



## Series 1450 - 1463 - Hydro-pneumatic speed control cylinders (Ø50 - Ø63)

### General

Pneumatic cylinder ISO 15552 handling and controlling movement by means of internal hydraulic circuit.  
All ISO fixing devices can be used except for:

- Cylinder Ø63 front clevis code 1463.63.08F
- Cylinder Ø63 front flange code 1463.63.03F
- Cylinder Ø63 foot code 1463.63.05/1F

### Ordering key

14 .stroke. . . .

Ø50  
Ø63

#### Regulation

- A = Regulation on extraction
- B = Regulation on compression
- D = Double regulation

#### STOP function

- 0 = None
- A = Stop N.C. extraction
- B = Stop N.C. compression
- C = Double Stop N.C.
- D = Stop N.O. extraction
- E = Stop N.O. compression
- F = Double Stop N.O.

#### SKIP function

- 0 = None
- A = Skip N.C. extraction
- B = Skip N.C. compression
- C = Double Skip N.C.
- D = Skip N.O. extraction
- E = Skip N.O. compression
- F = Double Skip N.O.

### Construction characteristics

End cap	aluminium black anodised
Piston Rod	steel tube externally chrome plated
Barrel	aluminium alloy anodised
Magnetic piston	aluminium
Cushion screw	nickel plated steel
Oil tank	aluminium
Pneumatic piston seal (pneumatic side)	oil resitant NBR rubber
Rod and cushion seal	PUR
Hydraulic piston seal (hydraulic side)	PUR

### Technical characteristics

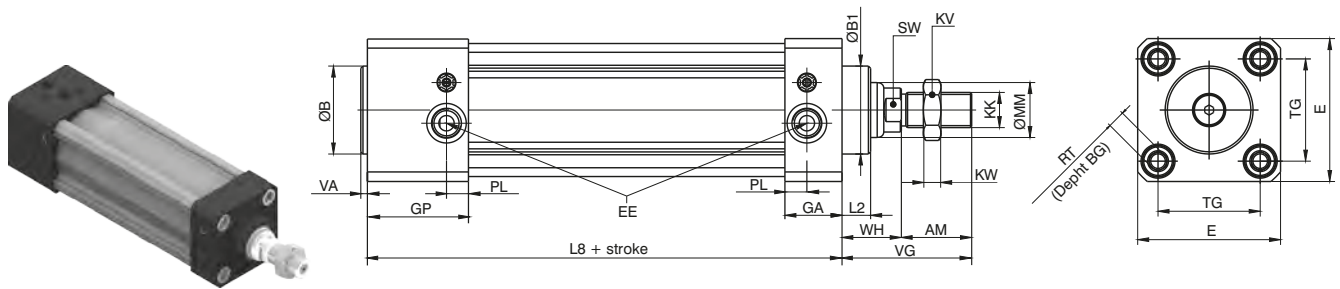
Pneumatic media	filtered and lubricated air
Hydraulic media	filtered 1µ hydraulic oil
Maximum pressure	8 bar
Skip & Stop valve minimum operating pressure	3 bar
Environment temperature	-5°C +70°C
Minimum regulated speed	40 mm/min.
Maximum regulated speed	6000 mm/min. *
Speed with SKIP	150 mm/sec. *
Free speed (without regulation)	300 mm/sec. *
Cushion speed	20 mm *
Standard stroke	from 50 to 450 steps 50 mm
Possibility of rear regulation (on request)	

\* **Attention:** speed recorded with cylinder on horizontal position fed at 8 bar without load on piston rod.

