

**GMV**  
We Know How



# A QUICK GUIDE TO GMV PRODUCTS

Valve Units, Power Units, Jacks, Doors, Car frames, Control Cabinets, Kits



## PRODUCTS ORGANISATION CHART

### VALVE UNIT

Mechanical

3010

Electronic

NGV

### POWER UNITS

DRY

HL DRY

GL DRY

F1 DRY

T2 DRY

MC/MR

HL

GL

F1

T2

T3

T4

MRL

MRL-T

### LANDING DOORS AND OPERATORS

Operators

2AT

2AO

3AT

Landing Doors

2AT

2AO

3AT

### CAR FRAMES

1 jack

2:1 roping

1:1 roping

2 jacks

1:1 and 2:1 roping

### OPTIONALS

Oil cooler

3100 card

Microlevelling

2CH Safety System

Pawl Device

Soft-Stop

### JACKS

1 stage

Traditional

HL 6000

1000

1001

1008

SL (Slim)

1000 SL

1001 SL

1008 SL

Telescopic

Serie 9000

TCS

EC

### CONTROL CABINETS

Easy

400

500

650

Type

A, B, C, D, E, F

### KITS

Easy Kit

Conversion Kit

Kit A2

Modernisation Kit

Optimisation Kit

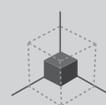
### SYMBOL



Environmentally friendly fluid



Silent



Reduced dimensions



Competitive price



Energy Efficiency

NEW

News



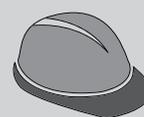
Quick installation



Large loads



Performances



Safety

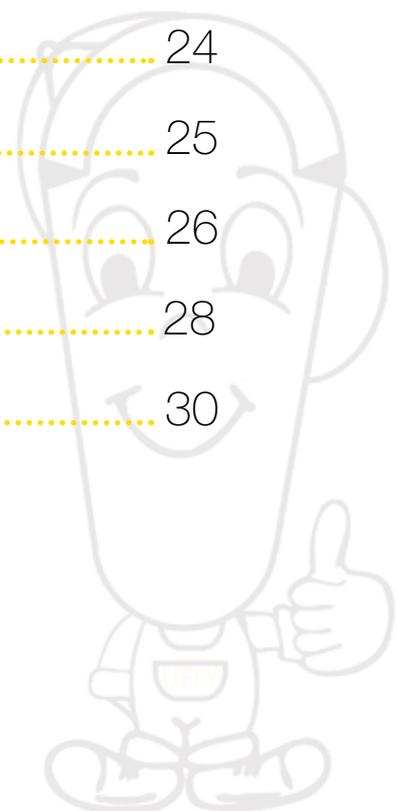


Comfort

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# VALVE UNIT

Fluitronic Components



Model	3010	NGV
Technology	Mechanical	Digital electronic
Symbols		
Safety	2CH system / door lock valve	Integrated double safety A3 certificated
Compliance with the standards	A3 Amendment to 81.2 <sup>(1)</sup> (with door lock valve) Machine Directive 2006/42/CE <sup>(2)</sup> (with 2CH)	A3 Amendment to EN 81.2 <sup>(1) (2)</sup> " 2006/42/CE Machine Directive" <sup>(3)</sup>
Installations	All	MRL, Public building and private housing
Energy Efficiency		
Environmentally friendly fluid	Yes	Yes
Compatible power units	GL, F1, T2, T3, T4	HL DRY, GL, GL DRY, F1, T2, MRL-T
Inches	1" <sup>(4)</sup> , 1 1/4", 1 1/2", 2"	3/4", 1 1/4"
Max. speed (m/sec)	0,63 or 1 <sup>(5)</sup>	1
Speeds	2	Adjustable
Power (kW)	from 1.5 to 58.8	from 1.5 to 18.4
Max. working pressure (bar)	35 / 45 <sup>(6)</sup>	45
Incorporated components	Pressure switch; Hand pump; Emergency descent push button	Pressure gauge, hand pump, emergency descent push button, double safety system, pressure switches, programming console <sup>(7)</sup>

<sup>(1)</sup> From 01/01/2012 it will be compulsory for every final test to be compliant with the A3 amendment to EN81.2. Each lift installed is required to have a redundant control to prevent any additional movements of the car should a single failure occur.

<sup>(2)</sup> There is no need to modify other components of the installation as the NGV valve is integrated with double safety and is certified to comply with the A3 amendment.

<sup>(3)</sup> From 01/01/2012 the new 2006/42/CE Machine Directive will come into force. Based on the idea that 'one single failure must not cause perilous situations', GMV will provide a double safety closure.

<sup>(4)</sup> Optional fitting of 1" for pump rates under 55L.

<sup>(5)</sup> Max. speed up to 1 m/sec with option 3100.

<sup>(6)</sup> 35 bar for passenger transportation and 45 bar for goods-lifts.

<sup>(7)</sup> Included in the price of the first purchase.

**NGV** 

**New electronic valve**

Thanks to new digital technology, GMV has created a new electronic NGV valve; the most advanced system to control the elevator. It allows greater safety and comfort as well as a reduction in consumption and costs.

The NGV valve is certified to comply with the A3 Amendment; with integrated double closure there is with no need to modify other components of the lift installation.

