

Roundline Cylinders
Magnetic Piston
Single Acting
 Ø 8 to 40 mm

- **Very compact – approximately one fifth shorter than the basic length of a corresponding roundline cylinder.**
- **Magnetic piston as standard provides a wide range of control options.**
- **International series available world-wide.**



Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Single acting with buffer cushioning

RT/57100/M Side port, integral eye mounting, sprung in

RT/57300/M Side port, integral eye mounting, sprung out

RT/57100/MC Central rear port, sprung in

RT/57300/MC Central rear port, sprung out

Operating Pressure:

2 to 10 bar (Ø 8 mm: 3 to 10 bar)

Operating Temperature:

-5°C* to +80°C max.

*Consult our Technical Service for use below +2°C

Cylinder Diameters:

8, 10, 12, 16, 20, 25, 32, 40 mm

Standard Strokes:

10, 25, 50 mm

Materials:

Stainless steel (8 to 16 mm bore Martensitic, 20 to 40 mm bore Austenitic) piston rod, Stainless steel (Austenitic) barrel, aluminium end covers, polyurethane wiper, nitrile rubber seals and 'O'-rings.

Ordering Information

To order a basic 40 mm bore cylinder (side port, integral eye mounting), sprung in with a 50 mm stroke quote: RT/57140/M/50

To order a 25 mm bore cylinder (central rear port in the end cover), sprung out with a 10 mm stroke quote: RT/57325/MC/10

To order mounting brackets refer to appropriate cylinder and switch mounting table.

Order magnetically operated switches separately.

Accessories

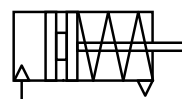
See page

Switches for Ø8 to 25mm bore **4.3.045.01**

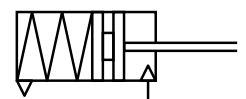
4.3.047.01

Switches for Ø32 and 40mm bore **4.3.051.01**

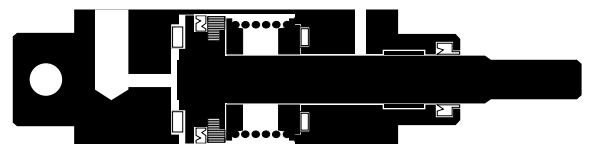
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57100 (sprung in)



57300 (sprung out)














Theoretical Forces • Air Consumption • Weight of Cylinders

Model	57100 Theoretical forces (N) at 6 bar Outstroke		57300 Theoretical forces (N) at 6 bar Instroke		Air consumption (l/cm stroke) at 6 bar		57100 Weight (kg) up to 25 mm	57300 Weight (kg) up to 25 mm	Weight (kg) per 25 mm
	F 1		F 1		Instroke	Outstroke			
8	22,7	3,6	18,6	3,6	0,004	0,003	0,017	0,016	0,005
10	38,2	4,6	30,8	4,6	0,005	0,004	0,025	0,023	0,007
12	56,2	6,1	48,4	6,1	0,008	0,006	0,027	0,025	0,008
16	101	10,5	84,5	10,5	0,014	0,013	0,053	0,050	0,012
20	161	14,5	131	14,5	0,022	0,019	0,095	0,090	0,018
25	264	20	217	20	0,035	0,028	0,150	0,140	0,028
32	432	32	364	32	0,056	0,048	0,260	0,245	0,038
40	687	44	594	44	0,087	0,074	0,400	0,375	0,050

F 1 = Return forces of spring (N)

Weights of Mountings (kg)

