MORIS
Macchine Oleodinamiche
Riduttori Impianti Speciali

Chapter 16

ROOMLESS CABINETS

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Enclosed with this handbook and related production.

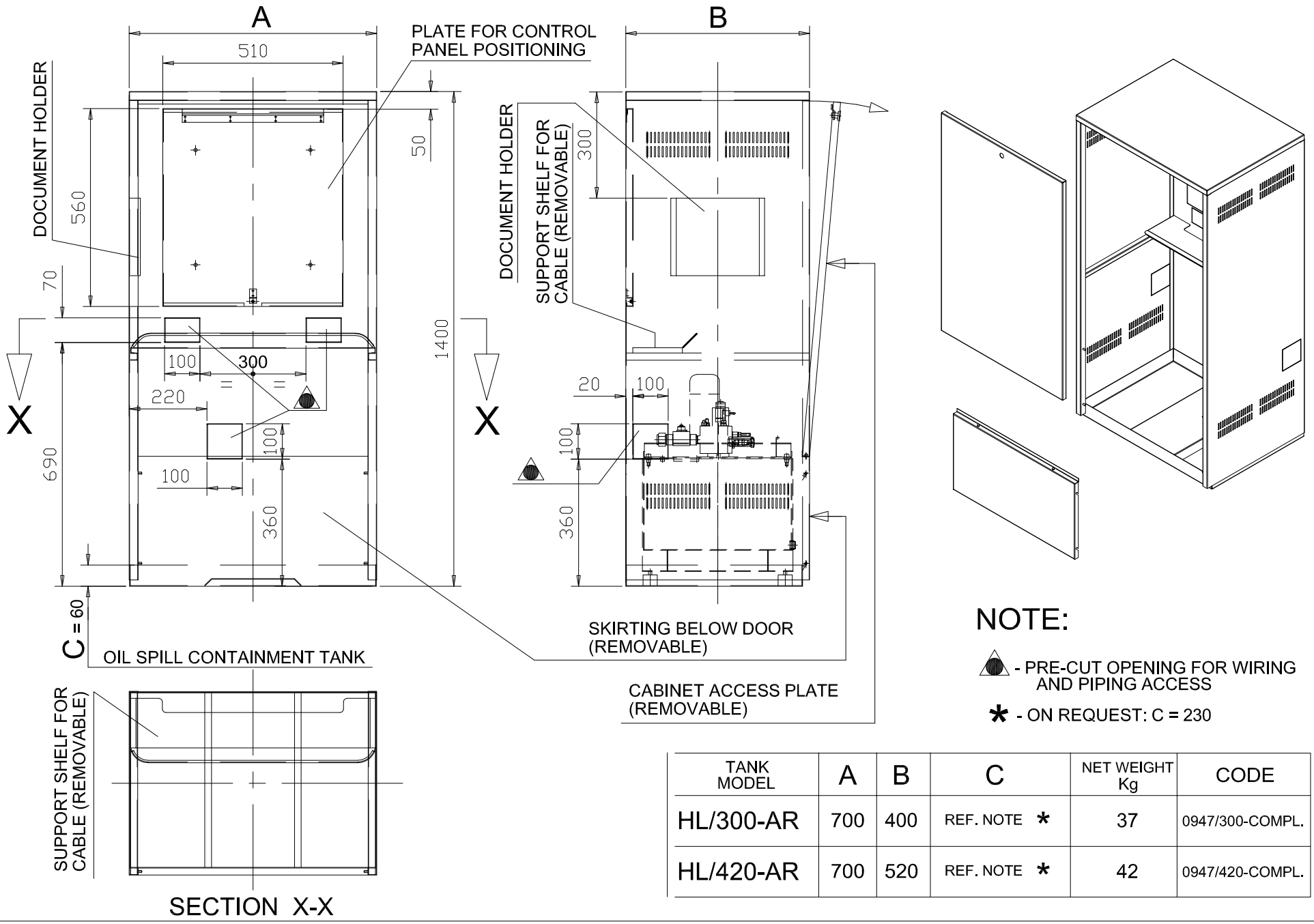
DRAWING	DESCRIPTION
9680/HL-AIR	Roomless boxe type HL/300-AR; HL/420-AR (assembled or disassembled)
9680/HL-OIL	Roomless boxe type HL/OIL-AR
9680/2A1	Cabinet ass.(Double doors) for tanks: HL320-R and CM320-R MARK-2
ARM-CM320RMK2	Roomless boxe for tank model CM320-R MARK-2 (EN 81.20)
ARM-CM320MK2	Roomless boxe for tank model CM320 MARK-2 (EN 81.20)
ARM-CMMK2	Roomless boxe for tank model CM MARK-2 (EN 81.20)
9680/2A2	Cabinet assembly (Double doors) for tanks: CA
9001ARM-MK2	Assembly instruction roomless box EN 81.20 for MARK-2

9680/HL-AIR-ING

UT

CABINET TYPE:

HL/300-AR HL/420-AR



NOTE:

- PRE-CUT OPENING FOR WIRING AND PIPING ACCESS

* - ON REQUEST: C = 230

TANK MODEL	A	B	C	NET WEIGHT Kg	CODE
HL/300-AR	700	400	REF. NOTE *	37	0947/300-COMPL.
HL/420-AR	700	520	REF. NOTE *	42	0947/420-COMPL.

