DRAINAGE - DRENAGGIO

HD



PUMPS

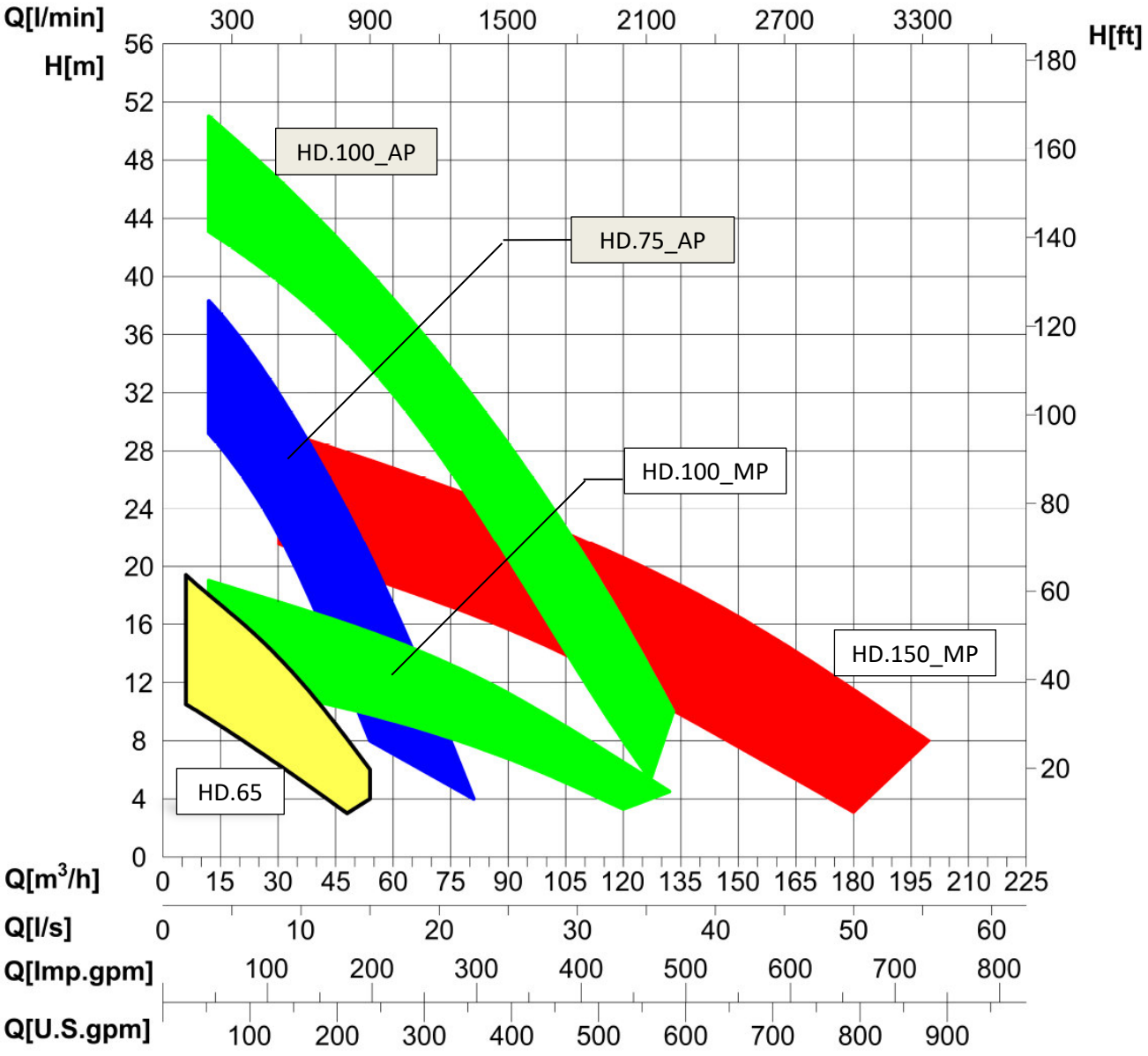
FOR DRAINAGE WATERS

with multi-blades semi-open impeller [HD] suitable for liquids containing abrasives and heavy conditions

POMPE

PER ACQUE DI DRENAGGIO

con girante multipale semi aperta [HD] idonea per liquidi contenenti abrasivi e condizioni gravose



DRAINAGE - DRENAGGIO HD

EN

Pumps with wear-resistant multi-bladed radial impeller. Equipped with suction strainer to prevent the entry of excessively large solid bodies. Operation with minimum head of water which does not necessarily have to cover the pump. Pumps very suitable for draining water in construction or mining sites.

