



# arova

ALL ROTARY VALVES



[www.arova-sluzen.be/en](http://www.arova-sluzen.be/en)

# Welcome at **AROVA** rotary valves!

**AROVA** is a proud family business located in Izegem, West Flanders, Belgium. For over 40 years, AROVA has been designing, manufacturing, and rebuilding rotary valves.

With **AROVA REBUILD**, we are specialized in rebuilding any type of rotary valve. Three generations of knowledge passed down from father to son guarantee professionalism and quality. In our factory, valves are disassembled, welded, machined, assembled, and painted on a daily basis. The result? A new valve, but cheaper and better than new, thanks to a thorough analysis of wear patterns according to your application. At AROVA REBUILD, we strive for higher efficiency and a longer lifespan for your valve.

**AROVA BUILD** represents our own product line of blow-through valves for pneumatic transport of powders, granular products and bulk goods. Quality and sustainability take precedence in the development of new AROVA valves. The AROVA valves combine standard installation sizes, unique geometry and the best techniques for each system. One product, multiple applications.

Looking for a special application or design? AROVA is happy to collaborate on your custom project!

## DISCOVER IT FOR YOURSELF

Pieter Vandersteene (Managing Director)



# Content

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# AROVA REBUILD

Thanks to years of experience and dedicated expertise, AROVA continues to enhance and innovate rotary valves. As we are deeply committed to socially responsible and sustainable business practices, every type of valve can be rebuilt multiple times at our factory in Izegem. **AROVA REBUILD** is so much more than a standard maintenance or repair.



## MAINTENANCE

During a preventive maintenance session, the valve is disassembled and cleaned. After inspecting all components, the valve is lubricated, assembled and readjusted. Seals and bearings are replaced if necessary.

*A relatively cost-effective intervention that yields cost savings*

## REPAIR

In addition to maintenance, all components are welded and reworked. The valve is reassembled with the tolerances of a new AROVA valve, according to the AROVA standards and tolerances. The result is a technically new valve.

*More affordable than new, with identical performance*

## ENHANCEMENT

Your valve holds knowledge. At AROVA, we utilize the information from wear patterns to provide you with a suitable new valve or to adapt your valve for an extended lifespan.

*Better than new, tailored to your application*



BEFORE

AFTER



1



2



3



## Models

**AROVA BUILD** represents its own product line of blow-through valves suitable for transporting and metering powders, granular products and bulk materials in various applications.

The AROVA range consists of 3 types of valves with varying blow-through capacities, optionally equipped with external drive.

All valves are designed with a focus on durability, performance and ease of installation.

The AROVA valves in a nutshell:



### TYPE B20

- 22 tons per hour at 30 RPM (capacity for mixed feed)
- Rotor volume: 20 dm<sup>3</sup> per rotation
- Maximum operating pressure of 5 bar
- Internal bearings
- External shaft
- Blow-through diameter of Ø 98 mm



### TYPE B35

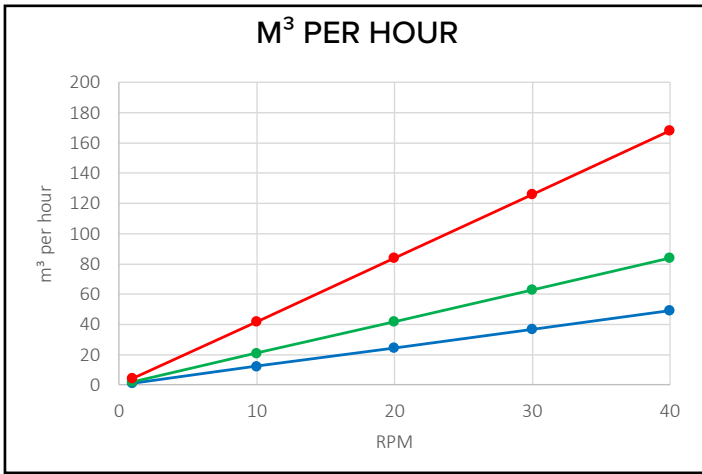
- 38 tons per hour at 30 RPM (capacity for mixed feed)
- Rotor volume: 35 dm<sup>3</sup> per rotation
- Maximum operating pressure of 3.8 bar
- External bearings
- Internal shaft
- Blow-through diameter of Ø 125 mm



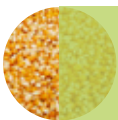
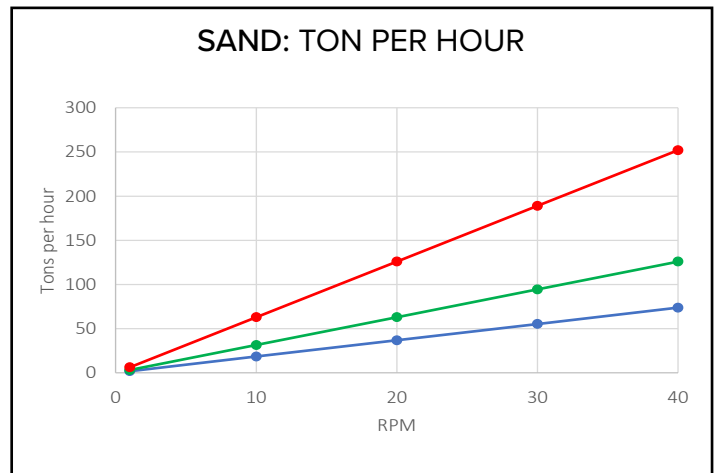
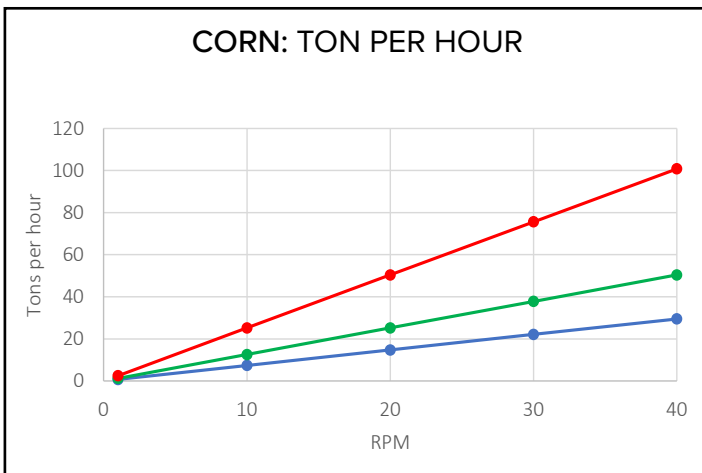
### TYPE B70

