

CYLINDERS

ISO 15552



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Cylinders ISO 15552

1 - CYLINDERS

Features and certifications

Series of cylinders conforming to ISO 15552 standards in bores from Ø 32 to 320, double acting, magnetic. The cylinders of these series differ from each other for the heads, light or flat, and the barrel, with profile tube or round tube with tie-rods. Supplied as standard in compliance with Reach and RoHS directives, and SIL certified. On request, they can be also supplied according to the 2014/34/EU ATEX Directive. These features, combined with a modern and clean design, and the wide range of applications for which they are suitable place these cylinders among the core products of the company.

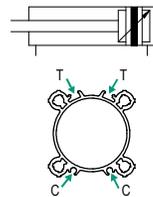


Type AMA Ø 32 ÷ 125

from page 1.5.20



Cylinders ISO 15552, available in bores from Ø 32 to 125, double acting magnetic with adjustable cushioning, with profile barrel and two different kind of grooves (T type on the port side, and "C" type on the opposite side), to apply magnetic reed switches directly, and interchange with most competitors. The design is modern and clean, the heads are light and characterized by powder-coating.

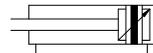


Type AMT Ø 32 ÷ 125

from page 1.5.20



Cylinders ISO 15552, available in bores from Ø 32 to 125, double acting magnetic with adjustable cushioning, made with round tube and tie-rods. The design is modern and clean, the heads are light and characterized by powder-coating.

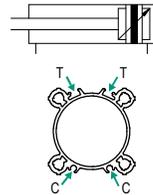


Type BMA Ø 32 ÷ 125

from page 1.5.50



Cylinders ISO 15552, available in bores from Ø 32 to 125, double acting magnetic with adjustable cushioning, with profile barrel and two different kind of grooves (T type on the port side, and "C" type on the opposite side), to apply magnetic reed switches directly, and interchange with most competitors. The design is modern and clean, the heads are flat.

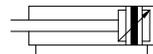


Type BMT Ø 32 ÷ 125

from page 1.5.50



Cylinders ISO 15552, available in bores from Ø 32 to 125, double acting magnetic with adjustable cushioning, made with round tube and tie-rods. The design is modern and clean, the heads are flat.

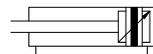


Type AMT Ø 160 ÷ 320

from page 1.5.70



Cylinders ISO 15552, available in bores from Ø 160 to 320, double acting magnetic with adjustable cushioning, made with round tube and tie-rods. The design is characterized by the heads light and powder-coated.



Options		
Description	Symbol	Suffix
Through rod		P
Stainless Steel AISI 304 rod		K
Stainless Steel AISI 316 rod		K316
Stainless Steel tie-rods (available only for AMT and BMT type)		K1
Stainless head nuts and rod nut (available only for AMT and BMT type up to Ø 200)		K2
Extended rod in hardened and chrome plated steel suitable for static piston rod brake (available up to Ø 125)		B
Extended rod in hardened and chrome plated steel suitable for dynamic piston rod brake (available up to Ø 100)		B1
FKM seals -20°C ÷ +150°C		V
FKM rod seal -20°C ÷ +80°C		V1
Rod seal scraper in special elastomer for applications in dirty and dusty environment (available up to Ø 200) -20°C ÷ +80°C		E8
Low temperature seals -40°C ÷ +80°C		BT
Tandem forward movement piston rods coupled together		TA1
Tandem forward movement piston rods independent		TA2
Tandem back to back		TA3
Tandem front to front		TA4
Extended rod (indicate the requested WH dimension in mm, E.g.: WH=100; for further information please contact the sales department)		WH=..
Without adjustable cushionings		D
Adjustable rear cushioning only		D1
Adjustable front cushioning only		D2
Special male thread (indicate the requested thread. E.g.: R-M 10x1,5; the dimension AM of the special thread will be the same as the standard; cylinder will be supplied without rod nut; for further information please contact the sales department)		R-M..
Female thread		F
With bellow for protection of the rod (in this case the dimension WH should be extended according the stroke of the cylinder; for further information please contact the sales department)		Z
NBR seals -20°C ÷ +80°C		H
NBR rod seal -20°C ÷ +80°C		H1
Brass rod scraper (only with H, H1, V, V1 or BT options; for further information please contact the sales department)		Y
Stainless Steel AISI 316L tube (available only for AMT and BMT type)		TX
Epoxy coating (RAL 7035)		EPX
ATEX versions on request (only with K or K316 options; for further information please contact the sales department)		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see from page 1.5.4; For code key see from page 1.5.6.

Options matching

Series	Bore	Model	Standard options matching										
			P	K	K316	K1	K2 (Ø32+200)	B	B1 (Ø32+100)	V	V1	E8 (Ø32+200)	BT
AMA-BMA	Ø 32 ÷ 125	Standard	●	●	●	-	-	●	●	●	●	●	●
		Through rod (P)		●	●	-	-	●	●	●	●	●	●
		Stainless Steel rod (K)	●		-	-	-	-	●	●	●	●	●
		Rod brake (B)	●	-	-	-	-	-	●	-	-	-	●
		Female thread (F)	● ⁽⁷⁾	●	●	-	-	●	●	●	●	●	●
		Bellow (Z)	-	●	●	-	-	-	-	●	-	-	●
AMT-BMT	Ø 32 ÷ 125	Standard	●	●	●	●	●	●	●	●	●	●	●
		Through rod (P)		●	●	●	●	●	●	●	●	●	●
		Stainless Steel rod (K)	●		-	●	●	-	-	●	●	●	●
		Rod brake (B)	●	-	-	●	●	-	-	●	-	-	●
		Female thread (F)	● ⁽⁷⁾	●	●	●	●	●	●	●	●	●	●
		Bellow (Z)	-	●	●	●	●	-	-	●	-	-	●
AMT	Ø 160 ÷ 320	Standard	●	●	●	●	●	-	-	●	●	●	●
		Through rod (P)		●	●	●	●	-	-	●	●	●	●
		Stainless Steel rod (K)	●		-	●	●	-	-	●	●	●	●
		Female thread (F)	● ⁽⁷⁾	●	●	●	●	-	-	●	●	●	●
		Bellow (Z)	-	●	●	●	●	-	-	●	-	-	●

Key

● allowed matching; - not allowed matching

Options matching notes

(1) Option **WH=..** require to indicate the desired dimension in mm, whereas for some combinations the option **WH=.** should be required or optional. For further information please contact the sales department. If you choose the female thread (option **F**), please indicate the dimension **WF=.** and then the actual desired dimension in mm

(2) Option **R-M..** require to indicate the desired thread. For further information please contact the sales department.

