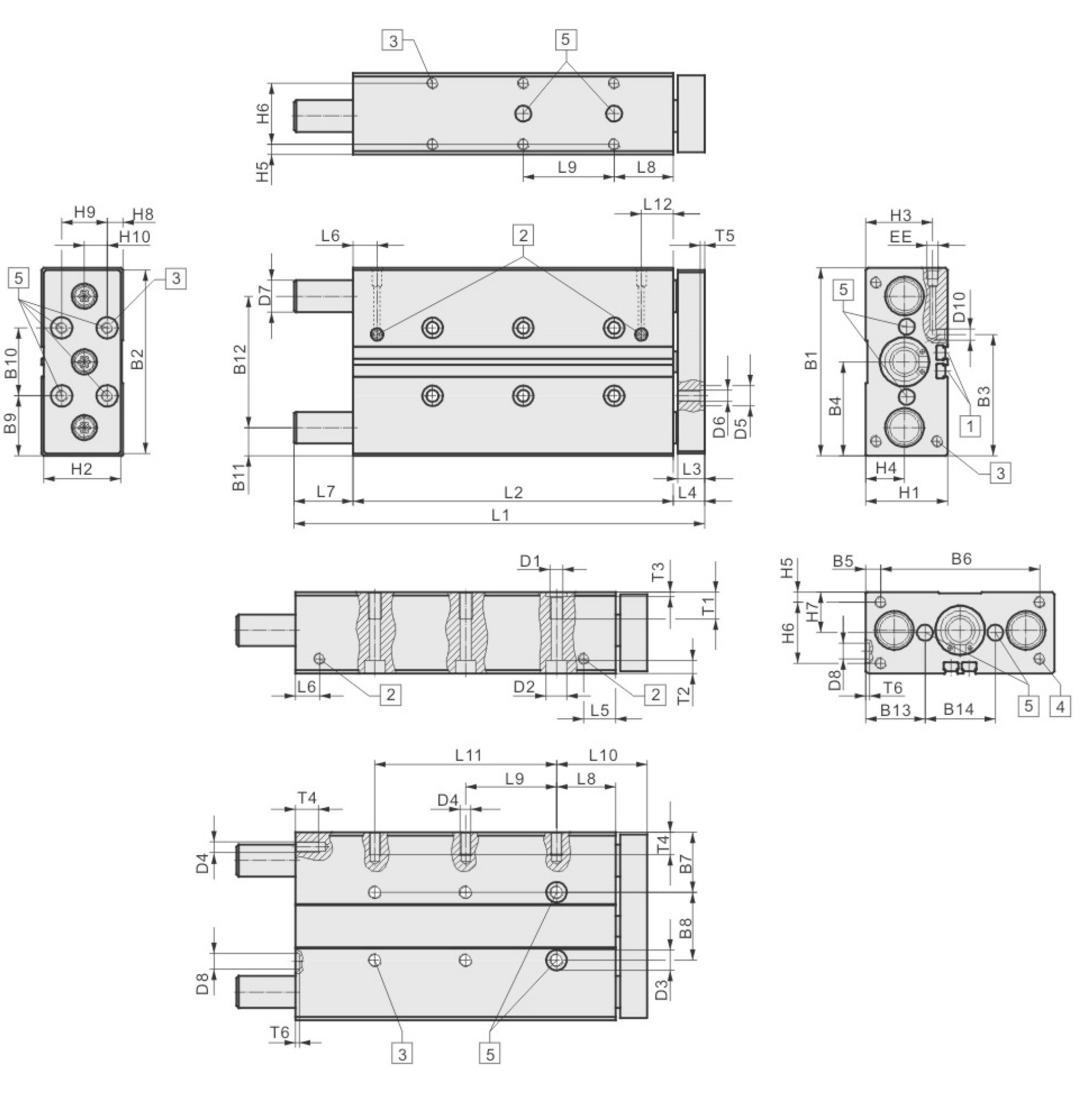
Φ(mm)	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	D1	D2Φ
12	60	58	42.4	30	4.5	51	20.5	19	20	20	9.5	41	19.5	21	8.5	41	25	2.5	M5	8
16	67	65	45.9	33.5	4.5	58	22	23	23.5	20	10.5	46	21.3	24.4	-	-	28	4	M5	7.5

