AVIATOR

OVERHEAD CRANES

JIB CRANES

CONSOLE CRANES

GANTRY CRANES

OPEN TYPE HEAVY DUTY CRANES

OUR PRODUCTS

Single Girder EOT Cranes

Double Girder EOT Cranes

Wall Mounted Jib Crane

Pillar Mounted Jib Crane

Underrunning Travelling Crane

Console Crane

Gantry Crane

Open Type Heavy Duty Crane

SINGLE GIRDER EOT CRANES

- Loads up to 12,5 Ton (Low Headroom)
- Loads up to 40 Ton (Normal Headroom)
- Just hoist or as a crane kit
- Low lateral hook movement
- Compact installation dimensions
- Optimum approach dimensions
- 2-step or stepless cross and long travelling
- Crane Span up to 35m

ADVANTAGE

Maximum cost effectiveness
Optimum utilisation of space

DOUBLE GIRDER EOT CRANES

- Loads up to 500 Ton
- Just hoist or as a crane kit
- Low lateral hook movement
- Compact installation dimensions
- Optimum approach dimensions
- Stepless cross and long travelling
- Crane Span up to 45m

ADVANTAGE

Maximum cost effectiveness
Optimum utilisation of space

WALL MOUNTED JIB CRANE

- Loads up to 12,5 Ton
- Wall mounted
- Rotating degree selections up to 270°
- Manual rotating
- Motorized rotating
- Chain hoist or wire rope hoist selection for the lifting
- Arm length up to 12m

PILLAR MOUNTED JIB CRANE

- Loads up to 63 Ton
- Pillar mounted
- Rotating degree selections up to 360°
- Manual rotating
- Motorized rotating
- Chain hoist or wire rope hoist selection for the lifting
- Arm length up to 20m

UNDERRUNNING TRAVELLING CRANE

- Loads up to 12,5 Ton (Low Headroom)
- Loads up to 40 Ton (Normal Headroom)
- Just hoist or as a crane kit
- Low lateral hook movement
- Compact installation dimensions
- Optimum approach dimensions
- 2-step or stepless cross and long travelling
- Crane Span up to 45m

CONSOLE CRANE

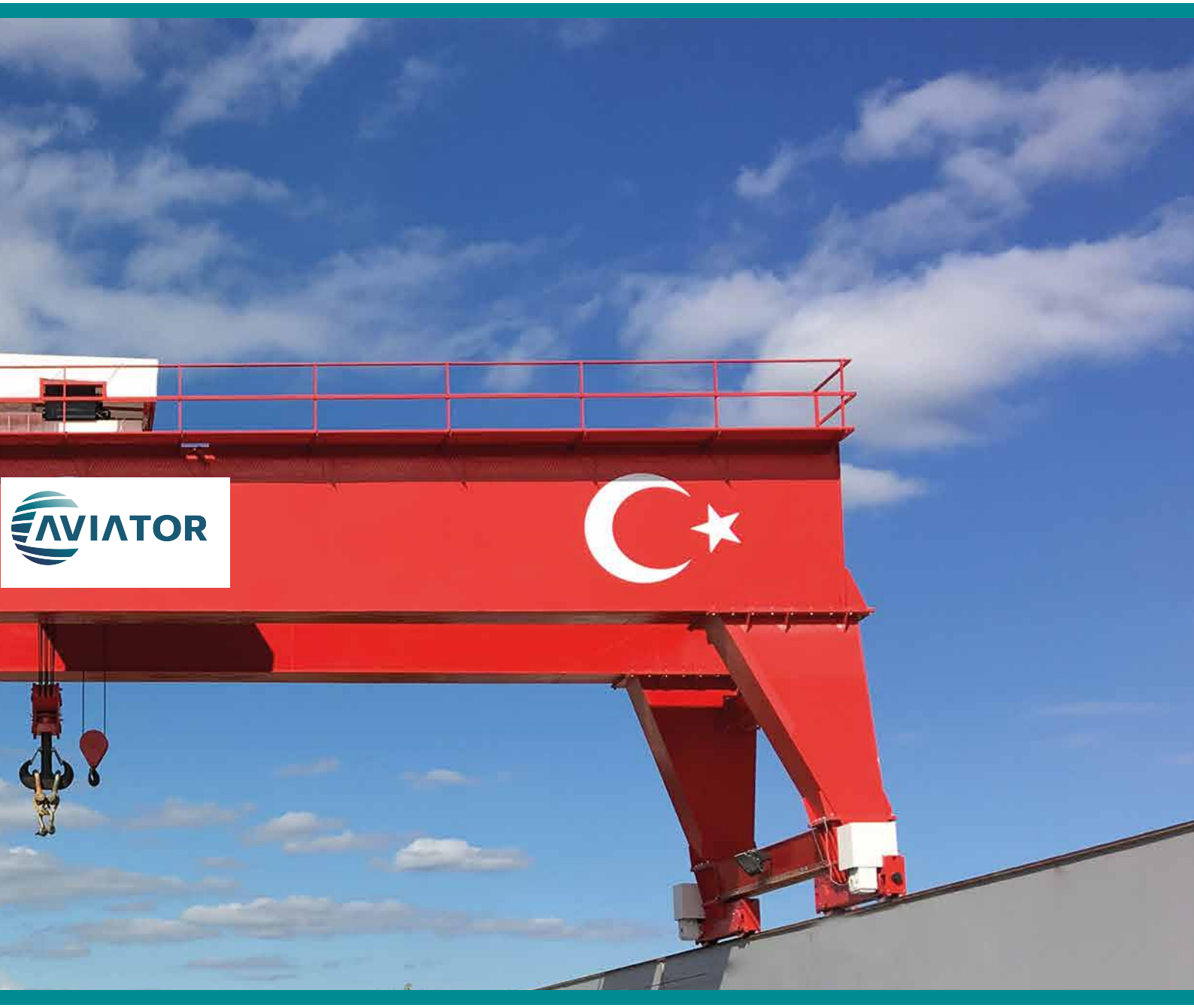
- Loads up to 12,5 Ton (Low Headroom)
- Loads up to 40 Ton (Normal Headroom)
- Just hoist or as a crane kit
- Low lateral hook movement
- Compact installation dimensions
- Optimum approach dimensions
- 2-step or stepless cross and long travelling
- Arm length up to 12m
- Have movements in 6 directions.
- Independent movements on both side of the building along the hall even if overhead cranes exist in the same hall.

