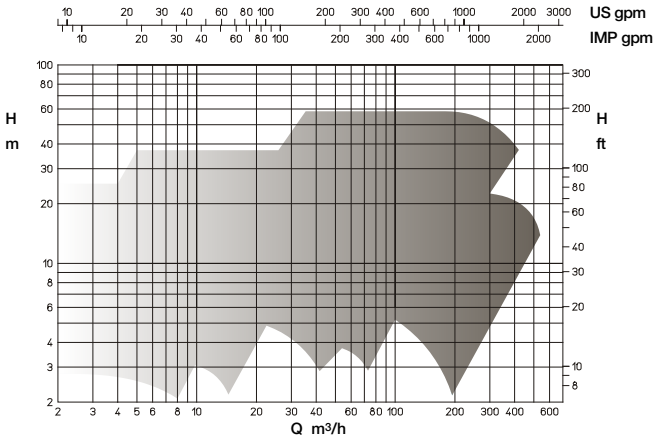
Durco® Mark 3™ ISO MAG

Sealless, magnetic drive (ISO 2858, ISO 5199 and ISO 15783) with proven Durco Mark 3 features and reliability

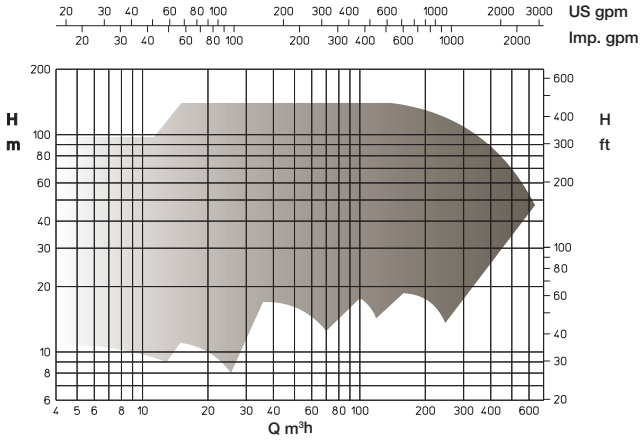
- Low downtime and maintenance costs, owing to sealless design
- Improved environmental and personnel safety with hermetically sealed design
- Standardized modular system designed for flexible plant installation

Market Specifications		
Applications		Chemical and general industries
Competition		Klaus Union, CP, KSB, ITT, Hermetic, Dickow
Customers/End users		BASF, INEOS, Desmet Ballestra, Akzo Nobel, Cargill
Technical Specifications		
Series		CBMM (long coupled), CBME (closed coupled), CBME with heat barrier design
Range	Flows to:	475 m³/h (2862 gpm)
	Heads to:	150 m (492 ft)
	Pressures to:	25 bar (362 psi)
	Temperatures:	-40°C to 350°C (-40°F to 662°F) with heat barrier up to 400°C (752°F)
	Sizes:	32 sizes with discharges from 25 to 150 mm (1 to 6 in)

n = 1450 rpm



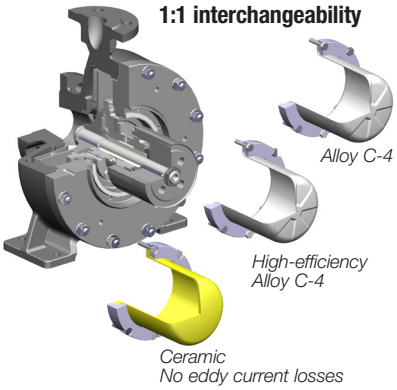
n = 2900 rpm



Wet end materials	Cast iron, ductile cast iron, stainless steel
Flanges	PN 16 to PN 25 or drilled per ASME (ANSI) Class 150 and 300
Shaft	Non-drive shaft: duplex stainless steel or 316 stainless steel
Power end	Ductile cast iron; open or closed lantern bracket design
Bearings	Wetted bearings in SSiC; bearing insert 1.4462
Magnets	Inner magnet: 1.4571 samarium cobalt Outer magnet: 1.0570 samarium cobalt
Special configuration	Free flow filter, external flushing
Design standards	ISO 5199, ISO 2858, EN 15783
Test standards	ISO 9906
Certificate/Approval	2.1/2.2/3.1 certificate, CE, ATEX