Model									
Model	Style 'AK'	Style 'C'	Style 'F'	Style 'L'	Style 'M'	Style 'N'	Style 'N2'	Style 'UF'	Switch bracket
57108, 57308	-	0,005	0,003	0,003	0,006	0,003	0,001	-	0,001
57110, 57310	0,015	0,007	0,010	0,010	0,020	0,003	0,001	0,015	0,002
57112, 57312	0,015	0,007	0,010	0,010	0,020	0,003	0,001	0,015	0,002
57116, 57316	0,020	0,016	0,012	0,020	0,032	0,010	0,002	0,021	0,005
57120, 57320	0,050	0,030	0,020	0,020	0,040	0,009	0,003	0,045	0,005
57125, 57325	0,200	0,040	0,040	0,034	0,074	0,011	0,007	0,080	0,006
57132, 57332	0,200	0,060	0,048	0,040	0,088	0,017	0,007	0,080	0,007
57140, 57340	0,200	0,083	0,090	0,086	0,176	0,025	0,010	0,120	0,008

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

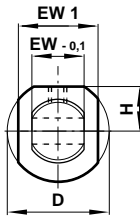
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

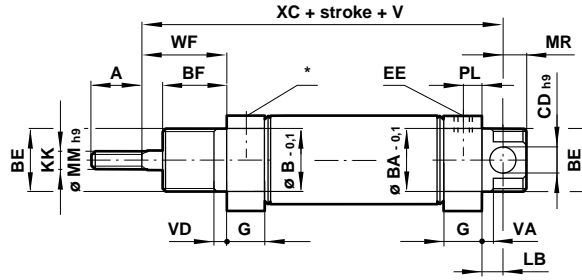


Basic Dimensions

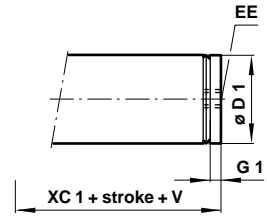
∅ 8 to 12 mm



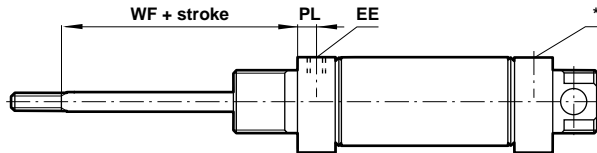
RT/57100/M



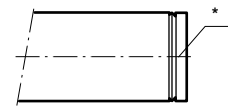
RT/57100/MC



RT/57300/M

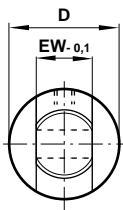


RT/57300/MC

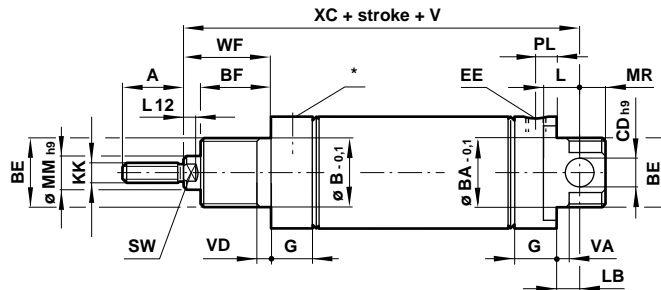


* Filtered exhaust position, do not obstruct

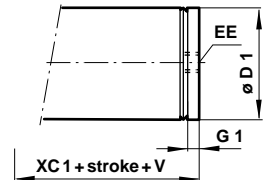
∅ 16 to 40 mm



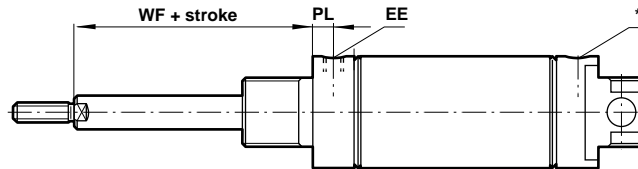
RT/57100/M



