



# LHD<sup>®</sup>

LOAD HANDLING DEVICES

# LHD Group



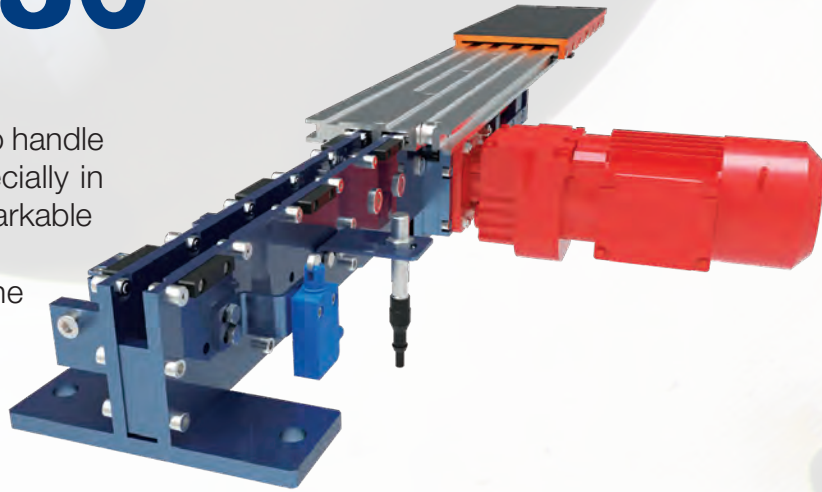
2025-PR-01





# ARES 30

The ARES 30 fork is designed to handle loads with limited weight, especially in those applications where a remarkable size/load ratio is required. Chains and pulleys provide the movement of the top slide.



SINGLE DEPTH

DOUBLE DEPTH

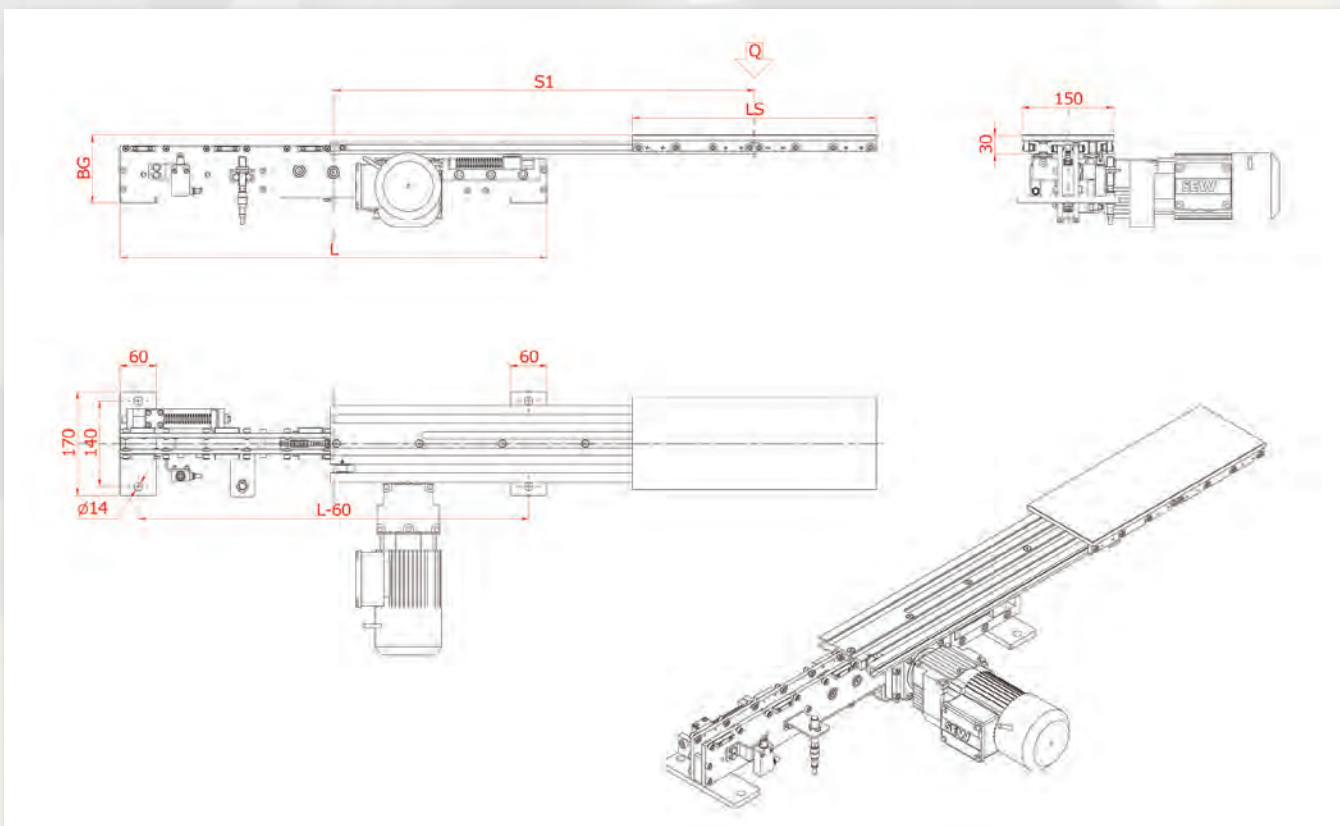
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR30-060	15	600	600	700	4
AR30-065		650	650	750	5
AR30-070		700	700	800	6
AR30-075		750	750	850	7
AR30-080		800	800	900	8
AR30-090		900	900	1000	10

This light series of telescopic fork achieves remarkable performances as for top speed and acceleration.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ARES 40 W120

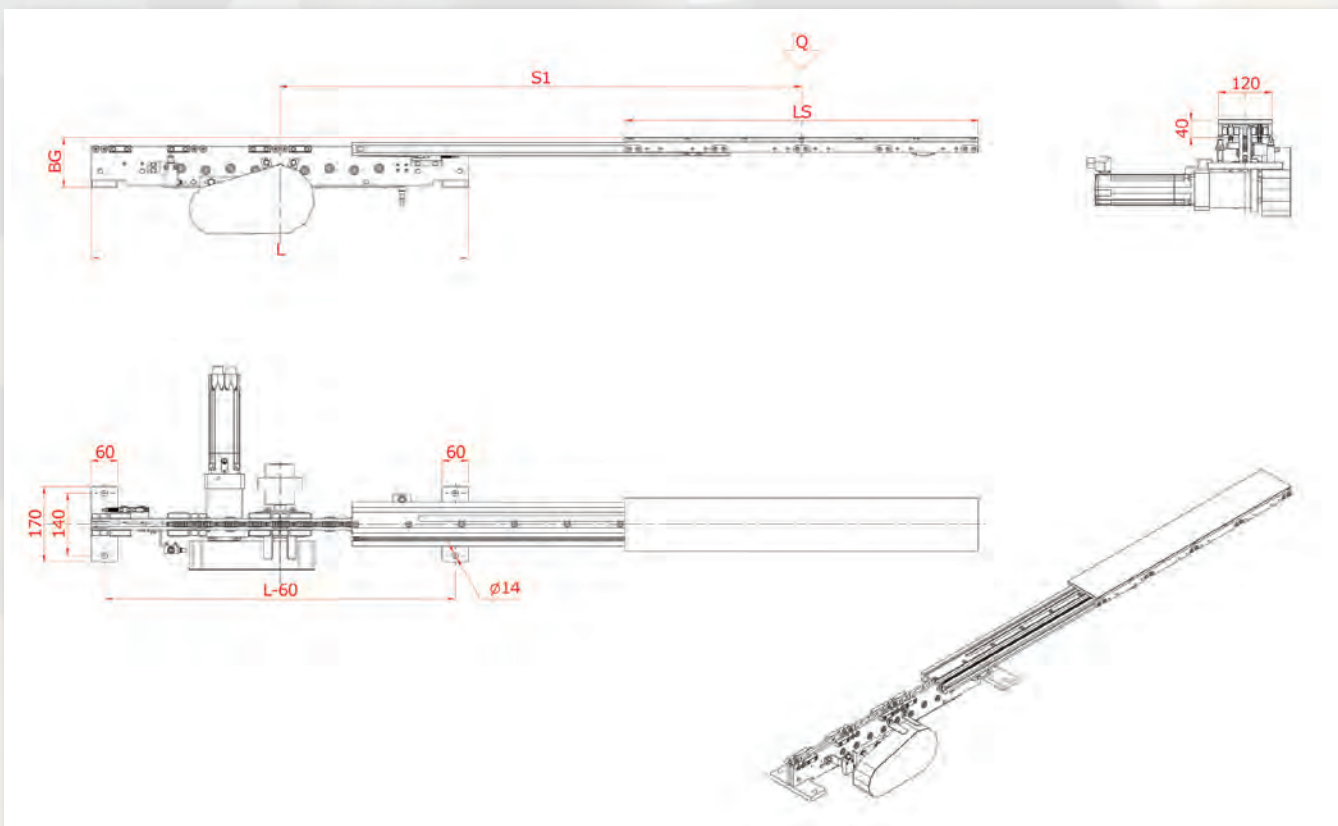
The ARES 40 W120 fork is designed to handle loads with limited weight, especially where a good size/load ratio is required.



Chains and pulleys provide the movement of the top element.

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR40W2-065	100	650	650	750	8
AR40W2-070		700	700	800	9
AR40W2-080		800	800	900	12
AR40W2-100		1000	1000	1100	20
AR40W2-120	50	1200	1200	1300	19
AR40W2-125		1250	1250	1350	20

This light series of telescopic fork achieves remarkable performances as for top speed and acceleration.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 40 W150

The ARES 40 W150 fork is designed to handle loads with limited weight, especially where a good size/load ratio is required.



SINGLE DEPTH

DOUBLE DEPTH

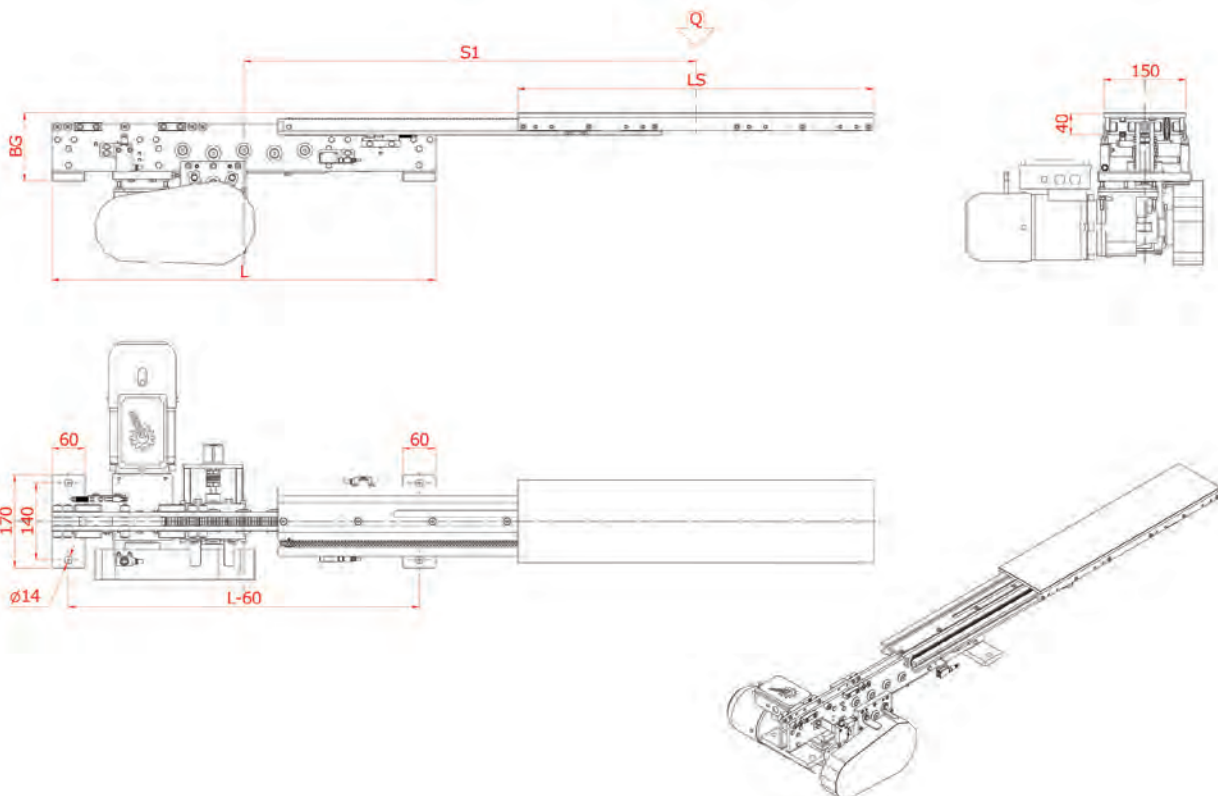
TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR40W5-065	100	650	650	750	5
AR40W5-070		700	700	800	6
AR40W5-080		800	800	900	7
AR40W5-100		1000	1000	1100	12
AR40W5-120	70	1200	1200	1300	14
AR40W5-125		1250	1250	1350	16
AR40W5-135	50	1350	1350	1450	24

Chains and pulleys provide the movement of the top element. This light series of telescopic fork achieves remarkable performances as for top speed and acceleration.





# ARES 40 W220

It's the most important fork within the ARES series. It's a peculiar device whose main purpose is to handle unusual, bulky and heavy loads.

The motion system is a chains/gears compound, thus it can stand remarkable top speed and acceleration.



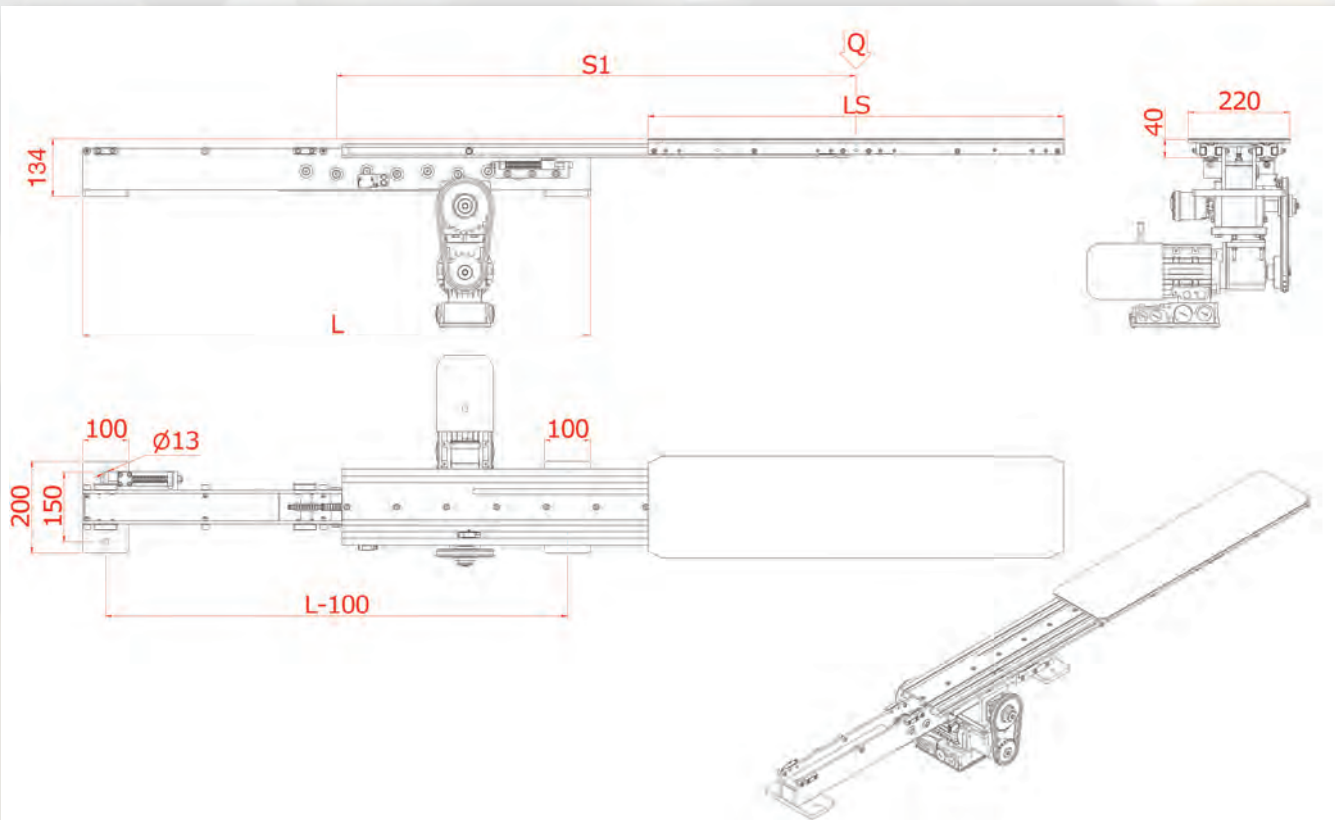
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR40W-065	100	650	650	750	6
AR40W-070		700	700	800	7
AR40W-080		800	800	900	8
AR40W-100		1000	1000	1100	13
AR40W-120		1200	1200	1300	18
AR40W-125		1250	1250	1350	20
AR40W-145	80	1450	1450	1550	25

The wider top plate (provided with grip pad) allows carrying the load safely and firmly. It's particularly indicated for high-performances mini-load plants with high-paced work cycles. The width of the upper plate can change according to the customer's needs.



COMBINED PRODUCTS

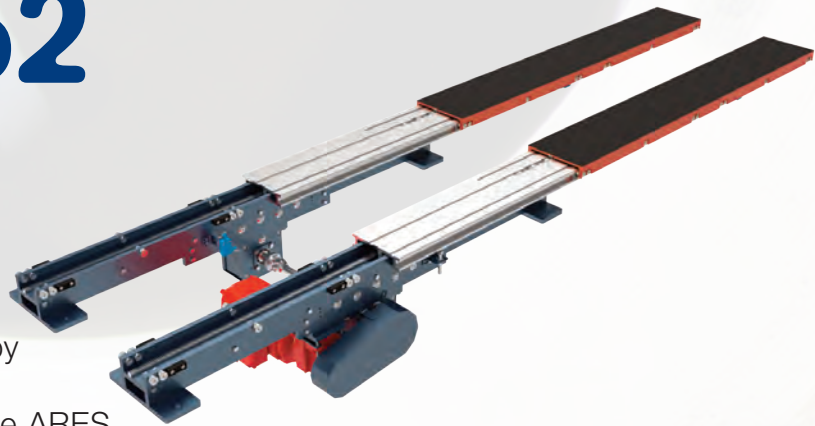
SPECIAL PRODUCTS



# ARES 52

The ARES 52 is a fork designed for handling medium-light loads; it displays similar features to the ARES 40, the only difference being the transmission system runned by hardened gears and racks.

This kind of transmission allows the ARES 52 to operate at outstanding speeds and acceleration, with extraordinary work paces. Its strong points are repeatability and precision.



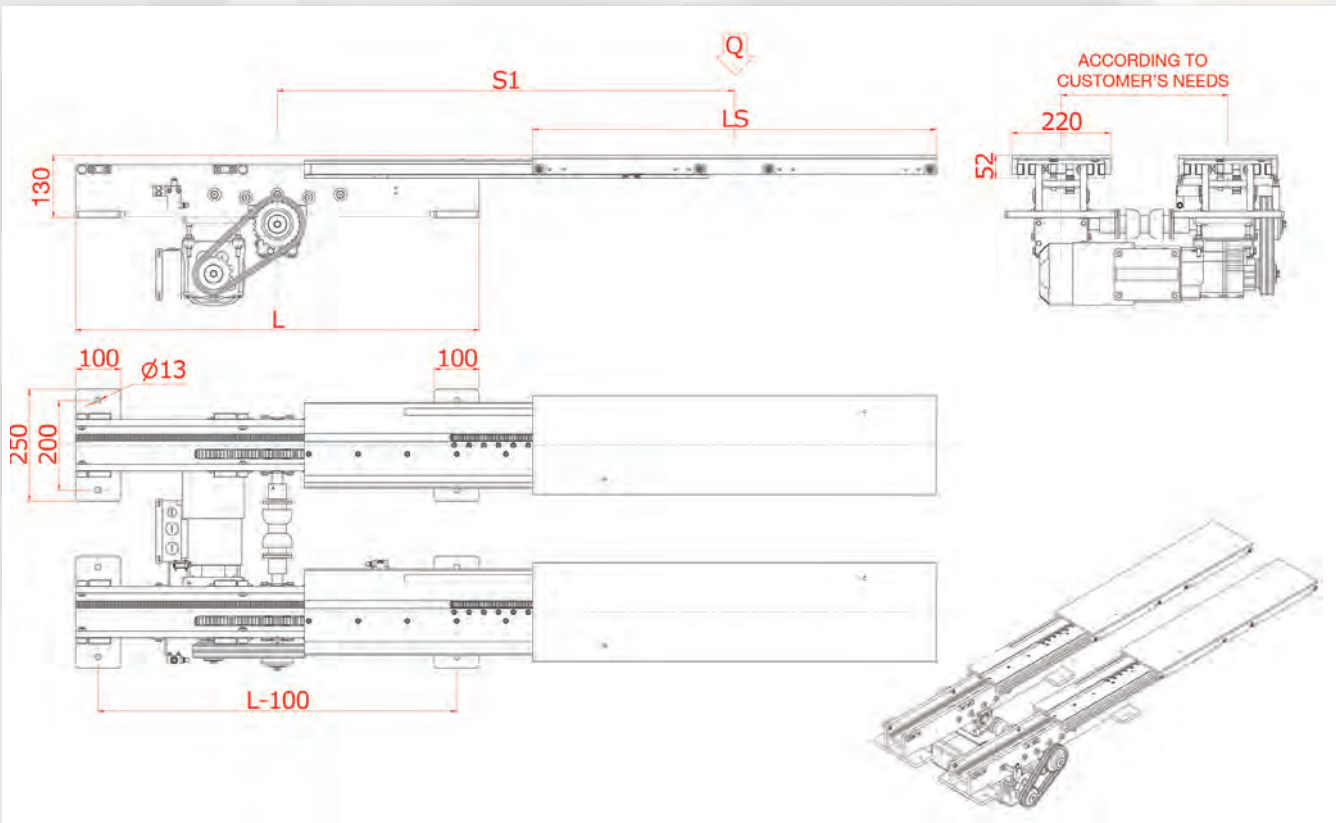
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 STROKE (M/M)	MAX BENDING UNDER LOAD (M/M)
AR52-065	200	650	650	750	4
AR52-070		700	700	800	5
AR52-080		800	800	900	6
AR52-100		1000	1000	1100	8
AR52-120		1200	1200	1300	11
AR52-125		1250	1250	1350	12
AR52-145		1450	1450	1550	17

Because of the high performances, it's recommended to take into account the stability of the load. Also the ARES 52 is suitable to be used as single fork.



COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 65 W150

The ARES 65 W150 has the peculiarity of having a carrying capacity of 400 Kg on each fork, with only 150 mm width of the upper slide.

The standard version has a transmission system with racks and pinions.

Like every LHD telescopic fork, the ARES 65 W150 can be supplied as a single fork, a pair, as well as an array of forks.



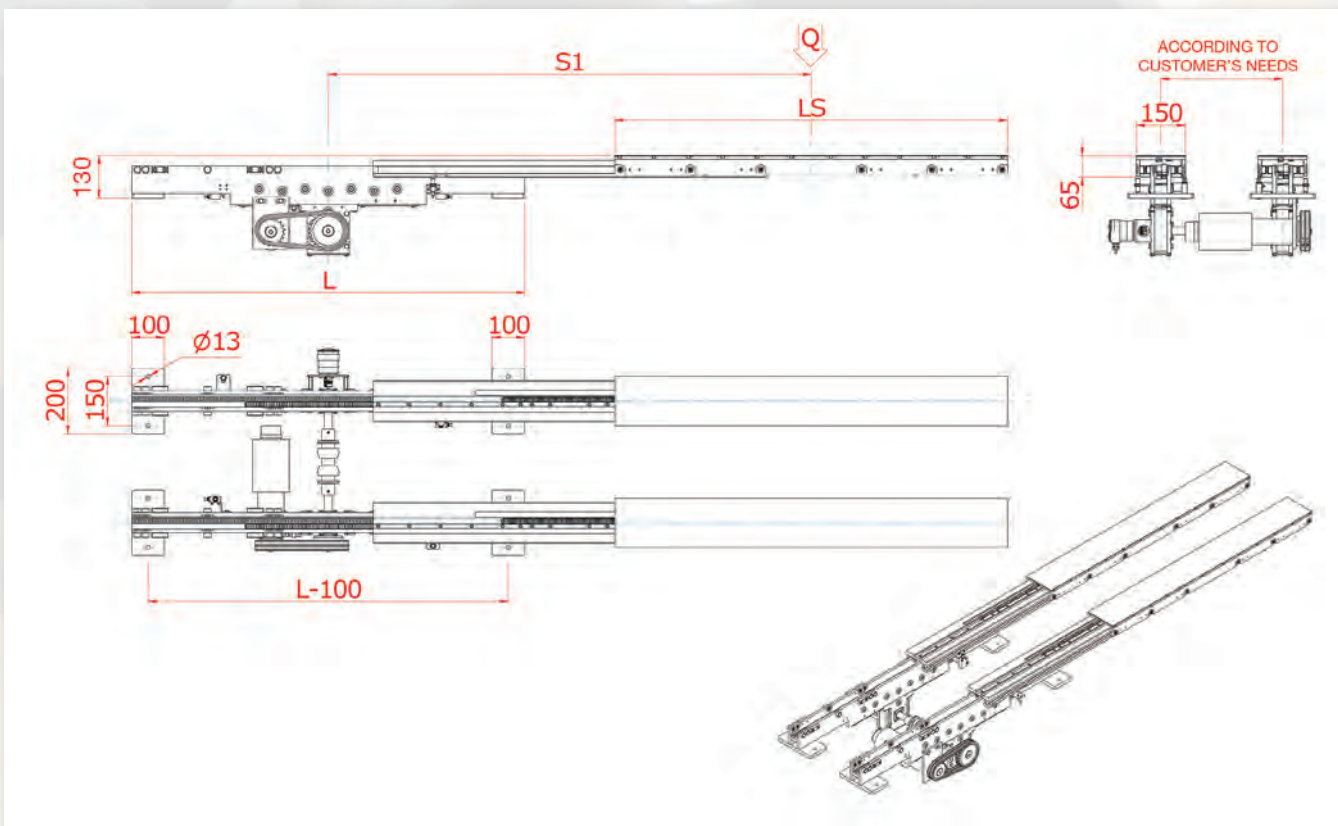
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR65-070		700	700	800	4
AR65-085		850	850	950	6
AR65-100	600	1000	1000	1100	8
AR65-120		1200	1200	1300	13
AR65-150		1500	1250	1600	22
AR65-170	300	1700	1450	1800	17
AR65-180		1800	1600	1850	19

An example of application is the handling of IKEA pallets with its small openings.

DOUBLE DEPTH

TRIPLE DEPTH



COMBINED PRODUCTS

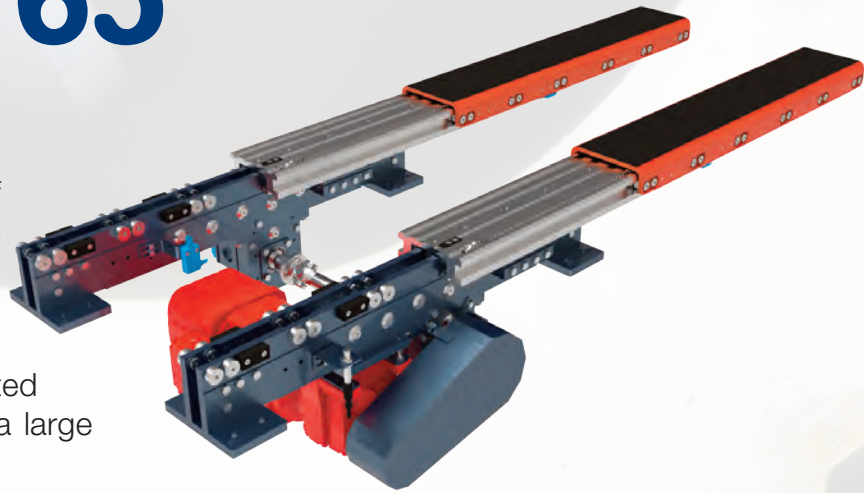
SPECIAL PRODUCTS



# ARES 65

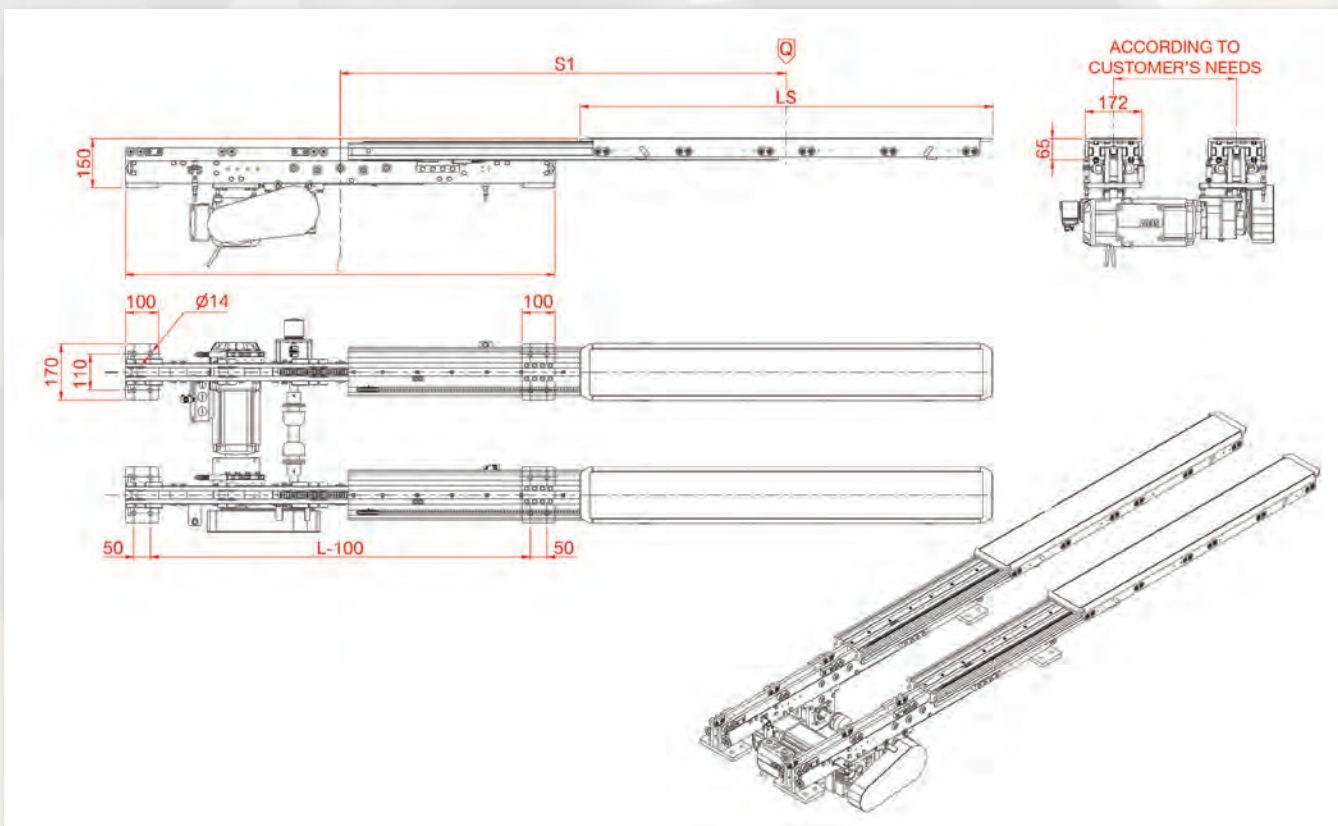
Typical telescopic fork that's particularly used in the sector of automated warehouses to move the 800x1200 euro-pallet.

The small size and the limited bending make it suitable for a large number of purposes.



PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR65-100	1000	1000	1000	1100	12
AR65-120	1200	1200	1200	1300	23
AR65-130		1300		1400	28
AR65-140	1000	1400	1250	1500	28
AR65-150		1500		1600	32
AR65-180	600	1800	1600	1900	34

As for the transmission system, both chains and racks-and-pinions are available, the choice of the transmission depending on the operating environment; hence, it's recommended to consult LHD's technical staff.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

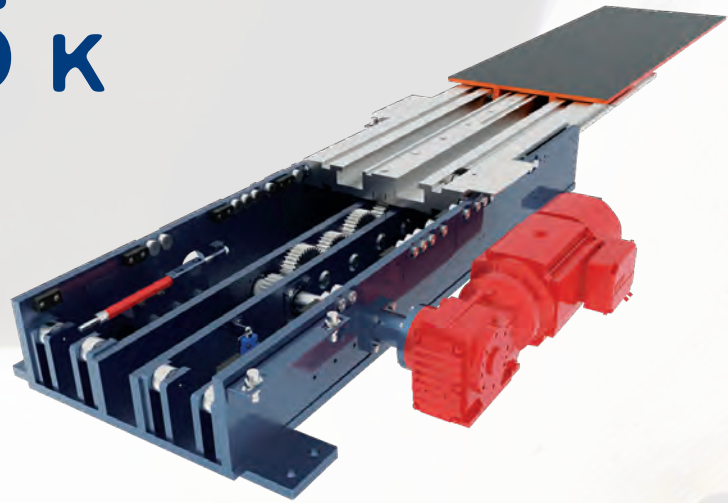
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 65 K

The ARES 65K is a particular wide-body telescopic monofork.



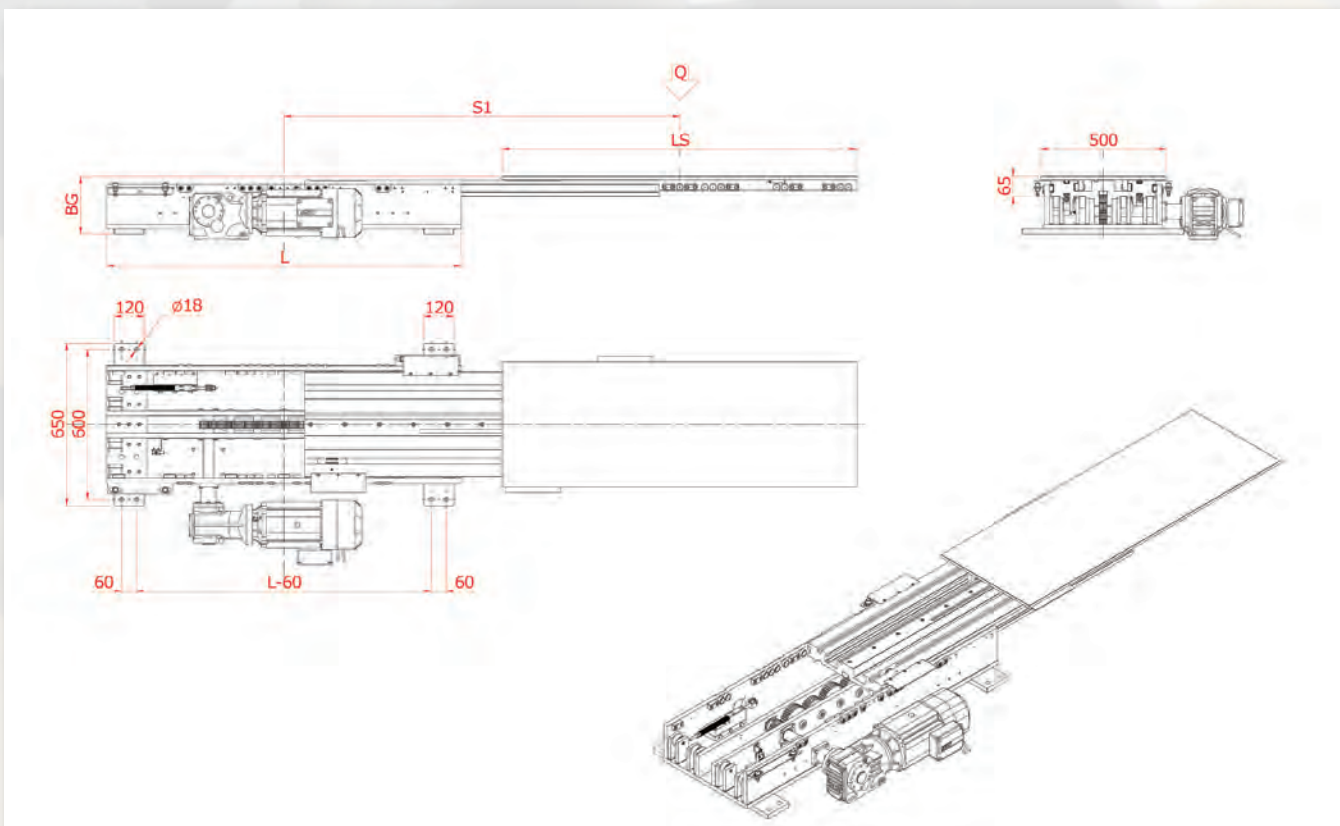
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR65K-120	1000	1200	1200	1300	15
AR65K-130		1300	1300	1400	18
AR65K-140		1400	1400	1500	21
AR65K-150		1500	1500	1600	22
AR65K-160		1600	1600	1700	26
AR65K-180	600	1800	1800	1900	26
AR65K-200	500	2000	2000	2100	29

It finds application where the load unit to move is else than a normal pallet (heavy boxes or closed pallets); in this case the load unit must be placed on special stands or L-profile to allow the fork to entry.

DOUBLE DEPTH

TRIPLE DEPTH



COMBINED PRODUCTS

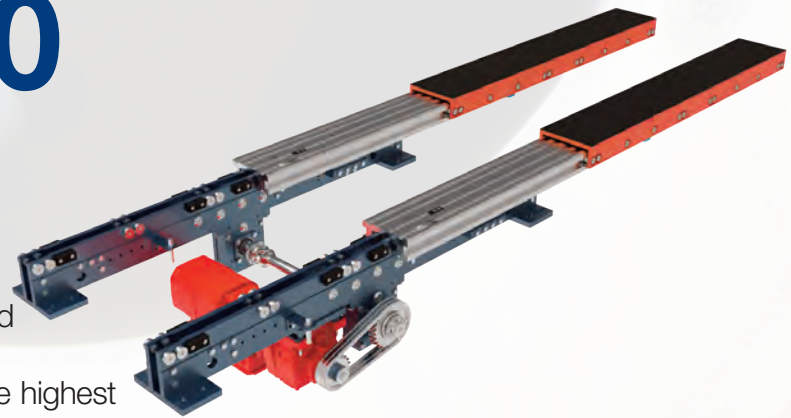
SPECIAL PRODUCTS



# ARES 70

It's a telescopic fork with a similar design to the ARES 65, but with a stronger structure that fits better to the handling of non-conventional loads in automated warehouses.

Its geometric shape allows attaining the highest moment of inertia with no excessive size.