1 Stainless Steel Aisi 304 cooling jacket.
Camicia di raffreddamento in acciaio AISI 304.

2 Stator (1 ~ or 3 ~).
Statore avvolto (1 ~ [only HD65] or 3 ~).

3 Oil Chamber - Cooling and lubrication of the mechanical seals.

Camera olio - raffreddamento e lubrificazione delle tenute meccaniche.

4 Mechanical seals.
Tenute meccaniche.

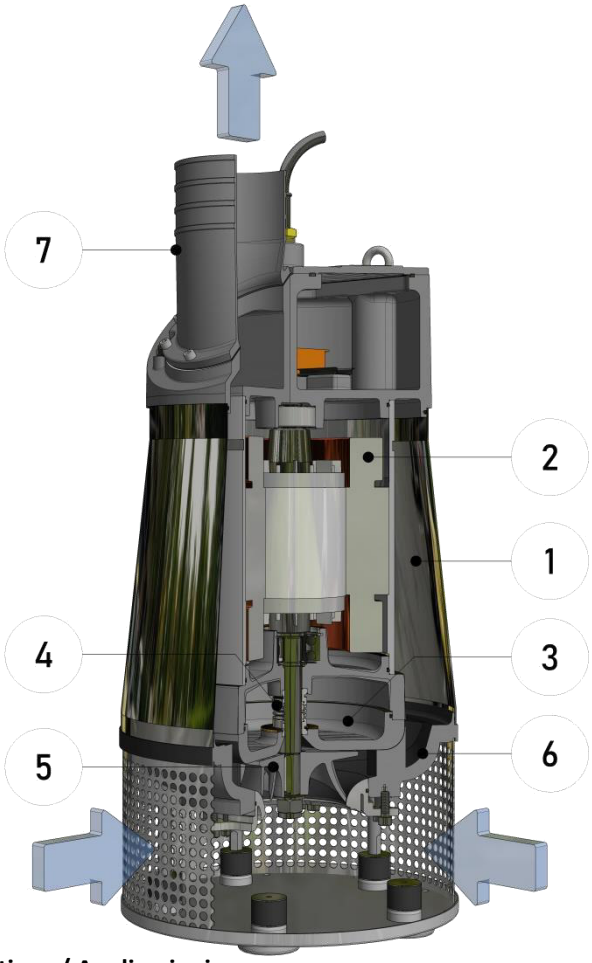
5 Chrome cast iron Impeller.
Girante in ghisa al cromo.

6 Rubber coating difuser.
Diffusore rivestito in gomma.

7 Delivery hose connection.
Attacco tubo di mandata.

IT

Pompa con girante radiale multipala sempiaperta resistente all'usura. Dotata griglia di aspirazione per evitare l'ingresso di corpi solidi di dimensioni eccessive. Funzionamento con minimo battente di acqua che non deve necessariamente coprire la pompa. Pompe molto indicate per il drenaggio di acque nei siti costruttivi o minerari.



Area of use / Settori d'impiego

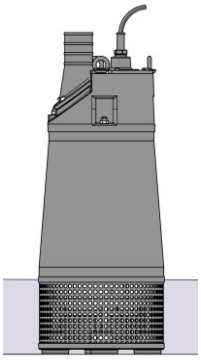
- Extractive mining activities, quarries / attività minerarie estrattive, cave;
- Construction sites / cantieri di costruzione;
- Industrial activities / industria in generale.

Applications / Applicazioni

- Storm and rain waters /acque di inondazioni, acque piovane;
- Ground water, source water / Acque di falda, sorgente;
- Surface water and groundwater drainage / drenaggio acque superficiali, acque sotterranee.

Types of installation - Tipi di installazione

S Transportable underwater
Trasportabile in immersione



- Versatile solution suitable for various uses. A hose connection or connection flange is required for the rigid discharge line. The pump rests on the strainer.