DATE 09/19

DWG Nr. 9680/HL-AIR

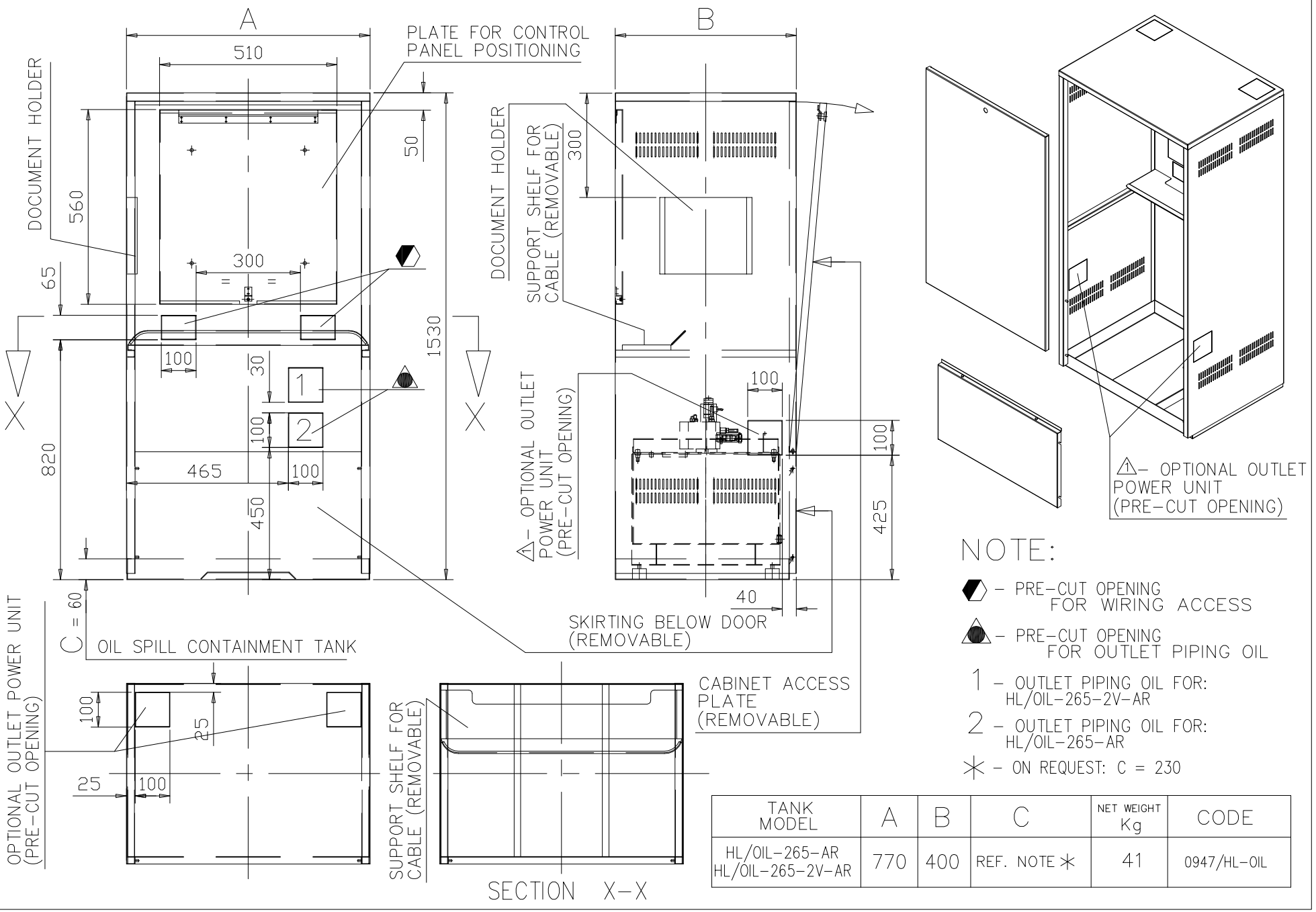
9680/HL-OIL - ING

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CABINET TYPE:
HL/OIL-AR

DATE 05/19

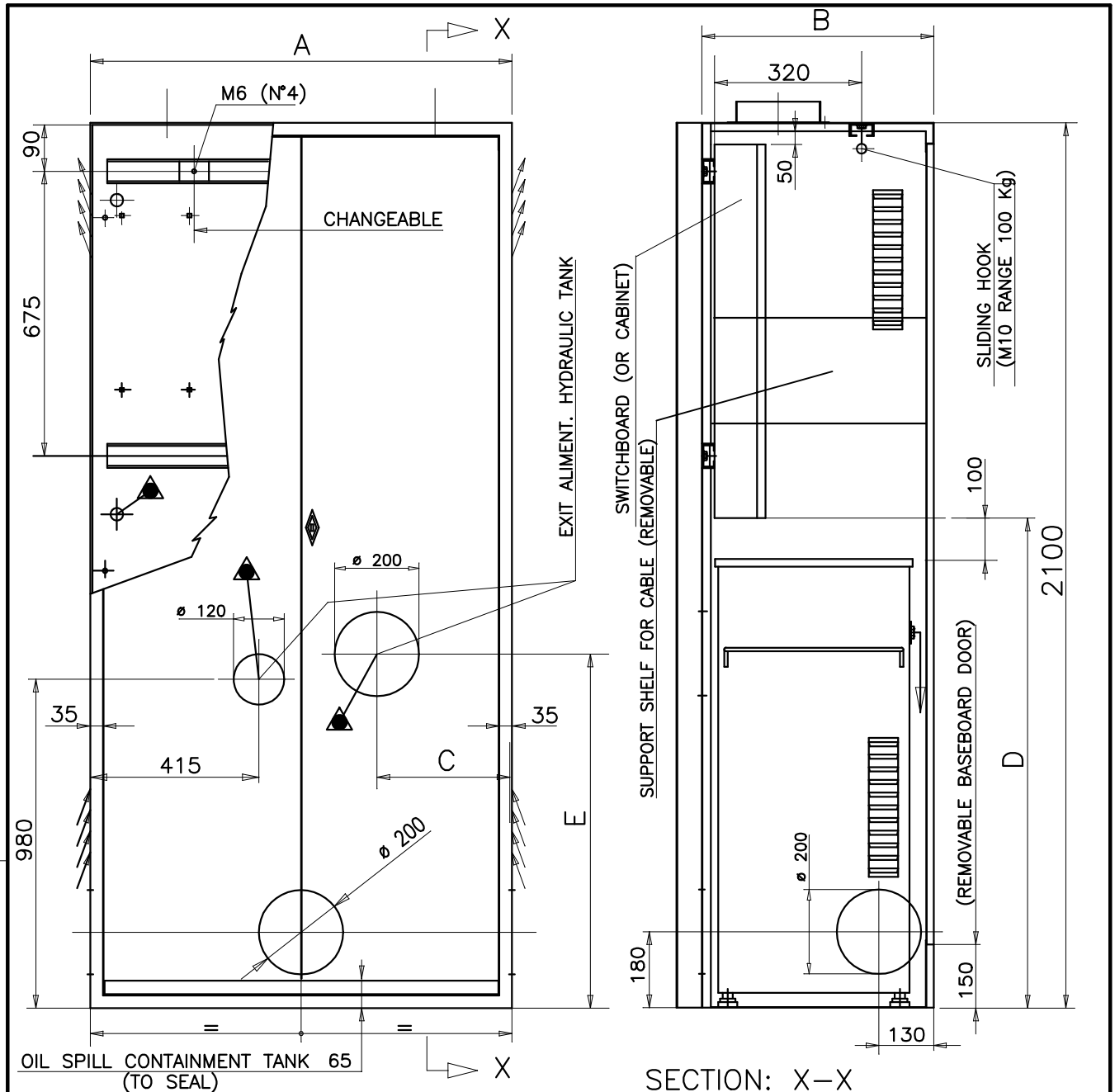
DWG Nr 9680/HL-OIL

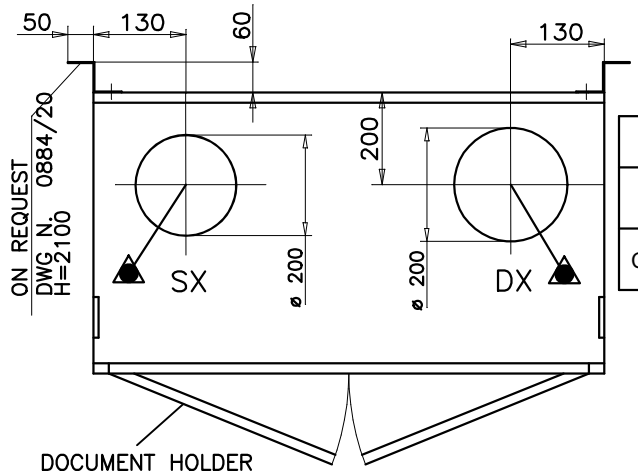


NOTE:

- ⬡ – PRE-CUT OPENING FOR WIRING ACCESS
- ⬢ – PRE-CUT OPENING FOR OUTLET PIPING OIL
- 1 – OUTLET PIPING OIL FOR: HL/OIL-265-2V-AR
- 2 – OUTLET PIPING OIL FOR: HL/OIL-265-AR
- ✳ – ON REQUEST: C = 230

TANK MODEL	A	B	C	NET WEIGHT Kg	CODE
HL/OIL-265-AR HL/OIL-265-2V-AR	770	400	REF. NOTE ✳	41	0947/HL-OIL





P. UNIT MODEL	A	B	C	D	E	MASS Kg	FIGURE N°
HL320/R	800	400	253	1200	1140	65	0884/CM3/R–...
CM320/R MARK2							

NOTE:

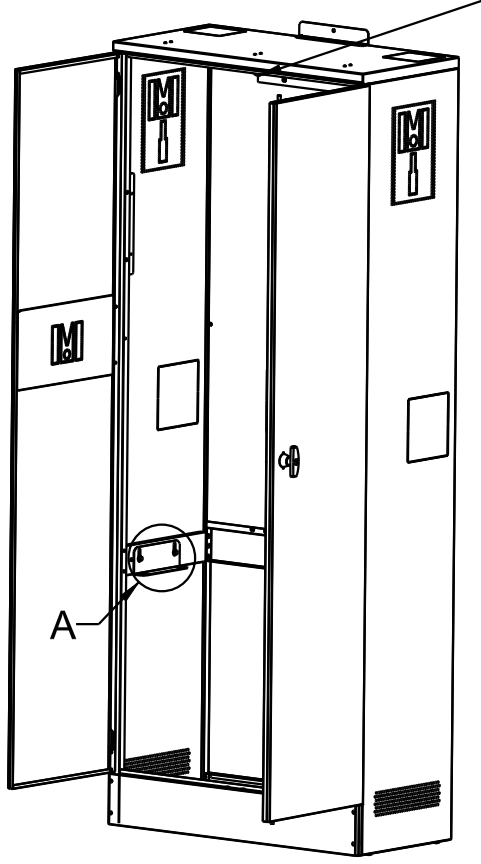
▲ – PRE–CUT OPENING FOR WIRING AND PIPING ACCESS

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				DWG N. 9680/2A1

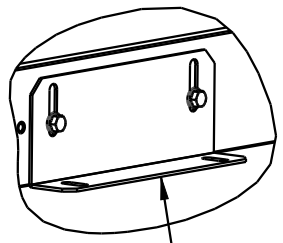
rev.	Date Data	Change description Descrizione della modifica
01	27/10/22	aggiornata quota

GANCIO SCORREVOLE
(M10 PORTATA 100 Kg)

MOVABLE HOISTING RING
(MAX LOAD 100 Kg)



