

# Air Cylinders

## Air Cylinder CA2 CDA2



CA2/CDA2 Air Cylinder Weight reduced by up to 15% lighter. Easy air cushion control. Various switches such as compact auto switches and magnetic field resistant auto switches can be mounted. Part numbers with rod end bracket and/or pivot bracket available (Not necessary to order a bracket for the applicable cylinder separately). With auto switch (Series CDA2: CDA2, CDA2W, CDA2K, CDA2KW, CDBA2, CDAH, CDA2WH, CDA2Q).

## Compact Cylinder ISO Standards C55



C55 Compact Cylinder ISO means Service with SMC Get the qualified assistance you need – Personalised and prompt advice from our experts. Put it to work the soonest – Produced & Stocked in Europe. Let the cylinder adapt to your application – Up to 30 rod end modifications available. And much more. Bore sizes (mm): 20, 25, 32, 40, 50-, 63-, 80- and 100-mm. large stroke range from 5 mm up to 150 mm. Construction is similar to the current CQ2 lateral load resistant specification. Snap ring construction allows easy and quicker maintenance. Auto switches can be mounted on any of the four sides of the cylinder tube.

## C85/CD85



C85/CD85 ISO Standard Cylinder ISO means Service with SMC. Get the qualified assistance you need – Personalised and prompt advice from our experts. Put it to work the soonest – Produced & Stocked in Europe. Let the cylinder adapt to your application – Up to 30 rod end modifications available and much more. Conforms to ISO 6432 and CETOP RP52P. Bore sizes (mm): 8, 10, 12, 16, 20, 25. Standard strokes up to 300 mm and Auto switch capable.

## CG3 / CDG3



CG3 Air cylinder. Short type construction. Bore sizes (mm): 20, 25, 32, 40, 50, 63, 80, 100. Strokes up to 300 mm.

## Air Cylinder NCM

- Corrosion resistant 304 stainless steel exterior components
- 6 bore sizes
- Built-in rod wiper protects interior from contaminants
- Auto switch capable
- Dimensionally interchangeable with standard NCM series.

## CG1 / CDG1

- Female rod end is available as standard.
- Easy fine adjustment of auto switch position
- No trunnion mounting female thread has been added to the basic type.
- Part numbers with a rod end bracket and/or pivot bracket are available. (It is not necessary to order a bracket for the applicable cylinder separately.)
- With auto switch (CDG1-Z series: CDG1, CDG1W, CDG1K, CDG1KW, CDG1R, CDG1KR, CDBG1).

## CJ2 / CDJ2

- Double foot, head flange are added to the mounting types.
- Easy fine adjustment of auto switch position
- The auto switch mounting type, band or rail can be selected with the model number.
- Part numbers with rod end bracket and/or pivot bracket available (Not necessary to order a bracket for the applicable cylinder separately.)
- With auto switch (Series CDJ2-Z: CDJ2, CDJ2W, CDJ2K, CDJ2Z, CDJ2ZW, CDJ2RA, CDJ2RK).

## CJ5-S / CG5-S

Use it in food, beverage and medical equipment – Non-toxic additives. Prevent water from entering the cylinder – Special scraper. Extend the life of the product – The cylinder can be disassembled to replace seals and much more. Bore sizes (mm): 10 ~ 100. Strokes up to 400 mm. Two types of seal material, NBR or FKM, can be selected to accommodate the application 5 different types of mounting.

## CM2 / CDM2

- Female rod ends available as standard. Easy fine adjustment of auto switch position. Single clevis and trunnion pivot brackets are available.
- Part numbers with rod end bracket and/or pivot bracket available. With auto switch (Series CDM2-Z: CDM2, CDM2W, CDM2K, CDM2KW, CDM2R, CDM2RK, CDM2□P, CDBM2).

## CM2 / CG1 / CA2 / CQS / CQ2

- \* Fit it to your application requirements – Wide range of variations
- \* Get shorter overall length – When using female rod end and/or boss-cut type
- \* Improve your mounting freedom – Various mounting bracket options
- \* Bore sizes (mm): 20, 25, 32, 40
- \* Standard strokes up to 300 mm
- \* Rubber cushion or air cushion
- \* Auto switch capable.



## CNA2

The CNA2 series cylinder with lock is suitable for mid-stroke stops, emergency stops, and drop prevention. An equal holding force in extending and retracting directions make it possible to lock at either end of the stroke. High reliability and stable holding force are maintained by using a substantially lengthened brake shoe with superior wear resistance. The locking mechanism is isolated from lock release air, so lock function is not diminished by excessive dirt or drain in compressed air.



## CP96K

New types added: double rod, non-rotating and with lock unit  
 Rod boot option added for the standard type  
 Integrated function of the air cushion and the bumper  
 Bore sizes (mm): 32 ~ 125  
 Strokes up to 2000 mm.



## CQ2 / CDQ2

- Space-saving cylinder designed with a compact body.
- It is possible to mount small auto switches on 4 surfaces. (2 surfaces for  $\phi 12$  to  $\phi 25$ )
- No projection of auto switch
- Lighter weight: Reduced by 5 to 13% (compared with the existing CQ2 series)
- Added pivot brackets for double clevis and compact type foot brackets.
- Part numbers with rod end bracket and/or mounting bolt available



(Not necessary to order a bracket for the applicable cylinder separately.)