- Soluzione versatile adatta a diversi impieghi.
E' necessario un attacco per tubo flessibile o flangia di collegamento per la tubazione premente rigida. La pompa appoggia sulla griglia filtrante.

SUBMERSIBLE PUMPS
POMPE SOMMERGIBILI

HD.100.APT_[GM.240]
HD.150.MPT_[GM.240]

HD.100.APT_[GM.240] series

THREE-PHASE MOTORS 3~

HD.100_85.APT_[GM.240] - 2 poles - 8,5 kW
HD.100_110.APT_[GM.240] - 2 poles - 11 kW

HD.150.MPT_[GM.240] series

THREE-PHASE MOTORS 3~

HD.150_85.MPT_[GM.240] - 2 poles - 8,5 kW
HD.150_110.MPT_[GM.240] - 2 poles - 11 kW



HD.150.AP_[GM.240] - HD.150.MP_[GM.240]

- Submersible pumps with open multi-blade radial impeller in chrome cast iron, resistant to abrasion.
- Thanks to the stainless steel cooling jacket the pump can operate even with a minimal level. The diffuser is covered in rubber to resist abrasion. The suction filter allows the passage only of solids capable of passing through the impeller without closing the passage.

- Pompe sommergibili con girante radiale multipala aperta in ghisa al cromo, resistente all' abrasione.
- Grazie alla camicia di raffreddamento in acciaio inossidabile la pompa può funzionare anche con un minimo livello. Il diffusore è rivestito in gomma per resistere all'abrasione. Il filtro di aspirazione permette il passaggio solamente di solidi in grado di attraversare la girante senza ostruirne il passaggio.

- Pompes submersibles à roue radiale multipale ouverte en fonte chromée, résistante à l'abrasion.
- Grâce à la chemise de refroidissement en acier inoxydable, la pompe peut fonctionner même avec un niveau minimum. Le diffuseur est recouvert de caoutchouc pour résister à l'abrasion. Le filtre d'aspiration permet le passage uniquement des solides capables de traverser la turbine sans obstruer le passage.

- Bombas sumergibles con impulsor radial abierto multipala en fundición cromada, resistentes a la abrasión.
- Gracias a la camisa de refrigeración de acero inoxidable, la bomba puede funcionar con un nivel mínimo. El difusor está recubierto de goma para resistir la abrasión. El filtro de aspiración permite el paso únicamente de sólidos capaces de atravesar la turbina sin obstruir el paso.

OPERATING LIMITS - LIMITI DI UTILIZZO

- Tmax = 40 °C standard product
  Tmax = 70 °C special version
  6 ≤ PH ≤12
  Chloride content < 200 mg/l
  Density ~ 1 kg/dm^3
  Viscosity ~ 1 mm^2/s;

- Tmax = 40 °C prodotto standard
  Tmax = 70 °C versioni speciali
  6 ≤ PH ≤12
  Contenuto cloruri < 200 mg/l
  Densità ~ 1kg/dm^3
  Viscosità ~ 1mm^2/s;

- Tmax = 40 °C produit standard
  Tmax = 70 °C versions spéciales
  6 ≤ PH ≤12
  Teneur en chlorurec< 200 mg/l
  Densité ~ 1kg/dm^3
  Viscosité ~ 1mm^2/s;

- Tmax = 40 °C producto estándar
  Tmax = 70 °C versiones especiales
  6 ≤ PH ≤12
  Contenido de cloruro< 200 mg/l
  Densidad ~ 1kg/dm^3
  Viscosidad ~ 1mm^2/s;

SUBMERSIBLE PUMPS
POMPE SOMMERGIBILI

HD.100.APT_[GM.240]
HD.150.MPT_[GM.240]

