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Series 16, 24 and 25 Mini-Cylinders

Single-acting and double-acting - Cetop RP52-P DIN/ISO 6432

Series 16: ø8, ø10, ø12

Series 24: ø16, ø20, ø25 - magnetic

Series 25: ø16, ø20, ø25 - magnetic cushioned

The ISO mini-cylinder range is available in three different versions to suit the requirements of the design engineer.



Technical Data

Type of Construction

Piston cylinder - rolled construction, single-acting, double-acting, through-rod and sprung-out. Magnetic or non-magnetic

Media

Compressed air (filtered), with or without lubrication

Operating Pressure

1 bar to 10 bar (double-acting)
2 bar to 10 bar (single-acting)

Operating Temperature

0°C to +80°C
(with dry air -20°C to +80°C)

Materials

Cylinder Barrel: Stainless steel
End Blocks: Cast aluminium
Nose Seals: Polyurethane
Other Seals: NBR
Piston Rod: Stainless steel
Piston Rod Lock Nut: Zinc-plated steel
Nose Nut: Zinc-plated steel

Cushioning

Series 16 and 24 - End of stroke buffers
Series 25 - End of stroke buffers with adjustable pneumatic cushioning

Bore Sizes

8, 10, 12, 16, 20, 25mm

Stroke Lengths

Standard - see table
Non-standard - on request

Speed

Min 10mm/sec. (no load)
Max 1000mm/sec. (no load)

Connections

Ø8, Ø10, Ø12, Ø16 - M5
Ø20, Ø25 - 1/8

Mountings

Comprehensive range of ISO mounting brackets - see page 487

Cylinder Breakdown Service

Same day breakdown service on all standard and non-standard cylinders

Additional Options

Adjustable cushioning - series 25 only
Piston rod accessories - see page 487
Viton seals - Non-standard available only on request

STANDARD STROKES FOR MINICYLINDERS SERIES 16, 24 AND 25

- Double-acting
- * Single-acting

Series	16	16	16	24	24	24	25	25	25
	ø8	ø10	ø12	ø16	ø20	ø25	ø16	ø20	ø25
Standard Stroke									
10	■*	■*	■*	■*	■*	■*	■	■	■
25	■*	■*	■*	■*	■*	■*	■	■	■
40	■*	■*	■*	■*	■*	■*	■	■	■
50	■*	■*	■*	■*	■*	■*	■	■	■
80	■	■	■	■	■	■	■	■	■
100	■	■	■	■	■	■	■	■	■
125	■	■	■	■	■	■	■	■	■
160	■	■	■	■	■	■	■	■	■
200	■	■	■	■	■	■	■	■	■
250			■	■	■	■	■	■	■
300			■	■	■	■	■	■	■
320				■	■	■	■	■	■
400				■	■	■	■	■	■
500				■	■	■	■	■	■

CODING EXAMPLE

24	N	2	A	16	A	100	-
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24	SERIES: 16 = non-magnetic 24 = magnetic 25 = magnetic adjustable cushioning	16	BORE: 8, 10, 12, 16, 20, 25mm
N	VERSION: N = standard	A	TYPE OF BRACKET: A = standard (screw with ring + lock nut for rod)
2	OPERATION: 1 = single-acting (front spring) 2 = double-acting 3 = double-acting (through rod) 7 = single-acting (through rod)	100	STROKE: (see table)
A	MATERIALS: A = rolled stainless steel rod, INOX tube	-	SPECIAL: to be specified V = Rod Seal Viton

NOTE: All cylinders are supplied complete with nose nut and nut for rod. The accessories are supplied separately.