- 76 tons per hour at 30 RPM (capacity for mixed feed)
- Rotor volume: 70 dm<sup>3</sup> per rotation
- Maximum operating pressure of 1.9 bar
- External bearings Internal shaft
- Blow-through diameter of Ø 125 mm

# Capacity charts (filling rate 100%)



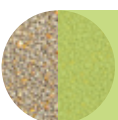
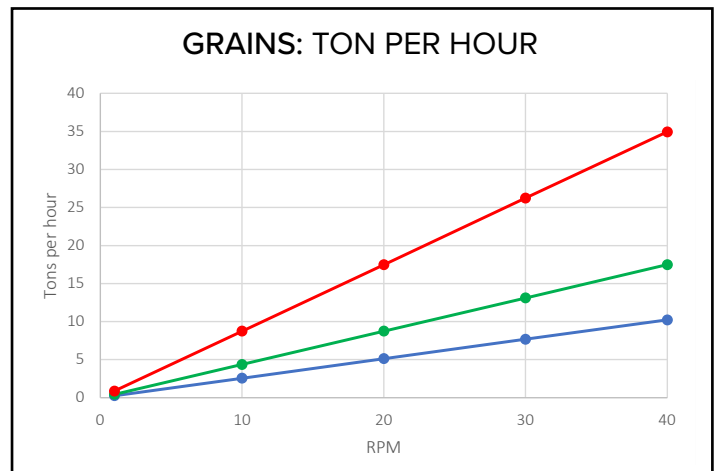
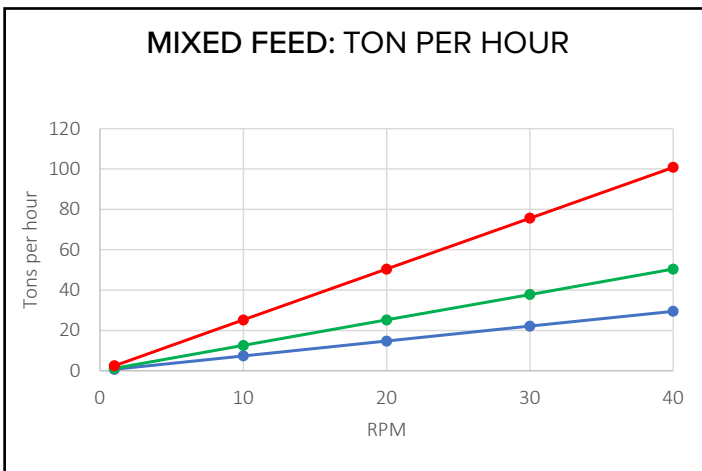
- TYPE B20
- TYPE B35
- TYPE B70



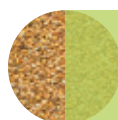
CORN  
Bulk density: 600 kg/m<sup>3</sup>



SAND  
Bulk density: 1.500 kg/m<sup>3</sup>

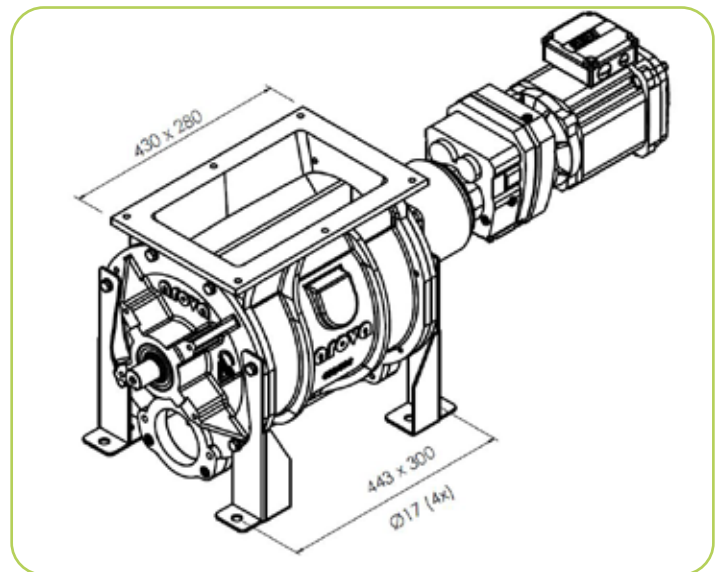
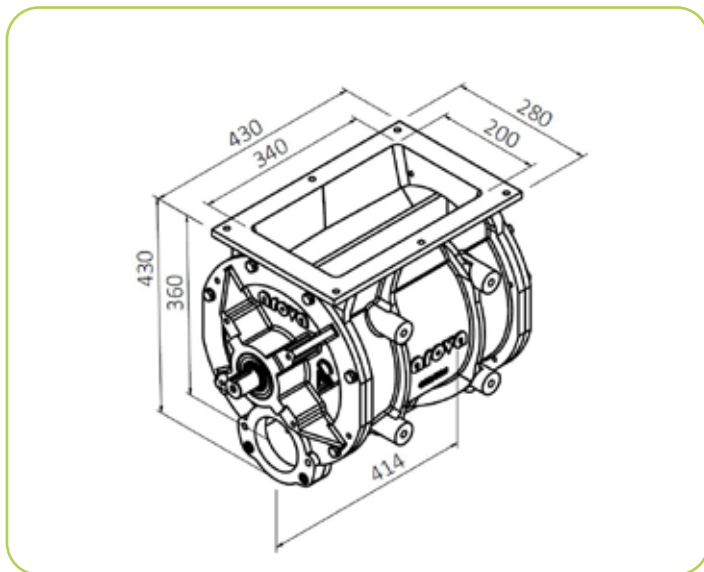