TECHNICAL DATA - DATI TECNICI

	HD.100.APT_[GM.240]		HD.150.MPT_[GM.240]	
MODELS - MODELLI	HD.100_85.APT_[GM.240]	HD.100_110.APT_[GM.240]	HD.150_85.MPT_[GM.240]	HD.150_110.MPT_[GM.240]
RPM/Poles - NGiri al min/Nr poli	3000 / 2	3000 / 2	3000 / 2	3000 / 2
P2: Shaft power - Potenza all'albero [kW]	8,5	11,0	8,5	11,0
P1: Input Power - Potenza assorbita [kW]	11,5	16,1	10,5	13,5
Power Factor - Fattore di potenza [Cosφ]	0,90	0,97	0,89	0,8
Power supply/Freq - Alimentazione/Freq [V/Hz]	3 ~ 400 / 50	3 ~ 400 / 50	3 ~ 400 / 50	3 ~ 400 / 50
Single-phase - Monofase				
Three-phase - Triase	●	●	●	●
Starting - Avviamento	D.O.L. / S.D.*	D.O.L. / S.D.*	D.O.L. / S.D.*	D.O.L. / S.D.*
Rated current - Corrente nominale [A]	18,5	24	17	24,0
Starting current - Corrente di spunto [A]	103,5 / 34,5	137 / 45,7	98,6 / 33	137 / 45,7
Free Passage - Passaggio libero Ø [mm]	10	10	10	10,0
Impeller diameter - Diametro girante [mm]	205,0	225,0	150,0	168,0
Float level switch - Galleggiante	-	-	-	-
Power cable type/lenght - Cavo alim. tipo/lungh. [m]	H07RN-F 4G4 / 10		H07RN-F 4G4 / 10	
Signal cable type/lenght - Cavo segn. tipo/lungh. [m]	-		-	
Nr. Starts per hour - Nr. Avviamenti / ora	15	15	15	15
Pump weight - Peso pompa [kg]	150	165	90	96,0

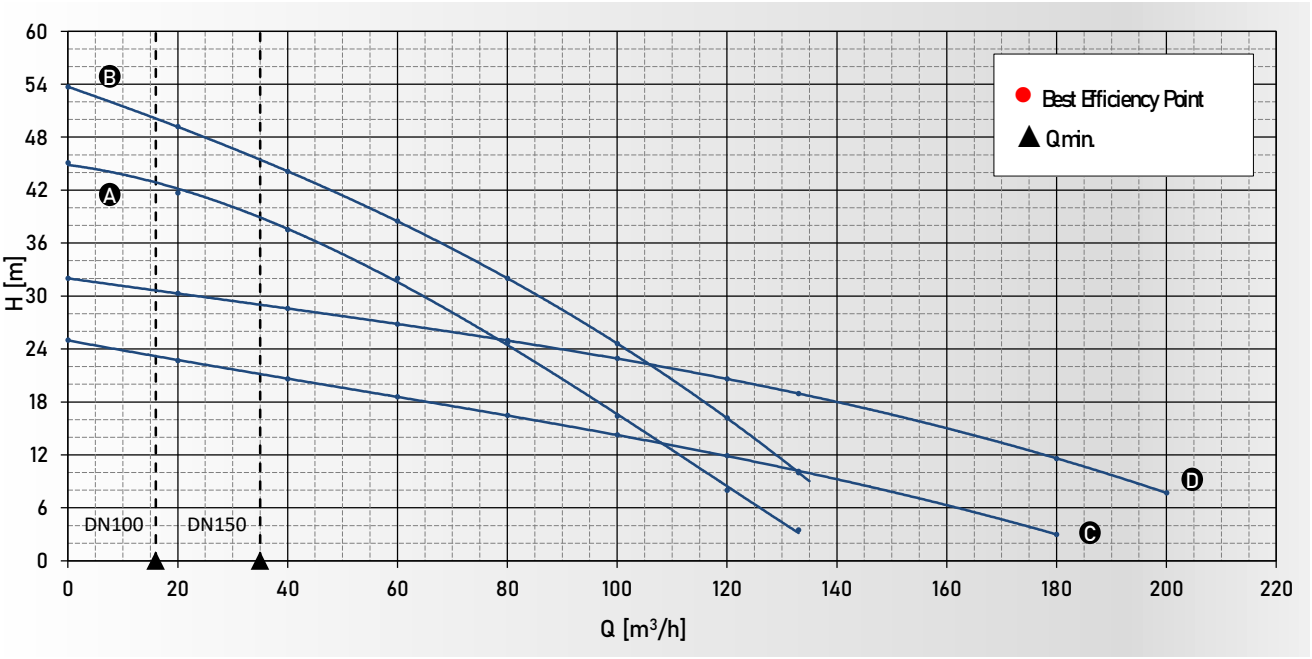
S.D.* - Power cable type - Cavo di alimetazione tipo: H07RN-7G2,5

