



# ELECTRIC CHAIN HOIST

LIFT & CONNECT SAFELY

# INTRODUCTION

Carl Stahl Craftsman Enterprises Private Limited is a joint venture company of Carl Stahl of Germany and Craftsman Automation Private Limited of India, commenced its operations in July 2007.

With the objective of using rich experience of Carl Stahl in material handling industry and strong manufacturing expertise of Craftsman Automation, the joint venture was formed to provide the end user a "Reliable, Effective, Efficient & Economic Lifting" solution.

We design, develop and manufacture, the complete product from start to its completion. Through constant research and development, we now offer one of the world's largest range of hoists for industrial application. We also offer quality service for the hoist we supply.

We provide complete lifting solutions to our customers at best competitive pricing.



## FACTS

- CE AND IP CERTIFIED
- OPTIMAL SPACE UTILIZATION
- HIGH SAFETY IN OPERATION
- GENTLE WORK
- LOW INSTALLATION AND MAINTENANCE COST
- EFFICIENT & ECONOMICAL OPERATION

# MODELS

CarlStahl Craftsman hoists are designed in various models to suit every customer's needs. We design and manufacture electric chain hoists with fixed suspension and with trolley.

The following models are available. We deliver efficient and economical lifting solutions with highest quality.



## ELECTRIC CHAIN HOIST

FIXED SUSPENSION		WITH TROLLEY	
<b>EYE SUSPENSION</b> 	<b>HOOK SUSPENSION</b> 	<b>PUSH PULL TROLLEY</b> 	<b>POWERED TROLLEY</b> 

SAFE WORKING LOAD (KG)	MODEL	STATIONARY	PUSH PULL TROLLEY	POWERED TROLLEY
125-250	CAC-5025	✓	✓	✓
250-500	CAC-1051	✓	✓	✓
500-2000	CAC-2010	✓	✓	✓
800-3200	CAC-3216	✓	✓	✓



# DESIGN & MANUFACTURING



# Craftsman

AUTOMATION

## ENGINEERING ADVANTAGE

Craftsman Automation Limited is a Coimbatore based company which was established in the year 1986, registered a sales turnover in 2017-2018 is 1453 Crores.

Craftsman's world class Product Design and Development center caters to the needs of design, development, manufacturing and testing of cutting edge products. Craftsman remains committed to provide the highest quality products and services to its customers at a reasonable cost, with just in time delivery at the customer's location.



## FACTS

Years of operation: Since 1986  
 Employees: 4590  
 Location: 11 Units  
 Turnover 2017-2018: over ₹1453 Crores  
 Certification by: DIN EN ISO TS 16949, DIN EN ISO 14001



Carl Stahl was established 1880 as a small rope-making facility with agricultural products in Suessen, Baden- Wuerttemberg Germany. Today the Carl Stahl Group has > 1,500 employees at 70 locations on four continents and offers innovative and future-oriented solutions in the fields of Lifting Technology, Architecture and Technocables