GANTRY CRANE

- Loads up to 500 Ton
- Low lateral hook movement
- Cantilever or Non-Cantilever
- Optimum approach dimensions
- Stepless cross and long travelling
- Crane Span up to 100m

ADVANTAGE

There is no need for additional building cost due to open area usage



GANTRY CRANE

• Gantry cranes are used to lift and transport the loads around a working area in a factory, ship-building yard, road construction site, marble quarry, stock yard and metro construction site etc.

SEMI GANTRY CRANE

- Loads of up to 40 Ton
- Low lateral hook movement
- Optimum approach dimensions
- Stepless cross and long travelling
- Crane Span up to 45m

ADVANTAGE

Semi-Gantry Crane provides to use outdoor of the factory area, using by outdoor face of the factory wall

VH SERIES

Electric Wire Rope Hoists, Maximum 120 Ton

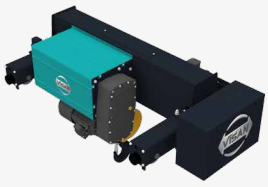
- **Optimum utilisation of space**
  Compact installation dimensions and optimum approach dimensions, minimum hook dimensions

- **Precise and safe work**
  Minimum lateral hook movements and low load swing thanks to smooth load movement with frequency inverters

- **Low maintenance costs**
  The brake designed to extend the lifetime and the smooth cross travelling with the frequency inverter reduces material wear and tear