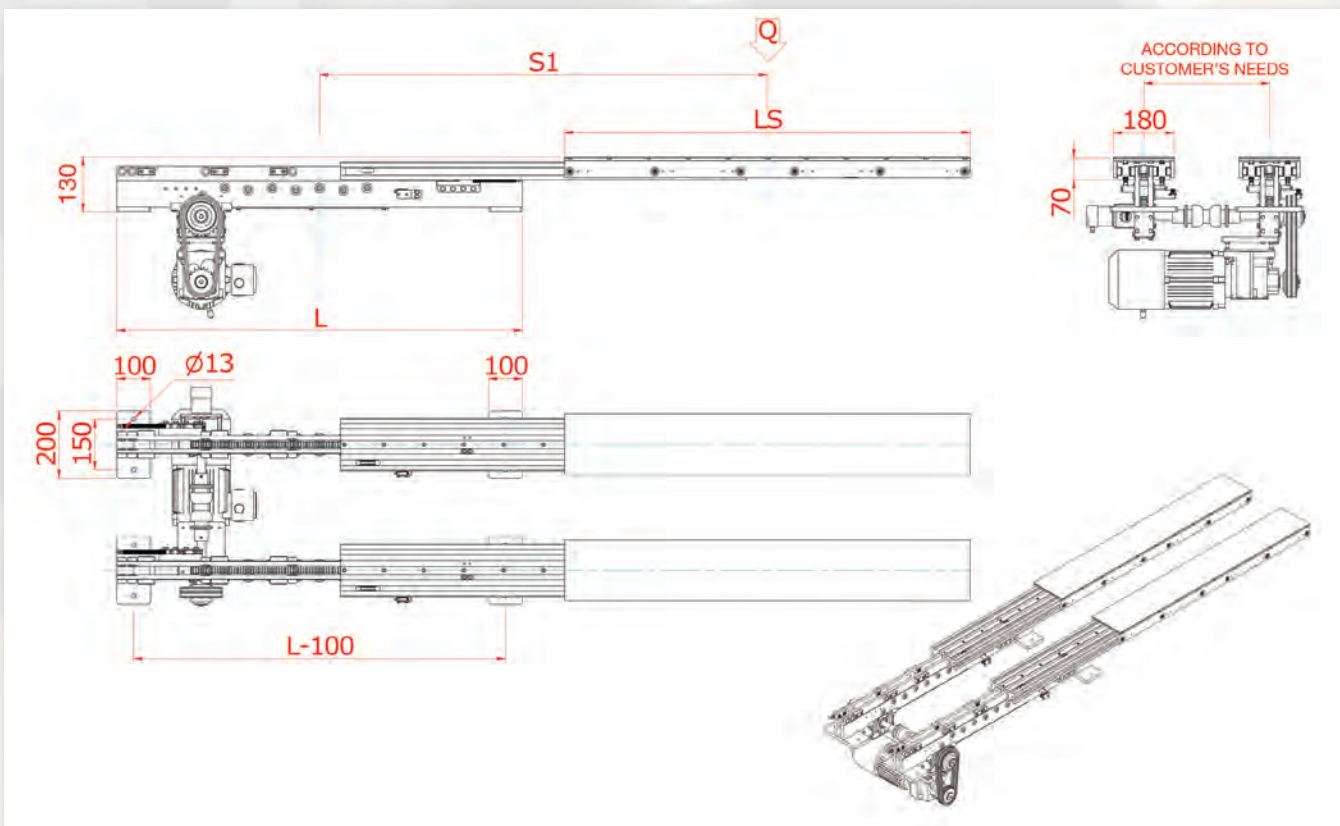
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR70-090	1350	900	900	1000	9
AR70-100		1000	1000	1100	11
AR70-120		1200	1200	1300	18
AR70-135		1350	1240	1450	24
AR70-150		1500	1600	29	
AR70-170	800	1700	1450	1800	25
AR70-180	600	1800	1600	1900	23

Also for the ARES 70 both the transmission systems with racks and pinions and with chains are available, the choice depending on the operating environment; hence, it's recommended to consult LHD's technical staff.

DOUBLE DEPTH

TRIPLE DEPTH



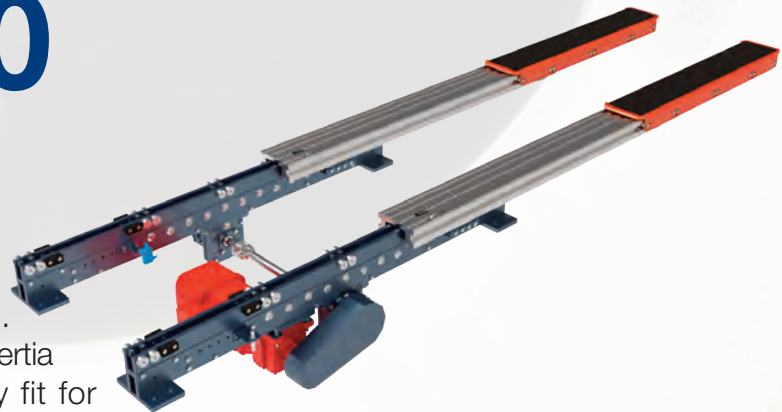
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 80

It's the more powerful and structured telescopic fork within the ARES series. Consequently, it's essentially provided with the racks and pinions transmission. Thanks to its outstanding moment of inertia and its small bending, it's particularly fit for those applications with heavy loads and intensive operating pace.



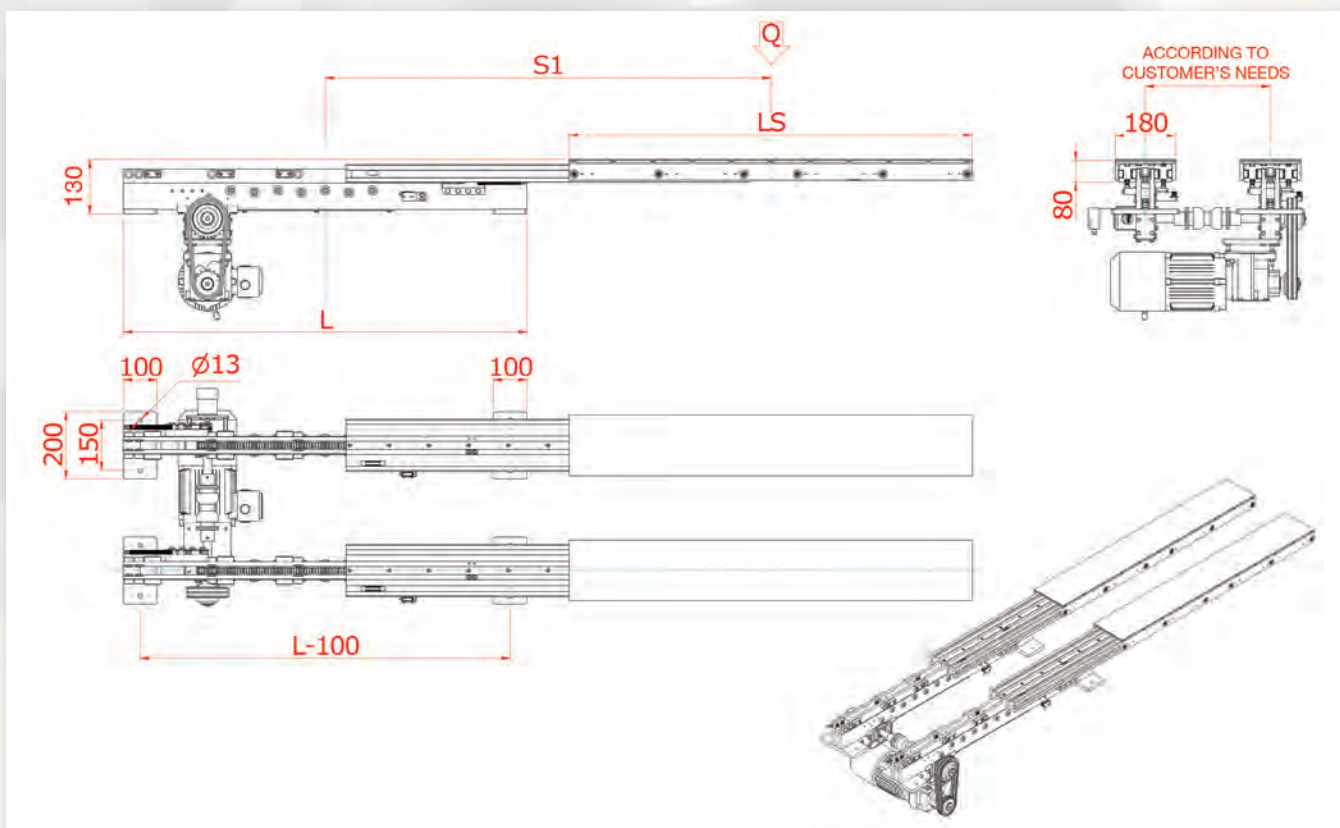
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)	
AR80-100	1500	1000	1000	1100	8	
AR80-120		1200	1200	1300	12	
AR80-135		1350	1240	1450	1600	20
AR80-150		1500				
AR80-170		1700	1450	1800	27	
AR80-185	1000	1850	1500	1950	22	
AR80-200		2000	1600	2100	27	

It's frequently used in sectors where power and toughness are fundamental.

DOUBLE DEPTH

TRIPLE DEPTH



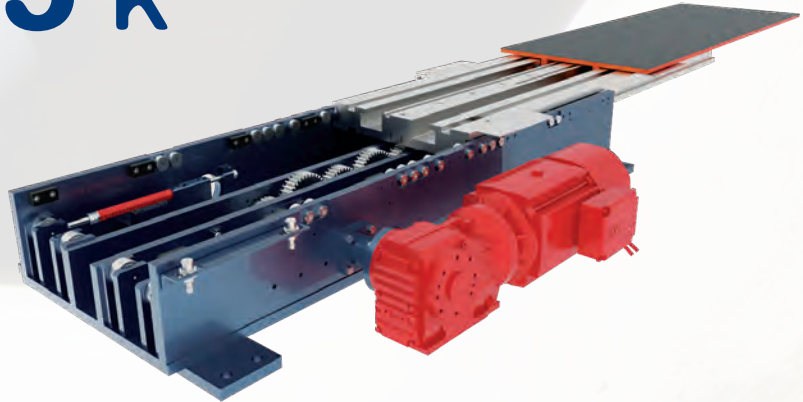
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 85 K

The ARES 85 K relies upon the same design as the 65 K, but with a middle slide thickness increased by 20 mm, which allows the handling of heavier loads (up to 1.750 Kg).



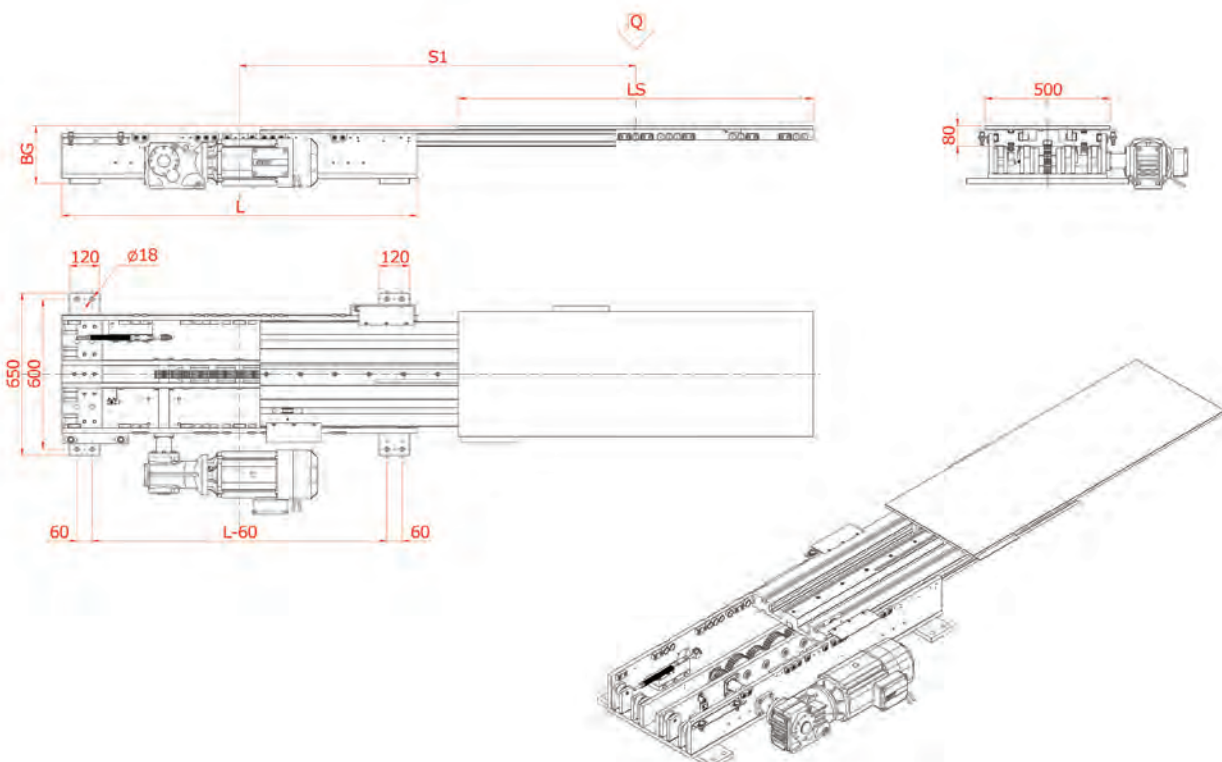
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR85K-120	1750	1200	1240	1300	9
AR85K-135		1350		1450	12
AR85K-150		1500		1600	15
AR85K-165		1650		1750	19
AR85K-170		1700		1800	11
AR85K-185	1250	1850	1550	1950	13
AR85K-200		2000	1650	2100	19

It finds application where the load unit to move is else than a normal pallet (heavy boxes or closed pallets); in this case the load unit must be placed on special stands or L-profile to allow the fork to entry.

DOUBLE DEPTH

TRIPLE DEPTH



COMBINED PRODUCTS

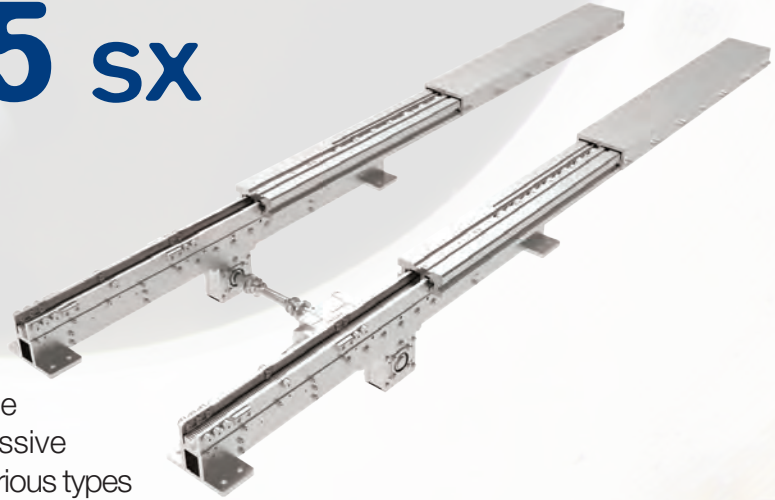
SPECIAL PRODUCTS



# ARES 85 sx

It's a telescopic fork with a similar design to the ARES 65, but with a stronger structure that fits better to the handling of non-conventional loads in automated warehouses.

Its geometric shape allows attaining the highest moment of inertia with no excessive size. The ARES 85 SX is produced in various types of stainless steel, depending on the operating sector.



SINGLE DEPTH

DOUBLE DEPTH

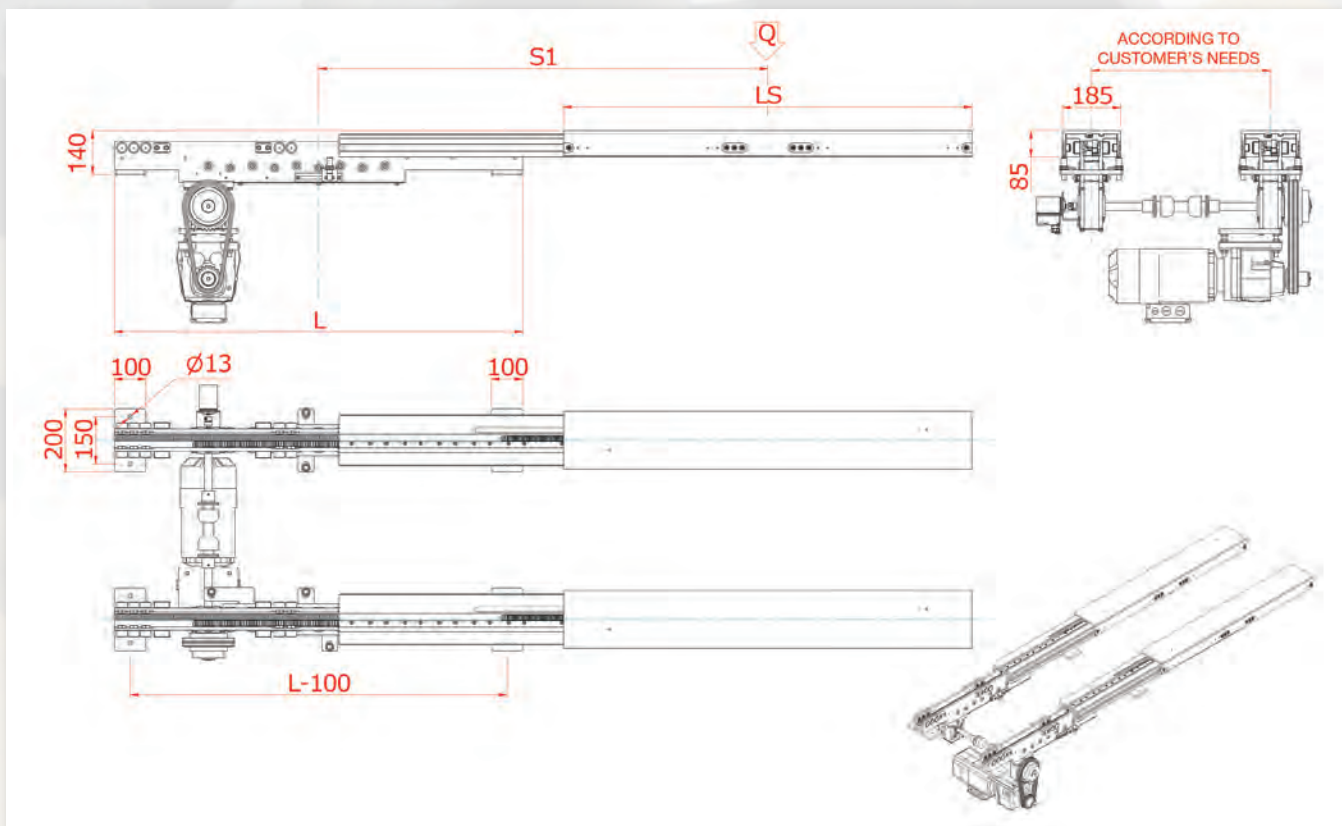
TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR85-120		1200	1200	1300	16
AR85-135	1750	1350	1240	1450	21
AR85-150		1500		1600	27
AR85-165	1250	1650	1350	1750	25
AR85-170		1700	1450	1800	28
AR85-185	1000	1850	1550	1950	29
AR85-200	700	2000	1650	2100	26

Also for the 85 SX both the transmission systems with racks and pinions and with chains are available, the choice depending on the operating environment; hence, it's recommended to consult LHD's technical staff.

COMBINED PRODUCTS

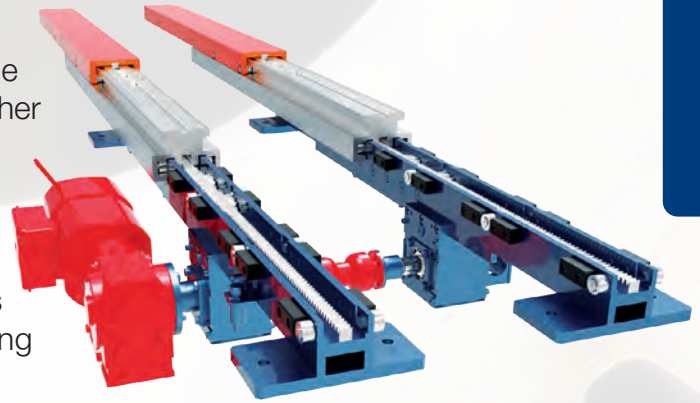
SPECIAL PRODUCTS





# ARES 100

Certainly peculiar telescopic forks, very versatile and useful to pass through narrow openings other forks don't fit in. Its moment of inertia is very high and, although its thickness is not excessive, the ARES 100 benefits from an outstanding carrying capacity with a small bending. The transmission is entirely operated by racks and pinions, and it can attain a high operating speed.



PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AR100-100	800	1000	1000	1100	6
AR100-115		1150	1150	1250	7
AR100-130		1300	1300	1400	9
AR100-145		1450	1450	1550	11
AR100-160		1600	1600	1700	14
AR100-175		1750	1750	1850	17
AR100-200		2000	2000	2100	23

It's not suitable for the handling of europallets, being rather fit for the sectors of automotive and wood or steel industry.

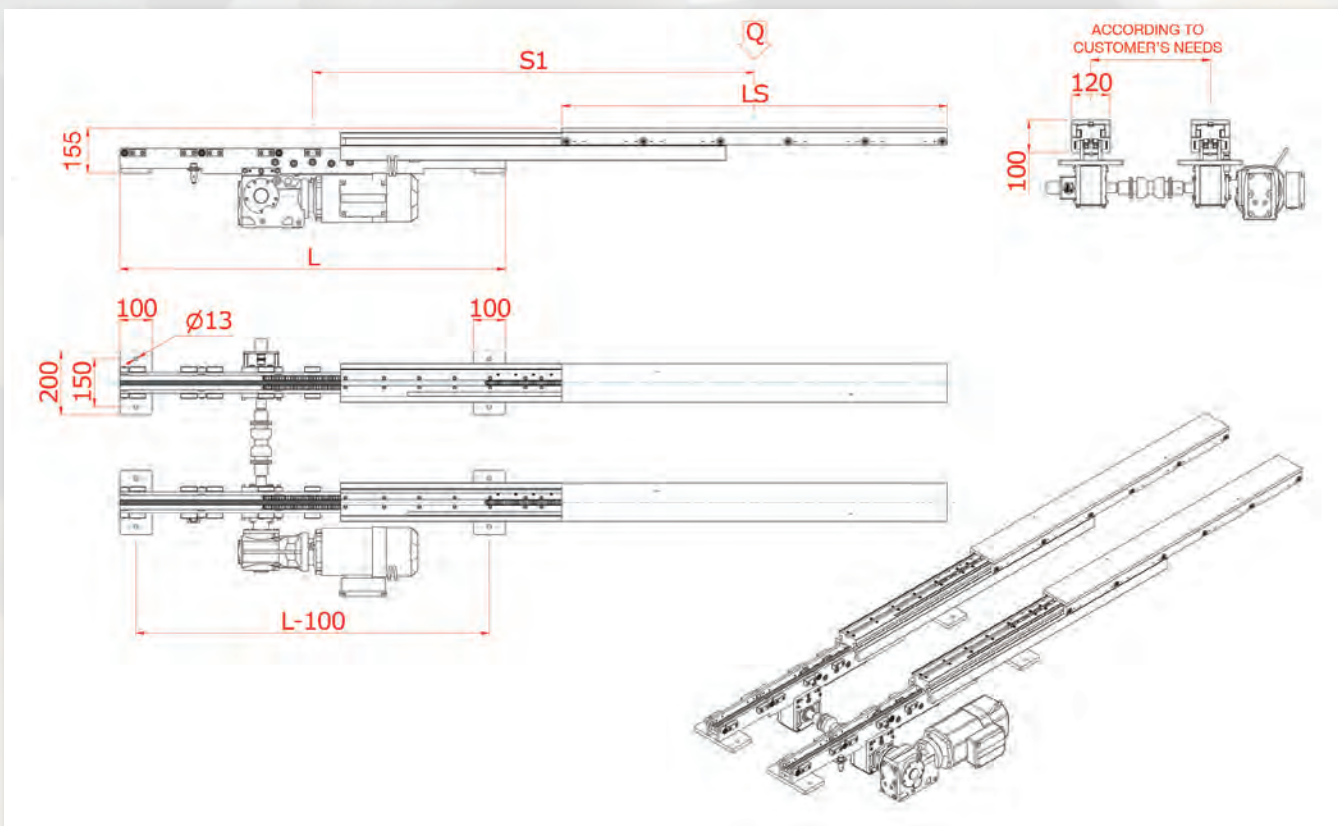
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

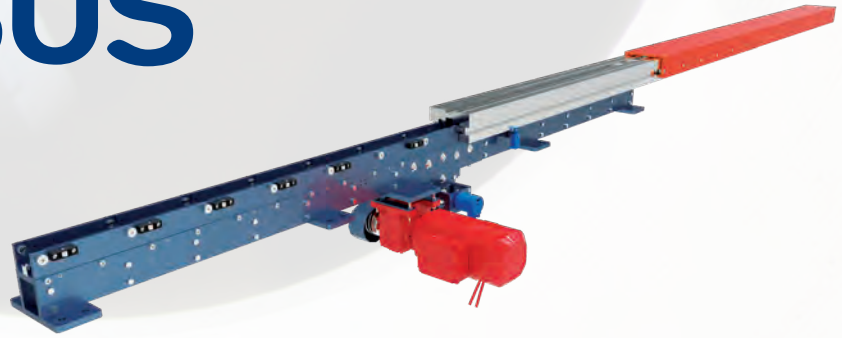
SPECIAL PRODUCTS





# PEGASUS

When it comes to push/pull the load, PEGASUS is the right solution. It's a single-depth telescopic fork, equipped with internal double gear train transmission to handle up to 3.000 Kg in push/pull mode.



SINGLE DEPTH

PRODUCT CODE	PQ PUSH/PULL LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
PEG-100	3000	1000	1000	1100	4
PEG-125		1250	1250	1350	8
PEG-150		1500	1500	1600	12
PEG-175	2500	1750	1750	1850	17
PEG-200		2000	2000	2100	22
PEG-225	2000	2250	2250	2350	26
PEG-250	1500	2500	2500	2600	28
PEG-260		2600	2600	2700	30

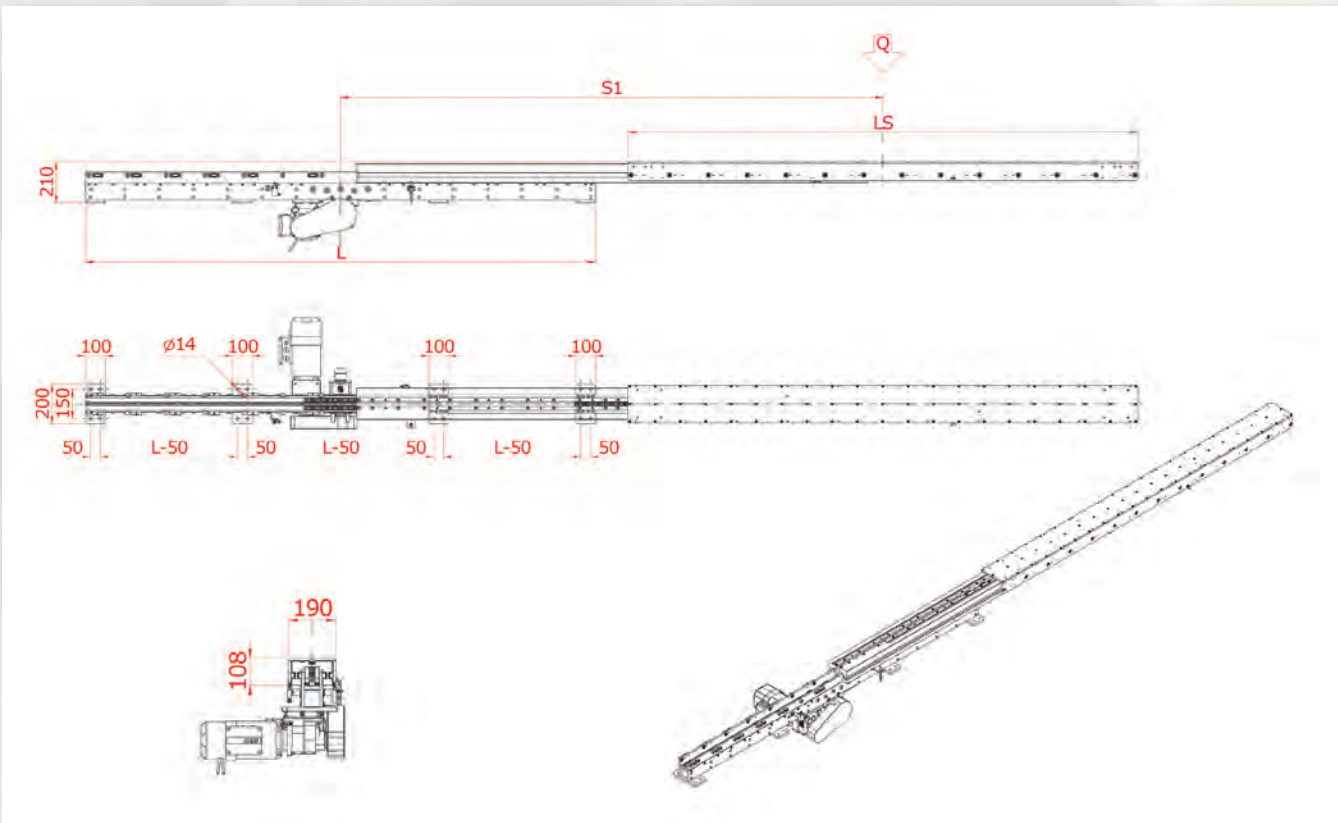
Just like normal telescopic forks, it can also be used to lift the load, the capacity depending on the thickness.

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

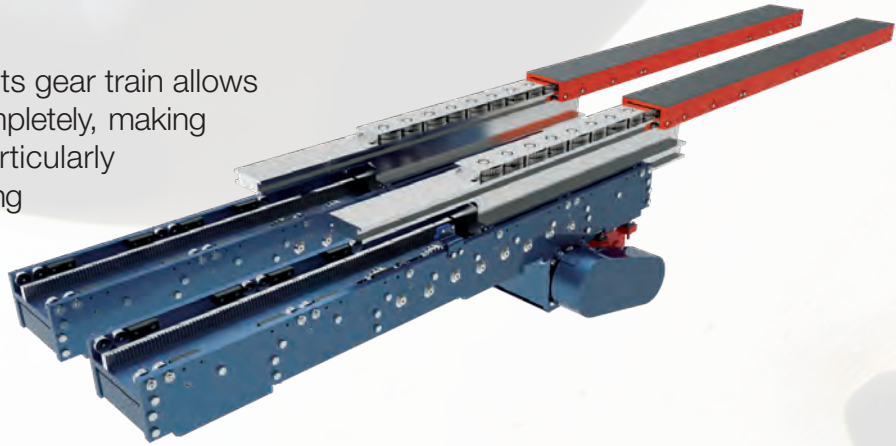
SPECIAL PRODUCTS





# HEPHAESTUS

The peculiar arrangement of its gear train allows covering the middle slide completely, making the HEPHAESTUS forks particularly recommended for “dirty” working environments (such as sand molded casting).



SINGLE DEPTH

DOUBLE DEPTH

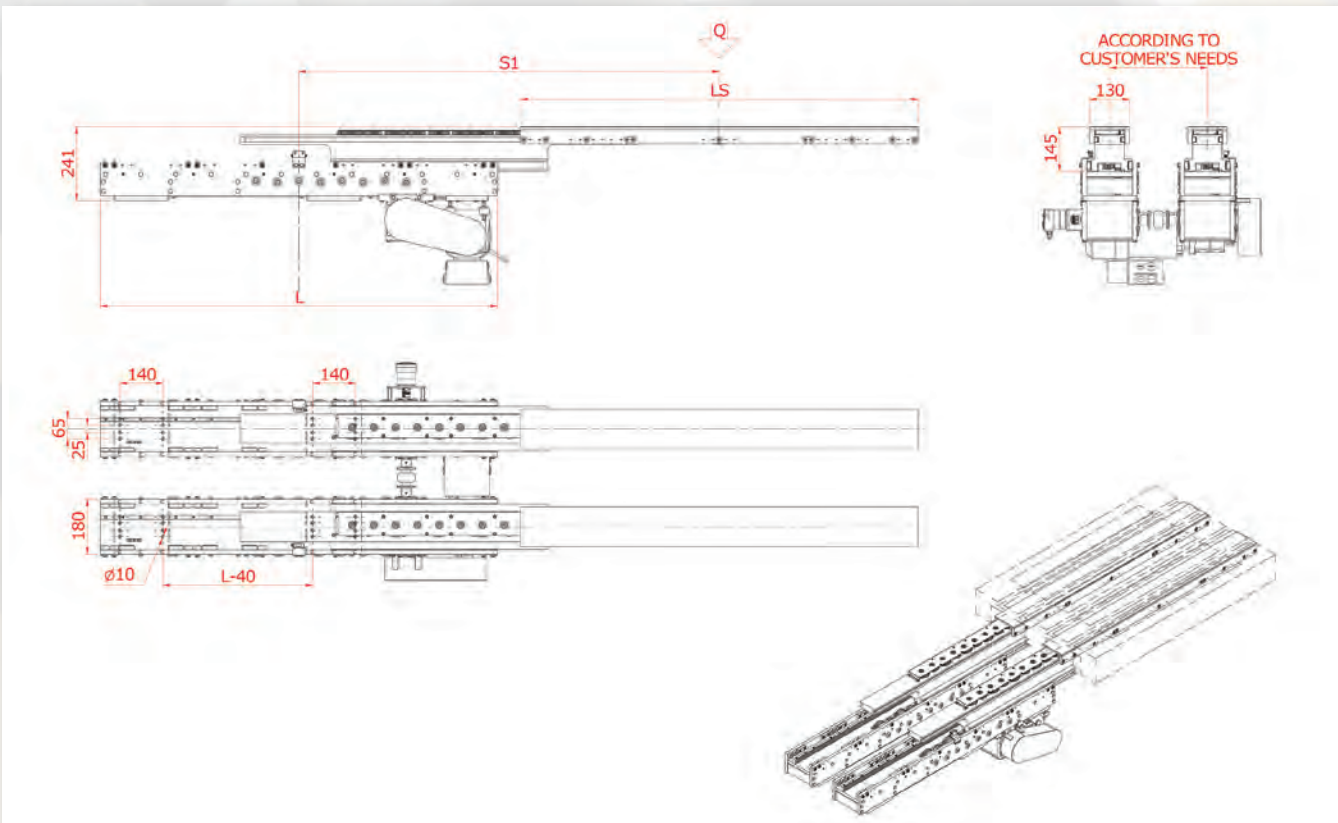
TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
H-100		1000	1000	1100	20
H-110	800	1100	1100	1200	23
H-120		1200	1200	1300	27
H-130	700	1300	1300	1400	30
H-140	560	1400	1400	1500	32
H-150	400	1500	1500	1600	34

This machine can handle loads up to 800 kg with a very low flexion, despite a thickness of just 55 mm.

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ATHENA 100

This is the first telescopic fork of the ATHENA heavy series.

Thanks to its strong and tough structure, it can attain remarkable lengths and strokes. Its ultimate application field is the handling of carbodies and chassis.



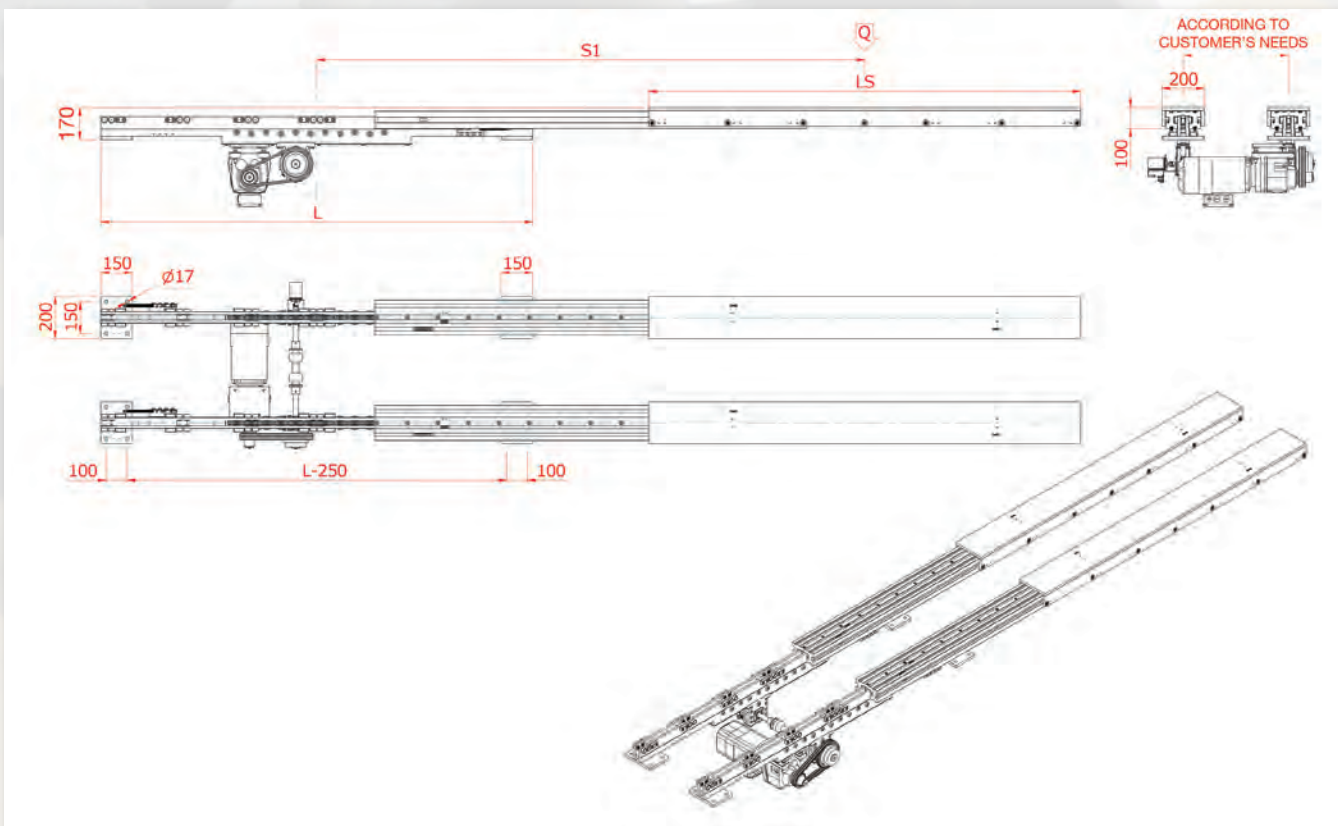
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT100-090	2000	900	900	1000	4
AT100-110		1100	1100	1200	6
AT100-130		1300	1300	1400	9
AT100-150		1500	1500	1600	13
AT100-170		1700	1700	1800	18
AT100-200		2000	2000	2100	28
AT100-220		2200	2200	2300	36

It's also fit for the sectors of wood (panels), paper (rolls) and steel (coils). As for the transmission, it's available both with racks and pinions and with chains.

