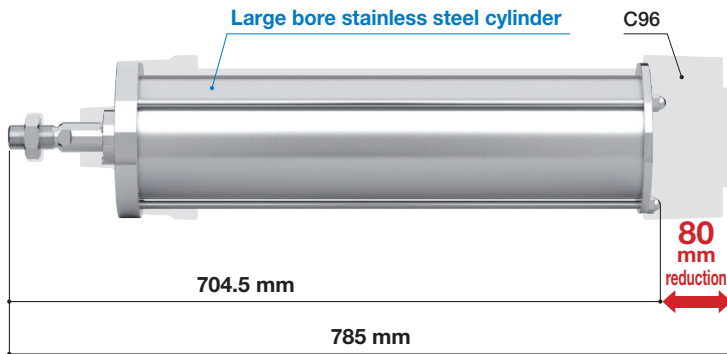


# Large Bore Stainless Steel Cylinder RoHS

ø125

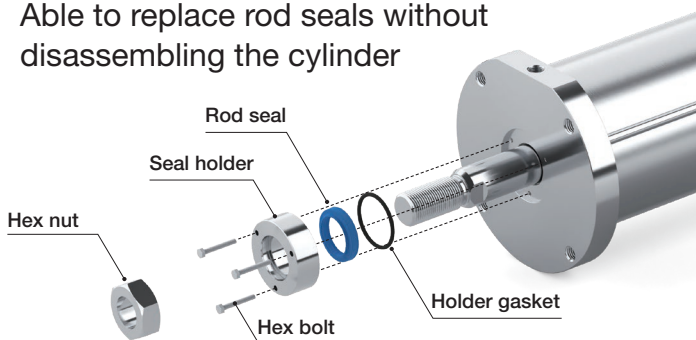
- External metallic parts: Stainless steel 304
- 2 types of rod seal materials available:  
FKM (White), Polyurethane (Blue)
- Overall length shortened: Max. **80 mm**

- Designed for a Cheese Press Application



## Improved maintainability

Able to replace rod seals without disassembling the cylinder



## Equipment for the Food Manufacturing Industry

**Comparable with HF2A- Series**

- Lubricants or rust proof agents are not used for the external parts. Otherwise, lubricants or rust proof agents for the food machinery are being used.
- US FDA compliant materials are used.

## External profile designed to reduce residual liquid

Round cover, Cap nut, Laser printed product label

### ● Mounting dimensions adhere to ISO 15552

- Cylinder mounting pitch
- Mounting thread size
- Thread size
- H dimension



**CS1BN125-□-DCB3566B/DCZ100AZ**



25-E804

# CS1BN125-□-DCB3566B/DCZ100AZ

## How to Order

RoHS

CS1BN125 - **500** - **DCB3566B**



### Cylinder stroke

Stroke [mm]
400
500

### Rod seal material

DCB3566B	Polyurethane -Blue
DCZ100AZ	Fluoro rubber -White

## Specifications

Bore size [mm]	ø125	
Action	Double acting, Single rod	
Fluid	Air	
Proof pressure	1.5 MPa	
Max. operating pressure	1.0 MPa	
Min. operating pressure	0.05 MPa	
Piston speed	50 to 500 mm/s	
Cushion	Rubber bumper	
Ambient and fluid temperatures	-10 to 70°C (No freezing)	
Stroke	400 mm, 500 mm	
Stroke length tolerance [mm]	+1.4 0	
Allowable lateral load at the rod end	400 st	35 N
	500 st	30 N
Allowable kinetic energy	7.4 J	
Weight	400 st	19.2 kg
	500 st	21.4 kg
Auto switch	None	
Mounting	Basic (Rod cover side)	
Mounting bracket	Rod end nut	

## Mass of Cylinder Movable Parts

Cylinder stroke [mm]		[kg]
400	500	
4.72	5.30	

## Additional Mass of Cylinder Movable Parts

Rod end nut	[kg]
	0.12

Calculation: (Example) CS1BN125-500-DCZ100AZ

● Mass of cylinder movable parts: CS1BN125-500-DCZ100AZ .... 5.30 kg

● Additional mass of cylinder movable parts: Rod end nut ..... 0.12 kg  
5.42 kg

## Allowable Kinetic Energy

### Load Mass and Piston Speed

Allowable kinetic energy: Ea	[J]
	7.4

$$\text{Kinetic energy: } E(J) = \frac{(m1 + m2) V^2}{2}$$

m1: Mass of cylinder movable parts [kg]

m2: Load mass [kg]

V: Piston speed [m/s]

Note) Use the product at a piston speed where the kinetic energy E does not exceed the allowable kinetic energy.

