

## TECHNICAL INFORMATION

### Rotary valve CAE / CAD 30 and 40

## Grain

### Pneumatic conveying 2024-10

PNC 0044

JOH

03-10-2024

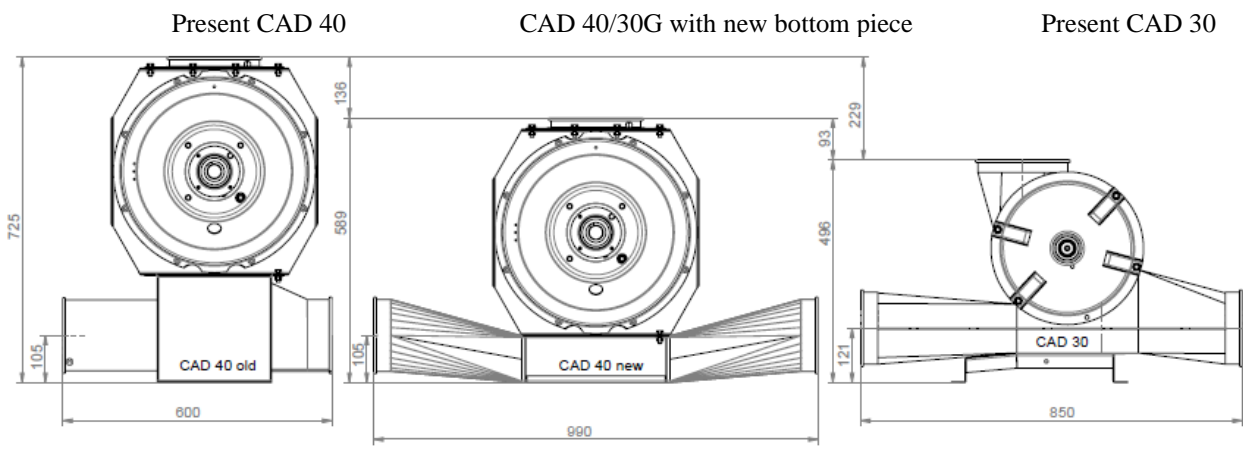
#### Tech info CAD 30 – 40 modifications

Unfortunately, we have had to modify the range of CAD/CAE rotary valves. The CAD30/40 and CAE 40 models use a gear drive, which our supplier has discontinued. The drive kit on these units is a combination of a gear drive and a belt drive.

Upon investigating new solutions for the CAD 30/40 and CAE 40, it has been found that using a geared motor as the drive unit for the rotary valves is more beneficial and economical. Among other advantages, a geared motor does not require attention for belt tightening.

To adapt to the installation of the geared motor, it is more advantageous to use the CA 40 rotary valve body as the basis for both the CAD 30 and CAD/CAE40 rotary valves. The new range of rotary valves will be named, for example, CAD 40G. A 'G' is added to the type description to indicate that it is the new version with a geared motor. To reduce the total height of the rotary valve, a new bottom piece is introduced to lower the filling height, using the CA 40 rotary valve body.

The new versions of SUC 300/500EG, supplied with motors and control panels from KM, will come with an upgraded control panel. The new panels use 24VDC in the control circuit (the old panel used 24VAC). This means that the magnet closing the air regulator during startup on the SUC 500 is changed to 24VDC. The operation of the panel remains the same as the current versions.



**Please notice the new CAD 30G will have a 93mm higher inlet than the current CAD 30 model.**

The electric driven suction blowers 300/500 are also upgraded with the new drive solution on the rotary valve. The future solution for the SUC 300E will be based on using the SUC 500E basic unit running at a lower RPM (3550RPM) on the blower, equipped with a 22kW motor for the blower, and a panel adapting for this motor.

Present conveying capacities charts are used.