MIXED FEED  
Bulk density: 600 kg/m<sup>3</sup>



GRAINS  
Bulk density: 208 kg/m<sup>3</sup>

## Specifications TYPE B20



### Built to last:

- Robust construction achieved through the use of high-quality cast iron GG25.
- The large central shaft made of premium steel ensures minimal deflection due to high top-loading, minimal deflection from blowing under pressure and also serves as a solid foundation for welded components.
- The bearings are maintenance-free with a service life of 12 years (at 0.5 bar, 40°C, and 30 RPM).
- The seals provide maximum protection.
- The valves are water- and weather-resistant, capable of withstanding high-pressure cleaning, road debris, salt and operating temperatures ranging from -15°C to 60°C.
- The valves are designed for rebuilding.

### Engineered for performance:

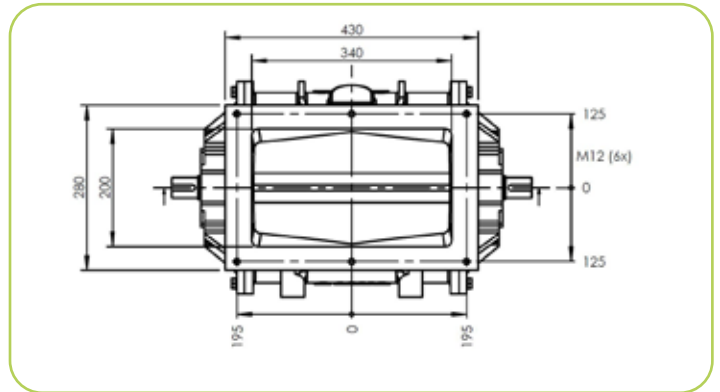
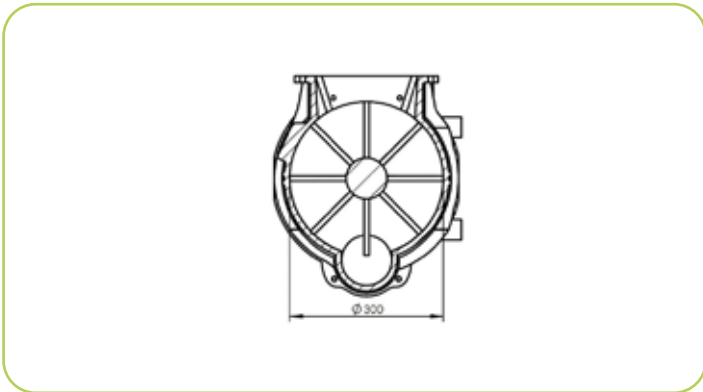
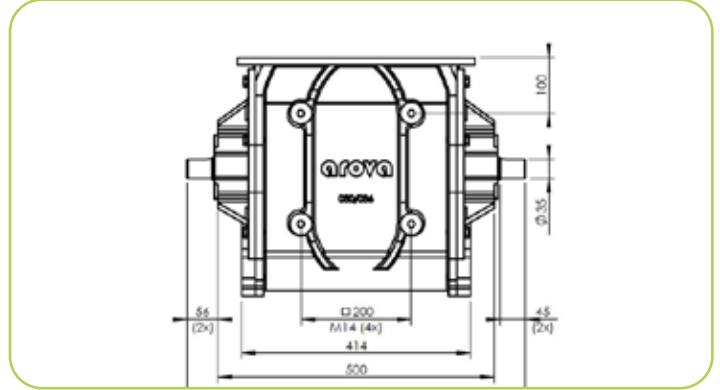
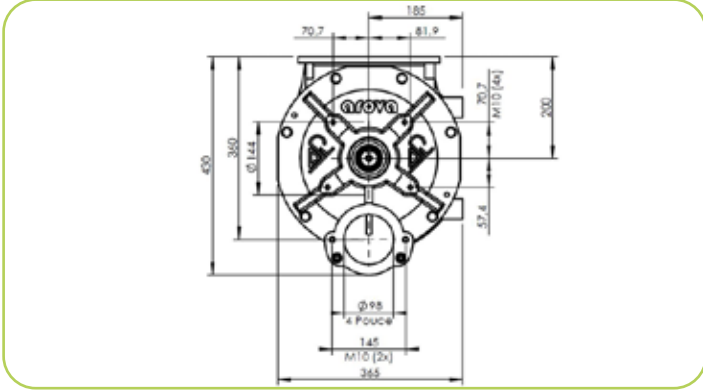
- Compact built-in dimensions and intelligent geometry ensure smooth product flow.
- The V-shaped inlet allows for a large inflow volume and the sloping cutting edge facilitates smooth product movement (not applicable for Type B35 and Type B70).
- The semi-underlying blowing chute maintains a constant, uninterrupted airflow, reducing the likelihood of blockage during overload or material transportation.
- The large central shaft ensures maximum sealing between chambers.