DOUBLE DEPTH

TRIPLE DEPTH



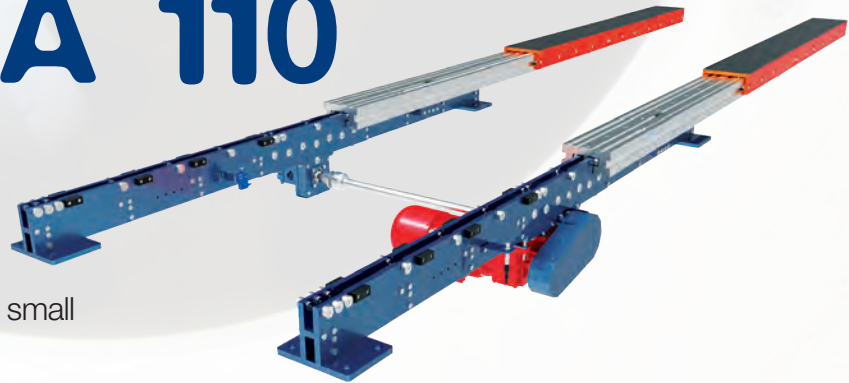
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ATHENA 110

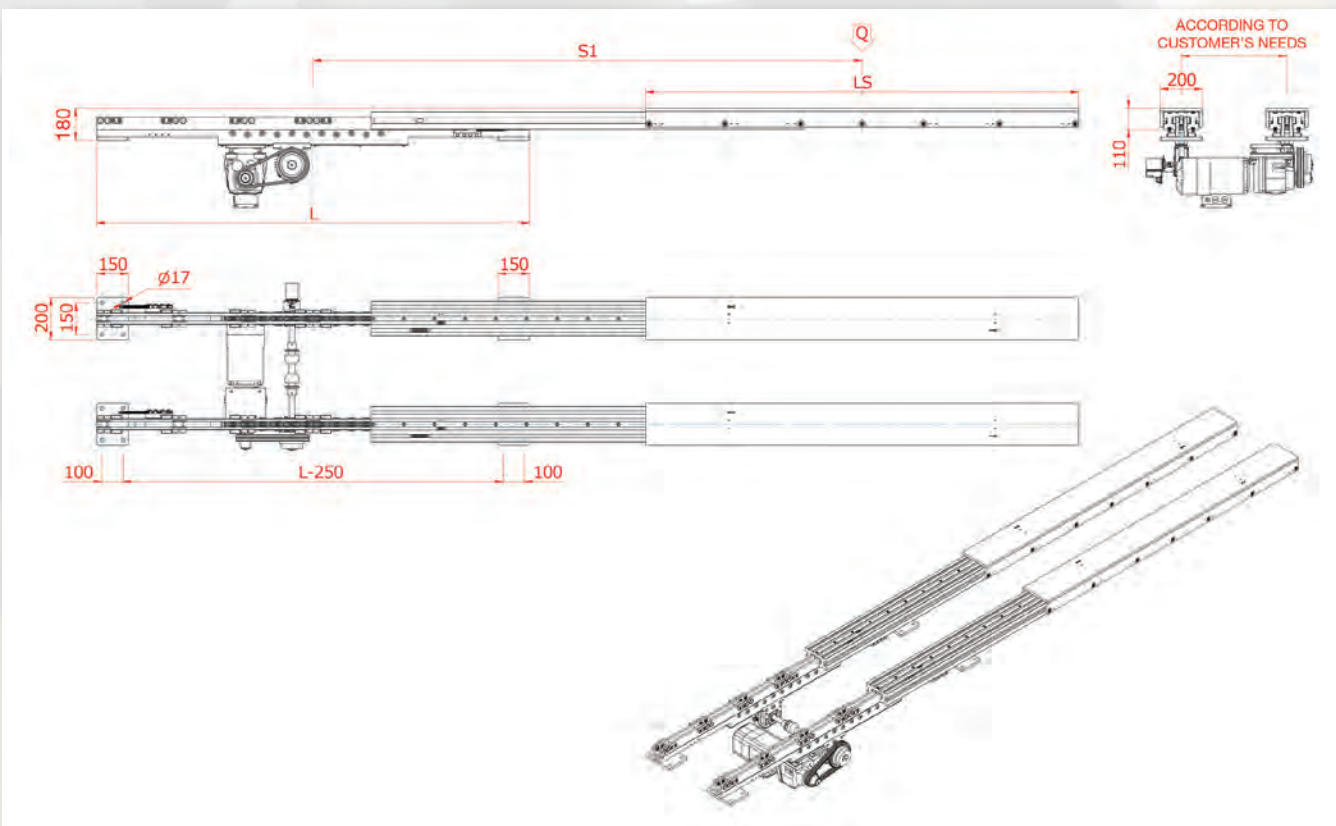
Intermediate fork of the ATHENA series, it's a very versatile and safe device equipment. It can rely on a solid structure with a remarkably small bending.



Among its many applications there is the possibility to be installed upside down, for special purposes. Thanks to its outstanding performances it's the most used fork of this series, because despite its toughness it preserves good operating speed and working paces.

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT110-110	2500	1100	1100	1200	5
AT110-130		1300	1300	1400	8
AT110-150		1500	1500	1600	11
AT110-180		1800	1800	1900	18
AT110-200		2000	2000	2100	24
AT110-220	2000	2200	2200	2300	30
AT110-250		2500	2500	2600	35

It's fit for the same operating sectors as the ATHENA 100, and as for the transmission, it's available both with racks and pinions and with chains.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

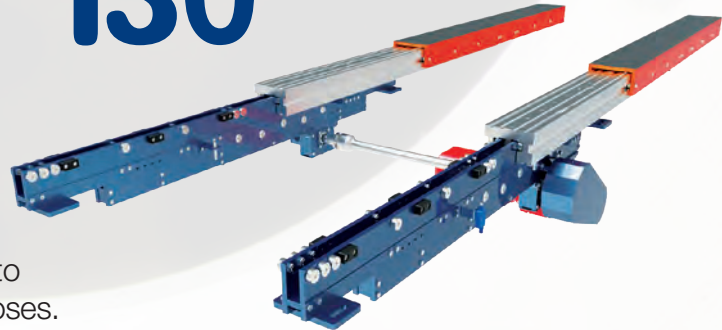
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ATHENA 130

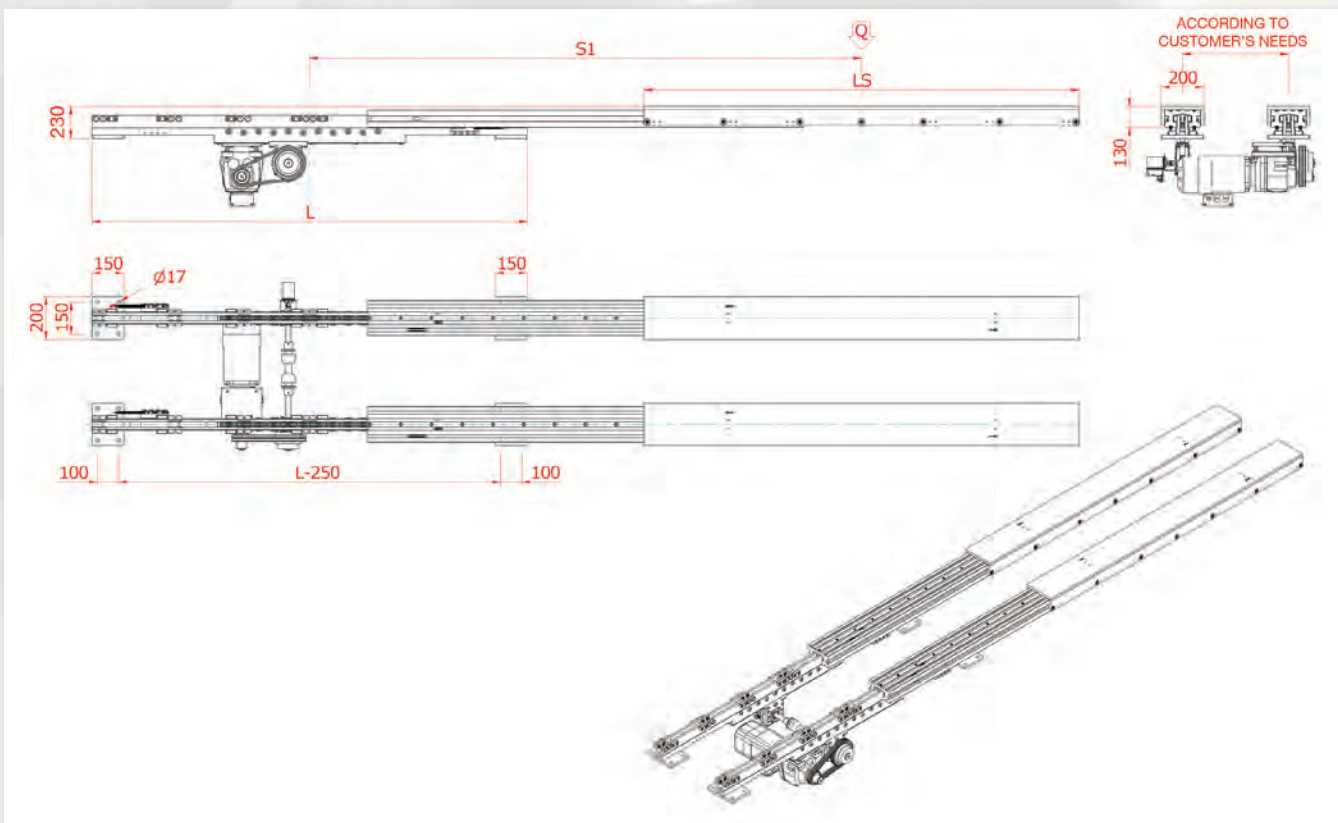
Being fit for special applications, the ATHENA 130 allows handling heavy loads with long strokes and small bending. Also the ATHENA 130 has the possibility to be installed upside down, for special purposes.



Not suitable for high operating speeds and accelerations, it works at its best in all those sectors where toughness, repeatability and fatigue stress are required. As for the transmission, it's available both with racks and pinions and with chains.

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT130-150	2500	1500	1500	1600	8
AT130-160		1600	1600	1700	10
AT130-170		1700	1700	1800	11
AT130-180		1800	1800	1900	13
AT130-190		1900	1900	2000	15
AT130-200		2000	2000	2100	17
AT130-220		2200	2200	2300	22

The ATHENA can be produced also in notably bigger sizes; nevertheless, it's part of the custom-built production and its feasibility has to be established along with LHD's technical staff.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

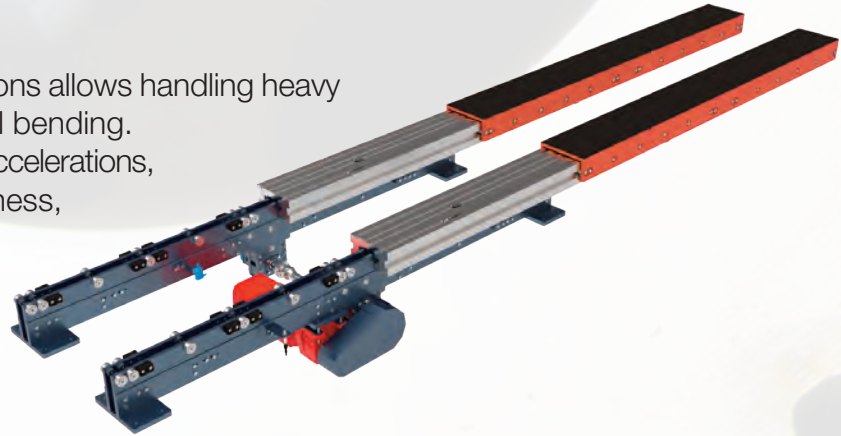
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ATHENA 130 W250

This ATHENA for special applications allows handling heavy loads with long strokes and small bending. Not suitable for high speeds and accelerations, it works at its best where toughness, repeatability and fatigue stress are required.



SINGLE DEPTH

DOUBLE DEPTH

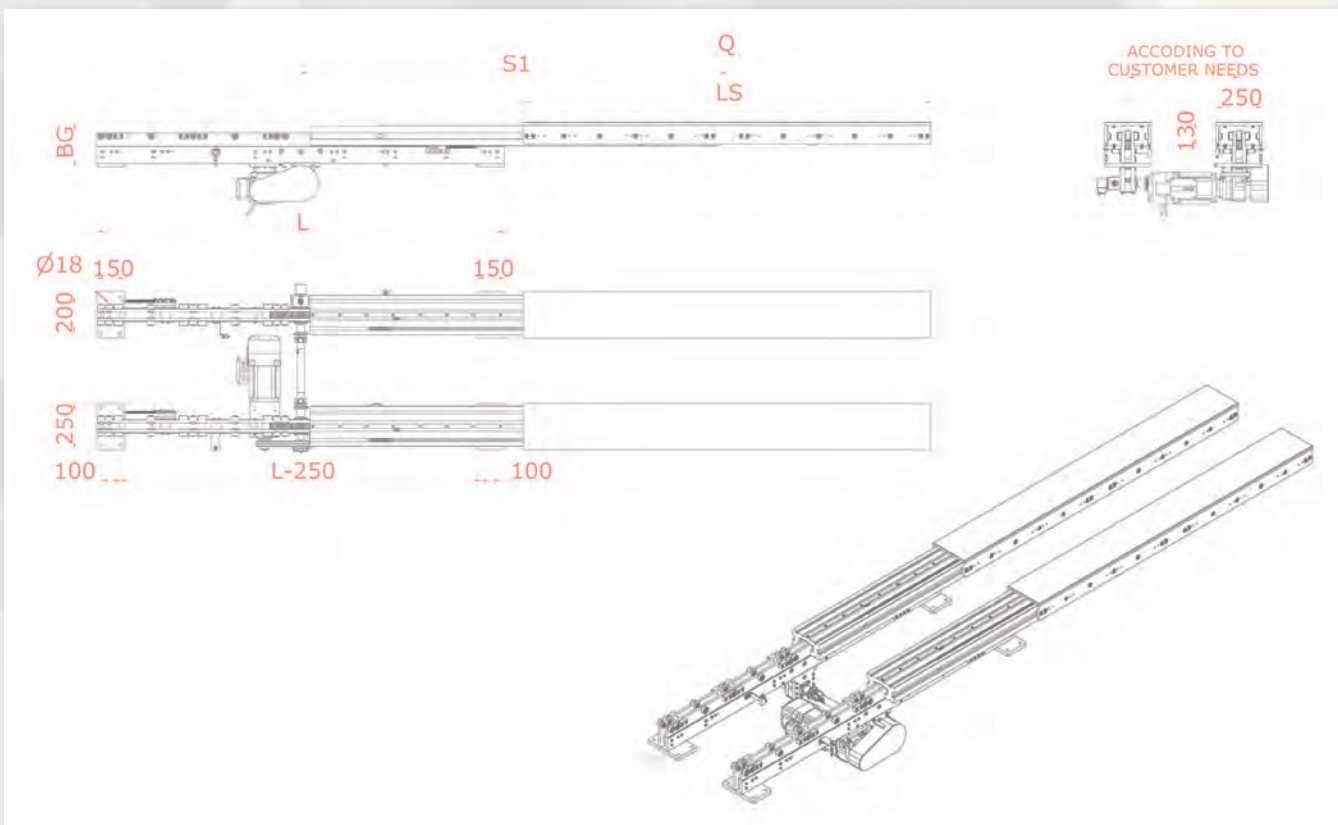
TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT130W-110	4000	1100	1100	1200	4
AT130W-130		1300	1300	1400	6
AT130W-150		1500	1500	1600	9
AT130W-180		1800	1800	1900	15
AT130W-200		2000	2000	2100	19
AT130W-220		2200	2200	2300	25
AT130W-250	3000	2500	2500	2600	27

As for the transmission, it's available both with racks and pinions and with chains.

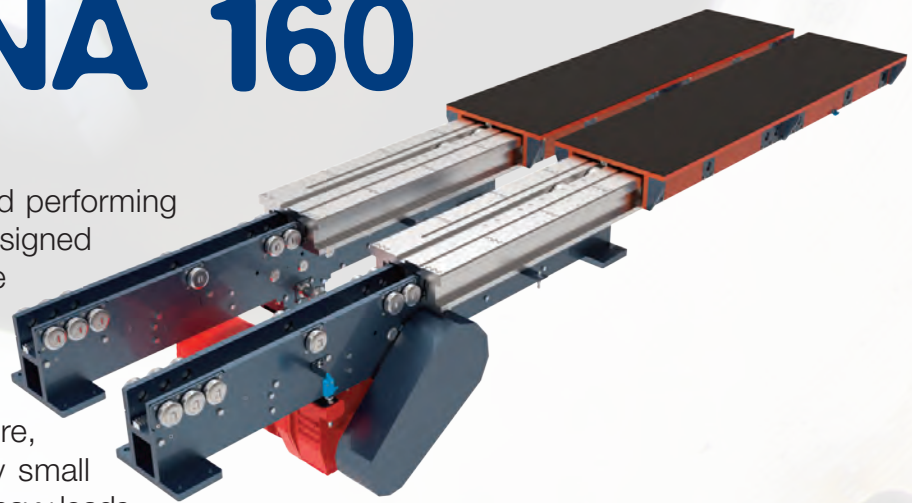




# ATHENA 160

It's a very strong, tough and performing telescopic fork, expressly designed by LHD to fill a gap in the choice of telescopic forks in order to fulfil the needs of current handling industry.

Thanks to its tough structure, the ATHENA 160 has a very small bending, even when carrying heavy loads.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

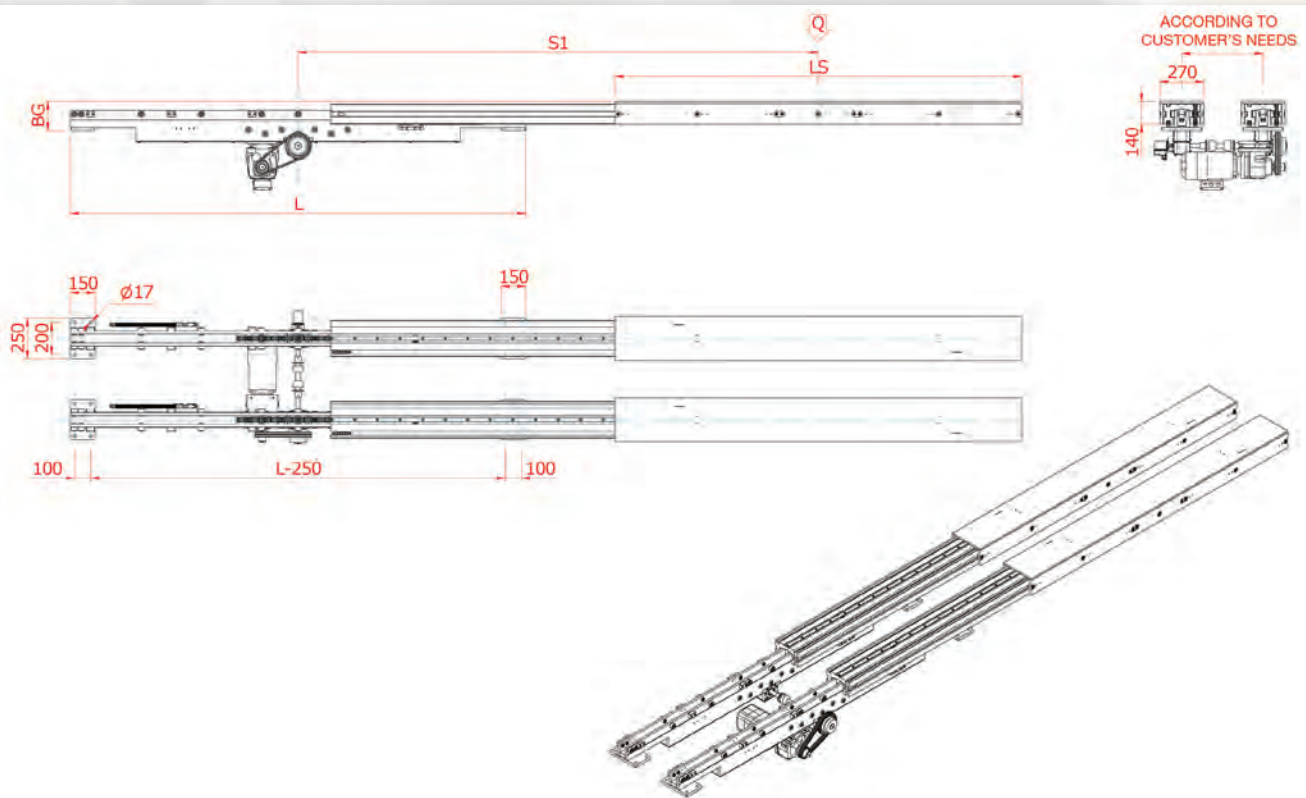
COMBINED PRODUCTS

SPECIAL PRODUCTS

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT160-130	5000	1300	1300	1400	5
AT160-150		1500	1500	1600	6
AT160-170		1700	1700	1800	8
AT160-190		1900	1900	2000	10
AT160-220		2200	2200	2300	13
AT160-250		2500	2500	2600	15
AT160-290		2900	2900	3000	22

Mostly suitable for handling coils within paper and steel industries, it's also very suitable for handling car bodies and chassis within the automotive sector.

The ATHENA 160 is an excellent intermediate solution to have a powerful, safe and competitive equipment, repeatability being its strong point.





# ATHENA 183

This model of the ATHENA heavy series is particularly suitable for handling heavy loads with long strokes and low bending.

Due to its considerable weight, it's designed for on-site maintenance: all components prone to wear and tear can be replaced without removing the fork from its operating site.



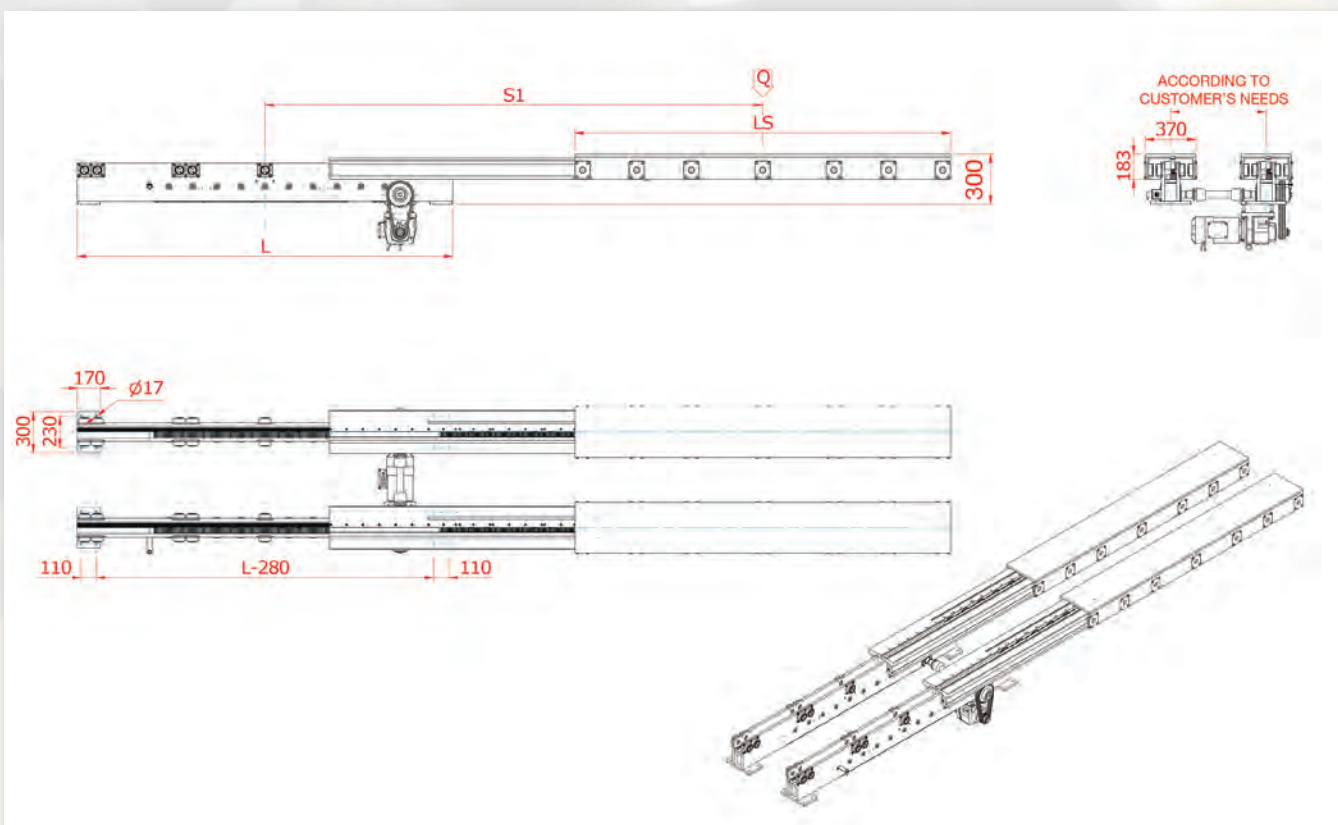
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT183-150	5000	1500	1500	1600	6
AT183-175		1750	1750	1850	7
AT183-200		2000	2000	2200	13
AT183-225	3000	2250	2250	2350	11
AT183-250		2500	2500	2600	13
AT183-275		2750	2750	2850	15
AT183-300		3000	3000	3200	23

Its version with inclined slides is expressly designed to handle big size coils.

DOUBLE DEPTH

TRIPLE DEPTH



COMBINED PRODUCTS

SPECIAL PRODUCTS



# ATHENA 220

This equipment is made of special materials and innovative solutions have been employed for its development. It's mainly used in the paper industry to handle big paper coils, or in precision, industries to automatically feed e.g. laser cutting or bending machines, or to handle chipboards and the like.



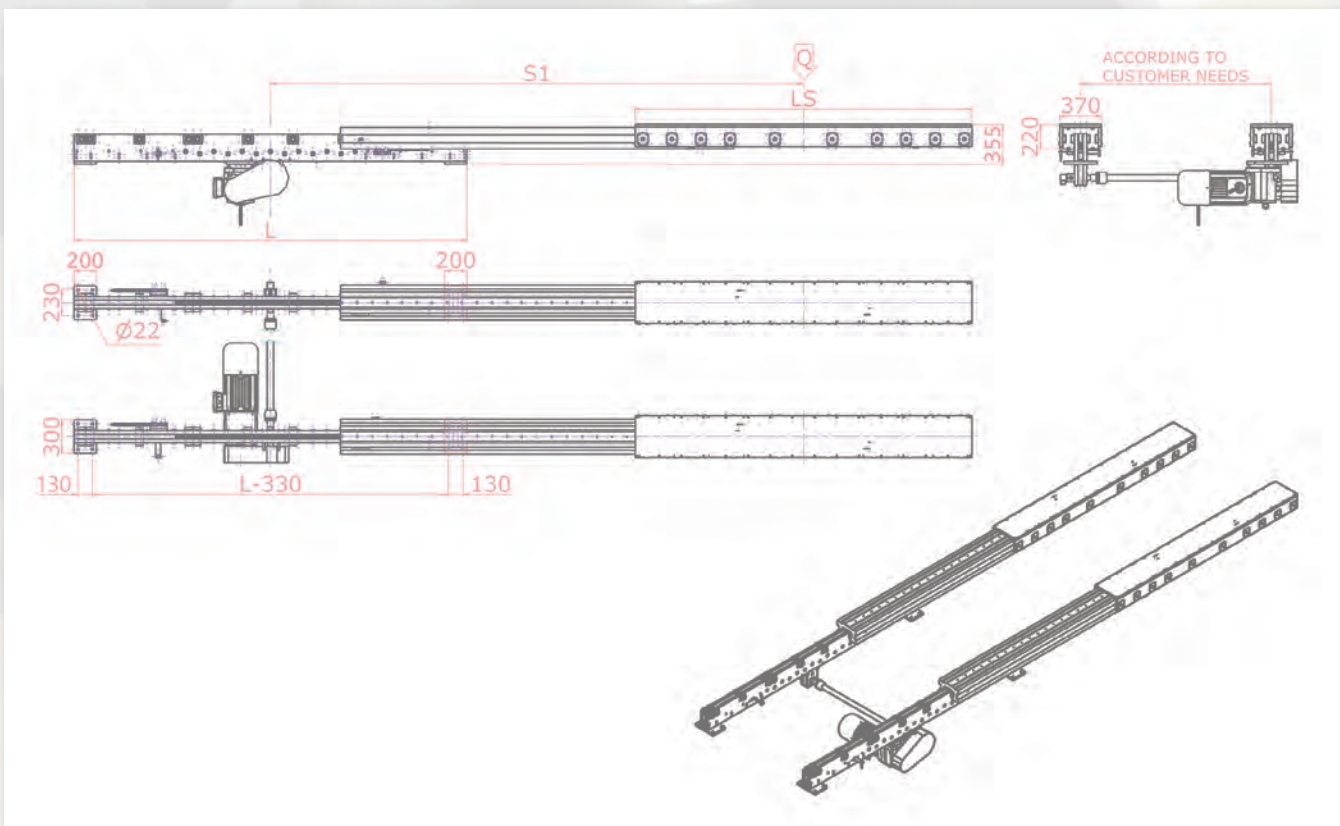
SINGLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT220-130	4000	1300	1300	1400	2
AT220-150		1500	1500	1600	
AT220-170		1700	1700	1800	3
AT220-190		1900	1900	2000	
AT220-220		2200	2200	2300	4
AT220-250		2500	2500	2600	6
AT220-290		2900	2900	3000	8

Notably low bending and long life cycle are its strong points. This equipment is the ultimate solution for purposes other forks are not fit for, offering remarkable performances for speed and acceleration. It's only available with the pinions and racks system.

DOUBLE DEPTH

TRIPLE DEPTH



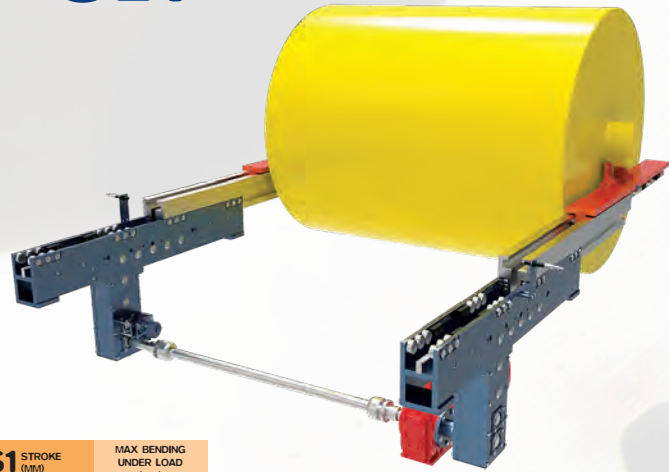
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARES 140 SLV

Smaller sister of the ATHENA 220 SLV, in this type of telescopic fork the high moment of inertia totally lies in its arm thickness rather than in its width.



PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (NBS)
AR140K-100	1600	1000	1000	1100	9
AR140K-125		1250	1250	1350	17
AR140K-130		1300	1300	1400	19
AR140K-135		1350	1350	1450	21
AR140K-140		1400	1400	1500	23
AR140K-145		1450	1450	1550	25
AR140K-150		1500	1500	1600	27
AR140K-190	1000	1900	1900	2000	29

It's designed to pass through particularly narrow openings, although it can handle notably heavy loads, such as big metal or paper coils, with low bending and long life cycle.

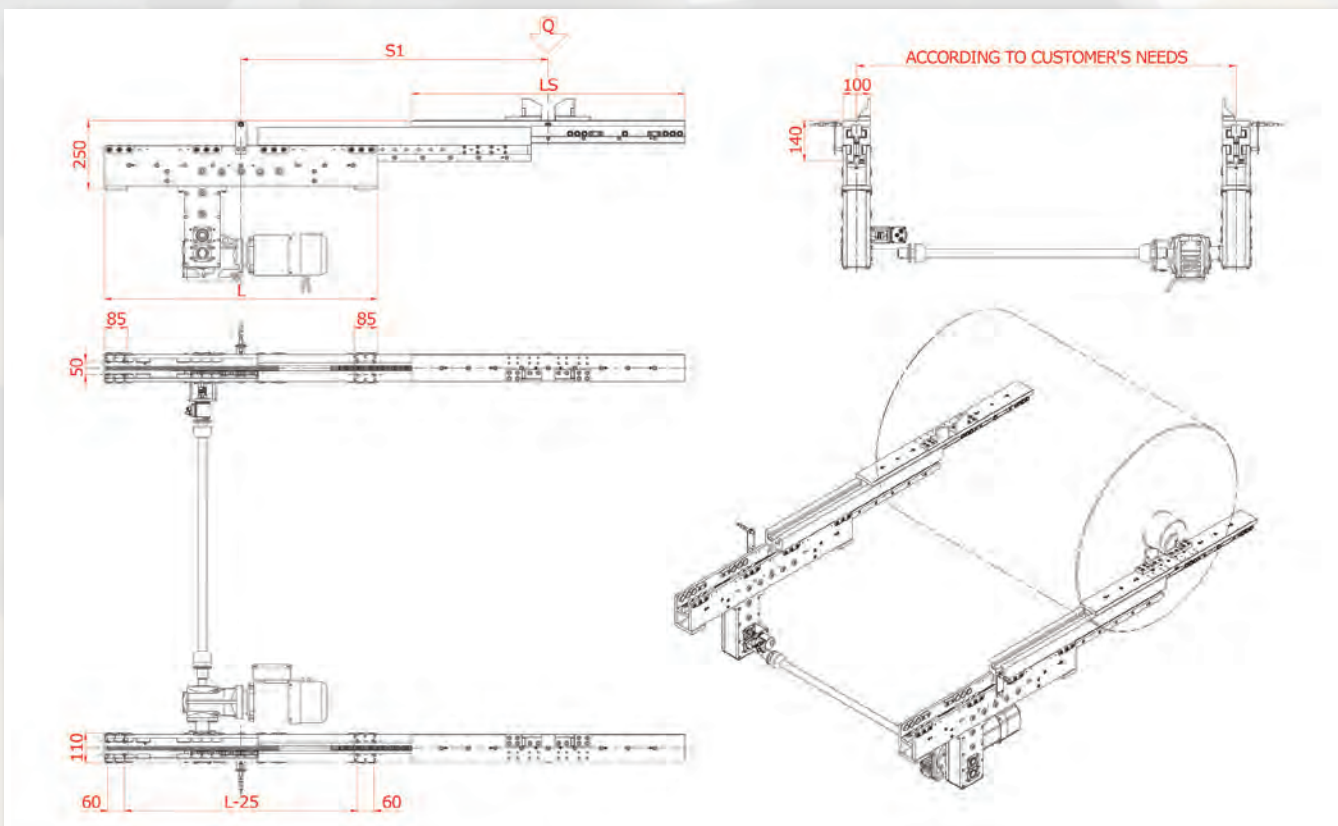
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

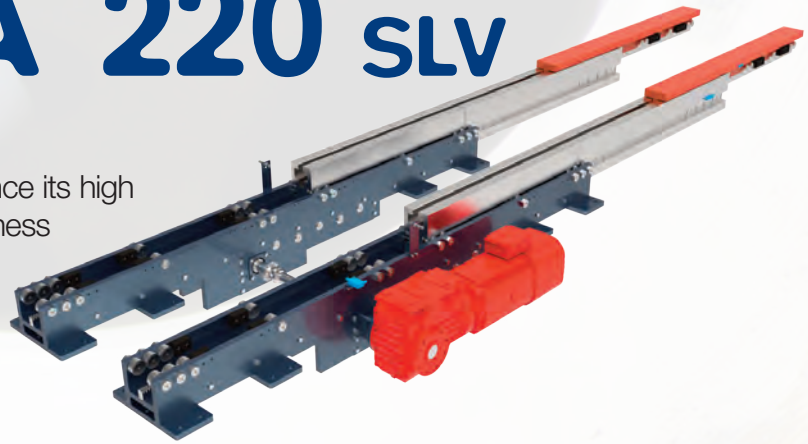
SPECIAL PRODUCTS





# ATHENA 220 SLV

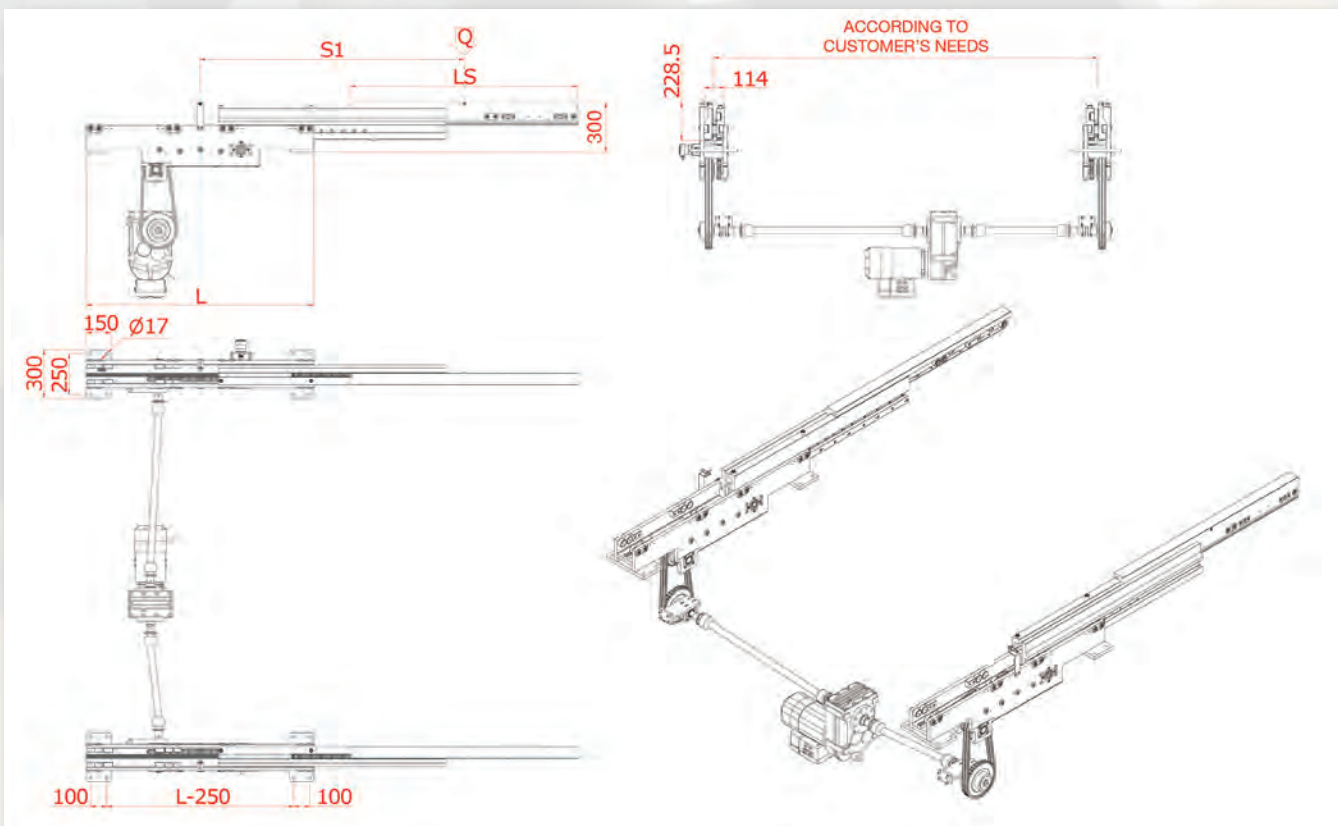
It's a peculiar type of telescopic fork, since its high moment of inertia totally lies in its thickness rather than in its width. It's specifically designed to fit into particularly narrow openings, although it can handle notably heavy loads.



This equipment is made of special materials and innovative solutions have been employed for its develop. It's mainly used in the paper industry to handle big paper coils.

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT220-130	4000	1300	1300	1400	6
AT220-150		1500	1500	1600	9
AT220-170		1700	1700	1800	11
AT220-200		2000	2000	2100	17
AT220-250		2500	2500	2600	30
AT220-290	2000	2900	2900	3000	25

Notably low bending and long life cycle are its strong points. This equipment is the ultimate solution for purposes other forks are not fit for, and it offers remarkable performances as for speed and acceleration. It's only available with the pinions and racks system.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

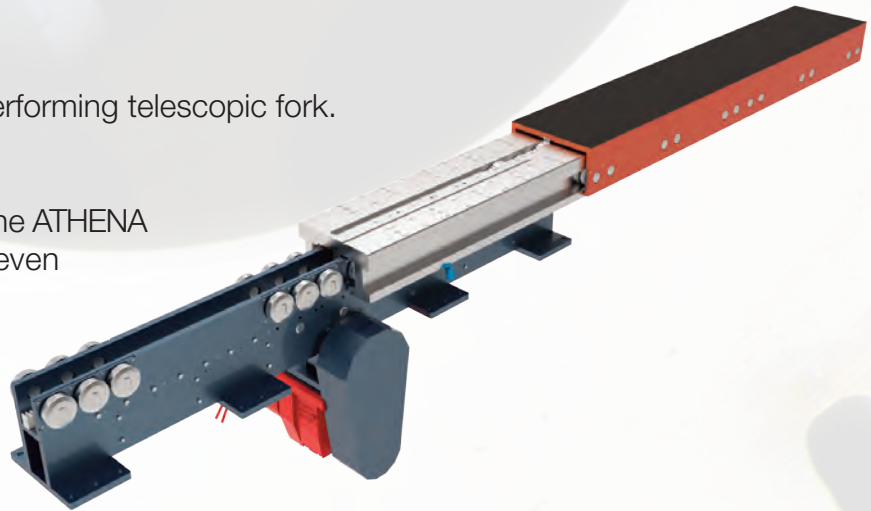
SPECIAL PRODUCTS



# ATHENA 270

It's a very strong, tough and performing telescopic fork.

Thanks to its tough structure, the ATHENA 270 has a very small bending, even when carrying heavy loads.