Φ(mm)	D3 Φ H7	D4	D5 Φ H7	D6	D7 Φ		D8 Φ H7	D9	D10	EE	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
					GF	KF														
12	9	M4	5	M4	10h8	8h6	5	M4	M5	M5	28	26	24	14	4	20	14	4	20	10
16	9	M5	5	M5	12h8	10h7	5	-	M5	M5	32	30	26.5	16	4	24	16	7.4	20	10

Φ(mm)	Stroke	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
12	10	59	46	10	13	11.4	9.5	-	21	-	34
	20	69	56					-		-	
	25	74	61					-		20	
	30	79	66					-		20	
	40	95	76					6		20	
	50	105	86					6		40	
	80	135	116					6		40	
	100	155	136					6		40	
16	10	60	48	10	12	11.9	10.6	-	22	-	34
	20	70	58					-		-	
	25	75	63					-		20	
	30	80	68					-		20	
	40	107	78					17		20	
	50	117	88					17		40	
	80	147	118					17		40	
	100	167	138					17		40	

Φ(mm)	Stroke	L11	L12	L13	T1	T2	T3	T4	T5	T6	T7
12	10	-	11.4	5	9	9.4	2.1	8	1.2	1	8
	20	-									
	25	-									
	30	-									
	40	-									
	50	-									
	80	-									
	100	80									
16	10	-	11.9	-	9	4.6	2.1	10	1.2	1	-
	20	-									
	25	-									
	30	-									
	40	-									
	50	-									
	80	-									
	100	80									

Φ20...25mm



1 Mounting slot for proximity switch SME/SMT-8
2 Air intake optional side or top
3 Mounting thread
4 Mounting thread(not applicable to Φ20)
5 Tolerance between positioning holes ±0.02mm

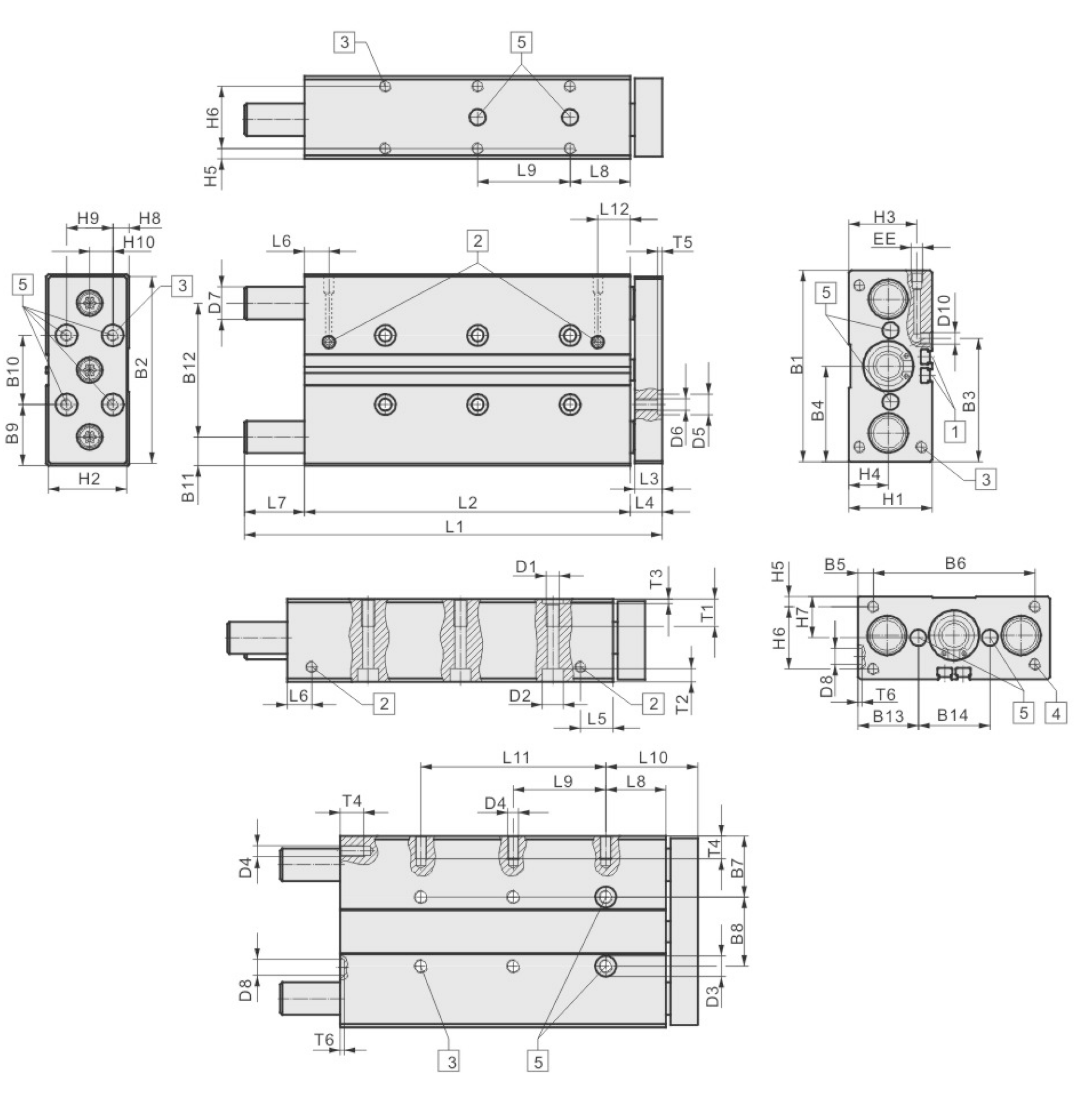
Φ(mm)	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	D1	D2Φ	D3 Φ H7	D4
20	83	81	53.6	41.5	6.5	70	26.5	30	26.5	30	12.5	58	26	31	M6	9	9	M5
25	95	93	70	47.5	15.5	64	30	35	27.5	40	13.5	68	29	37	M6	9	9	M6