### Designed for installation:

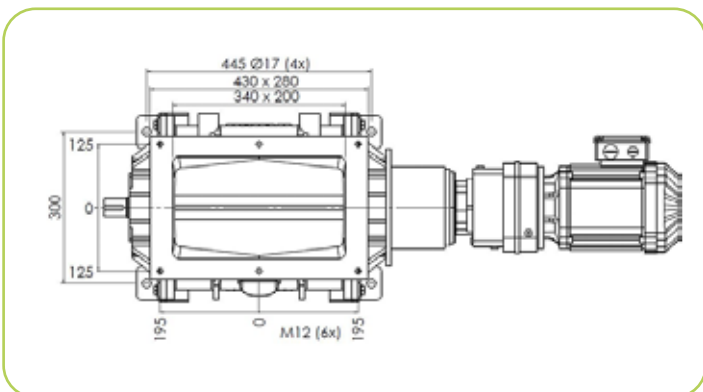
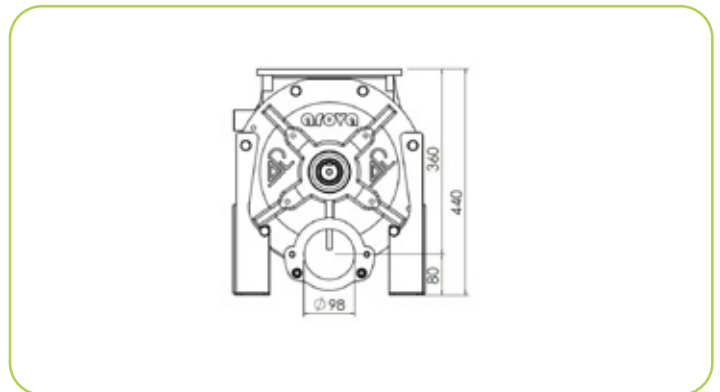
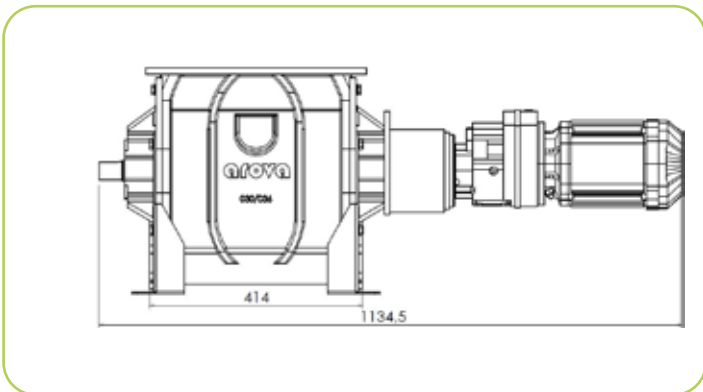
- Various drive options: external motor, chain-driven or inline motor equipped with a coupling (Type B35 and Type B70 = external motor in line).
- Compact dimensions with ample volume, achieved through small installation sizes resulting from a short inlet hole and narrow installation width.



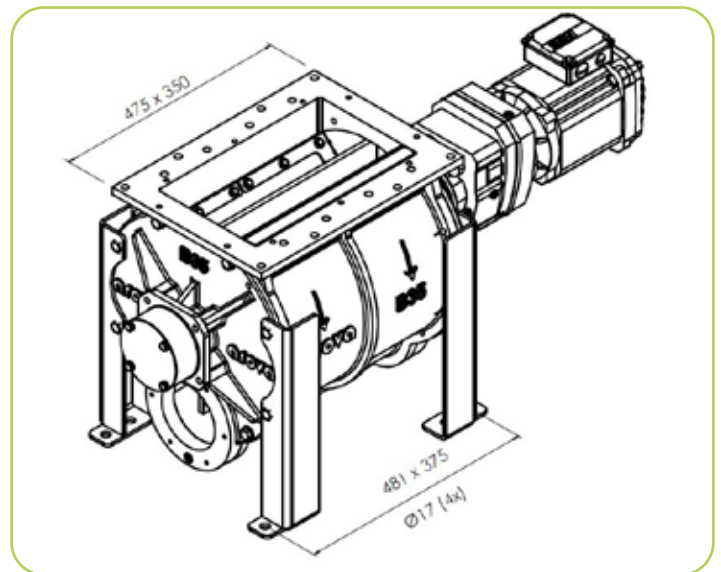
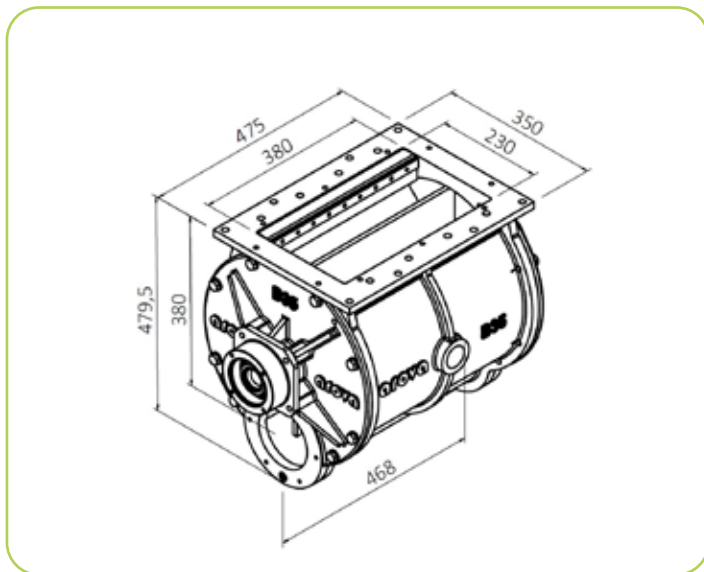
Without propulsion