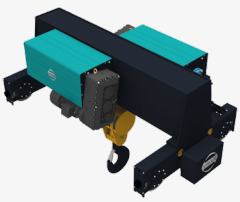
Hoisting Group Types

VH L
Single Girder
Low Headroom
Max 12,5T



VH D
Double Girder
Max 80T

VH N/S
Single Girder
Normal Headroom
Max 63T



VH D
Double Girder
Max 120T

VH F
Fixed Hoist
Max 120T

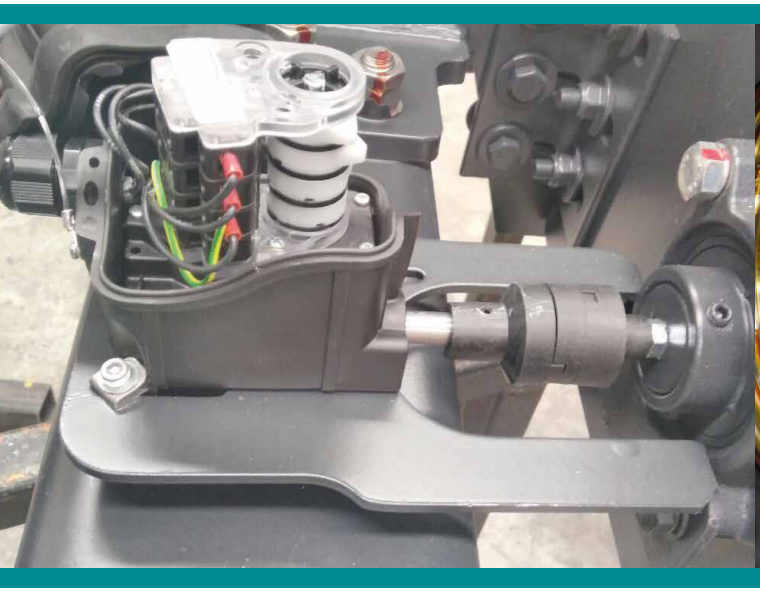
PRODUCT RANGE

FRAME TYPE	FALL		CAPACITY (TON) / WORKING CLASS (FEM/ISO)																									HOIST TYPE L :Low headroom N :Normal headroom S :Swivelling headroom D :Double girder F :Foot mounted					Hoist Lifting speed (m/min) 50Hz	Hoist Travelling speed (m/min)	Hoist Height of lifting (m)	Hoist Motor Power (Kw)
			0,4T	0,5T	0,63T	0,8T	1T	1,25T	1,6T	2T	2,5T	3,2T	4T	5T	6,3T	8T	10T	12,5T	16T	20T	25T	32T	40T	50T	63T	80T	100T	120T	L	N	S	D	F				
VH010	1/1	2*1/1	3m/M6	2m/M5	1Am/M4																								*	*	*	*	16/4	20/5	24 - 52	1,8 / 0,45
	2/1	2*2/1			4m/M7	3m/M6	2m/M5	1Am/M4																					*	*	*	*	8/2	20/5	12 - 26	1,8 / 0,45
	4/1	2*4/1						4m/M7	3m/M6	2m/M5	1Am/M4																		*	*	*	*	4/1	20/5	6 - 13	1,8 / 0,45
	6/1	2*6/1							4m/M7	3m/M6	2m/M5	1Am/M4																				*	*	2,7/0,6	20/5	4 - 9	1,8 / 0,45
VH020	1/1	2*1/1				4m/M7	3m/M6	2m/M5	1Am/M4																					*	*	*	*	16/4	20/5	24 - 52	4,5 / 1,1
	2/1	2*2/1							4m/M7	3m/M6	2m/M5	1Am/M4																	*	*	*	*	8/2	20/5	12 - 26	4,5 / 1,1
	4/1	2*4/1										4m/M7	3m/M6	2m/M5	1Am/M4														*	*	*	*	4/1	20/5	6 - 13	4,5 / 1,1
	6/1	2*6/1												4m/M7	3m/M6	2m/M5	1Am/M4															*	*	2,7/0,6	20/5	4 - 9	4,5 / 1,1
VH030	1/1	2*1/1							4m/M7	3m/M6	2m/M5	1Am/M4																				*	*	16/4	20/5	24 - 52	9,4 / 2,2
	2/1	2*2/1										4m/M7	3m/M6	2m/M5	1Am/M4														*	*	*	*	8/2	20/5	12 - 26	9,4 / 2,2
	4/1	2*4/1													4m/M7	3m/M6	2m/M5	1Am/M4											*	*	*	*	4/1	20/5	6 - 13	9,4 / 2,2
	6/1	2*6/1															4m/M7	3m/M6	2m/M5	1Am/M4												*	*	2,7/0,6	20/5	4 - 9	9,4 / 2,2
VH040	1/1	2*1/1									4m/M7	3m/M6	2m/M5																	*	*	*	*	17/ 2,8	20/5	24 - 52	12,5 / 2
	2/1	2*2/1												4m/M7	3m/M6	2m/M5														*	*	*	*	8,5 / 1,4	20/5	12 - 26	12,5 / 2
	4/1	2*4/1															4m/M7	3m/M6	2m/M5											*	*	*	*	4,2 / 0,7	20/5	6 - 13	12,5 / 2
	6/1	2*6/1																	4m/M7	3m/M6	2m/M5									*	*	*	*	2,8/ 0,5	20/5	4 - 9	12,5 / 2
VH050	1/1	2*1/1										4m/M7	3m/M6	2m/M5	1Am/M4															*	*	*	*	13,6 / 2,2	20/5	24 - 52	16 / 2,6
	2/1	2*2/1													4m/M7	3m/M6	2m/M5	1Am/M4												*	*	*	*	6,8 / 1,1	20/5	12 - 26	16 / 2,6
	4/1	2*4/1																4m/M7	3m/M6	2m/M5	1Am/M4									*	*	*	*	3,4 / 0,6	20/5	6 - 13	16 / 2,6
	6/1	2*6/1																		4m/M7	3m/M6	2m/M5	1Am/M4							*	*	*	*	2,3 / 0,4	20/5	4 - 9	16 / 2,6
VH060	1/1	2*1/1											4m/M7	3m/M6	2m/M5															*	*	*	*	16,6 / 4,2	20/5	24 - 52	20 / 5
	2/1	2*2/1														4m/M7	3m/M6	2m/M5												*	*	*	*	8,3 / 2	20/5	12 - 26	20 / 5
	4/1	2*4/1																	4m/M7	3m/M6	2m/M5									*	*	*	*	4,2 / 1	20/5	6 - 13	20 / 5
	6/1	2*6/1																			4m/M7	3m/M6	2m/M5							*	*	*	*	2,8 / 0,7	20/5	4 - 9	20 / 5
	8/1	2*8/1																				4m/M7	3m/M6	2m/M5						*	*	*	*	2,1 / 0,5	20/5	4 - 9	20 / 5
VH070	1/1	2*1/1												4m/M7	3m/M6	2m/M5	1Am/M4													*		*	*	20 /5	20/5	24 - 52	38-İnv.
	2/1 4/1	2*2/1															4m/M7	3m/M6	2m/M5	1Am/M4										*		*	*	10 / 2,5	20/5	12 - 26	38-İnv.
		2*4/1																		4m/M7	3m/M6	2m/M5	1Am/M4							*		*	*	5/1,2	20/5	6 - 13	38-İnv.
	6/1	2*6/1																					3m/M6	2m/M5	1Am/M4					*		*	*	3,4/0,8	20/5	4 - 9	38-İnv.
	8/1	2*8/1																						3m/M6	2m/M5	1Am/M4							*	*	2,5 / 0,6	20/5	4 - 9	38-İnv.
VH080	10/2-T																							4m/M7	3m/M6	2m/M5	1Am/M4						*	*	4/1	20/5	5-14	38-İnv.
VH090	12/2-T																								4m/M7	3m/M6	2m/M5	1Am/M4						*	*	3,4/0,8	20/5	5-11	38-İnv.

-38kW Lifting motor is controlled by inverter as standard.
- Visan reserves the right to change technical information without prior notice.