Foot Mounts (pair)	
	∅
B-8-10	8-10
B-12-16	12-16
B-20-25	20-25

Front/Rear Flange Mount	
	∅
E-8-10	8-10
E-12-16	12-16
E-20-25	20-25

Rear Trunnion Bracket	
	∅
I-8-10	8-10
I-12-16	12-16
I-20-25	20-25

Rod Fork End	
	∅
G-8-10	8-10
G-12-16	12-16
G-20	20
G-25-32	25



Swivel Ball Joint	
	∅
GA-8-10	8-10
GA-12-16	12-16
GA-20	20
GA-25-32	25

Piston Rod Socket Joint	
	∅
GY-12-16	12-16
GY-20	20
GY-25-32	25

Piston Rod Lock Nut	
	∅
U-8-10	8-10
U-12-16	12-16
U-20	20
U-25-32	25

Nose Nut	
	∅
V-8-10	8-10
V-12-16	12-16
V-20-25	20-25



Self Aligning Rod	
	∅
GK-20	20
GK-25-32	25

Coupling Piece	
	∅
GKF-20	20
GKF-25-32	25

Series 60 Cylinders

Single-acting and double-acting, magnetic (DIN/ISO 6431)
 ø32, ø40, ø50, ø63, ø80, ø100, ø125 cushioned.



Technical Data

Type of Construction

Piston cylinder with tie-rods.
 Single-acting, double-acting and through-rod. Magnetic as standard

Media

Compressed air (filtered), with or without lubrication

Operating Pressure

Min 1 bar to max 10 bar

Operating Temperature

0°C to +80°C.
 (with dry air -20°C to +80°C)

Materials

Cylinder barrel: Anodised aluminium extrusion

End blocks: Cast aluminium

Seals: NBR

Piston rod: Stainless steel

Piston rod lock nut: Zinc-plated steel

Tie-rods: Zinc-plated steel

Tie-rods nuts: Zinc-plated steel

Cushioning

End of stroke buffers with adjustable pneumatic cushioning

Bore Sizes

32, 40, 50, 63, 80, 100, 125mm

Stroke Lengths

Standard - see tables

Non-standard - on request

Speed

Min 10mm/sec. (no load)

Max 1000mm/sec. (no load)

Connections

Ø32 - 1/8

Ø40, Ø50 - 1/4

Ø63, Ø80 - 3/8

Ø100, Ø125 - 1/2

Mountings

Comprehensive range of ISO/VDMA mounting brackets - see page 489

Cylinder Breakdown Service

Same day breakdown service on all standard and non-standard cylinders

Additional Options

Piston rod accessories

- see page 489

Viton seals*

*Non-standard available only on request

Seal Kits available on request

STANDARD STROKES FOR CYLINDERS SERIES 60

- Double-acting
- * Single-acting

	ø32	ø40	ø50	ø63	ø80	ø100	ø125
Standard Stroke							
25	■*	■*	■*	■*	■*		
50	■*	■*	■*	■*	■*	■*	■*
75	■*	■*	■*	■*	■*	■*	■*
80	■	■	■	■	■	■	■
100	■	■	■	■	■	■	■
125	■	■	■	■	■	■	■
150	■	■	■	■	■	■	■
160	■	■	■	■	■	■	■
200	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■
300	■	■	■	■	■	■	■
320	■	■	■	■	■	■	■
400	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■
600	■	■	■	■	■	■	■
700	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■
900	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■

For cylinders over 1000mm stroke and other versions, please contact our sales office

CODING EXAMPLE

60	M	2	L	050	A	0200	-
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60	SERIES: 60 = from ø32 - 125 DIN/ISO 6431	050	BORE: 32, 40, 50, 63, 80, 100, 125mm
M	VERSION: M = magnetic N = non magnetic	A	TYPE OF BRACKET: A = standard with lock nut for rod
2	OPERATION: 1 = single-acting (front spring) 2 = double-acting (front and rear cushions) 3 = double-acting (no cushion) 4 = double-acting (rear cushions) 5 = double-acting (front cushion) 6 = double-acting (through-rod with front and rear cushions) 7 = single-acting (through-rod)	0200	STROKE: (see table)
L	MATERIALS: L = rolled stainless steel rod AISI 420B - anodised aluminium round tube - NBR seals - nuts and tie-rods zinc-plated steel - rod seals polyurethane	-	SPECIAL: - = standard V = rod seal viton N = tandem R = rod seals NBR W = all seals in viton 0-130°C