With propulsion



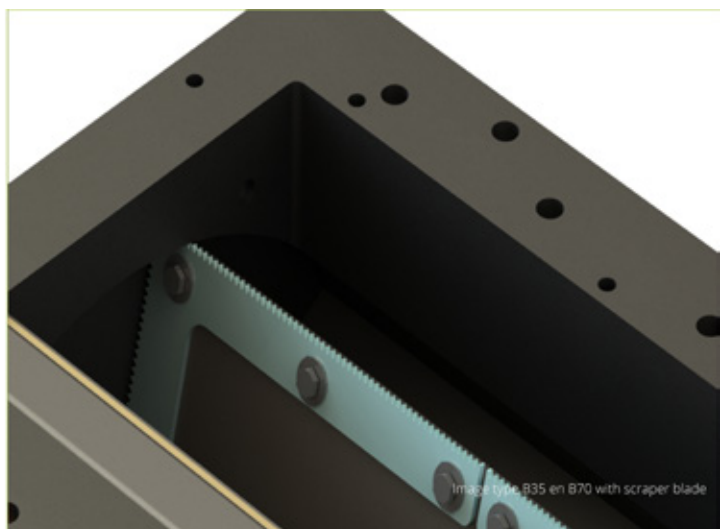
## Specifications TYPE B35



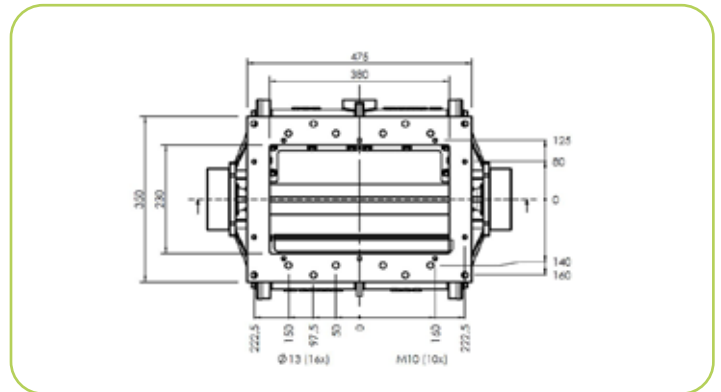
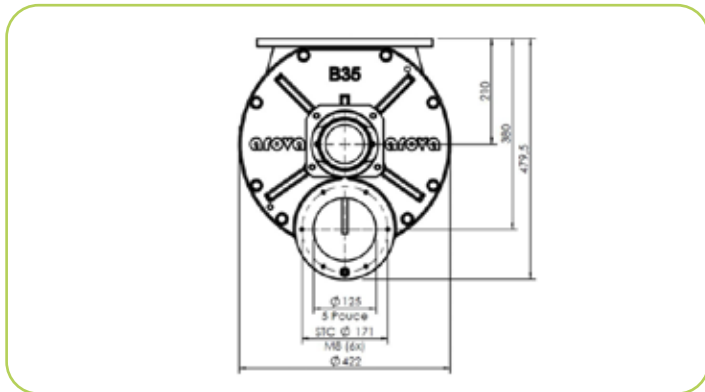
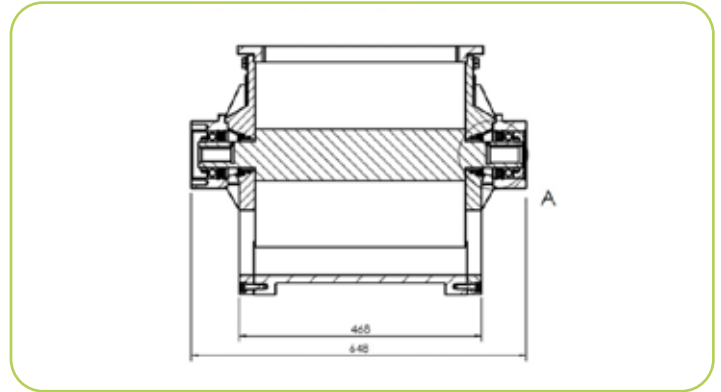
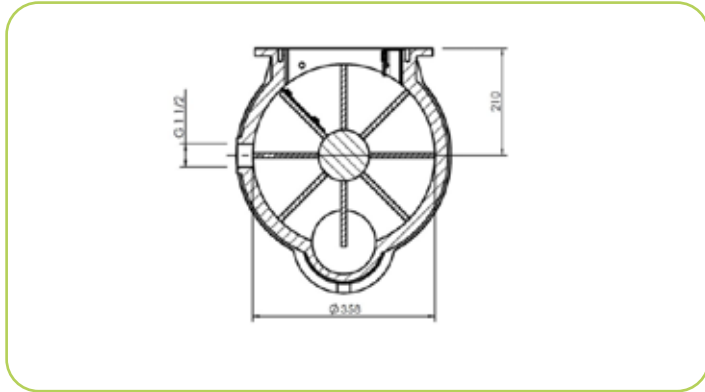
TYPE B35 IS AN OPTIMIZATION OF TYPE B20 WITH ADDITIONAL SPECIFICATIONS\*