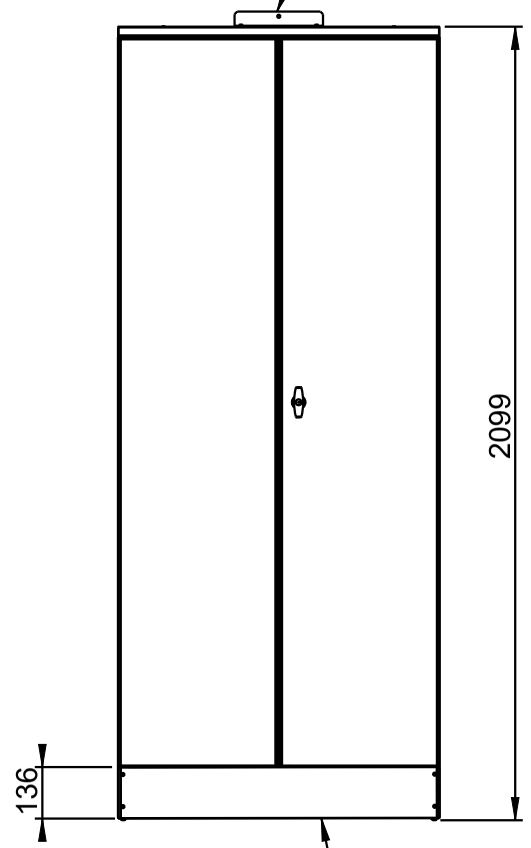
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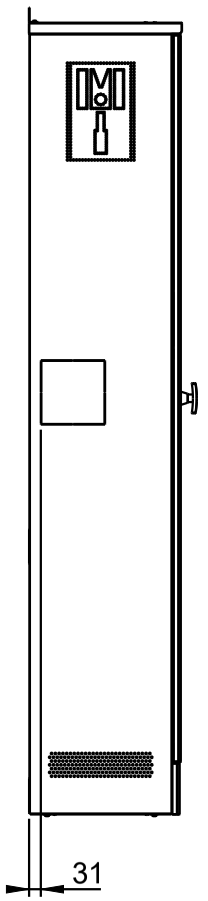


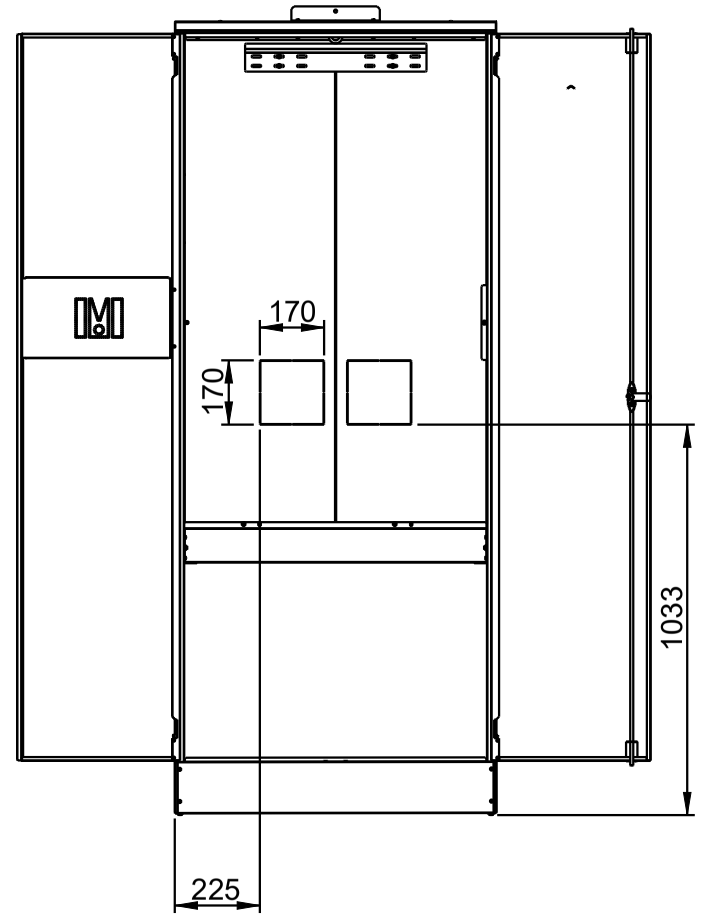
PIASTRA DI COLLEGAMENTO
VASCA DI CONTENIMENTO
PER CENTRALINA CM320-R MARK2

AUXILIARY TANK FIXING BRACKET
TO CM320-R MARK2 POWER UNIT

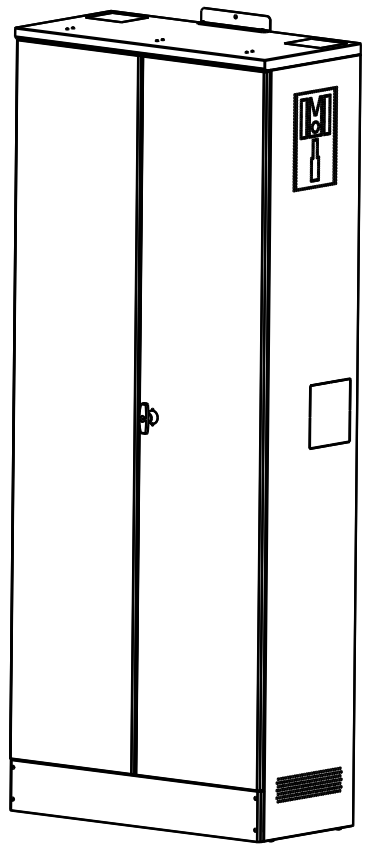
FISSAGGIO A MURO
WALL FIXING

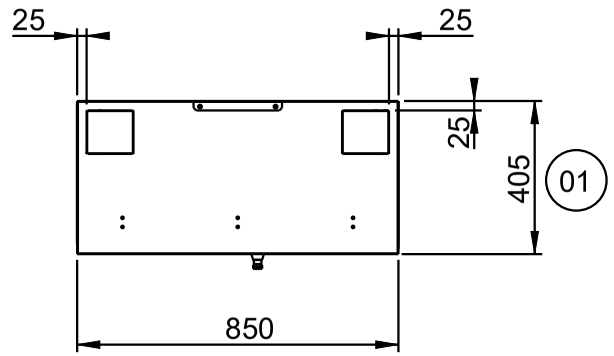






ZOCCOLINO AMOVIBILE
REMOVABLE SKIRTING





PESO TEORICO NETTO 52 Kg.
NET WEIGHT 52 Kg.

DIMENSIONI IMBALLO (LPA in mm)
2130 x 590 x 200 (330 con bancale)
PACKAGE DIMENSIONS (LWA, mm)
2130 x 590 x 200 (330 with pallet)

PER VASCA CONTENIMENTO OLIO (EN 81.20 VEDERE TAV. 9291 CAP.2)
L'ARMADIO NON PUO' ESSERE UTILIZZATO SENZA VASCA
SPECIFIC FOR AUXILIARY (EN 81.20 OIL RECOVERY TANK (SEE DRAWING 9291 CAP.2)
THIS CABINET CANNOT BE USED WITHOUT EN 81.20 AUXILIARY TANK

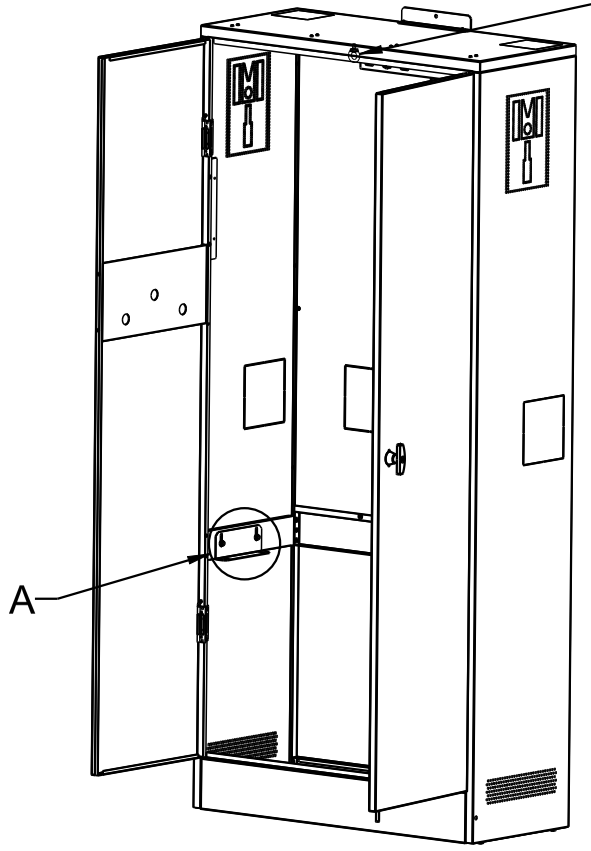
MORIS

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firma:	Mazzocchi	SA	

MORIS s.r.l. SI RISERVA A TERMINE DI LEGGE LA PROPRIETA' DEL PRESENTE DISEGNO CON DIVIETO DI RIPRODURLO E COMUNICARLO A TERZI SENZA SUA AUTORIZZAZIONE