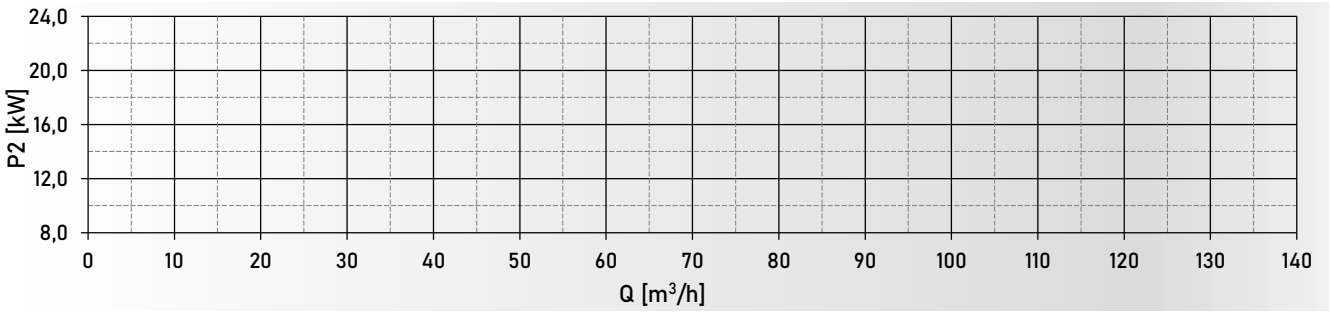
SUBMERSIBLE PUMPS
POMPE SOMMERGIBILI

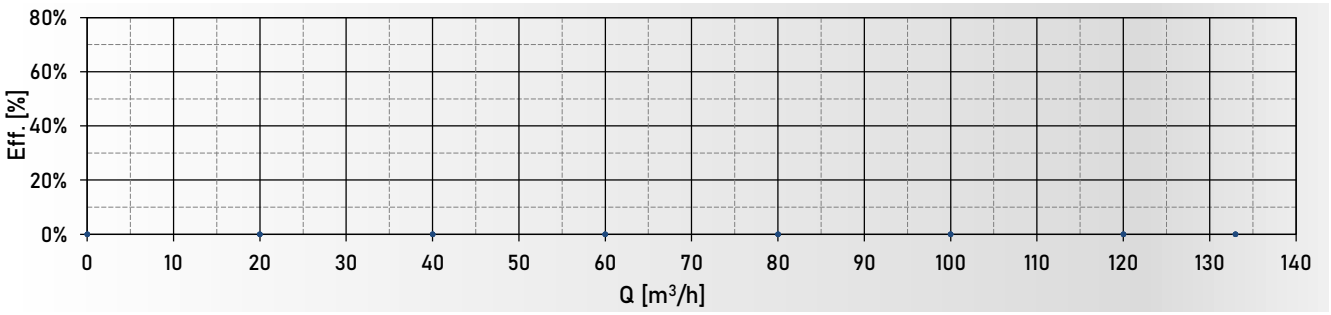
HD.100.APT_[GM.240]
HD.150.MPT_[GM.240]

Ⓐ HD100_85.APT_[GM240] - 8,5 KW
Ⓑ HD100_110.APT_[GM240] - 11 KW
Ⓒ HD150_85.MPT_[GM240] - 8,5 KW
Ⓓ HD150_110.MPT_[GM240] - 11 KW

50 Hz Three-phase motors - 2 poles - 3000 rpm







Q											
	m³/h	0	20	40	60	80	100	120	133	180	200
	L/min	0	333	667	1000	1333	1667	2000	2217	3000	3333
	L/s	0	5,6	11,1	16,7	22,2	27,8	33,3	36,9	50,0	55,6