SINGLE DEPTH

DOUBLE DEPTH

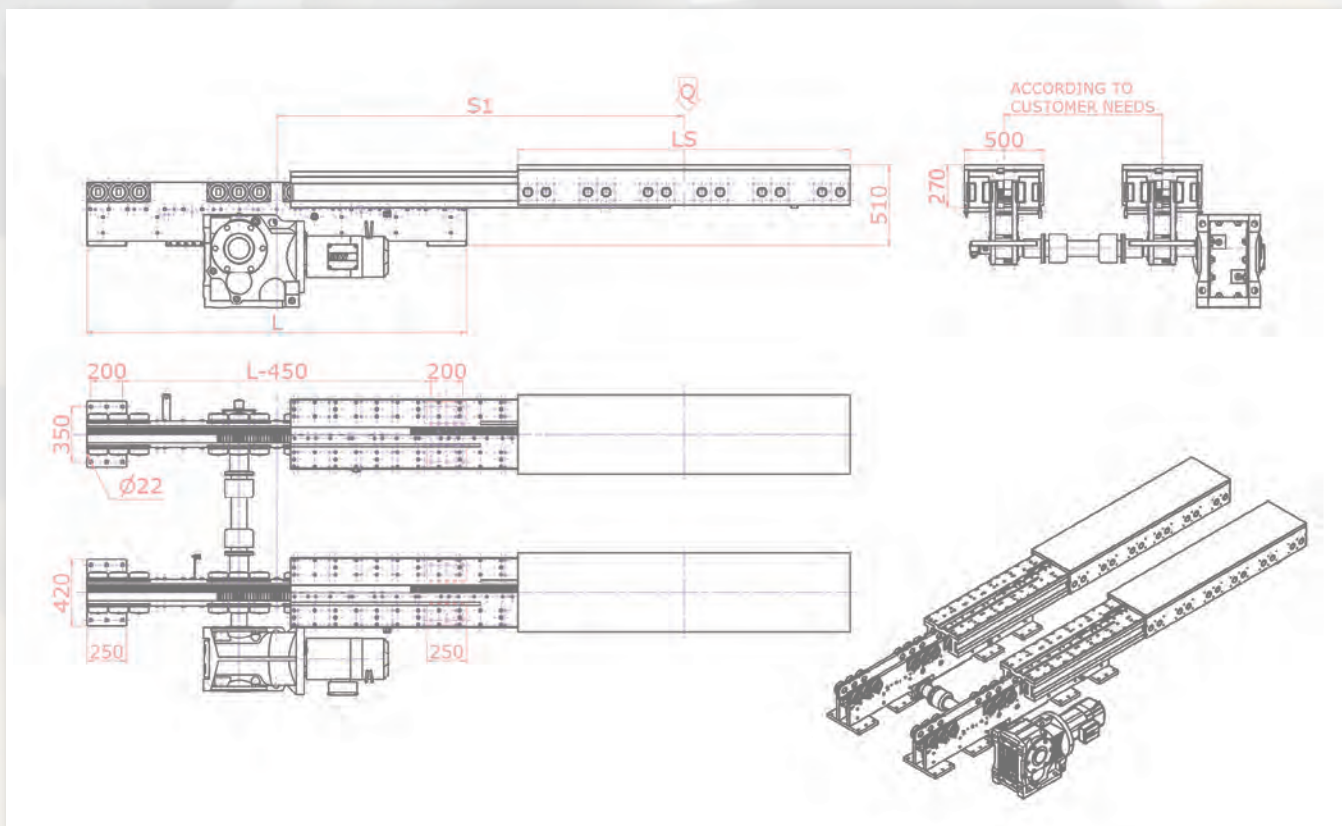
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S1 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
AT270-130	20000	1300	1300	1400	9
AT270-150		1500	1500	1600	10
AT270-170		1700	1700	1800	11
AT270-250		2500	2500	2600	20
AT270-290	10000	2900	2900	3000	27

It's particularly suitable for the handling of car bodies and chassis within the automotive sector.

TRIPLE DEPTH

COMBINED PRODUCTS

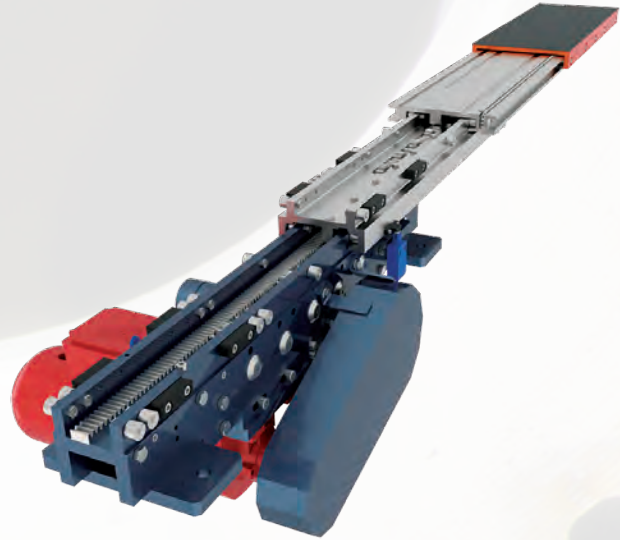
SPECIAL PRODUCTS





# ZEUS 75

Being the double-depth version of the ARES 40, the ZEUS 75 is fit for those applications where a small space of the slides is required.



SINGLE DEPTH

DOUBLE DEPTH

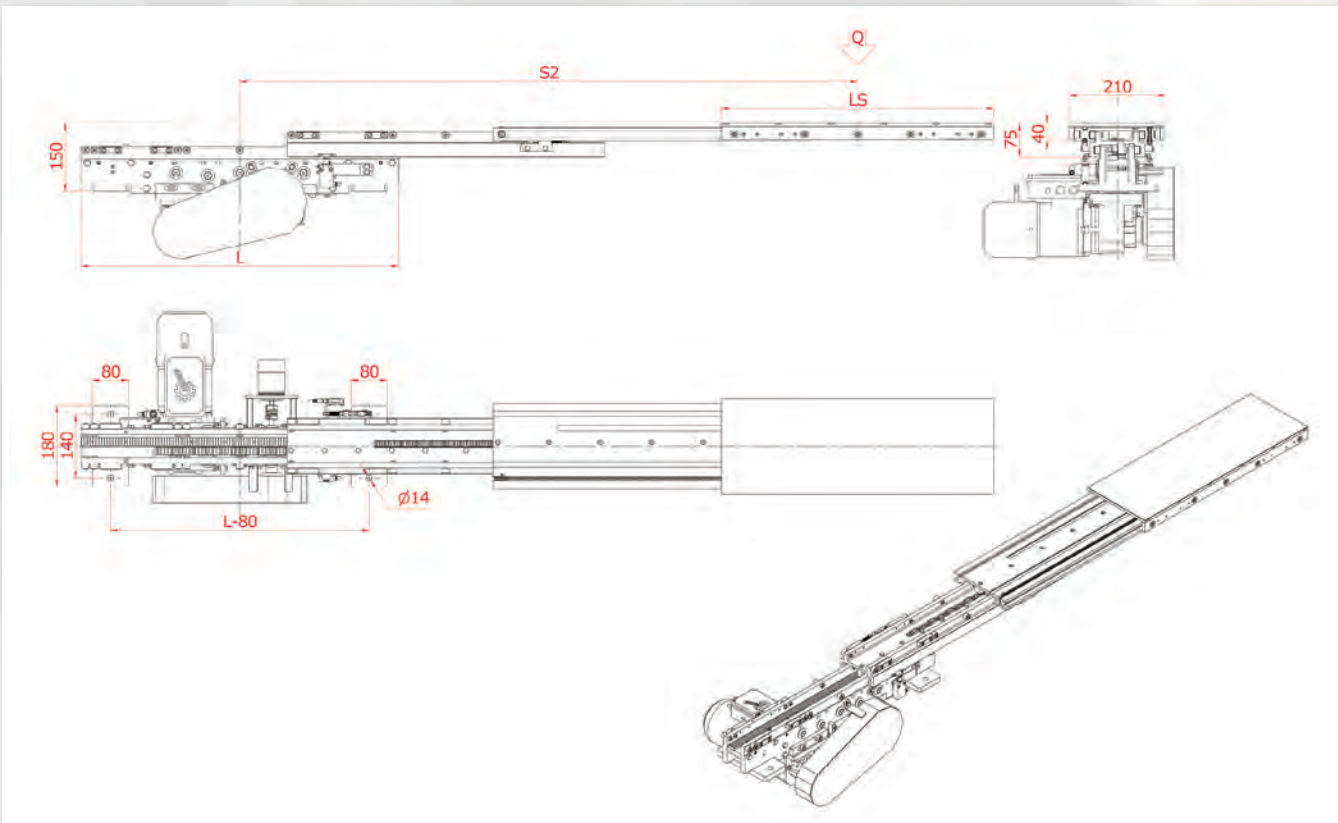
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z75-065	90	650	650	1300	11
Z75-070		700	700	1400	13
Z75-080		800	800	1600	18
Z75-090	70	900	900	1800	21
Z75-100		1000		1950	24
Z75-110		1100	1000	2200	27
Z75-120	40	1200		2400	29

The steel/aluminium fixed body reduces the overall weight. The ZEUS 75 is recommended as single fork with a larger plate on top, to handle small carton or plastic boxes.

TRIPLE DEPTH

COMBINED PRODUCTS

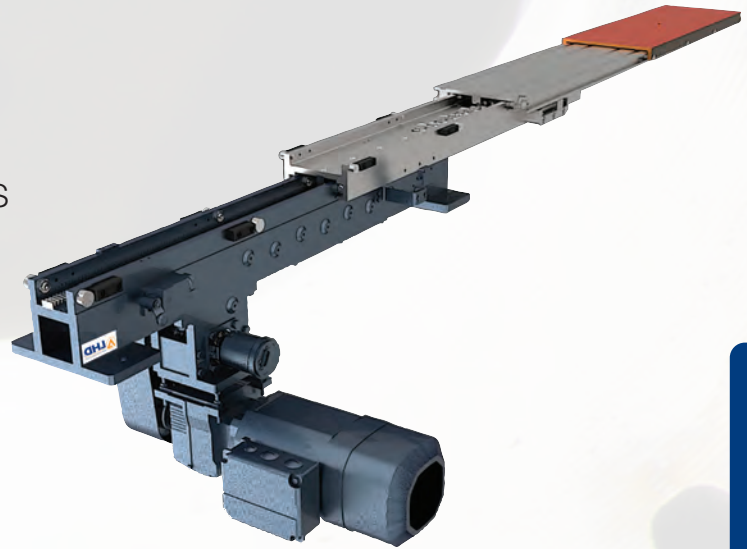
SPECIAL PRODUCTS





# ZEUS 85

With 10 mm more thickness than the ZEUS 75, the ZEUS 85 is particularly fit for those applications with a small required space of the slides. The fixed body consists of parts made of a steel/aluminium compound; hence, the total weight of the device is limited.



SINGLE DEPTH

DOUBLE DEPTH

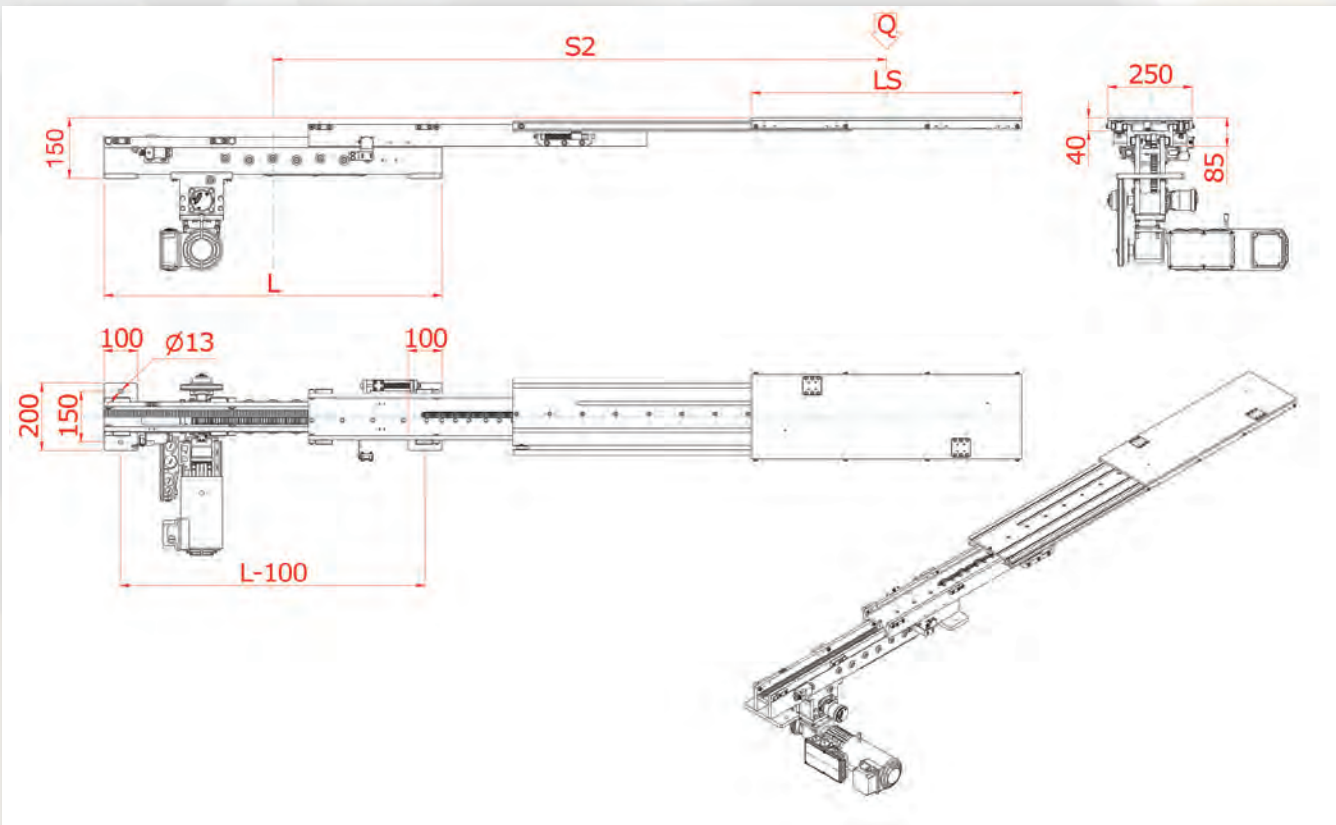
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z85-070	120	700	700	1400	13
Z85-080		800	800	1600	18
Z85-090	100	900	900	1750	19
Z85-100		1000		1950	27
Z85-110	75	1100	1000	2150	28
Z85-120	50	1200		2400	30

The ZEUS 85 is recommended as single fork with a larger plate installed on top, for handling small carton or plastic boxes within the miniload sector.

TRIPLE DEPTH

COMBINED PRODUCTS

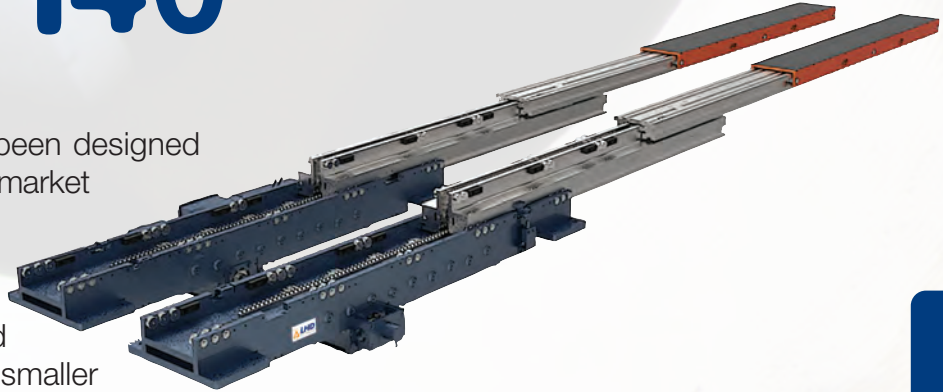
SPECIAL PRODUCTS





# ZEUS 140

This single-engined fork has been designed and developed because the market had been requesting a double-depth telescopic fork with a slender structure, well balanced, with high performances and small bending. It's one of the smaller ZEUS series forks, but it's also the most versatile for handling europallets with standard load and shape.



SINGLE DEPTH

DOUBLE DEPTH

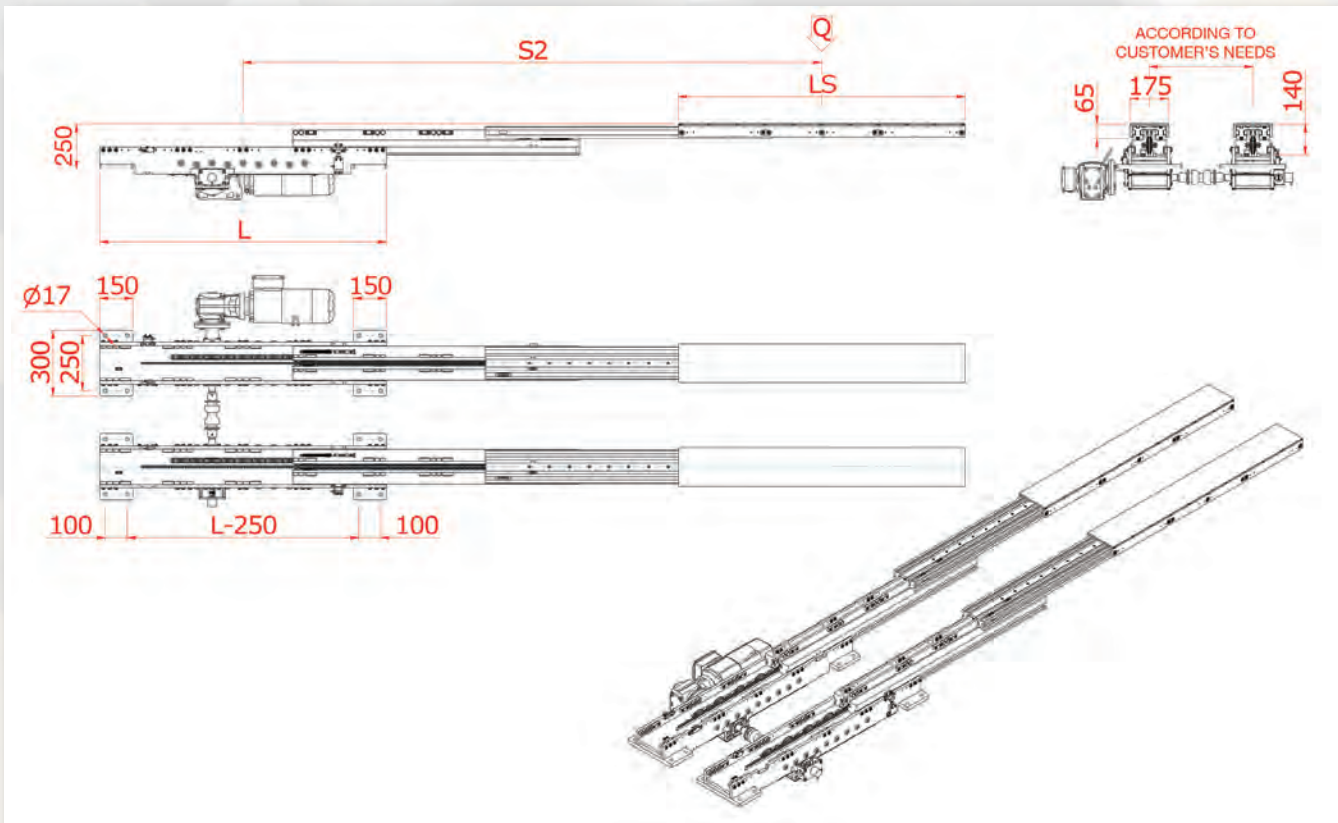
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	Ls UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z140-110	500	1100	1100	2000	12
Z140-125		1250		2500	25
Z140-130		1300		2650	31
Z140-135		1350	1250	2750	34
Z140-140		1400		2850	38
Z140-145		1450		2950	42
Z140-150		1500		3000	43

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 140 W150

This single-engined fork has been designed and developed because the market had been requesting a double-depth telescopic fork with a slender structure, well balanced, with high performances and small bending. It's one of the smaller ZEUS series forks, but it's also the most versatile for handling europallets with standard load and shape.



SINGLE DEPTH

DOUBLE DEPTH

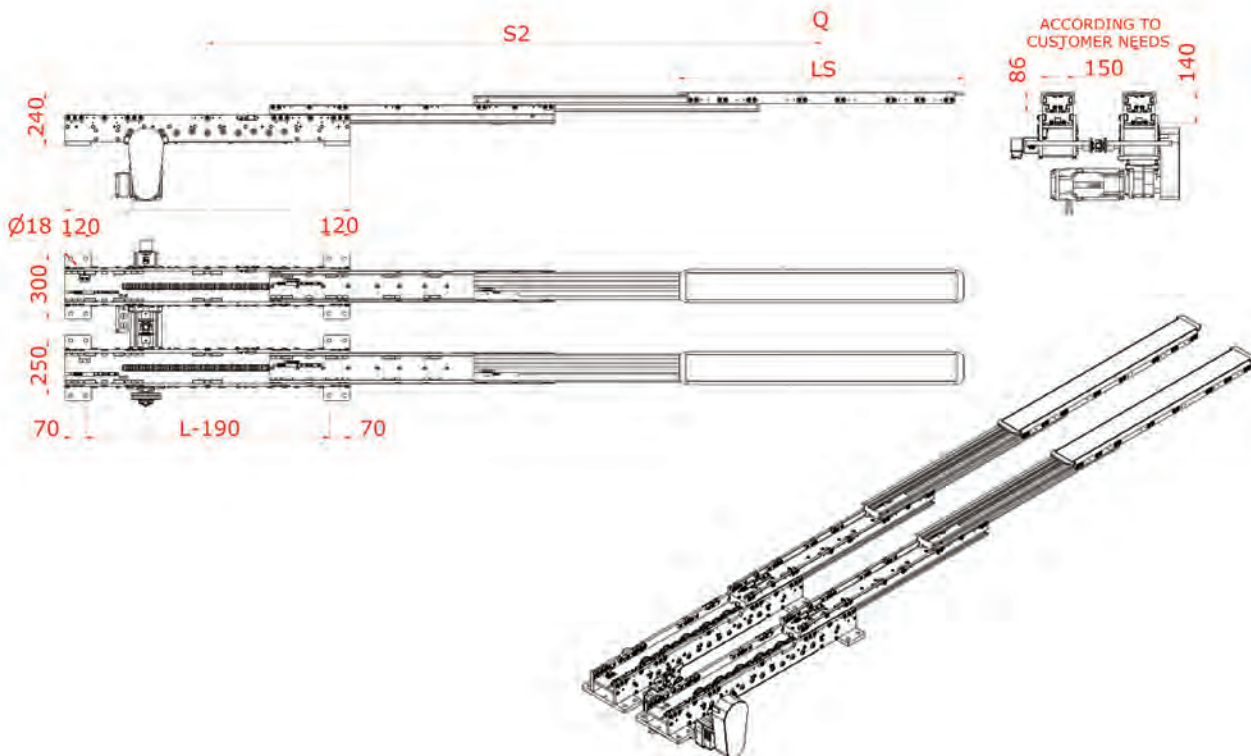
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z140W-120	400	1200	1200	2500	27
Z140W-125		1250		2600	30
Z140W-130		1300	1250	2700	33
Z140W-140		1400		2800	34

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

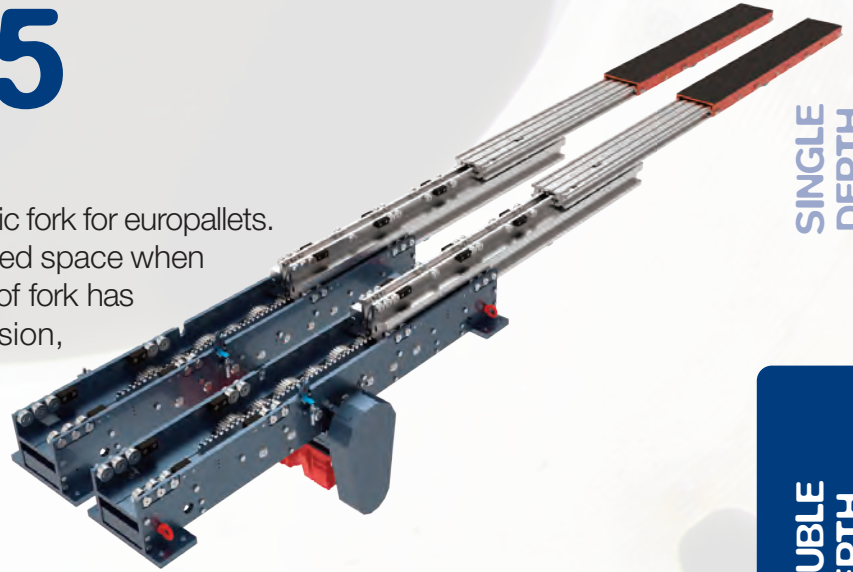
SPECIAL PRODUCTS





# ZEUS 165

Typical and classical double-depth telescopic fork for europallets. It's a single-engined fork; hence, the required space when operating is constant. Although this kind of fork has been outdone by the double-engined version, still it finds application within small size plants or in revampings of old plants.



SINGLE DEPTH

DOUBLE DEPTH

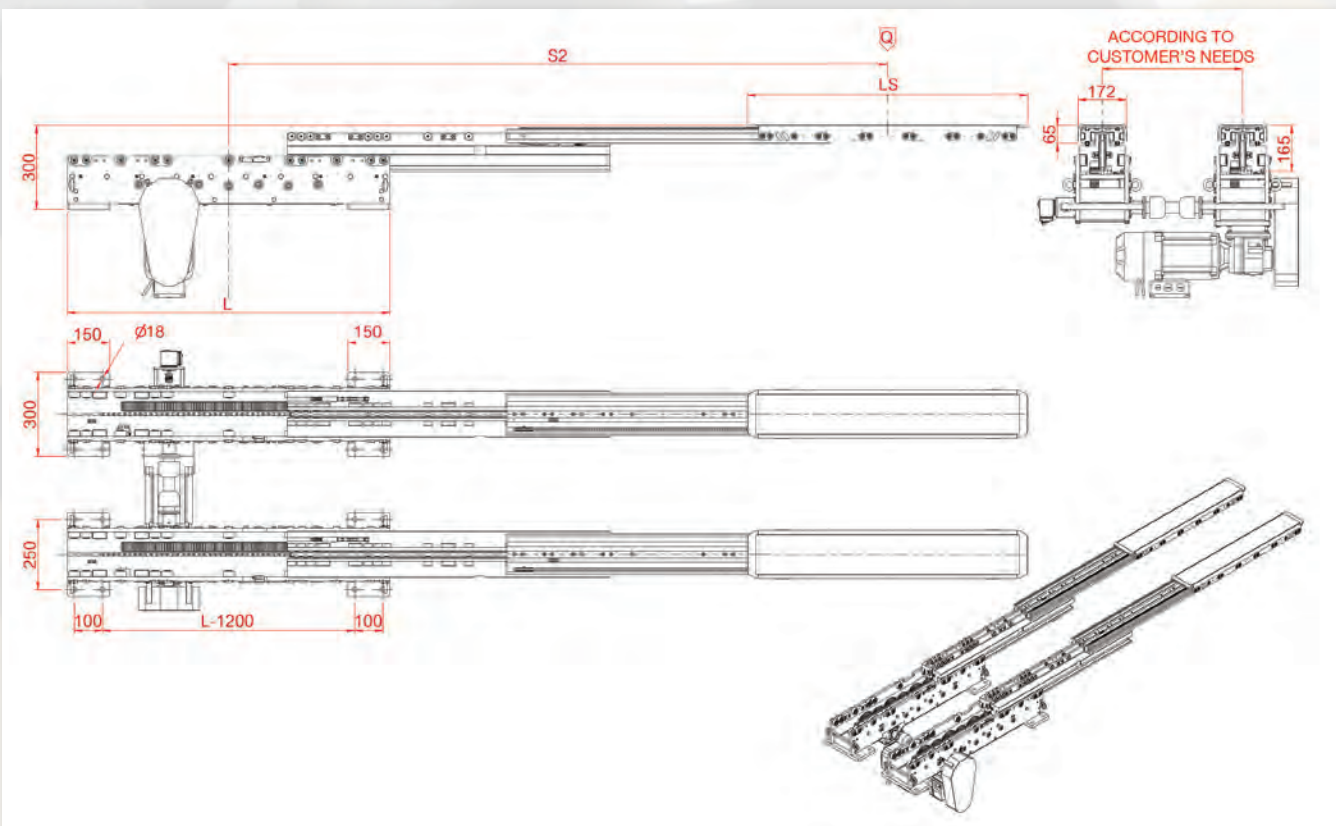
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z165-100	1200	1000	1250	1900	21
Z165-125		1250		2300	32
Z165-130		1300		2600	46
Z165-135	1000	1350	1250	2700	51
Z165-140		1400		2800	56
Z165-145	800	1450		2900	50
Z165-150		1500		3000	55

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 172

It's the bigger sister of the ZEUS 165, and just like the 165 it's designed for handling europallets, but with non-conventional loads. It can rely on a very tough structure and small bending, and it stands high working paces.



SINGLE DEPTH

DOUBLE DEPTH

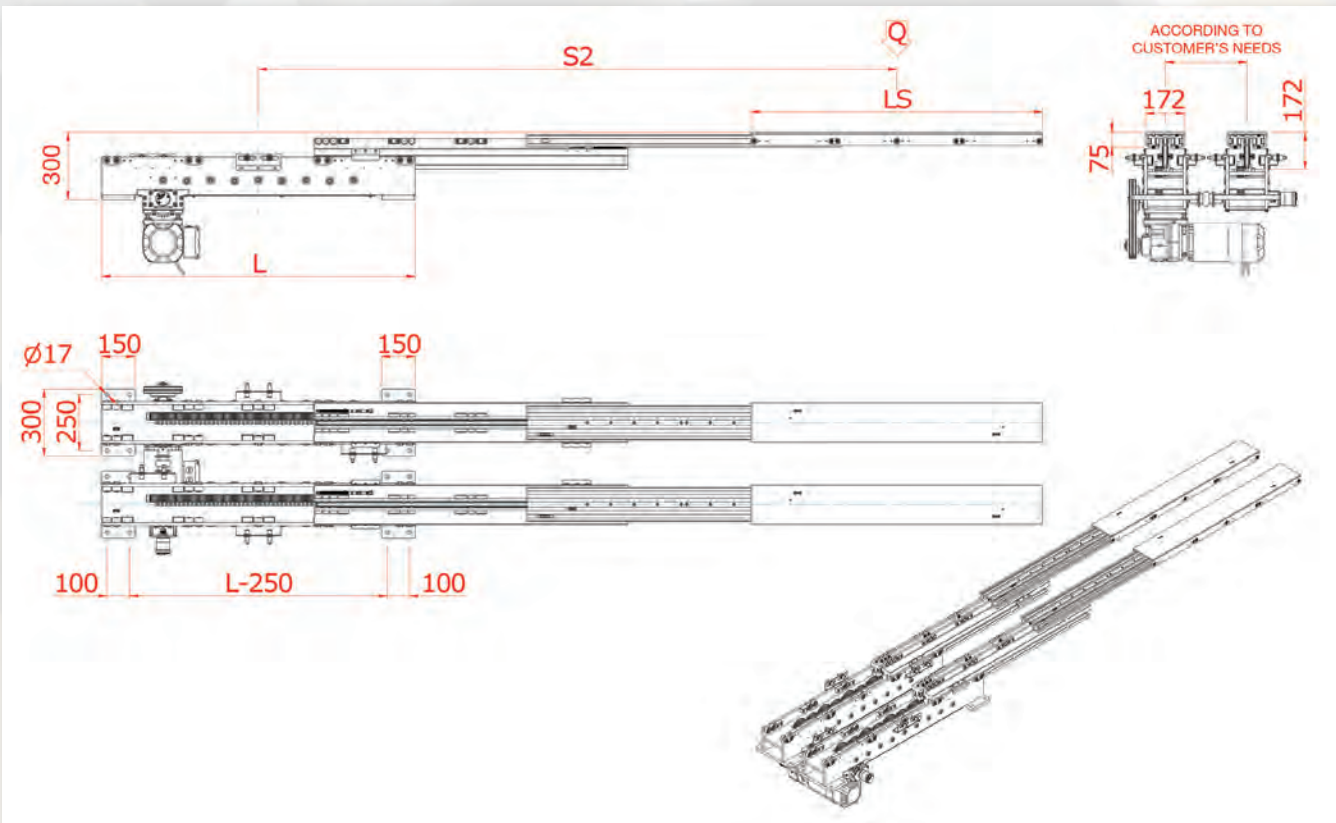
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z172-110	1100	1100	1100	2300	36
Z172-125		1250		2500	43
Z172-130	1300	1300		2600	48
Z172-135		1350		2700	52
Z172-140		1400	1250	2800	58
Z172-145	1200	1450		2900	59
Z172-150	1000	1500		3000	55

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

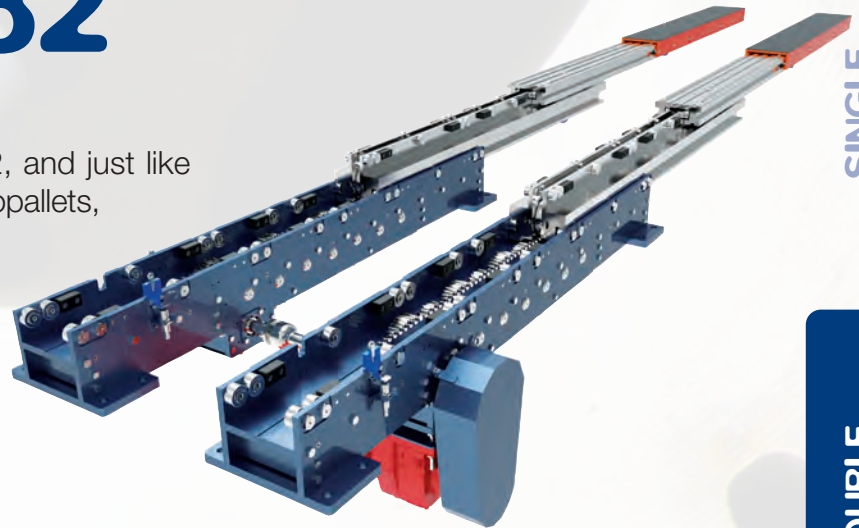
SPECIAL PRODUCTS





# ZEUS 182

It's the bigger sister of the ZEUS 172, and just like the 172 it's designed for handling europallets, but with non-conventional loads. It can rely on a very tough structure and small bending, and it stands high working paces.



SINGLE DEPTH

DOUBLE DEPTH

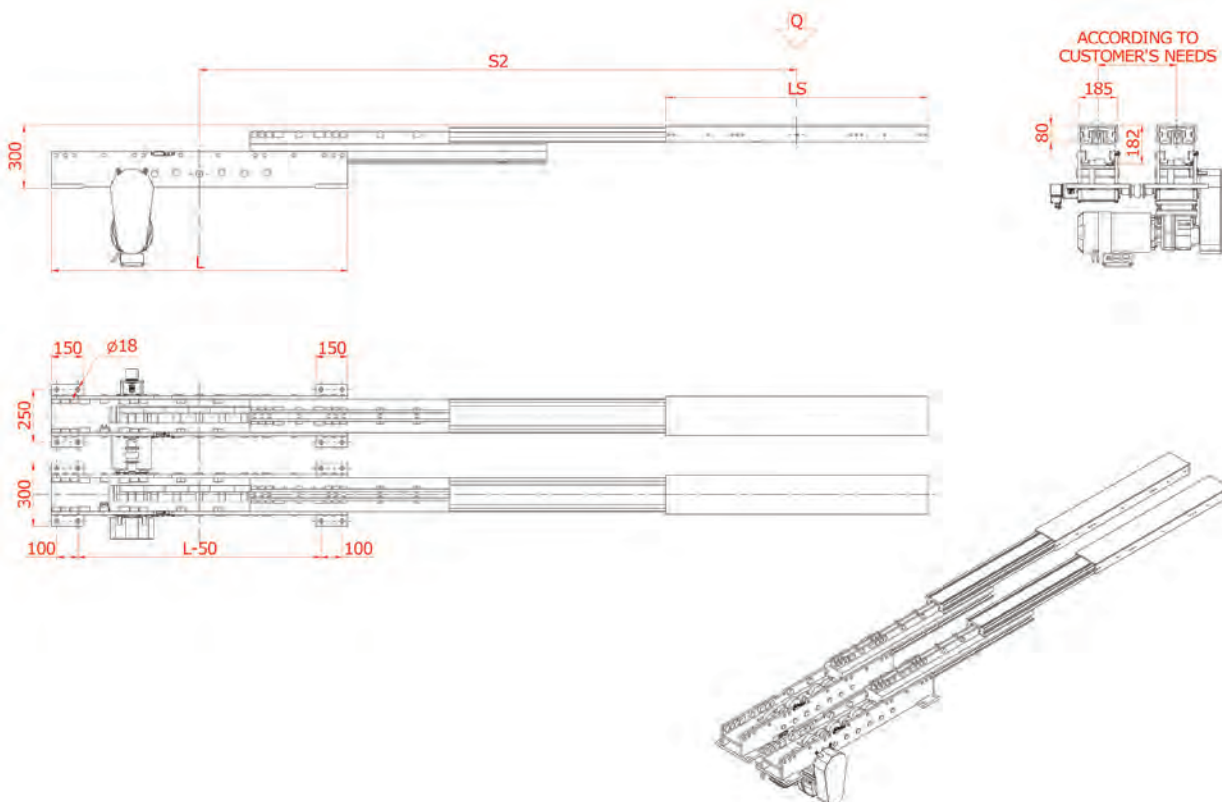
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z182-110	1000	1100	1100	2300	21
Z182-125	1500	1250	1250	2500	34
Z182-130		1300		2600	41
Z182-135		1350		2700	45
Z182-140	1600	1400		2800	49
Z182-145		1450		2900	54
Z182-150		1500	3000	59	

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 200

It's the bigger sister of the ZEUS 172, and just like the 172 it's designed for handling europallets, but with non-conventional loads. It can rely on a very tough structure and small bending, and it stands high working paces.