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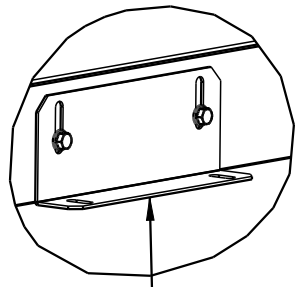
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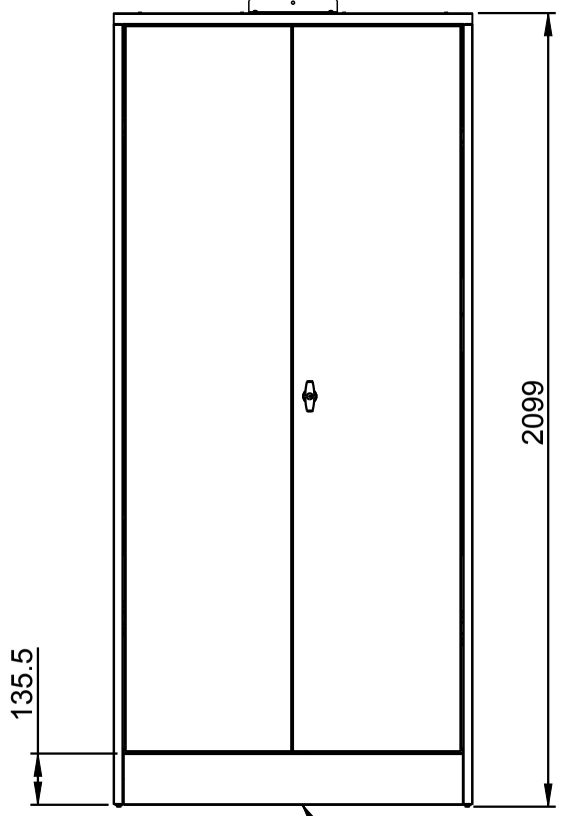


GANCIO SCORREVOLE
(M10 PORTATA 100 Kg)

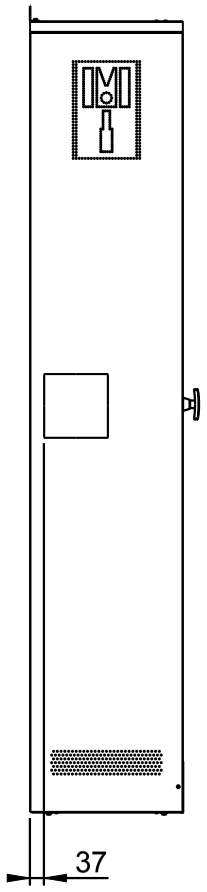
MOVABLE HOISTING RING
(MAX LOAD 100 Kg)

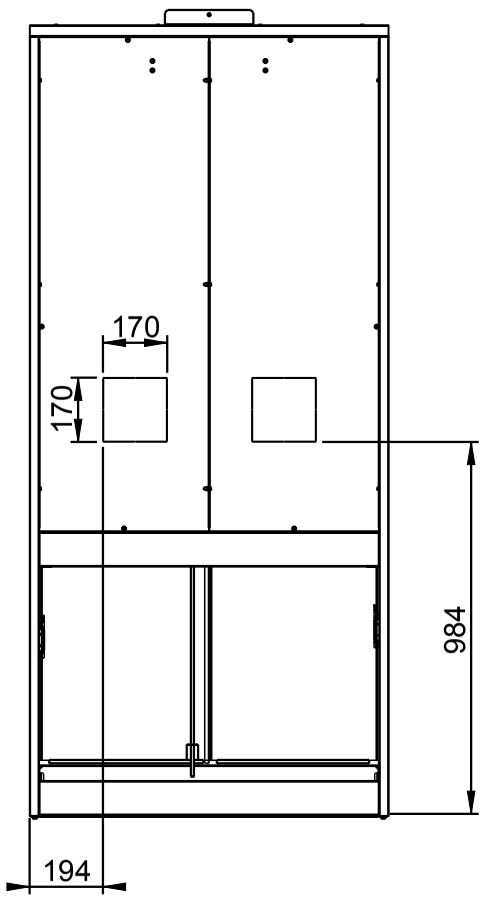
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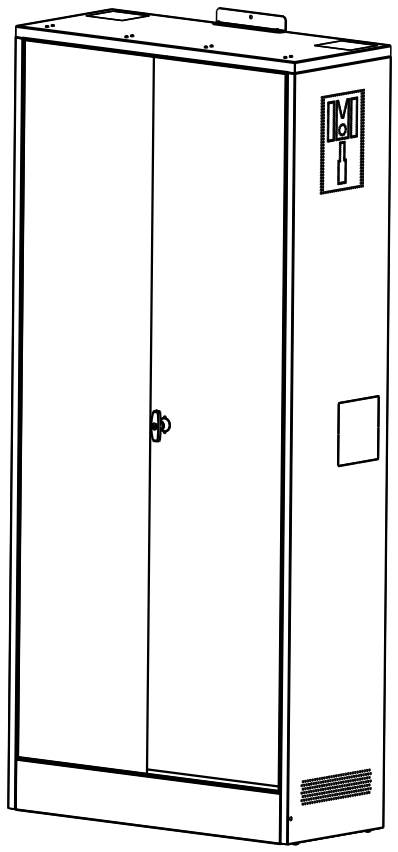




FISSAGGIO A MURO
WALL FIXING



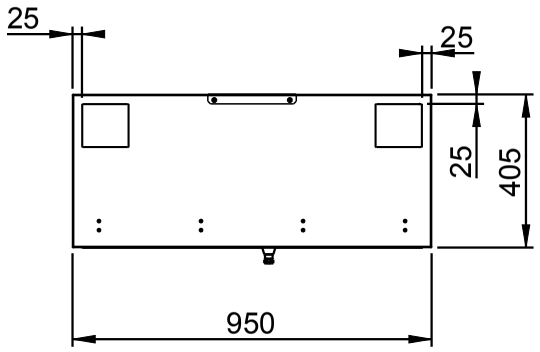




PIASTRA DI COLLEGAMENTO
VASCA DI CONTENIMENTO
PER CENTRALINA CM320 MARK2

AUXILIARY TANK FIXING BRACKET
TO CM320 MARK2 POWER UNIT

ZOCCOLINO AMOVIBILE
REMOVABLE SKIRTING



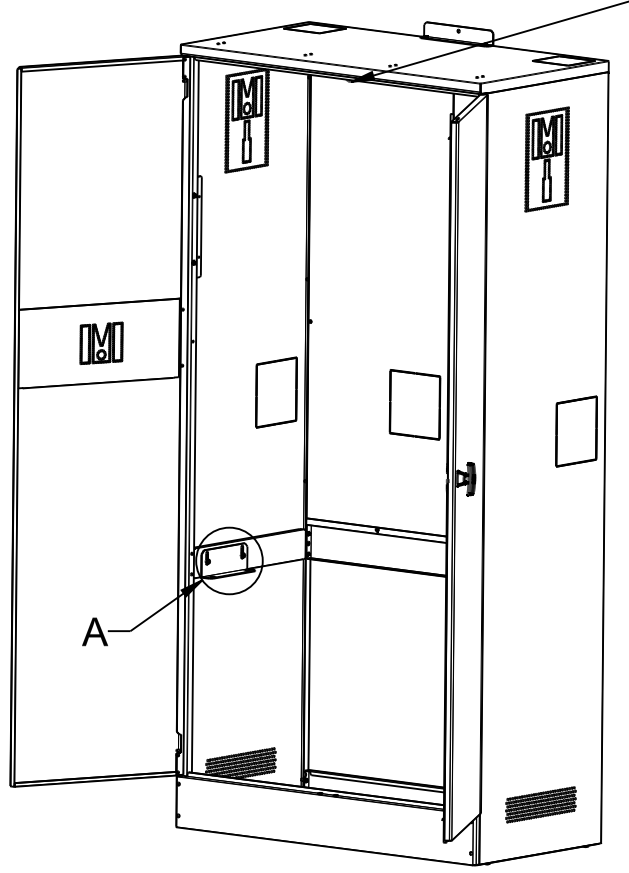
PESO TEORICO NETTO 55 Kg.
NET WEIGHT 55 Kg.