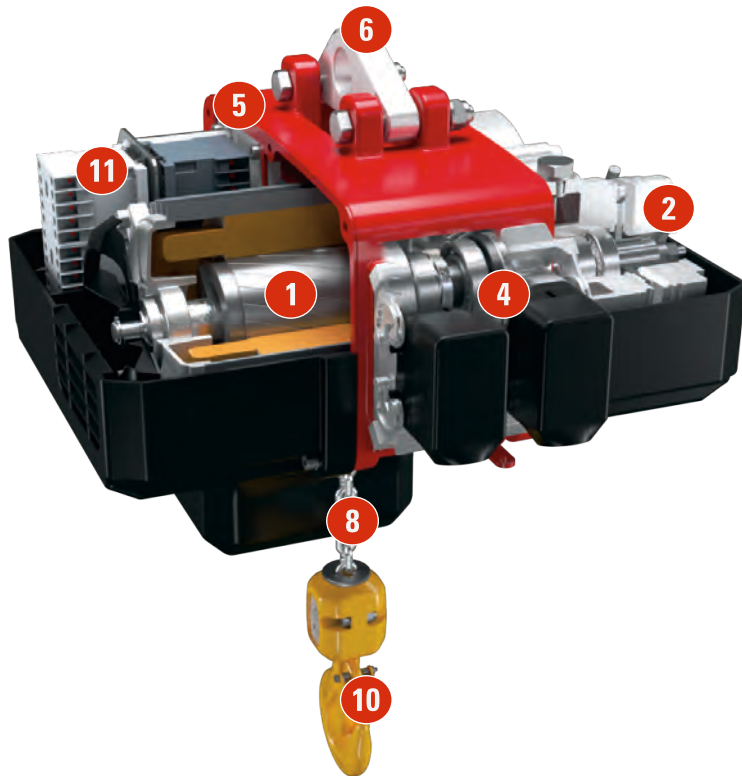
Professional know-how and the motivation of our employees are our major strengths: Customer satisfaction as our main objective is not just a statement, it is our commitment. All activities are focused on providing customers with real benefits through the products and services we supply.



## FACTS

Years of operation: Since 1880  
 Employees: 1650  
 Location: 70 Units  
 Turnover: Euro 314.5 Million / over 3000 Crores  
 Certification by: DIN EN ISO 9001, DIN EN ISO 14001

# THE HOIST



## 1 EXTREME DUTY MOTOR

- Design for tough working conditions
- Single and dual speed models available
- Option: with temperature control system
- Option: with insulation for the tropics
- Special voltages available
- 3-phase models as a standard
- Engineered motor fin, fan blade and fan cover design cools the motor and brake
- A standard thermal protector is installed in the motor



## 2 BRAKE

- Disk type Electro-Magnetic brake system for steady operation and long life
- Maximum safety
- New advanced brake design
- Asbestos-free brake linings with a long service life
- Unique availability
- Maintenance free
- Tested for Hoist's life time
- Provide an increased level of safety



## 3 TRANSMISSION

- Helical-toothed gear steps for quiet running
- Precision machined for long life
- Oil bath lubrication results in a quiet, smooth, cool operation



## 4 SLIPPING CLUTCH

- Simple and precise adjustment
- Maintenance free and highly resistant to wear
- Ease of servicing, thanks to comfortable access
- Reliable protection against overloading



## 5 HOUSING

- Cast aluminium housing with maximum solidity
- For extreme working conditions: casted cooling gills
- Easy transformation from 1-fall to 2-falls operation no need of dismantling



## 6 SUSPENSION BRACKET

- The removable, hinged suspension bracket is designed for easy suspension and removal of the hoist



## 7 CHAIN WHEEL

- Made of hardened steel
- Deep-groove pockets fully support the load chain during operation
- Reduces vibration and chain wear
- Provides true vertical lift



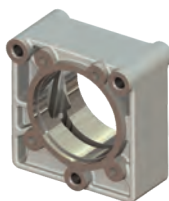
## 8 CHAIN

- High Strength, Corrosion and Wear Resistant Load Chain
- Grade DAT, super strength, ZINC-plated load chain
- Certified to BS-EN 818-7 standard
- Uses unique technology to greatly increase resistance to fatigue and wear



## 9 UNIQUE CHAIN GUIDE

- Provides quiet and smooth guiding of chain
- Easily replaced without hoist disassembly
- Heavy cast iron construction with improved wear resistance



## 10 FORGED CARBON STEEL HOOKS

- Under excessive loads will open gradually and not fracture
- Ball bearing produces smooth rotation
- Bottom hook will swivel 360 degree
- Heavy-duty hook latches are standard



## 11 CONTACTOR CONTROL SYSTEM

- Simple technology (no electronics susceptible to interference)
- Mechanically interlocked, heavy-duty contactors
- Reliable technique
- Emergency stop as a standard 48V control system allowing highest safety of operation