60M2L = standard version in stock (32 - 125)

Note: All cylinder are supplied with rod nuts. The accessories are supplied separately



Foot Mounts (pair)	
	∅
B-41-32	32
B-41-40	40
B-41-50	50
B-41-63	63
B-41-80	80
B-41-100	100
B-41-125	125



Front and Rear Flange	
	∅
D-E-41-32	32
D-E-41-40	40
D-E-41-50	50
D-E-41-63	63
D-E-41-80	80
D-E-41-100	100
D-E-41-125	125



Rear Trunnion, Female	
	∅
C-41-32	32
C-41-40	40
C-41-50	50
C-41-63	63
C-H-41-80	80
C-H-41-100	100
C-H-41-125	125



Rear Trunnion, Male	
	∅
L-41-32	32
L-41-40	40
L-41-50	50
L-41-63	63
L-41-80	80
L-41-100	100
L-41-125	125



Front Trunnion, Female	
	∅
H-41-32	32
H-41-40	40
H-41-50	50
H-60-63	63
C-H-41-80	80
C-H-41-100	100
C-H-41-125	125



Centre Trunnion	
	∅
F-32	32
F-40	40
F-50	50
F-63	63
F-80	80
F-100	100
F-125	125



900 Swivel Trunnion (to CETOP RP 107P)	
	∅
ZC 32	32
ZC 40	40
ZC 50	50
ZC 63	63
ZC 80	80
ZC 100	100
ZC 125	125



Rear Trunnion Ball Joint	
	∅
R-41-32	32
R-41-40	40
R-41-50	50
R-41-63	63
R-41-80	80
R-41-100	100



Counter Bracket for Centre Trunnion	
	∅
BF-32	32
BF-40-50	40-50
BF-63-80	63-80
BF-100-125	100-125



Rod Fork End	
	∅
G-25-32	32
G-40	40
G-50-63	50-63
G-80-100	80-100
G-41-125	125



Swivel Ball Joint	
	∅
GA-25-32	32
GA-40	40
GA-50-63	50-63
GA-80-100	80-100
GA-41-125	125



Piston Rod Socket Joint	
	∅
GY-25-32	32
GY-40	40
GY-50-63	50-63
GY-80-100	80-100



Clevis Pin	
	∅
S-32	32
S-40	40
S-50	50
S-63	63
S-80	80
S-100	100
S-125	125



Piston Rod Lock Nut	
	∅
U-25-32	32
U-40	40
U-50-63	50-63
U-80-100	80-100
U-41-125	125



Self Aligning Rod	
	∅
GK-25-32	32
GK-40	40
GK-50-63	50-63
GK-80-100	80-100



Coupling Piece	
	∅
GKF-25-32	32
GKF-40	40
GKF-50-63	50-63
GKF-80-100	80-100
GKF-125	125

Series 61 Cylinders - Aluminium Profile

Single-acting and double-acting magnetic (DIN/ISO 6431)
 ø 32, ø40, ø50, ø63, ø80, ø100, ø125 cushioned.



Technical Data

Type of Construction

Piston cylinder with tie-rods.
 Single-acting, double-acting and through-rod. Magnetic as standard

Media

Compressed air (filtered), with or without lubrication

Operating Pressure

Min 1 bar to max 10 bar

Operating Temperature

0°C to +80°C.
 (with dry air -20°C to +80°C)

Materials

Cylinder barrel: Anodised aluminium extrusion

End blocks: Cast aluminium

Seals: NBR

Piston rod: Stainless steel

Piston rod lock nut: Zinc-plated steel

Tie-rods: Zinc-plated steel

Tie-rods nuts: Zinc-plated steel

Cushioning

End of stroke buffers with adjustable pneumatic cushioning

Bore Sizes

32, 40, 50, 63, 80, 100, 125mm

Stroke Lengths

Standard - see tables

Non-standard - on request

Speed

Min 10mm/sec. (no load)