DIMENSIONI IMBALLO (LPA in mm)
2130 x 590 x 200 (330 con bancale)
PACKAGE DIMENSIONS (LWA, mm)
2130 x 590 x 200 (330 with pallet)

PER VASCA CONTENIMENTO OLIO (EN 81.20 VEDERE TAV. 9291 CAP.2)
L'ARMADIO NON PUO' ESSERE UTILIZZATO SENZA VASCA
SPECIFIC FOR AUXILIARY (EN 81.20 OIL RECOVERY TANK (SEE DRAWING 9291 CAP.2)
THIS CABINET CANNOT BE USED WITHOUT EN 81.20 AUXILIARY TANK

MORIS		disegnato:	controllato:	descrizione:				
	data:	24/11/17	18/04/18	ARMADIO CM320 MARK 2 *CM320 MARK 2 CABINET*				
	firma:	Mazzocchi	Costantini					
MORIS s.r.l. SI RISERVA A TERMINE DI LEGGE LA PROPRIETA' DEL PRESENTE DISEGNO CON DIVIETO DI RIPRODURLO E COMUNICARLO A TERZI SENZA SUA AUTORIZZAZIONE		scala:	euro	foglio: 1	codice:		rev.:	
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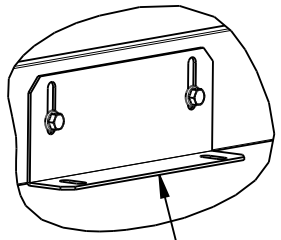
rev.	Date / Data	Change description / Descrizione della modifica
A01	25/01/18	inserita descrizione in Inglese



GANCIO SCORREVOLE
(M10 PORTATA 100 Kg)

MOVABLE HOISTING RING
(MAX LOAD 100 Kg)

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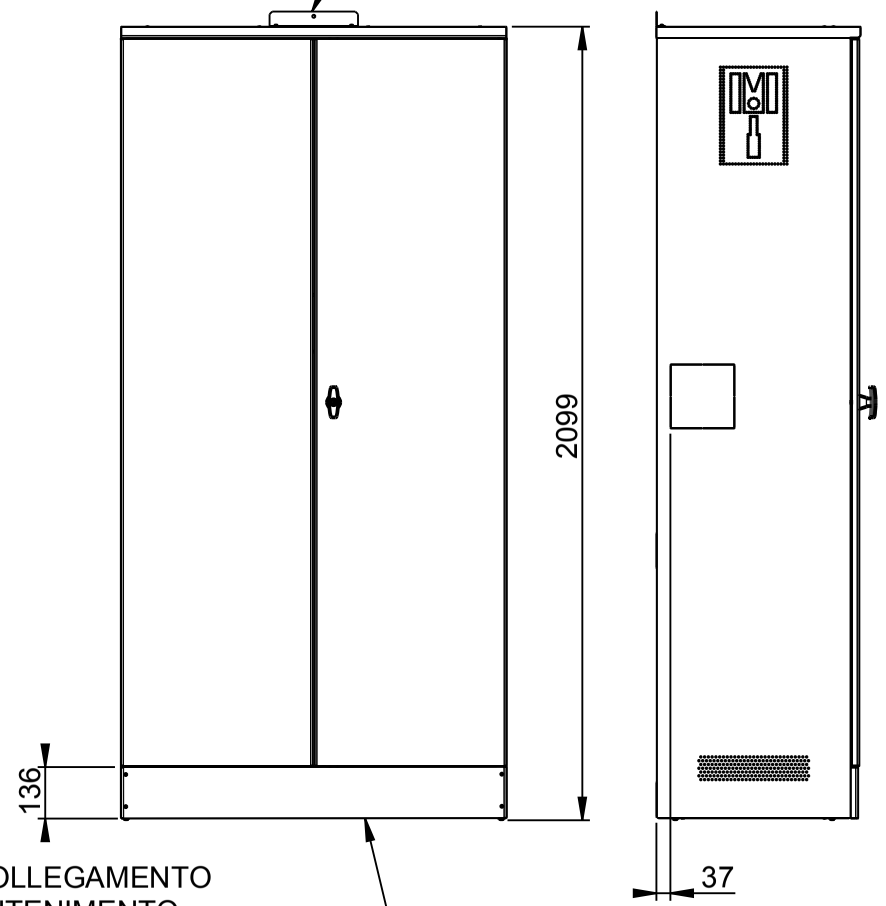


PIASTRA DI COLLEGAMENTO
VASCA DI CONTENIMENTO
PER CENTRALINA CM MARK2

AUXILIARY TANK FIXING BRACKET
TO CM MARK2 POWER UNIT

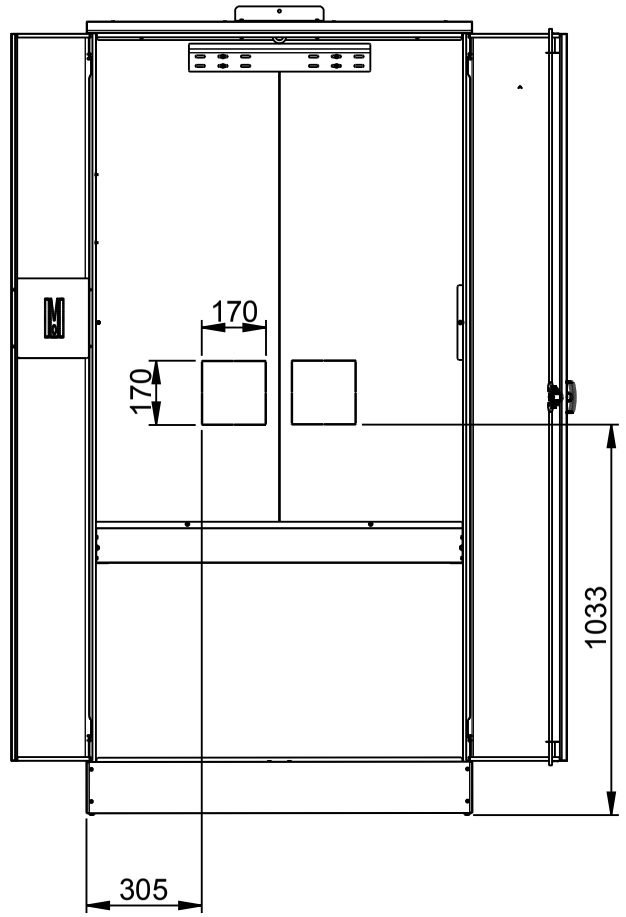
FISSAGGIO A MURO

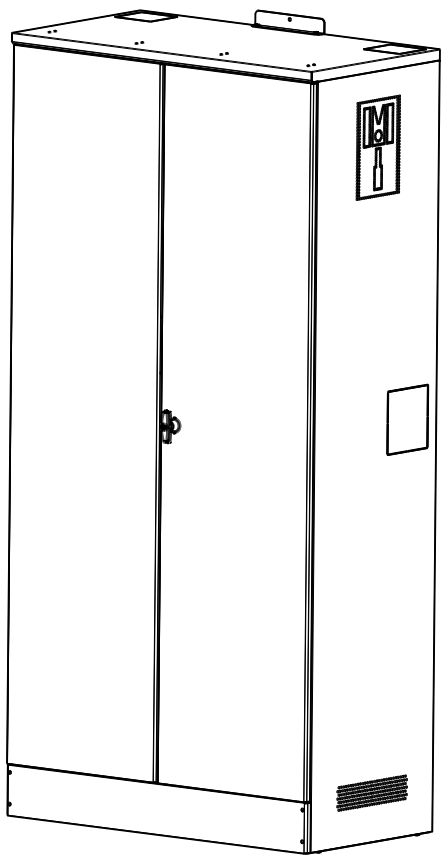
WALL FIXING

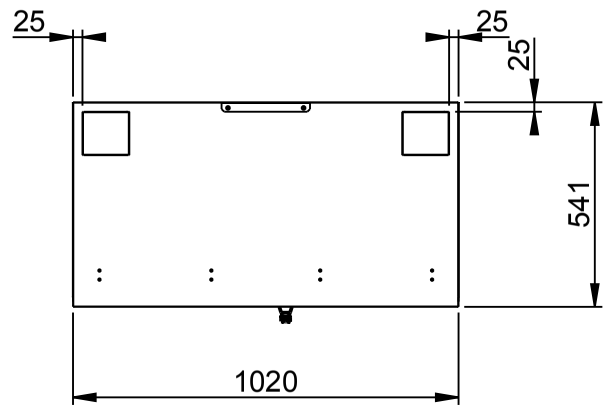


ZOCCOLINO AMOVIBILE

REMOVABLE SKIRTING







PESO TEORICO NETTO 64 Kg.
NET WEIGHT 64 Kg.

