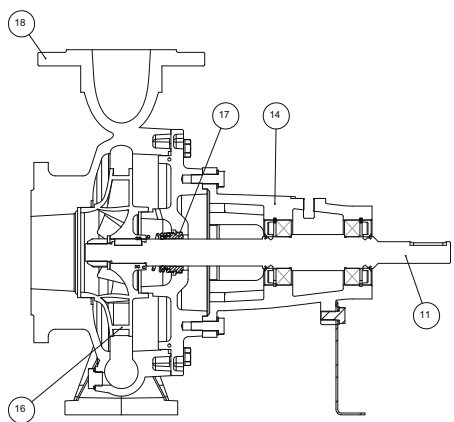


**NOMENCLATURA PARTI DI RICAMBIO**  
**SPARE PARTS LIST**  
**NOMENCLATURE PIÉCES DE RECHANGE**  
**NOMENCLATURA REPUESTOS**



- 11** Albero con rotore – Pump shaft + rotor  
Arbre + rotor – Eje rotor
- 14** Supporto mandata – Outlet bracket  
Support envoyée – Soporte entrega
- 16** Girante – Impeller  
Turbine – Impulsor
- 17** Tenuta meccanica – Mechanical seal  
Garniture mécanique – Cierre mecánico
- 18** Corpo pompa – Pump body  
Corp de pompe – Cuerpo bomba

#### ELETTROPOMPE CENTRIFUGHE NORMALIZZATE

Le pompe centrifughe con giunto della serie "CM" sono costruite in accordo con le normative UNI EN 733 (DIN 24255). Sono state progettate per il pompaggio di liquidi puliti, senza parti abrasive, senza corpi solidi in sospensione, non esplosivi o aggressivi per i materiali della pompa.

- Temperatura max. del liquido fino a 35 °C per uso domestico (CEI EN 60335-2-41) o 90 °C per altri usi e temperatura ambiente fino a 40 °C.
- Portate fino a 600 m<sup>3</sup> / h
- Prevalenze fino a 60 m

#### CARATTERISTICHE COSTRUTTIVE

- Corpo pompa: ghisa G25 con trattamento anticorrosione
- Supporto motore: ghisa G25 con trattamento anticorrosione
- Bocche aspirazione/mandata: a norme DIN 2532
- Girante: ghisa G25 con trattamento anticorrosione
- Controflange filettate: acciaio zincato complete di guarnizioni in EPDM
- Albero pompa: acciaio inox Aisi 420
- Tenuta meccanica: carbone-ceramica

#### MOTORE

- I motori di comando sono del tipo asincrono a gabbia di scoiattolo chiusi, a ventilazione esterna
- La protezione del motore è a cura del cliente e si raccomandano apparecchiature in accordo con le norme vigenti
- Forma costruttiva: IM B3
- Isolamento cl F - servizio S1 - grado di protezione IP 55
- Classe di efficienza standard: IE3
- Motori diversi disponibili a richiesta

#### ÉLECTROPOMPES CENTRIFUGES À DEUX ROUES

Les pompes centrifuges à accouplement de la série "CM" sont construites en accord avec les réglementations UNI EN 733 (DIN 24255). Elles ont été conçues pour le pompage de liquides propres, sans parties abrasives, sans corps liquides en suspension, non explosifs ou agressifs pour les matériaux de la pompe.

- Température max. du liquide jusqu'à 35 °C pour utilisation domestique (CEI EN 60335-2-41) ou 90 °C pour d'autres utilisations et température ambiante jusqu'à 40 °C.
- Plage d'utilisation jusqu'à 600 m<sup>3</sup>/h.
- Hauteur manométrique jusqu'à 60 m.

#### CARACTERISTIQUES DE CONSTRUCTION

- Corps de pompe : En fonte G25 avec traitement anti-corrosion
- Lanterne: En fonte G25 avec traitement anti-corrosion
- Aspiration/refoulement : norme DIN 2532
- Turbine: En fonte G25 avec traitement anti-corrosion
- Contre brides filettées: en acier galvanisé avec joints en EPDM
- Abre de pompe: acier inox AISI 420
- Garniture mécanique: Carbone dur - Céramique

#### MOTOR

- Le moteurs sont asynchrones à cage d'écureuil fermés à ventilation extérieure monofásicos
- La protection est à la charge de l'utilisateur à recommandé l'équipement conformément à la réglementation
- Forme ou la structure: IM B3
- A Classe d'isolation F - service S 1 - protection IP54
- Classe d'efficacité: IE3
- Autres motorisations disponibles sur demande

#### NORMALIZED CENTRIFUGAL PUMPS

The pumps with shaft of the series "CM" are manufactured according to DIN 24255 (UNI EN 733) standards. They have been designed to pump clean liquids, without abrasives and suspended solids, non-explosive or aggressive for the pump's materials.

