## **TECHNO – LIFT**

TECHNOCOOP Parking Technology Manufacturing Ltd H-1119 Budapest Fehérvári út 131 H – 1054 Budapest, Akadémia u 14 Address: H – 1373 Budapest, 5 Pf 584.

Tel: 06-1-353-2144, 06 -1-205-3774, 06-30-931-8698 Fax:06-1-205-3775, 06-22-742-015 Email:technocoop@technocoop.t-online.hu Email:technocoop@777westel.hu

# **TECHNO – LIFT**

## SOLUTION FOR THE TRANSPORTATION OF VEHICLE PARKING

TECHNO COOP

PARKING TECHNOLOGY

#### THE COMPANY

#### THE PAST IS THE SECURITY OF OUR FUTURE

Founded in 1978 and transformed in 1990, TECHNOCOOP Ltd – characterizes the innovative technology improvement. Since its foundation it has been representing the top of the market at the home tool manufacturing. In the 1980s, it has become one of the biggest of the agricultural machine manufacturing companies and exporters. Its productions are (ploughs, harrows, multi functional lorries and tailors and containers – in many countries in the world are still representing the developed, secured by the firm technical culture.

From the middle of the 1980ies apart from the tools and equipments building engineering equipments, parking and technological containers the parking technology equipments have been put on the manufacturing palette. In the beginning steps the garage industry lifting equipment, the conscious improvement of which has evolved for the end of the 1990s today's represented parking technology programme.

TECHNOCOOP Ltd best represents what the cleared market needs with its prominent TECHNO-LIFT products, its individually manufactured parking technology vehicle manufacturing, which are based on permanent improvements in the field of vehicle lift equipment, lowered parking and level moving vehicle storage plateaus.

The security of the satisfaction of our customers:

The Technocoop parking technology

What is the TECHNO LIFT?

Level lifting equipment and lowered parking and this is what it can provide!

The task of the TECHNO-LIFT vehicle level raising equipment is raising the vehicle onto the vehicle parking level. And securing the exit with the horizontal raising of the vehicles, this is so that the vehicle driver may stay within the driver's seat.

The level raising equipments are made of typical parts, based on individual adaptation planning, with individual manufacturing. The size, capacity and carrying capacity of the equipment may be changed within a wide scope according to need. It is wise to specify the necessary equipment at the time of the design of the building.

The level raising equipment may be set to any number of level according to need or taste. The level raising equipment may be made even without a building present, so that the cover (opening or smooth top) should be the same as the rest of the ground. This solution is best applicable where the installation does not make other solutions possible.

These types of the TECHNO LIFT are individual and may be used as the many layer lowered garage. Certain types of the TECHNO LIFT combined with the swirling disc are fit to turn the vehicle during a level raising operation. The other, so-called semi automatic types are fit to move the vehicle horizontally within the parking level.

The equipment equipped in the building is generally put in an iron shaft especially designed for this purpose. On the lowest parking level, necessary to develop (next to the wall of the shaft) an approximately 2-m2 area where the hydraulic power supply and switchboard is placed. The environmental and financial security sectioning is also sufficient. The shaft may be equipped with acoustic nosier prevention covering also.

The vehicle raising equipment, whether wire-abled, hydraulic or mixed drift.

The main elements of the equipment:

Driving systems Vehicle carrying tray > TH horizontal movement security holders PRECISE! > The mechanical and electronic security equipment **INNOVATIVE!** Plc control, electronics Sectioned gates, lattice gates, pusher gates, crossing levels

#### INTERESTING CALCULATION!

After 25 vehicles it is expedient 2 build two level raising equipment. Calculation of the level raising equipment's "cyclic time". Cyclic time is the time, which passes from the calling of the equipment until the vehicle leaves the equipment and stands back into its base position. The maximum cyclic time: From calling of the equipment to the basic position up to the calling time of the furthest terminal.