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2130 x 590 x 200 (330 con bancale)
PACKAGE DIMENSIONS (LWA, mm)
2130 x 590 x 200 (330 with pallet)

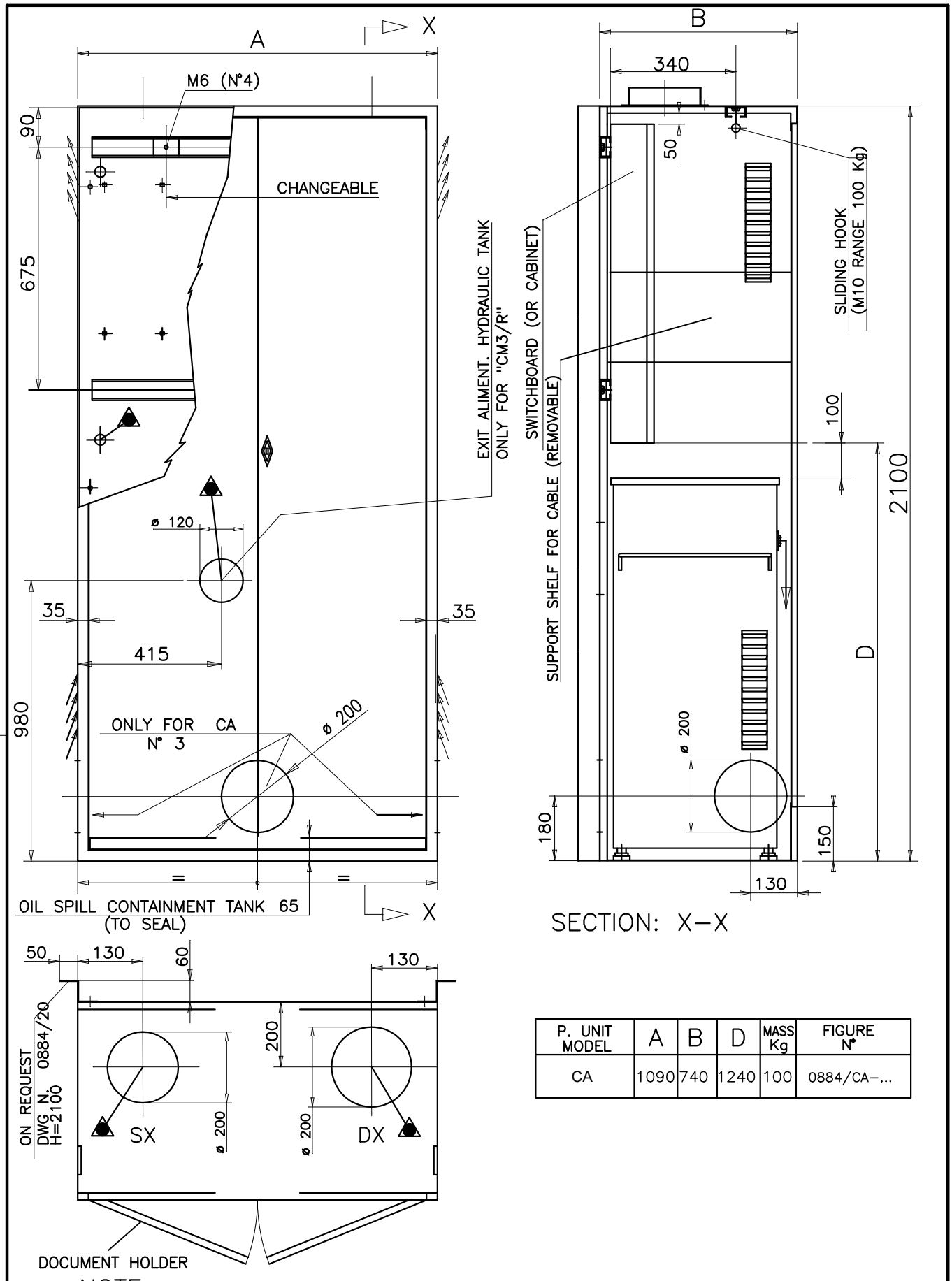
PER VASCA CONTENIMENTO OLIO (EN 81.20 VEDERE TAV. 9291 CAP.2)
L'ARMADIO NON PUO' ESSERE UTILIZZATO SENZA VASCA
SPECIFIC FOR AUXILIARY (EN 81.20 OIL RECOVERY TANK (SEE DRAWING 9291 CAP.2)
THIS CABINET CANNOT BE USED WITHOUT EN 81.20 AUXILIARY TANK

MORIS

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firma:	Mazzocchi	Costantini	

MORIS s.r.l. SI RISERVA A TERMINE DI LEGGE LA PROPRIETA' DEL PRESENTE DISEGNO CON DIVIETO DI RIPRODURLO E COMUNICARLO A TERZI SENZA SUA AUTORIZZAZIONE

scala:	euro	foglio:	codice:	rev.:
1:20	A3	1 di 1	ARM-CMMK2	A01



P. UNIT MODEL	A	B	D	MASS Kg	FIGURE N°
CA	1090	740	1240	100	0884/CA–...

NOTE:

– AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS (EN 81.20) SEE DWG N. 9290 CHAPTER 2

▲ – PRE–CUT OPENING FOR WIRING AND PIPING ACCESS

UT		CABINET ASSEMBLY (DOUBLE DOORS) FOR TANKS: CA	DATE 03/19
			DWG N. 9680/2A2

MANUALE PER MONTAGGIO ARMADI / *ASSEMBLY MANUAL FOR MRL CABINET*:

- **CM320-R-MK2-EN81.20**
- **CM320-MK2-EN81.20**
- **CM-MK2-EN81.20**



CONTENUTO DELLA CONFEZIONE/ *DELIVERY CONTENT:*

- N°1 Parete sinistra / *Left side panel*
- N°1 Parete destra / *Right side panel*
- N°1 Traversa inferiore / *Lower horizontal panel*
- N°1 Traversa mediana / *Middle horizontal panel*
- N°2 Pareti posteriori / *Vertical back side panel sections*
- N°1 Coperchio superiore / *Top horizontal cover*
- N°1 Zoccolo anteriore / *Front Skirting*
- N°2 Ante / Doors
- N°1 Staffa attacco quadro / *Controller fixing bracket*
- N°1 Piastra attacco quadri di sezionamento / *Main switch fixing bracket*
- N°1 Attacco lampada di servizio / *Service light fixing*
- N°1 Confezione minuteria / *Fastening kit:*
  - N°38 Viti testa cilindrica M5x10 con calotta con impronta croce UNI 7687 / *Pan head screws M5x10 with cross recess EN 7045*
  - N°8 Viti testa esagonale M6x16 con flangia DIN 6921 / *Hexagon head bolt M6x16 with flange DIN 6921*
  - N°4 Dadi in gabbia / *Cage nuts*
  - N°2 Chiavi armadio / *Cabinet keys*

ATTREZZI OCCORRENTI / *Needed tools:*

- Cacciavite impronta croce PH2 / *PH2 screwdriver*
- Chiave fissa esagono 10 / *fixed key, size 10*

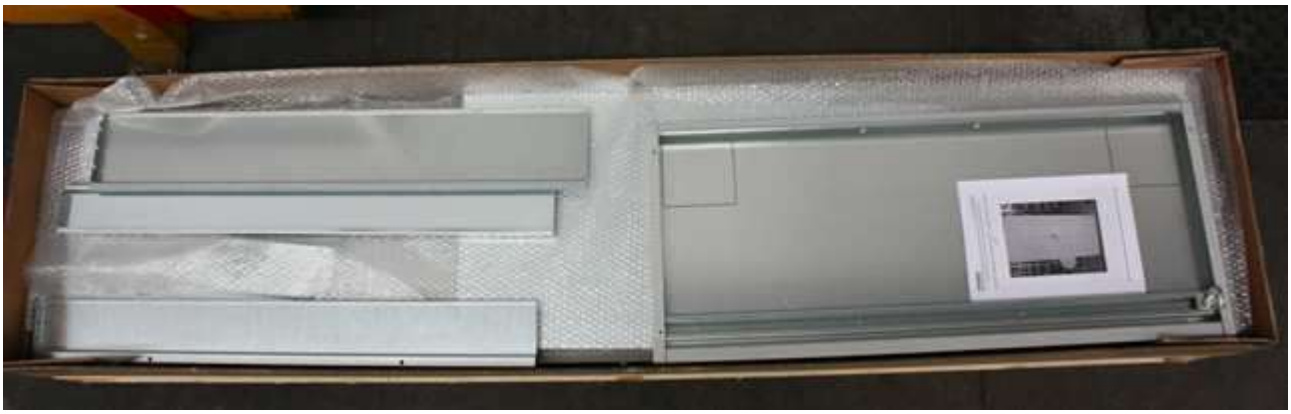


Fig. 1: Confezione/ *Box*

Attenzione : prima di procedere con il montaggio, individuare una zona dove poter posizionare l'armadio, verificare che il pavimento sia livellato. L'armadio andrà inizialmente montato in posizione orizzontale, assicurarsi quindi di avere spazio sufficiente per l'operazione (vedere Fig. 2). Prima di montare ogni componente, rimuovere la pellicola protettiva.