New part for no's for rotary valves

121108400	CAD 30-G/40-G Rotary Valve for motor 50/60Hz
121108400	CAD 30-G/40-G Rotary Valve for motor 50/60Hz
121108401	CAD 30-G Rotary Valve w. motor 1,1kW 3x400V 50Hz 37rpm
121108402	CAD 40-G Rotary Valve w. motor 1,5kW 3x400V 50Hz 58rpm
121108403	CAE 30-G/40-G Rotary Valve for motor 50/60Hz
121108404	CAE 30-G Rotary Valve w. motor 1,1kW 3x400V 50Hz 37rpm
121108405	CAE 40-G Rotary Valve w. motor 1,5kW 3x400V 50Hz 58rpm

#### Accessories

121108241	RVE 40 Bottom piece, vertical outlet (Existing part)
121108189	RVD 30-G/40-G Bottom piece, low profile

New part no's for SUC 300/500 suction blowers

- 121132500 SUC 300E/SUC500E Blower for motors 50/60Hz w. CA 40 for geared motor (No motors and gear drive included)
- 121132510 SUC 300E Suction blower w. motors 22/1,1kW for 3x400V 50Hz, incl control panel
- 121132103 SUC 500E Suction blower w. motors 37/1,5kW for 3x400V 50Hz, incl control panel

Pulleys for the blower motor.

- 121122214 SUC 300 Pulley for blower motor, 60Hz bore 1<sup>5</sup>/<sub>8</sub>" (Pulley Dm 160mm)
- 121133124 TRL/SUC 500 Pulley for the blower motor, 60 Hz bore 1<sup>7</sup>/<sub>8</sub>" (Pulley Dm 200)

### Gear drive for 60Hz. Power supply areas.

For SUC 500E Worm gear Adapting for connecting to IEC 90 on the rotary valve, ratio i= 1:30 (motor 1,5kW, 1800RPM) Rotary valve app. 58 RPM.

For SUC 300E Worm gear adapting for connection to IEC 90 on the rotary valve, ratio i= 1:40 (Motor 1,1kW, 1800RPM) Rotary valve app. 43 RPM.

Kongskilde part no's for gear drives for 60 Hz power supply areas. (Same no's used for the IND)

100505073 (SUC 500E) Gear drive ratio 1:30, adapting to the rotary valve with IEC 90 B5 flange for the motor mounting.

100505072 (SUC 300E) Gear drive ratio 1:40, adapting to the rotary valve with IEC 90 B5 flange for the motor mounting.

### Spare parts for existing CAD 40 rotary valves.

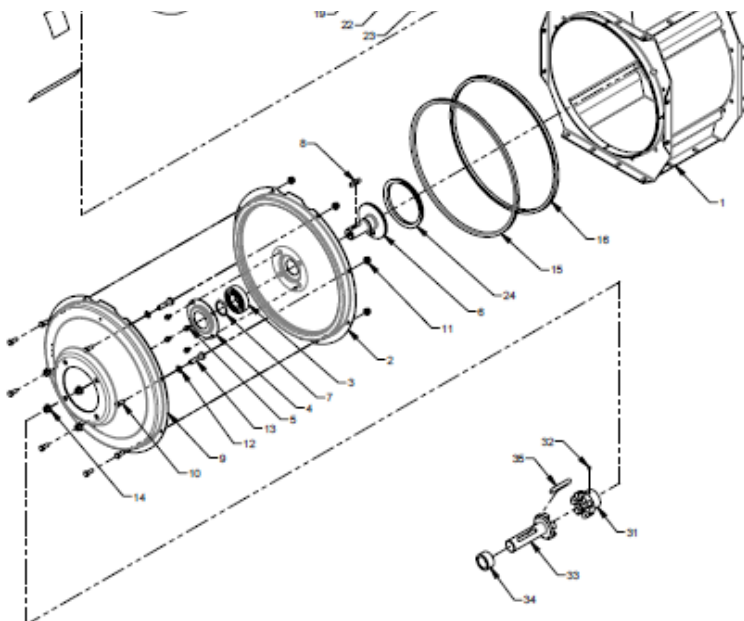
Existing CAD 40 rotary valves can be upgraded with the new gear drive kit.