Φ(mm)	D5 Φ H7	D6	D7Φ		D8 Φ H7	EE	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
			GF	KF												
20	9	M5	14h8	12h7	7	M5	36	34	29.5	17	4.5	27	18	7	20	10
25	9	M6	16h8	14h7	7	G1/8	44	42	34.8	19	4.5	35	22	12	20	10

Φ(mm)	Stroke	L1	L2	L3	L4	L5	L6	L7	L8	L9
20	20	75	61	12	14	14	10.5	-	26	-
	25	80	66					-		20
	30	85	71					-		20
	40	121	81					26		20
	50	131	91					26		40
	80	161	121					26		40
	100	181	141					26		40
25	20	93	65.6	12	14	17.5	9.5	13.4	26	-
	25	98	70.6					13.4		20
	30	103	75.6					13.4		20
	40	123	85.6					23.4		20
	50	133	95.6					23.4		40
	80	163	125.6					23.4		40
	100	183	145.6					23.4		40

Φ(mm)	Stroke	L10	L11	L12	T1	T2	T3	T4	T5	T6
20	20	40	-	14	12	5.7	2.1	10	2.1	1.6
	25		-							
	30		-							
	40		-							
	50		-							
	80		-							
	100		80							
25	20	40	-	15	14	5.7	2.1	12	2.1	1.6
	25		-							
	30		-							
	40		-							
	50		-							
	80		-							
	100		80							

Φ32...63mm



1 Mounting slot for proximity switch SME/SMT-8
2 Air intake optional side or top
3 Mounting thread
4 Mounting thread
5 Tolerance between positioning holes ±0.02mm