(3) Option **Y** require that the cylinder mount seals of options **H, H1, V, V1** or **BT**. Not allowed in combination with option **E8**.

(4) In the **/ATEX** versions, is required to mount the stainless steel rod (options **K** or **K316**).

(5) With the options **B** or **B1**, for dimensions S or S1 (WH) please see the table in page 1.5.22 (series AMA and AMT) or page 1.5.52 (series BMA and BMT).

(6) In the models with bellow (option **Z**) should be necessary the extended rod option (**WH=.**) for some bores or strokes. Otherwise the **WH=.** option can be chosen according to the customer's needs. For further information please contact the sales department.

(7) With through rod (option **P**) the option female thread (**F**) and the option special male thread (**R-M..**) are applied on both sides of the rod. While the option extended rod (**WH=.**) is applied only to one side of the rod.

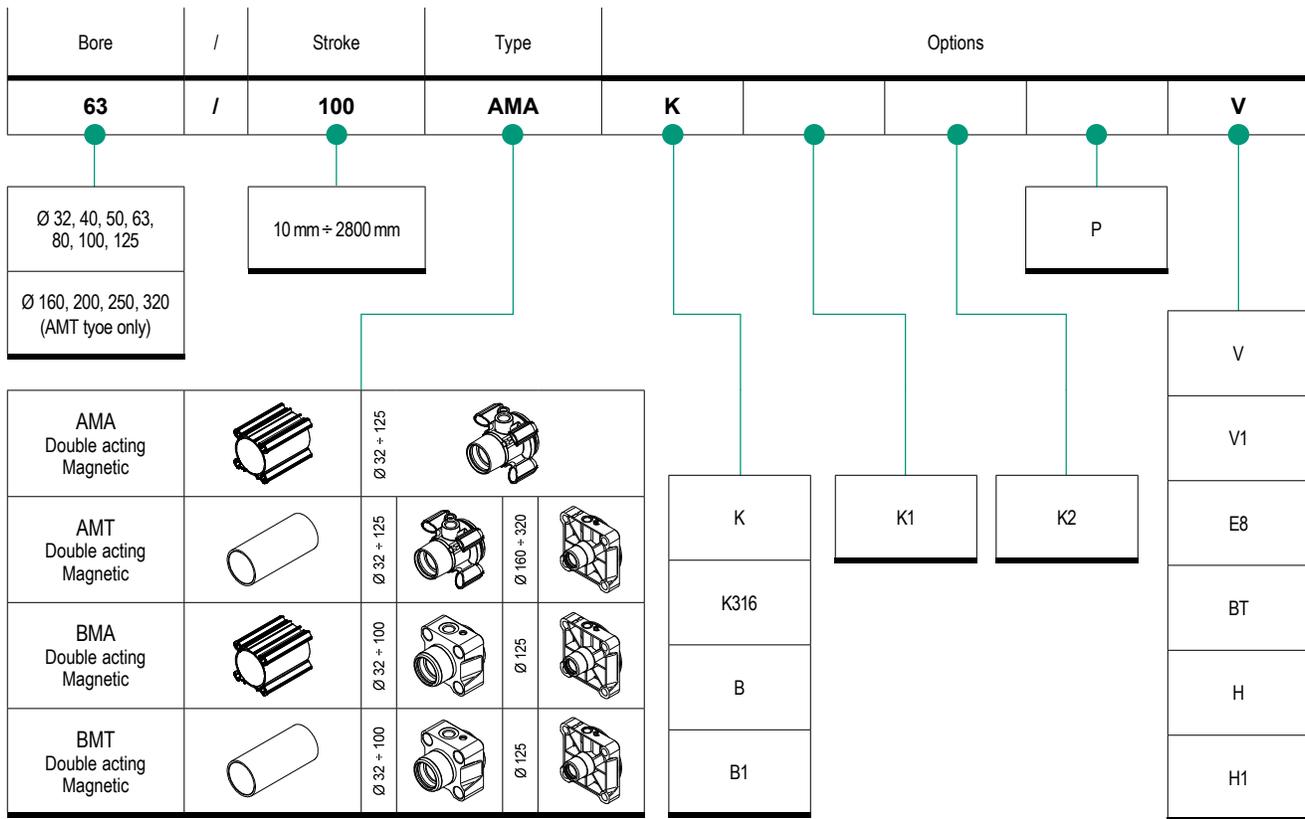
Standard options matching

TA1	TA2	TA3	TA4	WH=.. ⁽¹⁾	D	D1	D2	R-M.. ⁽²⁾	F	Z	H	H1	Y ⁽³⁾	TX (Ø32+200)	EPX	/ATEX ⁽⁴⁾
●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	●	●
-	-	-	-	● ⁽⁷⁾	●	●	-	● ⁽⁷⁾	● ⁽⁷⁾	-	●	●	●	-	●	●
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-	-	-	-	● ⁽⁵⁾	●	●	●	●	●	-	●	●	-	-	-	-
●	●	●	-	●	●	●	●	-		●	●	●	●	-	●	●
-	-	-	-	● ⁽⁶⁾	●	●	●	●	●		●	●	-	-	●	●
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
-	-	-	-	● ⁽⁷⁾	●	●	-	● ⁽⁷⁾	● ⁽⁷⁾	-	●	●	●	●	●	●
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-	-	-	-	● ⁽⁶⁾	●	●	●	●	●		●	●	-	●	●	●
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
-	-	-	-	● ⁽⁷⁾	●	●	-	● ⁽⁷⁾	● ⁽⁷⁾	-	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
●	●	●	-	●	●	●	●	-		●	●	●	●	●	●	●
-	-	-	-	● ⁽⁶⁾	●	●	●	●	●		●	●	-	●	●	●

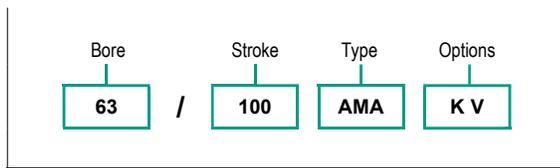
Cylinders ISO 15552

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Code key



How to order



Notes

Options in the same grid are alternative to each others.