OUR PRODUCTS

Perfect utilisation of space and almost vertical lifting guarantee so that work is carried out precisely and safely.



STANDARD EQUIPMENTS

- 2-speed hoisting motors (Speed Ratio 4:1 or 6:1)
- 2-step hoisting limit switch with slow-down function
- Phase mismatch protection
- Mechanical overload protection
- Load display screen
- Thermal protection for hoisting
- Travelling machinery with frequency inverter, 2-step or stepless
- Standard 3-phase voltages 380/400/415 V 50 Hz;
- 48 V contactor control
- IP 55 protection, duty factor 60 %
- Electrical assembly and wiring in accordance with IEC standards
- Robust rope guide made of cast iron
- Ambient temperature -10°C to +40°C
- Noisy level 70dB
- IP65 control pendant with plug adapter and Emergency-Stop
- Cast Iron wheels
- Epoxy paint 60µm

OPTIONAL EQUIPMENTS

- IP65 protection for hoisting motor
- Hoisting with inverter control
- Radio remote control
- Standard 3-phase voltages 440/460/480 V 60 Hz
- External fan for hoisting motor
- Standby heating for bridge panels and motors
- Ambient temperature -20°C ...+60°C
- Rain cover
- Articulated trolley for curved track
- Lockable hook/ramshorn hook
- Cable reeling drums and more

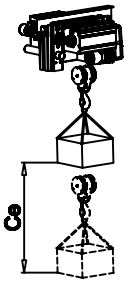
DETERMINATION OF THE HOIST CODES

VH	030	DS	008	DC	20	08	6/1	1	90	DN	FEM 3m

Code	Description	
VH	Range Type	VH Standard hoist ranges BH Open Type Heavy duty hoist ranges
030	Frame Type	010 060 020 070 030 080 040 090 050
DS	Lifting Speed Type	DS-Double speed DC-Double speed with inverter
008	Lifting Speeds	Main Speeds High / Low 2,7m/min 0,65m/min 3,4m/min 0,57m/min 4m/min 1m/min 8m/min 2m/min 16m/min 4m/min Please check the product range table to see variable speeds
DC	Travelling Speed Type	DS-Double speed DC-Double speed with inverter
20	Travelling Speed	20m/min 32m/min
6/1	Fall	Standard Drum / Center Lifting Drum 1/1 2x1/1 2/1 2x2/1 4/1 2x4/1 6/1 2x6/1 8/1 2x8/1 *Center lifting drum selection is prefered for the true lifting applications or some speacial applications.
1	Hook Type	1-Single forged hook-15401 2-Ramshorn(Double) Hook-15402
90	Wheel Diameters	Monorail (4 wheels) / Double Girder (4 wheels) / Double Girder (Bogie - 8 wheels) 90 110 B110 125 160 B160 150 200 B200 200 250 B250 315 B315 400 B400 500 B500 630 B630 710 B710
DN	Hoist Type	DL Double Girder Low Headroom DN Double Girder Normal Headroom DS Double Girder Swivelling Trolley DF Double Girder Fixed Trolley MN Monorail Normal Headroom ML Monorail Low Headroom MS Single Girder Swivelling Trolley MF Monorail Fixed Trolley
FEM 3m	Duty Class FEM/ISO	FEM / ISO 1Am M4 2m M5 3m M6 4m M7 5m M8

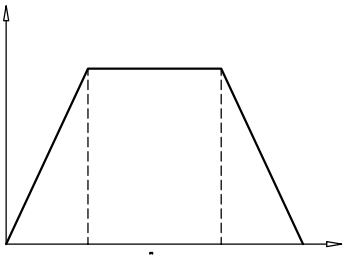
FEM TABLE

LIFTING HEIGHT



Ce=m
Lifting height per process

ALL PROCESS



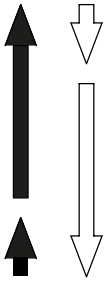
Lift up-idle-lift down-stop
Manipilation(max 10min)

Ch=n°
Process cycle per hour

OPERATING TIME

Ti=h
Operating time per day(as hour)

LIFTING SPEED



V=m/dk
Lifting speed per minute

After we define the duty type and operating time per day, we could select hoist/crane type according to F.E.M. Class and Capacity. Average operating time per day can define as:

$$Tm = \frac{Ce.Ch.Ti}{30.V}$$

Example Calculation:

Capacity (Q) = 5000kg
Height (h) = 4m
Process cycle per hour (Ch) = 8
Operating time per day(saat)(Ti) = 20
Lifting speed(m/min) (V) = 8 m/dk
Load spectrum = Medium
Average operationg time per day(Tm) = ? Hour

$$Tm = \frac{4.20.8}{30.8} = 2{,}66$$

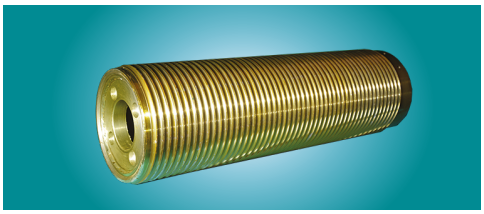
According to calculated result; you can select the FEM/ISO duty class by the following tables:

Definition of the Hoist Duty Group according to FEM / ISO							
Average operating time per day		up to 0,5h	up to 1h	up to 2h	up to 4h	up to 8h	up to 16h
Run Time Spectrum		V0,25	V0,5	V1	V2	V3	V4
Load spectrum	Light			1Bm / M3	1Am / M4	2m / M5	3m / M6
	Medium		1Bm / M3	1Am / M4	2m / M5	3m / M6	4m / M7
	Heavy	1Bm / M3	1Am / M4	2m / M5	3m / M6	4m / M7	5m / M8
	Very heavy	1Am / M4	2m / M5	3m / M6	4m / M7	5m / M8	–

Hoist Group, FEM 9.661+9.682 / DIN 15020	1Bm / M3	1Am / M4	2m / M5	3m / M6	4m / M7	5m / M8
Duty Factor ED	25	30	40	50	60	60
Max. Starts / hour s/h	150	180	240	300	360	360
Hours under full load SWP in h	400	800	1600	3200	6300	12500

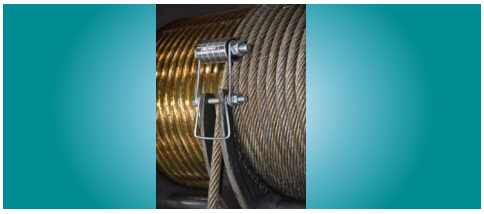
Load spectrum		
Type	Ratio	Description
Light	0% - 25%	Hoists with occasionally max. load, frequently operated with min. Load
Medium	25% - 50%	Hoists with regularly max. load, frequently operated with min. Load
Heavy	50% - 75%	Hoists with frequently max. load, frequently operated with medium load
Very heavy	75% - 100%	Hoists with regularly max. load, frequently operated with heavy load

***Load spectrum must be selected as Heavy such as grab bucket, polyp bucket etc.



DRUM

- Its designed according to DIN 15020 VE FEM
- Its produced ST52 drawn steel pipe
- Precision machining by CNC C Axis



ROPE AND ROPE GUIDE

- Spring mechanism to prevent the loosen wire rope
- PHYTON branded German advanced technology
- Min. Breaking Load 2160N/mm2
- Compact design for hoist
- Long life wire rope
- GGG50 Cast Iron

HOOK

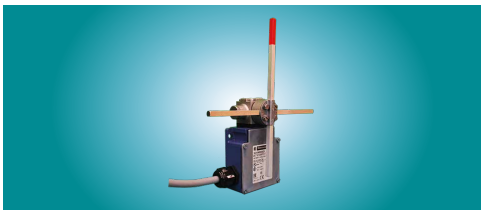
- Designed according to DIN15401/1402
- Safety latch included as standard
- 360˚ swivelling hook
- Hot-forging hook

LIFTING AND TRAVELLING MOTOR WITH PLUG AND PLAY CONNECTION

- Plug and play connection as standard
- Easy maintenance
- Safety

GEAR LIMIT SWITCH

- Connection is made by speacial balance coupling
- Its mounted directly to the drum shaft
- Up-Down limit adjustment

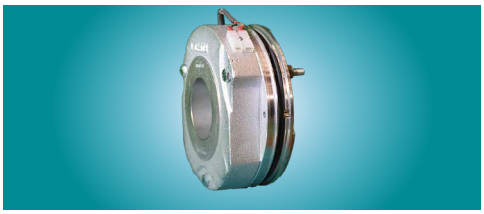


TRAVELLING LIMIT SWITCHES

- Soft start and stop (Non-impact)
- 2 Step limit switch
- Slow and stop

OVERLOAD PROTECTION

- Prevention system for the loosen wire rope
- High precision load control
- Overload protection
- Monitoring device



BRAKE

- Long life time and adjustable torque
- ABM branded advanced technology
- Min. 2,5 times more brake safety
- Electromagnetic brake
- Min maintenance cost
- 1.000.000 lifte time

BH SERIES UP TO 500 Ton LOADS

Open Type Heavy Duty Crane

Precise and safe operation
Hoisting frequency inverter with closed loop, hoisting motor with encoder, frequency inverter controlled travelling machineries

Optimal usage of space and equal wheel load distribution
Compact design and optimal approach dimensions, no horizontal hook movement

Various design options
Well thought-out construction based on standardised components

Lower maintenance costs and short downtimes
New hook block design with tilted sheaves for reduced rope wear, easy accessible central lubrication, just one type of hoisting motor, gear and frequency inverter per frame size

- Loads up to 500 ton
- Just hoist or as a crane kit
- Double Girder or Fixed hoisting group
- Center Lifting
- Low lateral hook movement
- Compact installation dimensions
- Optimum approach dimensions
- Stepless cross and long travelling
- Amb Conditions - 10°C... 60 ° C

BH SERIES UP TO 500 Ton LOADS

Open Type Heavy Duty Crane

Frequency Inverter Control

- Accurate operation under
  load Low-sway action with speed adjustable to any value in the range
- Protective working
  Soft starting and stopping reduces stress on the gearing and wheels, thus reducing wear on the wheels and rails.
- Low maintenance costs and short maintenance times
  Long service life for wheels and rails and practically no wear on the brakes results in lower maintenance outlay, with drastically reduced maintenance costs and use of materials.

Advantage: Gentle operation ensures reduced wear and increased profitability.

Frequency inverter controllers for cross and long travel ensure low-sway loading process. The soft starting and braking procedures can be set for any speed and also reduce the wear on many components, such as brakes, gearing and runners.