Max 1000mm/sec. (no load)

Connections

Ø32 - 1/8

Ø40, Ø50 - 1/4

Ø63, Ø80 - 3/8

Ø100, Ø125 - 1/2

Mountings

Comprehensive range of ISO/VDMA mounting brackets - see page 491

Cylinder Breakdown Service

Same day breakdown service on all standard and non-standard cylinders

Additional Options

Piston rod accessories - see page 491
 Viton seals*

*Non-standard available only on request

Seal Kits available on request

STANDARD STROKES FOR CYLINDERS SERIES 61

- Double-acting
- * Single-acting

	ø32	ø40	ø50	ø63	ø80	ø100	ø125
Standard Stroke							
25	■*	■*	■*	■*	■*		
50	■*	■*	■*	■*	■*	■*	■*
75	■*	■*	■*	■*	■*	■*	■*
80	■	■	■	■	■	■	■
100	■	■	■	■	■	■	■
125	■	■	■	■	■	■	■
150	■	■	■	■	■	■	■
160	■	■	■	■	■	■	■
200	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■
300	■	■	■	■	■	■	■
320	■	■	■	■	■	■	■
400	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■
600	■	■	■	■	■	■	■
700	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■
900	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■

For cylinders over 1000mm stroke and other versions, please contact our sales office.

CODING EXAMPLE

61	M	2	P	050	A	0200	-
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61	SERIES: 61 = from ø32 - 125 DIN/ISO 6431	050	BORE: 32, 40, 50, 63, 80, 100, 125mm
M	VERSION: M = magnetic N = non magnetic	A	TYPE OF BRACKET: A = standard with lock nut for rod
2	OPERATION: 1 = single-acting (front spring) 2 = double-acting (front and rear cushions) 3 = double-acting (no cushion) 4 = double-acting (rear cushions) 5 = double-acting (front cushion) 6 = double-acting (through-rod with front and rear cushions) 7 = single-acting (through-rod)	0200	STROKE: (see table)
P	MATERIALS: P = rolled stainless steel rod, AISI 420B anodised profile aluminium tube NBR seals - rod seals polyurethane, nuts and tie-rods zinc-plated steel	-	SPECIAL: - = standard V = rod seal viton N = tandem R = rod seals NBR W = all seals in viton 0-130°C

61M2P = standard version in stock (32 - 125)

Note: All cylinder are supplied with rod nuts. The accessories are supplied separately

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Foot Mounts (pair)	
	∅
B-41-32	32
B-41-40	40
B-41-50	50
B-41-63	63
B-41-80	80
B-41-100	100
B-41-125	125



Front and Rear Flange	
	∅
D-E-41-32	32
D-E-41-40	40
D-E-41-50	50
D-E-41-63	63
D-E-41-80	80
D-E-41-100	100
D-E-41-125	125



Rear Trunnion, Female	
	∅
C-41-32	32
C-41-40	40
C-41-50	50
C-41-63	63
C-H-41-80	80
C-H-41-100	100
C-H-41-125	125



Rear Trunnion, Male	
	∅
L-41-32	32
L-41-40	40
L-41-50	50
L-41-63	63
L-41-80	80
L-41-100	100
L-41-125	125



Front Trunnion, Female	
	∅
H-41-32	32
H-41-40	40
H-41-50	50
H-60-63	63
C-H-41-80	80
C-H-41-100	100
C-H-41-125	125



Centre Trunnion	
	∅
F-61-32	32
F-61-40	40
F-61-50	50
F-61-63	63
F-61-80	80
F-61-100	100
F-61-125	125



90° Swivel Trunnion (to CETOP RP 107P)	
	∅
ZC-32	32
ZC-40	40
ZC-50	50
ZC-63	63
ZC-80	80
ZC-100	100
ZC-125	125