SINGLE DEPTH

DOUBLE DEPTH

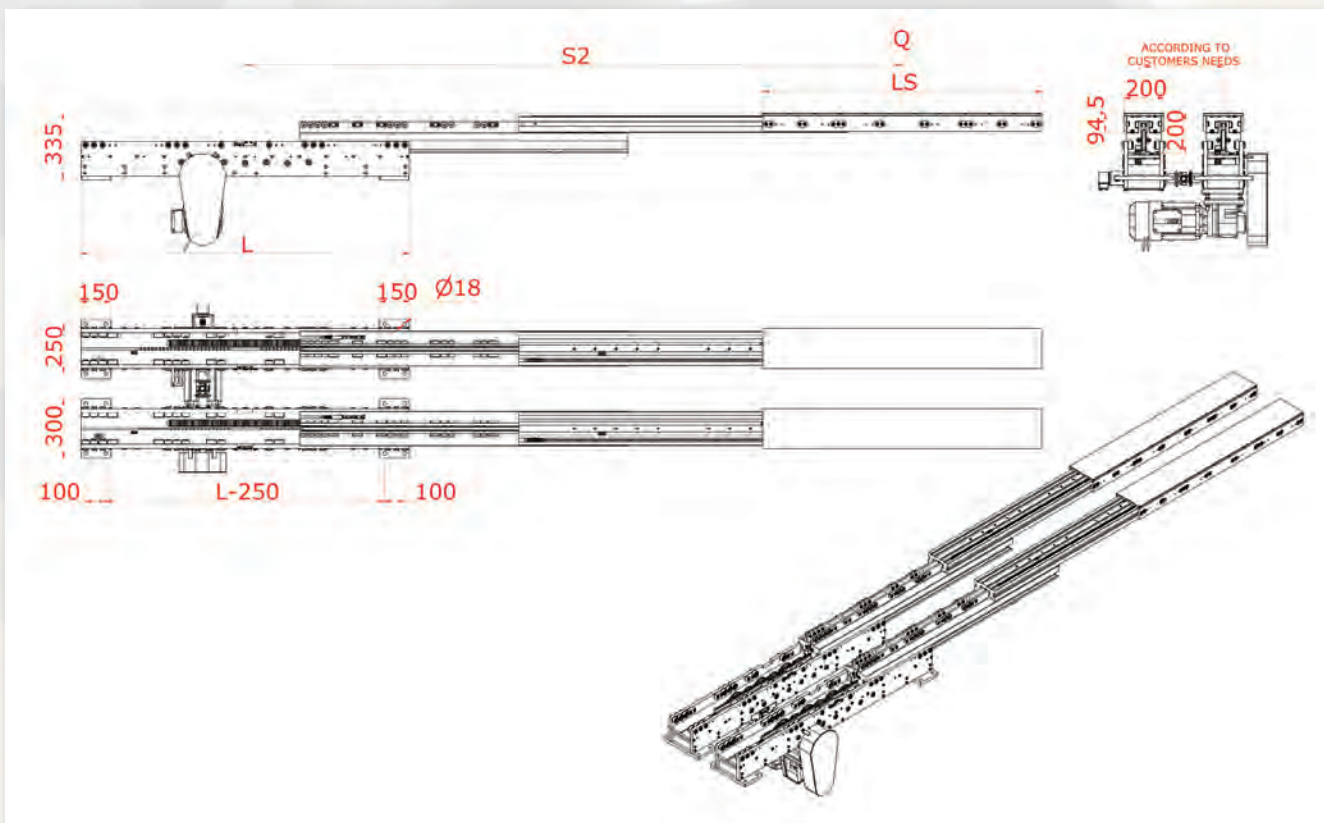
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z200-130	1400	1300	1250	2650	24
Z200-135	1600	1350		2675	26
Z200-140	1800	1400		2700	28
Z200-145	2000	1450		2725	28
Z200-150		1500		2750	29
Z200-160	1600	1600	3150	36	
Z200-180		1800	1350	3300	39

As for the transmission, both the system with racks and the one with pinions and with chains are available.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 65-140

This is a double-engined double-depth telescopic fork, each stroke is operated independently by an engine. It's designated to the handling of heavy europallets with conventional shapes. Despite its small size, this fork has a remarkable strength and an outstanding size/thoughness ratio. This equipment allows the customer to rely on excellent performances in the work cycles, bringing down the time needed for the depth shift.



SINGLE DEPTH

DOUBLE DEPTH

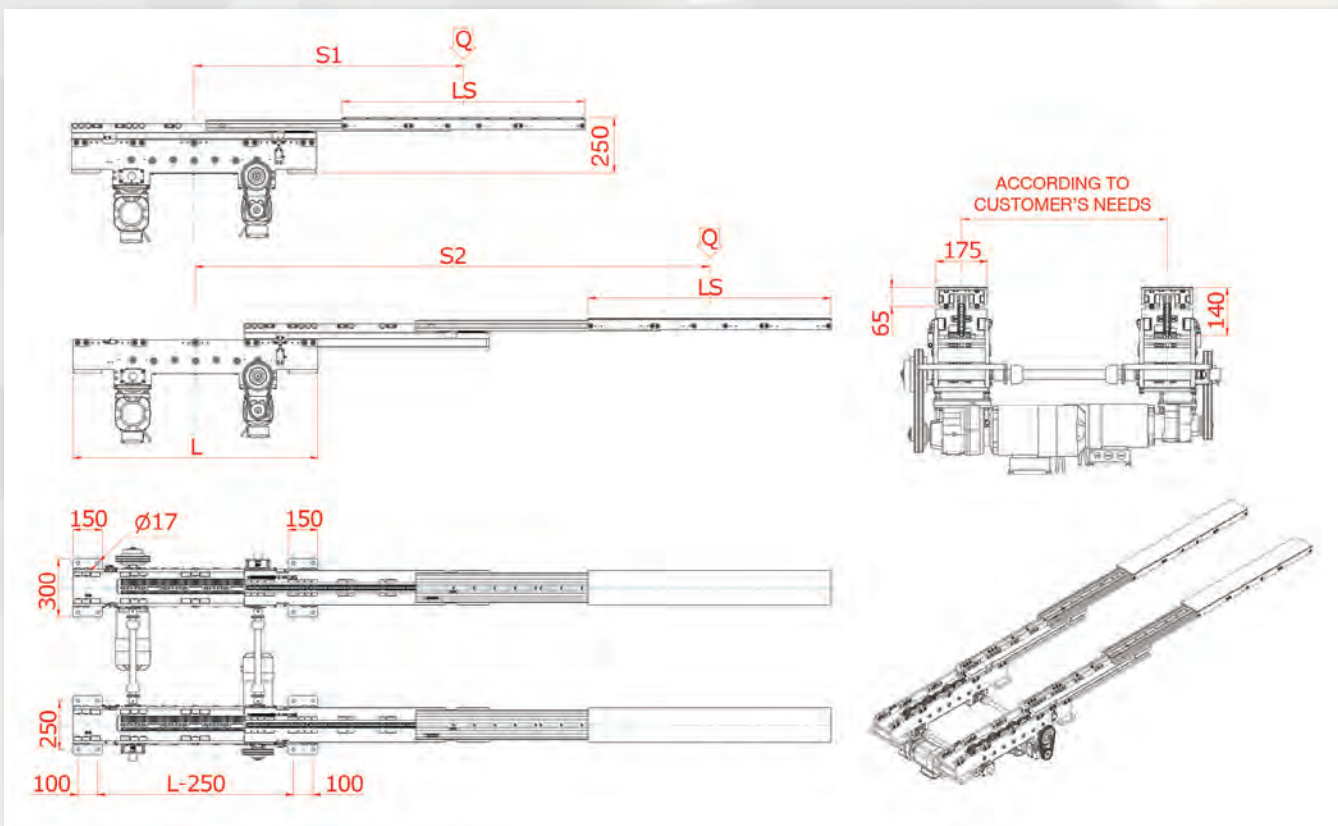
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 SINGLE DEPTH STROKE (M/M)	S2 DOUBLE DEPTH STROKE (M/M)	MAX BENDING UNDER LOAD IN SINGLE DEPTH (M/M)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (M/M)
Z65-140-110	500	1100	1250	1150	2250	8	20
Z65-140-125		1250		1325	2625	11	31
Z65-140-130		1300		1350	2650	11	34
Z65-140-135		1350		1450	2750	13	35
Z65-140-140		1400		1500	2800	14	35
Z65-140-145		1450		1600	2900	16	38
Z65-140-150		1500		1650	3000	19	39

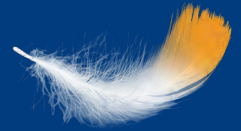
It's an agile and reliable machine, whose strong point is certainly the operating speed. It doesn't request to lay the load located in the single depth position on mounts, since the upper slide can operate alone.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS

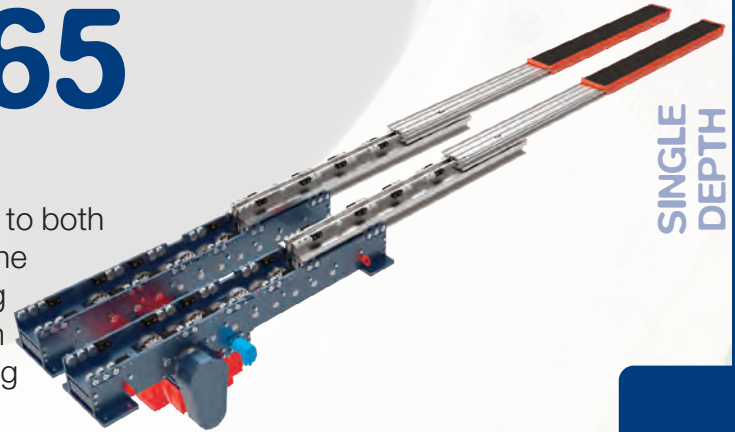




# ZEUS 65-165

This is the queen of all LHD telescopic forks, thanks to both its performances and its versatility. Its small size, the operating speed and the small bending when picking up/laying down the load make the ZEUS 65-165 an essential equipment for those who want be performing and competitive in their sector.

Backed up by its components and its slides milled from a wholepiece - the ZEUS 65-165, with both engines operating independently, allows to take advantage of the operating site at its best.



SINGLE DEPTH

DOUBLE DEPTH

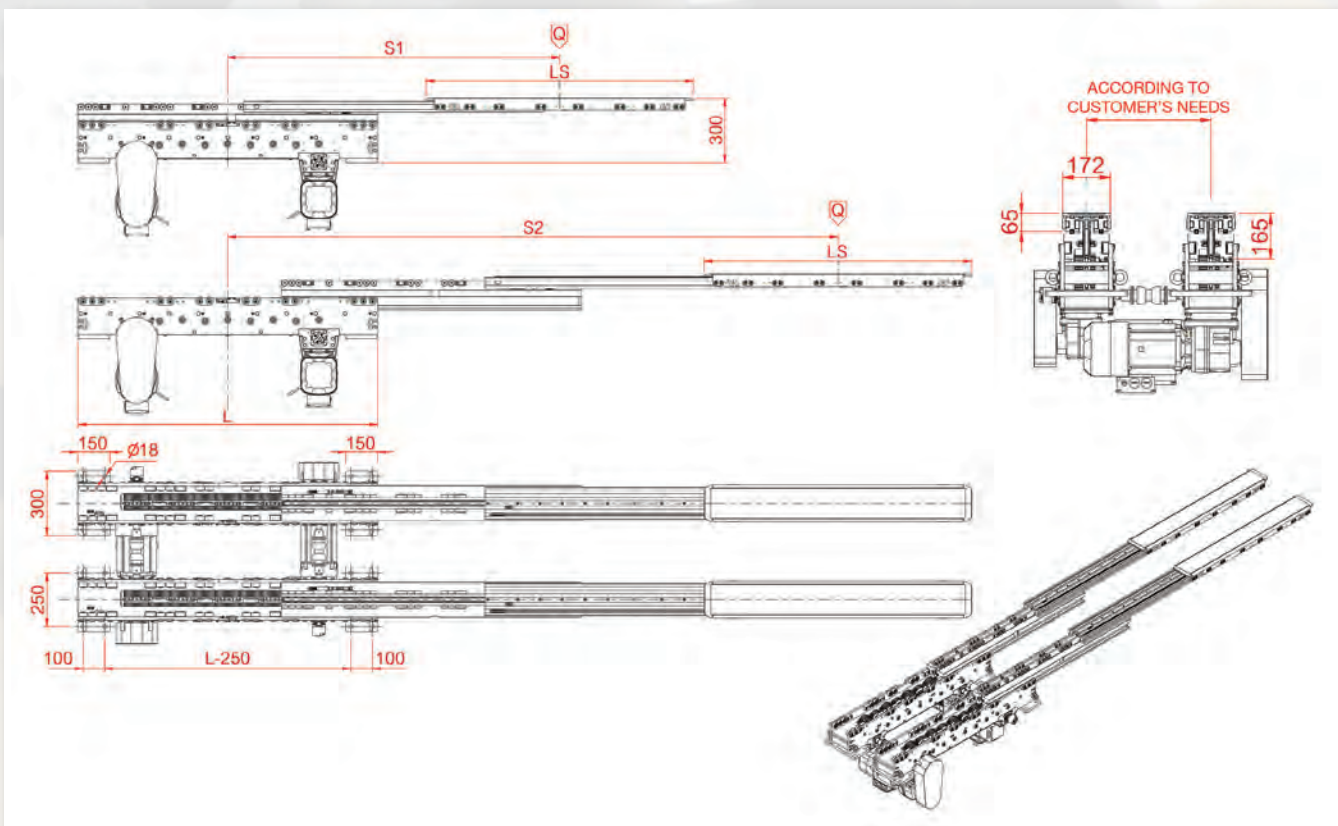
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 SINGLE DEPTH STROKE (M/M)	S2 DOUBLE DEPTH STROKE (M/M)	MAX BENDING UNDER LOAD IN SINGLE DEPTH (M/M)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (M/M)
Z65-165-100	1000	1000	1000	1050	2050	11	26
Z65-165-125	1100	1250	1250	1325	2625	22	58
Z65-165-130		1300		1350	2650	23	56
Z65-165-135	1200	1350		1375	2675	24	57
Z65-165-140		1400		1400	2700	24	55
Z65-165-145	1100	1450	1500	2800	28	56	
Z65-165-150	800	1500	1600	3000	26	55	

It also doesn't request to raise the load unit located in the single depth position, since the upper slide can operate alone. It's only available with chain transmission.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 70-172

It's an enhanced version of the ZEUS 65-165. It keeps all the peculiar features of the smaller sister, but with a higher carrying capacity.

It's not particularly suitable for conventional warehouses but rather for storage plants within bigger production facilities.

Its structure allows attaining one of the highest moments of inertia of all telescopic forks currently on the market.



SINGLE DEPTH

DOUBLE DEPTH

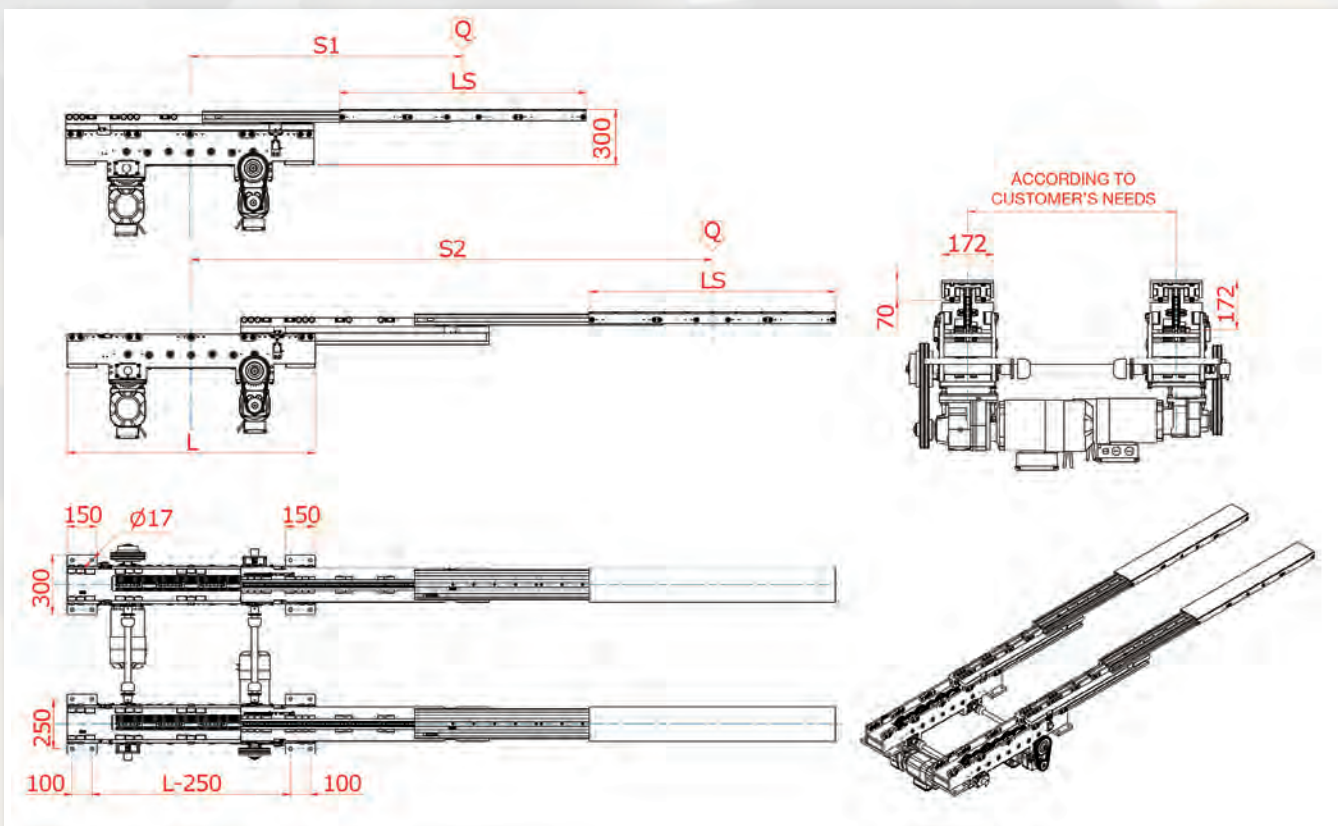
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 SINGLE DEPTH STROKE (M/M)	S2 DOUBLE DEPTH STROKE (M/M)	MAX BENDING UNDER LOAD IN SINGLE DEPTH (M/M)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (M/M)
Z70-172-110	1100	1100	1100	1150	2250	11	30
Z70-172-125	1200	1250		1325	2625	18	53
Z70-172-130		1300		1350	2650	20	51
Z70-172-135	1300	1350	1250	1375	2675	20	54
Z70-172-140		1400		1450	2750	23	
Z70-172-150		1500		1600	2900	31	59
Z70-172-180	1100	1800	1350	1900	3300	39	

It's only available with chain transmission.

TRIPLE DEPTH

COMBINED PRODUCTS

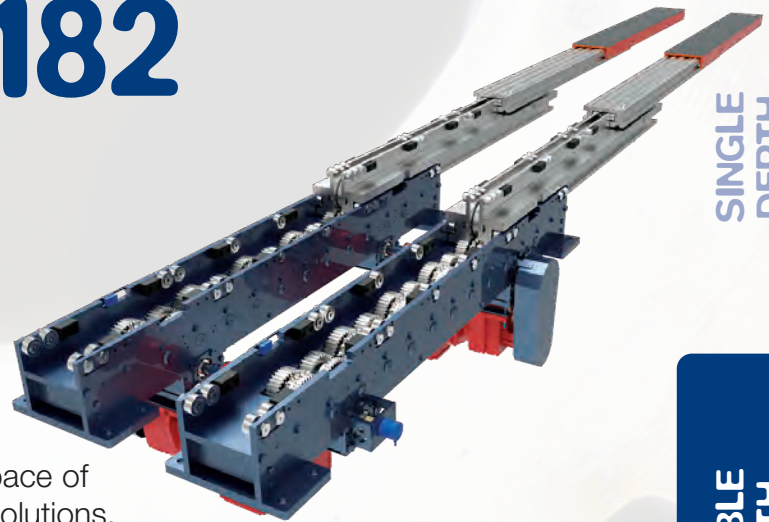
SPECIAL PRODUCTS





# ZEUS 80-182

The Zeus 80-182 is one of the leading double-depth telescopic forks of the LHD Group. This load handling device is powerful, solid and with a high-level structure. This telescopic fork has been designed to pick up and drop off heavy loads at a long distance, still with low bending and reduced yielding coefficients. It is very suitable for those spaces with a fast pace of work but it suits also in special and ambitious solutions.



SINGLE DEPTH

DOUBLE DEPTH

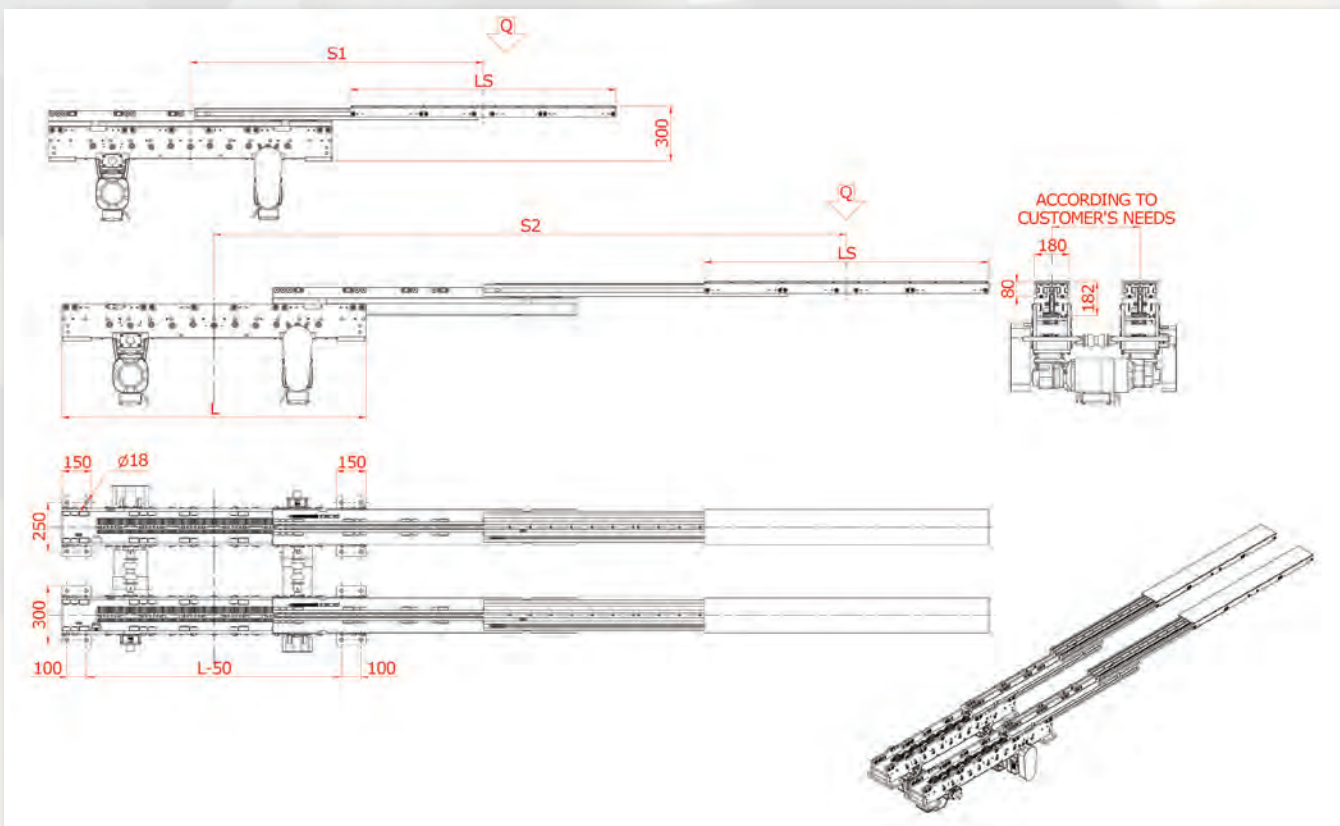
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 SINGLE DEPTH STROKE (M/M)	S2 DOUBLE DEPTH STROKE (M/M)	MAX BENDING UNDER LOAD IN SINGLE DEPTH (M/M)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (M/M)
Z80-182-110	1100	1100	1100	1150	2250	7	21
Z80-182-125	1200	1250		1325	2625	11	36
Z80-182-130	1400	1300		1350	2650	13	39
Z80-182-135		1350	1250	1375	2675	14	40
Z80-182-150	1600	1500		1500	2800	17	42
Z80-182-165		1650		1600	3000	18	44
Z80-182-180		1800	1350	1850	3300	30	59

The paper industry, the automotive and steel sector and so on are some of the domains where this telescopic fork is best used and finds its best placing.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 95-200

The ZEUS 95-200 is one of the leading double-depth telescopic forks of the LHD Group. This load handling device is powerful, solid and with a high-level structure. This telescopic fork has been designed to pick up and drop off heavy loads at a long distance, still with low bending and reduced yielding coefficients.

It is very suitable for those spaces with a fast pace of work but it suits also in special and ambitious solutions.



SINGLE DEPTH

DOUBLE DEPTH

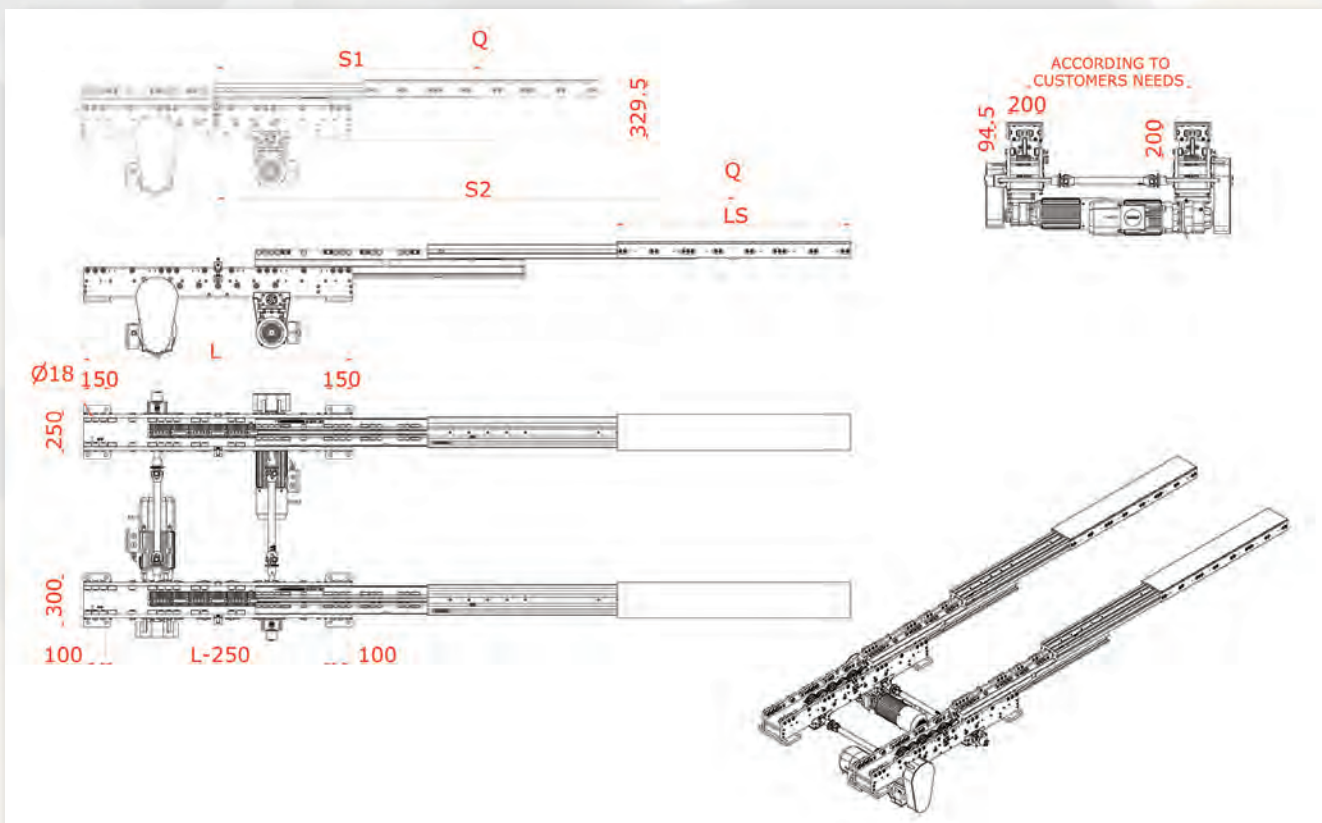
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S1 SINGLE DEPTH STROKE (M/M)	S2 DOUBLE DEPTH STROKE (M/M)	MAX BENDING UNDER LOAD IN SINGLE DEPTH (M/M)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (M/M)
Z95-200-130	1400	1300	1250	1350	2650	7	24
Z95-200-135	1600	1350		1375	2675	9	26
Z95-200-140	1800	1400		1400	2700	10	28
Z95-200-145	2000	1450		1425	2725	11	28
Z95-200-150		1500		1450	2750	11	29
Z95-200-160	1600	1600	1800	3150	18	36	
Z95-200-180		1800	1350	1900	3300	19	39

The paper industry, the automotive and steel sector and so on are some of the domains where this telescopic fork is best used and finds its best placing.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# ZEUS 59

Being the double-depth and wider version of the ARES 40, the ZEUS 59 is fit for those applications where a small space of the slides is required.



SINGLE DEPTH

DOUBLE DEPTH

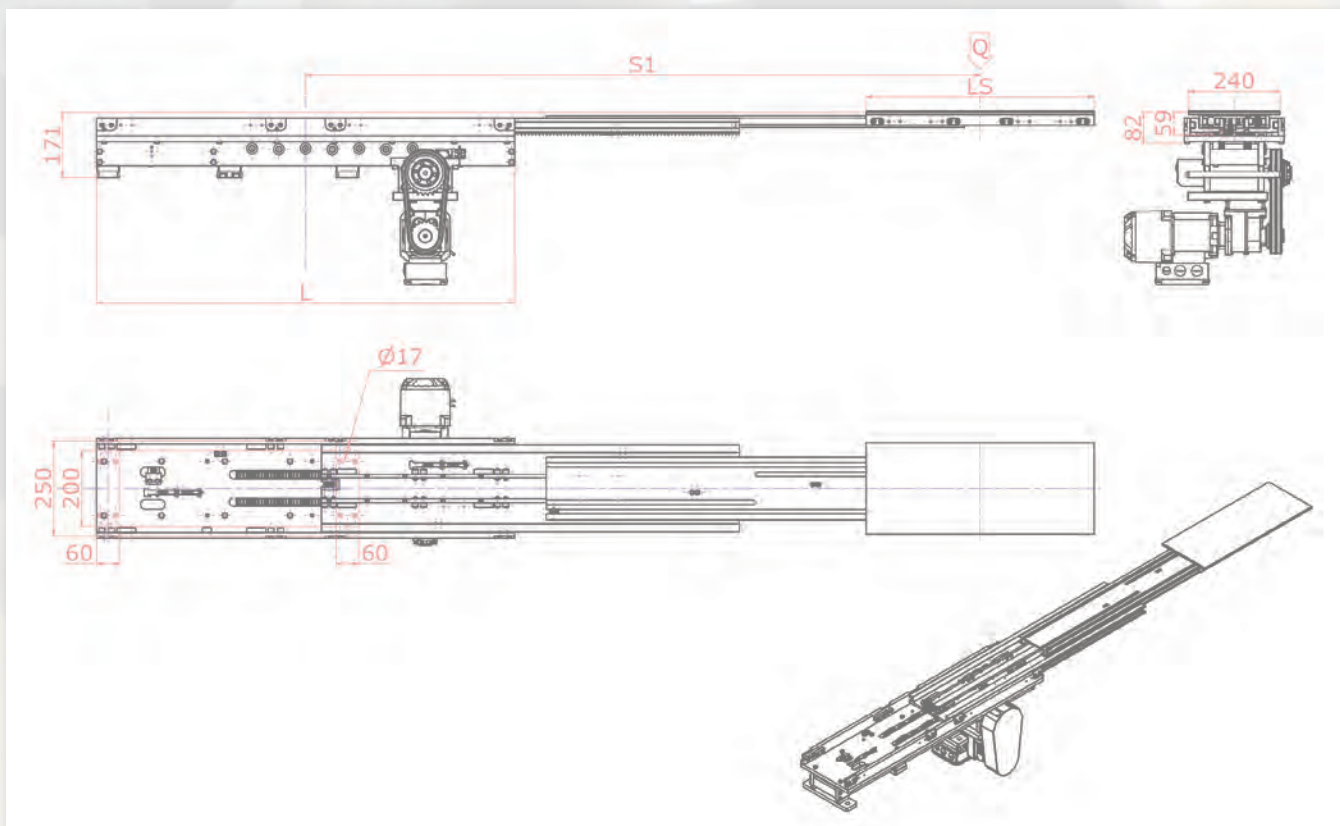
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
Z59-065	90	650	700	1200	9
Z59-070		700		1350	12
Z59-075		750		1400	14
Z59-080	70	800	700	1550	15
Z59-085		850		1600	
Z59-090		900		1700	
Z59-100	50	1000	800	1900	17

The steel/aluminium fixed body helps to reduce the overall weight. The ZEUS 59 is recommended as single fork with a larger plate on top, to handle small carton or plastic boxes.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# CYCLOPS 140

The strong points of this monofork are its high moment of inertia and its relatively small size. With only 140 mm thickness, it can pick up a 2000 Kg load in double depth alone, despite the small bending and the high work pace it can reach.

It's very useful in all those situations where there's no room for a typical pair of forks and where the load to handle is else than the normal europallet.



SINGLE DEPTH

DOUBLE DEPTH

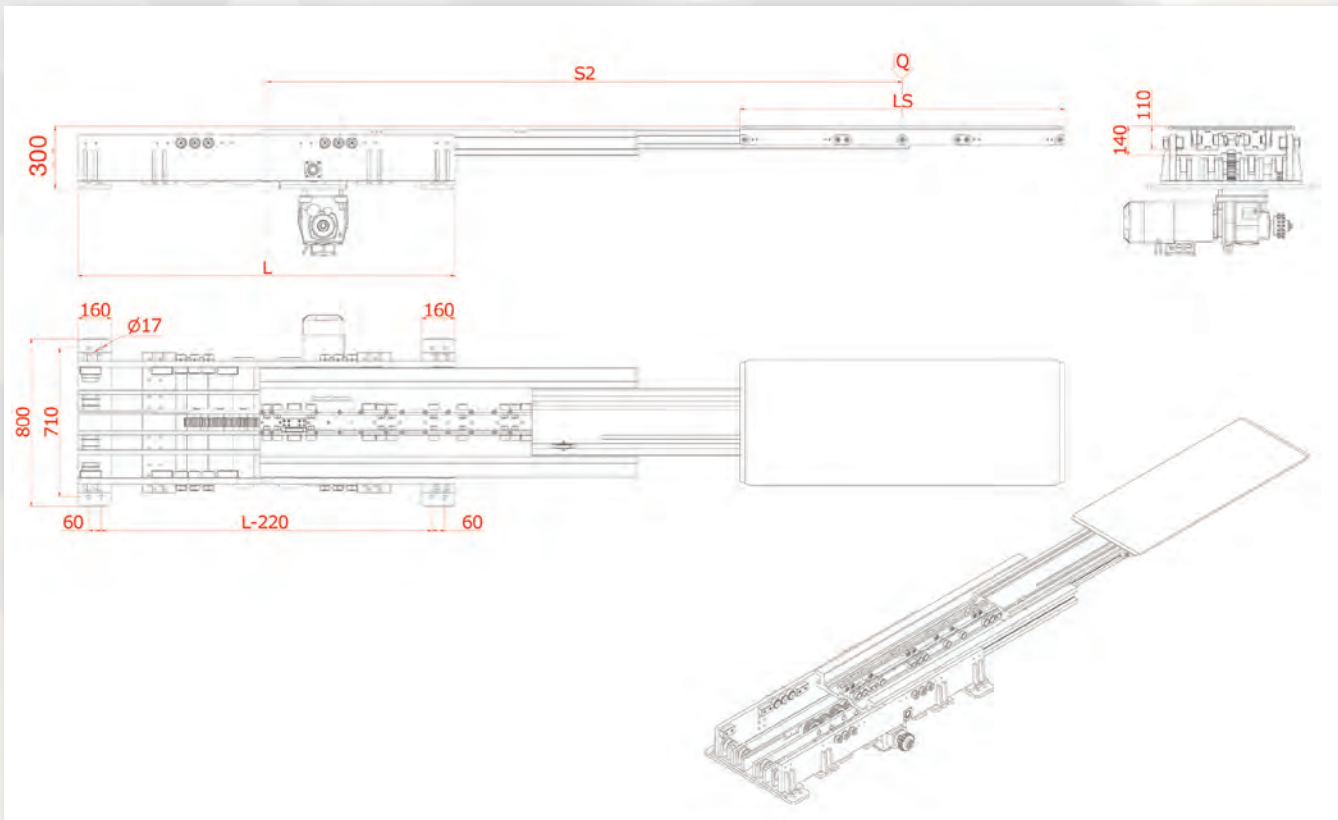
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
CY140-130	2000	1300	1300	2200	12
CY140-135		1350	1350	2300	14
CY140-140		1400	1400	2400	15
CY140-150		1500	1500	2550	18
CY140-200		2000	1600	2700	21

A benefit deriving from the single-engine arrangement is the simple and conventional operation.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# CRONOS 155

Designed for the handling of pallets in the triple depth, the CRONOS 155 finds application where normal double-depth telescopic forks would be beyond the stroke limit, or where an even smaller bending, other parameters being equal, is needed.



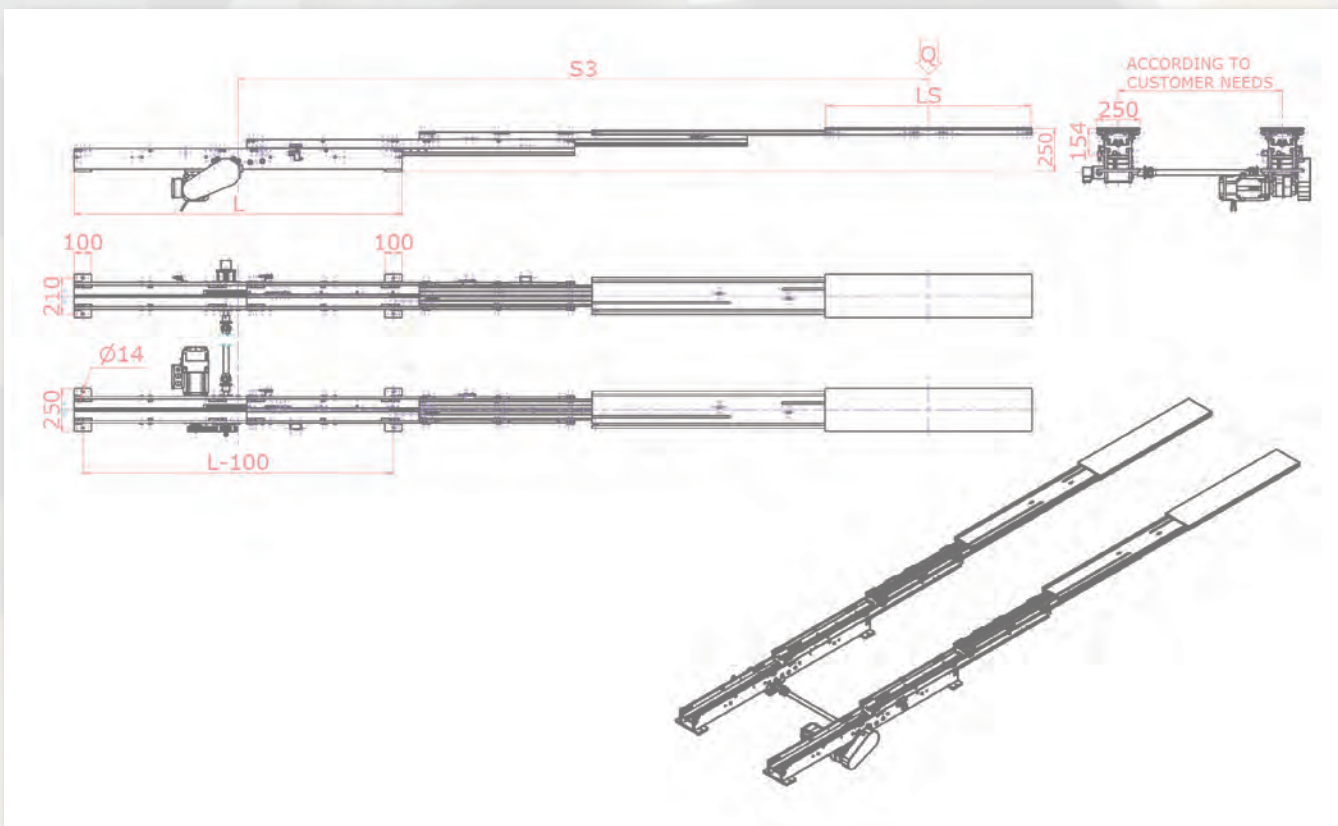
SINGLE DEPTH

DOUBLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S3 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
CR155-080		800	800	1800	8
CR155-100	300	1000	1000	2500	27
CR155-120		1200	1200	3000	47
CR155-130	150	1300	1300	3400	43

With an overall thickness of 155 mm, this equipment represents the solution to borderline cases in the sector of linear handling.