- Frequency inverter controller offers two types of controllers: stepless (EP) and two-step (MS2).
- The supply voltages for TravelMaster inverters are 380-480V +/- 10% at 50 or 60 Hz.
- All frequency inverters are fitted with an integrated EMC filter as standard.
- Modules have six digital inputs with a control voltage of 42-230V at 50 or 60 Hz.
- Frequency inverter converters are designed for ambient temperatures of -10°C to +50°C.

Radio Control

- **Room for manoeuvre**
  No awkward control cable, flexibility in terms of the location of the crane operator, which ensures the crane is safely controlled.
- **Robust engineering**
  Sturdy enclosure and control units, vibration protection for the receiver, long-life batteries, rapid-charging appliances with backup battery
- **Wide range of possible applications**
  Load indicated in display by means of bi-directional communication, Control by means of push buttons and joystick, operation of more than one crane/lifting gear unit, e.g. in tandem or as master/slave, and control of additional functions possible.

Advantage: Individual control possibilities for safe and constant operation

With our Radio controllers, we offer the right product for all requirements. At the same time, the controllers linked to our CraneKit are already pre-wired, securely attached and tested for functionality on delivery

Our Radio control has been specially developed for efficient crane control without any major additional elements and represents a cost-effective solution for the user. When there are two hoists per crane, there is a selector switch integrated into the transmitter.

Radio control permits the control of additional functions, such as swivelling hooks. It is also possible for a number of cranes and lifting gear units to be controlled in tandem. Functions like master/slave operation, mutual crane locking arrangements and electronic load-sway prevention can be provided ex-works. With radio control, use is also made of push-button switches as well as joysticks.

Sway Control

Electronic load-sway protection

Load sway

Selector switch for entering additional sway length

The electronic Sway Control load-sway protection feature prevents harmful load peaks and therefore reduces the stress exerted on both electrical and mechanical components. This cuts the time and money spent on maintenance. The crane is easy to control and allows the load to be placed in just the rightposition. The crane operator can focus his concentration entirely on the load and does not have to take into consideration the cross and long travelling movements. This represents a considerable saving in time and enhances the safety of the operation in progress. Sway Control monitors all movements as well as lifting height (sway length), speed of travel and the load carried. The system uses these values to regulate acceleration and braking curves correspondingly, thus preventing sway on the load suspended.

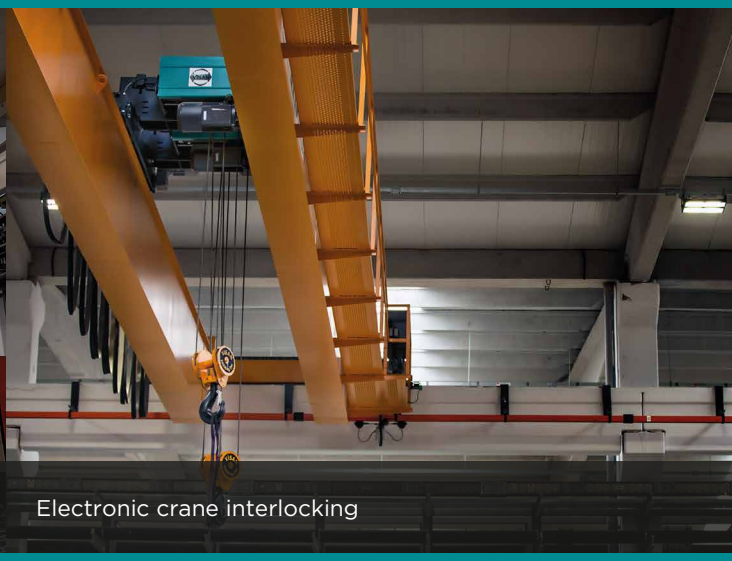
Sway Control monitors all movements as well as lifting height (sway length), speed of travel and the load carried. The system uses these values to regulate acceleration and braking curves correspondingly, thus preventing sway on the load suspended.

- Frequency inverter for cross and long travel
- Hoist monitoring unit
- Geared limit switch with encoder for automatic detection of current lifting height
- Central data processing unit for the individual values measured and for controlling cross and long travel via the frequency inverter
- Radio remote control with selector switch for entering additional sway length through the lifting sling currently in use
- Control light for displaying whether the system is switched on or off

Synchronise Operation

For hoists and cranes

2 hoists in tandem operation



Electronic crane interlocking

Simultaneous operation with two or more hoists

This system is used where loads have to be transported with more than one lifting-gear unit at the same time and delivered to an exact spot. Up to four units can be controlled by the crane operator in tandem operation at the same time. In this way the hoists start and stop at exactly the same time during the lifting and lowering process. The lifting speed is measured by encoders and is kept equal continuously between all the hoist motors. The calculated data is exchanged between the lifting units via a CANbus link in the individual frequency inverters. There is no need for a separate regulator unit.