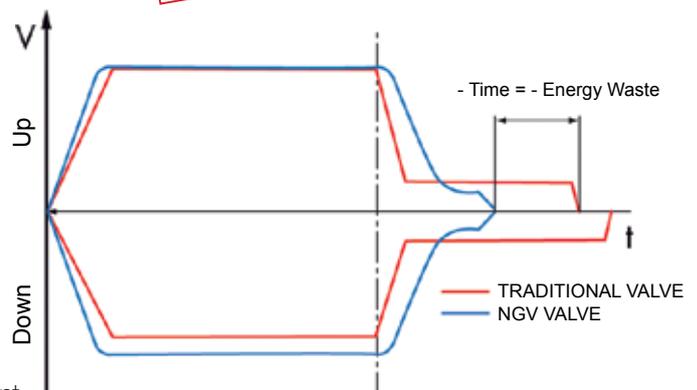
**The main advantages of the NGV valve**

- Speed up to 1m/sec with no need for any extra equipment.
- Power installed reduction up to 35%(\*).
- Consumption reduction up to 25%(\*).
- Travel time reduction.
- Double safety system: locking and control of the VRP position.
- Higher, easier adjustment thanks to the programming console.
- No need for an oil cooler
- Adjustable maintenance speed
- Compatible with MRL installations.
- Suitable for the use of environmentally friendly fluid.

(\* ) In optimal conditions and in combination with other GMV components.



Certified  
EN 81.2 - A3



**FLUITRONIC**



**The technology evolution**

Fluitronic is the combination of electronic technology and ecology with the use of the biodegradable fluid. With Fluitronic products, higher energy efficiency is obtained by reducing the installed power of hydraulic equipment (up to 35%) and extending the life of the components.

# POWER UNITS “DRY”

Fluitronic Components

NEW



Model	HL DRY	GL DRY	F1 DRY	T2 DRY	MRL-T DRY
Symbols					
Installations	Residential and commercial buildings				
Suitable for environmentally friendly fluid	Yes	Yes	Yes	Yes	Yes
Compatible control cabinet	EASY 400 or TYPE E	Without cabinet	TYPE A or TYPE B	TYPE F	-
Compatible valve unit	NGV	3010 and NGV	3010 and NGV	3010 and NGV	3010 and NGV
Fitting to the valve unit (inches)	3/4"	1" <sup>(1)</sup> , 1 1/4"	1", 1 1/4"	1", 1 1/4"	1 1/4"
Stroke (stops)	from 2 to 5	from 2 to 8			
Traffic (starts per hour)	25	25 - 35	25 - 35	25 - 35	25 - 35
Pump rate (l/min)	from 8 to 23	from 55 to 150			
Useful fluid volume (l)	Max. 35	Max. 75	Max. 90	Max. 150	Max. 75
Min. fluid volume (l)	10		20	50	30

<sup>(1)</sup> Optional 1" connector for pump delivery rates under 55L.

# POWER UNITS

Fluitronic Components



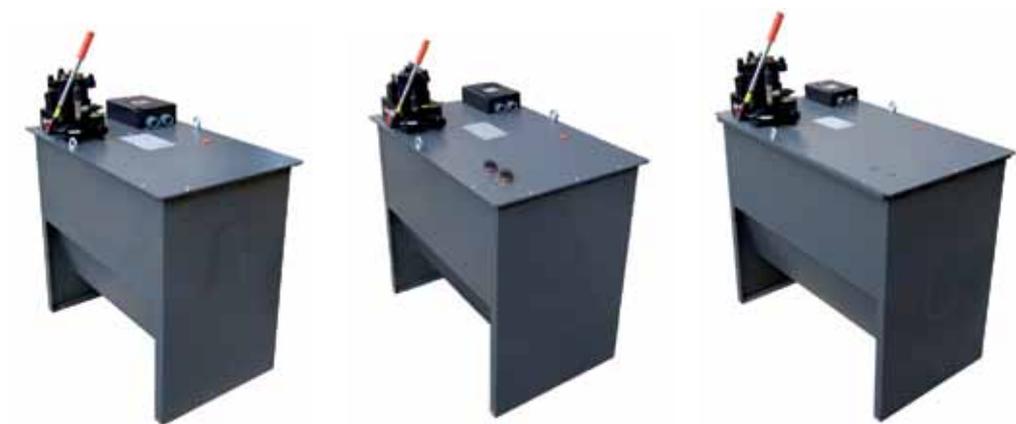
Model	GL	HL	F1	MRL-T
Symbols				
Installations	Residential and commercial buildings			
Suitable for environmentally friendly fluid	Yes	Yes	Yes	Yes
Compatible control cabinet	EASY 500, TYPE C or D	EASY 400, TYPE E	EASY 500, TYPE A or TYPE B	No (in the pit)
Compatible valve unit	3010 and NGV	3010 and NGV	3010 and NGV	3010 and NGV
Fitting to the valve unit (inches)	1" <sup>(1)</sup> , 1 1/4"	3/4"	1" <sup>(1)</sup> , 1 1/4"	1" <sup>(1)</sup> , 1 1/4"
Stops	from 2 to 8	from 2 to 5	from 2 to 8	from 2 to 8
Traffic (starts per hour)	25 - 35	25	30 - 45	30 - 45
Pump delivery rate (l/min)	from 25 to 180	from 8 to 23	from 25 to 210	from 55 to 210
Useful fluid volume (l)	Max. 75	Max. 20 <sup>(2)</sup> /40	Max. 90	Max. 75
Min. fluid volume (l)	45	28	40	50

<sup>(1)</sup> Optional 1" connection for pump delivery under 55L.

<sup>(2)</sup> With the NGV Valve Unit: useful fluid volume 20L.

# POWER UNITS

Fluitronic Components



Model	T2	T3	T4
Symbology			
Installations	Residential and commercial buildings	Special installations	Special installations
Environment-friendly fluid	Yes	Yes	Yes
Compatible control cabinet	EASY 650 or TIPO F	Without cabinet	Without cabinet
Compatible valve unit	3010 and NGV	3010	3010
Fitting to the valve unit (inches)	1 1/4"	1 1/2"	2"
Stops	from 2 to 8	from 2 to 8	from 2 to 8
Traffic (starts per hour)	40 - 50	more than 50 <sup>(1)</sup>	more than 50 <sup>(1)</sup>
Pump delivery rate (l/min)	from 52 to 216	from 180 to 432	from 432 to 600
Useful fluid volume (l)	Max. 150	Max. 300	Max. 400
Min. fluid volume (l)	70	100	250

<sup>(1)</sup> Depending upon the load.