The typical speed $0.1 - 0.3 \text{ m/s}$	
$F_{max} = tm1 \pm 2tkn \pm 1b \pm tm2$	$2 \pm tk \pm 2tkz \pm ta$
Where: Track:	maximum avala tima (saa)
where. Thiax.	
ImI:	time (sec) from calling to the opening of the gate
Tkn:	the opening time of the gate (sec)
Tb:	the time of entry of the vehicle (sec)
Tm2:	The carrying time of the vehicle
Tk:	The exit time of the car (sec)
Tkz	The time of closing of the gate (sec)
Та	The time of the base position of the tray (sec)

**RELIABLE!** 

## TRANSPORT ASSEMBLY

From 1<sup>st</sup> class quality with 1<sup>st</sup> class assembly

We manufacture it and transport it We apply it: hydraulic power supply

We fit it We manufacture it: plc control equipment

The photos show a state after repair After it has been finished we hand it over

#### REVIEW

#### 120 DAYS FEOM DESIGN TO HAND OVER

The explanation of the pictograms used for certain lifting equipment in the prospectus

The equipment may be called even with infra red remote (basic set up)

The equipment may be called with the keyed switch (basic set up)

The driver of the vehicle may stay within the car during a lift (with the lobby equipment basic set up)

Before entry the passengers, animals, after entry the driver may leave the vehicle

Home telephone connection between the driver of the vehicle and the garage (basic set up) may be extended. E.g. receptions, or telephone lines (optional)

Excess weight control with full security mount (basic set up)

Only parking intended lowered parking machine, garage

Electric frost exemption, lob equipment placed in the open and the lowered parking equipment, accessories to the garages

The number of available levels displaying (optional)

The stopover level's displaying next to the gates (optional)

Definition of TECHNO-LIFT types: e.g. TL-SP-Á-2\_FT-PsztVM-2,80/4,14/2,30-SZ-SKH - techno-lift 2.80 - lifting level (m) TL SP - lowered parking garage 4,14 -(horizontal, moving distance (m) - lobbying equipment - nominal carrying capacity Á 2.30 2 - number of parking levels FT - top opening roof - the main column is above the top layer FS - top smooth roof FK - on the parking level, the vehicle is horizontally moved **PsztVM** - wire rope movement SK Η -Hydraulic movement SKH - mixed movement

#### INSTALLATION

#### What we can help with is the expert, secure fitting of the TECHNO-LIFT.

The TECHNO LIFT equipment carries the CE marking (manufacturing statement).

The handing over of the equipment finishes with the issuing of the ÉMI-TÜV work protection acceptability certificate.

We help with the optimal positioning of our equipment even during preparation of the building plans. The building permission documentation may be made freely available with the appropriate drawings and technical descriptions acceptable for the location. So long as it is necessary, we participate in the procurement of the EMI-TUV conformance certificate.

Once you have decided, based on the order a pre contract may be made the signing of which we undertake, so that the prices of our machinery are not raised within 12 months. The handover time of our equipment is a maximum 120 calendar days calculated form the signing of the contract.

The duties undertaken in the contract, which begins with the adaptation planning, we do with first class quality without delay. We undertake the localised measurement of the ready shafts, the checking of the sizes. If necessary we give acoustical advice

12 days after the finishing of the manufacturing of the equipment, before the hand over date the pieces are transported to the site. There, on the day of delivery we start and continuously piece together the equipment. The assembly is made by well-trained and well-equipped experts.

For our lifting equipment made with the ground drilling hydraulic systems, we expertly undertake the making the ground drill, its protective piping and its waterproof closing.

With the signing of the improvement and servicing contract for after the trial period and handover, we help the safe, secure handling of the equipment with a fast, effective, well trained mechanical group of fitters trained by the factory.

#### TL-PSzVM. Types

## Space saving parking

#### HORIZONTALLY MOVEABLE parking trays.

The individually manufactured parking trays ensure an optimal space saving possibility. The already working garages, parking places may be equipped with it at a later date and even semi automatic systems with dual way remote control, if necessary by turning the vehicles, putting the vehicle into the otherwise unused places. One way moving of the car both lengthways and in transverse is possible.