Warning: before starting with assembly, identify an area where to position the cabinet, verify that the floor is leveled. The cabinet will be initially assembled in horizontal position: please verify that you have enough room for the operation (see picture 2). Before assembling every component, remove the protective film.

Fase 1 / Phase 1

Posizionare a terra la parete destra e la parete sinistra, affacciate l'una all'altra (la parte anteriore della parete è caratterizzata dalla presenza di 2 fori filettati nella parte bassa, mentre la parte superiore è caratterizzata dalla presenza del logo MORIS traforato sulla lamiera, vedere fig.2).
Unire le due fiancate laterali con la traversa inferiore, utilizzando n° 4 viti M5x10 (Fig. 3). Montare quindi la traversa mediana utilizzando n°4 viti M5x10 (Fig.4).
Place on the ground the right and left side panels, facing each other (the panel side facing the cabinet doors can be identified easily by the presence of two holes with thread; the panel side facing the cabinet roof can be identified by the MORIS logo puncture on the metal sheets, see picture 2).
Assemble the two side panels with the lower horizontal panel, using 4 screws M5x10 (EN 7045) (picture 3). Then assemble the middle horizontal panel with 4 screws M5x10 (EN 7045) (picture 4).

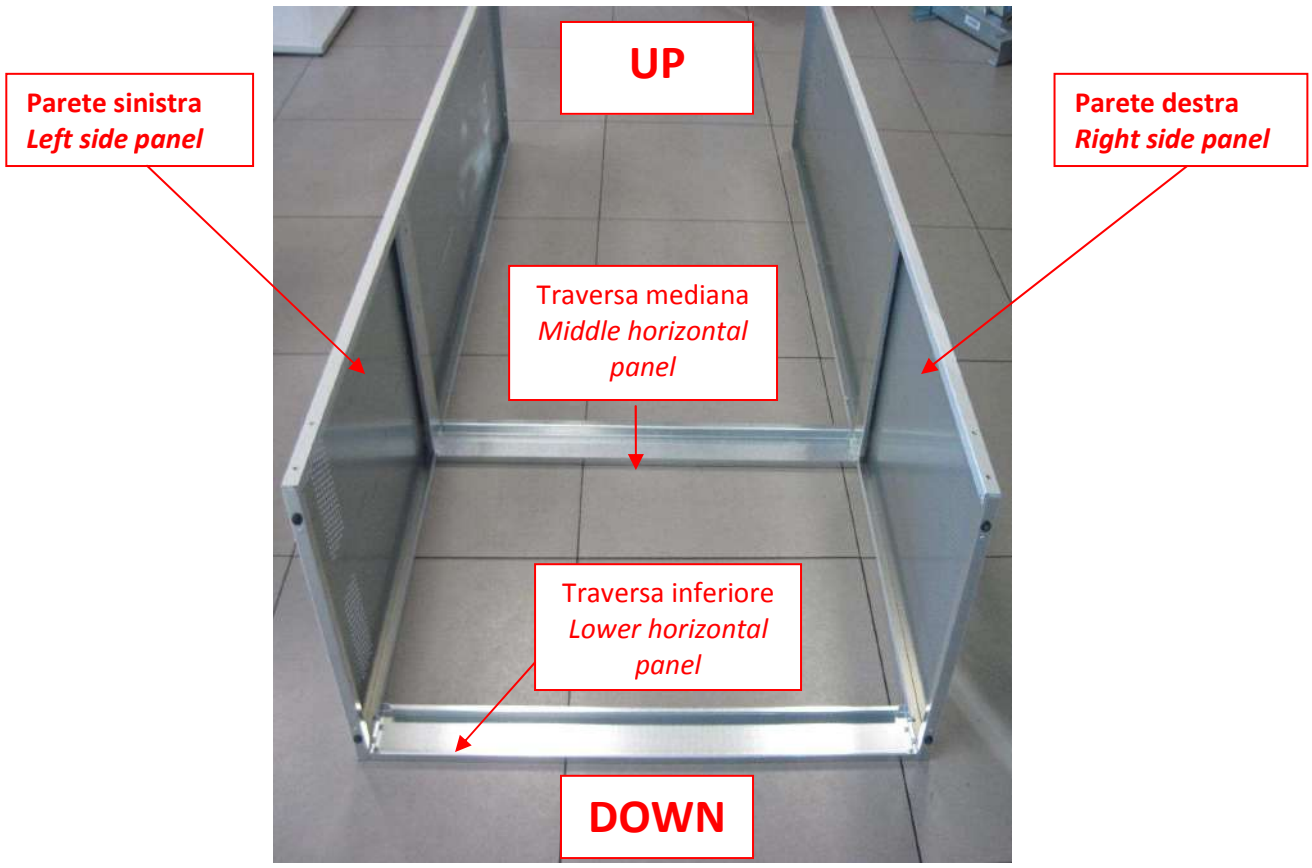


Fig. 2



Fig. 3: traversa inferiore / *lower horizontal panel*



Fig. 4: traversa mediana / *middle horizontal panel*

Fase 2 / Phase 2

Pre-montare separatamente le 2 pareti posteriori mediante n° 3 viti M5x10 (la parte inferiore dei semi-fondi è caratterizzata dalla finestratura pre-tranciate posizionate verso il centro per uscita tubi).

Assemble the 2 vertical back side panel sections, with 3 screws M5x10 (EN 7045) (the bottom side facing the ground is identified by the provisions for the two rectangular openings, for hose routing).

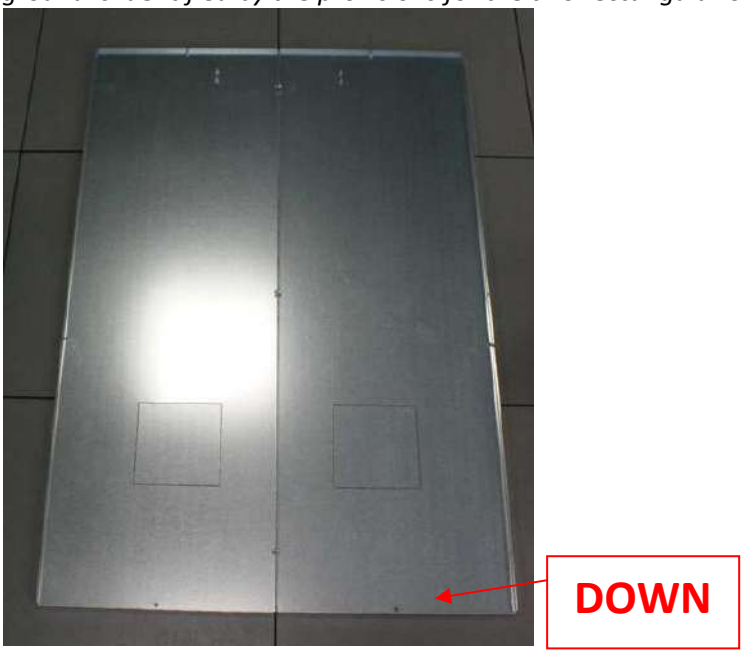


Fig. 5



Fig. 6

Fase 3 / Phase 3

Posizionare la parte posteriore assemblata dell'armadio tra le due pareti laterali, ponendo la parte con le finestrature pre-tranciate verso il basso e mandando in battuta il fondo alla traversa mediana. Le nervature devono rimanere all'esterno dell'armadio. Fissare il fondo al telaio utilizzando n° 2 viti M5x10 (Fig. 8).

Place the assembled back side between the vertical panels, placing the hose opening provisions facing the ground. Align the back side with the middle horizontal panel. The ribs must be in the external position of the cabinet. Fix the back side to the frame using 2 screws M5x10 (EN 7045) (picture 8).



