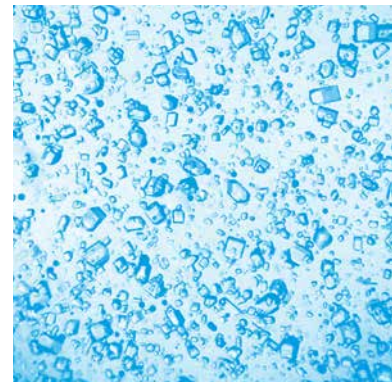


## Always in motion.

Continuous flows and high efficiency in the sugar house with DRP massecuite pumps from BMA.



# Looking after the crystals. Massecuite pumps from BMA.



Massecuite

Pumps in sugar factories move a range of materials including highly viscous massecuites, which present considerable conveying challenges. Rotary piston pumps are particularly suitable for jobs such as moving crystal suspensions between the vacuum pan and the centrifugal station or cooling crystalliser.

Massecuites are extremely viscous sugar crystal and syrup mixtures with a high crystal content. The new DRP series of massecuite pumps from BMA has been developed especially for these media and their particular characteristics. Their operating principle is that of a rotary piston pump with a scraper: the scraper glides across the piston, dividing the pump into a suction side and a discharge side. As the piston rotates, massecuite is sucked into the pump and moved to the discharge side.

## Design features

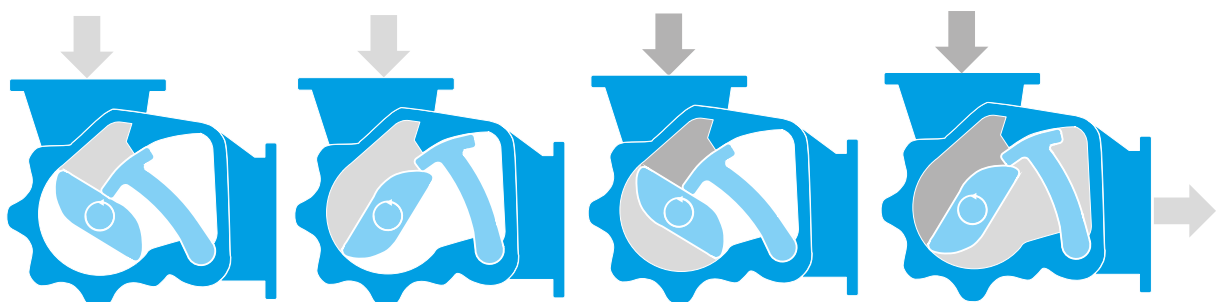
- Dual chamber design from BMA
- Large chamber volume thanks to enhanced piston shape
- Minimal gap widths
- Compact design
- The feed and discharge branches are positioned at a 90° angle
- Easy to integrate with piping systems thanks to standard flanges and optional mating flanges

## Materials conveyed

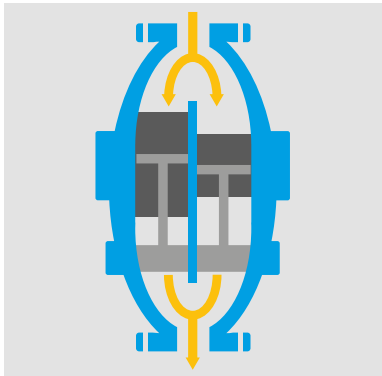
(up to 90 °C in continuous operation, temporarily higher)

- A/B/C crystal suspensions
- A/B/C seed massecuites
- Affination massecuites
- Refined-sugar massecuites