## 12 LIMIT SWITCHES

- Interrupt motor power to prevent hook over travel and hazardous condition such as chain kink



# OPTIONS

### 1 DURABLE PUSH BUTTON PENDANT



- Easy to use, one-handed operation
- Rated Ip65
- Strain relief wire is molded to pendant cord for added support and dependability
- Available in 2, 4 or 6-buttons version
- 48 V low voltage command and removable plug
- Provided with emergency stop

### 2 RADIO REMOTE CONTROL UNIT



- Micron push-button transmitter with belt clip. As an option for signal feedback from crane.
- Spectrum joystick transmitter with harness



**LIFT & CONNECT SAFELY**

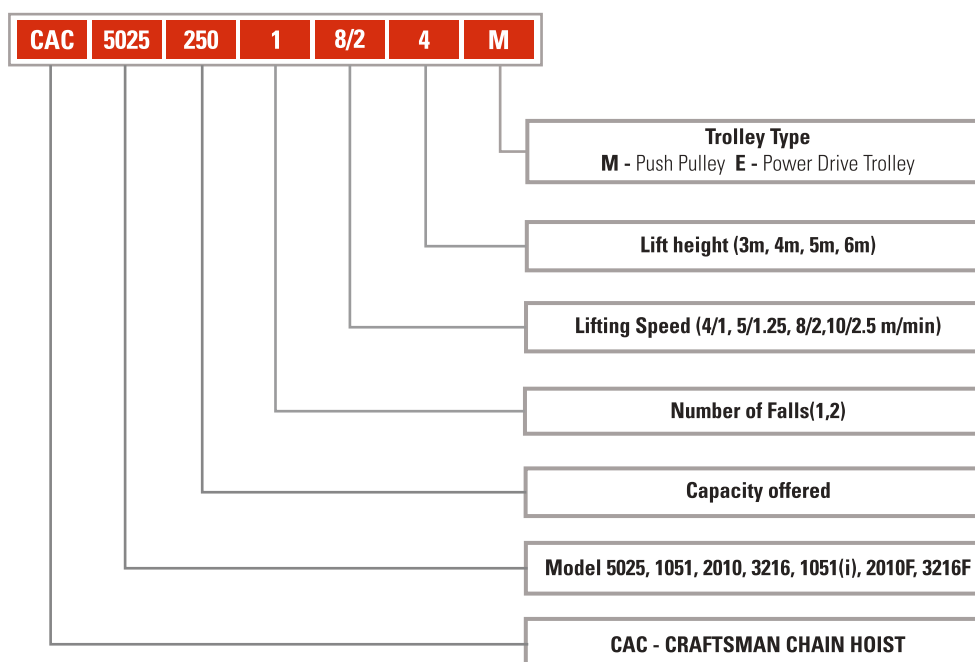


# BASIC TECHNICAL SPECIFICATIONS

CATEGORY	AVAILABLE SPECS
<b>BRAKE</b>	Electromagnetic Brake with Double Side Brake Lining
<b>CAPACITY RANGE</b>	125 Kg to 3200 Kg
<b>CHAIN</b>	BS EN 818-7
<b>CHAIN CONTAINERS</b>	Fabric, plastic or steel
<b>CHAIN FALLS</b>	Single chain fall & Double chain fall
<b>CLASSIFICATION</b>	FEM Class 1Am, 2m, 3m, 4m
<b>CONFORMANCE</b>	CE
<b>CONTROL PENDANTS</b>	Single speed: 2-button Dual speed: 2-button (With two steps), With emergency On/Off
<b>CONTROL VOLTAGE</b>	48 V, 50 Hz, AC Supply
<b>DUTY CYCLE</b>	Single Speed – 60% ED Dual Speed – 40/20 % ED
<b>HOIST MOTOR CONTROL</b>	Pole Changing