For further information on options and their matching, see page 1.5.3 and 1.5.4

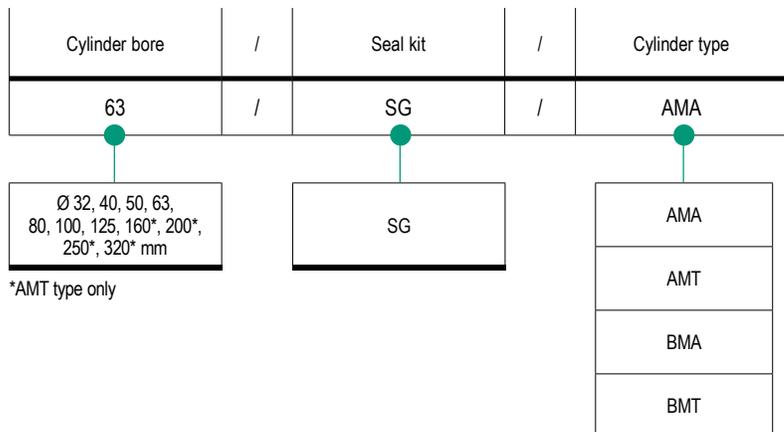
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

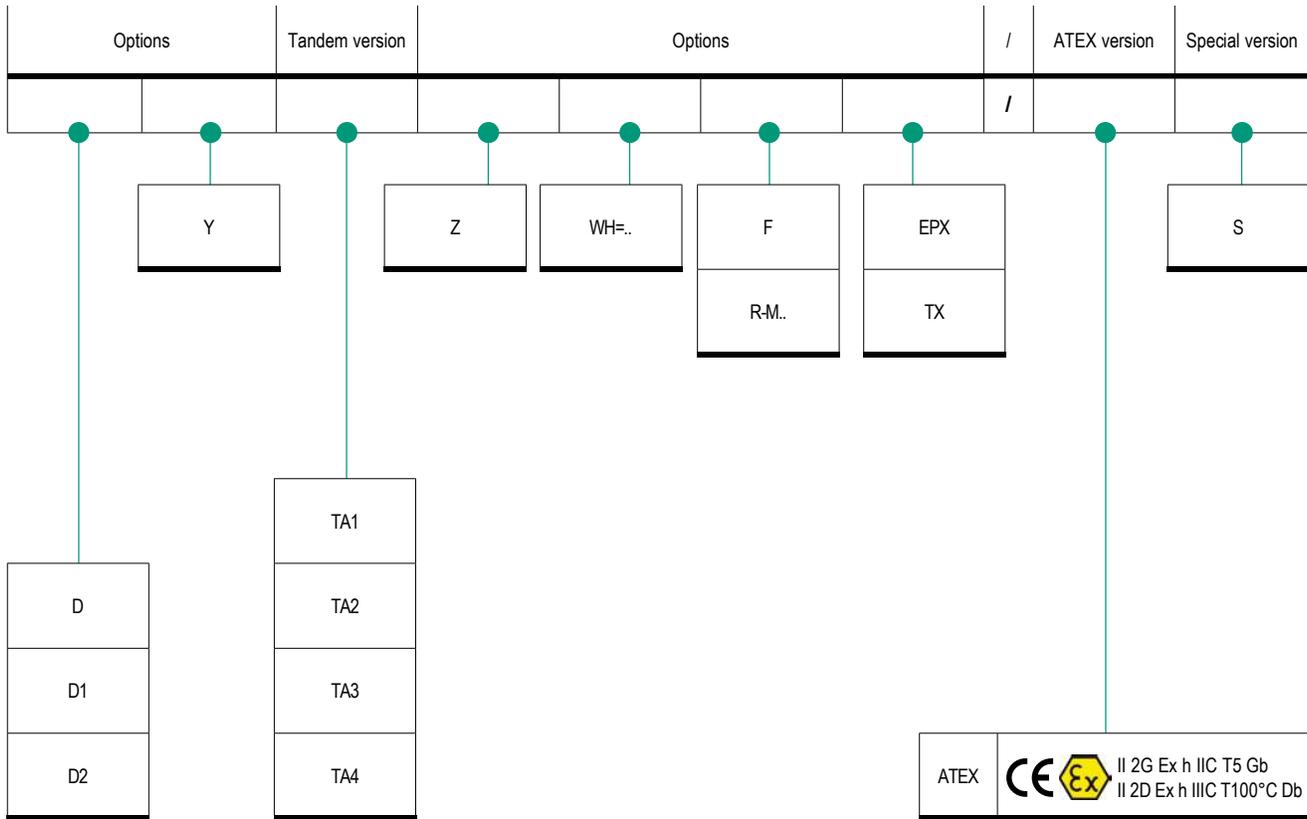
Standard* seal kit

Number of components	Description
n. 1	Rod seal
n. 2	Cushioning seal
n. 2	Piston seal
n. 1	Linear rubber ring for piston (damper)
n. 2	Tube-head o-ring
n. 1	Piston guiding ring
n. 2	Adjustment screw o-ring
n. 1	Sempiston o-ring

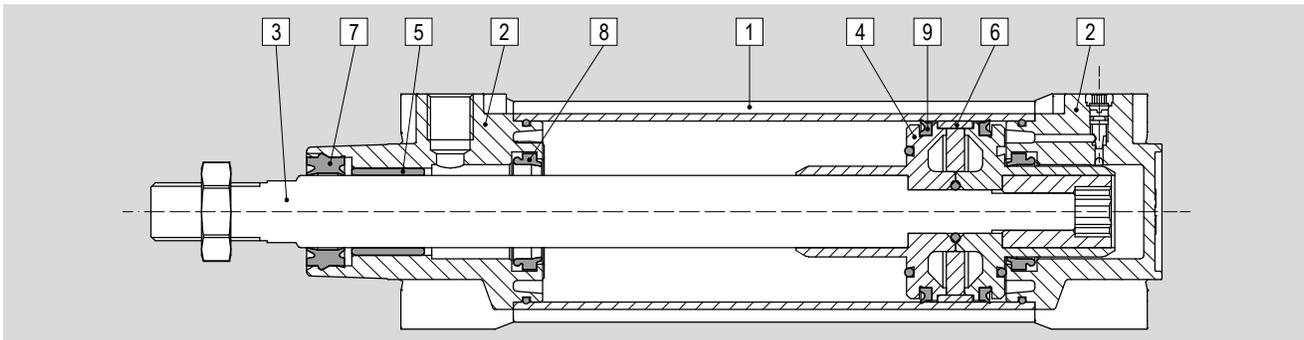
* For cylinders with options P, H, H1, V, V1 and BT, the kit include further components.