Operating principle of a rotary piston pump with a scraper

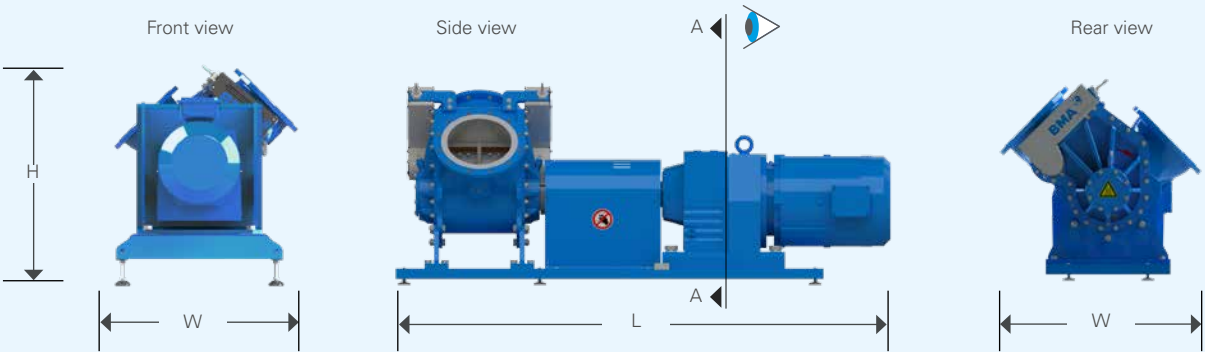


# In brief: Facts and figures about massecuite pumps from BMA.



Cross section of the pump chamber

Massecuite pumps from BMA are essentially rotary piston pumps with a coupling, a coupling guard and a gear motor. They are shipped as complete units on a base plate. Depending on where the pumps are installed, the feed branch can be positioned on the left or the right. The model type denotes the direction of flow when looking onto the pump's drive shaft (cross section A-A). The position of the suction branch can be adjusted in 45° steps; the feed and discharge branches are positioned at a 90° angle.

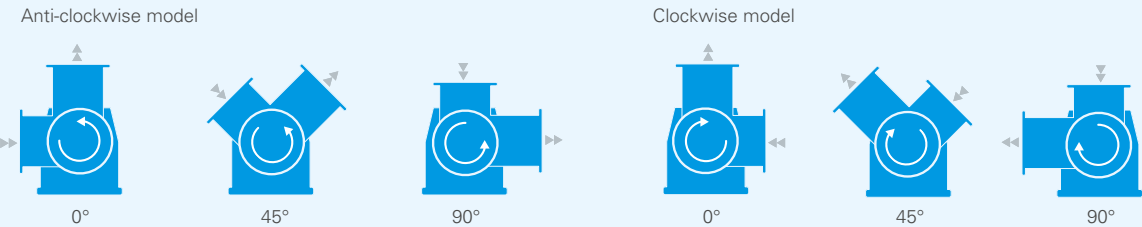


Range of sizes

Size	Length L mm	Width B mm	Height H mm	Connections mm	Flow volume m³/h	Flow volume m³/h
					6 bar	10 bar
DRP 10	2,350	750	1,000	DN 150	2 - 10	2 - 10
DRP 25	2,400	925	1,000	DN 250	5 - 25	5 - 25
DRP 45	2,600	1,000	1,200	DN 300	9 - 45	9 - 45
DRP 75	3,100	1,300	1,450	DN 400	8 - 75	15 - 75
DRP 120	3,250	1,500	1,500	DN 500	12 - 120	24 - 120

Dimensions are for guidance and approximate planning only; they should be taken as reference values. The final dimensions are subject to a pump's specific configuration and can be found in the specifications. Length measurements are for pumps without an external fan. Height and width measurements are for a 45° setting of the branches and subject to change depending on the base plate. Dimensions do not include infrastructure connections.

## Variable branch positions (cross section A-A)







# Bringing out the best. The benefits at a glance.

With their large chamber volume, massecuite pumps from BMA offer impressive performance at surprisingly low speeds. This reduces wear and tear and is extremely gentle on the crystals.