Trunnion Ball Joint	
	∅
R-41-32	32
R-41-40	40
R-41-50	50
R-41-63	63
R-41-80	80
R-41-100	100
R-41-125	125



Counter Bracket for Centre Trunnion	
	∅
BF-32	32
BF-40-50	40-50
BF-63-80	63-80
BF-100-125	100-125



Rod Fork End	
	∅
G-25-32	32
G-40	40
G-50-63	50-63
G-80-100	80-100
G-41-125	125



Swivel Ball Joint	
	∅
GA-25-32	32
GA-40	40
GA-50-63	50-63
GA-80-100	80-100
GA-41-125	125



Piston Rod Socket Joint	
	∅
GY-25-32	32
GY-40	40
GY-50-63	50-63
GY-80-100	80-100



Clevis Pin	
	∅
S-32	32
S-40	40
S-50	50
S-63	63
S-80	80
S-100	100
S-125	125



Piston Rod Lock Nut	
	∅
U-25-32	32
U-40	40
U-50-63	50-63
U-80-100	80-100
U-41-125	125



Self Aligning Rod	
	∅
GK-25-32	25-32
GK-40	40
GK-50-63	50-63
GK-80-100	80-100



Coupling Piece	
	∅
GKF-25-32	32
GKF-40	40
GKF-50-63	50-63
GKF-80-100	80-100
GKF-125	125

Series 32 Compact Magnetic Cylinders

Series 32M-32F: Single-acting and Double-acting (ISO 21287)
 Series 32R: Double-acting, non-rotating (ISO 21287)
 ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

The Series 32 cylinder range has been designed to be installed within confined spaces. These cylinders are suitable for use with feet and with brackets.



Technical Data

Type of Construction

Compact piston cylinder. Single-acting, double-acting, through-rod and non-rotating (double-acting only). Magnetic as standard

Media

Compressed air (filtered), with or without lubrication

Operating Pressure

1 bar to 10 bar (double-acting)
 2 bar to 10 bar (single-acting)

Operating Temperature

0°C to +80°C.
 (with dry air -20°C to +80°C)

Materials

Cylinder barrel: Anodised aluminium extrusion
 End blocks: Cast aluminium
 Seals: Polyurethane
 Piston Rod: Stainless steel
 Piston Rod Lock Nut: Zinc-plated steel
 Cap Screw: Zinc plated steel

Cushioning

End of stroke buffers

Bore Sizes

20, 25, 32, 40, 50, 63, 80, 100mm

Stroke Lengths

Standard - see table.
 Non-standard- on request

Speed

Min 10mm/sec. (no load)
 Max 1000mm/sec. (no load)

Connections

Ø20, 25 - M5
 Ø32, 40, 50, 63, 80 - 1/8
 Ø100 - 1/4

Mountings

Comprehensive range of mounting brackets - see page 493

Cylinder Breakdown Service

Same day breakdown service on all standard and non-standard cylinders

Additional Options

Male or female threaded piston rods.
 Viton seals*
 *Non-standard available only on request
 Seal Kits available on request

Notes

Intermediate brackets for mounting cylinders back to back are available on request.

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STANDARD STROKES FOR CYLINDERS SERIES 32

- Double-acting
- * Single-acting
- Non-rotating

Standard Stroke	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
5	■*●	■*●	■*●	■*●				
10	■*●	■*●	■*●	■*●	■*●	■*●	■*●	■*●
15	■*●	■*●	■*●	■*●	■*●	■*●	■*●	■*●
20	■*●	■*●	■*●	■*●	■*●	■*●	■*●	■*●
25	■*●	■*●	■*●	■*●	■*●	■*●	■*●	■*●
30	■●	■●	■*	■*	■*	■*	■*	■*
40	■●	■●	■*	■*	■*	■*	■*	■*
50	■●	■*	■*	■*	■*	■*	■*	■*
60			■*	■*	■*	■*	■*	■*
75			■*	■*	■*	■*	■*	■*
80			■*	■*	■*	■*	■*	■*
100			■*	■*	■*	■*	■*	■*