## Power units DRY



The main advantage of the external motor is the cost reduction in all aspects.

1. Competitive price
2. Compatible with the new NGV valve (certified to comply with the A3 Amendment to EN 81.2)
3. Up to 25% reduction of energy consumption on general usage (up to 35% saving on installation usage) with the help of other GMV components
4. Accurate in floor levelling (thanks to NGV valve) in compliance with Standard 81.70.
5. Lower volume of fluid (about 30 kg)
6. Oil heaters not required
7. Excellent ride and performance quality
8. Designed to be cost effective
9. Reduces the need for an oil cooler



# DRY

Photo: Control unit GL DRY with NGV valve

## MRL-T solution



### The new Fluitronic control unit

This power unit is specifically designed for MRL installations (Machine Room Less) in compliance with standard EN 81.2, and is located in the elevator pit.

This enables:

- The power unit to be installed in the pit, meaning that no additional space is occupied elsewhere.
- Low noise level due to the machine location.
- Easy access to the pit for maintenance.
- Standard adjustments from the outside through the programming console.
- Emergency control outside the shaft.
- Compatible with the new NGV valve unit (certified to comply with A3 Amendment to EN 81.2 standard)
- Suitable for the use of environmentally friendly fluid.



Photo: Control unit MRL-T

# FEATURES

## 2CH safety system in compliance with the A3 Amendment to EN 81.2 standards



Further comfort when traveling downwards.  
Remarkable increase in the life of the motor.  
Compliant with the new Machine Directive, thanks to the double safety closure and to the A3 Amendment to EN 81.2 standard.  
Ideal for new installation or modernisations.  
Monitoring of the valve block control signals to implement the downward control of the lift.

Quick and easy installation; can be modified to fit the electrovalve VMP/2CH and 3010.

<sup>(1)</sup> For further information contact GMV main office.



Photo: System 2CH

## Soft-Stop



It consists of a modified VB latch mechanism located inside the valve unit and a modified VMP electrovalve with double hydraulic circuit, which enables to adjust the stop, thus providing a higher level of comfort to the users (softer stop).

To ensure its correct operation the controller must be adjusted. Recommended for hotels, high standard buildings and hospitals (stretcher lifts). Highest comfort.



Photo: Soft-Stop

## Oil cooler



Performance will not be effected by very intensive usage.  
Increased number of starts per hour.  
Available with single-phase and three-phase motor at different voltages.  
Available models: NEG 3, NEG 6, NEG 14.  
Recommended for public buildings, factories and hospitals.

### Technical features

- Rated refrigeration power: from 3,49 to 16,28 kW
- Pump delivery rate: from 25 to 66 l/min
- Motor power: 0,75 kW
- Motor speed: from 1450 to 3250 rpm
- Average noise level: from 67 to 71 dB
- Working temperature range of the oil 20÷70 °C
- Max operational pressure: 4 / 0,4 bar/MPa
- Overpressure valve adjustment: 6 / 0,6 bar/MPa
- Max. depression, suction: -0,4 bar



Photo: Refrigerator

## 3100 card



Reduces travel time, increases traffic capacity of the power unit and gives an efficient ride quality.  
 It is possible to reach 1 m/s with the 3010 mechanical valve group.  
 Allows increase in the number of travels/hour with the same travel times.  
 Easy adjustment with the programming pad.  
 It constantly monitors the oil temperature and regulates valves to maintain the ride quality.  
 The acceleration ramp is not altered.  
 The control board can be directly installed on the power unit (recommended) or into the control panel.  
 It consists of an electronic circuit (3100-E2), a pressure transducer (3100 PT), a temperature transducer and a programming unit (3100 PM).  
 Recommended for hotels, factories and public buildings.



Photo: 3100 control card

### Technical features

- Max. static pressure (full load): 45 bar
  - Min. static pressure (empty): 12 bar
  - Oil temperature: 10 - 70°C
- Minimum distance between the stop and deceleration contacts:
- $\leq 0,63 \text{ m/s}$  → 1,10 m
  - $\leq 1 \text{ m/s}$  → 1,60 m

## Auxiliary micro-levelling device



Automatic levelling giving safer access and egress.  
 Greater safety in the load/unload operations.  
 Reduced wear of the main unit.  
 High power reduction (2,9 kW).  
 Minimum power consumption.  
 Recommended for goods-lifts, car-lifts and bed passenger lifts.

### Technical features

- 4-pole three-phase motor – power 4 HP/2,9 kW – voltage 230/400 V AC: 10,9/6,4 A
- Pump delivery rate: 30 l/min (50 Hz), 36 l/min (60 Hz)
- Flexible piping: SAE 100 R1
- Weight of the device: 45 kg
- This device can be exclusively used with valve distributors of the following types:  
 3010EN, 3010/S, 3010/2CH, 3010/2CH/S  
 3100, 3100/S, 3100/2CH, 3100/2CH/S



Photo: Micro-levelling

## COMPATIBLE VALVE UNIT

	Safety System 2CH	Soft-Stop	Oil cooler	3100 card	Micro-levelling
Symbols					
Valve unit 3010	Optional	Optional	Optional	Optional	Optional
Valve unit NGV	Not necessary <sup>(1)</sup>	Incorporated	Optional <sup>(2)</sup>	-	Optional

<sup>(1)</sup> Double closure integrated in the product, with no need for modifications in the controller