### Force (N)

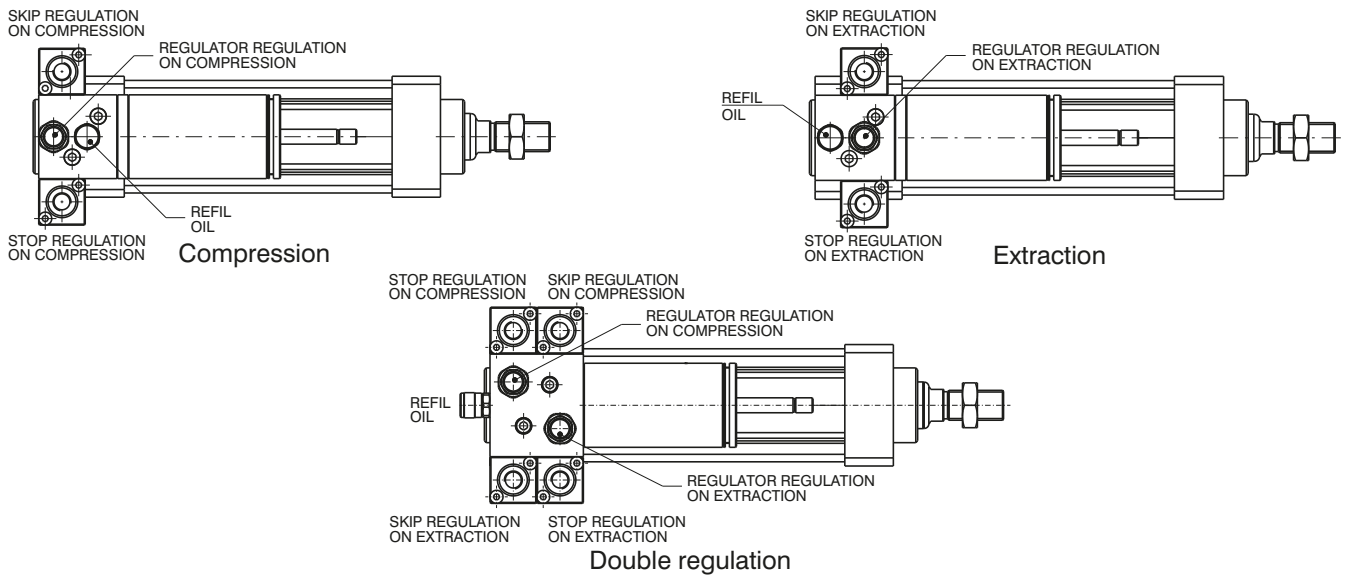
BORE	FORCE	PRESSURE (bar)									
		1	2	3	4	5	6	7	8	9	10
50	Extraction	181.4	362.9	544.3	725.7	907.2	1088.6	1270	1451.5	1632.9	1814.3
	Compression	144.4	288.8	433.2	577.6	722	866.3	1010.7	1155.1	1299.5	1443.9
63	Extraction	294.6	589.1	883.7	1178.2	1472.8	1767.3	2061.9	2356.5	2651	2945.6
	Compression	211.3	422.6	633.9	845.2	1056.6	1267.9	1479.2	1690.5	1901.8	2113.1

► Base cylinder dimensions

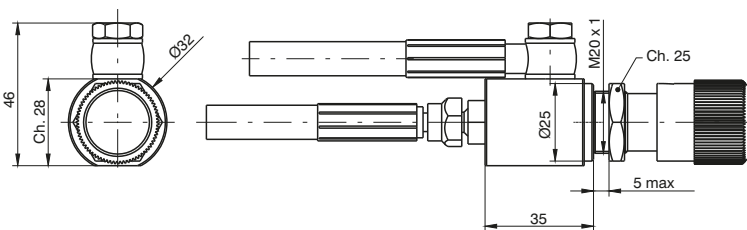


Bore	AM	B (d11)	B1 (d11)	BG	E	EE	GA	GP	KK	KV	KW	L2	L8	MM	PL	RT	SW	TG	VA	VG	WH
50	32	40	40	16	65	G1/4"	26	46	M16x1,5	24	8	13	116	25	10	M8	17	46,5	3	59	27
63		45	50		75	G3/8"			M16x1,5			20	121	35	12			56,5	4	69	37

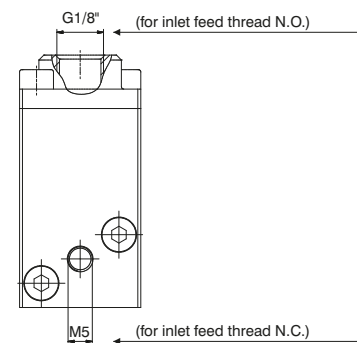
Function valves and regulators position for the different versions



Rear regulator dimensions



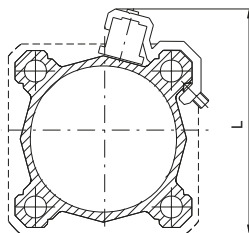
SKIP and STOP valves inlet feed position



► Sensor brackets codes 1500., RS., HS.