Transverse moving Vehicle parking space Direction of movement Direction of traffic Direction of traffic Cross and length ways movement Vehicle storage space Direction of movement Direction of movement

IN THE SPIRIT OF COMFORT

# **Space Saving Parking**

LOWERED GARAGE with smooth top rising with 1- 4 vehicles

With railings on three sides Smooth top rising together with the equipment

Automatic gates or sliding doors

Ground level According to need According to need According to need

Tray countersunk 2000

If the number of vehicles above one another 1700 mm useful inner height:

1 piece – then A – 1200 mm 2 pieces – then A – 2100 mm

Lowered parking, with coercion opening with a smooth top, which rises together with the vehicles. An extra parking space may be developed on top, off which the car has to leave prior to operation.

It is beneficial in case of big space expansion, instead of a chamber garage. The given sizes are standard machine sizes.

		A1	A2	B1	B2
			-	-	
In the middle, in case of the hydraulic cylinder positioned in the ground, two cars parking, single parking	EP	5500	2700	5450	2400
At the two sides, positioned, hydraulic, in case of cylinders two cars above each other, single parking	EP	5500	3300	5450	2400
In the middle, in case of the hydraulic cylinder positioned in the ground, two cars side by side, double parking	KP	5500	5300	5450	4900
At the two sides, in case of the hydraulic cylinder positioned in the ground, two cars, double parking	KP	5500	5700	5450	4900

#### TL – SP TYPES

# **LOWERED PARKING** (garage) with a top opening two ways for 1-3 vehicles

Ground level According to need According to need According to need

Tray countersunk 2000

If the number of vehicles above one another 1700 mm useful inner height

1 piece – then A = 1200 mm2 pieces – then A = 2100 mm3 pieces – then A = 3000 mm

		A1	A2	B1	B2
In the middle, in case of the	ED	5500	2700	5450	2400
around	EP	5500	2700	5450	2400
ground					
At the two sides, in case of the					
hydraulic cylinder positioned in the	KP	5500	3300	5450	2400
ground, two cars, double parking					

Lowered parking with coercion opening top, which may be open arched or hydraulically open. Its development happens taking the local conditions into account. On the top an extra parking place may be created which has to be folded down prior to operation. It is advantageous in case of limited space and to avoid needing a chamber garage. (The given sizes are standard machine sizes)

## TL-Á-FS TYPES

Level raising equipment

**TOGETHER WITH A CAR** with rising smooth top (the lifting height is not restricted)

With railings	
on three sides	

Smooth Top rising with vehicle

Automatic gates or sliding doors the gates do not belong

Ground level entry According to need According to need Exit on parking level With ordinary mechanism

Space saving solution for the transportation of the vehicles to the parking place. May be installed without an extra building in the front garden, yard etc. It is a modern design which does not take away extra space, independent of the number of level desired.

The "A" size depending on type and vehicles:

In case of 1,- 2,- 3,- type designs may change from 1300 mm - 1800 mm. Standard size is 1500 mm.

The water tightness of the roof on the 6 scale is \*\*\*\*in a closed condition.

The leading away of the water is a building job, it does not belong to the equipment. IN the deepest point of the shaft, the development of an accumulator is suggested.

Suggested tet connection

Electric edge with heating

Ground drill with a hydraulic cylinder

Mixed drive

#### TL-Á-FT. TYPES

**LONGTITUDINAL AXIS IN TWO DIRECTIONS**, with an opening roof (open arched or with hydraulic coercion opening)

With railings on three sides Smooth Top rising with vehicle

Automatic gates or sliding doors the gates do not belong

Ground level entry According to need According to need Exit on parking level With ordinary mechanism

Space saving, innovative solution for the transportation of vehicles to their parking slot, which without a building closes the lifting shaft with alight top positioned in the open. The top is a steel framework structure with galvanised steel cover sized for 10 cm deep snow weight.

#### TL-Á TYPES

#### LIFITNG EQUIPMENT

**BUILT INTO BUILDINGS**, level raising, as if one was parking on the ground level into a garage (the level raising height is not restricted.)

Wire roped lifting mechanism, two speed, travelling and slowing degree engine. It can be ordered with a drive over so called bridge mode design

Ground level entry According to need Exit on parking level According to need Exit on parking level According to need Exit on parking level

Freedom of the designer's imagination

Our equipments are manufactured in a very wide range, their all time designers, according to the user's needs. They may be placed according to the number of cars in a duplex, triplex etc. ways without a separation shaft wall. Also in a joint airspace.