<sup>(2)</sup> Less need

# 1-STAGE JACKS

Fluitronic Components



Model	HL 6000	1000	1000 SL (Slim)
Symbols	  	 	  
Roping	2:1 indirect side acting	Direct central acting 1:1	Direct central acting 1:1
Stops	Up to 5	Up to 6	Up to 6
Available in parts	1	1 - 2 - 3	1 - 2 - 3
Diameter (mm)	Up to 75	from 120 to 238	from 60 to 110
Thickness (mm)	Up to 7.5	5, 6, 7.5, 10, 12 and 14	5, 7.5 and 12
Main advantage	Specific for HL and HL DRY control unit	Under ground	Under ground

## Environmentally friendly fluid

### 90% biodegradable <sup>(1)</sup>

The synthetic basis enables greater stability thanks to its high viscosity index versus the conventional oil. Its flash point is higher than 250° C, compared to 216° C of mineral oils. This hydraulic fluid is classified HEES according to the ISO 6743-4 Regulations.

It complies with the Environmental Directive 2006/118/CE

<sup>(1)</sup> Certified in compliance with the CEC L33-A-93 Standard



Photo: Environmentally friendly fluid



1001	1001 SL (Slim)	1008	1008 SL (Slim)
Direct lateral 1:1	Direct lateral 1:1	Indirect 2:1	Indirect 2:1
Up to 2	Up to 2	Up to 8	Up to 8
1 - 2 - 3	1 - 2 - 3	1 - 2 - 3	1 - 2 - 3
from 120 to 150	from 60 to 110	from 120 to 238	from 60 to 110
5, 6, 7.5 and 10	5, 7.5 and 12	5, 6, 7.5, 10, 12 and 14	5, 7.5 and 12
Decreases installation area required for short travel		Extremely versatile	

## SL (SLIM) Jack



### Maximum space optimisation

Main advantages:

- Reduced oil requirements.
- Quick and simple assembly which is due to the design of the cylinder connections.
- Greater compatibility with reduced-size power units.
- Standard products are readily available for dispatch
- Competitive price.



Photo: Piston 1008 SL

# TELESCOPIC JACKS

Fluitronic Components



Model	9100	9101	9110
Symbols			
Synchronisation	Hydraulic	Hydraulic	Hydraulic
Roping	Direct side acting 1:1	Direct side acting 1:1	Direct central acting 1:1
Stops	Up to 6	Up to 6	Up to 6
Available stages	2	3	2
Diameter (mm)	42 - 100	42 - 100	50 - 100
Guide	Included	Included	Included
Main advantage	Design for long travels and panoramic installations.		Design

## Flex piping



Flexible piping in synthetic rubber, coated with one or two layers of high resistance spiral metal meshes, with an external layer of synthetic rubber.

Available lengths: from 1,5m to 25m with increments of 0,5m.

Fittings: steel 9S Mn Pb 28.



Photo: Flex piping

### Technical features

Working temperature: from - 40°C to + 100°C.

Piping dimensions: 3/4" (90°, DN 19), 1" (DN 25), 1" (DN 32), 1" (DN 40), 2" (DN 50).

2" (DN 50) flex piping supplied with two fittings of 2".

Minimum bending ratio: from 160 to 630 mm.

Minimum explosion pressure: from 360 to 400 bar.

Max. working pressure in compliance with standard EN 81.2 - §12.3.2.1: from 45 to 50 bar.



Model	9111	TCS	EC
Symbols			
Synchronisation	Hydraulic	Mechanical	Mechanical
Traction	Direct central 1:1	Direct lateral 1:1	Direct lateral 1:1
Stroke (stops)	Up to 8	Up to 8	Up to 8
Stages availables	3	2 - 3	2 - 3 - 4
Diameter (mm)	42 - 100	60 - 120	60 - 120
Guide	Included	Included	Included
Main advantage	Design	Heavy loads. Suitable for goods and car lifts	

## Rigid piping



The complete connection piping is supplied on the basis of the arrangement of the jack cylinder.  
Rigid piping with fitting and lock ring Series L.  
Developed in 5m sections.

Technical features:

### Rigid piping between the power unit and the pipe bursting

Piping diameter: 35 x 2.5 (Series 35), 42 x 3 (Series 42 L)

### Connection piping between the pipe bursting and the piston

Pipe diameter: 30 x 3 (Series 30 S), 38 x 4 (Series 38 S) and 60 x 5 (Series 60 S)

### Max. working pressure for 1-stage and telescopic pistons with mechanical synchronisation

Series L: from 68 to 71 bar; Series S: from 80 to 95 bar

### Max. working pressure for telescopic jacks with 3-stage hydraulic synchronisation

Series L: from 52 to 54 bar; Series S: from 61 to 73 bar



Photo: Rigid piping

# LANDING DOORS AND OPERATORS



OPERATORS models	2AT	2AO	3AT
Clear width (mm)	500 -1400 <sup>(1)</sup>	500 -1400 <sup>(2)</sup>	600 - 1400
Door sill (mm)	90 - 70	70 - 35	105
Supply (M)	36	36	36

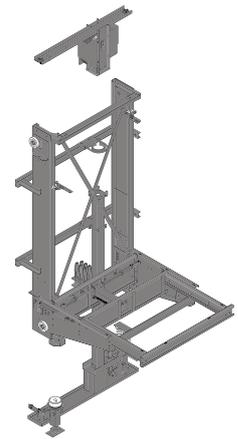


DOORS Model	2AT	2AO	3AT
Clear opening ( mm)	500 -1400 <sup>(1)</sup>	500 -1400 <sup>(2)</sup>	600 - 1400
Door sill (mm)	90 - 70	70 - 35	105
Finishes	. Standard painted steel (polimod) . Scotch brite stainless steel . Anti-vandal stainless steel		
(Fire rated) EN 81.58 <sup>(3)</sup>	E 120 EI 30 - EI 60 - EI 90 - EI 120	-	-
Glazed door panels	Yes	Yes	Yes