Dimensions

Bore	L
Ø50	77
Ø63	87



Ordering code

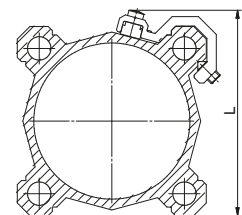
**1320.B**

Brackets for cylinder sensors Ø50 - Ø63

► Sensor brackets codes 1580., MRS., MHS.

Dimensions

Bore	L
Ø50	66
Ø63	76



Ordering code

**1320.BS**

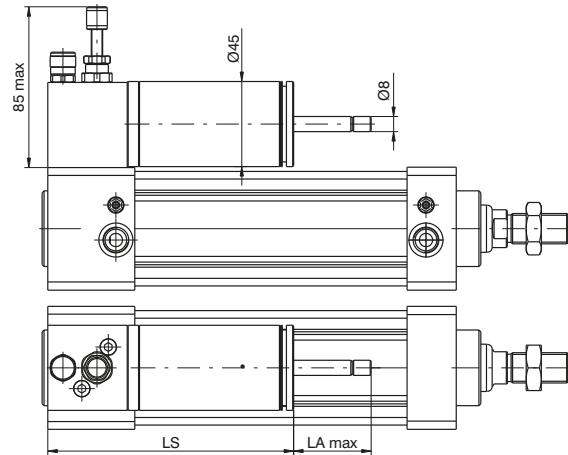
Brackets for cylinder sensors Ø50 - Ø63

Sensor for cylinder

For technical characteristics and code see "Magnetic sensor" section

► Regulation on the outward stroke

Ordering code
<b>14Ø.stroke.A.0.0</b>

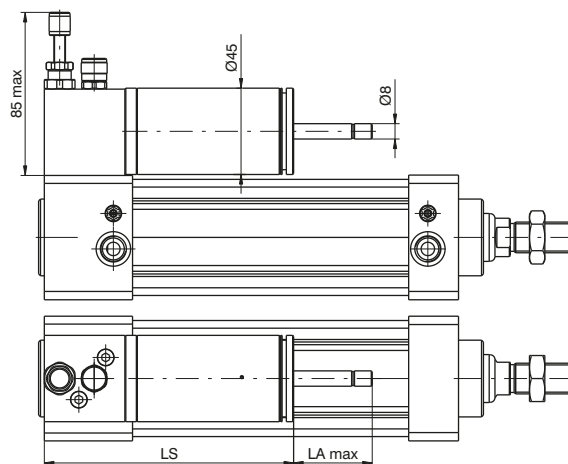


Ø50 Weight g 1970 + g 200 every 50 mm. stroke  
Ø63 Weight g 2591 + g 280 every 50 mm. stroke

Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

► Regulation on the inward stroke

Ordering code
<b>14Ø.stroke.B.0.0</b>

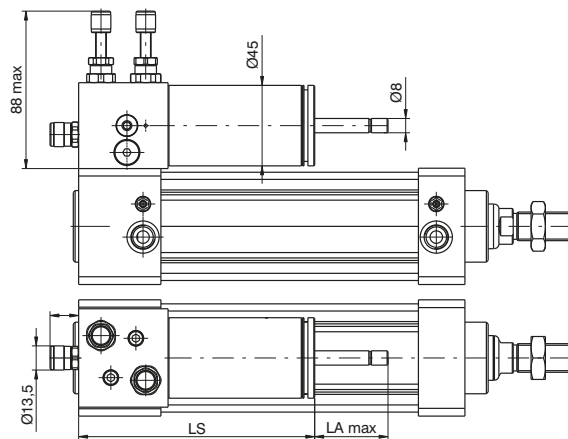


Ø50 Weight g 1970 + g 200 every 50 mm. stroke  
Ø63 Weight g 2591 + g 280 every 50 mm. stroke

Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

► Regulation in both directions

Ordering code
<b>14Ø.stroke.D.0.0</b>

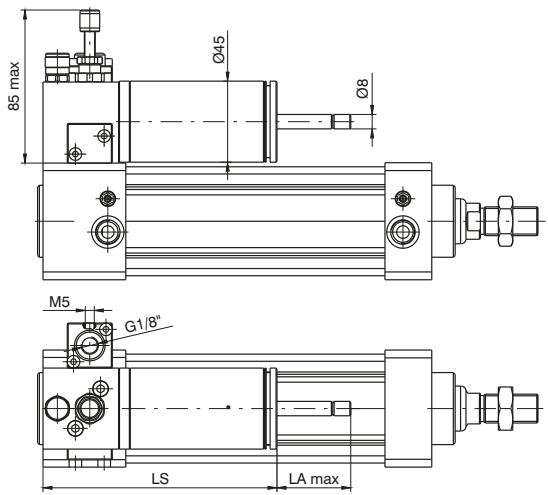


Ø50 Weight g 2128 + g 200 every 50 mm. stroke  
Ø63 Weight g 2749 + g 280 every 50 mm. stroke

Strokes	LS	LA max
0 ... 150	132	41
151 ... 350	187	66
351 ... 450	257	106

Regulation on the outward stroke with Skip N.O.

Ordering code  
**14Ø.stroke.A.0.D**

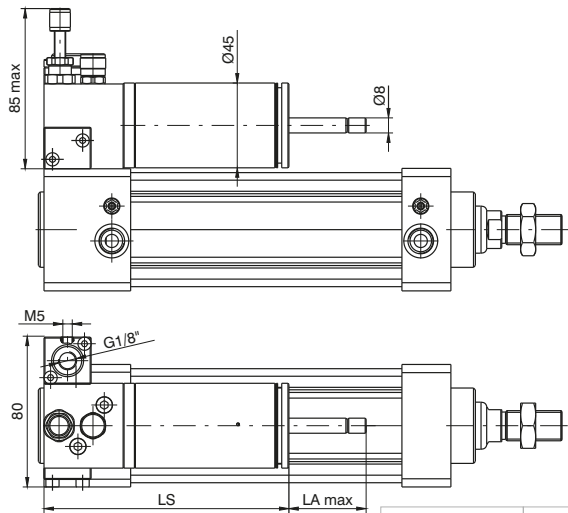


Ø50 Weight g 2059 + g 200 every 50 mm. stroke  
Ø63 Weight g 2928 + g 280 every 50 mm. stroke

Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

Regulation on the inward stroke with Skip N.O.

Ordering code  
**14Ø.stroke.B.0.E**

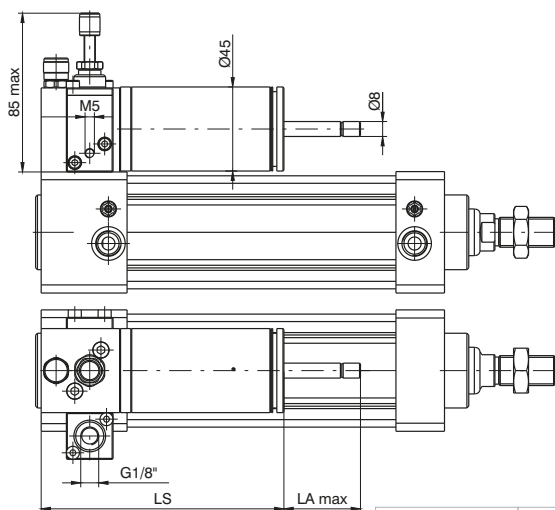


Ø50 Weight g 2059 + g 200 every 50 mm. stroke  
Ø63 Weight g 2928 + g 280 every 50 mm. stroke

Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

Regulation on the outward stroke with Stop N.O.