TRIPLE DEPTH



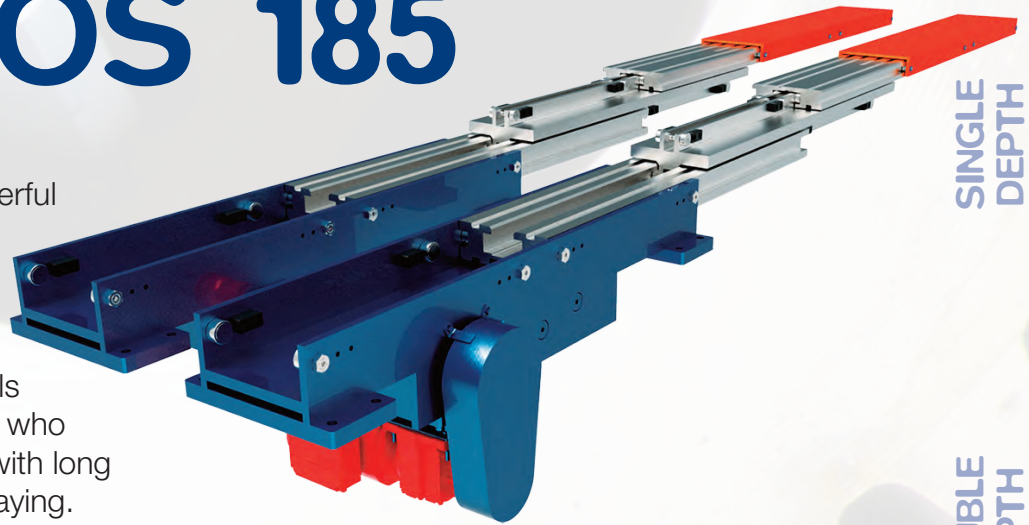
COMBINED PRODUCTS

SPECIAL PRODUCTS



# CRONOS 185

Little sister of the more powerful 248, the CRONOS 185 finds its perfect application in the handling of pallets in triple depth. Simpler and easier than the 248, it perfectly fulfills the needs of those customers who deal with intermediate loads with long strokes for both picking and laying.



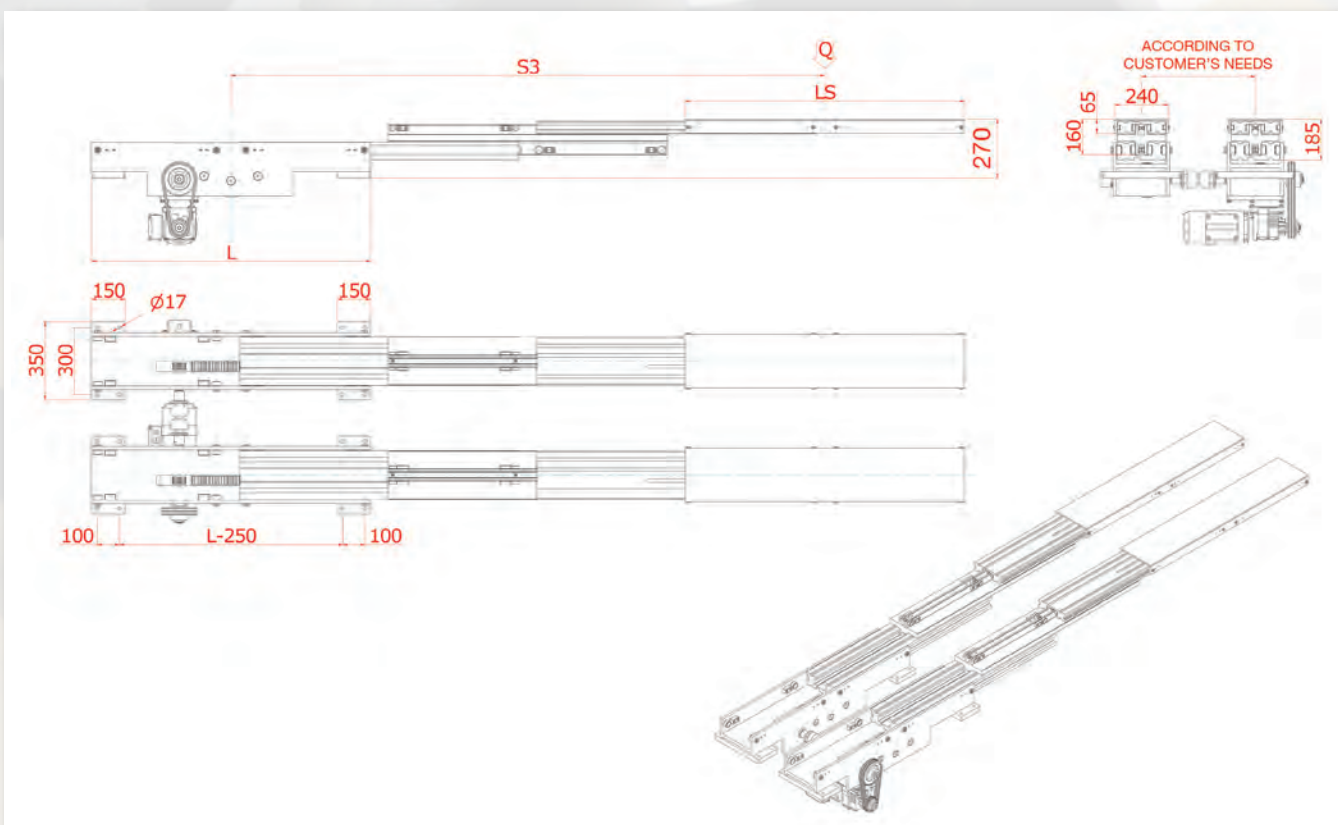
SINGLE DEPTH

DOUBLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S3 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
CR185-130	1000	1300	1300	3000	23
CR185-135		1350	1350	3200	29
CR185-145		1450	1450	3500	39
CR185-160		1600	1600	3700	41

Mainly used in the US market, the CRONOS series is the best answer for an up-to-date and rational stocking.

TRIPLE DEPTH



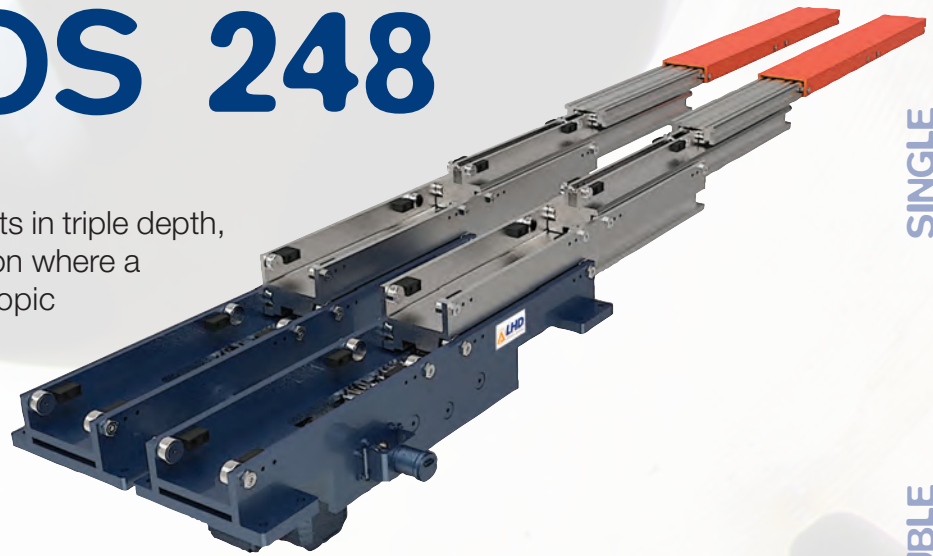
COMBINED PRODUCTS

SPECIAL PRODUCTS



# CRONOS 248

Designed for the handling of pallets in triple depth, the CRONOS 248 finds application where a standard double-depth telescopic fork would be beyond the stroke limit, or where an even smaller bending, other parameters being equal, is needed.



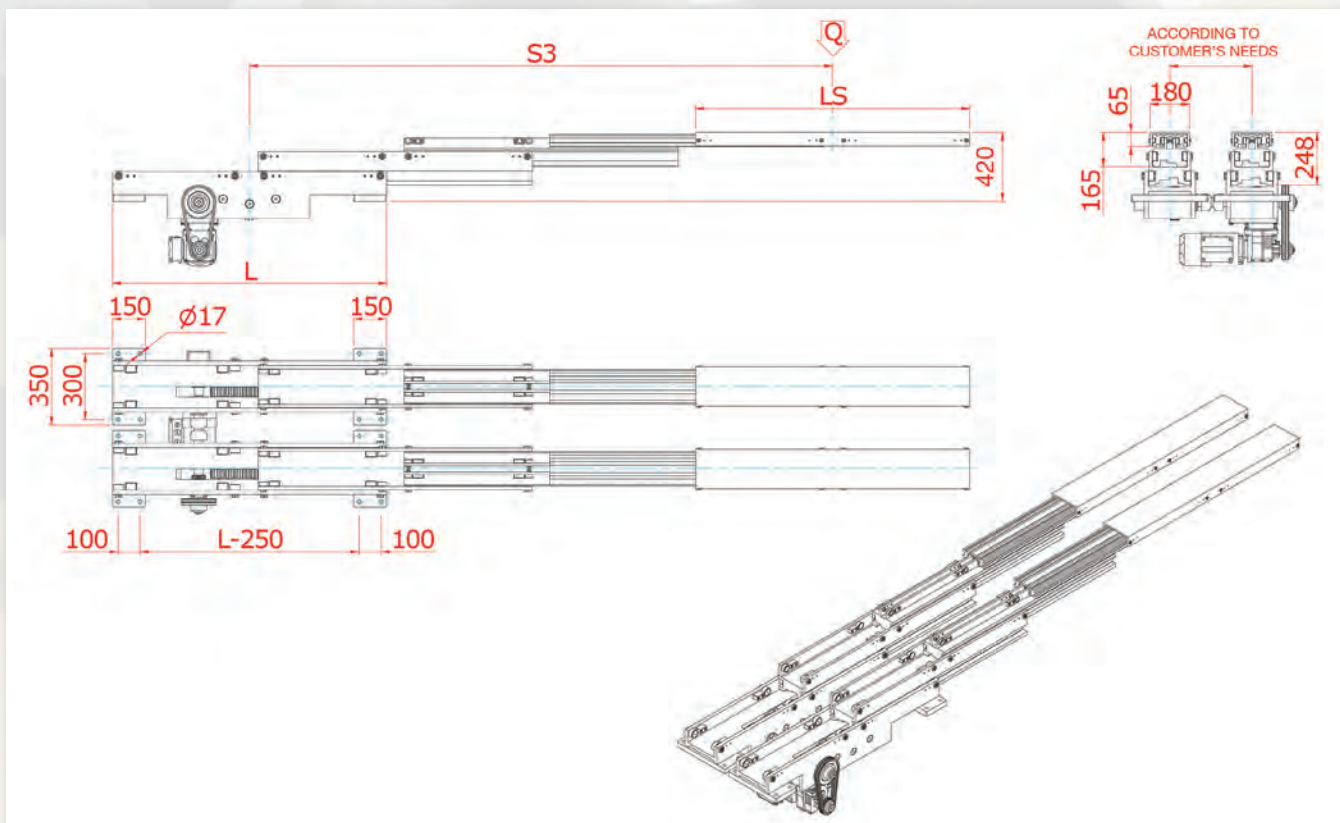
SINGLE DEPTH

DOUBLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S3 STROKE (MM)	MAX BENDING UNDER LOAD (MM)
CR248-130	1200	1300	1300	3000	32
CR248-135		1350	1350	3100	34
CR248-140	1000	1400	1400	3200	32
CR248-145		1450	1450	3300	35
CR248-150	800	1500	1500	3500	36
CR248-160		1600	1600	3700	40

With an overall thickness of 248 mm, this equipment represents the solution to borderline cases in the sector of the linear handling.

TRIPLE DEPTH



COMBINED PRODUCTS

SPECIAL PRODUCTS



# CRONOS 165-248

Same as a normal CRONOS 248, but with a twin drive (2 motors and 2 independent gear trains).



SINGLE DEPTH

DOUBLE DEPTH

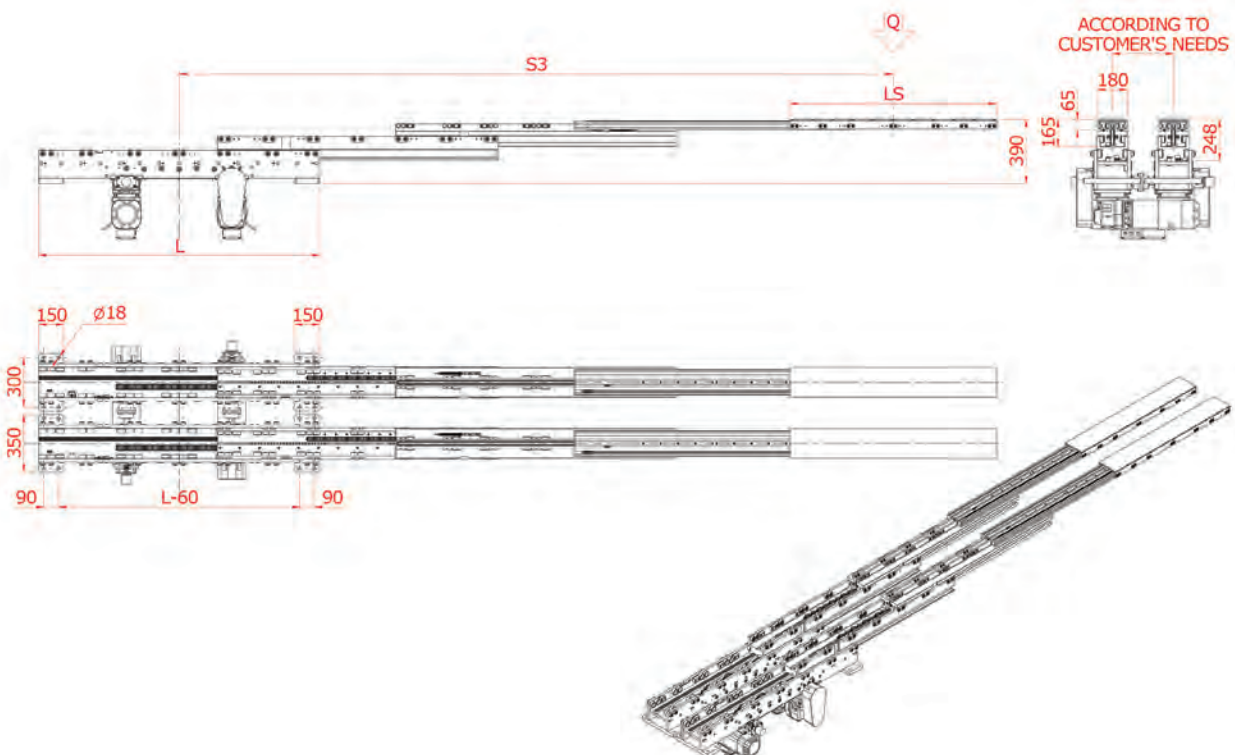
PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	S2 DOUBLE DEPTH STROKE (MM)	S3 TRIPLE DEPTH STROKE (MM)	MAX BENDING UNDER LOAD IN DOUBLE DEPTH (MM)	MAX BENDING UNDER LOAD IN TRIPLE DEPTH (MM)
CR165-248-130		1300	1300	1600	3000	9	40
CR165-248-140	1200	1400		1850	3250	12	51
CR165-248-150		1500		2100	3500	18	61
CR165-248-160	1000	1600		2350	3750	20	62

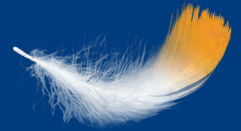
Double and the triple depth can be carried out separately, with only 165 mm thickness of the moving elements in double-depth stroke.

TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS





# VARIAXIS

## ADJUSTABLE INTERAXIS

In many automated warehouses, due to productive reasons, the handling of different types of loads (and thus of different containers) may be needed.

With a set of forks having fixed interaxis the handling of only one specific kind of loads is allowed.

Instead, it's possible to handle different kinds of loads by installing under the fork set a VARIAXIS.

It's a relatively simple system that makes stocking operations more flexible and versatile. A motor operates a system of screws with recirculating balls and prismatic rails; it's possible to shift only one fork, or both of them symmetrically. It's provided as extra equipment; however, it has to be established along with LHD's technical staff, since it's not possible to install it at a later stage.



SINGLE  
DEPTH

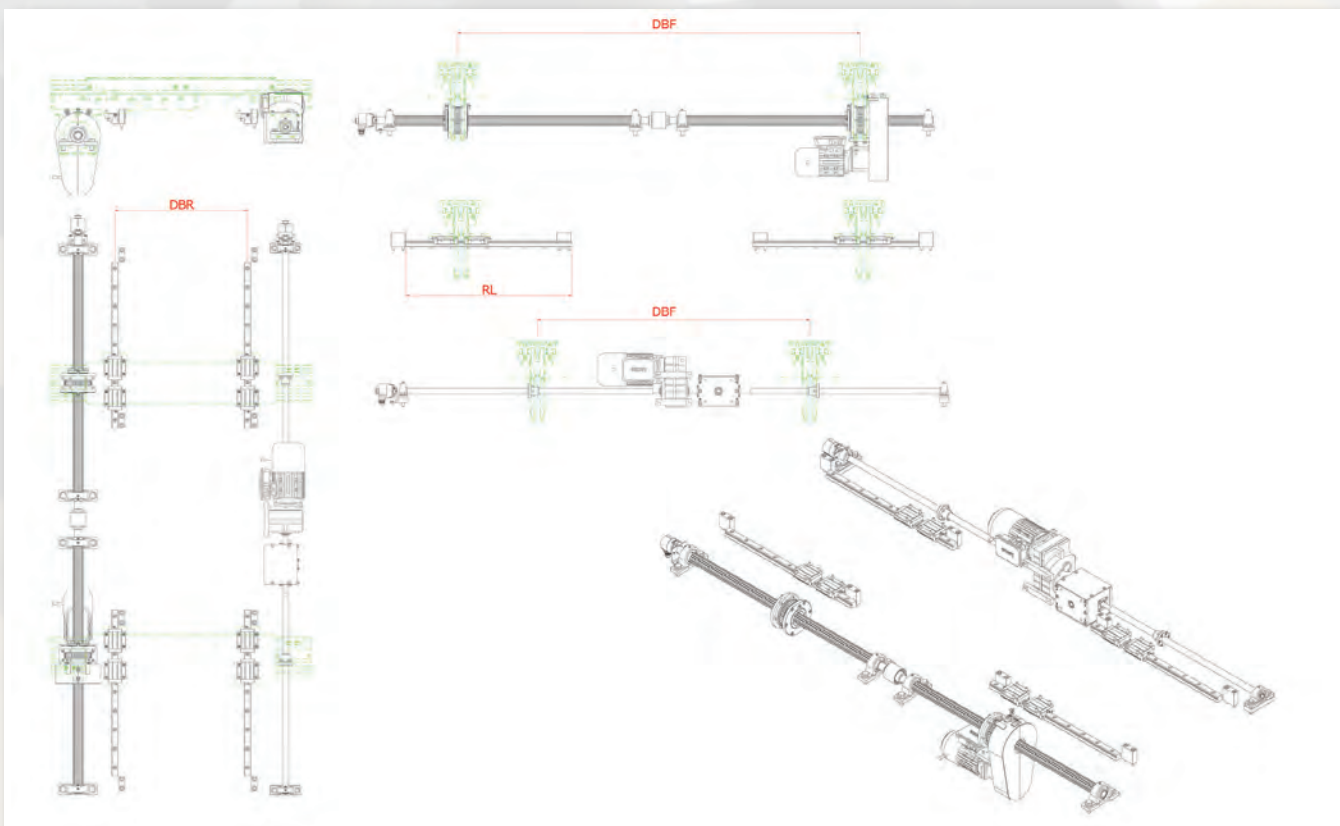
DOUBLE  
DEPTH

TRIPLE  
DEPTH

RL	RAILS LENGTH (MM)	DBR	DISTANCE BETWEEN RAILS (MM)	DBF	DISTANCE BETWEEN FORKS (MM)	Q	LOAD (KG)
500	1000	1000					
1000	1500	1500		300		2000	
2000	2000	2000		UP TO 3000			
3000	2800	2800					

The distance adjusting movement is very quick and it's supposed to occur in masked time.

The VARIAXIS system can be applied to the whole range of LHD telescopic forks, even to inclined forks designed for handling coils.



COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



# ATLAS X1/X2/X3 GEAR LIFTS

To ensure efficiency, a powerful, accurate, reliable and maintenance-free system is needed. For these reasons, the movement of our Lift is entirely gear-driven - unlike our competitors' ones, relying on chains. The Lifts of our ATLAS series have a single-body chassis.

These powerful and silent systems, with 60 mm to 120 mm of lifting stroke, allows lifting elevate loads with a small deflection and a guaranteed coplanarity within 0.5 mm; something inconceivable in chains-driven lifting devices.

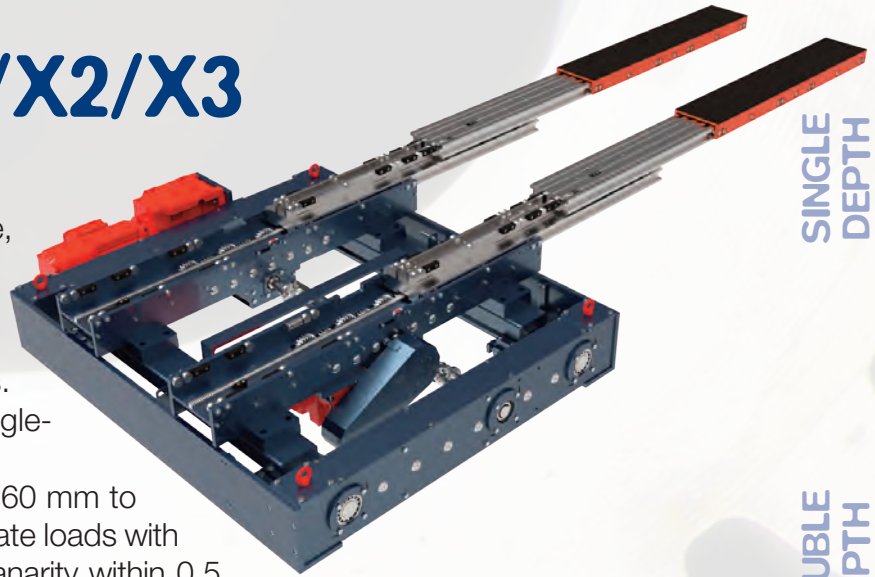
The versions X1 and X3 are operated through eccentric cams and the X2 through gears and racks, with the X3 allowing a tilting movement of +/- 3° approximately, which can be useful in warehouses with gravity conveyors.

VERSION	Q LOAD (KG)	LM LIFTING MOVEMENT	T SINGLE STROKE TIME (SEC)
ATLAS X1	2000	60 TO 120 MM	5
ATLAS X2	2000	60 TO 180 MM	8
ATLAS X2	1200	+/-3°	6

Whoever adopts this gear system gains the great advantage of a close-to-zero maintenance on board, whereas the chain-driven devices need constant adjustments.

Hence, ATLAS and GEMINI are winning devices, both from a technical and an economic point of view.

\* the data in the table are approximate and may vary depending on the model of the used forks and the application



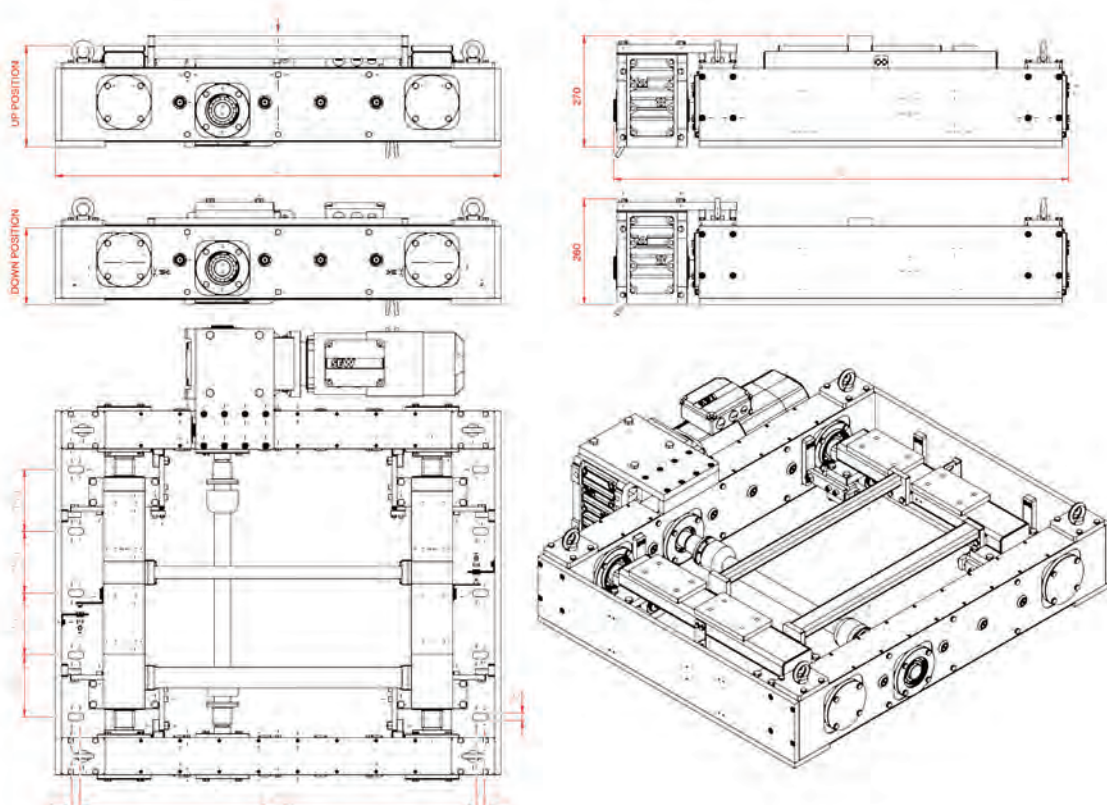
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

COMBINED PRODUCTS

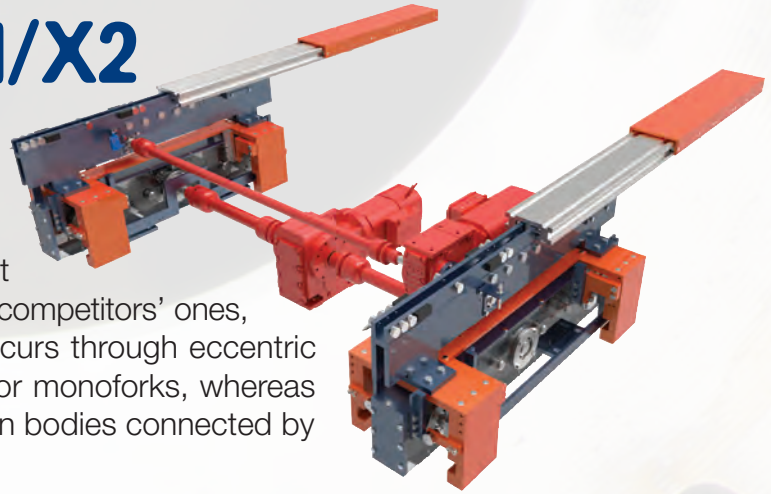
SPECIAL PRODUCTS





# GEMINI X1/X2 GEAR LIFTS

To ensure efficiency, a powerful, accurate, reliable and maintenance-free system is needed. For these reasons, the movement of our Lift is entirely gear-driven - unlike our competitors' ones, relying on chains. The lifting movement occurs through eccentric cams. GEMINI X1 is a mono-lift, suitable for monoforks, whereas GEMINI X2 is its double version, having twin bodies connected by a cardan shaft.



SINGLE  
DEPTH

DOUBLE  
DEPTH

These powerful and silent systems, with 60 mm to 120 mm of lifting stroke, allows lifting elevate loads with a small deflection and a guaranteed coplanarity within 0.5 mm; something inconceivable in chains-driven lifting devices.

Whoever adopts this gear system gains the great advantage of a close-to-zero maintenance on board, whereas the chain-driven devices need constant adjustments.

VERSION	Q LOAD (KG)	LS LIFTING STROKE (MM)	T SINGLE STROKE TIME (SEC)
GEMINI X1	600	60 TO 120	5
GEMINI X2	1200		

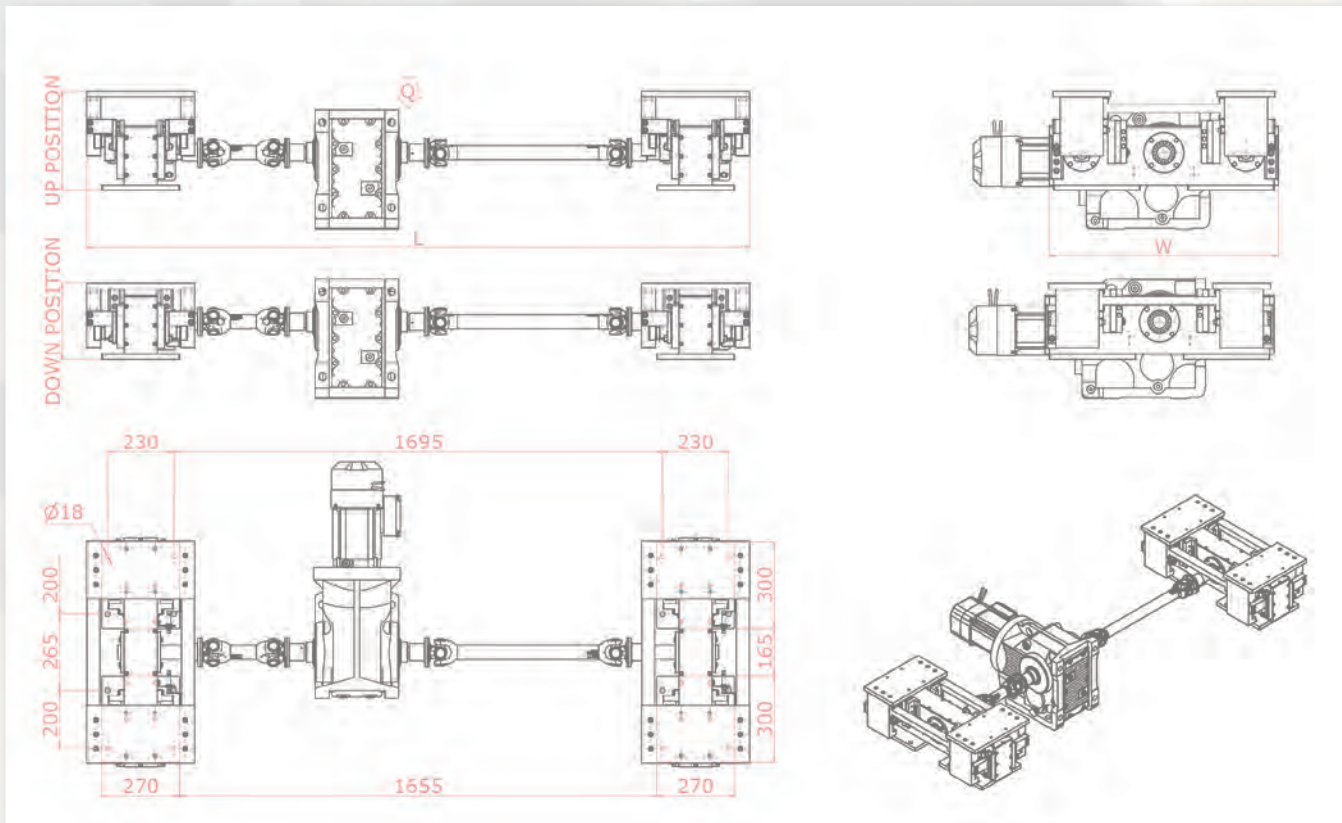
Hence, ATLAS and GEMINI are winning devices, both from a technical and an economic point of view.

\* the data in the table are approximate and may vary depending on the model of the used forks and the application

TRIPLE  
DEPTH

COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



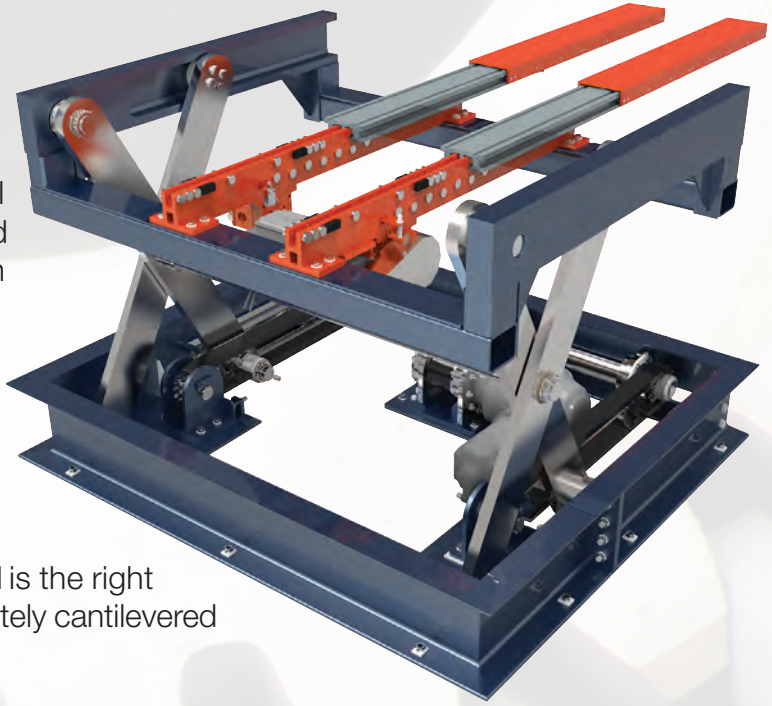


# TITAN SCISSOR LIFT

With the TITAN scissor lift, an equipment the handling market has been waiting for a long time for finally becomes available. All of the now-existing pantograph lifts need the centre of gravity of the load to fall within its footprint.

Conversely, this remarkably robust and sturdy equipment has been specifically designed to lift heavy loads whose centre of gravity is located outside the footprint of the device.

With its totally electromechanical drive, TITAN is the right solution to safely lift loads that are completely cantilevered at considerable heights.



SINGLE  
DEPTH

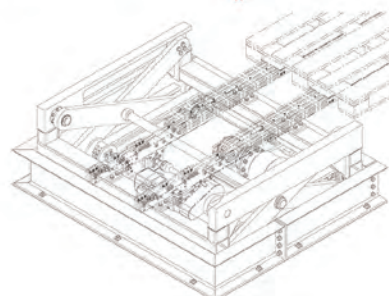
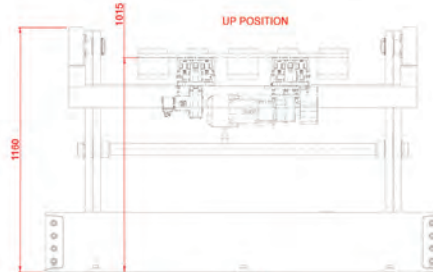
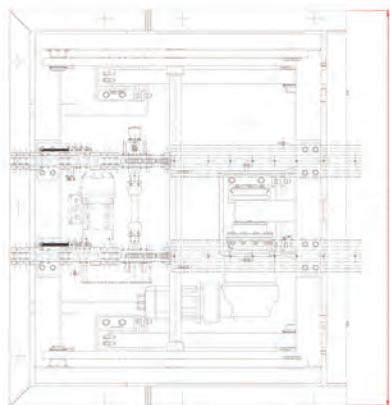
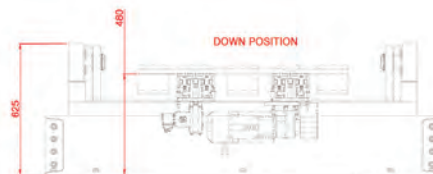
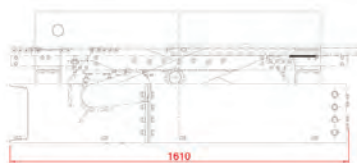
DOUBLE  
DEPTH

TRIPLE  
DEPTH

VERSION	Q LOAD (KG)	LP MINIMUM LOADING HEIGHT (MM)	T SINGLE STROKE TIME (SEC)	S MAX LIFTING STROKE (MM) *
TITAN X1	2000	380	8	600
TITAN X2	1500	500	12	1000

\* the data in this table are approximate and may vary depending on the model of the used forks and the application of the machine

It perfectly matches the telescopic forks both as dimensions and as flow rates.



COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



# GRYPHON

Operating jointly with telescopic forks for miniload (usually monoforks), the GRYPHON can help keeping load units well-aligned and stable in the moving phases, especially in case of light but voluminous carton boxes.



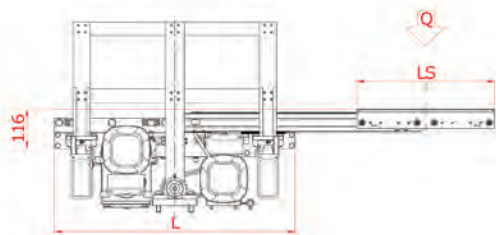
SINGLE DEPTH

DOUBLE DEPTH

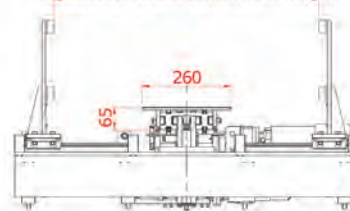
TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L MAX. FIXED BODY LENGTH (0/10)	SL SYSTEM LENGTH (0/10)	LS UPPER SLIDE LENGTH (0/10)	S1 STROKE (0/10)	TW MAX TOTAL WIDTH (0/10)
GR-120					1200	
GR-125					1250	
GR-130	500	1000	L+100	1240	1300	4000
GR-135					1350	
GR-140					1400	

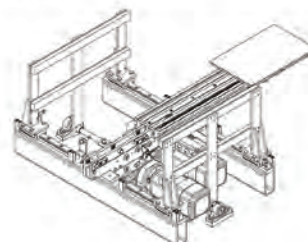
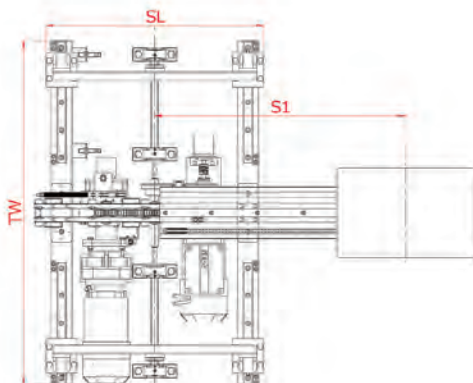
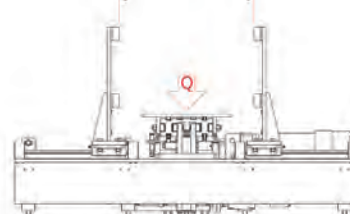
It offers the possibility to prevent misalignments on the shelves that could result in collisions.



OPEN POSITION = BOX WITH +50mm



CLOSED POSITION



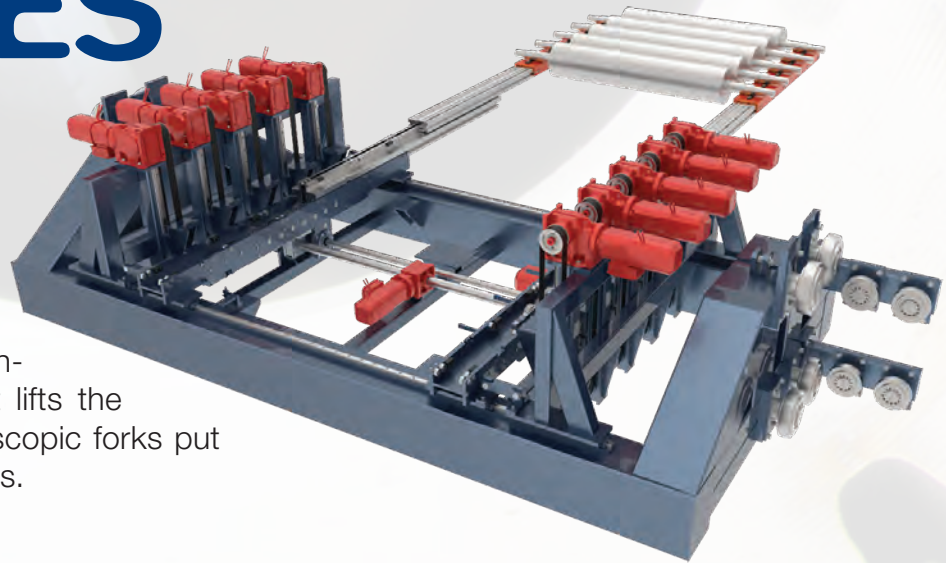
COMBINED PRODUCTS

SPECIAL PRODUCTS



# HERMES

The HERMES, operating jointly with telescopic forks for special loads, allows the operator to cherry-pick the desired load units from a multiple storage, with an on-board selection system that lifts the items to keep while the telescopic forks put back down the remaining units.