### \* ADDITIONAL SPECIFICATIONS:

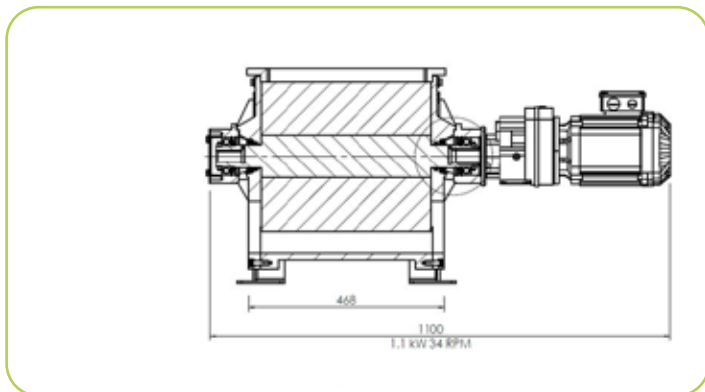
- Unlike Type B20, Type B35 features external bearings.
- Type B35 has a scraper blade on the rotor to prevent hygroscopic products from accumulating on the wall (image on the right).
- A wiper on the rotor prevents the rotor chamber from being filled 100% and prevents hard materials from jamming between the rotor and the stator (image on the left).
- A vent hole allows for decompression of rising pressure in the rotor chamber and ensures maximum filling capacity for lightweight products.
- The large discharge opening of  $\varnothing 125$  mm ensures smoother operation.
- Through refined engineering, the ratio between installation dimensions and rotor volume is even tighter compared to Type B20



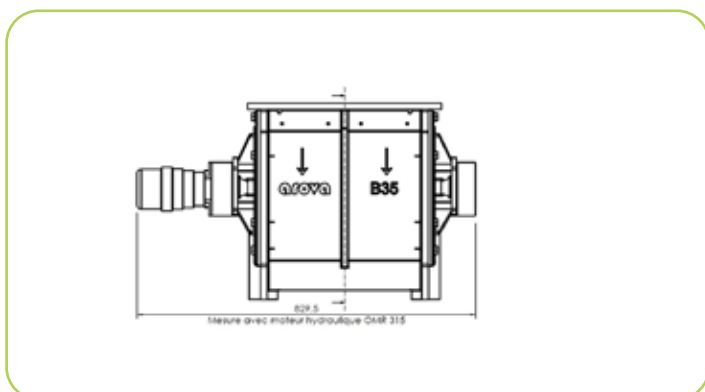
Without propulsion



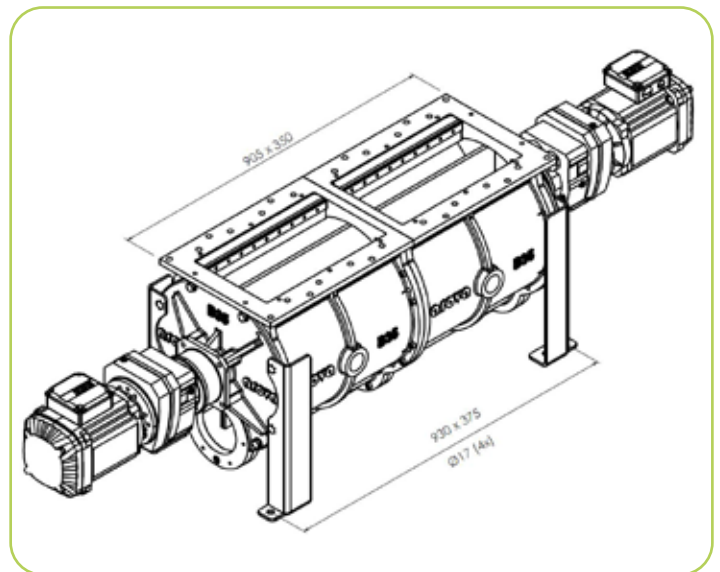
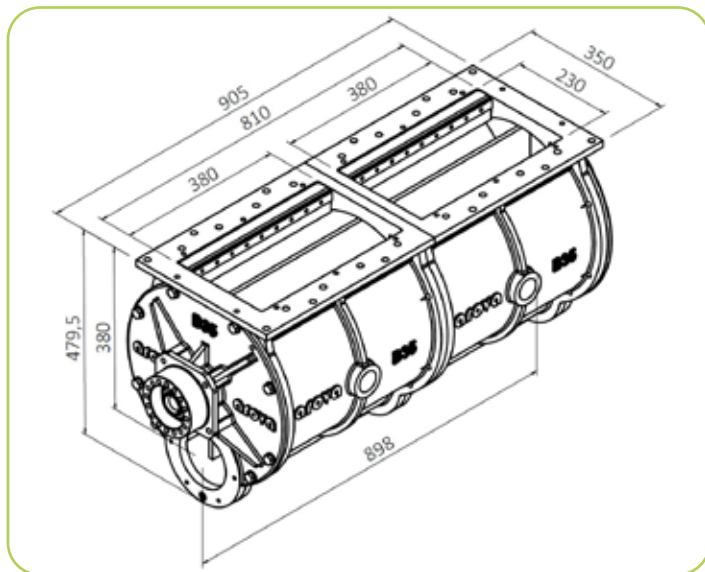
With propulsion - electric motor