Ordering code  
**14Ø.stroke.A.D.0**



Ø50 Weight g 2059 + g 200 every 50 mm. stroke  
Ø63 Weight g 2928 + g 280 every 50 mm. stroke

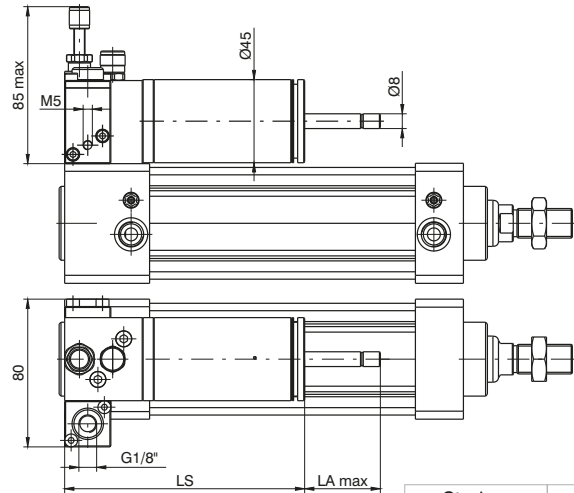
Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

► Regulation on the inward stroke with Stop N.O.

Ordering code
<b>14Ø.stroke.B.E.0</b>



Ø50 Weight g 2059 + g 200 every 50 mm. stroke  
Ø63 Weight g 2928 + g 280 every 50 mm. stroke



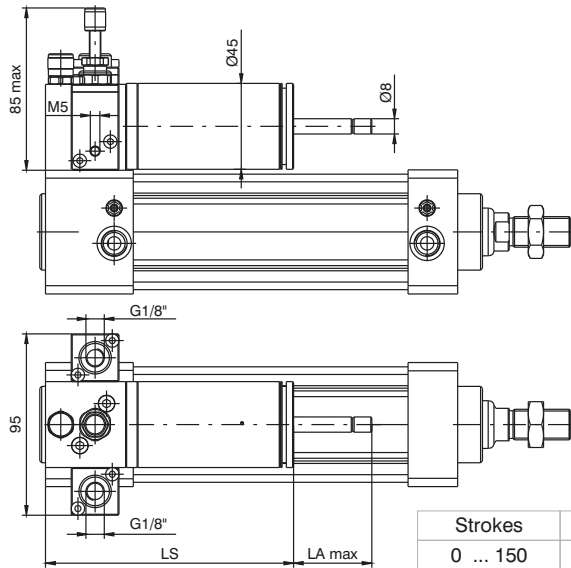
Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

► Regulation on the outward stroke with Skip N.O. - Stop N.O.

Ordering code
<b>14Ø.stroke.A.D.D</b>



Ø50 Weight g 2140 + g 200 every 50 mm. stroke  
Ø63 Weight g 2761 + g 280 every 50 mm. stroke



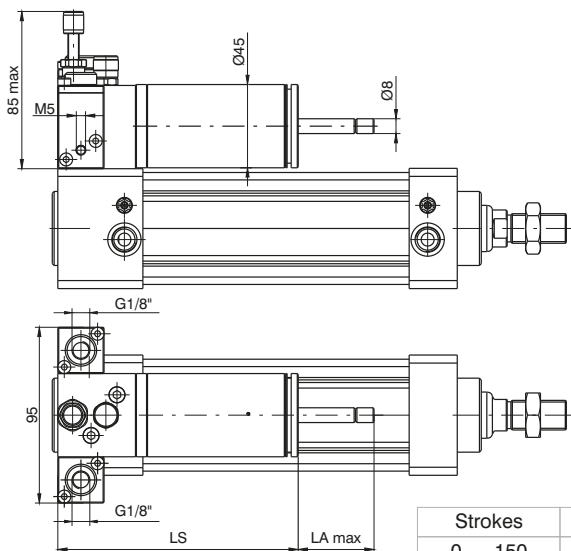
Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

► Regulation on the inward stroke with Skip N.O. - Stop N.O.

Ordering code
<b>14Ø.stroke.B.E.E</b>



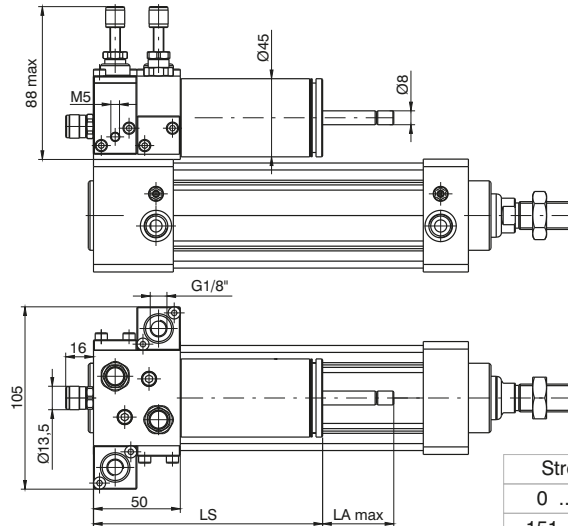
Ø50 Weight g 2140 + g 200 every 50 mm. stroke  
Ø63 Weight g 2761 + g 280 every 50 mm. stroke