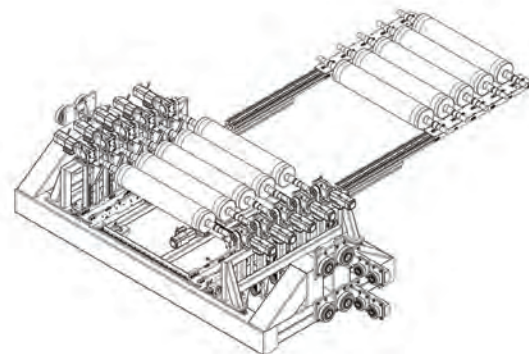
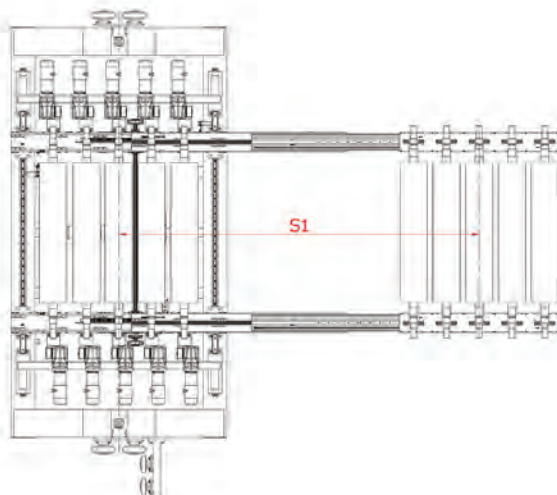
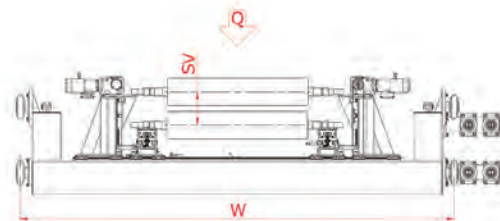
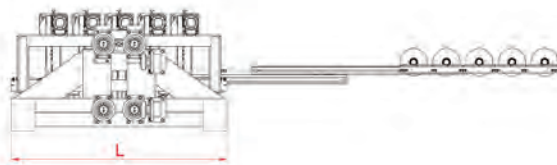
SINGLE DEPTH

DOUBLE DEPTH

PRODUCT CODE	Q UNIT LOAD (KG)	L MAX FIXED BODY LENGTH (MM)	VS MAX VERTICAL STROKE (MM)	W MAX DISTANCE BETWEEN LOAD UNITS (MM)
HR-270				
HR-280				
HR-290	300	2000	450	4000
HR-300				
HR-310				

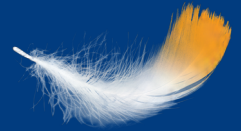
Our HERMES is also available for miniload boxes.

TRIPLE DEPTH



COMBINED PRODUCTS

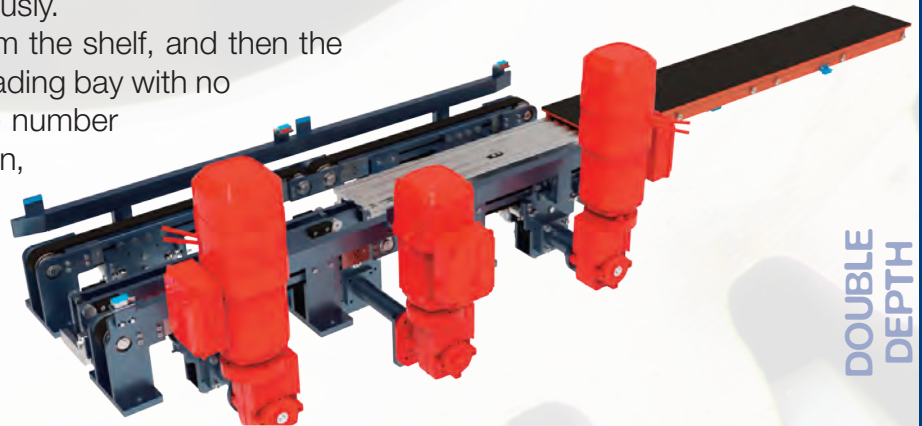
SPECIAL PRODUCTS



# PHOEBUS X1/X2 BELT CONVEYORS

Designed for backing up the telescopic forks, the lateral belt conveyor allows moving the loads onboard simultaneously.

The fork set can pick up the load from the shelf, and then the PHOEBUS can lay it down in the unloading bay with no further need of telescopic stroke; the number of belts can be redoubled in the X2 version, thus making it even more flexible and versatile - it can also handle a double load onboard.



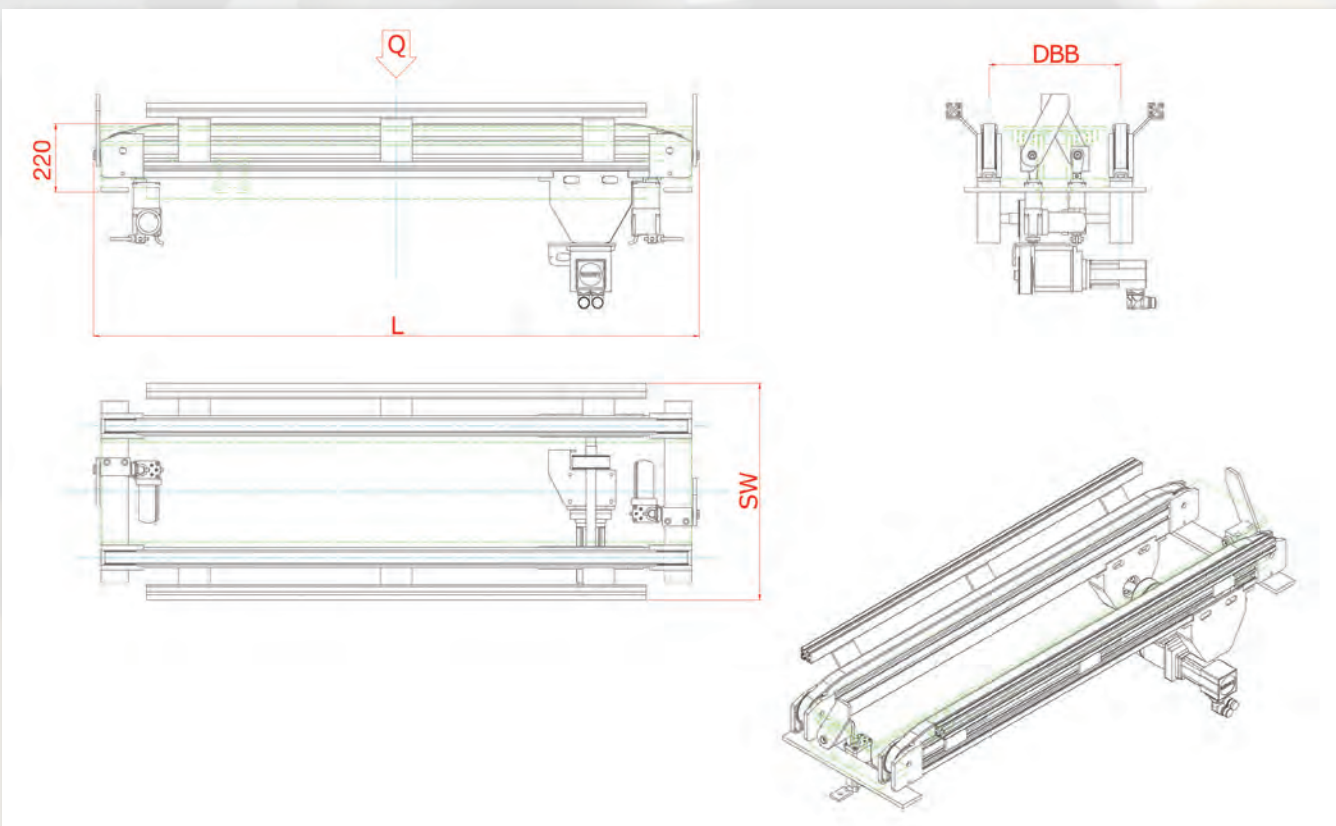
SINGLE  
DEPTH

DOUBLE  
DEPTH

Q1	LOAD VERSION X1 (KG)	Q2	LOAD VERSION X2 (KG)	L1	LENGTH VERSION X1 (MM)	L2	LENGTH VERSION X2 (MM)	DB	DISTANCE BETWEEN BELTS (MM)
50	100			420	650			300	
				620	800				
				820	950			350	
				1050	1100			400	
				1250	1250			500	

Therefore, it's possible to halve the operation time by handling two loads at once. The same system can involve chains instead of belts, to handle way bigger loads with the same benefits.

TRIPLE  
DEPTH



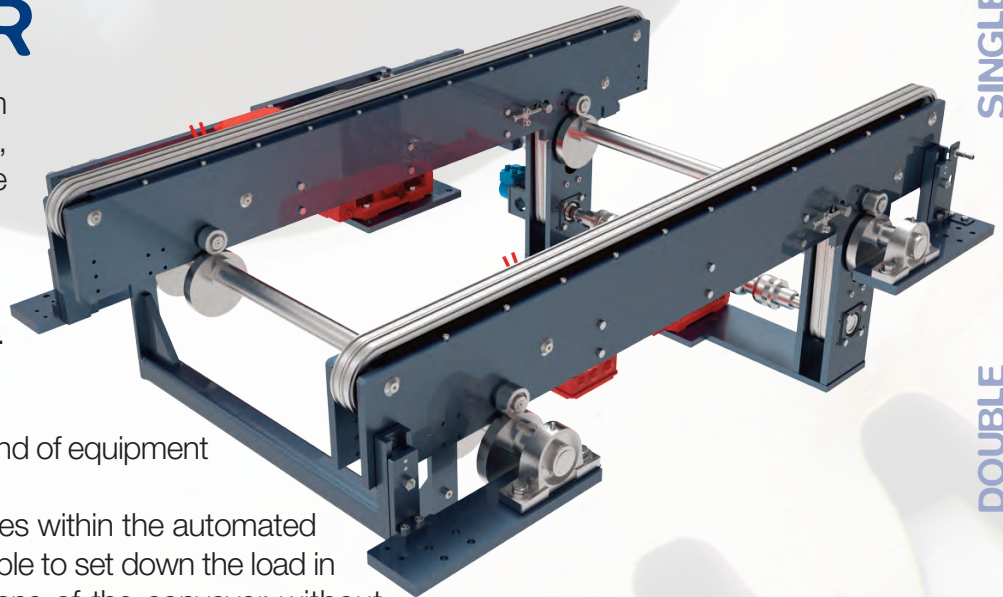
COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



# APOLLO TRANSFER

This is a compound system (telescopic forks + conveyor), designed to implement the handling functionality. With forks in home position, the conveyor lifts, allowing to handle the pallet separately.



SINGLE  
DEPTH

DOUBLE  
DEPTH

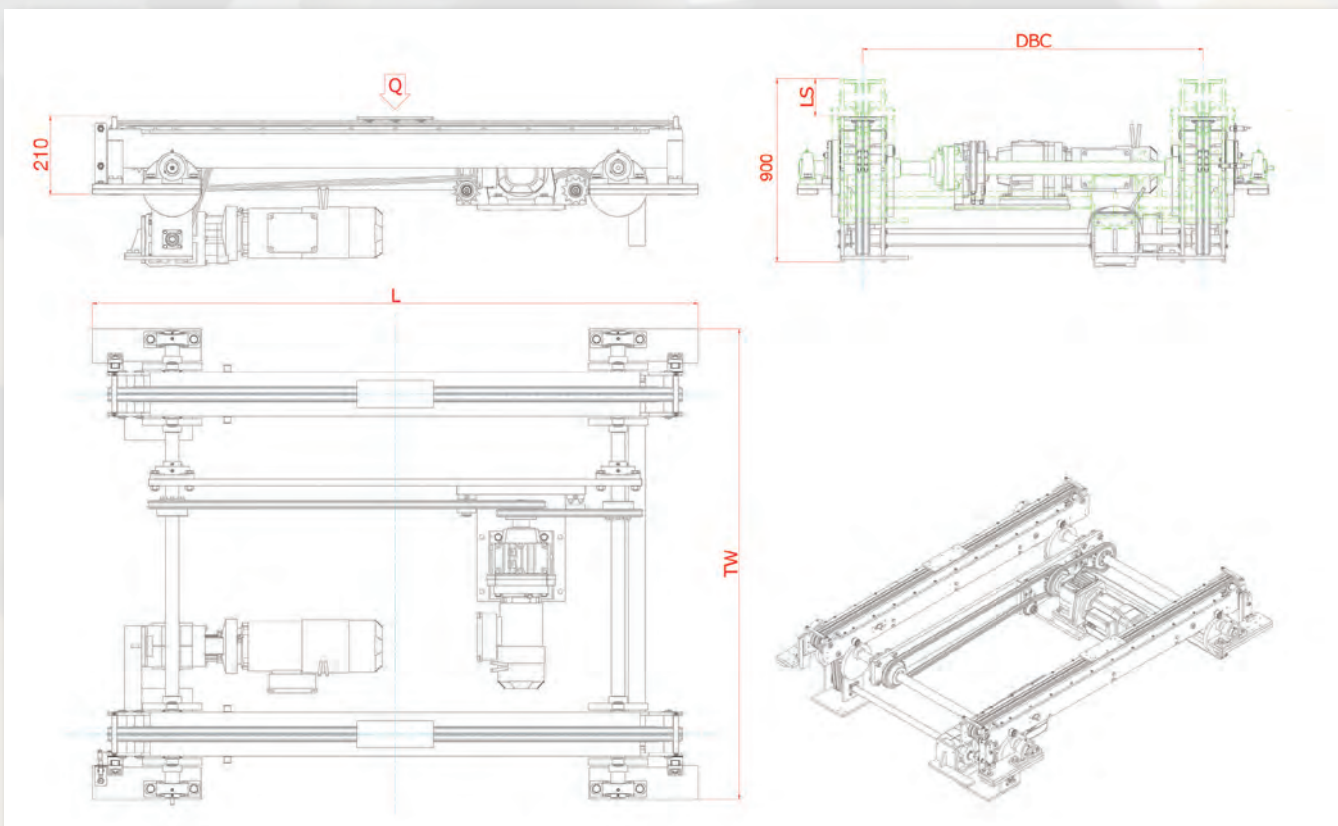
The benefits of this peculiar kind of equipment are:

1) Reduction of the cycle times within the automated warehouse, since it's possible to set down the load in the unloading bay by means of the conveyor without using the forks;

2) Improving the positioning of the load on the shelf, since it's possible to align the load to the forks in masked time, in order to set it down always in the same position.

Q	LOAD (KG)	LS	LIFTING STROKE (MM)	T	LIFTING TIME (SEC)
500	100	8			
1000	60	5			

TRIPLE  
DEPTH



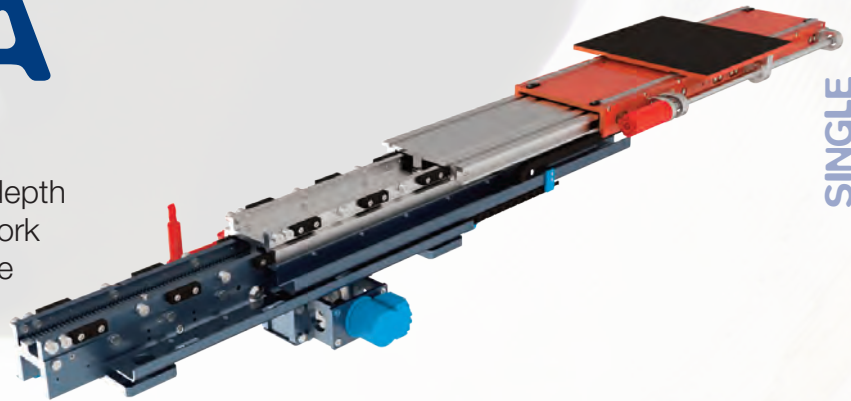
COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



# MEDUSA

The MEDUSA is essentially a double-depth telescopic fork (usually found in a monofork arrangement) with a further moving plate that can shift along the upper slide, regardless the position of the fork.



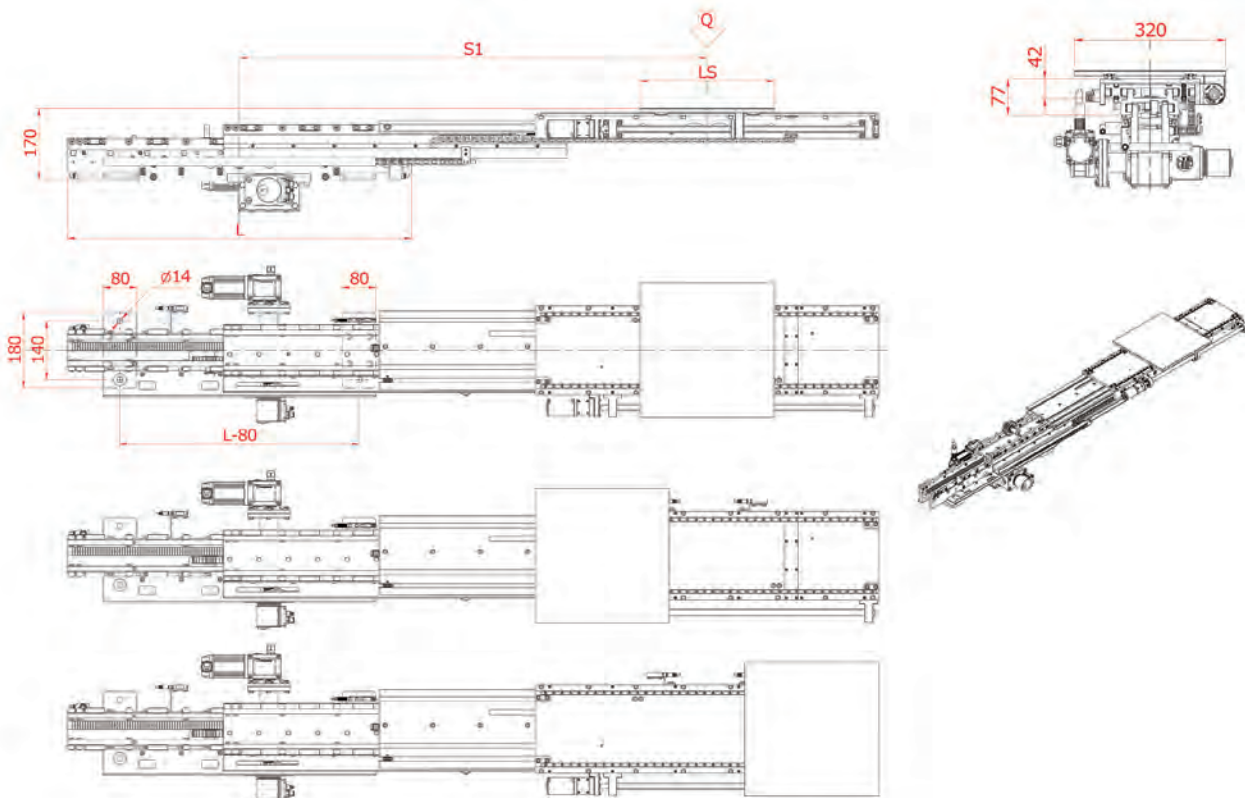
SINGLE  
DEPTH

DOUBLE  
DEPTH

TRIPLE  
DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (M/M)	LS UPPER SLIDE LENGTH (M/M)	S2 STROKE (M/M)	MAX BENDING UNDER LOAD (M/M)
MD-065	100	650	650	1300	21
MD-070		700	700	1400	25
MD-080	70	800	800	1600	27
MD-090		900	900	1800	35
MD-100	50	1000	1000	2000	38
MD-110	40	1100	1100	2200	44
MD-120	30	1200	1200	2400	48

It allows change the position of a load unit that sits on the upper slide according to customer needs, with no need of side belts.



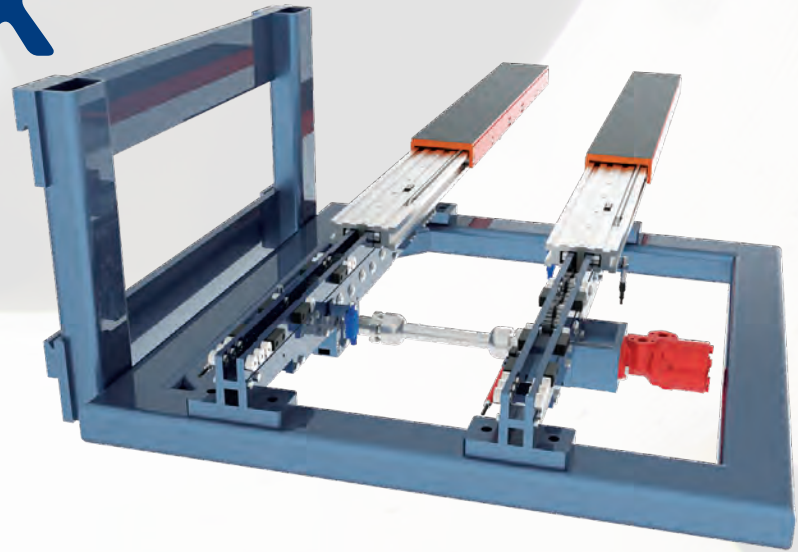
COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



# SPHYNX

The SPHYNX is a moving carriage, designed to be installed on the vertical mast of forklift trucks, allowing them to act as a stacker crane on wheels.



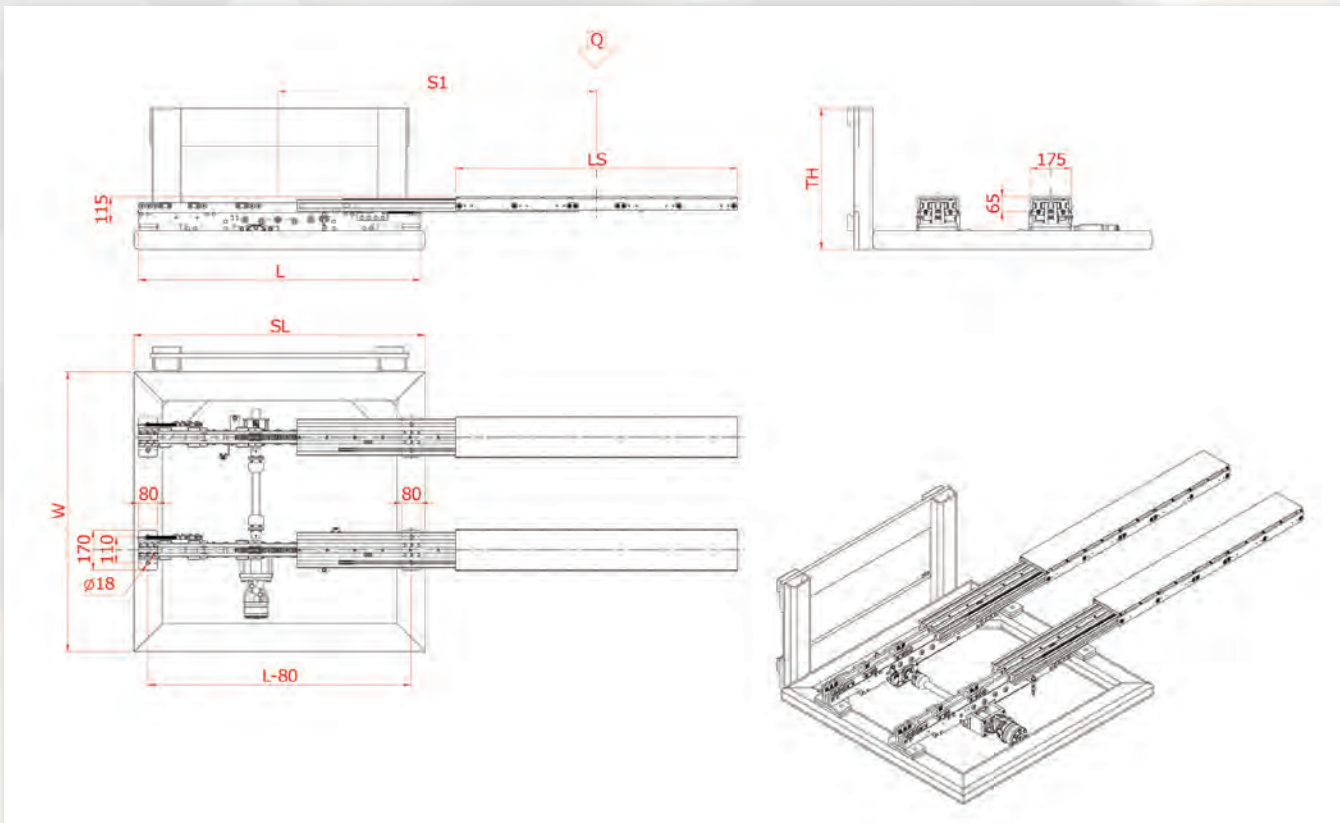
SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

PRODUCT CODE	Q LOAD (KG)	L FIXED BODY LENGTH (MM)	LS UPPER SLIDE LENGTH (MM)	L FIXED BODY LENGTH (MM)	SL SYSTEM LENGTH (MM)	W WIDTH (MM)	TH TOTAL HEIGHT (MM)
SX-100	1500	1000	1000	1100	UP TO 1250	UP TO 1200	600
SX-110		1100	1100	1200			
SX-120		1200	1200	1300			
SX-130		1300	1300	1400			
SX-140		1400	1400	1500			
SX-150		1500	1500	1600			

In this way, a forklift truck can pick up and lay down pallets laterally in a warehouse, which allows operating in narrower aisles.



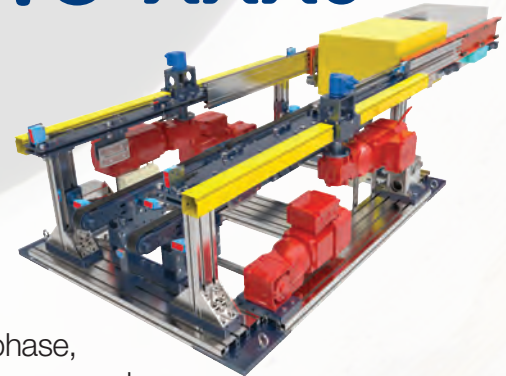
COMBINED PRODUCTS

SPECIAL PRODUCTS



# ARACHNE X4 TO XXX6 CARTON LOADER

The ARACHNE can carry out the handling of 1 or 2 plastic (or carton) box(es), each one of them about as big as 600x400 mm and weighing up to 50 Kg, in simple, double, or in triple depth, or 2, 3, and even 4 of such boxes in single depth.



SINGLE  
DEPTH

DOUBLE  
DEPTH

TRIPLE  
DEPTH

MODEL	Q LOAD (KG)	L SYSTEM LENGTH (MIN/MAX, MM)	S STROKE (MIN/MAX, MM)	W ARM THICKNESS (MM)	DBF DISTANCE BETWEEN ARMS (MM)
X4	50*	700 1200	850 1300	50	min. 220 max. 800
X6	2x50*	900 1350	1000 1450	50	
X8	3x40**	1300 2015	1375 2070	50	
X10	4x25**	1550 2015	1605 2070	50	
XX4	50*	700 1300	1400 2400	70	
XX6	2x30**	800 1350	1400 2450	70	
XXX4	50*	700 1300	1700 2835	110	
XXX6	2x30**	800 1350	1700 2885	110	

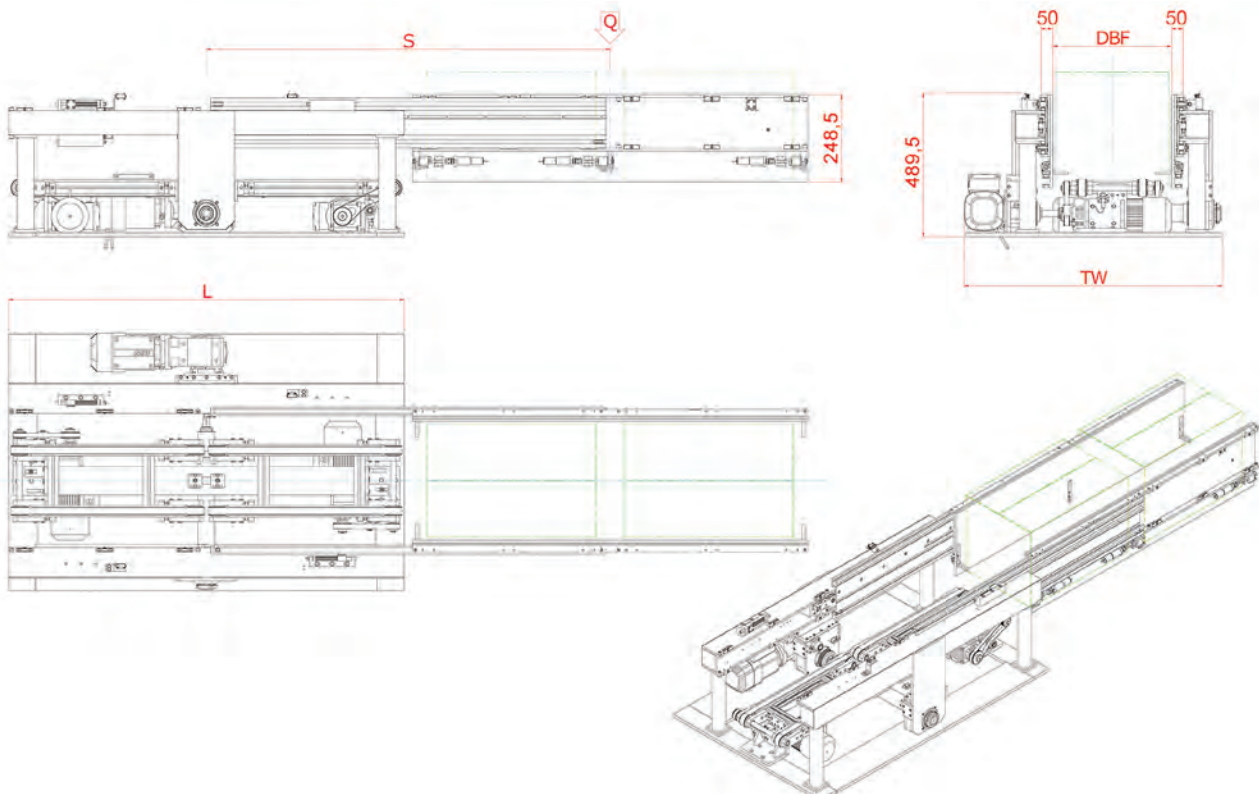
In the picking phase, two telescopic arms reach the load on the shelf and, by means of small pivoting fingers, drag it onboard the shuttle. The multiple-belt, on-board system can handle up to 4 boxes at once.

With a telescopic arm thickness of only 50 mm in the single-depth versions, the ARACHNE allows reducing the spaces between the boxes in the cells, thus reducing the width of the whole shelf.

**A dedicated ARACHNE brochure is available in the *download* section of our website, showing all of its versions and applications.**

\* the boxes are handled longitudinally (600 mm L, 400 mm W)

\*\* the boxes are handled crosswise (300mm L, 400 mm W)



COMBINED  
PRODUCTS

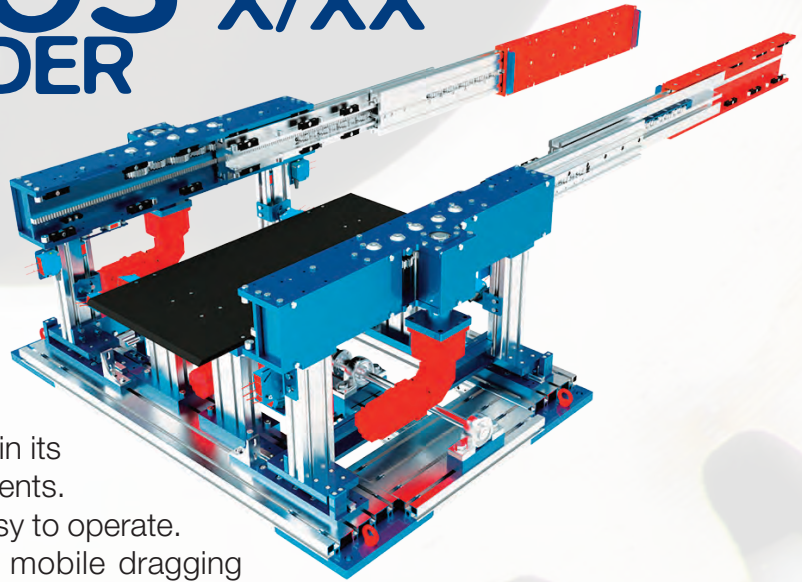
SPECIAL  
PRODUCTS



# KARKINOS X/XX CARTON LOADER

This is an equipment belonging to the latest generation of LHD products. Very simple and operational as for both its mechanical arrangement and its on-board plant design, the KARKINOS is the best solution for handling plastic boxes or cartons in simple or in double depth.

The main feature of the KARKINOS lies in its speed and in the reliability of its movements. It requires poor maintenance and it's easy to operate. Unlike the ARACHNE series, with no mobile dragging "fingers" it can handle the load in a very simple way.



SINGLE  
DEPTH

DOUBLE  
DEPTH

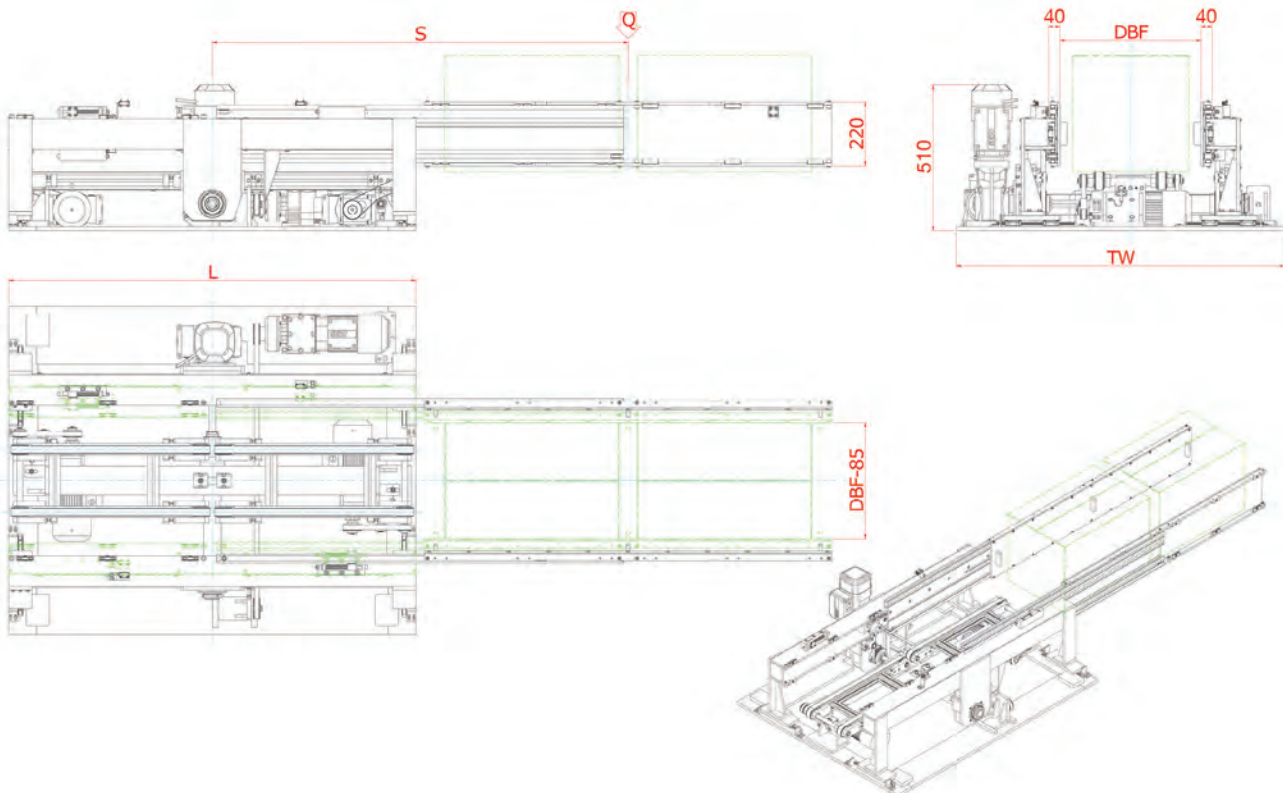
VERSION	Q LOAD (KG)	L LENGTH (MM)	MS MAXIMUM STROKE (MM)	V MAXIMUM SPEED (M/MIN)	A MAXIMUM ACCELERATION (M/S <sup>2</sup> )
KARKINOS X	100	600	1300	45	1
KARKINOS XX		TO 1200	2200		

The KARKINOS is the perfect solution for simple pick-up warehouses.

\* the data in the table are approximate and may vary depending on the model of the used forks and the application

TRIPLE  
DEPTH

COMBINED  
PRODUCTS



SPECIAL  
PRODUCTS



# CERBERUS X1

## 3-SIDED SYSTEM

The CERBERUS with fixed forks allows handling pallets with only 42 mm fork thickness and a load capacity up to 1500 Kg. Rotation and translation occur at a speed of 30m/min.

Thanks to this system, the pallets can be set down and picked up even rotated by 90° compared to the normal position in warehouses.

The device is operated through a pinions-and-racks transmission. The whole structure is supported by a system of prismatic rails, their size depending on the weight the equipment is designed for.



SINGLE  
DEPTH

DOUBLE  
DEPTH

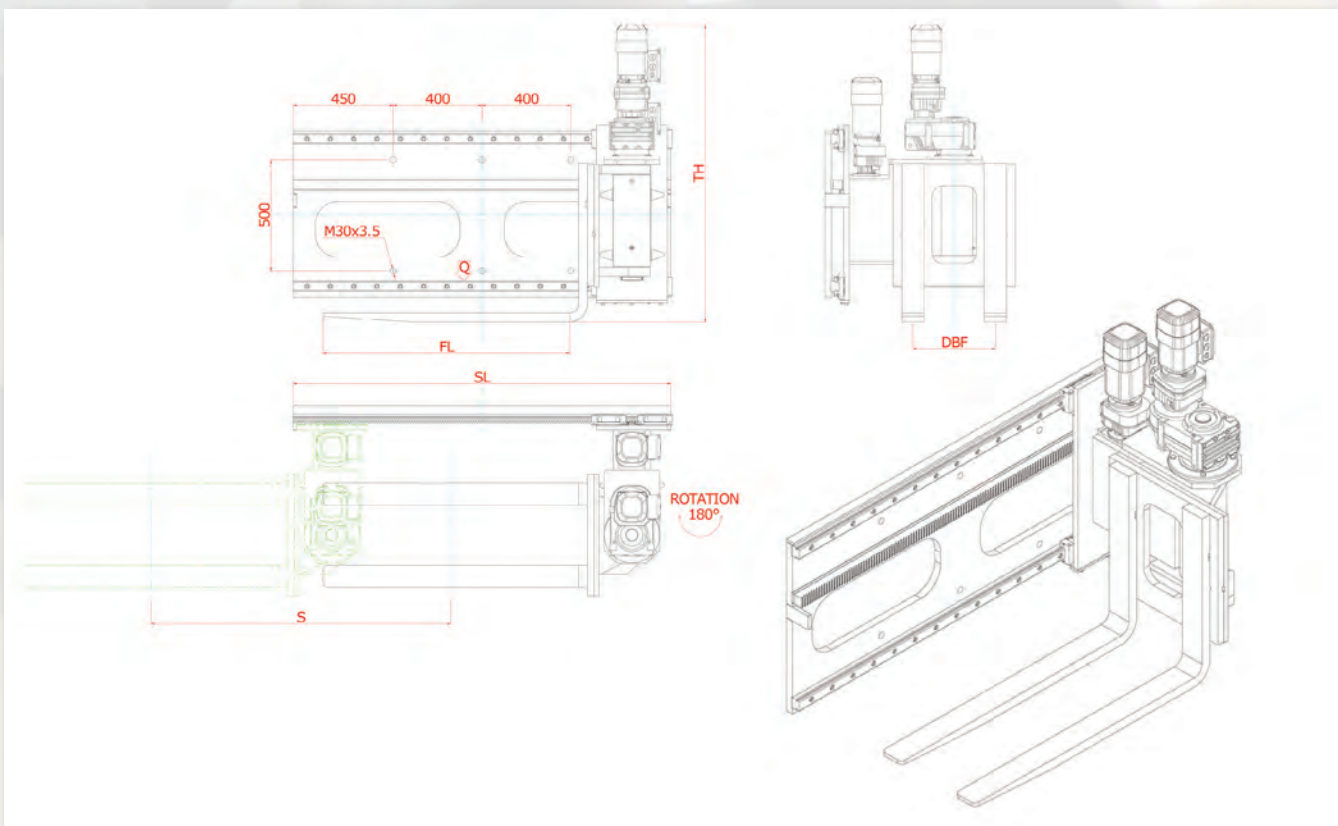
PRODUCT CODE	Q LOAD (KG)	SL SYSTEM LENGTH (MM)	S STROKE (MM)	FL FORKS LENGTH (MM)	DBF DISTANCE BETWEEN FORKS (MM)	TH SYSTEM HEIGHT (MM)
CX1-170	1500	1700	1350	1200	370 TO 600	1500
CX1-180		1800	1450			
CX1-190		1900	1550			
CX1-200		2000	1650			

A motor placed on top operates the spinning movement. Both movements of rotation and translation can occur at the same time in masked time.