## **Perfect operation: efficiency guaranteed**

- Conveying at very low speeds is gentle on the crystals
- Broad range of delivery rates: 2 to 120 m<sup>3</sup> /h
- Frequency converter for precise control of the flow rate
- High efficiency thanks to minimal gap widths
- Hard-wearing design with select materials (such as hardened pistons) and low speeds
- A sturdy design for a long service life
- Downtimes depend on the properties of the medium and the pump's operating conditions

## **Perfect interaction: service when installed**

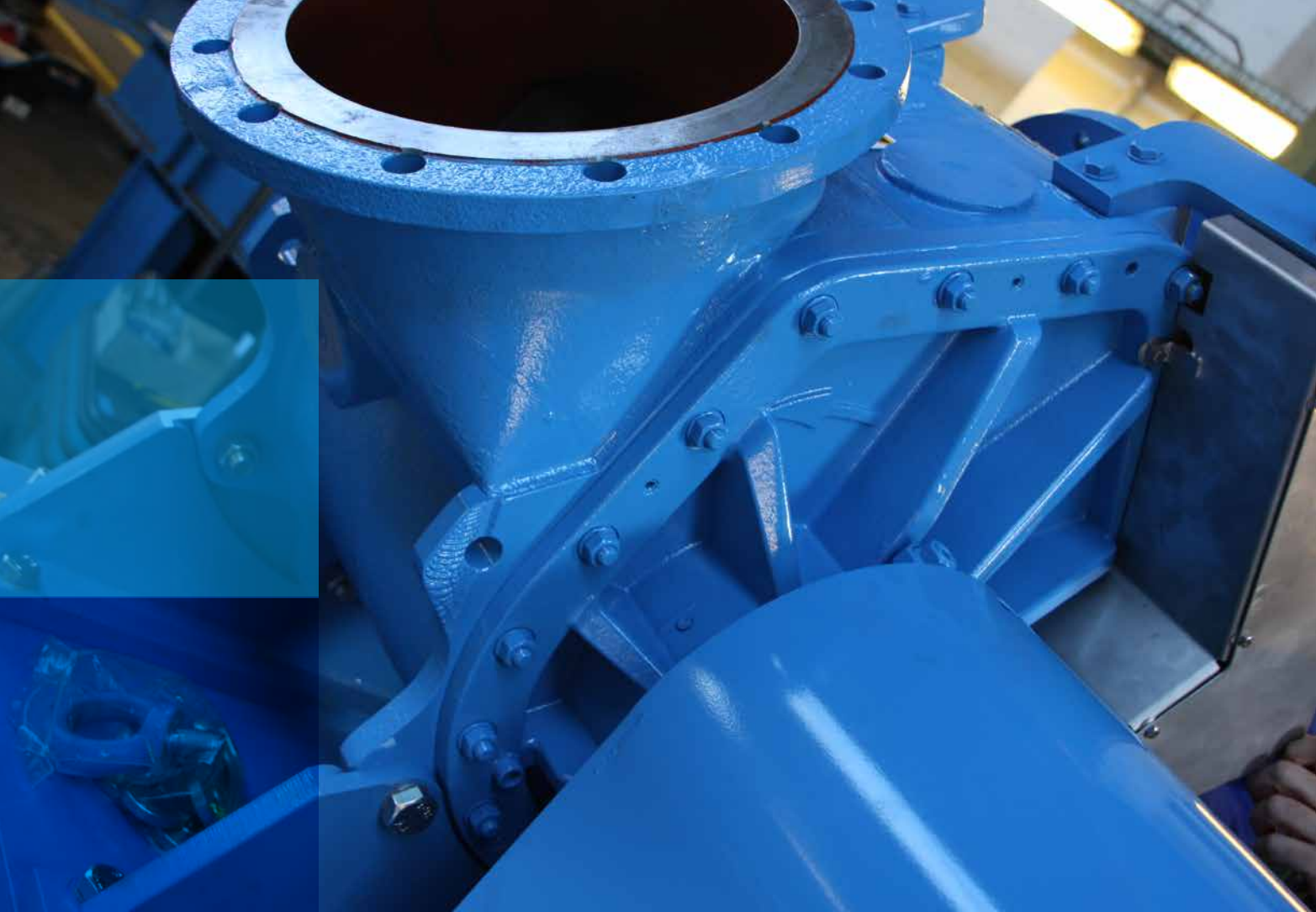
- Excellent cleaning of the whole process section via standard connections
- Easy-to-access pump interior
- Improved shaft diameter makes for easy handling of the attachments (bearings, seals, couplings) during maintenance
- High proportion of carry-over parts for streamlined spare parts inventory management
- Gearbox protected against product ingress