- Liquid temperature not higher than 35 °C for domestic use (CEI EN 60335-2-41) or 90 °C for other use, while the ambient temperature must not be higher than 40 °C
- Flow rates up to 600 m<sup>3</sup>/h.
- Heads up to 60 m

#### TECHNICAL FEATURES

- Pump body: cast iron G25 with anti-corrosive coating
- Motor bracket: cast iron G25 with anti-corrosive coating
- Orifices in/outlet: DIN 2532 standards
- Impeller: cast iron G25 with anti-corrosive coating
- Threaded counter flanges: galvanized steel complete with EPDM gaskets
- Pump shaft: stainless steel Aisi 420
- Mechanical seal: carbon-ceramics

#### MOTOR

- The control motors are asynchronous, squirrel cage-type, closed, with external ventilation
- The motor protection must be installed by the customer.
- Equipment compliant with current standards should be used IM B3 enclosure
- Class of insulation: F-service: S1-Degree of protection: IP 55
- Efficiency standard: IE3
- Other motor available on demand

#### ELECTROBOMBAS CENTRÍFUGAS DOBLE IMPULSOR

Las bombas centrifugas con acoplamiento de la serie "CM" han sido construidas conforme las normativas UNI EN 733 (DIN 24255). Han sido proyectadas para bombear líquidos limpios, sin partes abrasivas, sin cuerpos sólidos en suspensión, que no sean explosivos ni agresivos para los materiales de la bomba.

- Temperatura max. del líquido hasta 35 °C para uso doméstico (CEI EN 60335-2-41) o 90 °C para otros usos y temperatura ambiente hasta 40 °C.
- Caudal hasta 600 m<sup>3</sup>/h.
- Alturas hasta 60 m.