<sup>(1)</sup> 500 - 1000 with 70 mm sill  
<sup>(2)</sup> 500 - 900 with 35 mm sill  
<sup>(3)</sup> With 90 mm sill

# CAR FRAMES (1 jack)

2:1 roping



2:1 ROPING	TH: T501, T509	UNION: 3205, 4805, 4805R, 6305, 6305R, 1006	8750, 1520, 2020
Payload (kg)	250 - 480	320 - 1000	1200 - 2000
Cabin weight (kg)	185 - 430	419 - 724	900 - 1300
Frame weight (kg)	90 - 120	125 - 260	400 - 650
Total load (kg)	660 - 1030	930 - 1955	2500 - 3950
Max. speed (m/s)	0,15 - 0,63 <sup>(1)</sup>	0,63 - 1 <sup>(3)</sup>	0,63 - 1 <sup>(3)</sup>
Types of guide	T 82/68/9, T 70/70/9 T 70/65/9, T 89/62/16 T 89/68/9, T 90/75/16 T 125/68/9, T 125/82/16	T 82/68/9, T 89/68/9 T 89/62/16, T 90/75/16 T 125/68/9, T 125/82/16	T 125/82/16 T 127/89/16
N° of ropes/diameter (mm)	2 or 3 ropes Ø 8 - 9	3 or 4 ropes Ø 8 - 11	4 or 6 ropes Ø 13 (except of 2020) <sup>(5)</sup>
Guide shoe type	Sliding shoes <sup>(2)</sup>	Sliding shoes <sup>(4)</sup>	Rollers
Available with jack type:	HL / 1008 SL	1008/1008 SL	1008/1008 SL
Max jack Diameter ( mm)	90 / 185	195	242 / 282
Buffers	Rubber buffers Ø125 x 80	Rubber Buffer Ø125 x 80 Rubber Buffer Ø165 x 80	Rubber buffers / Springs
Minimum pit (mm)	100 / 150	450 / 1100	-
Minimum pit according to EN 81.2	-	1100	-

<sup>(1)</sup> Highest speed: 0.15 m/s for Home lifts and 0,63 m/s for passenger lifts

<sup>(2)</sup> Alternative: on rollers (80 mm diam.)

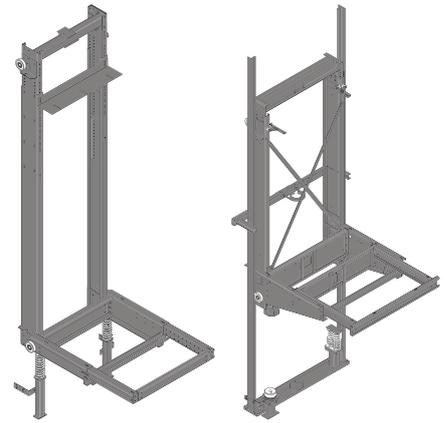
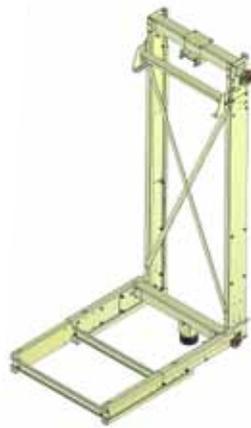
<sup>(3)</sup> With progressive safety device: from v = 0,63 m/s only use gauged or planed guide rails

<sup>(4)</sup> Alternative: rollers 80 mm diam. Or 125 mm diam.

<sup>(5)</sup> 2020 Model: rollers 150 mm diam.

# CAR FRAMES (1 jack)

1:1 Roping



TRACTION 1:1 models	UNION: 4805, 6305, 1006	6200, 6600, 1250, 2020
Payload (kg)	480 - 1000	250 - 480
Cabin weight (kg)	545 - 710	185 - 430
Car frame weight (kg)	145 - 260	90 - 120
Total load (kg)	1170 - 1955	660 - 1030
Max. speed (m/s)	0,63 - 1	0,63 - 1 <sup>(2)</sup>
Types of guide rails	T 82/68/9, T 89/62/16 T 90/75/16, T 125/68/9 T 125/82/16	T 125/82/16 T 127/82/16-14
Guide shoe types	Sliding type <sup>(1)</sup> On rollers 125 mm diameter	On rollers 125 mm diameter On rollers 150 mm diameter
Available with jack type:	1001 / 1001 SL	EC 90 - 4Y / 1001
Max jack diameter (mm)	195	150 / 242 / 272
Buffers	Buffers 125 x 80 diameter	Buffers / Springs
AM (mm)	2565 (min.) / 3895 (max.)	2650 (standard) <sup>(2)</sup> / 3890 (max.)
Minimum pit (mm)	462 / 800	-
Minimum pit according to EN 81.2	1100	-

<sup>(1)</sup> Models 4805 and 6305, alternative rollers 80 mm diameter

<sup>(2)</sup> According to the model

# CAR FRAME (2 & 4 jacks)

1:1 roping



Roping 1:1 models	FLH25, FLH35, FLH35C, FLH40	FLH80
Payload <sup>(1)</sup> (kg)	1500 - 5000	5000 - 10000 <sup>(1)</sup>
Car frame weight (kg)	500	1500
Total load (kg)	Max 10000	Max 18000
Max. speed (m/s)	0,63	0,63
Cabin surface (m2)	10	18
Types of guide rails	T90/B - T125/B - T127/B - T140/B	T90/B - T125/B - T127/B
Guide shoe type	Sliding type	Sliding type
Available with jack type:	1008 / 1008 SL / EC / TCS	1008 / 1008SL / EC / TCS
Max. jack Ø (mm)	All dimensions of EC/TCS, 1001/1008 max 130 mm	All dimensions of EC/TCS, 1001/1008 max 130 mm
Buffers	ACLA 220 x 80 x 2	ACLA 165 x 80 x 4
AM (mm)	Up to 4500 mm (higher in special cases)	Up to 4500 mm (higher in special cases)
Minimum pit (mm)	700 mm	700 mm
Minimum pit according to EN 81.2	1000 mm	1000 mm

