



## Series EcoPlus - High Performance

Profiled tube has two "T" slots on the three sides hosting sensors 1580\_., MRS\_., MHS\_., without adaptors.

### Construction characteristics

Piston rod bushings	self-lubricating sintered bronze
Barrel	anodised aluminium alloy
Seals	standard: NBR Oil resistant rubber, PUR Piston rod seals (PUR seals available upon request)
Pistons	acetal resin, aluminium on request
Piston rod	C43 chromed steel or stainless steel
End caps	Series 1386 ... 1388: high resistant thermoplastic material Series 1396 ... 1398: Die-cast aluminium
Cushion adjustment screws	brass

### Operational characteristics

Fluid	filtered and preferably lubricated air or not (if lubricated the lubrication must be continuous)
Pressure	max 10 bar
Working temperature	-5°C ... +70°C with standard seals -30°C ... +80°C with PUR seals

Bore	Ø	32	40	50	63	80	100
Cushioning length	mm	27	31	31	37	40	44
Cushioning length "K" and "PK" version	mm	20	20	22	22	32	32

Please follow the suggestions below to ensure a long life for these cylinders:

- use clean and lubricated air.
- correct alignment during assembly with regard to the applied load so as to avoid radial components or bending the rod.
- avoid high speeds together with long strokes and heavy loads: this would produce kinetic energy which the cylinder cannot absorb, especially if used as a limit stop (in this case use mechanical stop device).
- evaluate the environmental characteristics of cylinder used (high temperature, hard atmosphere, dust, humidity etc.).

**Please note: air must be dried for applications with lower temperature.**

Use hydraulic oils H class (ISO VG32) for correct continued lubrication.

### Standard strokes (for all diameters)

from 0 to 150, every 25 mm  
from 150 to 500, every 50 mm  
from 500 to 1000, every 100 mm  
On request are available strokes up to: 2800 mm

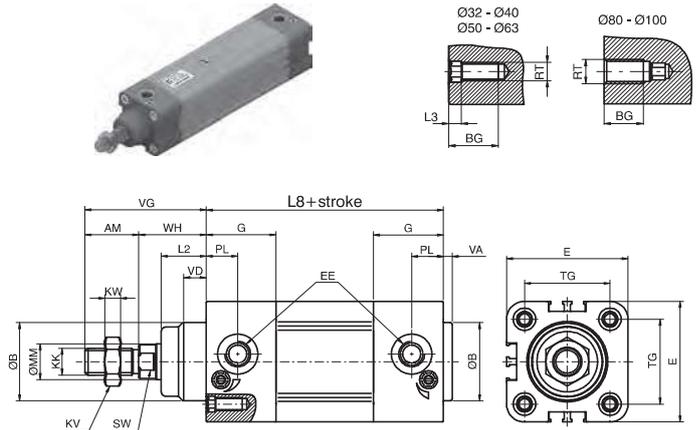
### Stroke tolerance (ISO 15552)

Bore	Stroke	Tolerance
32-40-50	up to 500 mm	+2 0
	over 500 up to 1000	+3,2 0
63-80-100	up to 500 mm	+2,5 0
	over 500 up to 1000	+4 0

**Basic version "01"**

Coding: 13V.Ø.stroke.01T

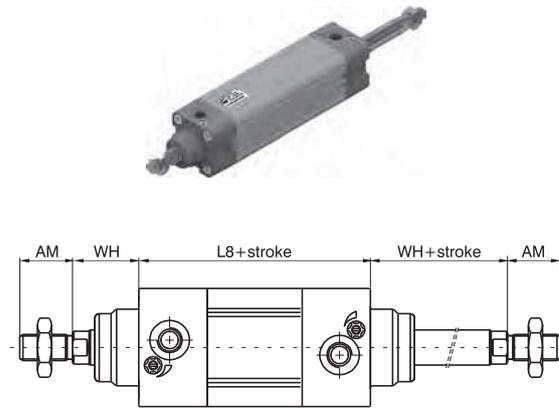
V	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
	87 = Magnetic stainless steel rod (technopolymer covers)
	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
Ø	BORE
	32 = Ø32
	40 = Ø40
	... 100 = Ø100
T	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	K = Version with aluminium piston PK = Version with PUR seals and aluminium piston