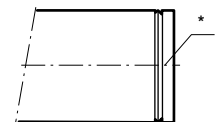
RT/57100/MC



RT/57300/M



RT/57300/MC

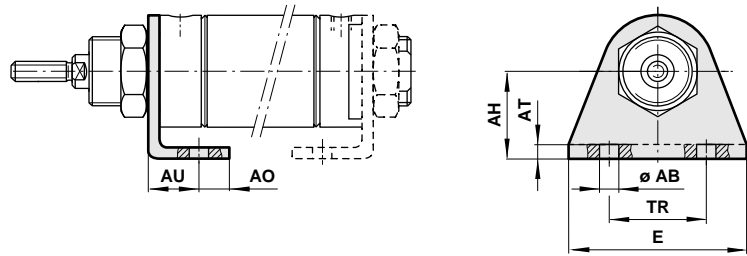


* Filtered exhaust position, do not obstruct

Model	57108, 57308	57110, 57310	57112, 57312	57116, 57316	57120, 57320	57125, 57325	57132, 57332	57140, 57340
∅	8	10	12	16	20	25	32	40
A	8	9	9	12	14	16	22	23
∅ B/∅ BA	10	10	10	12	16	18	22	30
BE	M 10 x 1	M 10 x 1	M 10 x 1	M 12 x 1,25	M 16 x 1,5	M 18 x 1,5	M 22 x 1,5	M 30 x 1,5
BF	7,5	8	8	10	12	12	15	15
∅ CD H9	3	4	4	5	6	8	8	10
∅ D	12	15	15	17,5	22	26,5	33,5	41,5
∅ D 1	9,5	11,5	13	17,5	21,5	26,5	33,5	41,5
EE	M 3	M 5	M 5	M 5	Rc 1/8	Rc 1/8	Rc 1/8	Rc 1/8
EW -0.1	6	8	8	10	12	14	16	20
EW 1	10	12,5						
G	7,5	9,5	9,5	11,5	15,5	15,5	17,5	18
G 1	3	4,5	4,5	4	8	8	5,5	5,5
H	5	6,5	6,5					
KK	M 3	M 4	M 4	M 6	M 8	M 10 x 1,25	M 10 x 1,25	M 12 x 1,25
L							12	14
LB	4,5	5	5	7	7	9	7	5
L 12				5	5	5	5	6
∅ MM h9	3	4	4	6	8	10	12	14
MR	3	4	4	5	6	8	8	10
PL	4	5,5	5,5	5,5	9	9	9	10
SW (A/F)				5	7	9	10	12
V (10 and 25 stroke)	17	14	14	15	17	18	19	20
(50 stroke)	34	28	28	30	34	36	38	40
VA/VD	1,5	1,5	1,5	2	3	3	3	3
WF	8,5	10	10	13,5	15,5	16,5	23	24
XC	48	54	54	64,5	75,5	78,5	93	96
XC 1	39	44	44	50	61	62	74	78,5

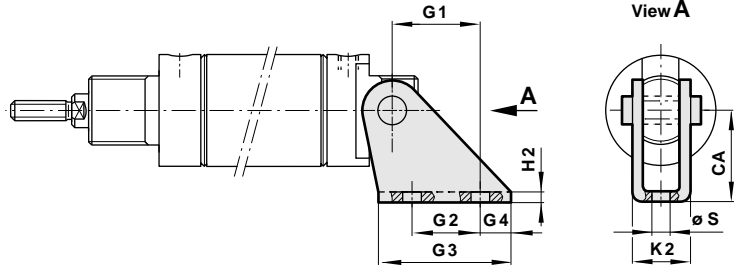
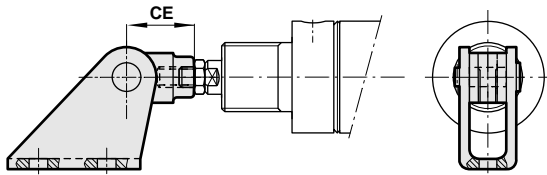


Foot Mounting Style 'C'



Front Hinge Mounting Style 'M'