<sup>(1)</sup> The payload can exceed 10000Kg under certain circumstances, ask GMV for an offer

## Pawl Device



Safety device stopping the cabin drop during loading and unloading operations

Mechanical system fitted in the car frame and the guide rails

It works like a hydraulic buffer when located in the pit

Available models and installations:

- NS 40/50 for loads up to 4000 kg
- NS 70/100 for loads up to 7000 kg

Ideal for lift installations with big loads: goods-lifts, car-lifts, etc. and with 1:1 roping jacks



Photo: Pawl Device NS 40/50 (on the left), Pawl Device NS 70/100 (on the right)



Model	EASY 400	EASY 500	EASY 650
Symbols			
Compatible power units	HL and HL DRY	F1 and GL	T2
Flexibility	★★★★	★★★★	★★★★
External dimensions (width x depth x height)	700 x 400 x 1500 mm Packaging: 250 x 420 x 1460 mm	962 x 509 x 2160 mm Packaging: 280 x 535 x 2120 mm	1000 x 650 x 2200 mm Packaging: 270 x 670 x 2170 mm
Min. useful dimensions (width x depth x height)	617 x 354 x 1410 mm	Upper portion (electrical): 880 x 470 x 830 mm Lower portion (hydraulic): 880 x 470 x 1280 mm	Upper portion (electrical): 918 x 603 x 857 mm Lower portion (hydraulic): 918 x 603 x 1325 mm
Assembly	15 minutes	15 minutes	20 minutes
Main advantage	Easy assembly of the control panel. Easy handling.	Intermediate support separating the hydraulic components from the electrical ones. Easy assembly of the control panel. Easy handling.	Intermediate support separating the hydraulic components from the electrical ones. Easy assembly of the control panel. Easy handling.



Model	A TYPE	B TYPE	C TYPE
Symbols			
Compatible control units	F1 with drip tray support	F1 with oil tray support	T2
External dimensions (width x depth x height)	950 x 1050 x 2100 mm	950 x 570 x 2100 mm	870 x 400 x 2100 mm
Assembly	To be assembled on site	To be assembled on site	Assembled at the works
Main advantage	Easy assembly. Compliance with the Standard. Certified product	Easy assembly. Compliance with the Standard. Certified product	Manufactured according to the Standard. Easy assembly

# CONTROL CABINETS

Independent Components

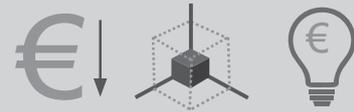


Model	D TYPE	E TYPE	F TYPE
Symbols	 	 	 
Compatible control units	GL	HL and HL DRY	T2
External dimensions (width x depth x height)	780 x 350 x 2060 mm	650 x 350 x 1800 mm	1000 x 650 x 2100 mm
Assembly	Pre-assembled at the factory	Pre-assembled at the factory	Pre-assembled at the factory
Main advantage	Maximum space utilisation: Cabinet mounted above the power unit. Intermediate support which separates the hydraulic components from the electrical ones.	Manufactured according to the Standard. Easy assembly Easy handling. Ideal for the Home Lift.	Manufactured according to the Standard. Easy handling.



**Ideal for:**  
Single-family housing

Lowest consumption and space required (at a competitive price)



### **New power unit HL DRY (with external motor) and NGV valve**

Lower energy consumption, like a household appliance  
Cost are reduced due to the external motor. Fit for short runs.

### **New control cabinet EASY 400, compact sizes at a competitive price**

Ideal for handling: packaging is reduced by 60%  
Versatile and fit for all power units for Home Lifts  
Quick and easy assembly in only 15 minutes

#### **Reduced sizes**

**CONTROL CABINET EASY 400**  
700x400x1500mmm  
(w x d x h)

**POWER UNIT HL DRY**  
570x300x655mm  
(w x d x h)



# EASY KIT

## Easy Kit



Ideal for the replacement of old power units.

The Easy Kit consists of: Dry Power unit GL , NGV valve, interfacing card and environmentally friendly fluid

### Easy Kit main advantages:

- Shorter assembly and adjustment time
- Greater safety thanks to the double closure in compliance with the new Machine Directive 2006/42/CE and the A3 Amendment to EN 81.2 Standard
- Higher floor levelling accuracy in compliance with the 81.70 Standard, thanks to NGV valve
- Lower installed power (up to 35%) <sup>(1)</sup>
- Energy reduction up to 25% <sup>(1)</sup>
- Speed up to 1 m/sec
- Running comfort similar to a VWF traction lift
- Constant and load-independent downward speed
- Adjustable maintenance speed
- Pressure from 15 to 45 bar
- Possibility to use eco-fluid with biodegradability index > 90%. In compliance with the 2006/118/CE Directive on Environment

<sup>(1)</sup> In optimal conditions and in combination with other GMV products



Photo: NGV programming console



Photo: Control unit GL DRY



Photo: NGV valve, digital technology



Photo: Interfacing card



Photo: Environmentally friendly fluid

## Conversion Kit



It converts any mechanical valve unit on the market into NGV (digital technology).