Following parts are required beside the gear drive:

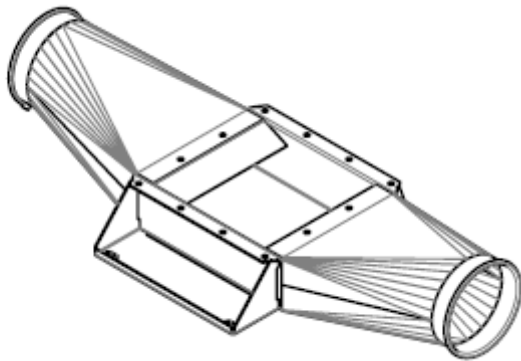
No.	Pcs	Item
121108275	1	Clutch part Ø30mm for rotor
121108277	1	Clutch part Ø32mm for gear drive
121108278	1	Cover for gear side RF 40
100405035	1	Key 10 x 8 x 70mm
100322001	1	Stop screw M6 x 10mm
100306044	4	Set screw M12 x 40mm
100332021	4	Star washer M12
100306015	8	Set screw M8 x 20, DIN 6927, El galv.

The present cover is staying on the CAD 40. The new cover is mounted out side the present cover.

Detail from spare parts list.

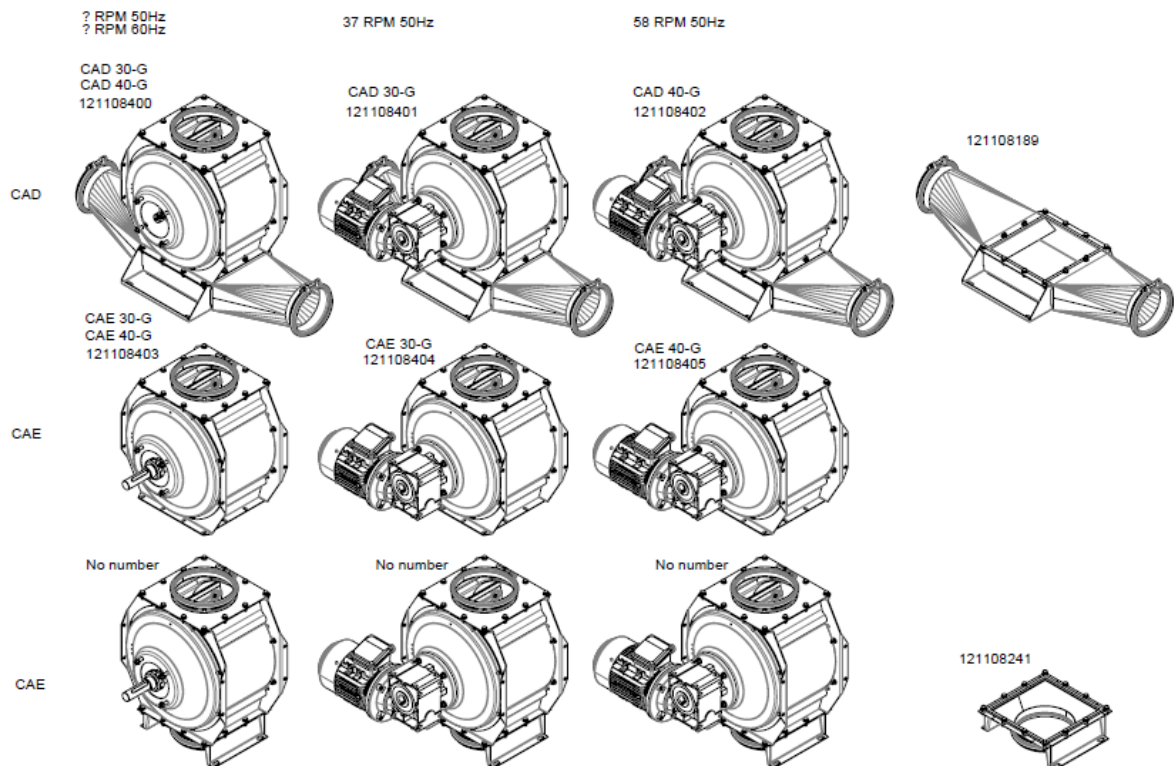


It is not possible to install gear drive on old CAD 30 models.  
New low profile bottom piece for CAD 30/40G



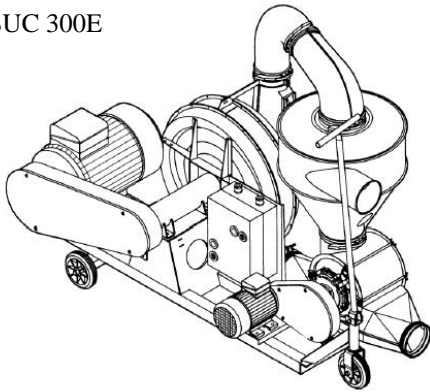
All new CAD 30/40 G versions will be supplied with the new low profile bottom piece.