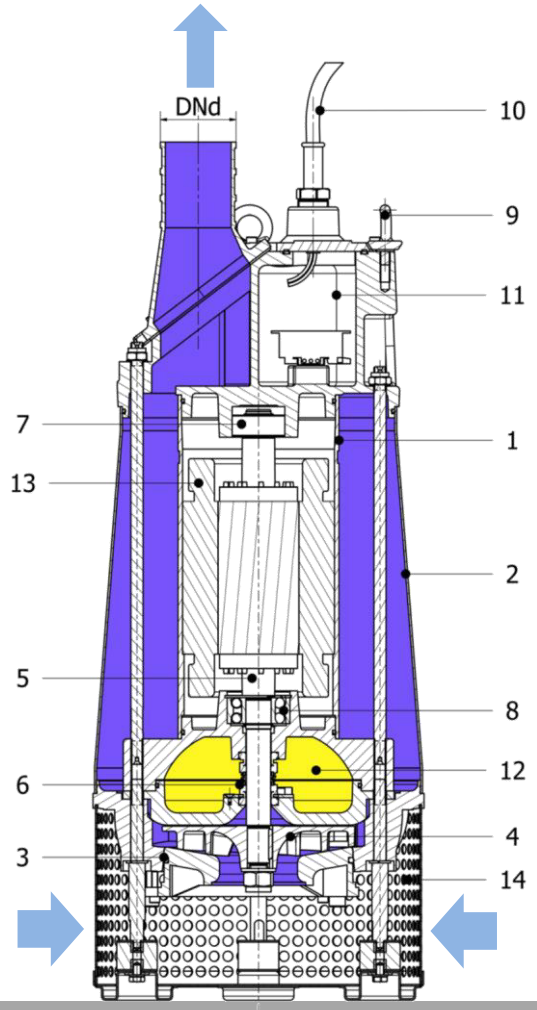
											H [m]
Ⓐ	HD100_85.APT_[GM240]	45,1	41,7	37,5	32,0	24,7	16,4	8,0	3,5		
Ⓑ	HD100_110.APT_[GM240]	53,7	49,2	44,1	38,5	32,0	24,6	16,2	10,0		
Ⓒ	HD150_85.MPT_[GM240]	25,0	22,7	20,6	18,6	16,5	14,3	11,9	10,1	3,0	
Ⓓ	HD150_110.MPT_[GM240]	32,0	30,3	28,6	26,8	25,0	22,9	20,6	19,0	11,6	7,7

SUBMERSIBLE PUMPS
POMPE SOMMERGIBILI

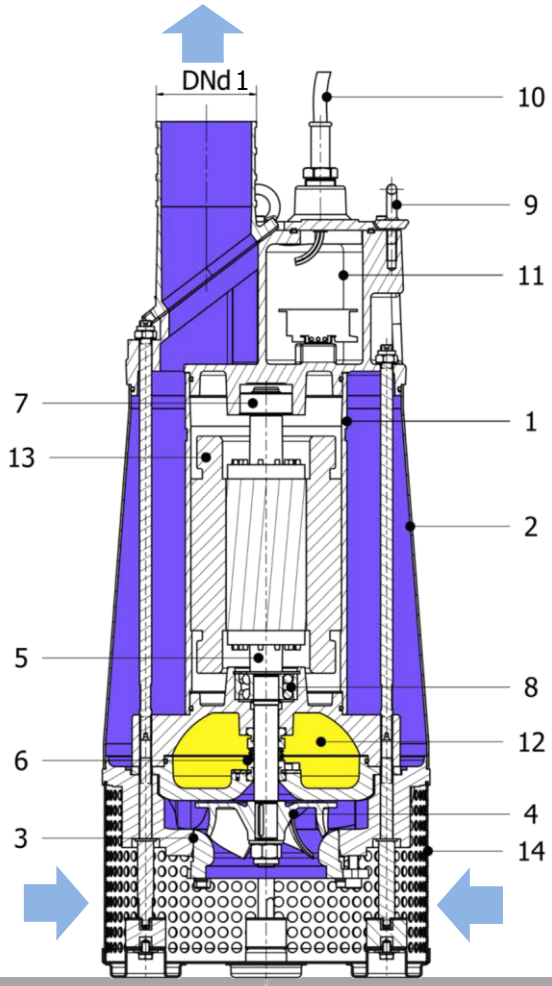
HD.100.APT_[GM.240]
HD.150.MPT_[GM.240]

SECTIONAL VIEWS - VISTE IN SEZIONE

HD.100.APT_[GM.240]



HD.150.MPT_[GM.240]