Load sway Selector switch for entering additional sway length 2 hoists in tandem operation
Electronic crane interlocking

- Simultaneous lifting and lowering
- Load summation
- High degree of operational safety
- Constant hook levelling
- No need to correct individual lifting units
- Rapid and accurate load carrying

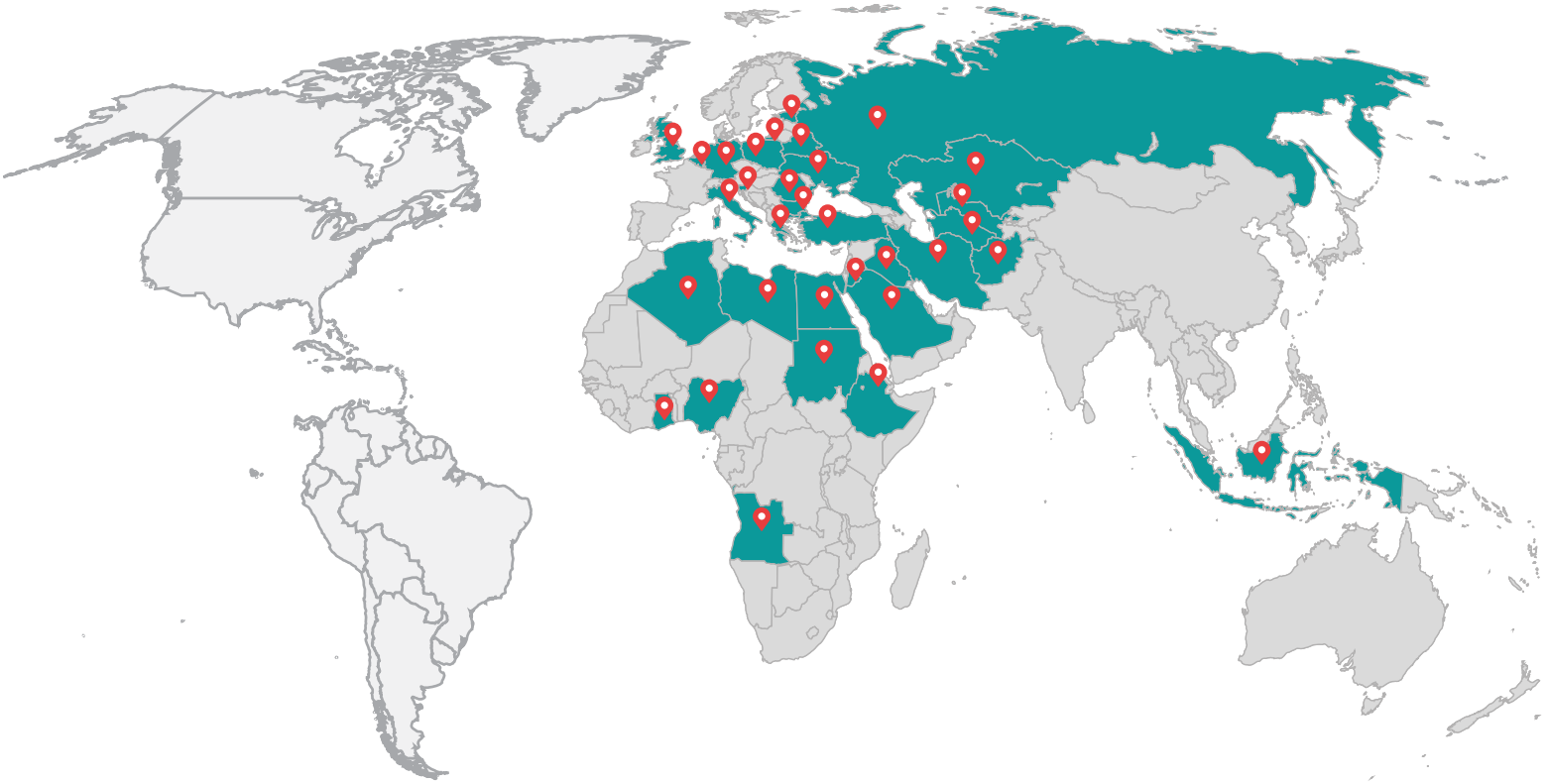
Shared use of two cranes

Where two cranes are in shared use at the same time, it is always possible for dangerous situations to arise as soon as one of the cranes involved unexpectedly slows down or stops. The electronic crane interlocking feature prevents exactly this situation. There is constant radio monitoring and exchanging of all relevant data. Relays in an additional control panel for each crane ensure that fed back messages are processed, and they handle the communication between the two systems.

The following components and functions are included in the monitoring system and therefore offer a thoroughly safe system:

- Main contactor
- Long and cross travel
- Lifting/lowering
- All travelling limit switches
- Overload safety feature
- Frequency inverter function
- Overheating protection for all motors
- Anti collosion device