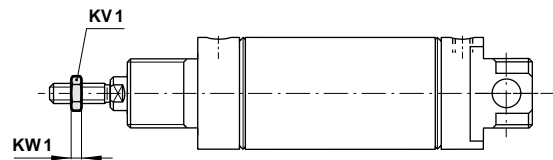
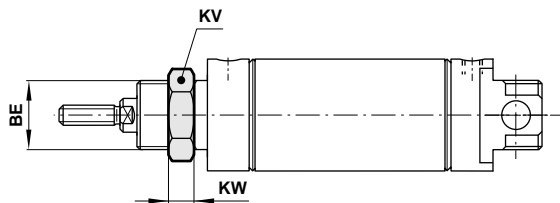
Rear Hinge Mounting Style 'L'



Model 'C'	M/P71273/1	M/P71273/2	M/P71273/2	M/P19369	M/P19389	M/P40381	M/P19406	M/P71273/3
Model 'L'	QM/57008/24	QM/947	QM/947	QM/946	QM/8012/24	QM/57025/24	QM/8020/24	QM/57040/24
Model 'M'	QM/57008/26	QM/57010/26	QM/57010/26	QM/57016/26	QM/57020/26	QM/57025/26	QM/57032/26	QM/57040/26
∅	8	10	12	16	20	25	32	40
∅ AB	3,8	5	5	4,5	5,5	6,6	6,6	7
AH	10	12	12	16	20	22	25	28
AO	3,5	4,5	4,5	6	6	8	7,5	7
AT	1,5	1,5	1,5	2	3	3	4	4
AU	7,5	7,5	7,5	10	13	12,5	16	16
CA	10	12	12	16	20	22	25	28
CE	11	16	16	20	24	26	32	40
E	25	30	30	35	43	49	53	66
G 1	9	6,5	6,5	13	18,5	20	20	25
G 2	7	-	-	10	15	15	15	20
G 3	14	15	15	22	30	33	35	42
G 4	3,5	6	6	6	8	9	10	11
H 2	1	1	1	1,5	1,5	2	2	3
K 2	8	10,5	10,5	12,5	15	18	20,5	26
TR	18	20	20	25	32	38	40	52
∅ S	3,5	4,8	4,8	4,8	5,5	6,6	6,6	7

Nose Nut Style 'N'

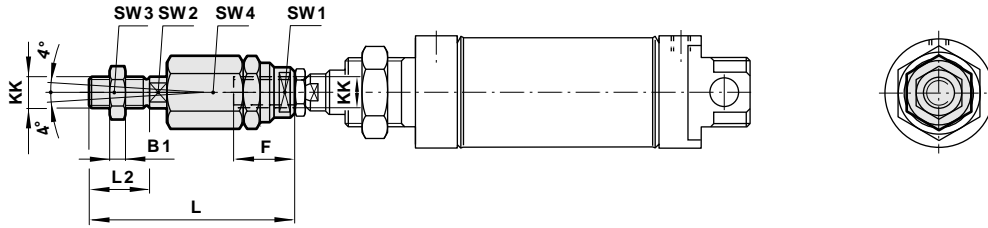
Locknut Style 'N2'



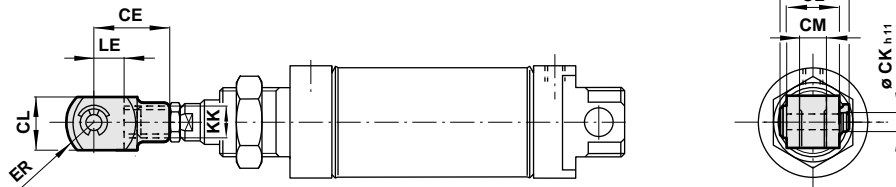
Model 'N'	M/P71364	M/P71364	M/P71364	M/P1501/90	M/P13834	M/P13607	M/P13615	M/P29254
Model 'N2'	M/P1500/111	M/P1501/80	M/P1501/80	M/P1501/79	M/P1501/60	M/P1501/89	M/P1501/89	M/P1501/90
∅	8	10	12	16	20	25	32	40
BE	M 10 x 1	M 10 x 1	M 10 x 1	M 12 x 1,25	M 16 x 1,5	M 18 x 1,5	M 22 x 1,5	M 30 x 1,5
KV (A/F)	14	14	14	19	22	24	27	36
KV 1 (A/F)	6	7	7	10	13	17	17	19
KW	4	4	4	6	5	5	8	8
KW 1	2	2	2	3	4	5	5	6