CATEGORY	AVAILABLE SPECS
<b>LIFTING SPEED</b>	4/1, 5/1.25, 8/2, 10/2.5 m/min
<b>MOUNTING</b>	Hook, lug or trolley
<b>OPERATING CONDITIONS</b>	10° to +50° C
<b>OVERLOAD PROTECTION</b>	Slipping Clutch
<b>POWER SUPPLY</b>	3 Phase, 380 – 415 V, 50Hz
<b>RATINGS</b>	Hoist – IP55 Pendant – IP65
<b>STANDARD LIFT</b>	3 meters (longer lifts available)
<b>STANDARD PENDANT DROP</b>	1m less than lift (longer drops available)
<b>TEMPERATURE CONTROL OF MOTORS</b>	Thermistor
<b>TRAVEL SPEED</b>	25/6 m/min
<b>UPPER/LOWER LIMIT SWITCH</b>	Electric Limit Switch (Up&Down Position)

## PRODUCT CODE

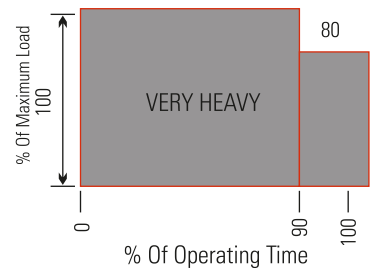
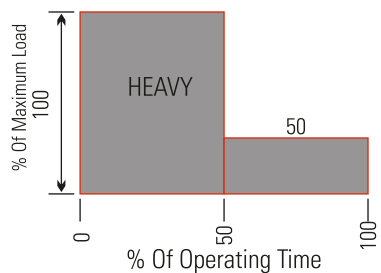
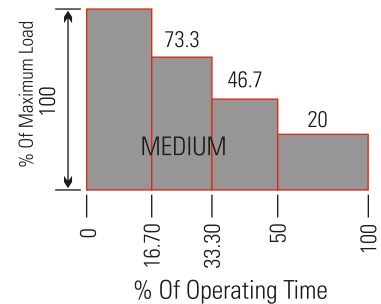
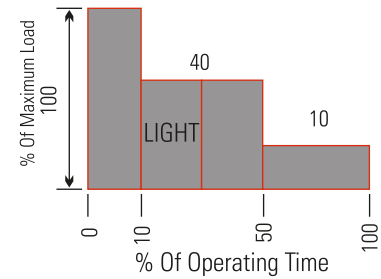


# HOIST CLASSIFICATION & SELECTION

LOAD SPECTRUM		DEFINITIONS
1 (Light)	L1	Mechanisms or parts of thereof, usually subject to very small loads and in exceptional cases only to maximum loads
2 (Medium)	L2	Mechanisms or parts of thereof, usually subject to small loads but rather often to maximum loads
3 (Heavy)	L3	Mechanisms or parts of thereof, usually subject to medium loads but frequently to maximum loads
4 (Very Heavy)	L4	Mechanisms or parts of thereof, usually subject to maximum or almost maximum loads

Average  
Operating time per day =  $\frac{2 \times \text{average hook path} \times \text{no. of cycles per hr} \times \text{working time per day}}{60 \times \text{hoist speed}}$

Load Spectrum		Average operating time per working day in hours			
L1	Light	2-4	4-8	8-16	over 16
L2	Medium	1-2	2-4	4-8	8-16
L3	Heavy	0.5-1	1-2	2-4	4-8
L4	Very Heavy	0.25-0.5	0.5-1	1-2	2-4
Group of mechanisms to FEM 9511		1Am	2m	3m	4m
Safe Working Load (kg)	Hoist Speed m/min	Product Range			
1/1	2/1				
125	8/2				CAC-5025
160	8/2				CAC-5025
200	8/2			CAC-5025	
250	8/2 10/2.5	CAC-5025 -			- CAC-1051
315	10/2.5			CAC 1051	
500	10/2.5			CAC-1051	
	500	5/1.25			CAC-1051
630	8/2 10/2.5	- CAC-1051			CAC-2010 -
	630	5/1.25		CAC-1051	
800	8/2			CAC-2010	CAC-3216
1000	8/2			CAC-2010	CAC-3216
	1000	5/1.25		CAC-1051	
1250	8/2	CAC-2010			CAC-3216
	1250	4/1 5/1.25	- CAC-1051		CAC-2010 -
1600	8/2			CAC-3216	
	1600	4/1			CAC-2010
2000	8/2	CAC-3216			
	2000	4/1		CAC-2010	CAC-3216
	2500	4/1	CAC-2010		CAC-3216
	3200	4/1		CAC-3216	