### Conversion Kit main advantages:

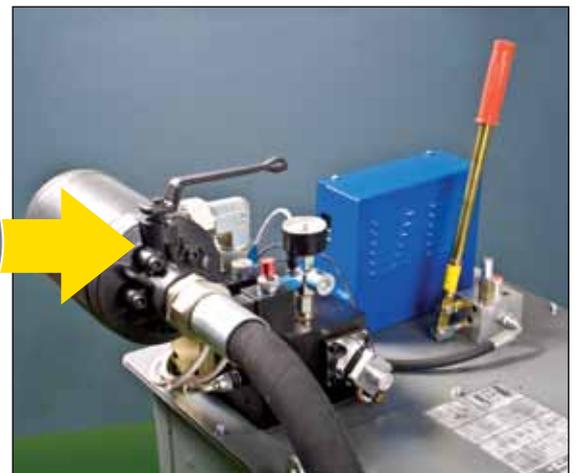
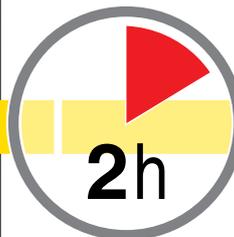
- Kit installation without changing the power unit.
- Kit suitable for all power units up to 210 L/min.
- The programming console provides easy adjustments.
- Better easier adjustment thanks to the programming console.
- Installation in less than 2 hours.
- It includes programmable electronic pressure switch.
- Adjustable regular speed.
- Travel comfort comparable to an VWF traction lift .
- In compliance with Standard 81.2 A2 and A3.
- Integrated double safety system.
- Higher floor levelling accuracy in compliance with Standard 81.70 due to NGV valve.
- Possibility of using environmentally friendly fluid.



Photo: NGV programming console; NGV valve



Control unit with mechanical valve unit.



Control unit with Conversion Kit

# KIT A2

## 2:1 Fluitronic installations

### Kit A2



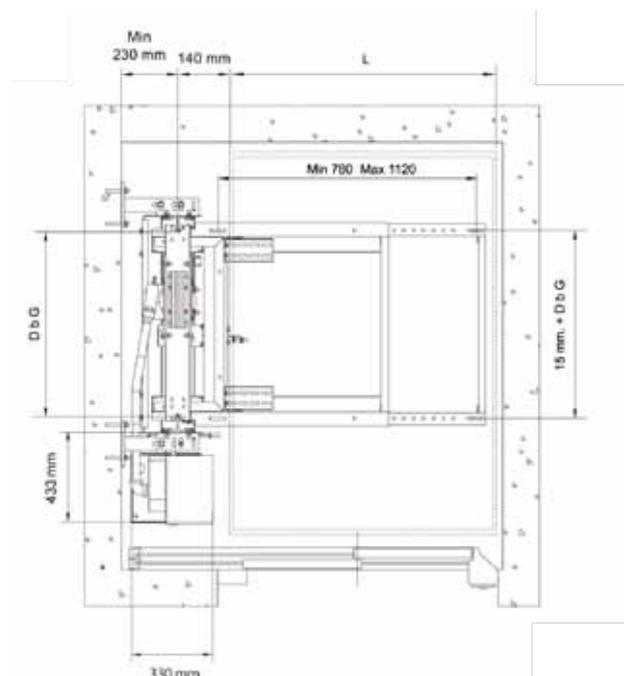
A set of components specifically designed for 2:1 MRL hydraulic lifts (machine room less), in compliance with the standards in force 81.2, A2. Ideal for modernisations.

#### The Kit A2 consists of:

- Fluitronic power unit MRL-T
- NGV/3010 electronic valve unit
- 1008 SL jacks
- UNION 2:1 car frame
- Mechanical device for the lower clamping of the cabin (LCSMD)

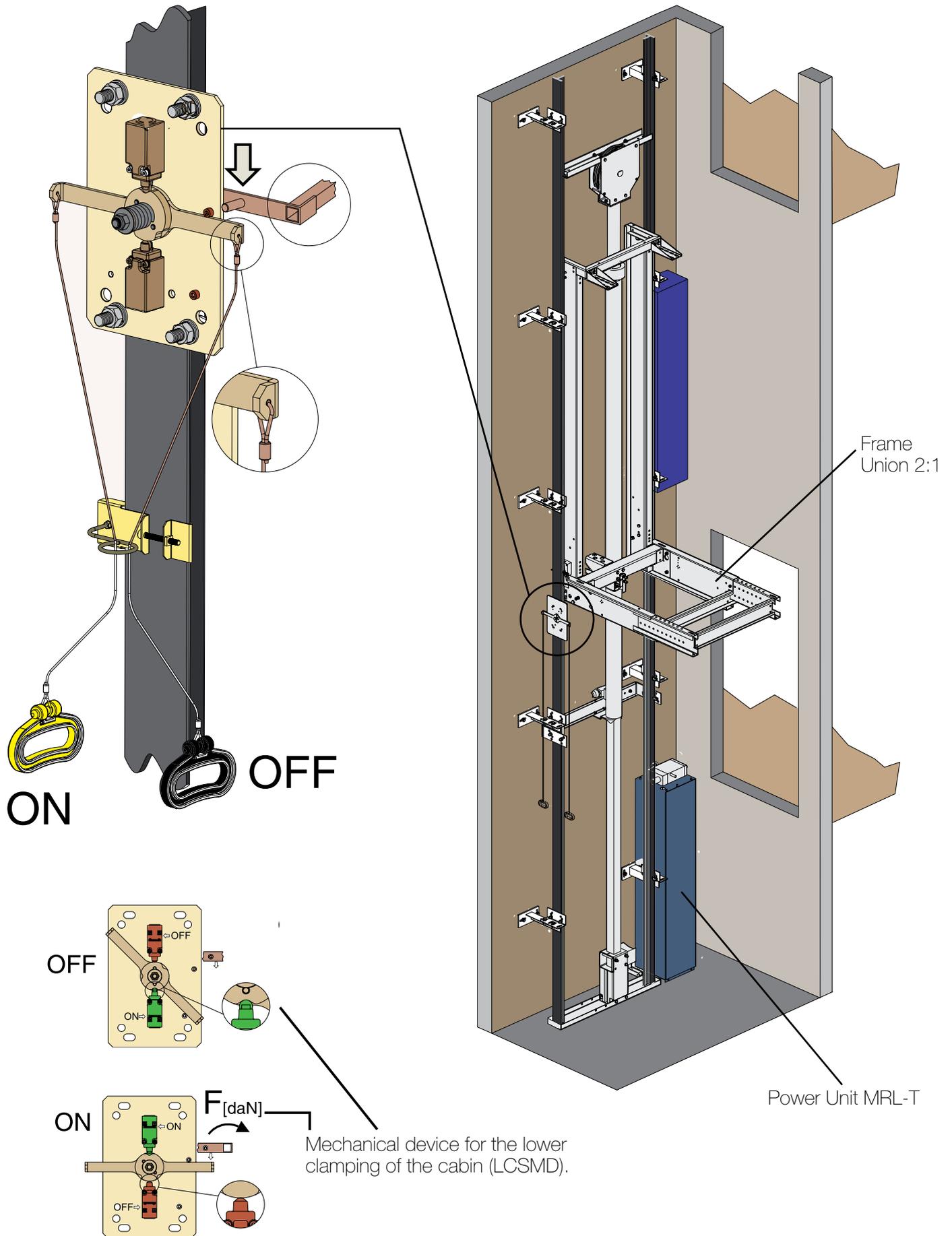
#### Main advantages of Kit A2:

- Total use of the hoistway: no external spaces are occupied
- Standard adjustments from the outside through the programming console.
- It doesn't require structural calculations.
- Better comfort and levelling precision.
- Minimum height of the pit reduced.
- Low noise level thanks to its location.
- Power installed reduction up to 40%.
- Speed up to 1m/sec.
- Mechanical device for the lower clamping of the cabin.
- In compliance with standard EN 81.2, A2.
- Easy access to the pit for maintenance.



# KIT A2

2:1 hydraulic lifts



# MODERNISATION KITS

## Overload pressure switch NO / NC



In compliance with EN 81.80 the cabin will be provided with an overload device.

Competitive price.  
Easy installation: 4 assembly stages in 2 hours.  
Applicable to any kind of existing power units.  
Rubber cover included.

### Technical features

- Max load on the contacts:
- Alternating current 220 V – max. 3<sup>a</sup>
- Continuous current 220 V – max. 0,1<sup>a</sup>
- Protection degree: IP 55
- Switching frequency: 200 cycles/min
- Working temperature range: -30°C ÷ +80°C
- Resistance: 106 manoeuvres
- Working pressure: 5 ÷ 50 bar
- Max. pressure: 300 bar
- Tripping accuracy: ≤ 2% of the adjustment pressure
- Hysteresis (average value): 1 bar



Photo: Overload pressure switch NO / NC

## Overload and Full Load pressure switch NO



In compliance with EN 81.80 the cabin will be provided with an overload device.

Competitive price.  
Easy installation: 5 assembly stages in 2 hours.  
Applicable to any kind of existing power units.  
Rubber cover included.

Same technical features as the NO / NC overload pressure switch.



Photo: Overload and Full load pressure switch NO

## Hand pump (PAM)



In compliance with EN 81.80 a manual pump must be available to lift the cabin upwards.

Competitive price.  
Easy installation: 3 assembly stages in 2 hours.  
Applicable to any kind of existing power unit.  
For hydraulic equipment with no hand pump before 1990.  
Equipped with overpressure limiting device.



Photo: Manual pump (PAM)

## Cabin position indicator



Enabling easy control, from the machine room. If the cabin is in an opening position.

Competitive price.  
Easy installation: 2 hours of assembly.  
Applicable to any kind of existing control unit.



Photo: Cabin Position Indicator

# OPTIMISATION KIT

Comfort and duration

Increase the comfort or the working life of the installed hydraulic equipment and better its performance.

## Auxiliary levelling device (Micro-leveling)



The cabin-floor level is kept.  
Higher safety during load / unload operations.  
Reduced wear of the main unit.  
Remarkable power reduction (2.9 kW).  
Lowest electrical consumption.  
Recommended for goods-car and bed-lifts



Photo: Micro-leveling

## Soft-Starter



### Longer working life of the motor

Reduction in the intensity peaks during starting.  
Elimination of the mechanical and electrical stress.  
Protection of the motor-pump unit.  
Lower electrical consumption.  
Reduced noise level at start-up.  
Recommended for high power installations (more than 18 kW).



Photo: Soft-Starter

## Soft-Stop



### High travel comfort

Consisting of a modified VB latch mechanism within the valve unit and of a modified VMP electrovalve with a double hydraulic circuit, enabling to adjust the stop so that the user can enjoy a better level of comfort (softer stop).

For an appropriate operation the controller has to be adapted. Recommended for hotels, high standard buildings and hospitals (bed passenger lifts).



Photo: Soft-Stop

## Oil cooler



### Longer working life of the motor

Operation ensured in heavy traffic conditions.  
Higher number of starts per hour.  
Available with single-phase and three-phase motors at different voltages.  
Available models: NEG 3, NEG 6, NEG 14.  
Recommended for public buildings, factories, offices and hospitals.



Photo: Oil cooler

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**GMV Italia S.p.A.** Via Don Gnocchi, 10 - 20016 Pero (Mi) - T. +39-02-33930.1 - Fax +39-02-3390379  
info@gmv.it - www.gmv.it