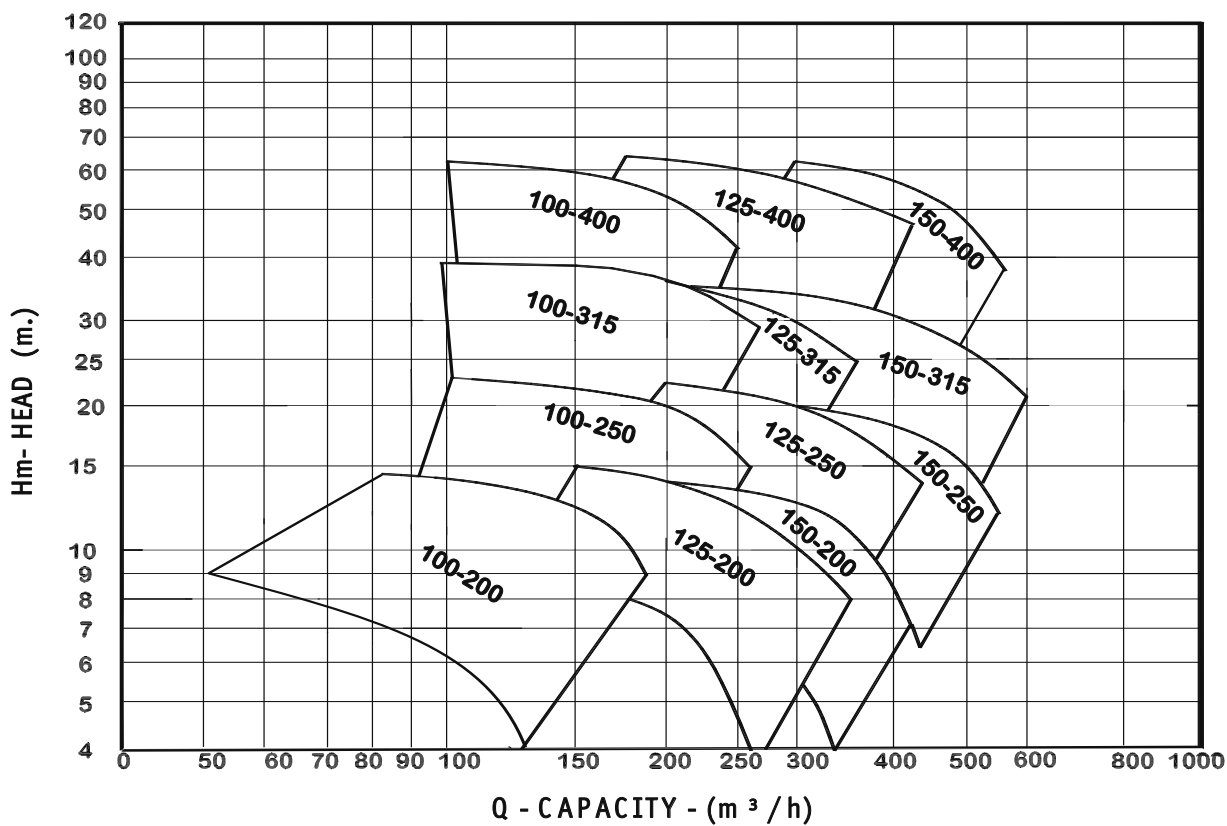
#### CARACTERÍSTICAS DE CONSTRUCCIÓN

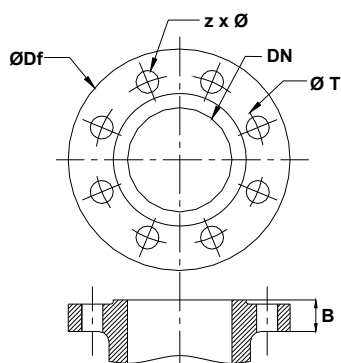
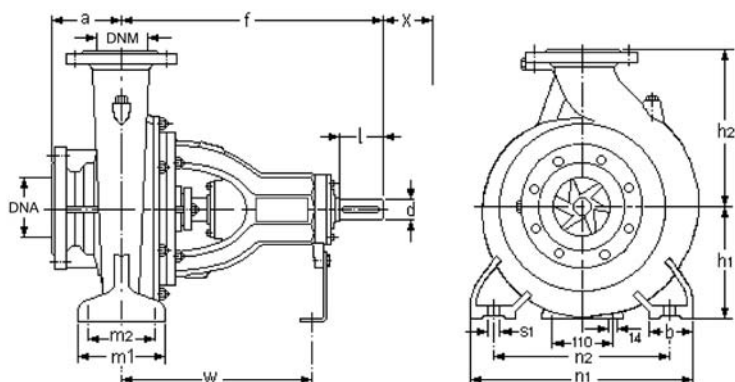
- Cuerpo de bomba: Fundición gris G25 con tratamiento contra-corrosión
- Soporte: Fundición gris G25 con tratamiento contra-corrosión
- Bocas de entrada y salida : normalizadas DIN 2532
- Rodete: Fundición gris G25 con tratamiento contra-corrosión
- Contra bridas roscadas: de acero galvanizado con juntas de EPDM
- Eje de la bomba: de acero Inox AISI 420
- Cierre mecánico: De cerámica y grafito

#### MOTOR

- Los motores de accionamiento son asíncrono de jaula de ardilla cerrados, ventilados externamente
- La protección se encarga el usuario y el equipo recomendado de acuerdo con las normas
- Forma constructiva: IM B3
- Aislamiento de Clase F - funcionamiento S1- protección IP54
- Estándar Clase de eficiencia: IE3
- Otros motores disponibles bajo petición

CM 4 POLES



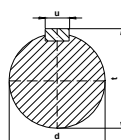


**PUMP SUCTION AND DISCHARGE FLANGE DIMENSIONS**

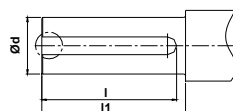
DN	PN	D	K	B	Hole Number
100	16	220	180	24	8
125		250	210	26	8
150		285	240	26	8

Pump Type	Flanges			
	DNA (mm) Suction		DNM (mm) Discharge	
100-200	125	PN 16	100	PN 16
100-250				
100-315				
100-400				
125-200	150	PN 16	125	PN 16
125-250				
125-315				
125-400				
150-200	200		150	
150-250				
150-315				
150-400				