**FITTED INTO BUILDINGS** design with hydraulic cylinder with ground drilling, with hydraulic and mixed drive

It may be fitted into the smallest ground area, with a high comfort level lifting equipment. The drive in from the street is quick and simple. The calling terminal and traffic management light is positioned next to the gate. Ground drilled, ordinary hydraulic and mixed drive.

#### **IMPORTANT TECHNICAL SOLUTION!**

For building possibilities where there is no way to build a lowering, for example high ground water level. All types of equipment may be transported based on the below picture. Altogether a 500 mm deepening is necessary. This way the shaft'width is 3300mm, its length is optional (recommended, 5500mm)

Entry According to need According to need Parking level exit

## REFERNCES

## WHERE IT IS ALREADY USED WITH SATISFACTION

- Budapest. II. Kékgolyó u. for serving 45 vehicles, 2 level deep garage duplex
- 6,5 m
- Budapest. III. Bécsi út for serving 20 cars, 1 level deep garage, owner occupied block
- 4,8 m duplex equipment
- Budapest. III. Bécsi út for serving 20 cars, 1 level deep garage, owner occupied block. 4,8 m
- Budapest. VII. Andrássy út 93 for serving 8 vehicles 1 level top garage, office building. 3,5 m
- Budapest. II. Rézsü u. for serving 2 vehicles, 2 level lowered garage family home.
- Budapest. XI. Brassó u. for serving 2 vehicles 2 level lowered garage, family home.
- Debrecen Iparkamara u. for serving 22 cars, 1 level deep garage owner occupied block
- Owner occupied block. 3,8 m
- St. Johann Austria lowered garage for 2 vehicles.
- Zell am See Austria lowered garage for 4 vehicles
- Vienna Austria Cooburg palace self serving car parking tray for 1 vehicle.
- Budapest. VI. Ó u. for serving 25. cars, 1 level deep garage. Owner occupied block. 5,3 m
- Budapest. VI. Szív u. for serving 30 cars 3 level deep garage, owner occupied block 6,5 m
- Budapest. XII. Tusnádi u. for serving 5 vehicles deep garage with coercion opening, owner occupied block 5,5 m
- Budapest. XII. Tusnádi u. for serving 12. cars, deep garage with smooth opening, owner occupied block 7,5m
- Debrecen, Varga u. for serving 15. cars, deep garage, owner occupied block 3,4 m
- Kecskemét, Opel Salon vehicle show raising equipment, 4,5 m
- Budapest. I. Szabó Ilonka u. for serving 12 cars, deep garage owner occupied block, 4,2 m

## SIZING CHART

Level raising equipment

# Suggested sizes, for the TL-Á type equipment

## width: 2

So long as there is sufficient place for the planner, in	Width	2500 mm
the highest category of comfort, the size of the tray:	Length	5800 mm
The shaft belonging, the size of the area	Width	3350 mm
	Length	5850 mm
Size of the standard lifting tray	Width	2400 mm
	Length	5450 mm
The minimal size of the shaft belonging	Width	2750 mm
	Length	5500 mm
The shaft has to be secured in its full area	Minimal depth	450 mm
Shaft, middle trap door	Longitudinal	+750mm
	section	
The electricity needed for the vehicle lifting vehicle	U:	400V
equipment as spinning engine (without the uptake of	P:	18kW
the starter electricity)		
The gate opening suggested for the 2400 mm width	Width	2500 mm
tray	Height	2200 mm
The planned sizes, performances in case of a certain		
project require a planning harmonisation!		

## Lowered garages

In the middle, positioned in the ground drill in	EP	5500	2700	5450	2400
case of a hydraulic cylinder two cars parked					
above one another, single parking					
At each side positioned , in case of hydraulic	EP	5500	3300	5450	2400
cylinders, two cars above each other					
In the middle, in the ground drill in case of	KP	5500	5300	5450	4900
hydraulic cylinders, two cars next to each other					
double parking					
At the two side, positioned, in case of the	KP	5500	5700	5450	4900
hydraulic cylinders, two cars parking next to					
each other double parking					
In the middle, positioned in the ground drill		5500	2700	5450	2400
At the two sides, positioned in the case of		5500	3300	5450	2400
hydraulic cylindered two sided lead					