### Calculation

(Example) CS1BN125-500-DCZ100AZ

● Mass of cylinder movable parts m1 (with rod end nut): 5.42 kg

● Load mass m2: 20 kg

● Piston speed V: 100 mm/s = 0.1 m/s

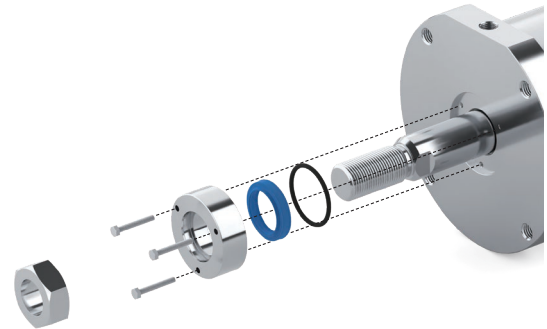
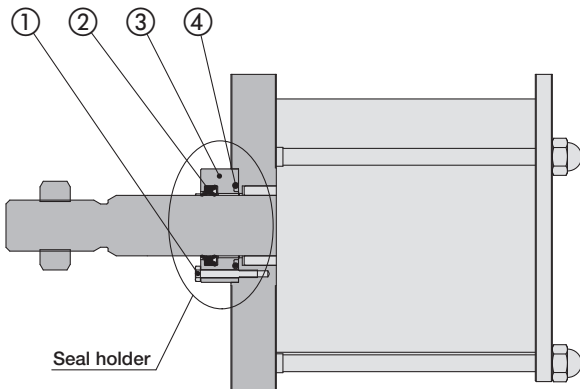
$$E = (5.42 + 20) \times 0.1^2 / 2 = 0.13 \text{ [J]}$$

## Replacement/Maintenance Parts

- By utilizing a seal holder, end users are able to replace the rod seal without disassembling the product

### How to Replace Seal Holders

Apply the appropriate amount of grease to the rod seal and holder gasket, then insert them into the seal holder. Tighten it with three hex bolts on the rod cover.



### Replacement Seal Holder Components List

No.	Description	Qty
1	Hex bolt	3
2	Rod seal	1
3	Seal holder	1
4	Holder gasket	1
-	Grease pack	1

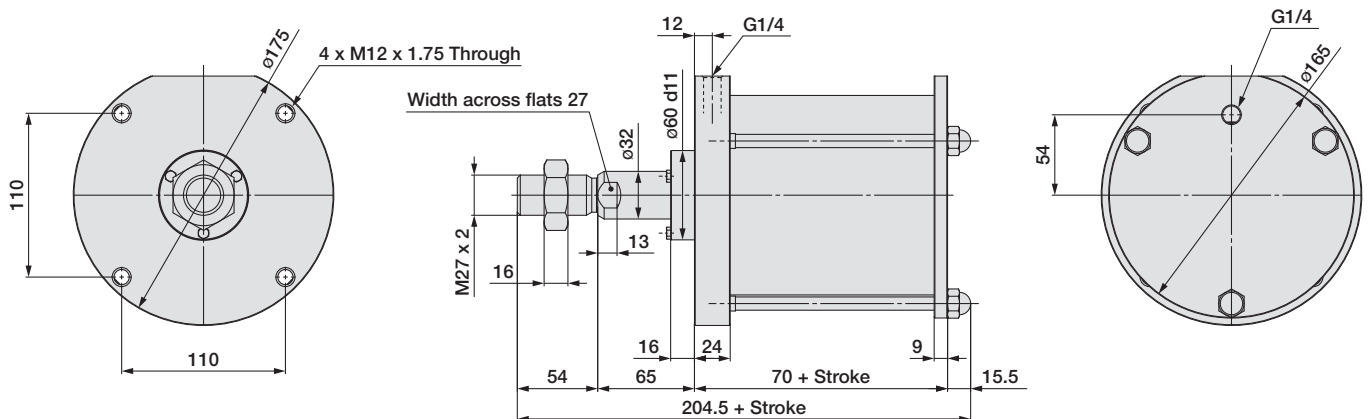
### Order Nos.

	Order number	Contents
	<b>C1SA2-31-3566B-S</b>	Rod seal material (Polyurethane -Blue)
	<b>C1SA2-31-100AZ-S</b>	Rod seal material (Fluoro rubber -White)
		Set of No. 1, 2, 3, and 4 on the left-side table

### Tightening Torque of Hex Bolts for Seal Holders

Hex bolt	Appropriate tightening torque
M4	1.5 N·m ±10%

## Dimensions



 **Safety Instructions** | Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.

**SMC Corporation** <https://www.smcworld.com>

Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.  
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