Standard seal kit code key





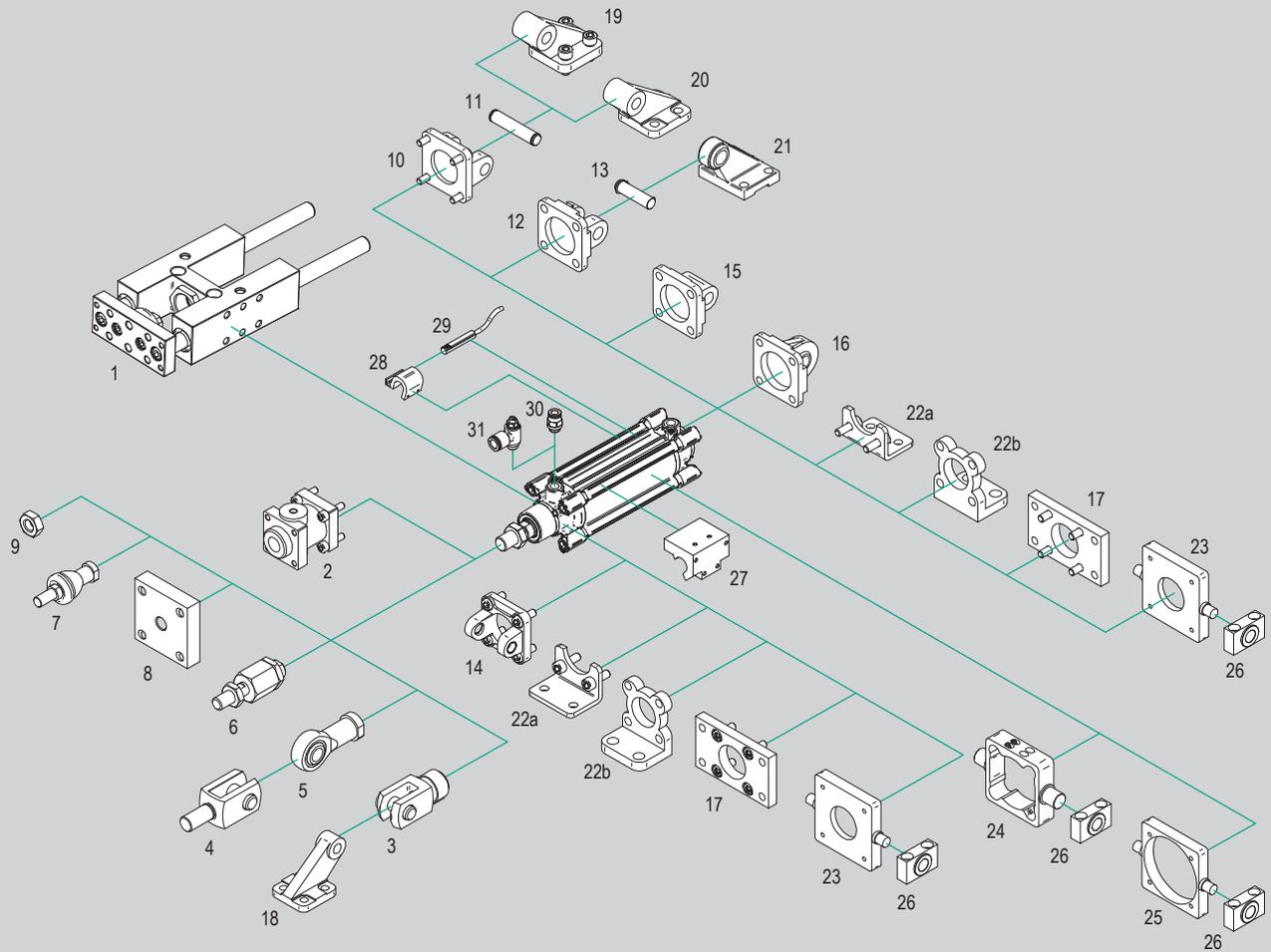
Standard materials



Position	Description	Material	
		Ø 32 ÷ 100	Ø 125 ÷ 320
1	Tube	Anodised aluminium	
2	Heads	Die cast painted aluminium (powder coating for AMA and AMT type, spray for BMA and BMT type)	
3	Rod	Chrome-plated C45 steel	
4	Piston	Die cast painted aluminium	
5	Bushing	Self-lubricating sintered bronze	
6	Guide ring	Acetalic resin (POM)	
7	Rod seals	Polyurethane (PU)	
8	Cushioning seals	Polyurethane (PU)	
9	Piston seals	Polyurethane (PU)	NBR
-	Tie-rods (for type AMT and BMT only)	Zinc-plated steel	
-	Other seals	NBR	