**Through rod cylinder version "02"**

Coding: 13V.Ø.stroke.02T

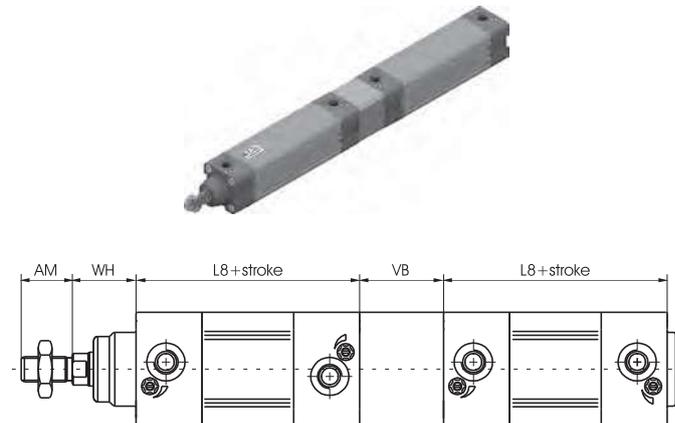
V	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
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	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
Ø	BORE
	32 = Ø32
	40 = Ø40
	... 100 = Ø100
T	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	K = Version with aluminium piston PK = Version with PUR seals and aluminium piston



**Tandem push with a common rods "G"**

Coding: 13V.Ø.stroke.GT

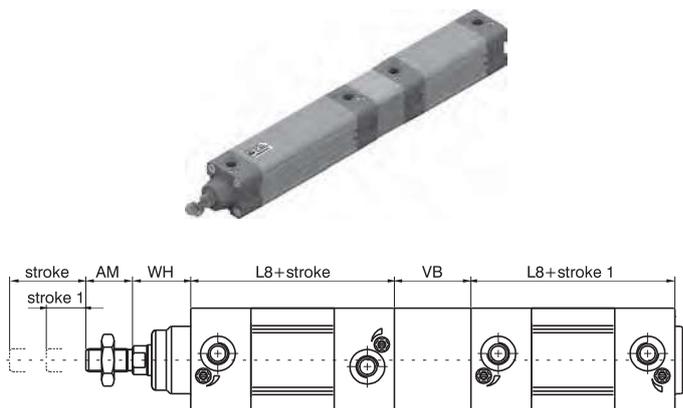
V	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
	87 = Magnetic stainless steel rod (technopolymer covers)
	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
Ø	BORE
	32 = Ø32
	40 = Ø40
	... 100 = Ø100
T	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	K = Version with aluminium piston PK = Version with PUR seals and aluminium piston



**Tandem push with independent rods "F"**

Coding: 13V.Ø.stroke.stroke1.FT

V	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
	87 = Magnetic stainless steel rod (technopolymer covers)
	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
Ø	BORE
	32 = Ø32
	40 = Ø40
	... 100 = Ø100
T	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	K = Version with aluminium piston PK = Version with PUR seals and aluminium piston

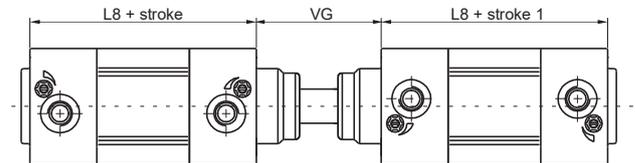


PNEUMATIC ACTUATION 3

► **Opposed tandem with common rod "D"**

Coding: 13 **V**.Ø.stroke.stroke1.D**T**

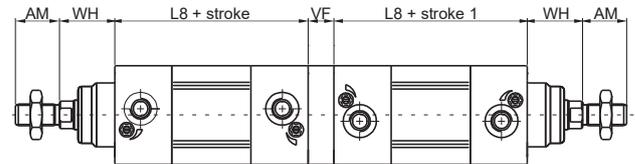
<b>V</b>	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
	87 = Magnetic stainless steel rod (technopolymer covers)
	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
<b>Ø</b>	BORE
	32 = Ø32
	40 = Ø40
	100 = Ø100
<b>T</b>	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	PK = Version with PUR seals and aluminium piston