**Key-Way and Shaft Dimensions for Motor Side**

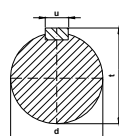


Group	d	t	u
A	32	37	10
B	42	47	12



l	l1
75	80
106	110

**Key-Way and Shaft Dimensions for Impeller Side**

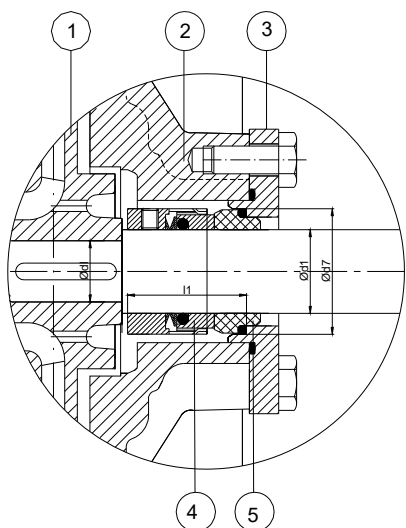


Group	d	t	u
A	30	34	8
B	40	45	10

TIPO TYPE	DIMENSIONI [mm] DIMENSIONS [mm]																
	DNA	DNM	a	f	h1	h2	b	m1	m2	n1	n2	s1	w	d	l	x	kg
CM 100-200	125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120	83
CM 100-250	125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130	95
CM 100-315	125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	110
CM 100-400	125	100	140	530	280	355	100	200	150	500	400	M20	370	42	110	130	168
CM 125-200	150	125	140	470	250	315	80	160	120	400	315	M16	340	32	80	130	106.5
CM 125-250	150	125	140	470	250	355	80	160	120	400	315	M16	340	32	80	140	105.5
CM 125-315	150	125	140	530	280	355	100	200	150	500	400	M20	370	42	110	140	166.5
CM 125-400	150	125	140	530	315	400	100	200	150	500	400	M20	370	42	110	140	189
CM 150-200	200	150	160	470	280	355	100	200	150	500	400	M16	340	32	80	170	137.5
CM 150-250	200	150	160	470	280	375	100	200	150	500	400	M16	340	32	80	140	137.5
CM 150-315	200	150	160	530	280	400	100	200	150	550	450	M20	370	42	110	140	182.5
CM 150-400	200	150	160	530	315	450	100	200	150	550	450	M20	370	42	110	140	210.5

**BEARINGS, STUFFING-BOX, MECHANICAL SEAL**

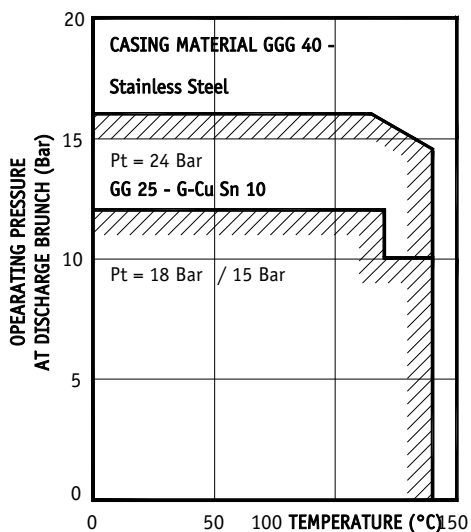
Bearing System	Stuffing Box			Mechanical Seal Diameter	Pump Size
	Type of Bearing	Shaft $\varnothing d_1$	Packing Ring Size $\varnothing D \times \varnothing d \times T$		
2 x 6308 2RS-C3	$\varnothing 40$	$\varnothing 60 \times \varnothing 40 \times 55.5$	3 Soft Packing + 1 Lantern Ring	$\varnothing 40$	100-200, 125-200, 150-200, 100-250, 125-250, 150-250, 100-315
2 x 6310 2RS-C3	$\varnothing 50$	$\varnothing 70 \times \varnothing 50 \times 55$	3 Soft Packing + 1 Lantern Ring	$\varnothing 50$	125-315, 150-315, 100-400, 125-400, 150-400



Part No	Part Name for A, B
1	Impeller
2	Mechanical Seal Box
3	Mechanical Seal Box Cover
4	Rotating Part of Mechanical Seal
5	Stationary Part of Mechanical Seal