Notice

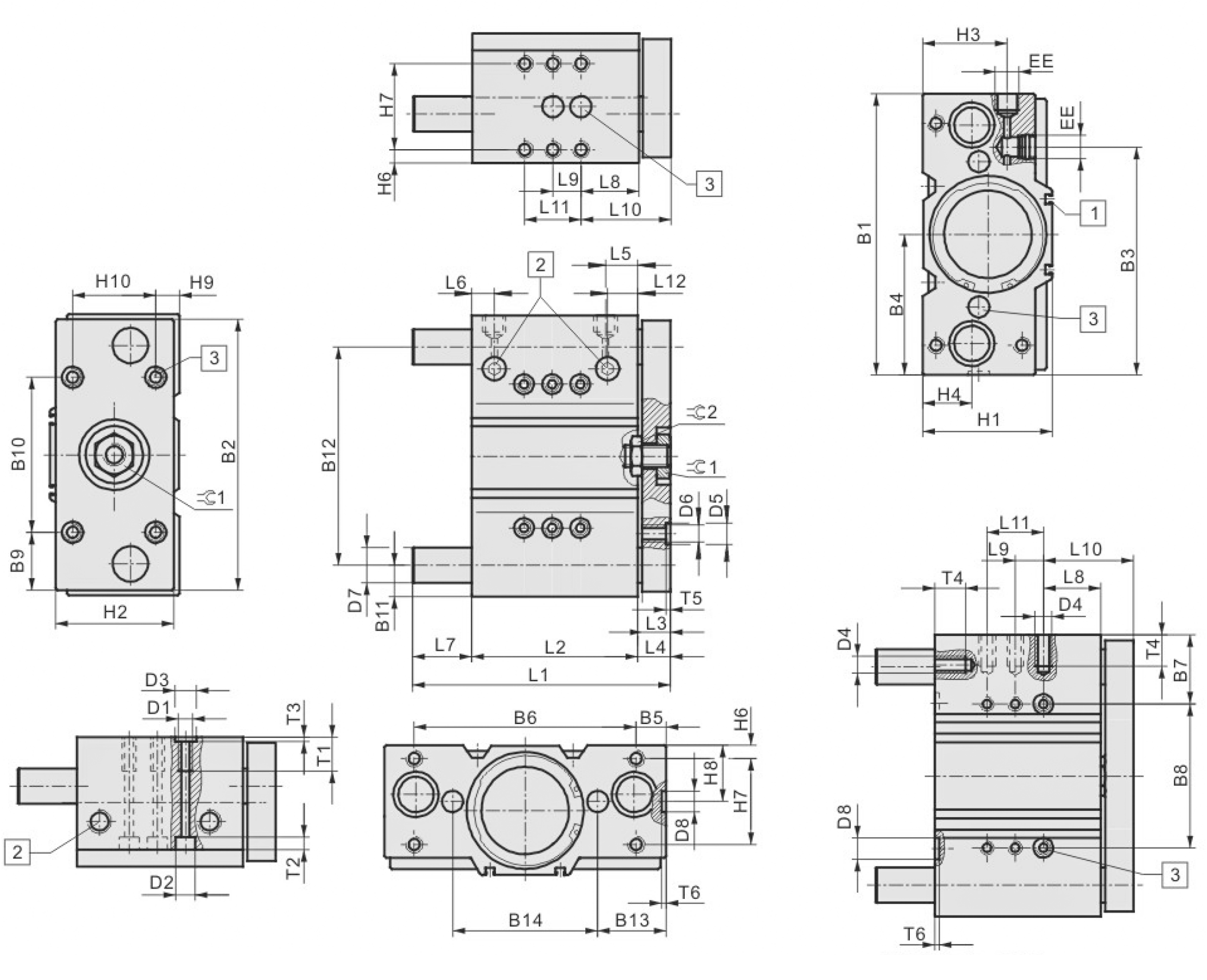
For guide rod cylinders DFM-25..100 with a stroke of 40mm and longer, the guide rod protrudes out of the basic cylinder when the ubit is retracted to the end position. If the guide rod cylinder is mounted on its end face (one side against the end cap), the end face should have a groove for the guide rod to pass through.