Strokes	LS	LA max
0 ... 150	130	41
151 ... 350	185	66
351 ... 450	255	106

Regulation and Skip in both directions (N.O. Skip valves in both directions)

Ordering code  
**14Ø.stroke.D.0.F**

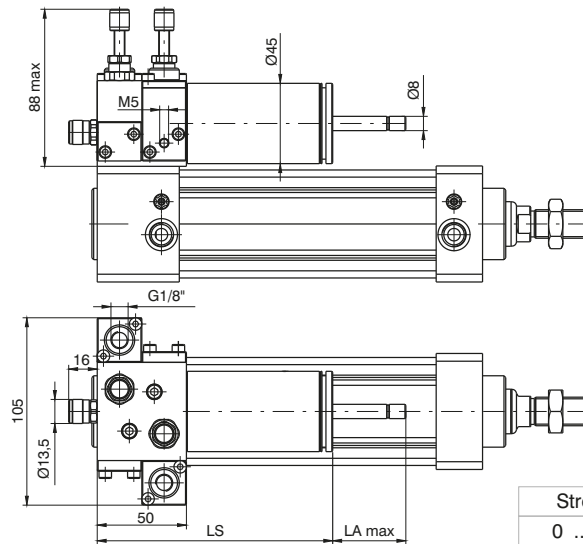


Strokes	LS	LA max
0 ... 150	132	41
151 ... 350	187	66
351 ... 450	257	106

Ø50 Weight g 2311 + g 200 every 50 mm. stroke  
Ø63 Weight g 2932 + g 280 every 50 mm. stroke

Regulation and Stop in both directions (N.O. Stop valves in both directions)

Ordering code  
**14Ø.stroke.D.F.0**

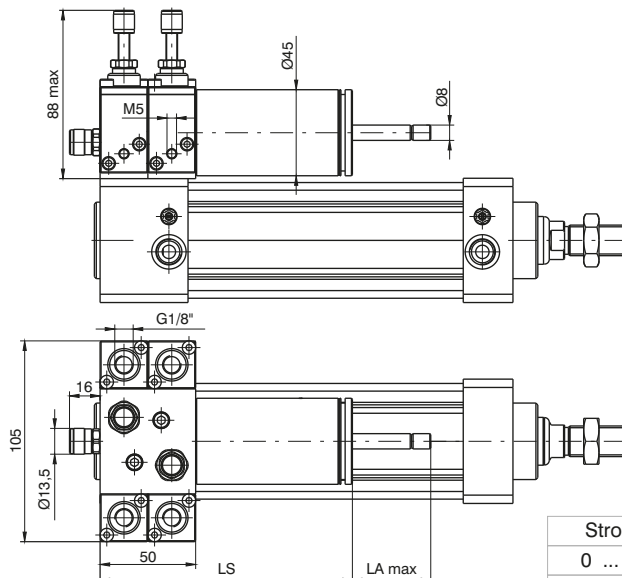


Strokes	LS	LA max
0 ... 150	132	41
151 ... 350	187	66
351 ... 450	257	106

Ø50 Weight g 2311 + g 200 every 50 mm. stroke  
Ø63 Weight g 2932 + g 280 every 50 mm. stroke

Regulation with Skip and Stop in both directions (N.O. Skip and Stop valves in both directions)

Ordering code  
**14Ø.stroke.D.F.F**



Strokes	LS	LA max
0 ... 150	132	41
151 ... 350	187	66
351 ... 450	257	106

Ø50 Weight g 2473 + g 200 every 50 mm. stroke  
Ø63 Weight g 3094 + g 280 every 50 mm. stroke