Group	Pump Size	$\varnothing d$	$\varnothing d$	$\varnothing d$	l1=l1k
A	100-200, 125-200, 150-200 100-250, 125-250, 150-250, 100-315	$\varnothing 4$	$\varnothing 5$	$\varnothing 3$	45
B	125-315, 150-315, 100-400, 125-400, 150-400	$\varnothing 5$	$\varnothing 7$	$\varnothing 4$	47,5

**TEMPERATURE AND PRESSURE LIMITS**



Pt: Test Pressure

Casing Material	Temperature of Liquid	Max. Permissible Casing Pressure
Cast Iron GG 25 and Bronze G-CuSn 10	Up to 120 °C	12 Bar
	Up to 140 °C	10 Bar
Spheroidal Cast Iron GGG 40 and Stainless Steel AISI 304-316	Up to 120 °C	16 Bar
	Up to 140 °C	14 Bar

### Material Options

Components	Material. No						
		0.6025	0.7040	2.1050.01	1.4021	1.4301	1.4401
Pump Casing		●	○	○		○	○
Back Cover		●	○	○		○	○
Impeller		●	○	○		○	○
Gland		○	●	○		○	○
Wearing Ring*		○	○	●		○	○
Shaft					●	○	○
Shaft Sleeve					●	○	○
Bearing Housing		●	○	○		○	○
Bearing Cover		●	○	○		○	○

● - Standard Manufacturing  
○ - Optional

### Material Equivalent

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG40)	A 536 Gr.60-40-18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel Molybdenum Steel	1.4401	X5 Cr Ni Mo 18.10	A 276 Type 316

\* Wearing Rings and Shaft Sleeves are upon request.

### MOMENT OF INERTIA WITHOUT COUPLING

PUMP TYPE	MOMENT OF INERTIA I [ kgm <sup>2</sup> ]					
	Impeller GG 25 (ρ=7,3 kg/dm <sup>3</sup> )		Impeller Bronze (ρ=8,7 kg/dm <sup>3</sup> )		Impeller Cast Steel (ρ=7,8 kg/dm <sup>3</sup> )	
	without water	with water	without water	with water	without water	with water
CM 100-200	0,0253	0,0327	0,0302	0,0376	0,0270	0,0344
CM 100-250	0,0448	0,0625	0,0534	0,0711	0,0479	0,0656
CM 100-315	0,0895	0,1205	0,1067	0,1377	0,0956	0,1266
CM 100-400	0,2108	0,2650	0,2512	0,3054	0,2252	0,2794
CM 125-200	0,0375	0,0545	0,0447	0,0617	0,0401	0,0571
CM 125-250	0,0520	0,0740	0,0556	0,0776	0,0620	0,0840
CM 125-315	0,1058	0,1480	0,1261	0,1683	0,1130	0,1552
CM 125-400	0,2358	0,3098	0,2810	0,3550	0,2520	0,3260
CM 150-200	0,0475	0,0645	0,0547	0,0717	0,0501	0,0671
CM 150-250	0,0675	0,0975	0,0804	0,1104	0,0721	0,1021
CM 150-315	0,1507	0,2123	0,1796	0,2412	0,1610	0,2226
CM 150-400	0,2707	0,3608	0,3226	0,4127	0,2892	0,3793

For the water filling ρ=1 kg/dm<sup>3</sup> is used. In case the handled liquid has a different density or the impeller is made of other materials having also a different density, calculate moment of inertia according to the following examples.

Example: Pump Size CM 100-250

Handled liquid density ρ=1,25 kg/dm<sup>3</sup>, impeller cast iron GG ρ=7,3 kg/dm<sup>3</sup>  
I= (0,0625-0,0448)×1,25+0,0448=0,0669 kgm<sup>2</sup>

Handled liquid density ρ=1 kg/dm<sup>3</sup>, impeller ρ=8 kg/dm<sup>3</sup> (conversion from GG ρ=7,3 kg/dm<sup>3</sup>)  
I= 0,0448×8/7,3+(0,0625-0,0448)=0,0668 kgm<sup>2</sup>

Handled liquid density ρ=1,25 kg/dm<sup>3</sup>, impeller ρ=8 kg/dm<sup>3</sup> (Conversion from GG ρ=7,3 kg/dm<sup>3</sup> and water ρ=1 kg/dm<sup>3</sup>)  
I= 0,0448×8/7,3+(0,0625-0,0448)×1,25=0,0712 kgm<sup>2</sup>