Piston Rod Swivel Mounting Style 'AK'

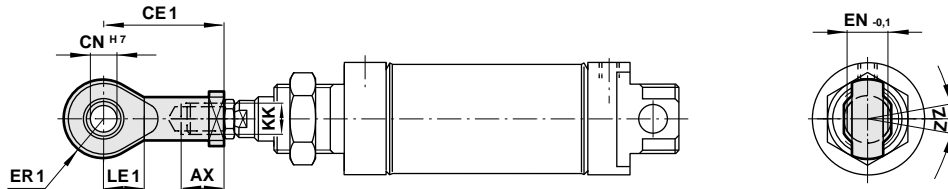


Piston Rod Clevis Mounting Style 'F'



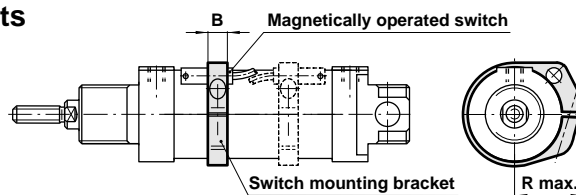
Universal Piston Rod Eye Mounting Style 'UF'

(Corresponds to DIN ISO 8139)



Model 'AK'		QM/8010/38	QM/8010/38	QM/8012/38	QM/8020/38	QM/8025/38	QM/8025/38	QM/8040/38
Model 'F'	QM/57008/25	QM/8010/25	QM/8010/25	QM/57016/25	QM/57020/25	QM/57025/25	QM/57032/25	QM/57040/25
Model 'UF'		QM/8010/32	QM/8010/32	QM/8012/32	QM/8020/32	QM/8025/32	QM/8025/32	QM/8040/32
∅	8	10	12	16	20	25	32	40
AX	-	14	14	14	16	20	20	22
B 1	-	2	2	3	4	5	5	6
CE	11	16	16	20	24	26	32	40
CE 1	-	27	27	30	36	43	43	50
∅ CK _{h11}	3 _{h9}	4	4	5	6	8	8	10
□ CL	6	8	8	10	12	14	16	20
CM ^{B12}	3	4	4	5	6	7	8	10
∅ CN ^{H7}	-	5	5	6	8	10	10	12
EN ^{-0,1}	-	8	8	9	12	14	14	16
ER	4,5	6,5	6,5	8	9,5	11,5	13	16
ER 1	-	8	8	9	11	14	14	16
F	-	12,5	12,5	14	18	26	26	26
KK	M 3	M 4	M 4	M 6	M 8	M 10 x 1,25	M 10 x 1,25	M 12 x 1,25
L	-	33	33	39	55	73	73	77
L 2	-	8	8	12	16	20	20	24
LE	5	8	8	10	12	12	16	20
LE 1	-	10	10	11	13	15	15	17
RK	10,3	11,5	11,5	14,5	17,5	20,5	22,5	29
SW 1 (A/F)	-	11	11	7	10	19	19	19
SW 2 (A/F)	-	3,2	3,2	5	7	12	12	12
SW 3 (A/F)	-	7	7	10	13	17	17	19
SW 4 (A/F)	-	11	11	13	17	30	30	30
Z	-	5°	5°	5°	5°	13°	13°	13°

Switch Mounting Brackets



Model	QM/45/208/22	QM/45/210/22	QM/45/212/22	QM/45/216/22	QM/45/220/22	QM/45/225/22	QM/33/032/22	QM/33/040/22
∅	8	10	12	16	20	25	32	40
B	8	8	8	10	10	10	10	10
R max.	13	14	15	18	20	22,5	29	32