Key Features and Benefits

Containment shells



Different options to cover best customer needs regarding safety or efficiency

	Containment Shell Construction		
	Alloy C-4	High-efficiency Alloy C-4	Ceramic
Closed lantern bracket design — max. temp.	250°C (482°F)	180°C (356°F)	200°C (392°F)
Open lantern bracket design — max. temp.	350°C (662°F)	180°C (356°F)	N/A
ATEX	✓	✓	✓
3.1 certificate	✓	✓	✓
Pressure	PN 25	PN 25	PN 25
Eddy current losses	Baseline	40% less than baseline	0 (100% less than baseline)

Connections

Options by Request	Long Coupled	Closed Coupled	Heat Barrier
Pressure gauge	✓	✓	✓
Vacuum and pressure gauge	✓	✓	✓
Re-circulation	✓	✓	✓
Casing drain	✓	✓	✓
Secondary drain	✓	✓	✓
External flush	✓	✓	✓
Leak detector	✓	✓	✓
Canister temperature probe	✓	✓	
Oil filter/Vent/Breather	✓		
Bearing temperature probe	✓		
Oil drain	✓		
Oil cooler	✓		
Oil level sight glass	✓		
Constant level oiler	✓		
Vibration monitor	✓		

Back pullout options

Contained back pullout if maintenance is required on the bearing bracket

- Entire wet end remains intact, so there is no contact with pumped liquid.
- Highest available safety for personnel and environment

Standard back pullout

- Volute casing remains connected to the piping

Standard back pullout

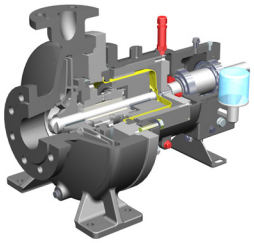
Contained back pullout

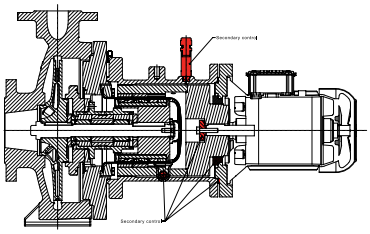
Secondary control per EN 15783

In the event of a failure of the containment shell, the bearing bracket when fitted with a secondary control seal can provide an additional level of protection for both workers and the environment.

Limitations of use:

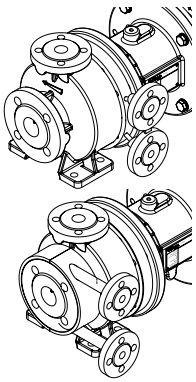
- Max. operating temperature: 180°C (356°F)
- Max. pressure: 25 bar (363 psi)
- Max. operating speed: 3500 rpm (not for continuous operation)





Heating jacket for volute and/or casing cover

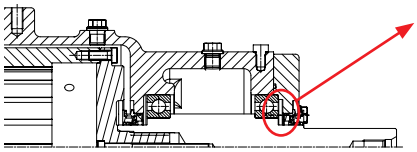
- Available for all sizes (except 025)
- The heatable designs are designed for a working pressure of 8 bar at 200°C (392°F) or 6 bar at 300°C (572°F).
- The test pressure is 16 bar at 20°C (68°F).
- Inlet and outlet flanges of the heating liquid per ISO 2633 PN 16, form C with DN 15 nominal diameter

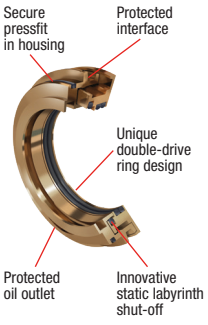


Flowserve Bearing Gard™ as standard

Oil isolation with Flowserve Bearing Gard labyrinth seal is standard for all bearing configurations.

Oil: L10h > 50 000 h
Grease: L10h > 17 500 h

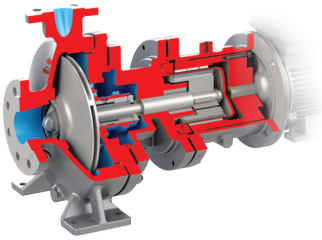




Heat barrier design

Available for all sizes up to 400°C (752°F) and PN 25. Insulation of heat barrier and lantern is not allowed.

- Leakage free
- Maintenance free
- Dead head operation



Flushing

Self-cleaning integral strainer as standard

Optional:

- Free flow filter
- External partial flow