- With auto switch (Series CDQ2: CDQ2, CDQ2W, CDQ2K, CDQ2KW, CDQP2, CDQ2□S, CDBQ2)

## CQS / CDQS



- With this compact square type, auto switch mounting on three or four sides is possible. This compact cylinder does not protrude from the body when mounting an auto switch.
- Added pivot brackets for double clevis and compact type foot brackets.
- With auto switch (Series CDQS: CDQS, CDQSW, CDQSK, CDQSKW, CDQS□S)

## CS2 / CDS2



Series CS2 air cylinder is a double acting, non-lube air cylinder. Aluminum die-cast is used for both the rod and head covers, which means a maximum weight reduction of approximately 50% (basic 125mm bore, 100mm stroke). This series is available in bore sizes 125mm, 140mm and 160mm with maximum strokes up to 1600mm (depending on the mounting configuration). Air cushions are standard on both ends. Other options include auto switches, rod boots, and Rc, NPT or G thread types.

## ISO Cylinder C96



Series C96 cylinders conform to ISO 15552. The series is available with a single or double rod in 6 bore sizes from ø32 to ø125mm. High accuracy covers and tie rod nuts improve mounting accuracy and extend the cylinder life. Increasing the precision of the bushing and piston rod, as well as reducing tolerances, has decreased the deflection of the piston rod. Standard strokes range from 25 to 800mm.

## ISO Cylinder CP96

- \* Get the qualified assistance you need – Personalised and prompt advice from our experts
- \* Put it to work the soonest – Produced & Stocked in Europe
- \* Let the cylinder adapt to your application – Up to 30 rod end modifications available
- \* New types added: double rod, non-rotating and with lock unit
- \* Rod boot option added for the standard type
- \* Integrated function of the air cushion and the bumper
- \* Bore sizes (mm): 32 ~ 125
- \* Strokes up to 2000 mm.



## MB / MDB



Double acting, Single rod New Series MB  $\phi 32$ ,  $\phi 40$ ,  $\phi 50$ ,  $\phi 63$ ,  $\phi 80$ ,  $\phi 100$  Part numbers with rod end bracket and/or pivot bracket available Not necessary to order a bracket for the applicable cylinder separately Note) Mounting bracket is shipped together with the product, but not assembled. Example) Pivot bracket Nil No bracket N D MDB T 40-100Z- N N: Kit of pivot bracket Kit of pivot bracket and double clevis and trunnion Pivot bracket is shipped together with the product, but not assembled. V -M9BW Rod end bracket with rod end bracket Single knuckle joint W • Suitable mounting brackets can be.

## MGJ



Series MGJ miniature guide rod cylinder is ideal for applications requiring high side load and high non-rotational accuracy ( $\pm 0.1^\circ$ ). Rubber bumpers are standard. Two auto switches can be mounted with as little as 5mm of stroke.

## MGP



- \* Get a precise guide movement –  $\pm 0.03^\circ$  of rotating accuracy
- \* Design compact and lightweight machines – Reduced weight and required space due to guide rod and plate construction
- \* Adapt it easily to your application – Wide range of product variation available.

- \* Bore sizes (mm): 20, 25, 32, 40, 50, 63, 80, 100
- \* Strokes up to 400 mm (depending upon bore size)
- \* 3 types of bearing can be selected: slide bearing, ball bushing and high precision ball bushing
- \* 4 types of mounting are possible: top mounting, side mounting, bottom mounting and T-slot side mounting
- \* Auto switches can be mounted on 2 surfaces.

## MGPW



- \* A wide guided cylinder specialised in the stability and moment of large work pieces.
- \* Plate allowable rotation torque tripled (in comparison with the basic type) by doubling the guide pitch.
- \* Non-rotating accuracy of the plate is improved (with respect to the basic type) due to the increase in the guide pitch.
- \* Equivalent weight to the basic type, even though the volume is 170% more than the basic MGP.
- \* 3 types of bearing can be selected: slide bearing, ball bushing and high precision ball bushing.

## MGQ



- \* Get distinguishing features – Anti-lateral load and high non-rotating accuracy
- \* Take advantage of the grooves – Auto switches, lead wires and terminals can be fixed in the cylinder body
- \* Use it for your heavy load applications – Suitable as stoppers or lifters on the conveyor line.

- \* Bore sizes (mm): 12, 16, 20, 25, 32, 40, 50, 63, 80, 100
- \* Standard strokes up to 200 mm
- \* Rubber cushion
- \* Auto switch capable.

## RQ / RDQ



The RQ series' new air cushion construction allows this series to retain the merits of a compact cylinder. The unique air cushion construction eliminates the cushion ring used in conventional type air cushions, which reduces the overall length of the cylinder. The RQ series meets the demands for reduced shock, noise reduction and improved repeatability at the stroke end.

## Smooth/Low Speed Cylinder



**C(D)QSY Smooth & Low Speed Air Cylinder, Low Friction, Low Speed, Double Acting**

The CQSY smooth cylinder option, single rod, double acting version of the compact cylinder is available for those small-bore cylinder applications where saving space is a concern. The CQSY is perfect for low speed or low-pressure applications or and provides smooth actuation at low speeds. The CQSY offers standard strokes up to 50mm. Both switch capable and non-switch capable body styles are the same, and switches can be mounted on three (12-16 bore) and four (20-25 bore) sides.

- \* Minimum operating pressure 0.01 to 0.03 MPa
- \* The smooth operation can be maintained even at low speeds (5mm/sec)
- \* Bi-directional low-friction allows smooth operation during cylinder extend and retract
- \* Smooth operation with less sticking and slipping
- \* Pressure can be controlled regardless of its direction.