With propulsion - hydraulic motor



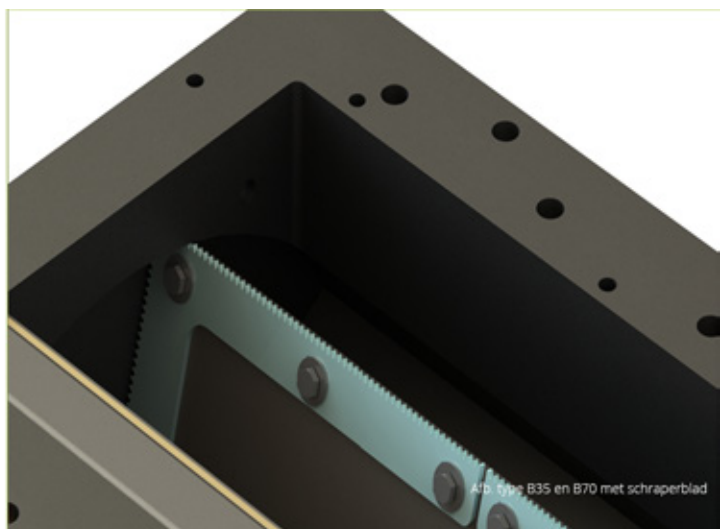
## Specifications TYPE B70



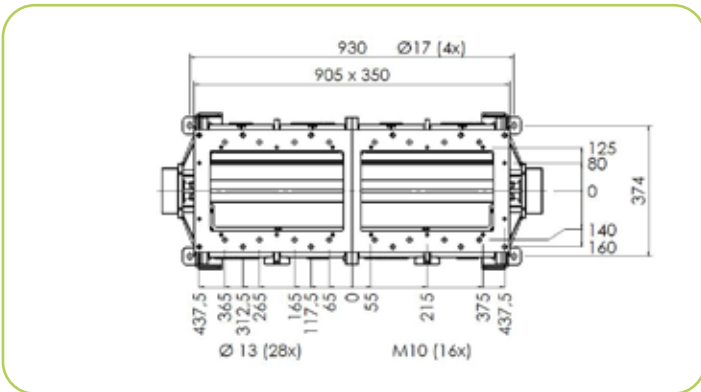
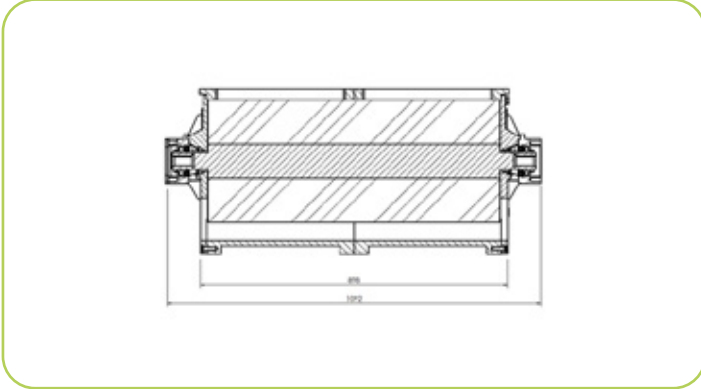
TYPE B70 = TWO TIMES TYPE B35 INLINE WITH THE SAME SPECIFICATIONS.

### \* ADDITIONAL SPECIFICATIONS:

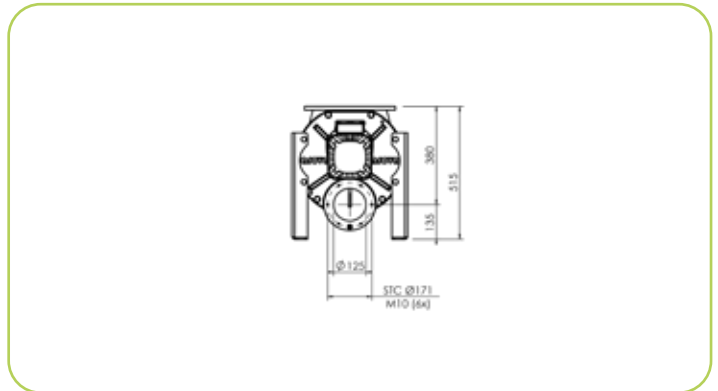
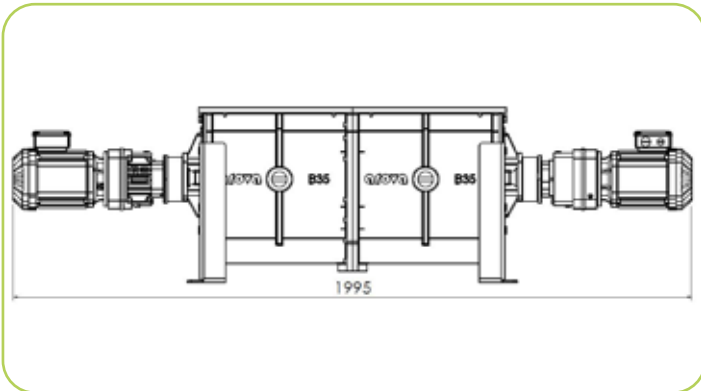
- Type B70 features external bearings.
- Type B70 has a scraper blade on the rotor to prevent hygroscopic products from accumulating on the wall (image on the right).
- A wiper on the rotor prevents the rotor chamber from being filled 100% and prevents hard materials from jamming between the rotor and the stator (image on the left).
- Type B70 has two vent holes and double product volume with an identical blow-through connection.
- Type B70 has a wider inlet hole, but remains compact with two inline hydraulic motors.



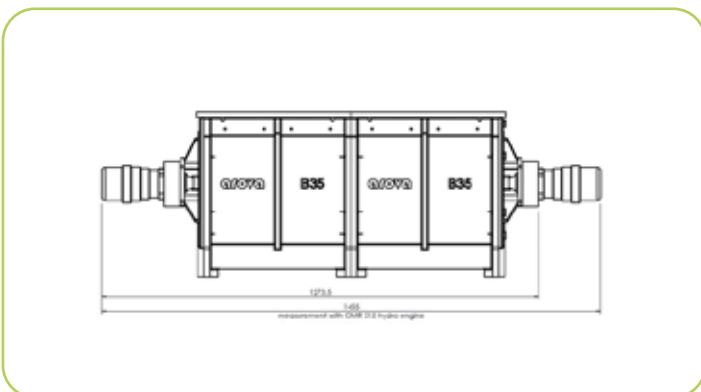
Without propulsion



With propulsion - electric motor



With propulsion - hydraulic motor



# APPLICATIONS

**AROVA** rotary valves are versatile across many industries. However, AROVA BUILD has a distinct expertise in the **ANIMAL FEED** and **TRAILER MANUFACTURING** sectors. With AROVA REBUILD, the applications are virtually limitless.