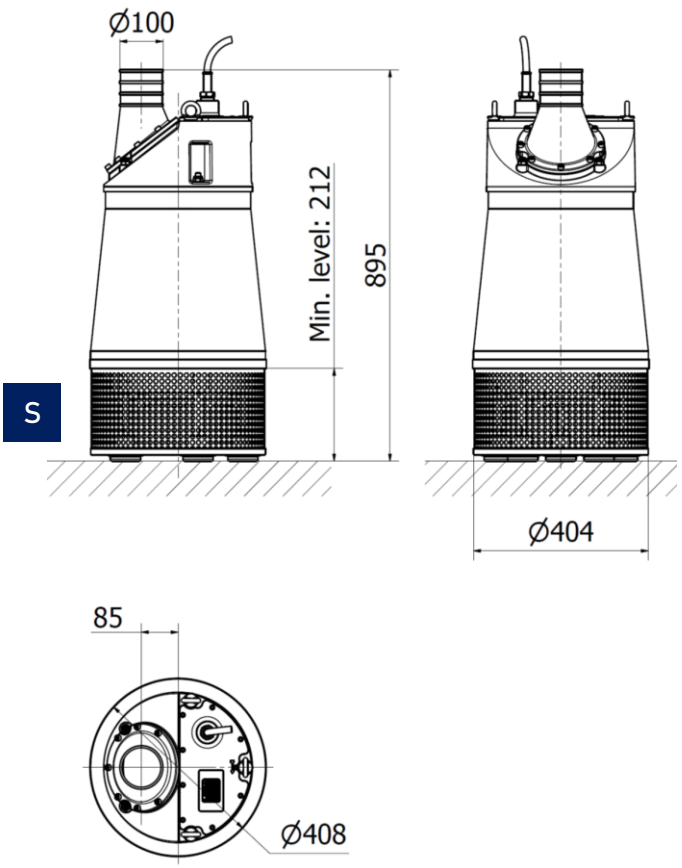
Pos.	Description		Descrizione	Material - Materiale
1	Motor body		Corpo motore	Cast Iron GG25 - Ghisa
2	Cooling jacket		Camicia di raffreddamento	Steel AISI 304 - Acciaio
3	Difuser		Diffusore	Nitril rubber coated Aluminium Alluminio rivestito in gomma
4	Impeller		Girante	Cast Iron GG25 - Ghisa
5	Shaft		Albero	Steel AISI 420B - Acciaio
6	Mechanical seal	(motor side) (pump side)	Tenuta meccanica (lato motore) Tenuta meccanica (lato pompa)	Carbon graphite / Al-Oxide - NBR Silicon carbide / Silicon Carbide
7	Upper bearing		Cuscinetto superiore	3206 A-2RS1
8	Lower bearing		Cuscinetto inferiore	3306 A-2RS1
9	Rotating eyebolt		Golfare girevole	
10	Supply Cable		Cavo elettrico	H07RN-F [10m]
11	Wiring connection chamber		Camera connessioni	
12	Oil chamber - cooling and lubrication of mechanical seal		Camera olio - raffreddamento e lubrificazione tenuta meccanica	
13	Class H stator Built in Thermal protector		Motore in Classe H Pastiglie termiche	 Bimetal - Bimetallico
14	Suction strainer		Filtro di aspirazione	Steel AISI 304 - Acciaio
DNd	Delivery outlet		Bocca di mandata	Hose connection Ø 100 - Portagomma
DNd 1	Delivery outlet		Bocca di mandata	Hose connection Ø 150 - Portagomma
	Screw quality grade		Grado di qualità delle viti	A2