**Future range of CAD 30/40G rotary valves**

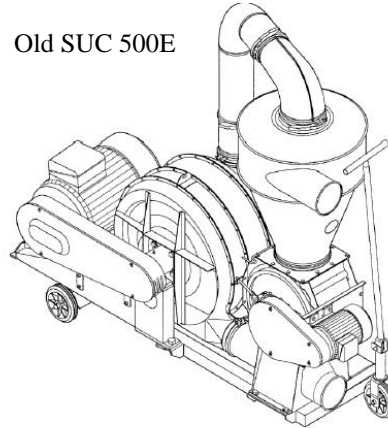


The suction blowers with gear drive for the rotary valve will standardly be supplied with the old type of bottom piece for CAD40 rotary valve.

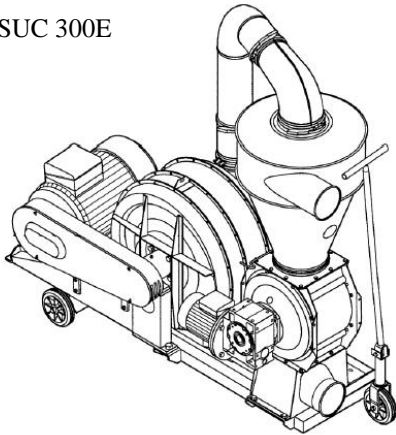
Old SUC 300E



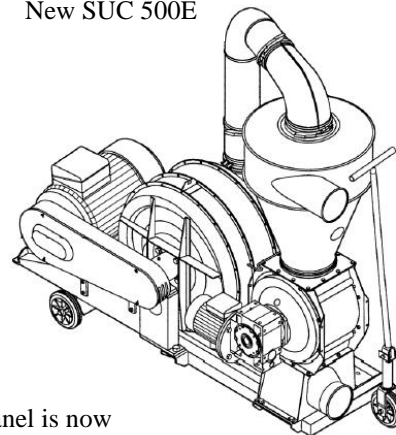
Old SUC 500E



New SUC 300E



New SUC 500E



Control panel is now  
installed on the opposite  
side

The following part no's are changed to item status obsolete and thus not available in the product range for ordering anymore.

121106068	CAD30 Rotary valve w. o motor
121108036	CAD 40 Rotary valve w. o. motor
121106069	CAD 30 Rotary valve with motor 1,1kW 3x400V 50Hz
121108035	CAD 40 Rotary valve with motor
121108078	CAE 40 Rotary valve w. o. motor
121108077	CAE 40 Rotary valve w. motor
121108085	CAE40 Rotary valve with motor 1,5kW 440V 60Hz
121108515	CAD 40 Rotary valve w. motor 3 x 480V 60Hz
121108531	CAD 40 Rotary valve w. motor 1,5kW 3x440V 60Hz
121122217	TRL 300 Blower m. motor 22/1,1kW 3x400V 50Hz CE, w. panel, w. CAD 30 on trolley
121122185	SUC 300E Blower w. o. motor, w. CA 30
121122186	SUC 300E Blower w. motor 22/1,1kW 3x400V 50Hz CE, w. control panel, w. CA 30
121122218	SUC 300E Blower w. motor 22/1,1kW 3x460V 60Hz, w. control panel, w. CA 30
121132100	TRL 500 Blower 37/1,5kW 3x400V 50Hz CE w. control panel for CAD 40 on trolley
121132060	SUC 500E Blower w. o. motor, w. CA 40
121132061	SUC 500E Blower m. motor 37/1,5kW 3x400V 50Hz CE, w. control panel, m. CA 40
121132101	SUC 500E Blower m. motor 37/1,5kW 3x460V 60Hz, w. control panel

New item no's are introduced into the product range, ready for ordering in IFS. Prices on the new rotary valves are introduced into IFS. Please use the new part no's for ordering rotary valves ASAP.  
The new part no's on the SUC 300/500 will be available for ordering by 15<sup>th</sup> of October.

Dimensional drawings.