Accessories

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N.	Cylinder bore	Item	Description	Compliance	Matching				Code page	Data sheet page
					AMA	BMA	AMT	BMT		
1	Ø 32 ÷ 100	UGLB	Slide unit U-shaped	-	•	•	•	•	1.5.90	1.70.1
		UGPB UGPS	Slide unit H-shaped		•	•	•	•		
2	Ø 32 ÷ 125	ABS	Static rod brake	-	•	•	•	•	1.5.90	1.75.1
	Ø 32 ÷ 100	ABK	Dynamic rod brake		•	•	•	•		
3	Ø 32 ÷ 100	FF..ISO	ISO female clevis with clip	ISO 8140	•	•	•	•	1.5.90	1.85.10
	Ø 32 ÷ 320	FFP..ISO	ISO female clevis with pin and seeger		•	•	•	•		
	Ø 32 ÷ 125	FFN..ISO	ISO female clevis (body only)		•	•	•	•		
4	-	FEM..	Female clevis with male thread	-	•	•	•	•	1.88.1	
5	Ø 32 ÷ 320	RF..SE	Bearing head (DIN 648K) with female thread	ISO 8139	•	•	•	•	1.90.1	
6	Ø 32 ÷ 320	GB..	Bearing - Self-aligning articulated coupling	-	•	•	•	•	1.5.91	1.90.10
7	Ø 32 ÷ 100	RBI..	Bearing - Axial articulated coupling		•	•	•	•		1.90.20
		RBL..	Bearing - Angular articulated coupling		•	•	•	•		1.90.30
8	Ø 32 ÷ 200	GC..	Self-aligning coupling	-	•	•	•	•	1.90.40	
9	Ø 32 ÷ 320	D..	Rod nut	UNI 5589	•	•	•	•	1.90.70	
10	Ø 32 ÷ 320	CF..ALIS	Rear clevis	ISO MP2	•	•	•	•	1.5.92	1.97.1
		CF..AQIS								1.98.1
11	Ø 32 ÷ 320	SEC..AQIS	Pin with seeger	ISO AA4	•	•	•	•	1.5.95	1.98.5
12	Ø 32 ÷ 250	CFS..ALIS	Narrow rear clevis	ISO AB6	•	•	•	•	1.5.92	1.97.2
	Ø 32 ÷ 125	CFS..AQIS								1.98.1
13	Ø 32 ÷ 250	SEC..ARAQIS	Anti-rotating pin for narrow rear clevis	ISO AA6	•	•	•	•	1.5.95	1.98.5
14	Ø 32 ÷ 200	CFA..	Front clevis	ISO MP7	•	•	•	•	1.5.94	1.97.3
15	Ø 32 ÷ 320	CM..ALIS	Rear eye	ISO MP4	•	•	•	•	1.5.92	1.98.2
		CM..AQIS								1.97.4
16	Ø 32 ÷ 320	CMS..ALIS	Narrow rear eye with spherical bearing (DIN 648K)	ISO MP6	•	•	•	•	1.5.92	1.98.2
	Ø 32 ÷ 125	CMS..AQIS								1.97.4
17	Ø 32 ÷ 200	FLV..ALIS	Flange	ISO VDMA MF1-MF2	•	•	•	•	1.5.93	1.97.4
	Ø 32 ÷ 320	FLV..AQIS								1.98.4
18	Ø 32 ÷ 250	ASF..ALIS	Clevis hinge	ISO AB7	•	•	•	•	1.5.93	1.97.5
19	Ø 32 ÷ 250	ASV..ALIS	Rear 90° hinge	CETOP RP 107P	•	•	•	•		
	Ø 32 ÷ 125	ASV..AQIS							1.98.3	
20	Ø 32 ÷ 200	AS..ALIS		ISO 6431	•	•	•	•	1.97.6	
21	Ø 32 ÷ 125	ASS..	Rear 90° hinge with spherical bearing (DIN 648K)	ISO CS7	•	•	•	•	1.98.3	
22a	Ø 32 ÷ 320	PB..AQIS	Low foot	ISO MS1	•	•	•	•	1.5.94	1.98.4
22b	Ø 32 ÷ 200	P..ALIS	Foot	ISO MS3	•	•	•	•		1.97.6
23	Ø 32 ÷ 200	CTA..	Center trunnion for heads	ISO MT5/MT6	•	•	•	•	1.98.7	
24	Ø 32 ÷ 125	CTS..	Center trunnion (profile barrel)	ISO MT4	•	•	-	-	1.5.93	1.98.6
25	Ø 32 ÷ 320	CTN..	Non adjustable center trunnion (threaded)		-	-	•	•		1.98.7
	Ø 32 ÷ 200	CT..	Adjustable center trunnion (tie-rods)		-	-	•	•		1.98.6
26	Ø 32 ÷ 320	ST..	Support for center trunnion	ISO AT4	•	•	•	•	1.5.94	1.98.8
27	Ø 32 ÷ 200	PSV..	Plate for valves	-	•	•	•	•	1.5.95	2.39.1
28	Ø 32 ÷ 320	AS..	Bracket for T type magnetic reed switches		•	•	•	•		1.120.3
			Bracket for hi-temp. magnetic reed switches	•	•	•	•	1.120.4		
29	Ø 32 ÷ 320	ASV..	Magnetic reed switch T groove	2014/34/EU	•	•	•	•	1.5.95	1.110.10
		ASC..	Magnetic reed switch C groove		•	•	-	-		1.110.30
		MK..	ATEX magnetic reed switch T groove		•	•	•	•		1.113.1
		ASH..	Hi-temperatures magnetic reed switch		•	•	•	•		1.111.1
30	Ø 32 ÷ 320	R..	Push-in fittings	-	•	•	•	•	4.2.1	
31	Ø 32 ÷ 320	V..C	Flow controls, for cylinders	-	•	•	•	•	4.94.1	

Key

• matching accessory; - not matching accessory

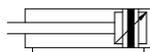
Cylinders ISO 15552

Series AMA - AMT

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Main features

32 ÷ 125



AMA

Bores Ø

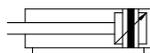
Double acting
Magnetic
With cushioning

Tube profile

Type



32 ÷ 125



AMT

Bores Ø

Double acting
Magnetic
With cushioning

Tube profile

Type



Technical data

Bore Ø mm	32	40	50	63	80	100	125	
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.							
Pressure range	1 ÷ 10 bar							
Temperature range	-20°C ÷ +80°C (standard / V1)		-20°C ÷ +150°C (V)		-40°C ÷ +80°C (BT)			
Strokes	10 ÷ 2800 mm							
Cushion length	20	22	25	25	35	35	35	
Port	1/8"	1/4"		3/8"		1/2"		
Rod thread	M10x1,25	M12x1,25	M16x1,5		M20x1,5		M27x2	
Weight (g.)	Stroke zero	470	690	1.145	1.483	2.381	3.181	5.284
	Additional 10 mm	AMA 21	29	44	47	69	80	119
		AMT 21	29	44	47	69	80	119