► **Tandem with opposed rods "E"**

Coding: 13 **V**.Ø.stroke.stroke1.E**T**

<b>V</b>	VERSION
	86 = Magnetic chromed rod (technopolymer covers)
	87 = Magnetic stainless steel rod (technopolymer covers)
	88 = Non magnetic chromed rod (technopolymer covers)
	96 = Magnetic chromed rod (aluminium covers)
	97 = Magnetic stainless steel rod (aluminium covers)
<b>Ø</b>	BORE
	32 = Ø32
	40 = Ø40
	100 = Ø100
<b>T</b>	TYPE
	= Version with NBR seals
	P = Version with PUR seals
	PK = Version with PUR seals and aluminium piston



**Table of dimensions**

Bore	32	40	50	63	80	100
AM	22	24	32	32	40	40
B (d 11)	30	35	40	45	45	55
BG	16	16	18	18	16	16
E	46	54	65	77,5	95,5	115,5
EE	G 1/8"	G 1/4"	G 1/4"	G 3/8"	G 3/8"	G 1/2"
G	29	31	33	36	40	44
KK	M10X1,25	M12X1,25	M16x1,5	M16x1,5	M20x1,5	M20x1,5
KV	17	19	24	24	30	30
KW	6	7	8	8	9	9
L2	16	20	25	25	32	35
L3	4	4	5	5	/	/
L8	94	105	106	121	128	138
MM	12	16	20	20	25	25
PL	13	14	14	16	16	18
RT	M6	M6	M8	M8	M10	M10
SW	10	13	17	17	22	22
TG	32,5	38	46,5	56,5	72	89
VA	4	4	4	4	4	4
VB	33	41	51	51	65	71
VD	8	10	12	12	15	16
VF	12	12	16	16	20	20
VG	48	54	69	69	86	91
WH	26	30	37	37	46	51

Aluminium covers							
Weight	Stroke 0	550	690	1200	1590	2500	3670
g	every 10 mm	29	40	57	66	96	112

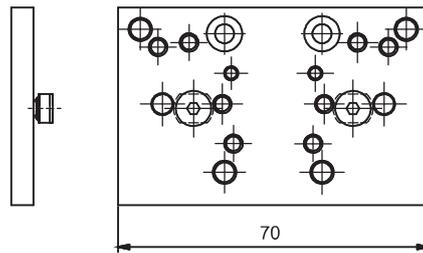
Technopolymer covers							
Weight	Stroke 0	470	590	1020	1320	2090	3010
g	every 10 mm	29	40	57	66	96	112

3 PNEUMATIC ACTUATION

**Support for solenoid valves**

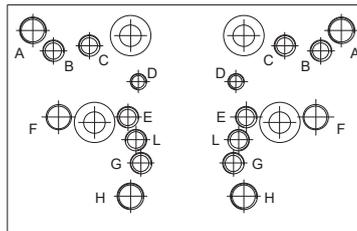
**Coding:** 1386.15

**Attention:** do not use ISO distributor for base mounting



Fixing holes for valves series:

- A = 414/2
- B = 824
- C = 828, T488, 488, 484
- D = 2400
- E = 2600
- = 858/2
- H = T424

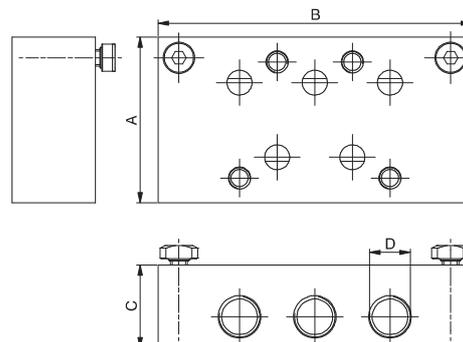


This accessory permits to mount a valve or an electrovalve on a side of the cylinder. The plate can be fitted on the cylinder profiled barrel, and, on it, can be mounted either a threaded distributor or a base on which can be mounted an ISO distributor. Once installed the connections must be done with fittings and pipes. All of the threaded holes on the support plate are dedicated to different valves series as per attached drawing.

**Bases for ISO solenoid valves**

**Coding:** 1320.N

STANDARDS
23 = ISO1
24 = ISO2



**Dimensions**

	A	B	C	D
Bases for solenoid valves				
ISO 1	40	75	15	G 1/8"
ISO 2	50	95	20	G 1/4"