## **Perfect process: impressively smooth running**

- Far less pulsation thanks to special piston shape and arrangement
- Dual-chamber principle results in even flow rates and minimal vibration in pipes
- Smooth running properties thanks to large pump volume and low speeds

## **Reliability and hygiene**

- Excellent safety thanks to implementation of EU machine standards
- No contamination of massecuite with gearbox oil
- Use of only minimal food-grade grease in the product section



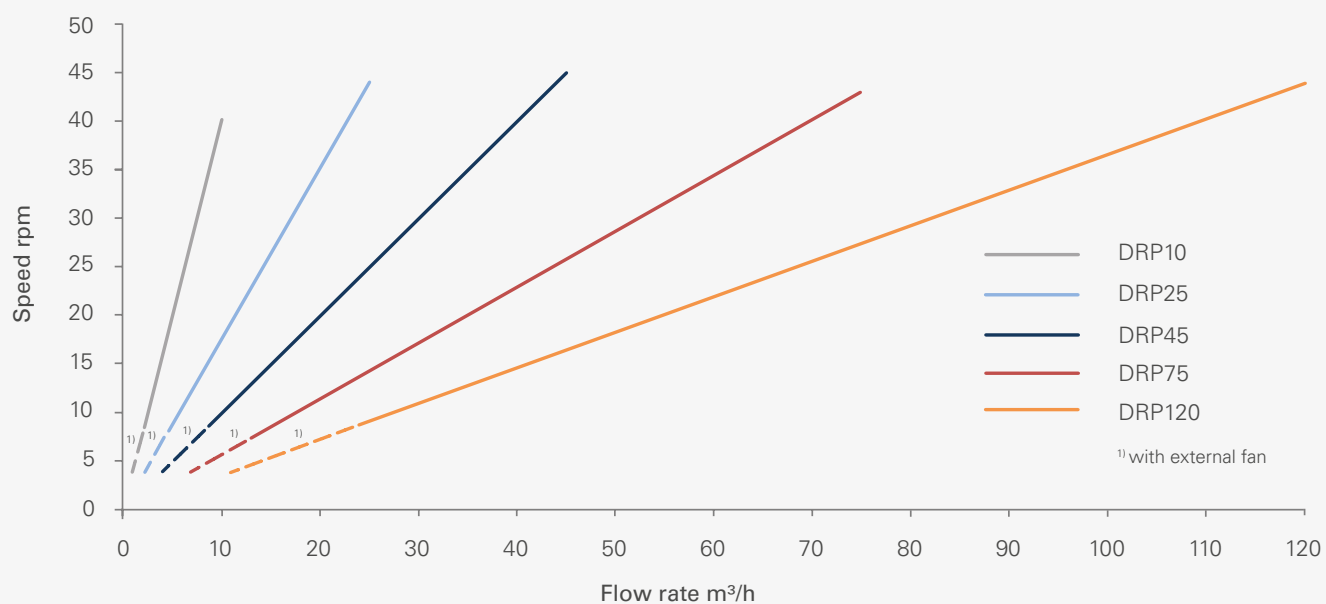
#### Perfect fit:

#### Easily tailored to your requirements

- Models with a mechanical seal or stuffing box
- Optional external fan for a broad conveying range<sup>1)</sup>
- Variable branch position: 0°, 45°, 90°

- Direction of flow: clockwise or anti-clockwise; easily changed on site
- Configurable with pressure levels of 6 and 10 bar; can be retrofitted
- Optional mating flanges for simple integration with all standard piping systems

#### Technical data



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## BMA – Passion for Progress

For over 160 years, BMA has been developing and manufacturing machinery and equipment for industrial-scale sugar production. BMA system solutions for sugar factories and refineries are in demand wherever minimum energy consumption and consistently high product quality are top priorities. With a strong workforce around the globe and in-depth knowledge of process engineering, BMA has an exceptional service profile in the sugar industry.

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