## EXAMPLE:

Load capacity 500 kg  
Load spectrum from table 'Heavy'  
Hoist speed 8 m/min  
Reeving 1/1  
Average hook path 5 m  
No. of cycles/hour 30  
Working time/day 12 hours

The average operating time per working day is estimated or calculated as follows:

$$= 2 \times 5 \times 30 \times 12 / 60 \times 8$$

$$= 7.5 \text{ hours}$$

For the heavy load spectrum and an average daily operating time of 7.5 hours, the table shows group 4m.

For a load capacity of 500 kg, the diagram shows size CAC-2010

# PRODUCT RANGE



ELECTRIC CHAIN HOISTS - INDUSTRIAL APPLICATION													
MODEL	CAPACITY (KG)				NO. OF FALL	LIFTING SPEED (m/min)	MOTOR POWER (KW)	POWER SUPPLY	LIFT HEIGHT (m)	CHAIN SIZE	WEIGHT		
	1m/m4	2m/m5	3m/m6	4m/m7									
CAC 5025	250	200	160	125	1	8 / 2	0.4 / 0.1	380-415V, 50Hz, 3 Phase AC	3 - 12**	4x12	22		
CAC 1051	630	500	315	250	1	10 / 2.5	1.1 / 0.28			5x15	37		
	1250	1000	630	500	2	5 / 1.2				42			
CAC 2010	1250	1000	800	630	1	8 / 2	1.5 / 0.37			7x21	79		
	2500	2000	1600	1250	2	4 / 1				87			
CAC 3216	2000	1600	1250	1000	1	8 / 2	2.4 / 0.6			9x27	110		
	-	3200	2500	2000	2	4 / 1					119		
ELECTRIC CHAIN HOISTS - FOUNDRY APPLICATION													
CAC 2010F	630	500	315	250	1	8 / 2	1.5 / 0.37	380-415V, 50Hz, 3 Phase AC	3 - 12**	5 x 15	79		
	1250	1000	630	500	2	4 / 1					87		
CAC 3216F	1250	1000	800	630	1	8 / 2	2.4 / 0.6			7 x 21	110		
	2500	2000	1600	1250	2	4 / 1					119		
ELECTRIC CHAIN HOISTS - INDUSTRIAL APPLICATION (WITH VFD)													
CAC 1051i	630	500	315	250	1	2.5 ~ 10	1.1			380-415V, 50Hz, 3 Phase AC	3 - 12**	5 x 15	38
	1250	1000	630	500	2	1.2 ~ 5		43					

\*Longer lifts available on request.