Φ(mm)	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	D1	D2 Φ	D3 Φ H7
32	110	108	81	55	20	70	33.5	43	35	40	16	78	32.5	45	M8	11	12
40	120	118	94	60	15	90	34.5	51	35	50	16	88	32.5	55	M8	11	12
50	148	146	116.5	74	19	110	42	64	44	60	19	110	40	68	M8	11	12
63	162	160	139	81	9	144	41	80	41	80	18.5	125	39.5	83	M10	15	12

Φ(mm)	D4	D5 Φ H7	D6	D7Φ		D8 Φ H7	EE	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
				GF	KF												
32	M6	9	M6	20h8	16h7	9	G1/8	49	47	38.5	22	6	37	24.5	8.5	30	15
40	M8	9	M6	20h8	16h7	9	G1/8	54	52	40.5	24	6	42	27	10	30	15
50	M8	12	M8	25h8	20h7	12	G1/4	64	62	50.5	29.5	7	50	32	12	40	20
63	M10	12	M8	25h8	20h7	12	G1/4	78	76	55	32	9	60	39	19	40	20

Φ(mm)	Stroke	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10 ±0.1	L11	L12	T1	T2	T3	T4	T5	T6
32	20	101	68	14	16	17	12	17	29	-	45	-	17	15	6.8	2.6	12	2.1	2.1
	25	106	73					17		20		-							
	30	111	78					17		20		-							
	40	121	88					17		20		-							
	50	131	98					17		40		-							
	80	179	128					35		40		-							
	100	199	148					35		40		80							
	125	244	173					55		40		80							
	160	279	208					55		40		120							
	200	319	248					55		40		160							
40	25	106	76	14	16	17.8	13.1	14	29	20	45	-	17.8	15	6.8	2.6	16	2.1	2.1
	50	131	101					14		40		-							
	80	179	131					32		40		-							
	100	199	151					32		40		80							
	125	244	176					52		40		80							
	160	279	211					52		40		120							
	200	319	251					52		40		160							
50	25	118	77	16	18	17.8	14.2	23	32	20	50	-	17.8	15	6.8	2.6	16	2.6	2.6
	50	143	102					23		40		-							
	80	194	132					44		40		-							
	100	214	152					44		40		80							
	125	259	177					64		40		80							
	160	294	212					64		40		120							
	200	334	252					64		40		160							
63	25	118	83	16	18	18.5	14.8	17	32	20	50	-	18.5	20	9	2.6	20	2.6	2.6
	50	143	108					17		40		-							
	80	194	138					38		40		80							
	100	214	158					38		40		80							
	125	259	183					58		40		120							
	160	294	218					58		40		160							
	200	334	258					58		40		200							

Φ80...100mm



1 Mounting slot for proximity switch SME-8
2 Air intake optional side or top
3 Tolerance between positioning holes ±0.02mm

Φ(mm)	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	D1	D2Φ	D3 Φ H7
80	200	192	162.5	100	21.5	157	48.5	103	41	110	22.5	155	48.5	103	M10	15	12
100	240	232	201	120	21	198	54	132	56	120	26	188	57	126	M12	18	15

Φ(mm)	D4	D5 Φ H7	D6	D7Φ		D8 Φ H7	EE	H1	H2	H3	H4	H6	H7	H8	H9	H10
				GF	KF											
80	M10	12	M10	30h8	25h6	12	G3/8	92	84	61	35	9	62	40	16	60
100	M12	15	M12	35h8	30h6	15	G3/8	112	104	66	39.5	10	68	44	16	60

Φ(mm)	Stroke	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10 ±0.1	L11	L12	T1	T2	T3	T4	T5	T6	⊐1	⊐2
20	25	137	93	20	23	23	16	21	41	20	64	-	23	20	9	2.6	20	2.6	2.6	27	30
	50	183	118					42		40		-									
	80	243	148					72		40		-									
	100	263	168					72		40		80									
	125	288	193					72		40		80									
	160	323	228					72		40		120									
	200	363	268					72		40		160									
25	25	150	109	20	23	29	20	18	13	40	36	-	29	25	11	3.1	24	3.1	3.1	32	30
	50	197	134					40		40		80									
	80	257	164					70		40		80									
	100	277	184					70		40		120									
	125	302	209					70		40		160									
	160	337	244					70		40		160									
	200	377	284					70		40		200									