Fig. 7



Fig. 8

Fase 4 / Phase 4

Posizionare il coperchio superiore sopra le pareti laterali ed la parete posteriore appena montato, facendo attenzione che le finestrature pre-tranciate rimangano nella parte posteriore, mentre il gancio deve rimanere nella parte anteriore (Fig.9). Fissare il coperchio superiore alla parete posteriore dell'armadio utilizzando 4 viti M5x10, quindi fissare le pareti laterali al coperchio superiore utilizzando n°4 viti M5x10.

Place the top cover above the side panels and the backside panel, taking care to place the roof opening provisions at the back of the cabinet, while the hook at the front of the cabinet (picture 9). Fix the top cover to the back side panel using 4 screws M5x10 (EN 7045); fix then the lateral side panels to the top cover using 4 screws M5x10 (EN 7045).

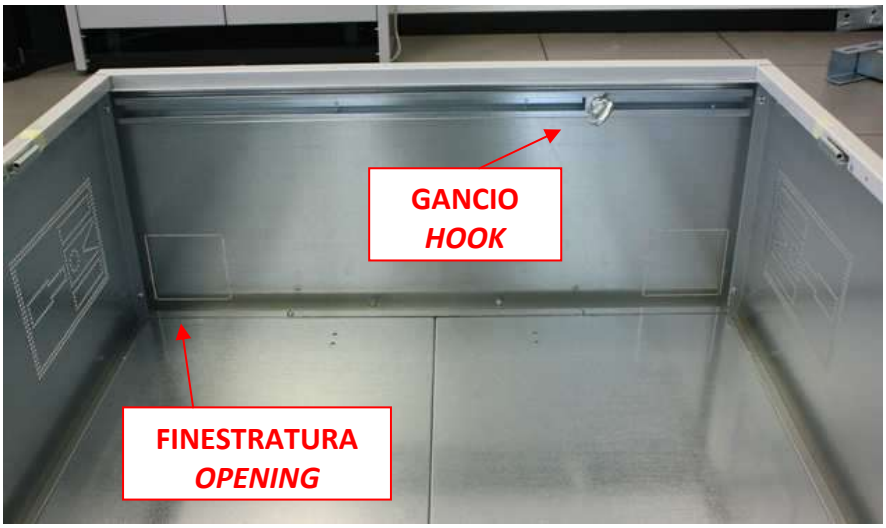


Fig. 9



Fig. 10

Fase 5 (opzionale)/ Phase 5 (optional)

Opzionale: montare la quadretta per fissare l'armadio a muro nella parte superiore dell'armadio, con 2 viti M5x10

Optional: fix the dedicated bracket in the upper part to fix the cabinet at the wall, using 2 screws M5X10 (EN 7045)



Fig. 11

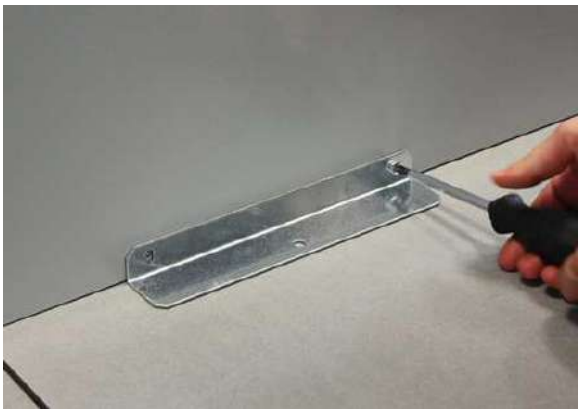


Fig. 12

Fase 6 / Phase 6

Montare supporto quadro elettrico sulla parete posteriore mediante n°4 viti M5x10.

Fix the control panel support bracket to the back side, using 4 screws M5x10 (EN 7045).



Fig. 13

Fase 7 / Phase 7

Sollevare il telaio assemblato e posizionarlo in posizione verticale (Fig. 14). Completare il fissaggio del fondo nella parte posteriore mediante n°6 viti M5x10 (Fig.15). Controllare il serraggio delle viti montate in precedenza.

Move the partially assembled cabinet in vertical position (picture 14) and fix the back side panel with 6 screws M5x10 (EN 7045) (picture 15). Check the tightening of the screws assembled previously.



Fig. 14



Fig. 15

Fase 8 / Phase 8

Montare il supporto quadro di sezionamento con 1 vite M5x10 (fig.16) e 1 vite già in posizione. Montare il supporto luce di ispezione con 2 viti già in posizione (Fig. 17). Il montaggio di questi componenti è possibile su entrambi i lati.

Place the main switch fixing bracket with 1 screw M5x10 (EN 7045) and 1 screw already placed. Place the service light fixing with 2 screws already placed (picture 17). These components can be assembled on the left or on the right (at your convenience) side panels.



Fig. 16



Fig. 17

Fase 9 / Phase 9

Collocare l'armadio nella posizione di montaggio definitivo.
Avvitare le squadrette di fissaggio vasca di contenimento mediante 4 viti TE M6x16.
NB: predisporre le quadrette alla massima quota verticale e tenerle in posizione serrando leggermente le viti.

Place the cabinet in its final position, where it will stay after elevator commissioning.
Fasten the small brackets for power unit fixing with 4 screws M6x16 DIN 6921.
Note! Position these brackets in their topmost regulation, keeping the screws partly tight.



Fig. 18

Fase 10 / Phase 10

Inserire la centralina all'interno della vasca, montare i piedini antivibranti sul fondo della vasca e montare 2 o 4 dadi a gabbia, secondo le esigenze. Regolare gli antivibranti affinché la vasca sia più bassa possibile.

Place the power unit inside the auxiliary tank, fix the vibration rubber feet on the bottom of the tank and fix 2 or 4 cage nuts on the tank, at your convenience. Regulate the vibration rubber feet in order to reduce the total height as much as possible.



Fig. 19



Fig. 20

Fase 11 / Phase 11

Posizionare la vasca con la centralina CM-MK2 (precedentemente inserita nel cassone di contenimento) all'interno dell'armadio.
NB: la regolazione dei piedini della vasca di contenimento effettuata nella fase 10 deve fare in modo che i bordi della vasca di contenimento risultino più bassi delle squadrette di fissaggio (Fig. 22).

Place the auxiliary tank with power unit CM Mark 2 (previously positioned in its auxiliary tank!) inside the cabinet.
The rubber feet regulation, performed in phase 11, must ensure that the auxiliary tank top sides will be lower than the aforementioned small fixing bracket (Picture 22).



Fig. 21



Fig. 22

Fase 12 / Phase 12

Premontare n°4 viti M5X10 nei fori frontali delle 2 fiancate facendo attenzione a non serrare completamente le viti ma lasciando 3-4mm di aria fra la testa della vite e la fiancata. Posizionare lo zoccolino anteriore inserendo la testa delle viti nelle cave e poi premendo lo zoccolino verso il basso (Fig. 23). Quindi bloccare lo zoccolino serrando le 4 viti frontali (Fig. 24).

Fix 4 screws M5x10 (EN 7045) in the front holes of the 2 sides, taking care not to tighten the screws completely. Leave 3-4mm of air between the screw head and the side panel. Position the front skirting by inserting the head of the screws into the slots and then pressing the skirting downwards (Fig. 23). Then lock the baseboard by tightening the 4 front screws (Fig. 24).

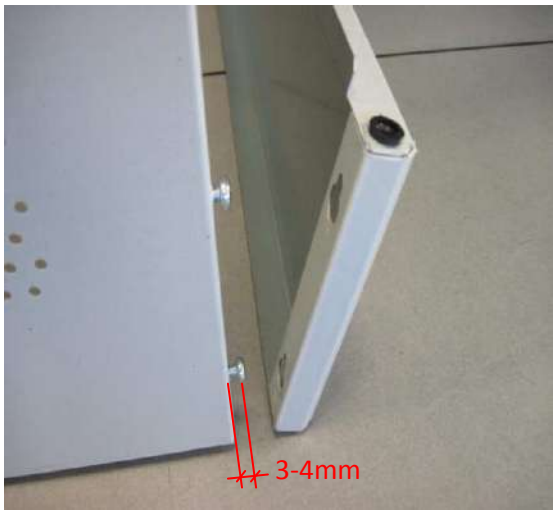


Fig. 23



Fig. 24

Fase 13 / Phase 13

Bloccare la vasca utilizzando n°4 o 8 viti TE M16x6.

Fasten the auxiliary tank to the small fixing brackets using 4 or 8 screws M6x16 DIN 6921.



Fig. 25

Fase 14 / Phase 14

Montare le due ante agendo sui cardini delle cerniere.

Assemble the two doors acting on the hinge of the joints.



Fig. 26



Fig. 27



Fig. 28

MONTAGGIO COMPLETO / *ASSEMBLY COMPLETED*