Standard strokes

Stroke mm	AMA Bore Ø mm						
	32	40	50	63	80	100	125
10	✓	✓	✓	✓	✓		
25	✓	✓	✓	✓	✓		
50	✓	✓	✓	✓	✓		
80	✓	✓	✓	✓	✓		
100	✓	✓	✓	✓	✓		
125	✓	✓	✓	✓	✓		
150	✓	✓	✓	✓	✓		
160	✓	✓	✓	✓	✓		
200	✓	✓	✓	✓	✓		
250	✓	✓	✓	✓	✓		
300	✓	✓	✓	✓	✓		
320	✓	✓	✓	✓	✓		
400	✓	✓	✓	✓	✓		
450	✓	✓	✓	✓	✓		
500	✓	✓	✓	✓	✓		

Stroke mm	AMT Bore Ø mm						
	32	40	50	63	80	100	125
10							
25							
50							
80							
100							
125							
150							
160							
200							
250							
300							
320							
400							
450							
500							

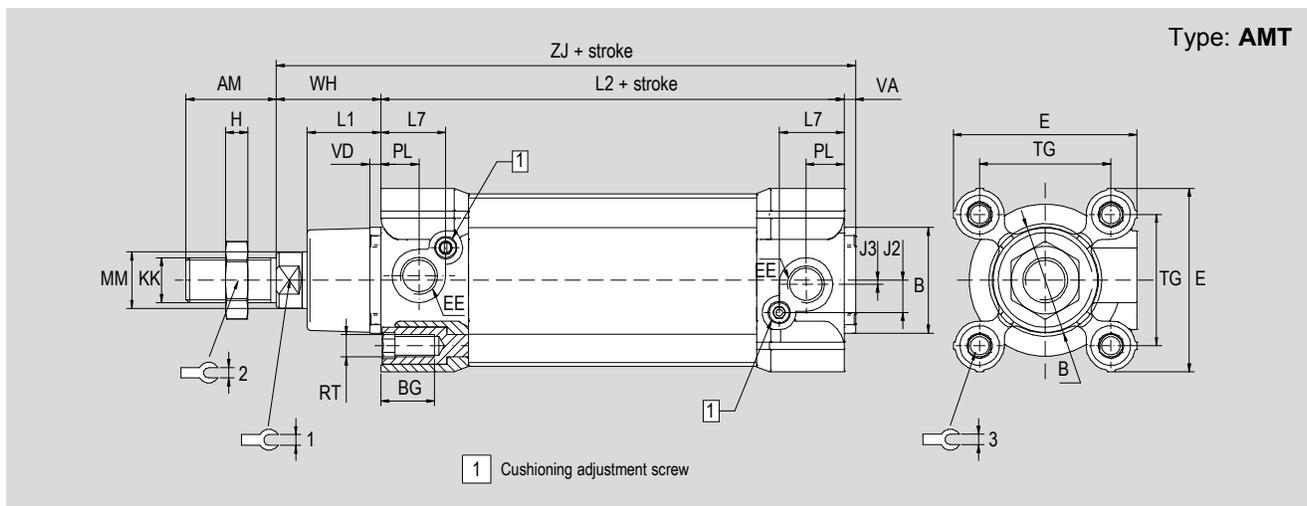
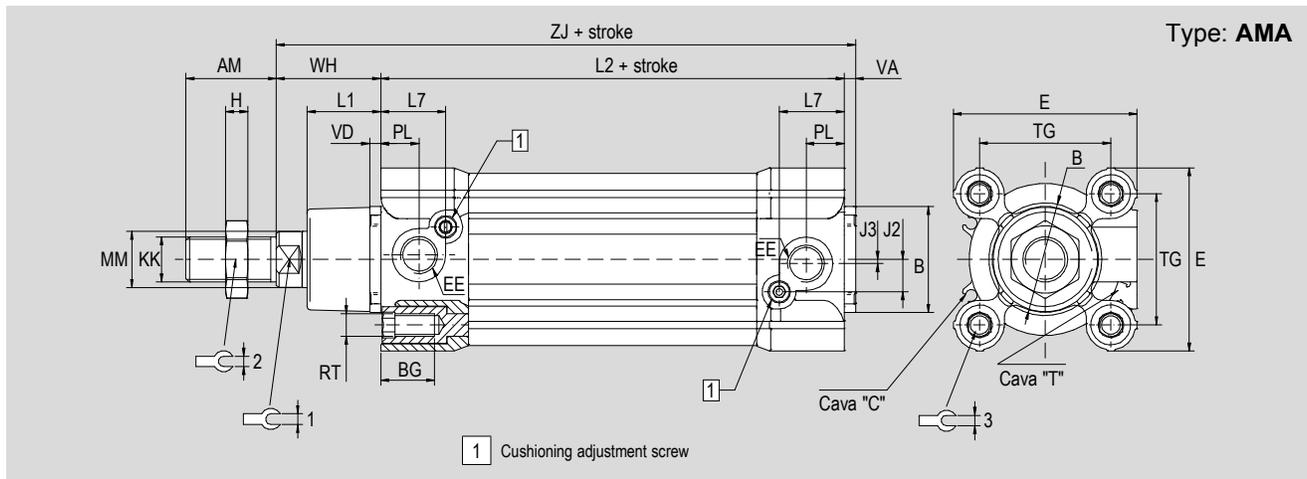
Key