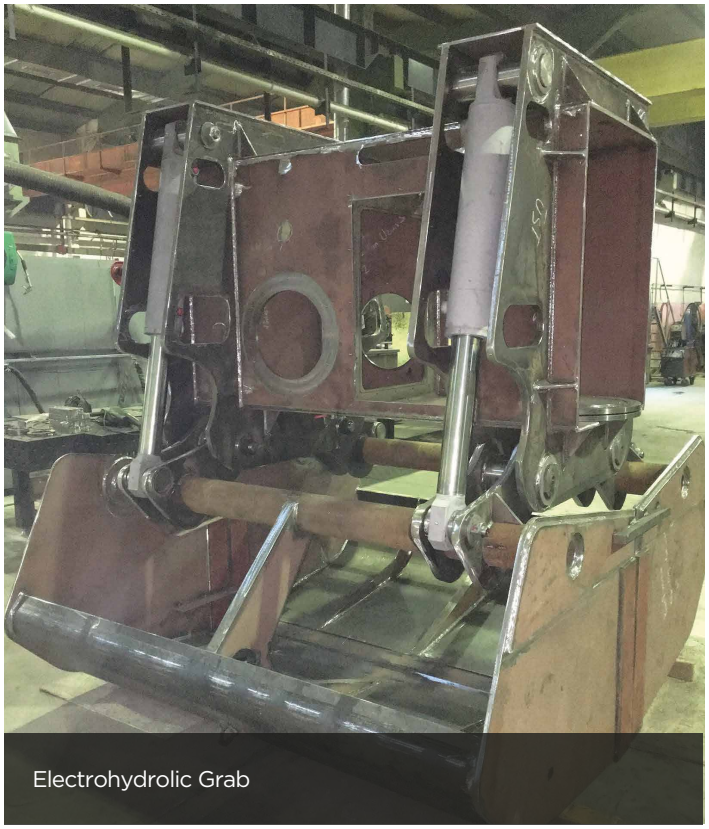
COUNTRIES WHERE WE EXPORT



OUR SERVICE AND PRODUCTION CENTERS

SPECIAL PRODUCTION

Open Type Heavy Duty Crane

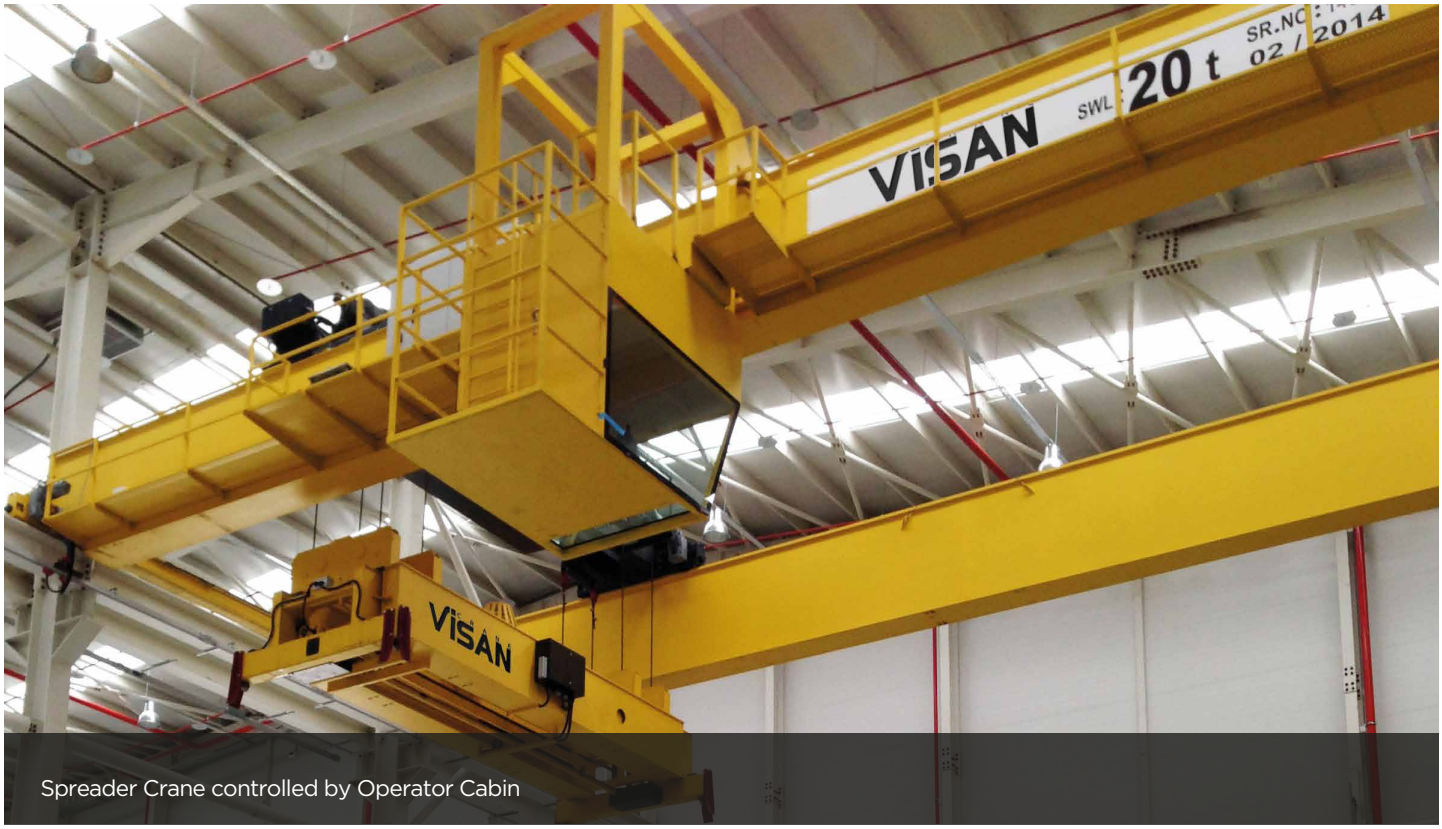


Electrohydrolic Grab

Electrohydrolic Brake (Drum Brake)

SPREADER CRANE

Spreader Crane controlled by Operator Cabin



Spreader Crane controlled by Operator Cabin

OUR APPLICATIONS

GIDA MADEN PAZARLAMA VE TURİZM LİMİTED ŞİRKETİ

HEAD OFFİCE

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