CODING EXAMPLE

32	M	2	A	032	A	050	-
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32	SERIES: 32 compact magnetic	032	BORE: 20, 25, 32, 40, 50, 63, 80, 100mm
M	VERSION: M = male rod thread F = female rod thread R = non-rotation with flange	A	CONSTRUCTION: A = standard
2	OPERATION: 1 = single-acting front spring 2 = double-acting 3 = double-acting through-rod 4 = single-acting rear spring	050	STROKE: (see table)
A	MATERIALS: A = Anodized aluminium body, end-blocks and piston, PU rod seal, end-covers OR and piston seal	-	SPECIAL: V = rod seals in viton W = seals in viton for high temperatures (140°C) double acting non magnetic

NOTE: Rod nuts and accessories are supplied separately.

Series 32 Compact Magnetic Cylinders Tandem and Multi-position Versions

Series 32M-32F: Single and double-acting, magnetic (ISO 21287)
 Ø25, Ø40, Ø63, Ø100

Tandem

Joined piston rods to increase thrust



Multi-position

Upto 3 cylinders of different stroke lengths can be joined together



CODING EXAMPLE

32 | **M** | **2** | **A** | **040** | **A** | **050** | **N** | **2**

32 SERIES: 32 compact magnetic

M	VERSION: M = male rod thread F = female rod thread	040	BORE: 25, 40, 63, 100mm	N	TANDEM AND MULTI-POSITION:
2	OPERATION: 2 = double-acting	A	CONSTRUCTION: A = standard	2	STAGES (only for tandem) 2 = 2 stages
A	MATERIALS: A = anodized aluminium body, end-blocks and piston, PU rod seal, end-covers OR and piston seal	050	STROKE tandem stroke in mm multi-position X1mm/X2mm		

Series 32 Accessories



Foot Mounts (pair)

	Ø
B-32-20	20
B-31-25	25
B-41-32	32
B-41-40	40
B-41-50	50
B-41-63	63
B-41-80	80
B-41-100	100

Rear Trunnion, Female

	Ø
C-41-32	32
C-41-40	40
C-41-50	50
C-H-41-63	63
C-H-41-80	80
C-H-41-100	100

Front Trunnion, Female

	Ø
H-41-32	32
H-41-40	40
H-41-50	50
H-60-63	63
C-H-41-80	80
C-H-41-100	100

Rear and Front Flange

	Ø
D-E-32-20	20
D-E-32-25	25
D-E-41-32	32
D-E-41-40	40
D-E-41-50	50
D-E-41-63	63
D-E-41-80	80
D-E-41-100	100



90° Swivel Combination for Female Trunnion

	Ø
L-32-20	20
L-32-25	25
L-41-32	32
L-41-40	40
L-41-50	50
L-41-63	63
L-41-80	80
L-41-100	100

Rear Trunnion Ball Joint

	Ø
R-41-32	32
R-41-40	40
R-41-50	50
R-41-63	63
R-41-80	80
R-41-100	100

90° Swivel Trunnion (to CETOP RP 107P)

	Ø
ZC 32	32
ZC 40	40
ZC 50	50
ZC 63	63
ZC 80	80
ZC 100	100

90° Swivel Combination for Trunnion

	Ø
I-20-25	20
I-20-25	25



Clevis Pin

	Ø
S-32	32
S-40	40
S-50	50
S-63	63
S-80	80
S-100	100

Rod Fork End

	Ø
G-12-16	12
G-20	16
G-25-32	20-40
G-40	50-63
G-50-63	80
G-80-100	100

Swivel Ball Joint

	Ø
GA-12-16	12
GA-20	16
GA-25-32	20-40
GA-40	50-63
GA-50-63	80
GA-80-100	100

Piston Rod Socket Joint

	Ø
GY-12-16	12
GY-20	16
GY-25-32	20-40
GY-40	50-63
GY-50-63	80
GY-80-100	100