- **ANIMAL FEED**
- **TRAILER MANUFACTURING**
- PET FOOD
- AGRICULTURE (RAW MATERIALS) AND SEEDS
- FLOUR MILLING AND PELLETIZING
- SUGAR INDUSTRY
- WOOD INDUSTRY
- HORTICULTURE
- RECYCLING
- CHEMICAL INDUSTRY
- MINERALS
- CONSTRUCTION MATERIALS

Don't see your application on the list? Feel free to contact us. We are happy to explore the possibilities!



**ATEX** stands for 'ATmosphère EXplosible' and refers to two European directives related to explosive atmospheres. Gas and dust explosions can cause extensive damage and working with explosive substances and gases carries significant risks. From this perspective, it's important to verify whether products, installations, work environments and personal competencies adhere to established regulations and requirements. ATEX certification is used to perform this verification.

**AROVA** holds an ATEX certificate of type  $\varepsilon$  x II1/2 D or II 2/3 D c 100°C or 135°C (see attachment).

- Group II: Equipment for surface use (not underground mines).
- Category 1/2 for internal use with temperature class T5 (100°C).
- Category 2/3 for external use with temperature class T4 (135°C).
- D = hazardous area with dust explosion risk.

For customized projects, we're pleased to explore possibilities for proper ATEX certification according to your specific application!



**ISSEP**  
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**Siège social  
et site de Liège :**  
Rue du Chêne, 200  
B-4000 Liège  
Tél : +32(0)4.229.83.11  
Fax : +32(0)4.252.46.65

**Site de Colfontaine :**  
Zoning A. Schweitzer,  
rue de la Platinerie  
B-7340 Colfontaine  
Tél : +32(0)65.61.08.11  
Fax : +32(0)65.61.08.08

**e-mail :**  
direction@issep.be  
**site web :**  
http://www.issep.be



RÉGION WALLONNE



**CERTIFICAAT VAN TYPEONDERZOEK**

**Apparaat of beveiligingssysteem bedoeld voor gebruik  
op plaatsen waar ontploffingsgevaar kan heersen**  
Richtlijn 94/9/EC

- (1)
- (2)
- (3) Nummer van het certificaat van type : **ISSEP06ATEX018X**
- (4) Uitrusting : Rotatie sluisen voor het transport van vaste stof
- (5) Aanvrager - Fabrikant :  
VDS CONCEPTS NV
- (6) Adres : Prins Albertlaan 65  
8870 IZEGEM
- (7) Dit apparaat of beveiligingssysteem en elke aanvaardbare variëteit ervan is omschreven in de bijlage van dit certificaat en in de documenten die er betrekking op hebben.
- (8) ISSEP bevestigt dat deze uitrusting conform werd bevonden aan de essentiële gezondheid en veiligheidseisen betreffende de conceptie van niet elektrische uitrusting van categorie 2, bedoeld voor gebruik op plaatsen waar ontploffingsgevaar kan heersen. Deze essentiële gezondheid veiligheidseisen zijn verkondigd in de bijlage II voor de Richtlijn van de Europese Gemeenschap 94/9/CE van 23 maart 1994.
- (9) De onderzoek - en testresultaten worden opgenomen in het vertrouwelijk rapport n° 09141
- (10) De overeenstemming met de essentiële gezondheid en veiligheidseisen, met uitzondering met deze verkondigd in de bijlage van het onderhoudig certificaat, werd beoordeeld in verwijzing met de volgende documenten :  
EN 1127-1 : 1997 : Explosie voorkoming en explosiebeveiliging  
EN 13463-1 : 2001 : Omschrijvingen en basis methode ontploffing  
EN 13463-5 : 2005 : Bescherming door constructieve veiligheid "c"
- (11) Het symbool "X", geplaatst na het Certificaatnummer beduidt dat het de uitrusting onderworpen is aan speciale voorwaarden om een veilig gebruik te waarborgen. Deze voorwaarden zijn opgenomen in de bijlage aan dit certificaat.
- (12) Dit onderhoudig certificaat heeft alleen betrekking op het onderwerp, onderzoek en test van de gespecificeerde uitrusting of beveiligingssysteem in overeenstemming met de Richtlijn 94/9/CE. Elke andere eisen van de Richtlijn mogen van toepassing zijn aan de bouw- en levering proces van deze uitrustingen of beveiligingssystemen. Deze zijn niet bedekt door de onderhoudig certificaat.
- (13) De markering op de uitrusting zal de volgende punten bevatten :  
 II 1/2 D of II 2/3 D c 100°C of 135°C

Colfontaine, le 23.03.2006.



**LAMBERT Marcel**  
Directeur.

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC  
Zoning A. Schweitzer - rue de la Platinerie  
B7340 Colfontaine (Wasmes)  
Tel: ++ 32 65 610811 - Fax: ++ 32 65 610808

Onderhoudig certificaat en zijn bijlagen mogen enkel in hun geheel en zonder wijziging gereproduceerd worden

1/3

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Prins Albertlaan 65  
8870 Izegem - BELGIË  
T +32 51 31 93 94  
[info@arova.be](mailto:info@arova.be)  
[www.arova-sluizen.be/en](http://www.arova-sluizen.be/en)