## TRAVEL DRIVES

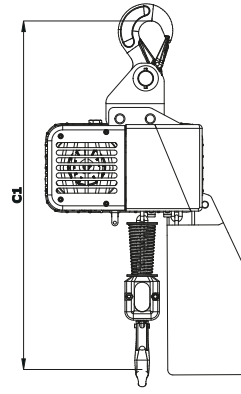
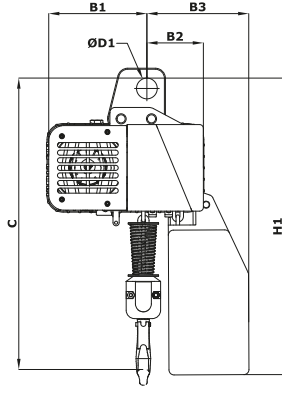
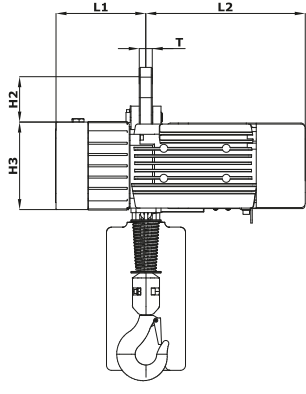
TROLLEY TYPE	HOIST MODEL	TRAVE DRIVE MODEL	NO. OF FALL	MOTOR POWER (KW)	TRAVEL SPEED (M/MIN)	WHEEL DIAMETER (MM)	FLANGE WIDTH (MM)	TROLLEY WEIGHT (KG)
PUSH PULL TROLLEY	CAC 5025 CAC 1051	MT-01	1	-	-	50	75-150	7
	CAC 1051 CAC 1051i	MT-02	2	-	-	63	75-250	15
	CAC 2010 CAC 2010F CAC 3216 CAC 3216F	MT-03	1,2	-	-	82	100-320	19
POWERED TROLLEY	CAC 5025 CAC 1051 CAC 1051i	PT-01	1,2	0.4 / 0.1	25/6	63	75-250	30
	CAC 2010 CAC 2010F CAC 3216 CAC 3216F	PT-01	1,2	0.4 / 0.1	25/6	82	100-320	32

## HOIST SPECIFICATIONS

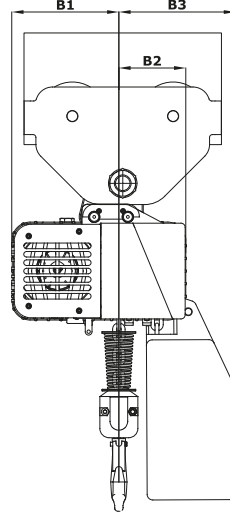
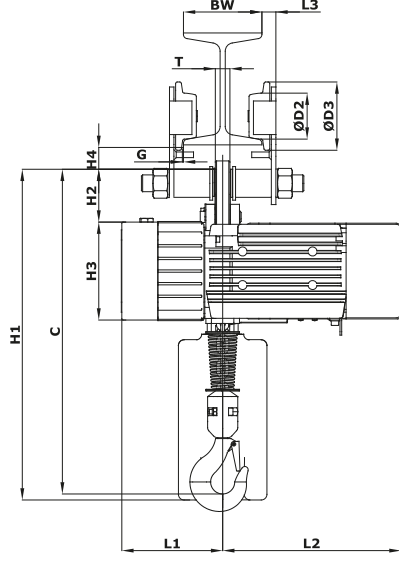
MODEL			CAC-5025	CAC-1051	CAC-2010	CAC-3216	CAC-2010F	CAC-3216F
REEVING	1/1	C	415	426	593	680	518	665
	2/1	(mm)	-	495	664	766	590	726
	1/1	C1	468	516	657	743	580	730
	2/1	(mm)	-	587	723	828	650	800
DIMENSIONS (mm)	B1		160	242	198	197	194	197
	B2		82	128	112	152	112	152
	B3		129	196	234	265	234	265
	H1		341	402	564	655	564	655
	H2		63	80	95	110	95	110
	H3		125	180	175	206	175	206
	H4		30	43	60	60	60	60
	H5		42	43	60	60	60	60
	L1		194	205	180	205	180	205
	L2		96	205	319	326	319	326
	L3		22	25	25	25	25	25
	L4		330	330	338	338	338	338
	L5		307	307	313	313	313	313
	T		10	20	26	35	26	35
	D1		30	30	40	40	40	40
	D2		50	50	82	82	82	82
	D3		76	76	122	122	122	122
	D4		63	63	82	82	82	82
D5		90	90	122	122	122	122	
G		1~2	1~2	1~2	1~2	1~2	1~2	
BW		75-250	75-250	100-320	100-320	100-320	100-320	

\*Note: All the specification in this catalogue are subject to change without notice.