☐ Standard stroke

1.5.20

Standard dimensions

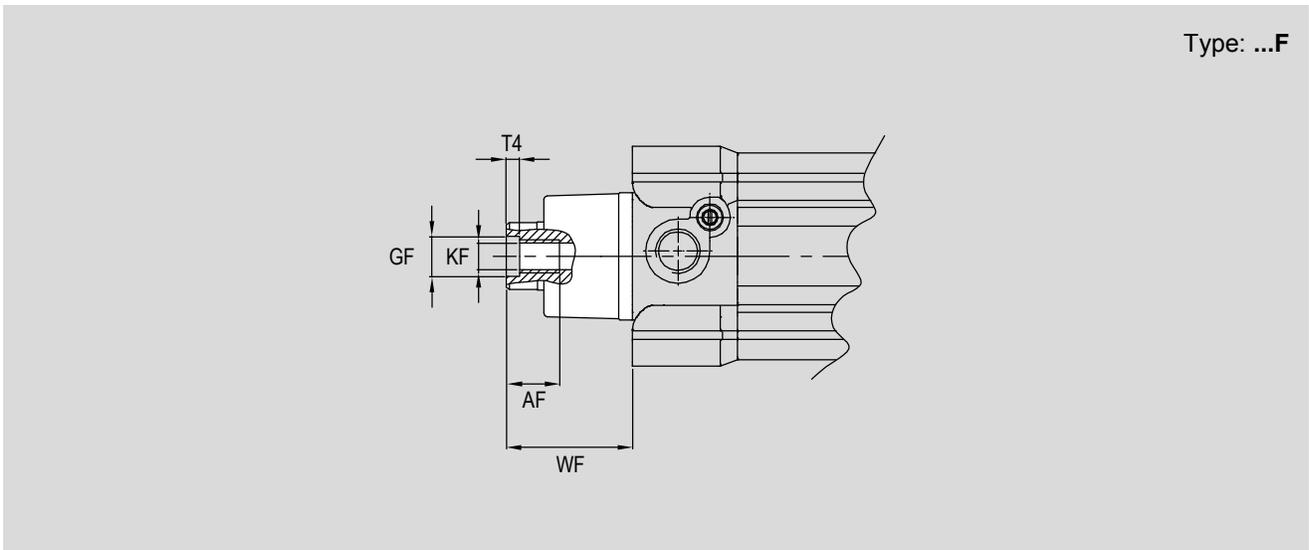
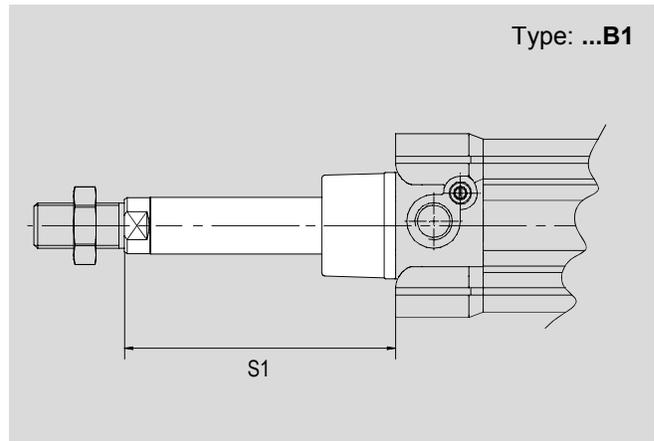
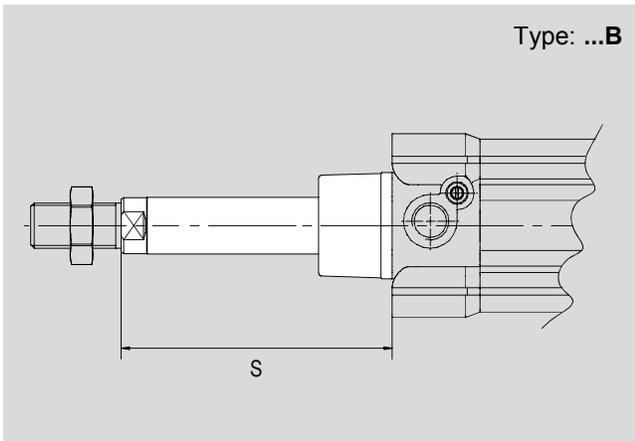
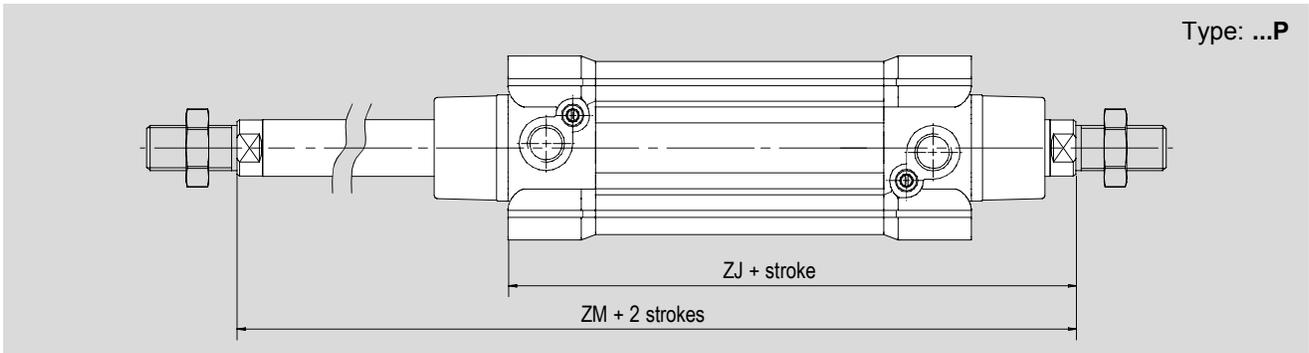
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Ø (mm)	AM	ØB d11	BG	E	EE	J2	J3	ØKK	L1	L2	H
32	22	30	15	47	1/8"	7	3,5	M10x1,25	20	94	6
40	24	35	15	52	1/4"	7,5	4	M12x1,25	22	105	7
50	32	40	16	65	1/4"	11,5	1,5	M16x1,5	26	106	8
63	32	45	16	75	3/8"	13,5	1	M16x1,5	25	121	8
80	40	45	17	95	3/8"	13	1	M20x1,5	32	128	9
100	40	55	17	115	1/2"	15	6	M20x1,5	38	138	9
125	54	60	21	140	1/2"	17	8	M27x2	40	160	12

Ø (mm)	L7	ØMM f7	PL	RT	TG	VA	VD	WH	ZJ	1	2	3
32	19,4	12	8,5	M6	32,5	4	4	26	124	10	17	6
40	23	16	10	M6	38	4	4	30	139	13	19	6
50	23	20	13,5	M8	46,5	4	4	37	147	17	24	8
63	23	20	15	M8	56,5	4	4	37	162	17	24	8
80	30	25	21	M10	72	4	4	46	178	22	30	10
100	30,5	25	24	M10	89	4	4	51	193	22	30	10
125	27,5	32	23	M12	110	5	5	65	230	27	41	12