SUBMERSIBLE PUMPS
POMPE SOMMERGIBILI

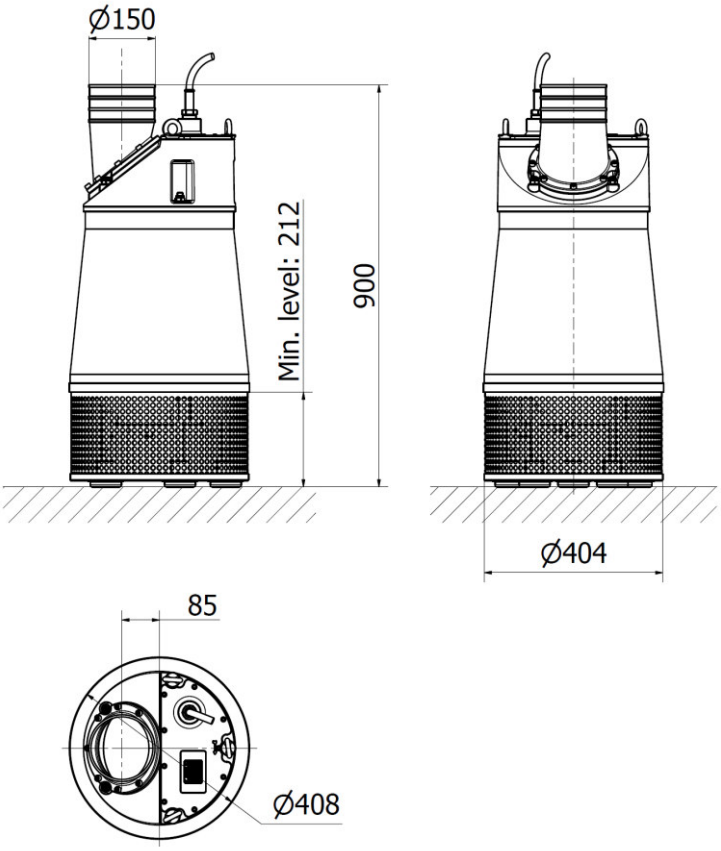
HD.100.APT_[GM.240]
HD.150.MPT_[GM.240]

OVERALL DIMENSIONS - DIMENSIONI D'INGOMBRO

HD.100_APT_[GM.240]



HD.150_MPT_[GM.240]



S

FC DEVICE NOT APPLICABLE / DISPOSITIVO NON APPLICABILE

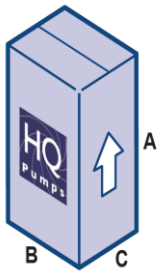
INSTALLATION MODES - MODALITA' D'INSTALLAZIONE

S = Transportable underwater - Trasportabile in immersione

FC = Fixed with coupling dvice - Fissa con dispositivo di accoppiamento

PACKAGING DIMENSIONS - DIMENSIONI IMBALLAGGIO mm

	A	B	C
Pump HD.100.APT_[GM.240] - Pompa (*)	950	800	600
Pump HD.150.MPT_[GM.240] - Pompa (*)	950	800	600



(*) Pallet included - Incluso il pallet

Dimensions and technical data are indicative, not binding and subjected to possible modifications without notice.

Dimensioni e dati tecnici sono indicativi, non vincolanti e soggetti a eventuali modifiche senza preavviso.

ACCESSORIES - ACCESSORI



SHELL - art. 3CS000021

Counterweight for level switch
Contrappeso per galleggiante



HF - art. 3CS000007

Level switch for sewage (10 m el. cable)
Regolatore di livello per acque reflue (cavo el. 10 m)



INT 69F - art. 2EC000040

Protection Relay for temperature and leakage monitoring

Relè di protezione per il monitoraggio della temperatura e delle perdite



ECH

ECH - ELECTROMECHANICAL
ELETTROMECCANICO

		P_2 [KW]	In [A]	Avv. Start.	1 Pump: ECH1.T 14-22 5EC000009	1 Pump: ECH1.T 22-31 5EC000010	1 Pump: ECH1.SD 15-20 5EC000106	1 Pump: ECH1.SD 22-28 5EC000025	2 Pumps: ECH2.T 14-22 5EC000033	2 Pumps: ECH2.T 22-31 5EC000034	2 Pumps: ECH2.SD 15-20 5EC000108	2 Pumps: ECH2.SD 22-28 5EC000049
HD.100.APT_[GM.240]												
HD.100_85.APT_[GM.240]	- 2 poles	8,5	18,5	DOL	▪				▪			
				SD			▪				▪	
HD.100_110.APT_[GM.240]	- 2 poles	11	24,0	DOL		▪				▪		
				SD				▪				▪
HD.150.MPT_[GM.240]												
HD.150_85.MPT_[GM.240]	- 2 poles	8,5	17,0	DOL	▪				▪			
				SD			▪				▪	
HD.150_110.MPT_[GM.240]	- 2 poles	11	24,0	DOL		▪				▪		
				SD				▪				▪