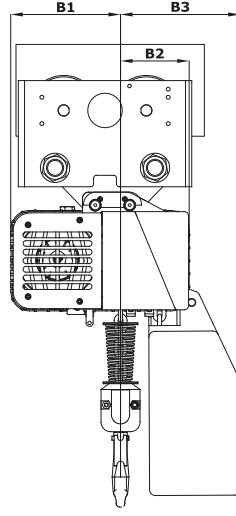
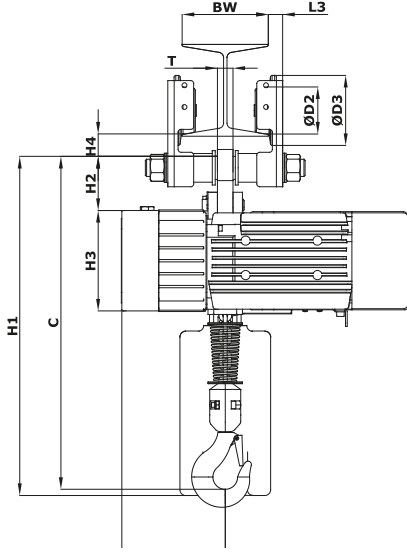
HOOK SUSPENSION



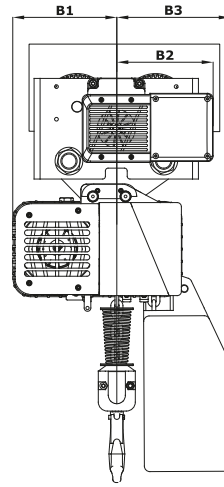
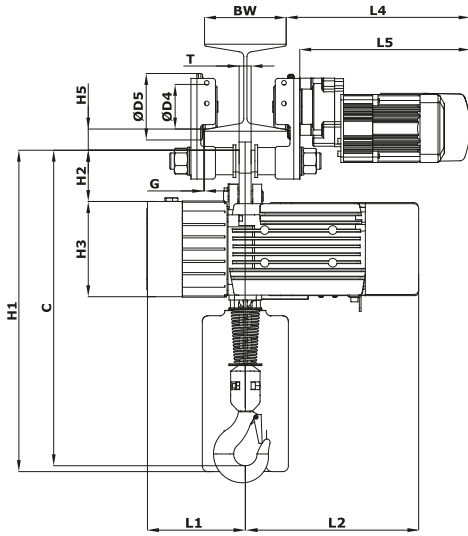
WITH PUSH PULL TROLLEY  
(MT01)



WITH PUSH PULL TROLLEY  
(MT02)



WITH POWERED TROLLEY  
(PT01-PT04)



FIXED SUSPENSION



# SERVICE



## FOR SERVICE & SPARES

Please send us a email to

[service@carlstahlcraftsman.com](mailto:service@carlstahlcraftsman.com)

Business Timing: Monday to Friday 8 am – 6 pm

## CARLSTAHL CRAFTSMAN ENTERPRISES PRIVATE LIMITED.

Registered Office,

No. 1078, Senthel Towers, 4th Floor

Avanashi Road

Coimbatore - 641 018

Tamilnadu, India

[sales@carlstahlcraftsman.com](mailto:sales@carlstahlcraftsman.com)

# SALES

For queries



Please send your inquiries through email to [sales@carlstahlcraftsman.com](mailto:sales@carlstahlcraftsman.com)

**LIFT AND CONNECT SAFELY  
WITH  
CARL STAHL CRAFTSMAN**



**CARLSTAHL CRAFTSMAN ENTERPRISES PRIVATE LIMITED.**

Registered Office,  
No. 1078, Senthel Towers, 4th Floor  
Avanashi Road  
Coimbatore - 641 018  
Tamilnadu, India

[sales@carlstahlcraftsman.com](mailto:sales@carlstahlcraftsman.com)