TRIPLE  
DEPTH

COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS





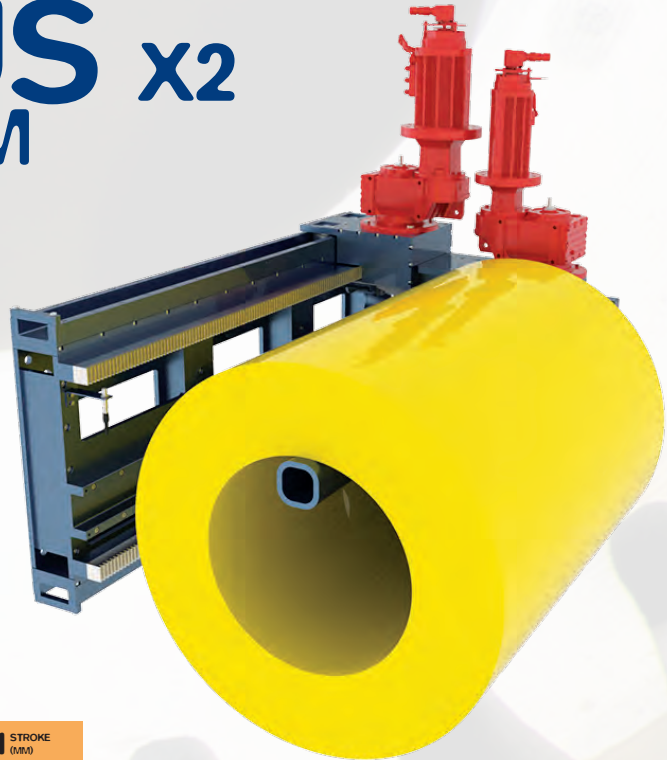
# CERBERUS X2

## 3-SIDED SYSTEM

The CERBERUS X2 is designed to handle metal or paper coils, with a payload of up to 1.500 Kg.

The rotation and translation speed is as fast as 30m/min.

Thanks to this system, the coils can be set down and picked up even rotated by 90° compared to the standard position on shelves.



SINGLE  
DEPTH

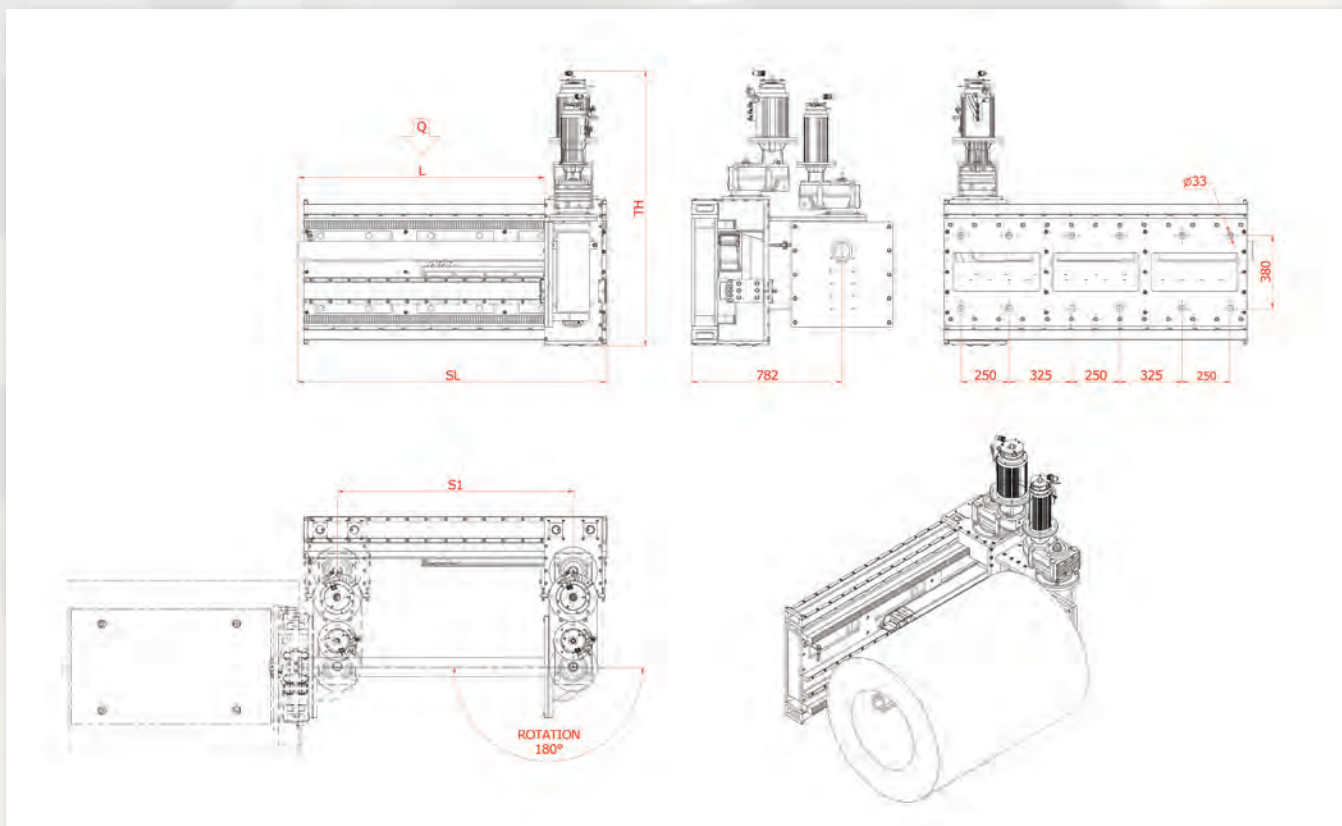
DOUBLE  
DEPTH

PRODUCT CODE	Q LOAD (KG)	L SYSTEM LENGTH (MM)	TH TOTAL SYSTEM HEIGHT (MM)	S1 STROKE (MM)
CX2-170	1500	1700	1500	1350
CX2-180		1800		1450
CX2-190		1900		1550
CX2-200		2000		1650

To save time, both movements can be carried out simultaneously.

TRIPLE  
DEPTH

COMBINED  
PRODUCTS



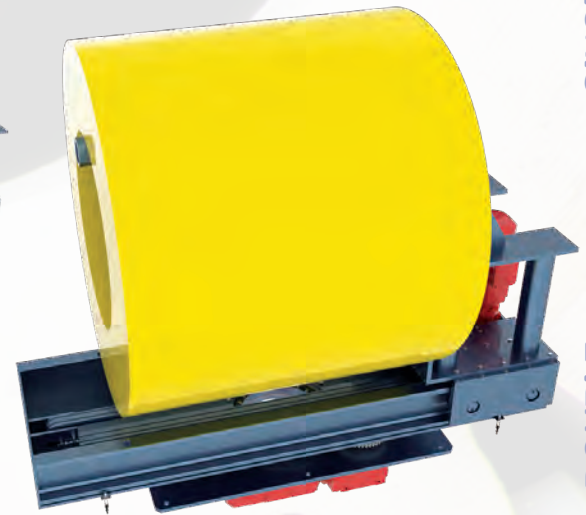
SPECIAL  
PRODUCTS



# CERBERUS X3

## 3-SIDED SYSTEM

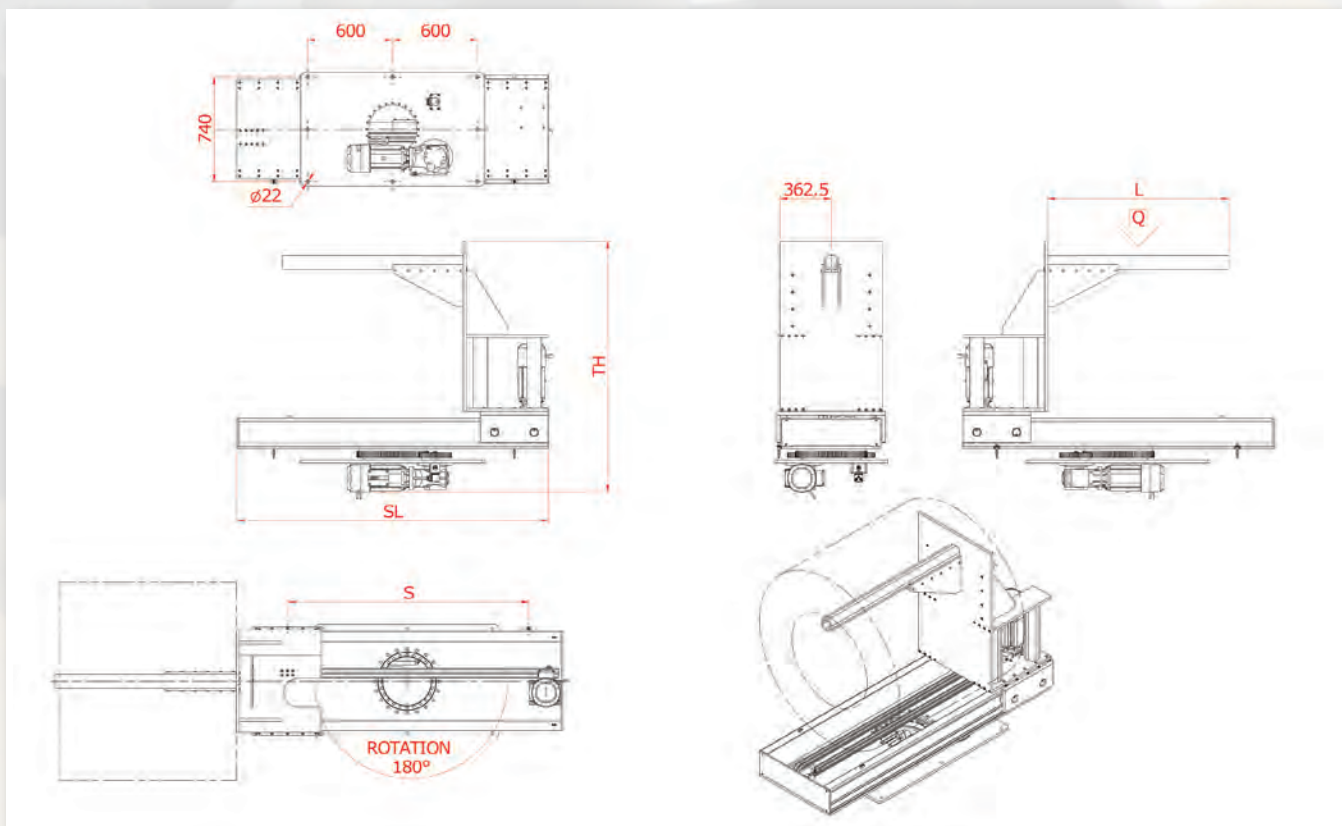
The CERBERUS X3 is a single-sided sideshift suitable for picking up pallets or coils on all sides.



It is equipped with a rotary table for a 360° storage. Its carrying capacity is as high as 1.500 Kg.

PRODUCT CODE	Q LOAD (KG)	L SYSTEM LENGTH (MM)	TH TOTAL SYSTEM HEIGHT (MM)	S1 STROKE (MM)
CX3-160	2500	1600	1500	1100
CX3-180		1800		1300
CX3-200		2000		1500
CX3-230		2300		1800

To save time, both movements can be carried out simultaneously.



SINGLE DEPTH

DOUBLE DEPTH

TRIPLE DEPTH

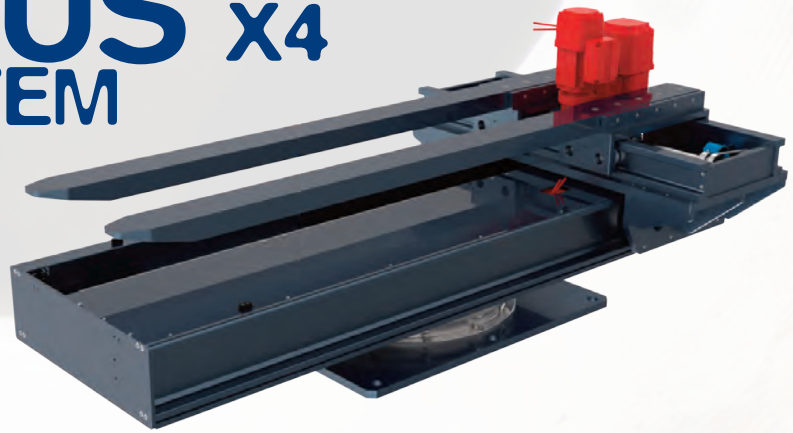
COMBINED PRODUCTS

SPECIAL PRODUCTS



# CERBERUS X4 3-SIDED SYSTEM

CERBERUS X4 for pallets is a similar solution as CERBERUS X3 for coils and a carrying capacity up to 2150 Kg.



The rotation and translation speed can be as fast as 30 m/min.

SINGLE  
DEPTH

DOUBLE  
DEPTH

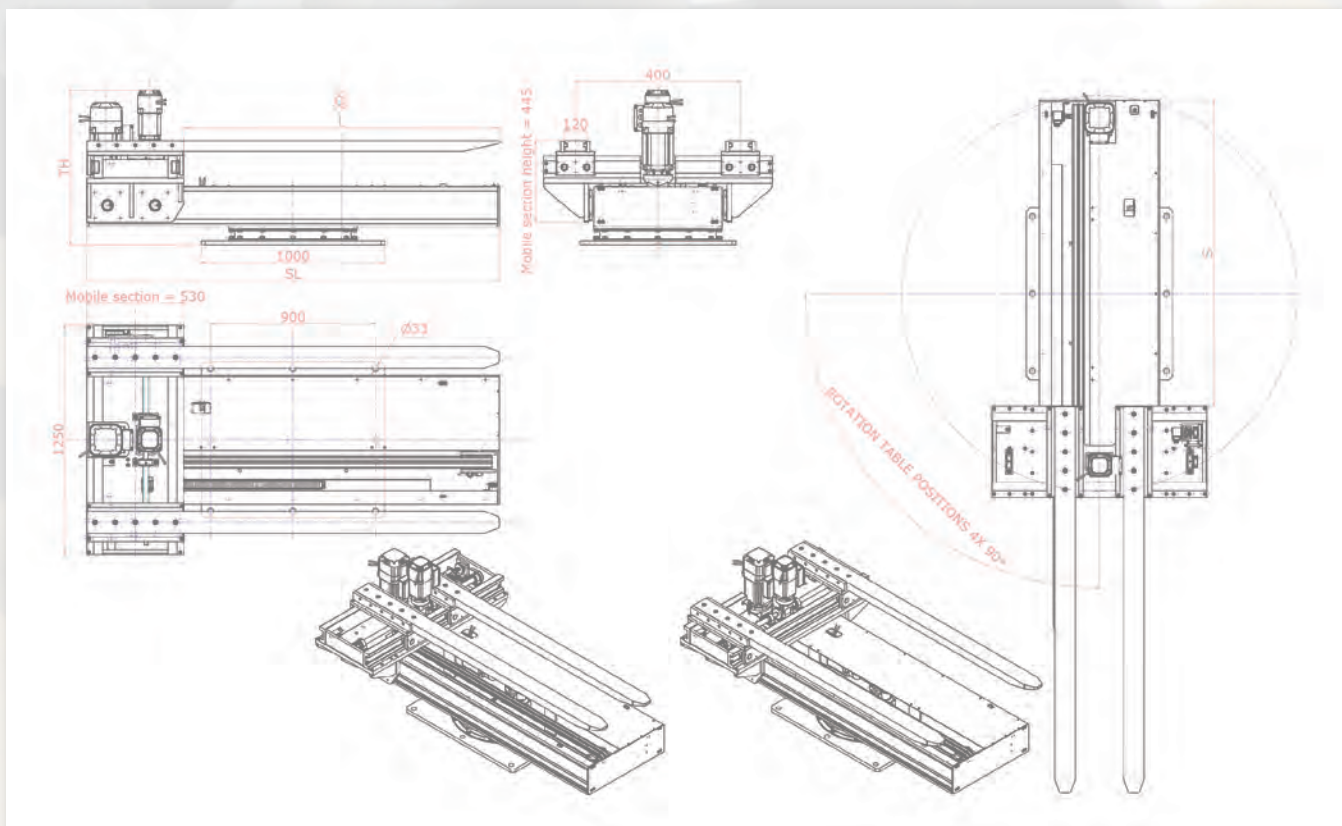
PRODUCT CODE	Q LOAD (KG)	L SYSTEM LENGTH (MM)	TH TOTAL SYSTEM HEIGHT (MM)	S1 STROKE (MM)
CX4-160	2150	1600	850	1100
CX4-180		1800		1300
CX4-200		2000		1500
CX4-225		2250		1800

Thanks to this system, the load can be set down and picked up, even rotated by 360° compared to the normal position in warehouses.

TRIPLE  
DEPTH

COMBINED  
PRODUCTS

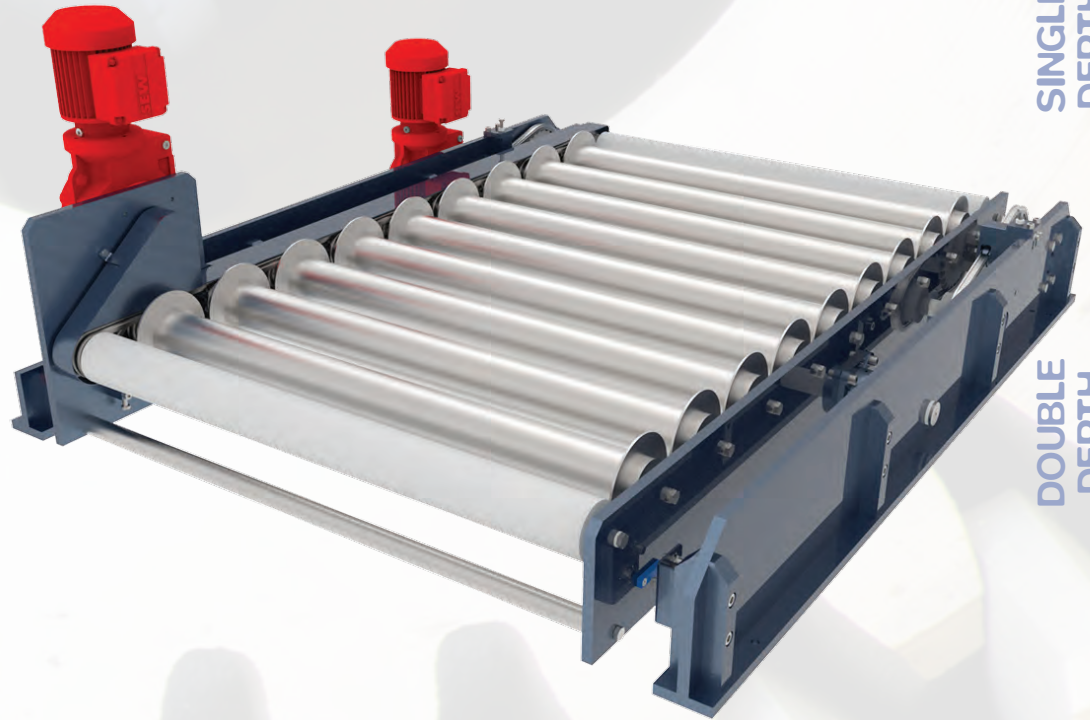
SPECIAL  
PRODUCTS





# HEMERA

The HEMERA system allows the unloading of the pallets by gravity, thanks to its motorised roller conveyor and a tilting movement of the frame by  $-3^\circ$  or  $+3^\circ$ .



SINGLE DEPTH

DOUBLE DEPTH

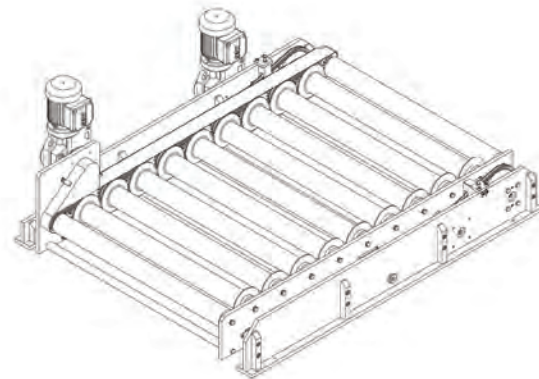
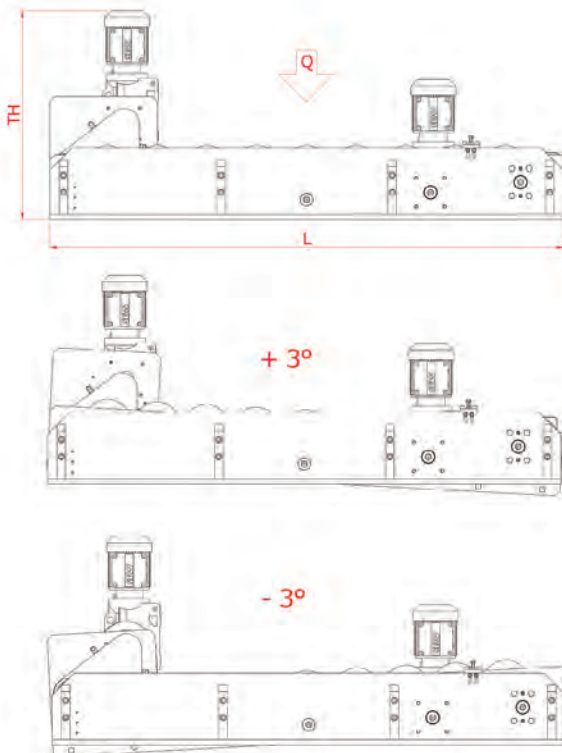
TRIPLE DEPTH

COMBINED PRODUCTS

SPECIAL PRODUCTS

PRODUCT CODE	Q LOAD (KG)	L MAX FIXED BODY LENGTH (MM)	TH TOTAL HEIGHT (MM)
HM-150	600	1500	610

It's meant to be used on stacker cranes and shuttles.

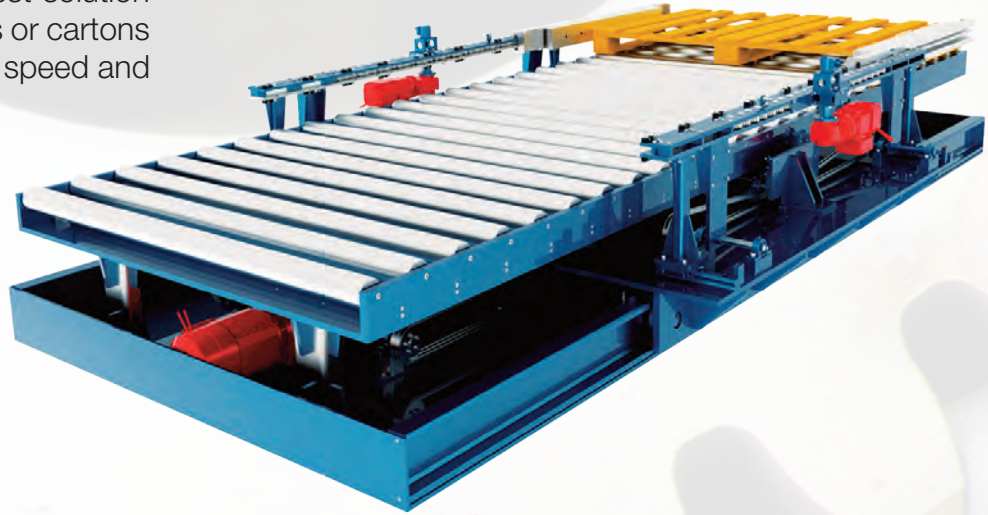




# KARKINOS R

The KARKINOS is the best solution for handling plastic boxes or cartons in single depth, with high speed and reliability.

It doesn't require much maintenance and it's very easy to operate.



SINGLE DEPTH

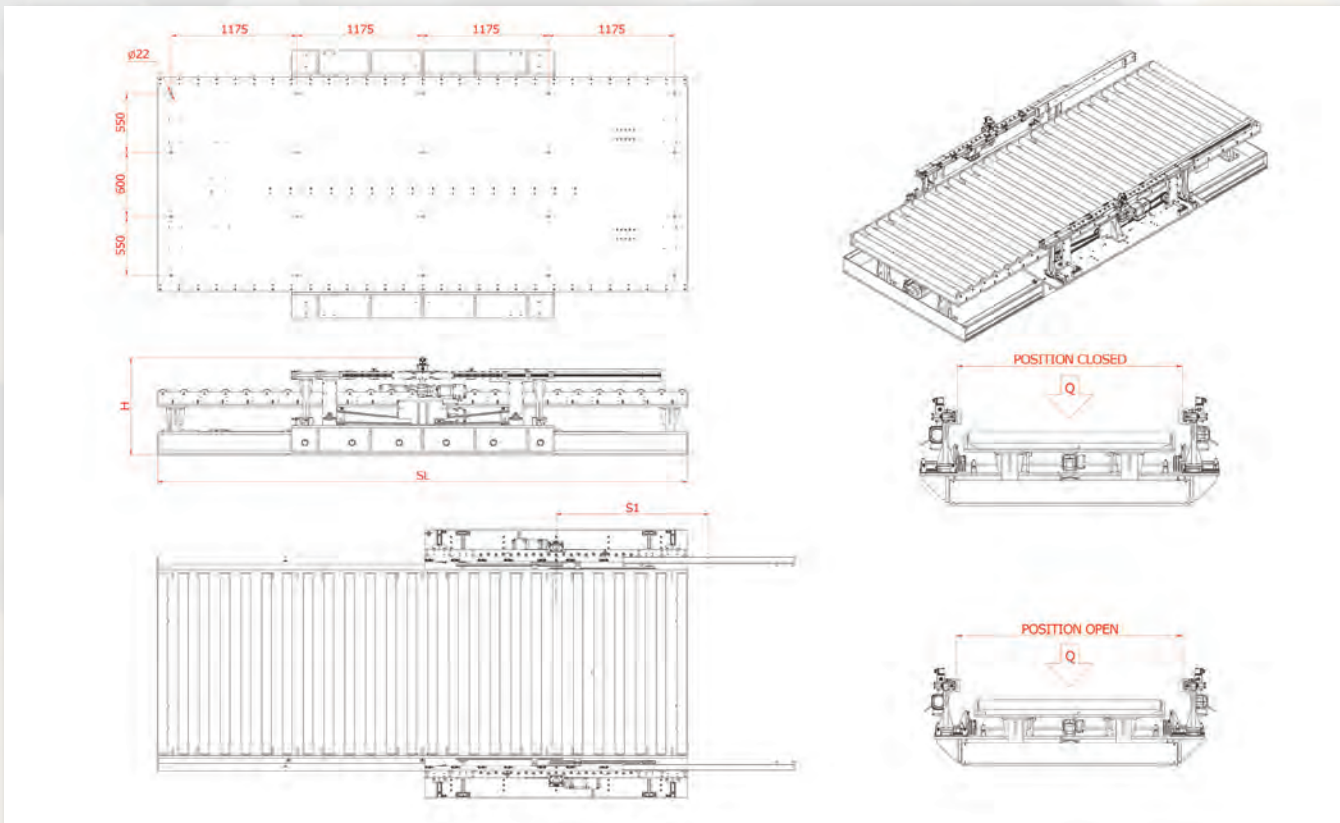
DOUBLE DEPTH

With no mobile dragging "fingers", the KARKINOS can handle the load in a very simple way.

It can be combined with a roller conveyor.

PRODUCT CODE	Q LOAD (KG)	L MAX. SYSTEM LENGTH (MM)	S1 STROKE (MM)	TH TOTAL HEIGHT (MM)
KR-250	1300	2500	1450	900

TRIPLE DEPTH



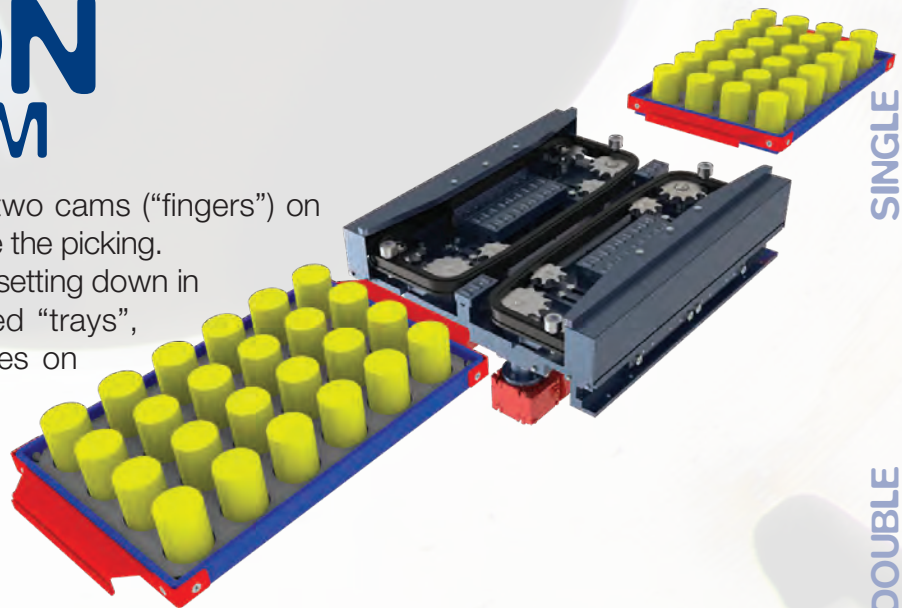
COMBINED PRODUCTS

SPECIAL PRODUCTS



# KHARON CAM SYSTEM

This equipment owes its name to two cams (“fingers”) on one or two picking chains that enable the picking. The KHARON allows picking up and setting down in the automated warehouse so-called “trays”, through appropriately shaped edges on both sides of these containers. The carry capacity of the KHARON with one-chained transmission is as heavy as 100 Kg, whereas the two-chained one attains 300 Kg.



SINGLE  
DEPTH

DOUBLE  
DEPTH

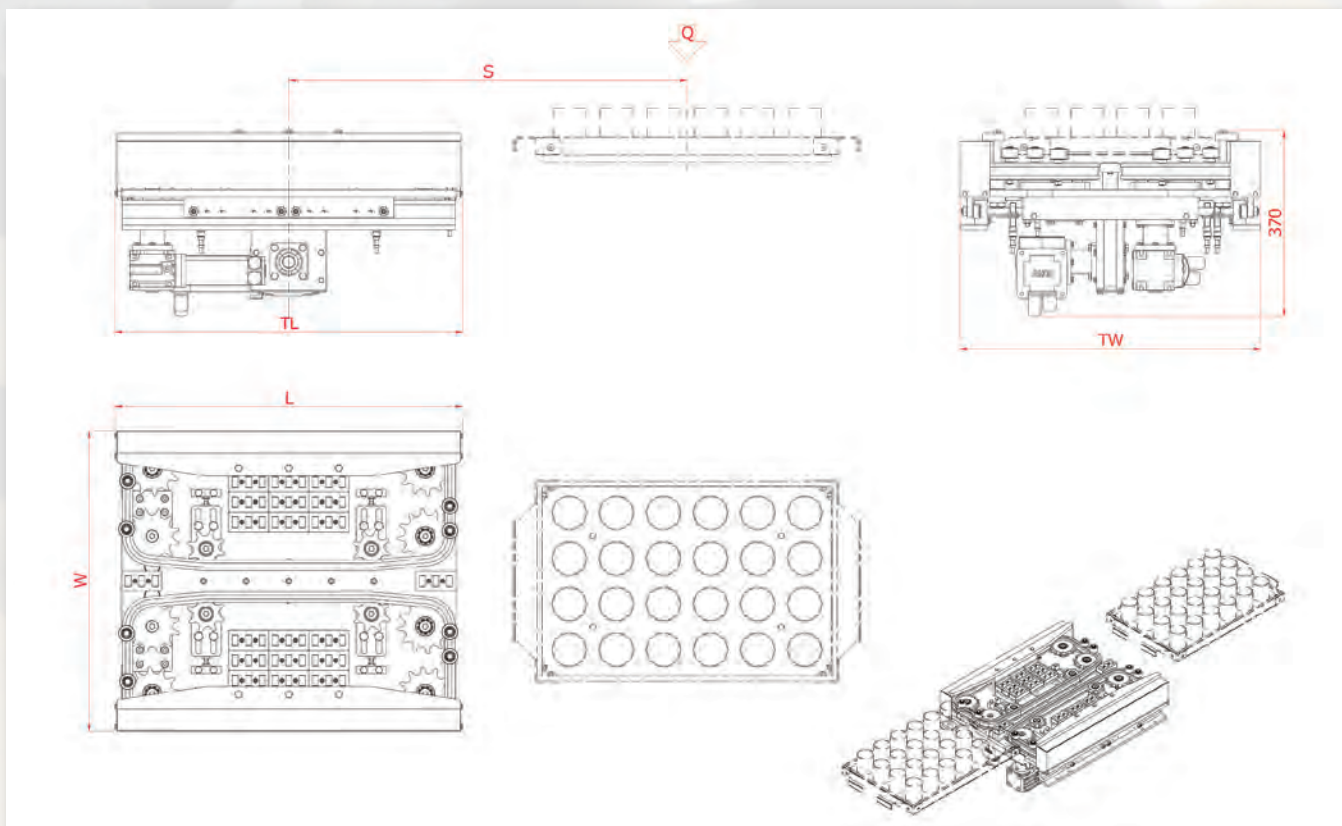
PRODUCT CODE	Q LOAD (KG)	L SYSTEM LENGTH (MM)	SS SLIDING STROKE (MM)	DS DRAGGING STROKE (MM)	W SYSTEM WIDTH (MM)	TW TOTAL WIDTH (MM)
KH-078	100	785	80	845	400	800
KH-098		985		1045	500	
KH-118		1185	to 100	1245	700	
KH-138		1385	1445	900	1100	

It's an efficient equipment that requires little maintenance and it's quite easy to operate. It's very fit for hardware warehouses and anywhere the picking is needed.

TRIPLE  
DEPTH

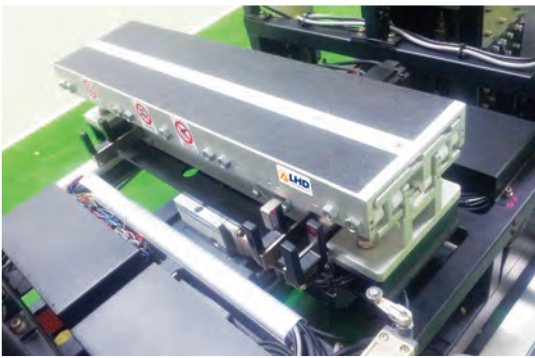
COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS





# ASTRIA CLEAN ROOM



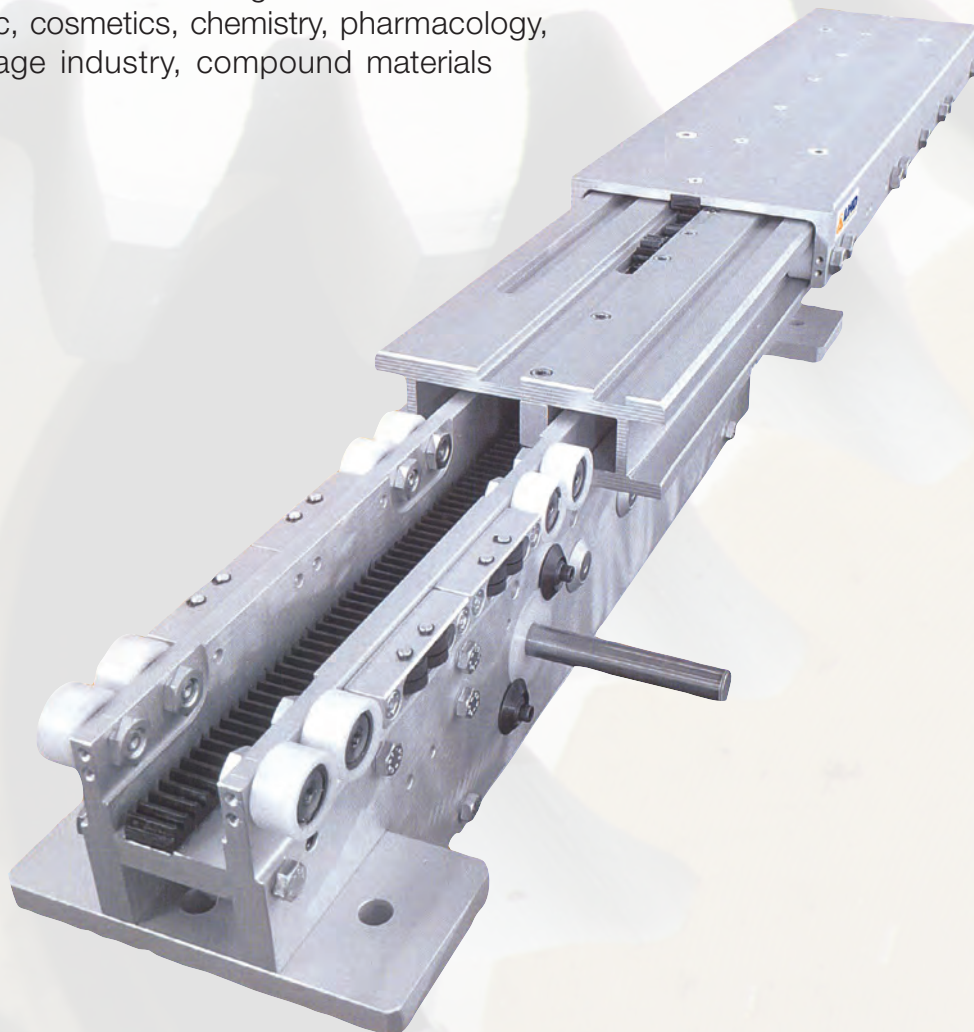
Our project team has designed and developed this cutting edge equipment that follows the strictest European regulations concerning the handling of loads in clean rooms.

This type of telescopic fork is an equipment totally made of anodized aluminium and polymers; it doesn't release any shaving or dust and it's totally wearproof.

Its strong point is that it doesn't need any lubrication or maintenance, thus respecting the strictest rules

about cleaning and oxidation resistance.

The ASTRIA forks are fit for handling loads within the sectors of microelectronic, cosmetics, chemistry, pharmacology, food and beverage industry, compound materials and the like.



SINGLE  
DEPTH

DOUBLE  
DEPTH

TRIPLE  
DEPTH

COMBINED  
PRODUCTS

SPECIAL  
PRODUCTS



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