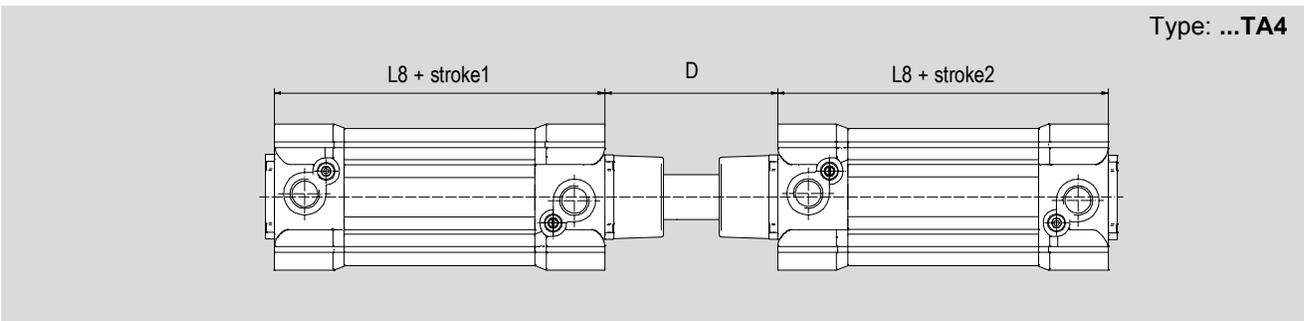
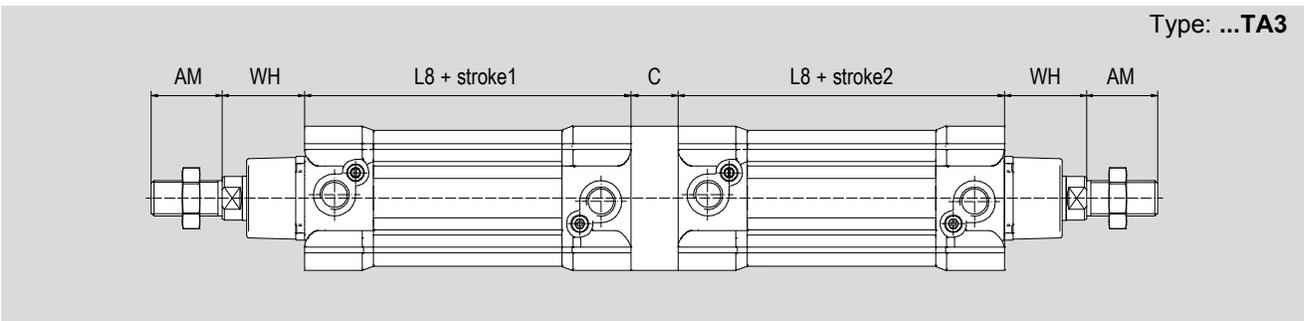
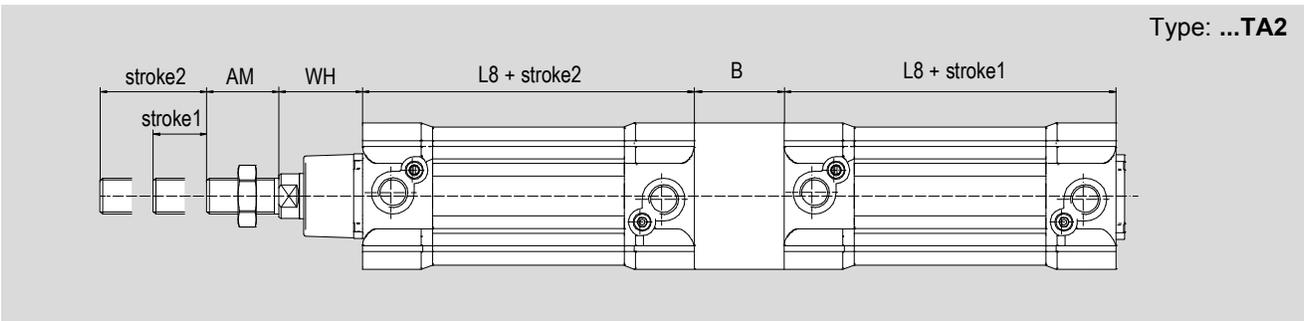
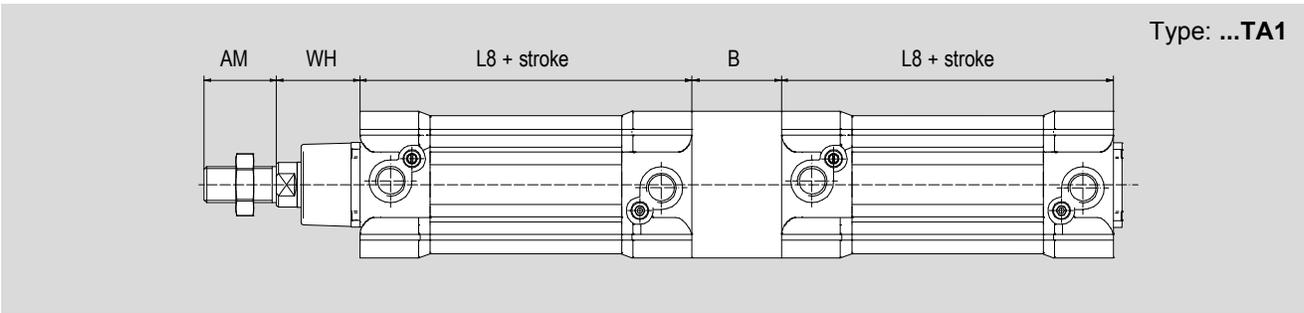
Dimensions with options



Ø mm	AF	GF	KF	T4	WF	S	S1	ZJ	ZM
32	12	8	M6	2,6	26	74	99	120	146
40	12	10	M8	3,3	30	85	106	135	165
50	16	12	M10	4,7	37	107	127	143	180
63	16	12	M10	4,7	37	107	129	158	195
80	20	14	M12	6,1	46	136	156	174	220
100	20	14	M12	6,1	51	143	181	189	240
125	32	18	M16	8	65	187	-	225	290

Dimensions tandem versions

1 - CYLINDERS



Ø mm	AM	B	C	D	L8	WH
32	22	40	12	48	94	26
40	24	44	12	54	105	30
50	32	52	16	69	106	37
63	32	50	16	69	121	37
80	40	64	20	86	128	46
100	40	76	20	91	138	51
125	54	80	35	120	160	65